

**STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES**

**PLAN AND PROFILE
PROPOSED HIGHWAY PROJECT
PETERSBURG FERRY TERMINAL
TO
"H" STREET (HAUGEN DRIVE)
OVERLAY
RS-0937(20) B30172**

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0937 (20)	1986	1	17

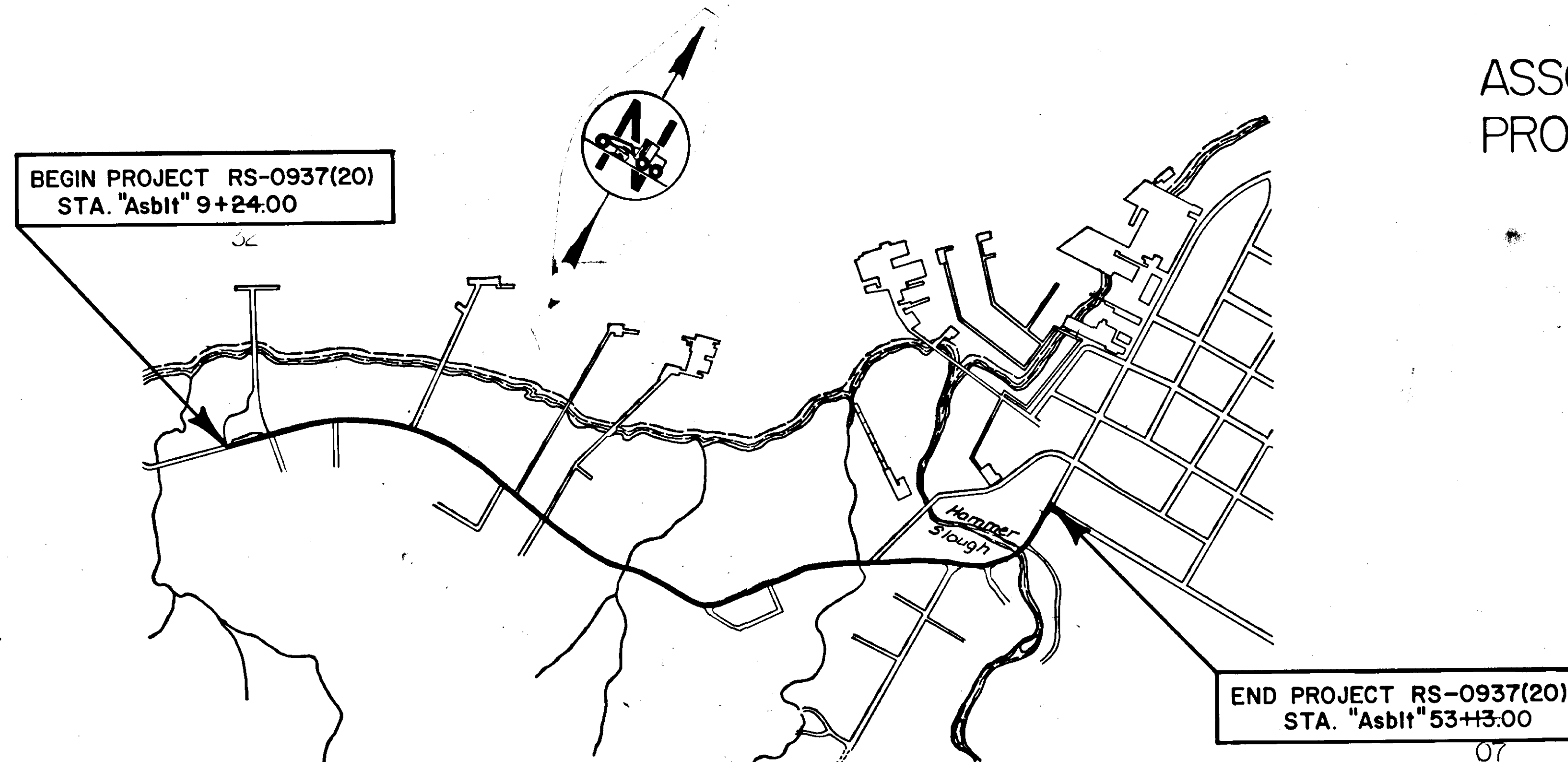
SHEET NO.	INDEX
1	TITLE SHEET
2	TYPICAL SECTION
	SUMMARY TABLES
	DETAILS
3	ESTIMATE OF QUANTITIES
	TRAFFIC CONTROL PLAN
4	HAMMER SLOUGH BRIDGE
5	PETERSBURG QUARRY SITE
6	TEMP. EROSION & CONTROL PLAN
7-17	DOWNTOWN STREET PAVING (See Index, Sheet 6)

THE FOLLOWING STANDARD DRAWINGS SHALL APPLY TO THIS PROJECT: A-1, C-01.02, C-02.00, C-03.01, I-20.01, M-16.00, S-00.00, T-21.01.

DESIGN SPEED			
STA. 9+24	TO	STA. 34+00	40 m.p.h.
STA. 34+00	TO	STA. 37+00	30-25 m.p.h.
STA. 37+00	TO	STA. 53+13	25-30 m.p.h.

DESIGN DESIGNATION			
ADT 1985	=		3,504
ADT 2006	=		4,276
DHV 12%	=		513
% T	=		5%
Ti	=		8.0

PROJECT SUMMARY			
STA. 9+24.00	to	STA. 53+13.00	07
WIDTH OF OVERLAY	=	296	4' 41"
LENGTH OF OVERLAY	=	4,310.00'	0.816 mi.
LENGTH OF BRIDGE	=	79.00'	0.015 mi.
LENGTH OF PROJECT	=	4,389.00'	0.831 mi.



"As-Built" Plans
ASSOCIATED SAND & GRAVEL, INC.
PROJ. ENG.: CHUCK CORREA
8-9-86 to 9-18-86

DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED April 4, 1986
Date

[Signature]
DIRECTOR HIGHWAYS, DESIGN,
&
CONSTRUCTION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED Wallace K. Williams Date 4-4-86
S.E. REGION DESIGN ENGINEER

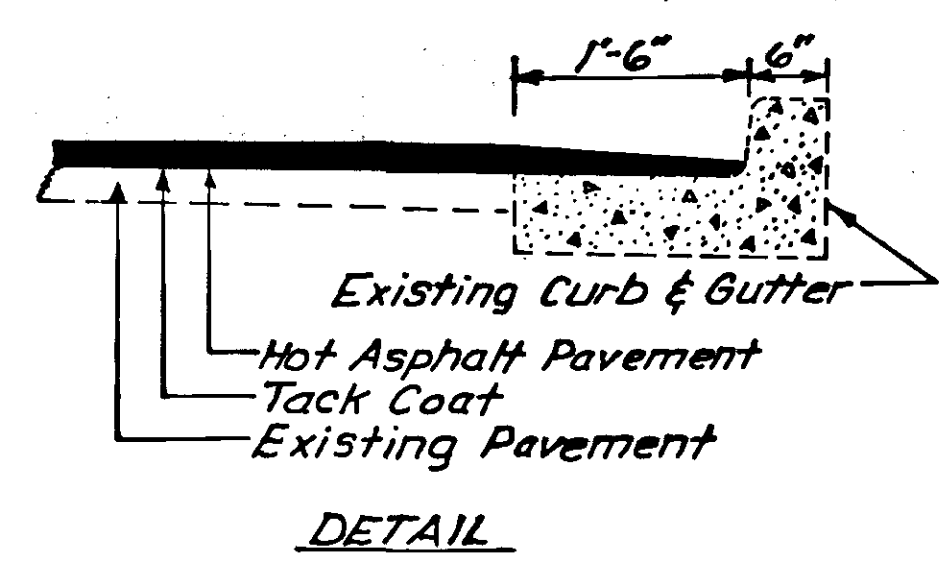
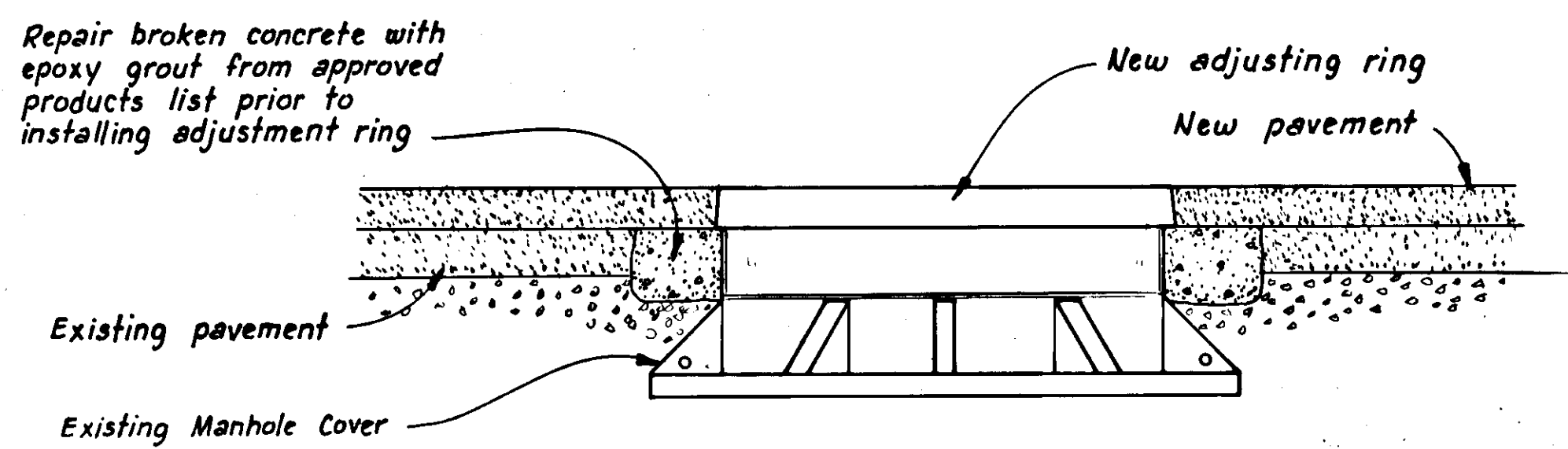
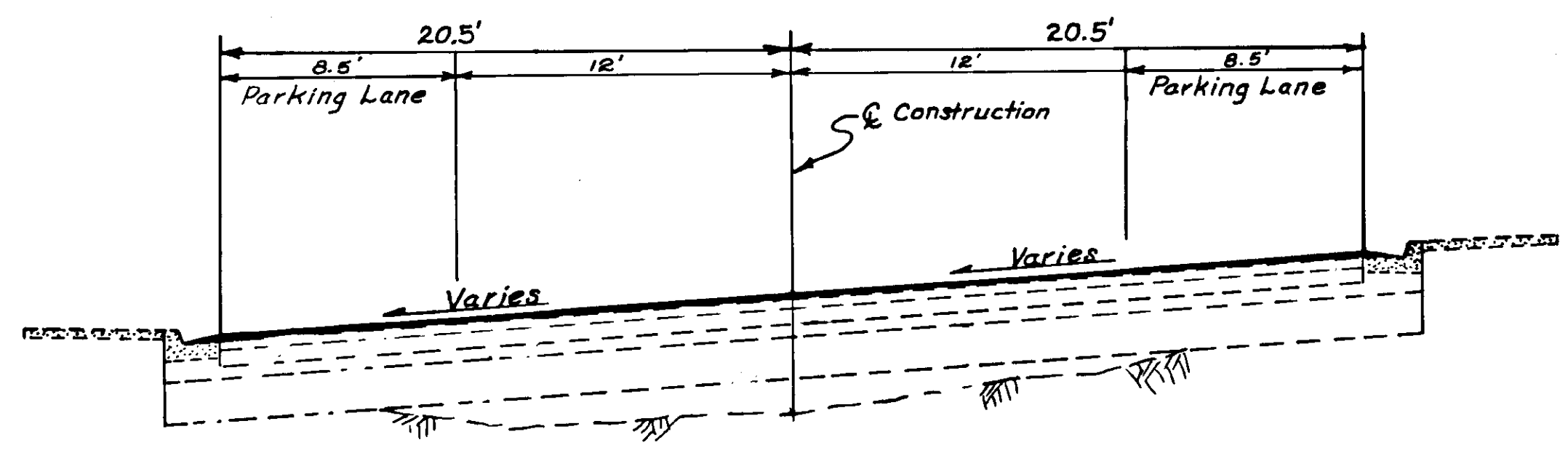
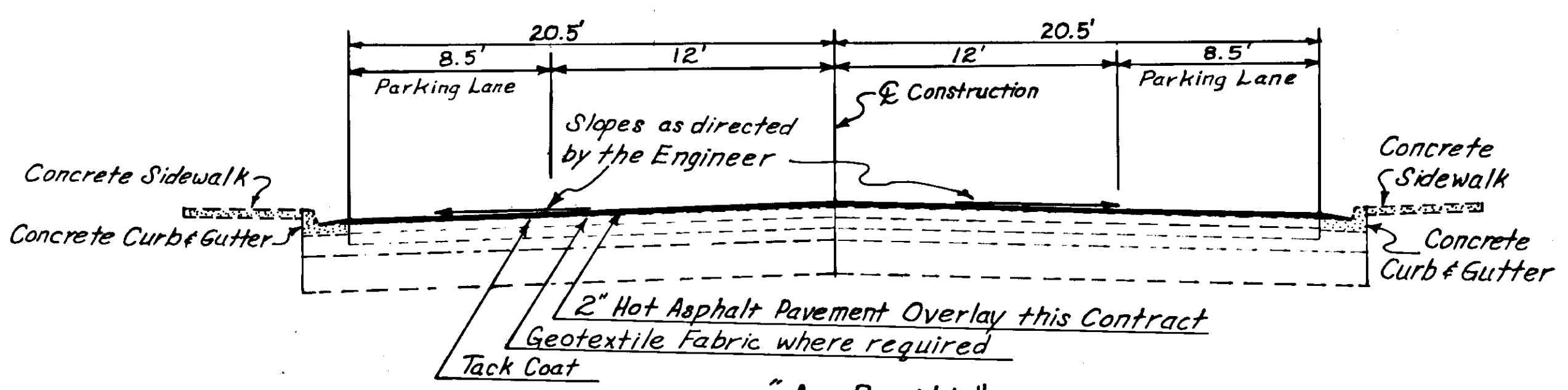
SIGN REPLACEMENT SUMMARY

QUANTITY	CODE NO.	LEGEND	SIZE	AREA SF.	TOTAL
4	R2-1	Speed Limit 30	24"x30"	5.00	20.00
2 +	R2-1	Speed Limit 25	24"x30"	5.00	5.00
1	R12-7	No Studded Tires	64"x66"	38.50	38.50
2	R6-1L	One Way	36"x12"	3.00	6.00
2	R6-1R	One Way	36"x12"	3.00	6.00

All signs are to replace existing signs at locations as designated by the Engineer.

GENERAL NOTES

- Saw cuts for pavement transition shall be incidental to Item 401(1) - Asphalt Concrete Type II and no separate payment will be made.
- Payment for the removal and disposal of the existing asphalt for the transitions is incidental to other items of work and shall not be paid for directly.
- Signing for "Begin Construction" and "End Construction" shall be permanently installed and removed after completion of project.
- Water valve boxes located within the second entrance to the ferry terminal, in the new driveway at Sta. 26+26.00, in the apron area of Lumber St., and in the concrete approach to the Standard Oil Dock, will need adjustment.
- Lay geotextile fabric the full roll width. Cut openings for manholes, monuments, water valves, etc.
- Remove driveway section of curb, gutter and sidewalk from approximately 29+00 to 29+36 and replace with a standard section of curb, gutter and sidewalk. Remove standard section of curb, gutter and sidewalk from approximately 26+26 to 26+47 and replace with a driveway section of curb, gutter and sidewalk. New section shall match existing style. Modification of existing grading, bedding material etc., beneath sidewalk sections, shall be considered incidental to Items 608(1-4) and 608(1-6).
- Existing Curb and Gutter and Sidewalk to be sawcut and removed carefully to prevent damage to the pavement. Use the edge of existing pavement as the form for the gutter. Removal of existing concrete, grading, bedding material, etc. to be considered incidental to Item 202(8) Removal of Curb and Gutter.
- Taper asphalt around storm drains to facilitate drainage.
- Two areas on Nordic Drive will require additional asphalt to repair severely rutted or settled sections of roadway and to facilitate drainage. These areas are located near Mill Slough and near the Power and Light building. Any increased quantity of material, in these areas, shall be as directed by the Engineer.



ADJUST MONUMENTS

Station	Offset	Point
9+24.00	0	B.O.P.
9+62.22	0	P.O.T.
10+00.00	0	P.I.
11+35.00	0	P.O.T.
12+81.64	0	P.C.
14+38.50	0	P.T.
16+77.17	0	P.C.
18+88.65	0	P.T.
20+71.95	0	P.C.
22+36.46	0	P.T.
24+04.71	0	P.O.T.
26+58.31	0	P.O.T.
28+32.45	0	P.C.
30+72.94	0	P.T.
31+41.54	0	P.C.
32+63.83	0	P.T.
34+45.19	0	P.C.
35+91.07	0	P.O.C.
36+63.94	0	P.T.
39+47.14	0	P.C.
42+76.37	0	P.T.
43+98.32	0	P.O.T.
45+29.40	0	P.C.
46+54.36	0	P.T.
48+00.87	0	P.O.T.
48+82.57	0	P.C.
49+31.78	0	P.O.C.
52+17.00	0	P.T.

MANHOLE SUMMARY *

Station	Offset	Remarks
11+95.00	2' Rt.	1' Lt.
15+11.00	8' Rt.	15+13, 10.3 Lt.
17+48.00	9' Lt.	8' Lt.
19+17.00	10' Rt.	19+25, 10.5 Lt.
20+33.00	7' Rt.	20+40
21+22.00	1' Rt.	21+26
21+53.00	6' Rt.	21+58, 4.5 Rt.
24+03.00	10' Rt.	7.6 Rt.
26+79.00	9' Rt.	7.2 Rt.
29+48.00	10' Rt.	12 Rt.
32+15.00	11' Rt.	7.2 Rt.
35+45.00	17' Rt.	0
36+59.00	7' Rt.	0
37+42.00	5' Rt.	4' Rt.
40+96.00	8' Rt.	0
43+05.00	17' Rt.	11 Rt.
44+17.00	14' Lt.	0
47+93.00	17' Rt.	14.8 Rt.
52+08.00	9' Rt.	10 Rt.
35+78	1.5 Rt.	0

* Stationing & Offsets are approximate.
See Summary Page 3

REINFORCING FABRIC

Begin Station	End Station	R/L
15+10	15+85	Lt.
21+00	22+00	Rt.
27+75	28+25	Lt.
29+35	30+85	Lt.
34+40	35+20	Lt.
37+30	38+50	Lt.
38+80	39+60	Lt.
43+30	45+30	Lt.
46+00	47+30	Lt.
51+35	52+85	Lt.

INTERSECTIONS

NAME	STATION	OFFSET
Wesley St.	11+75	Rt.
Tenfiord Way	15+17.27	Rt.
Tango St.	24+04.71	Rt.
Surf St.	26+58.31	Rt.
Marion St.	35+91.07	Rt.
Baronof St.	38+65.00	Rt.
Sing Lee Alley	43+98.32	Lt.
Lumber St.	48+00.87	Rt.
Hammer Slough St.	49+31.78	Rt.
Birch Alley	51+48.20	Rt.

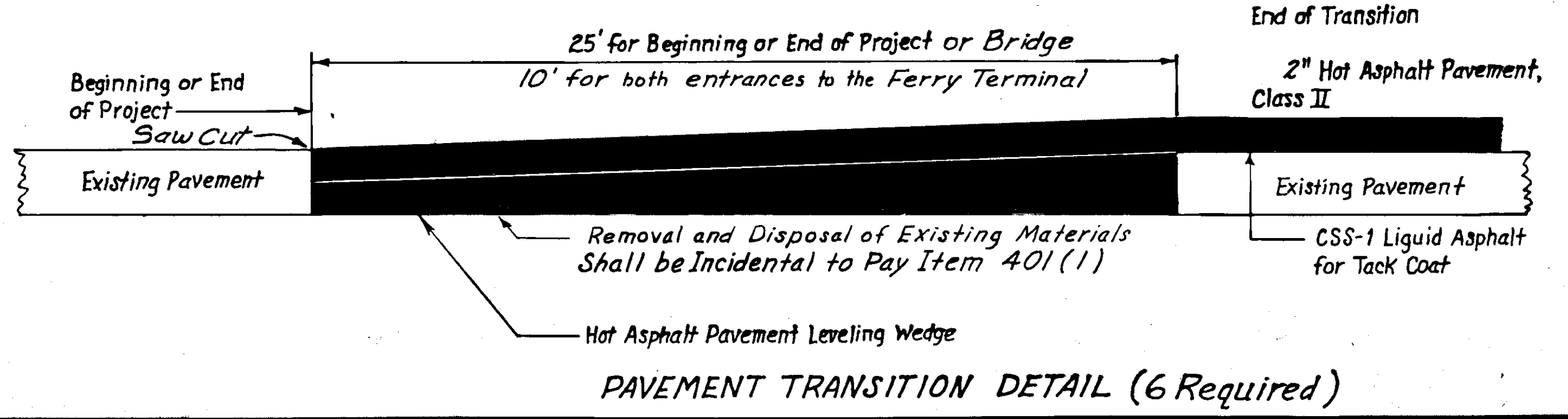
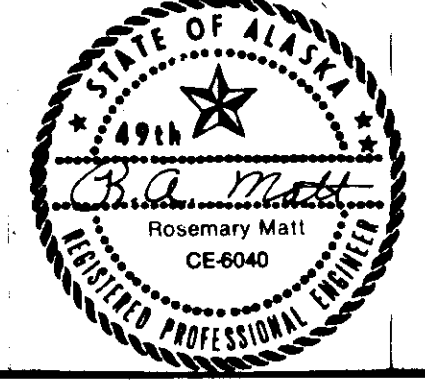
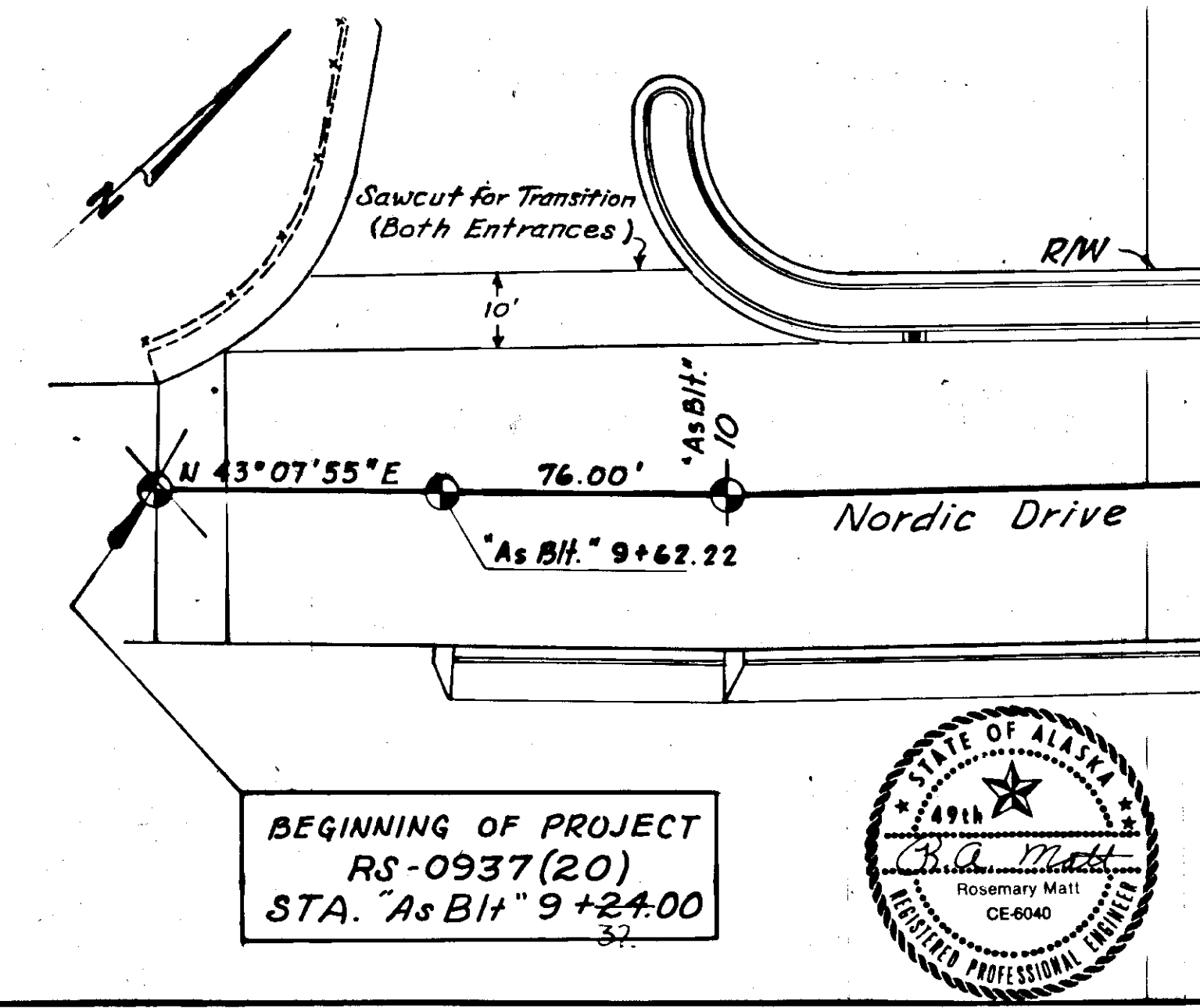
BASIS OF ESTIMATE

ITEM	ESTIMATING FACTOR
401(1)	1/4 lbs. per sq. yd. / inch depth
401(2)	6.5% of Item 401(1)
402(2)	0.1 Gal/SY, 253 Gal/Ton @ 60°F
634(1)	12' Wide Roll
	12.5'

Note: There are ten intersections with Nordic Drive that will require paving within the existing paving limits. Edges shall be tapered as directed by the Engineer.

HORIZONTAL CONTROL
Bearings for this project are based on U.S.C. & G.S. triangulation stations "USE #10" and "NOVA" for B.O.P. Based on As-builts from Project S-0937(10).

VERTICAL CONTROL
DATUM base is MLLW derived from the U.S.G.S. brass disc located in front of the main entrance to the trading union grocery store. The brass disc is located in front of the only pillar in front of the doorway and is flush with the concrete sidewalk. The elev. of the brass disc = 24.01.



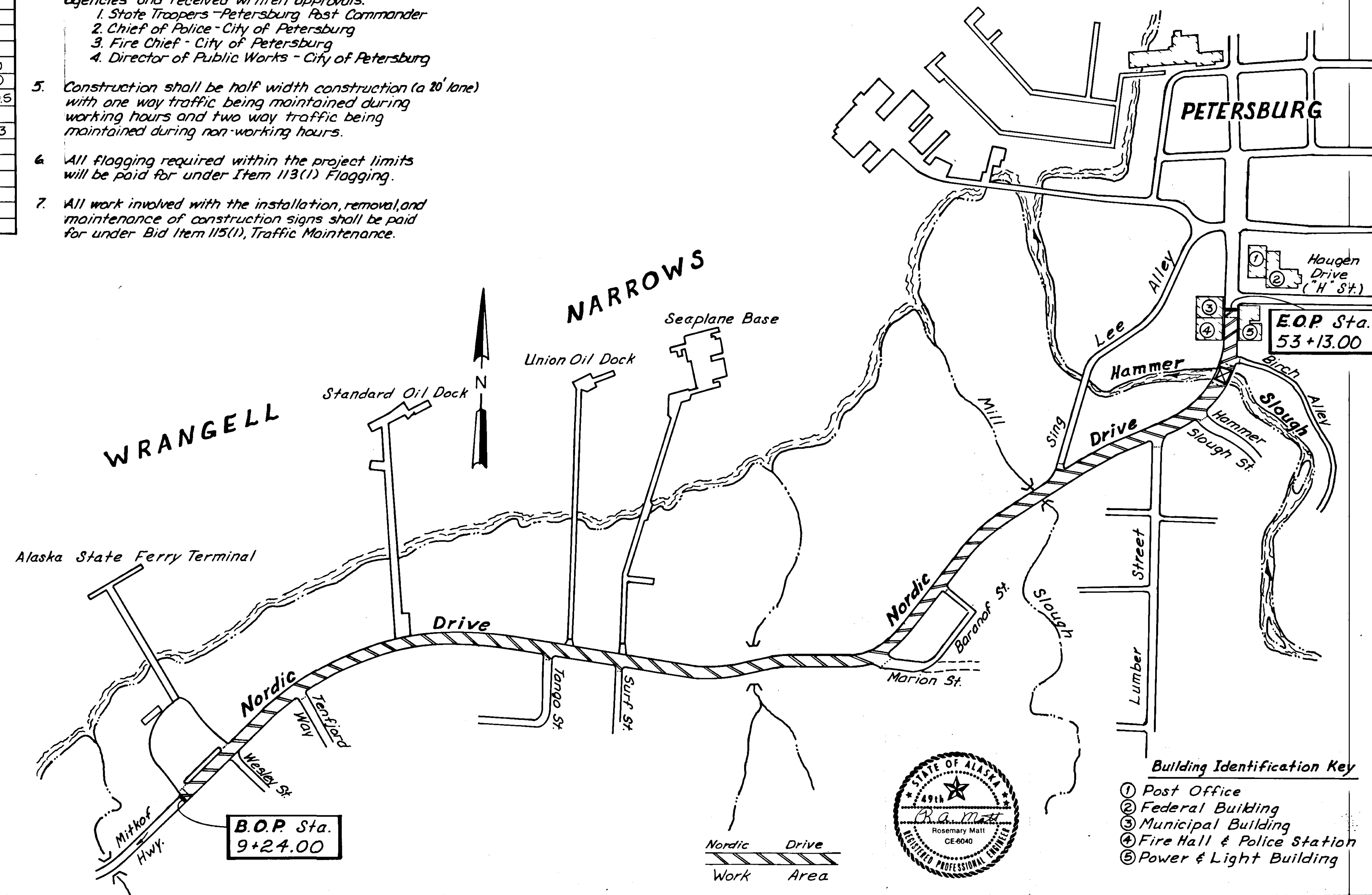
TRAFFIC CONTROL PLAN

ESTIMATE OF QUANTITIES *			
ITEM NO.	ITEM	UNIT	TOTAL
109(2)	DBE and MBE Adjustment	C.S.	All Required
110(2)	Mobilization and Demobilization	L.S.	All Required
111(1)	Temporary Erosion and pollution control	C.S.	All Required
113(1)	Flagging	M.H.	240 235.5
115(1)	Traffic Maintenance	L.S.	All Required
116(1)	Furnishing and Maintaining Field Office	L.S.	All Required
202(3)	Removal of Sidewalk	Sq. Yd.	52 57.1
202(8)	Removal of Curb and Gutter	L.F.	57 87.6
401(1)	Asphalt Concrete, Type II	Ton	3185 2921.11
401(2)	Asphalt Cement, AC-5	Ton	207 174.95
402(1)	CSS 1 Asphalt for Tack Coat	Ton	8.8 9.2
508(1)	Membrane Waterproofing	L.S.	All Required
604(4)	Adjust Existing Manholes	Each	19 20
608(1-4)	Concrete Sidewalk	S.Y.	20 63.4
608(1-6)	Concrete Sidewalk	S.V.	12 15.6
608(4)	Wheelchair Ramps	Each	24 27
609(2A)	Curb and Gutter - Standard Type	L.F.	36 99.1
609(2B)	Curb and Gutter - Depressed Type	L.F.	21 28.0
614(3)	Adjust Existing Monuments and Cases	Each	28 27.0
615(1)	Standard Signs	Sq. Ft.	75.50 80.5
628(11)	Adjustment of Valve Box	Each	6 5
634(1)	Reinforcing Fabric	S.Y.	7519 3333.3
670(1)	Painted Traffic Markings	L.S.	All Required

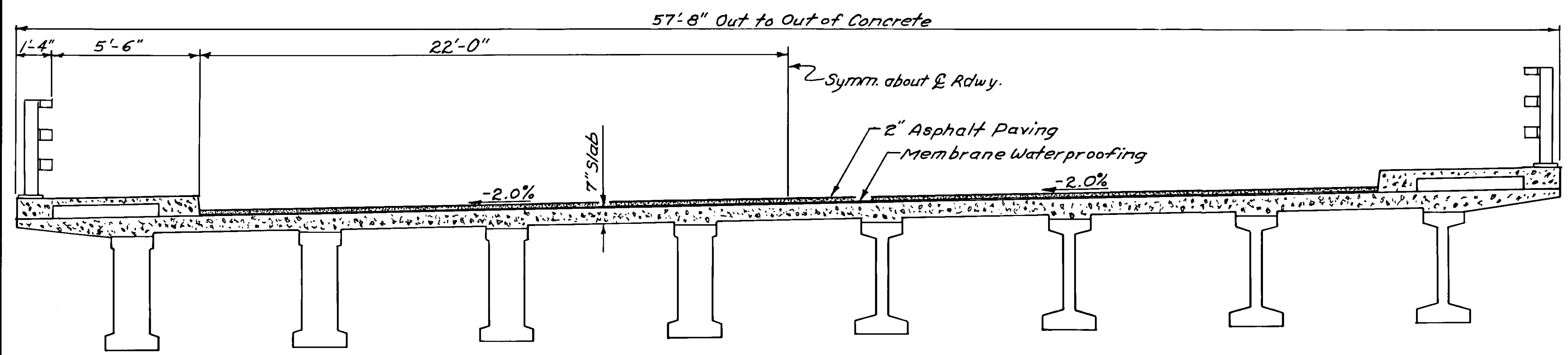
* This estimate of quantities is for State Work Only. See sheet 8 for Estimate of Quantities for City & Supplemental Work.

Reinforcing Fabric Summary		
Begin Station	End Station	Lt./Rt.
15+18	16+12	Lt.
21+06	22+15	Rt.
26+40	28+36	Rt.
26+88	28+67	Lt.
29+50	29+94	Lt.
30+85	31+55	Rt.
30+85	33+67	Lt.
37+45	47+13	Lt.
37+75	38+13	Rt.
39+06	39+67	Rt.
42+88	43+22	Rt.
44+00	44+55	Rt.
46+05	46+95	Rt.
51+20	52+40	Rt.
51+25	52+25	Lt.

- The Traffic Control Plan (T.C.P.) shall be used in conjunction with and in addition to the Standard Drawings, the Standard and Special Provisions, the Alaska Traffic Manual, and current industry standards for safe and effective operation.
- The Contractor shall use the following T.C.P. during the construction of this project. The Contractor may submit a T.C.P. of his own, however any changes to this T.C.P. will require written approval of the Engineer prior to the beginning of any construction.
- The Contractor shall keep the public advised of his construction activities through use of the local news media. Advance notice of all road closures shall be published in the local newspaper and broadcasted over all local radio and TV. stations 3 days prior to the closure.
- Prior to closing a lane to vehicle traffic, the Contractor shall have notified the following agencies and received written approvals.
 - State Troopers - Petersburg Post Commander
 - Chief of Police - City of Petersburg
 - Fire Chief - City of Petersburg
 - Director of Public Works - City of Petersburg
- Construction shall be half width construction (a 20' lane) with one way traffic being maintained during working hours and two way traffic being maintained during non-working hours.
- All flagging required within the project limits will be paid for under Item 113(1) Flagging.
- All work involved with the installation, removal, and maintenance of construction signs shall be paid for under Bid Item 115(1), Traffic Maintenance.
- The Contractor shall designate one of his employees whose responsibility shall be the installation and maintenance of all required traffic control devices. All traffic control elements shall be maintained 24 hours a day.
- Signs for detour areas shall be of a portable nature and shall be moved as required to maintain their proper spacing.
- Signs shall be in place only when the conditions they warn about exist.
- Sing Lee Alley is the only alternate route across Hammer Slough. A portion of it is plank and trestle construction that is narrow and suitable only for one way traffic and it is now so designated. It has a load limit of 12 tons. It would be useable as a detour route only if flagmen or timed traffic signals are used to direct traffic.
- Hammer Slough Bridge is the only means for heavy traffic to cross Hammer Slough. The replacement of the asphalt wearing course and the membrane waterproofing on the bridge deck should be planned to accommodate one lane of traffic at all times. Fire trucks or other emergency vehicles may have to use the bridge at any time with little or no advanced notice.
- See Standard Drawings C-01.02, C-02.00, and C-03.01 for Construction zone flagging, signs, and channelization devices.
- Existing striping shall be referenced and repainted as currently striped. This shall be paid under Item 670(1).

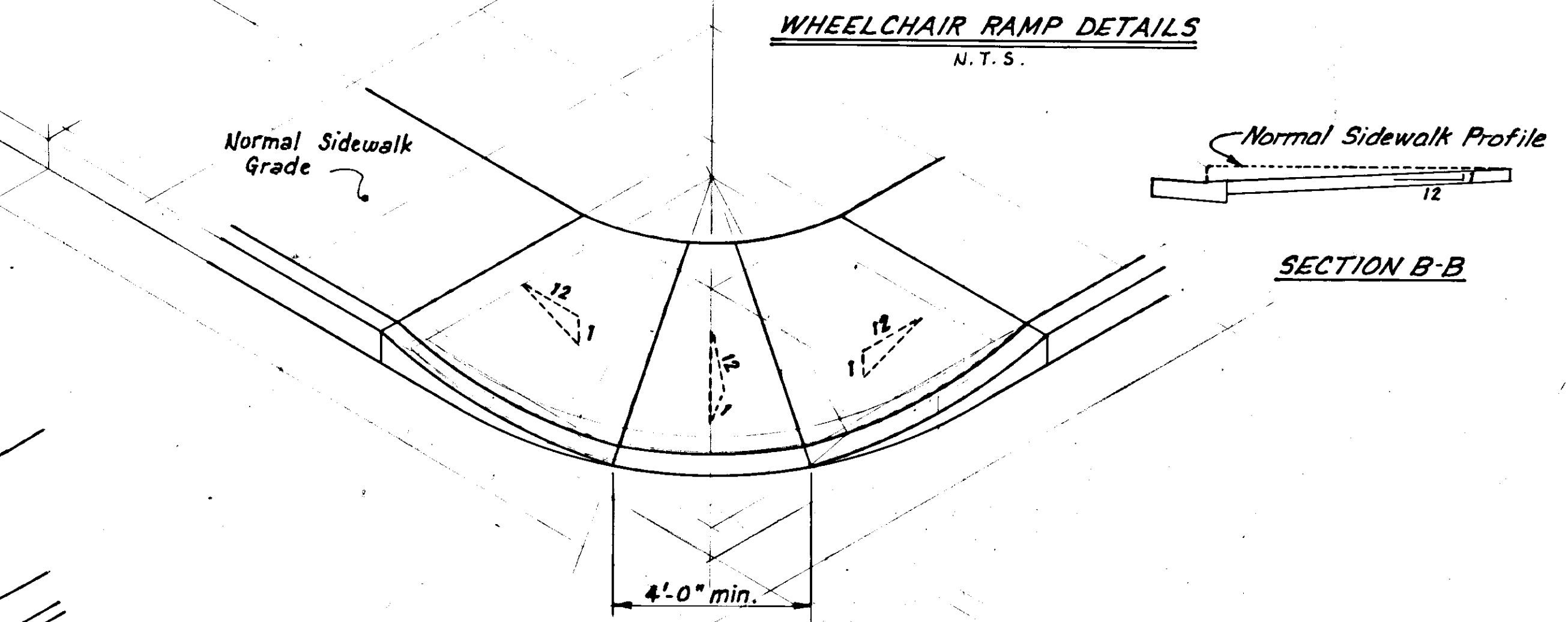
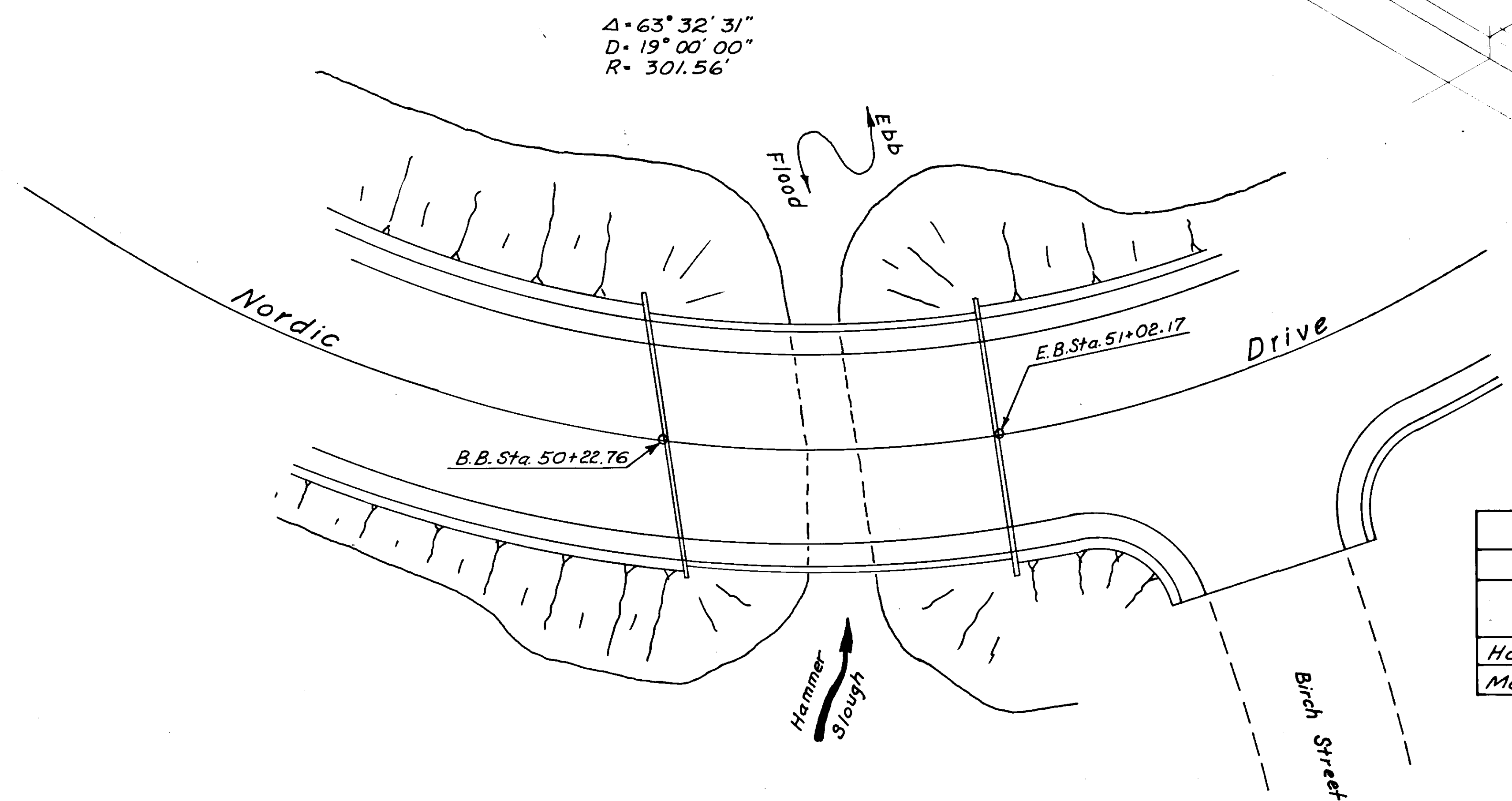
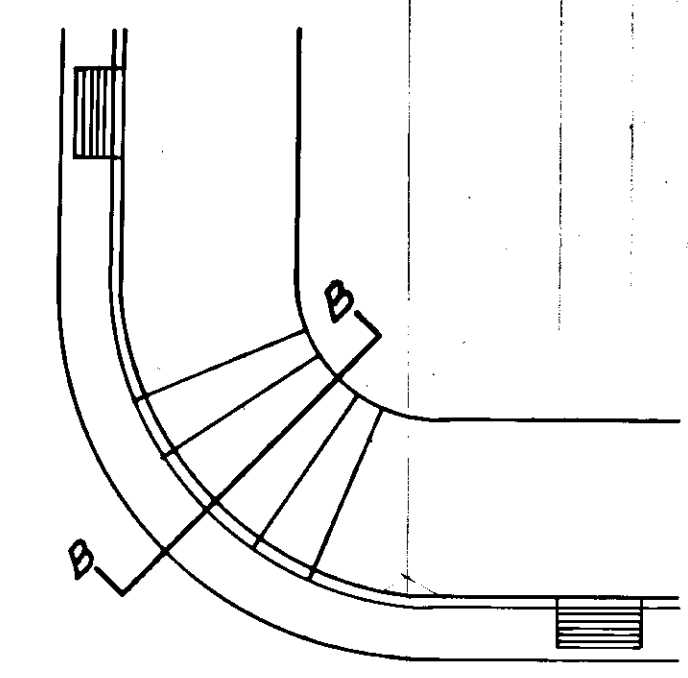


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0937 (20)	1986	4	17



TYPICAL SECTION of SUPERSTRUCTURE
HAMMER SLOUGH BRIDGE
 Bridge No. 959

- RAMP NOTES
1. Curb and Gutter expansion joints shall be located at each curb cut. Sidewalk expansion joints shall be opposite expansion joints in adjoining curb and gutter.
 2. Location of wheelchair ramps shall be at each corner of intersecting streets and at the ferry terminal entrances. Exact locations shall be designated by the Engineer.
 3. Ramp slopes shall not be steeper than 1:12.



TOTAL ESTIMATED QUANTITIES		
ITEM	UNIT	TOTAL
Hot Asphalt Paving	Ton	44
Membrane Waterproofing	Sq. Yd.	389

GENERAL LAYOUT

0 20 40
 Feet



STATE FURNISHED MATERIAL SOURCE

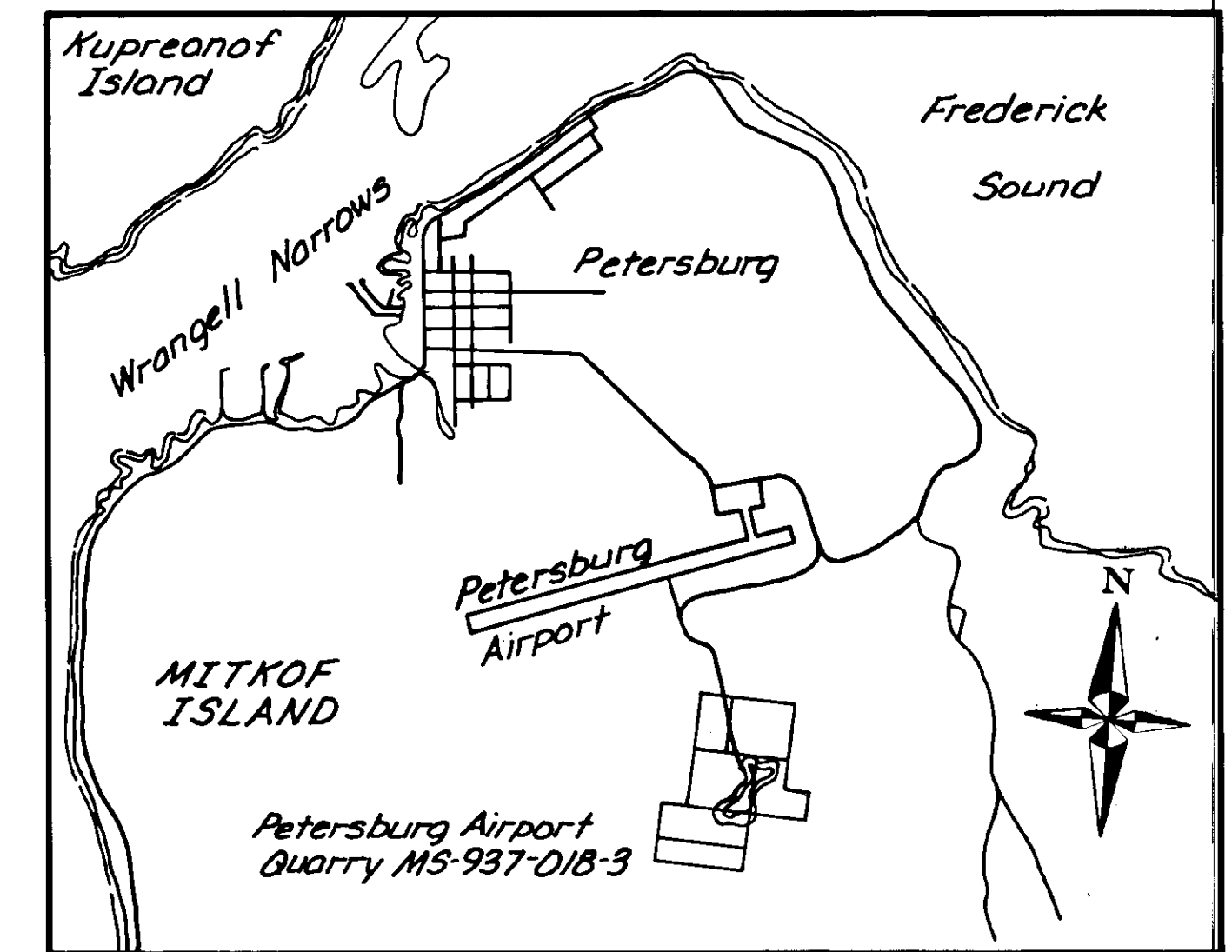
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0937(20)	1986	5	17

GENERAL NOTES

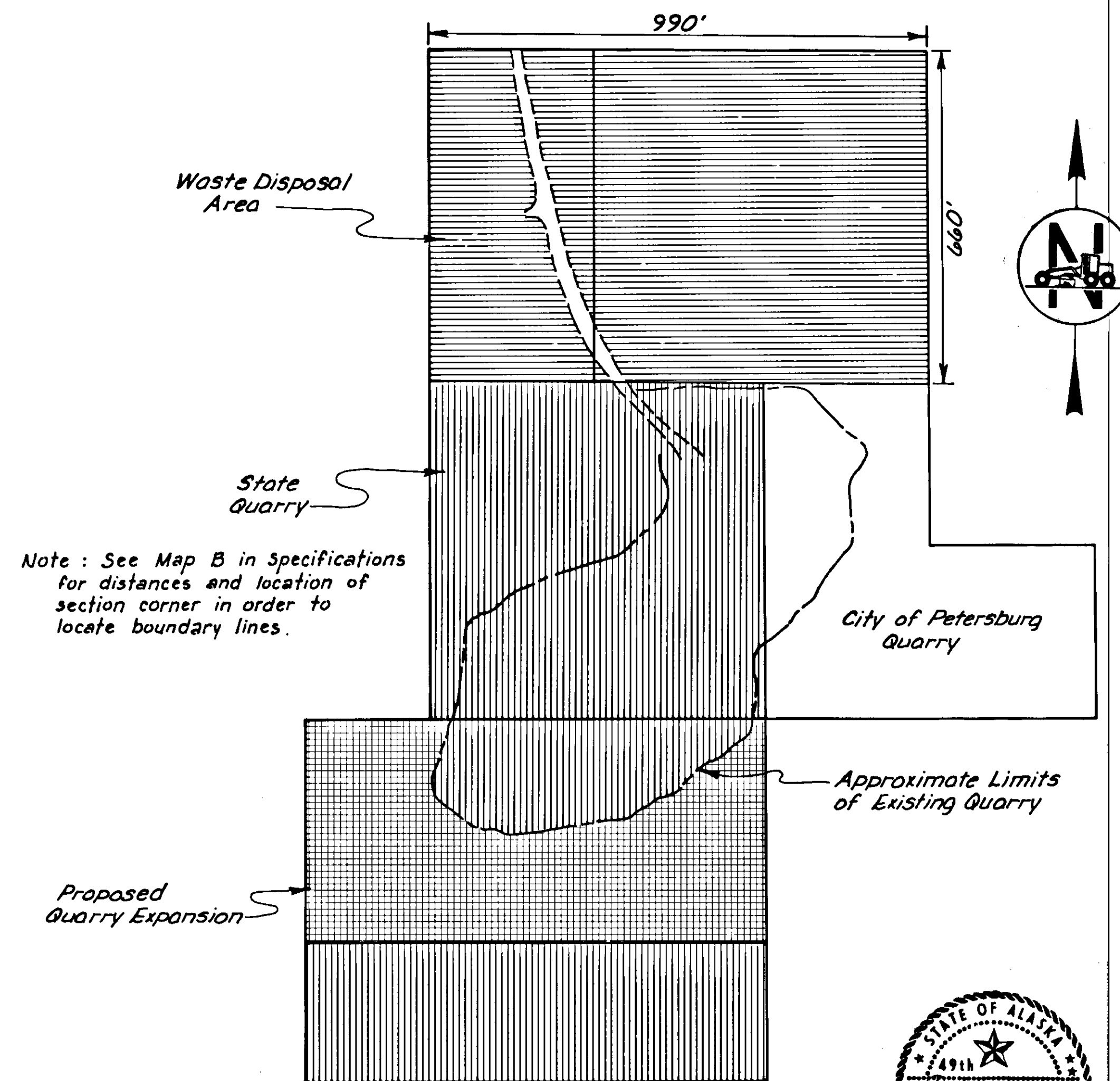
1. All overburden & organic material encountered in this source shall be disposed of in the Waste Disposal Area.
2. The Contractor is forewarned that the quality of the material in the quarry is variable both horizontally and vertically. It may be necessary to sort the rock within the quarry to obtain suitable material for the processed aggregate.
3. The Contractor should satisfy for himself, areas of the quarry that will produce the required quality for specification materials.
4. Maximum bench height shall be 30', minimum bench width shall be 30'. All benches shall be accessible from the quarry floor.
5. Stripping of the existing overburden shall extend a minimum of 15' beyond top of quarry. The overburden slopes shall be graded 1 1/2:1.
6. Upon completion of work in the quarry, the quarry floor shall be left in such a manner so as not to impede the flow of water.
7. The existing gate shall be locked during non-working hours.
8. All work in the quarry shall be performed from the top to the bottom.
9. The Contractor should be aware that areas of bench slope instability may exist within the quarry. Any slide or slipouts shall be removed & disposed of as directed by the Engineer. This work shall be considered incidental.
10. All rocks larger than 12 in. shall be broken down & used in the work or stockpiled or removed to an approved disposal site.
11. The Contractor shall submit a quarry operations plan to the Engineer for approval.
12. The Contractor must adhere to all stipulations & operating requirements as provided in the Negotiated Material Sale Contract, ADL 103523, provided in the bid package.
13. The Contractor shall be required to prepare an Air Traffic Plan for blasting within the Airport Quarry for approval by the FAA, and the Petersburg Flight Service.
14. The Contractor shall notify the Forest Service concerning the Raven Hoast Trail when blasting or other activities conflict with its use.
15. The Contractor is advised that this pit is only available for his use after June 15, 1986. The contractor for the Petersburg Main Street Project currently under contract has priority over the use of this pit until June 15, 1986. If the Contractor wishes to use this before that date, it shall be his responsibility to coordinate with the contractor for Petersburg Main Street, and may use this pit only if there will be no conflicts. No claims or extensions of time will be allowed due to the use of this pit.
16. If the Contractor wishes to use the Petersburg Airport Quarry, the following erosion and pollution control measures shall be taken:
 - a. The grade of the outlet ditch on the west side of the access road shall be lowered 3 feet. Two settlement basins, each 20 feet long, shall be constructed in the lowered ditch immediately downstream of the outlet from the quarry. The settlement basins shall be 6 feet wide at the bottom. The grade of the ditch shall then be daylighted to meet the existing ditch grade at a distance of 240 feet from the outlet. A log guardrail shall be placed on the shoulder for the length of the lowered ditch. The logs shall have a minimum diameter of 12 inches.
 - b. A drainage ditch shall be constructed along the eastside of the access road from the outlet of the quarry for a distance of 1200 feet downstream.
 - c. Replace the existing 12-inch concrete pipe under the access road with 80 linear feet of 24-inch CMP.

Labor and materials for the items of work listed above shall be considered incidental to other items of work and shall not be measured for payment or paid for directly. All dimensions listed above are approximate and are subject to revisions by the Engineer. The Contractor shall not begin work in the quarry until the erosion and pollution control measures are completed and approved by the Engineer.
This work is not part of the work covered by bid item 111(1).
17. Material for use on the State portion of this project and the City of Petersburg portion of this project shall come from the State side of the quarry if this quarry is used as a materials source.
18. Transverse silt fences and/or straw bales will be used below the ponds to filter suspended materials.

NOT USED



VICINITY MAP



Note: See Map B in Specifications for distances and location of section corner in order to locate boundary lines.



(A) GENERAL
 Concern about the effects of highway construction on the environment has led to the introduction of methods to limit disturbed soil from moving onto adjacent lands or into nearby streams, lakes and/or ponds. This sheet attempts to provide the contractor with some ideas that may minimize this impact. It is not intended to be a complete listing, nor is any one idea guaranteed to work. Its purpose is to assist the contractor in assessing several items before he prepares his Erosion Control Plan in accordance with Section III, Temporary Erosion and Pollution Control.

(B) NOTES

- Basins, traps, dams etc. must be cleaned often, or at least after every storm or heavy rainfall.
- Any temporary erosion control feature that is aesthetically pleasing and/or still functions in its original intent may be left after completion of the project for permanent erosion control.
- Some items detailed on this sheet may already be covered by another pay item, and therefore, not considered as temporary erosion control.
-

(C) STOCKPILE of MATERIALS
 The contractor shall have a stockpile of the following items on the project prior to the start of significant grading operations. Payment will be made under Section III, Temporary Erosion and Pollution Control, and will be based upon certified receipts. Items not incorporated into the work shall become the property of the contractor.

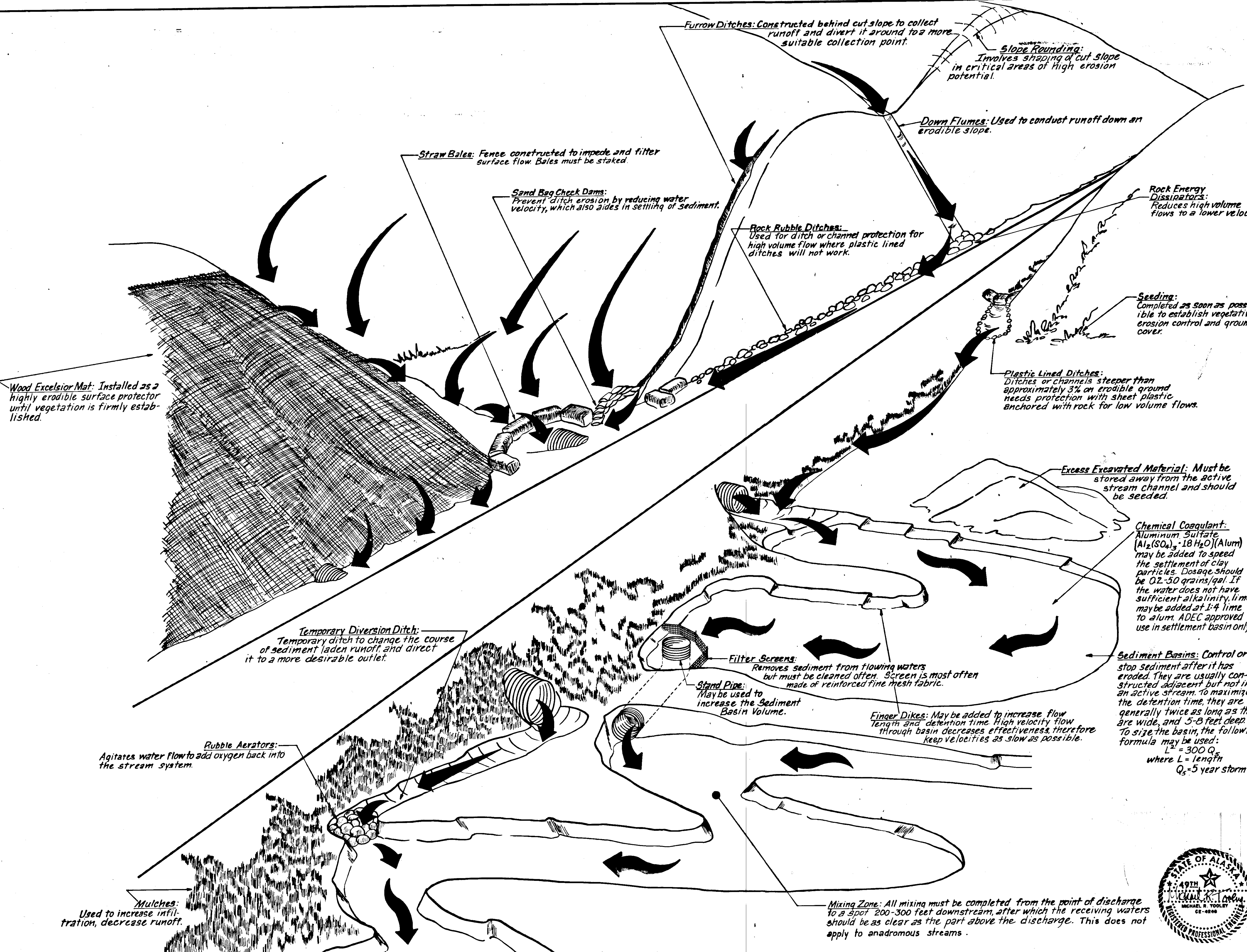
ITEM	QUANTITY
STRAW BALES 4'x16'x18"	10 ea.
WOOD EXCELSIOR MAT	20 roll
SAND BAGS	20 ea.
FILTER CLOTH	1 roll
PLASTIC LINING	1 roll

(D) PERMITS
 THE FOLLOWING PERMITS HAVE BEEN APPLIED FOR AND RECEIVED BY DOT

PERMIT	DATE
COE SECTION 404	
DEC SECTION 401	
USCB SECTION 9	
ADFS § TITLE 16	
FAA AIRPORT CLEARANCE	
THE ALASKA RAILROAD	

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND
 PUBLIC FACILITIES
TEMPORARY EROSION POLLUTION CONTROL®
 GENERAL DETAIL SHEET

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND
 PUBLIC FACILITIES
TEMPORARY EROSION POLLUTION CONTROL®
 GENERAL DETAIL SHEET



Furrow Ditches: Constructed behind cut slope to collect runoff and divert it around to a more suitable collection point.

Slope Rounding: Involves shaping of cut slope in critical areas of high erosion potential.

Down Flumes: Used to conduct runoff down an erodible slope.

Straw Bales: Fence constructed to impede and filter surface flow. Bales must be staked.

Sand Bag Check Dams: Prevent ditch erosion by reducing water velocity, which also aids in settling of sediment.

Rock Rubble Ditches: Used for ditch or channel protection for high volume flow where plastic lined ditches will not work.

Rock Energy Dissipators: Reduces high volume flows to a lower velocity.

Seeding: Completed as soon as possible to establish vegetative erosion control and ground cover.

Plastic Lined Ditches: Ditches or channels steeper than approximately 3% on erodible ground needs protection with sheet plastic anchored with rock for low volume flows.

Wood Excelsior Mat: Installed as a highly erodible surface protector until vegetation is firmly established.

Excess Excavated Material: Must be stored away from the active stream channel and should be seeded.

Chemical Coagulant: Aluminum Sulfate $(Al_2(SO_4)_3 \cdot 18H_2O)$ (Alum) may be added to speed the settlement of clay particles. Doseage should be 0.2-5.0 grains/gal. If the water does not have sufficient alkalinity, lime may be added at 1:4 lime to alum. ADEC approved use in settlement basin only.

Temporary Diversion Ditch: Temporary ditch to change the course of sediment laden runoff and direct it to a more desirable outlet.

Filter Screens: Removes sediment from flowing waters but must be cleaned often. Screen is most often made of reinforced fine mesh fabric.

Stand Pipe: May be used to increase the Sediment Basin Volume.

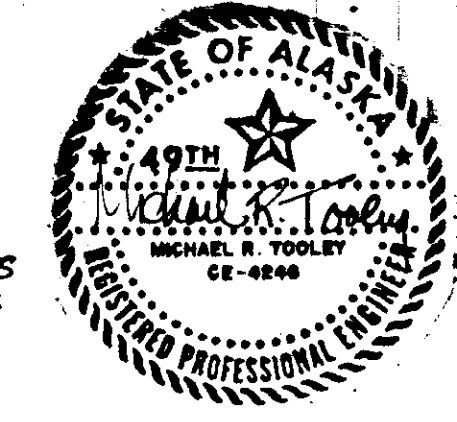
Finger Dikes: May be added to increase flow length and detention time. High velocity flow through basin decreases effectiveness, therefore keep velocities as slow as possible.

Sediment Basins: Control or stop sediment after it has eroded. They are usually constructed adjacent but not in an active stream. To maximize the detention time, they are generally twice as long as they are wide, and 5-8 feet deep. To size the basin, the following formula may be used:
 $L = 300 Q_s$
 where L = length
 $Q_s = 5$ year storm

Rubble Aerators: Agitates water flow to add oxygen back into the stream system.

Mulches: Used to increase infiltration, decrease runoff.

Mixing Zone: All mixing must be completed from the point of discharge to a spot 200-300 feet downstream, after which the receiving waters should be as clear as the part above the discharge. This does not apply to anadromous streams.



Missing pages 7-17