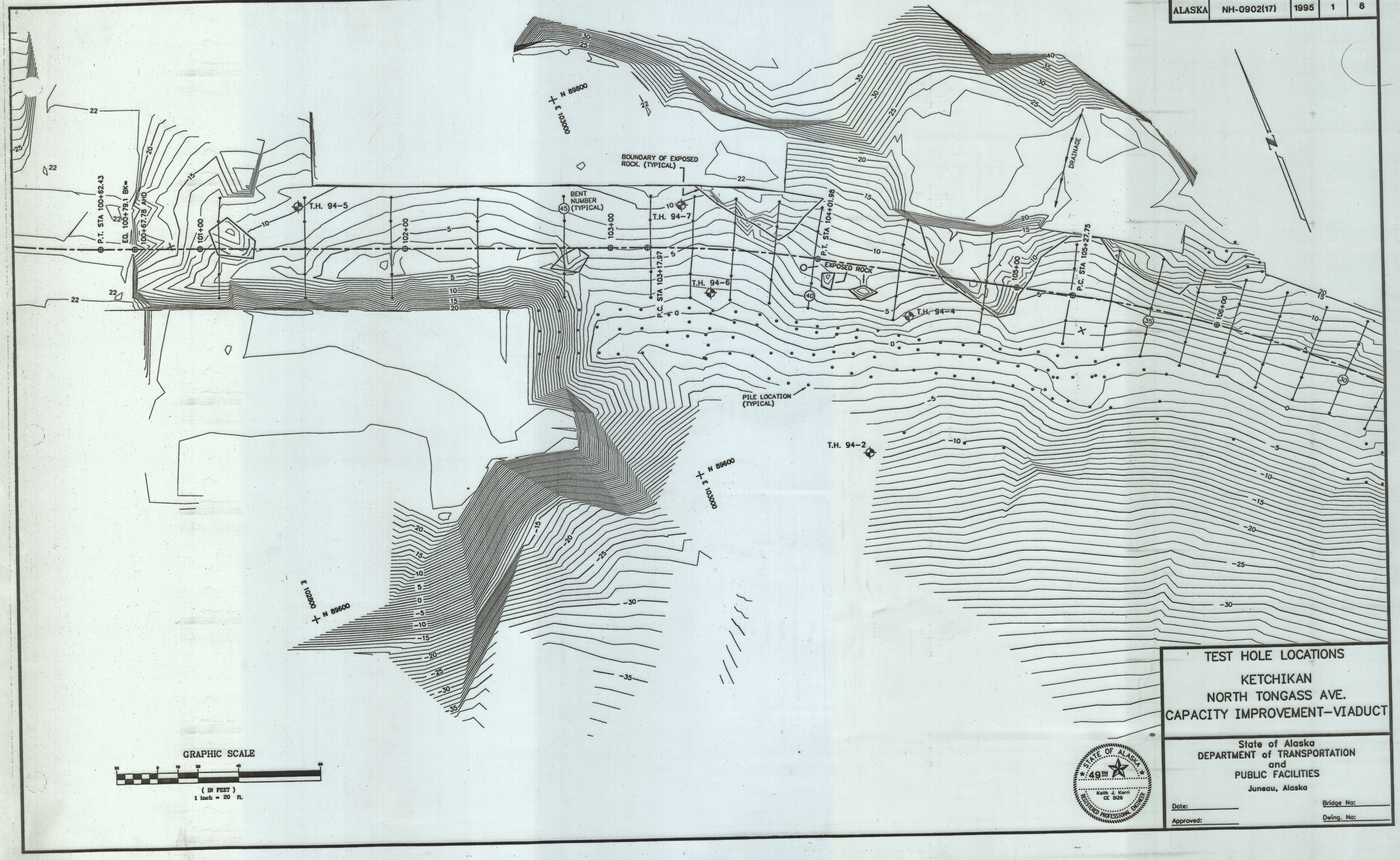
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0902(17)	1995	1	8



GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

TEST HOLE LOCATIONS

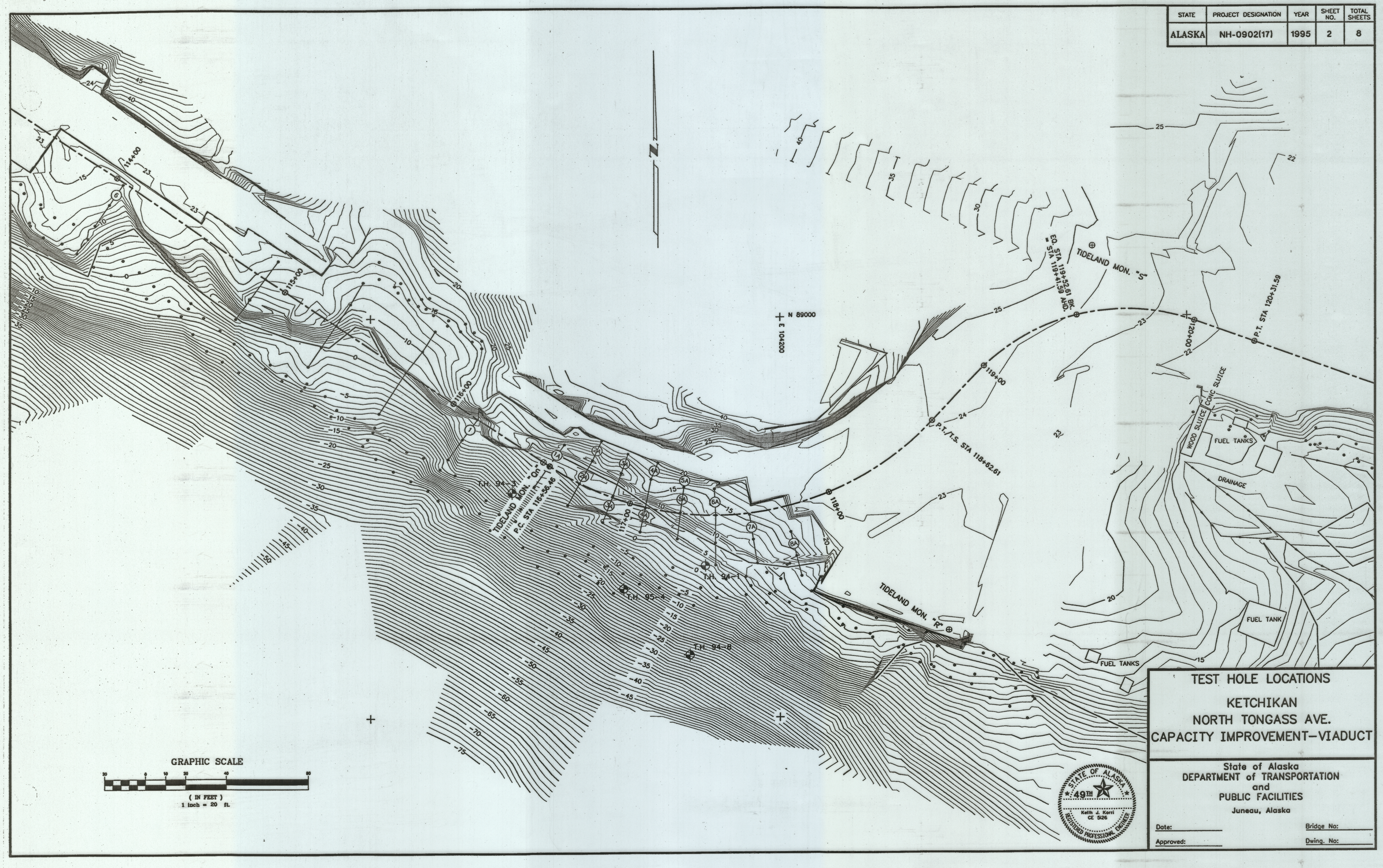
KETCHIKAN
NORTH TONGASS AVE.
CAPACITY IMPROVEMENT–VIADUCT

STATE OF ALASKA
49TH
Keith J. Korri
CE 526
REGISTERED PROFESSIONAL ENGINEER

State of Alaska
DEPARTMENT of TRANSPORTATION
and
PUBLIC FACILITIES
Juneau, Alaska

Date:
Approved:
Bridge No:
Dwing. No:

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0902(17)	1995	2	8



TEST HOLE LOCATIONS

KETCHIKAN
NORTH TONGASS AVE.
CAPACITY IMPROVEMENT–VIADUCT

State of Alaska
DEPARTMENT of TRANSPORTATION
and
PUBLIC FACILITIES
Juneau, Alaska

Date: _____ Bridge No: _____

Approved: _____ Dwing. No: _____

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0902(17)	1995	3	8

T.H. 95-3

T.H. 95-2

T.H. 95-1

T.H. 95-5

123+00

124+00

125+00

126+00

127+00

128+00

129+00

N 88600

E 105000

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

STATE OF ALASKA
49TH
Keith J. Korri
CE 5026
REGISTERED PROFESSIONAL ENGINEER

TEST HOLE LOCATIONS

KETCHIKAN
NORTH TONGASS AVE.
CAPACITY IMPROVEMENT–VIADUCT

State of Alaska
DEPARTMENT of TRANSPORTATION
and
PUBLIC FACILITIES
Juneau, Alaska

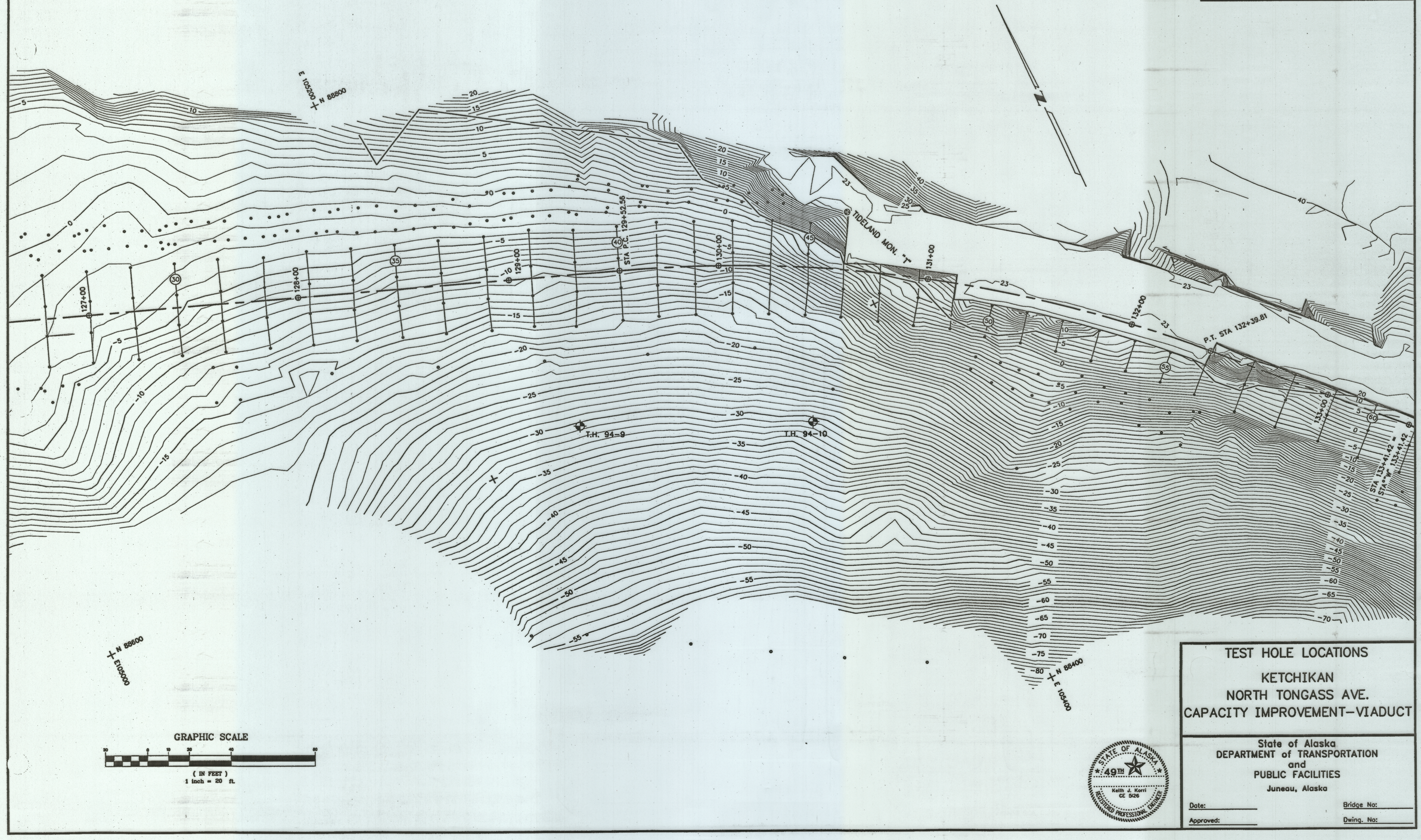
Date:

Approved:

Bridge No:

Dwing. No:

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0902(17)	1995	4	8



TEST HOLE LOCATIONS

KETCHIKAN
NORTH TONGASS AVE.
CAPACITY IMPROVEMENT–VIADUCT

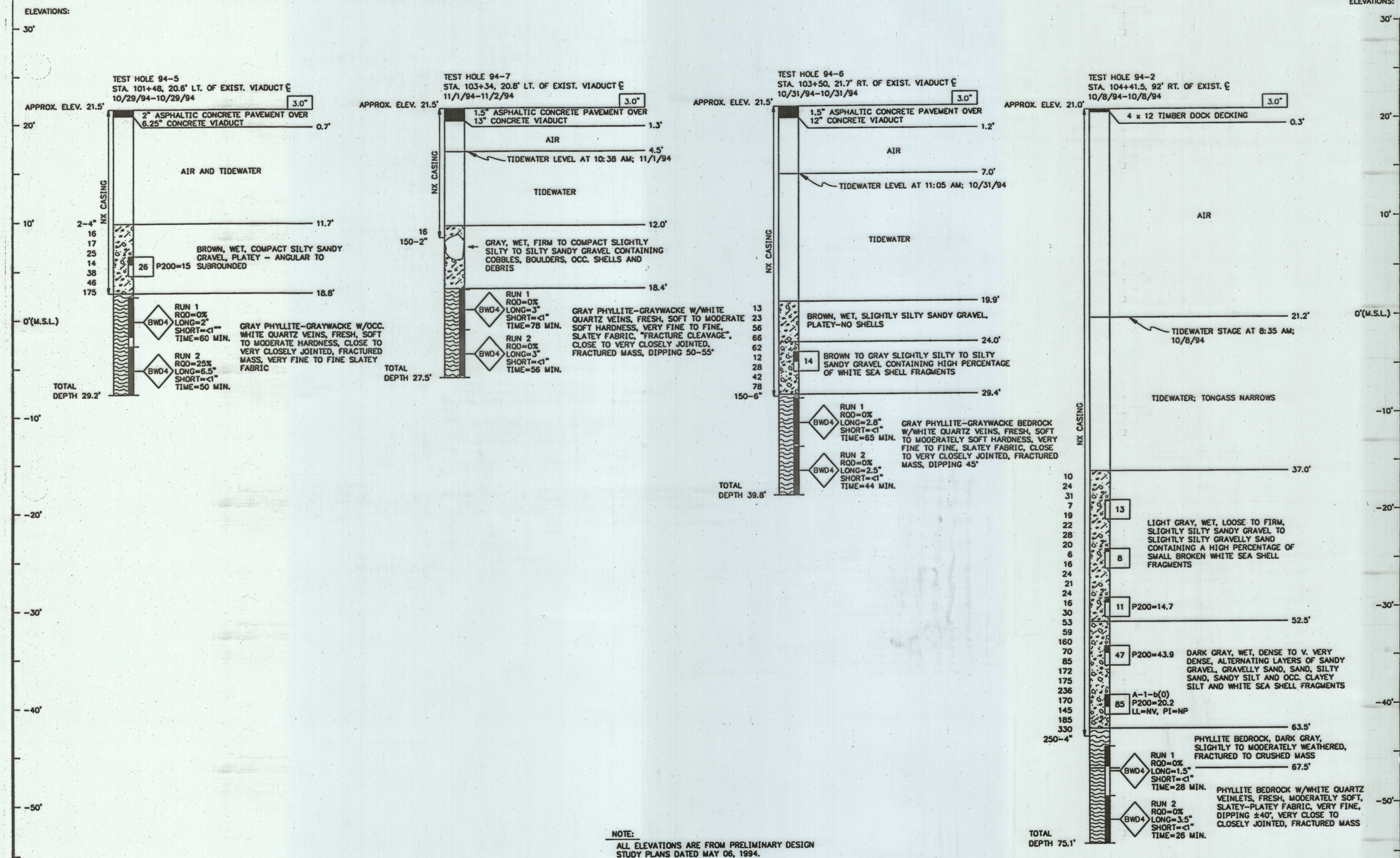
STATE OF ALASKA 49TH
Keith J. Korri CE 5526
REGISTERED PROFESSIONAL ENGINEER

State of Alaska
DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES
Juneau, Alaska

Date: Bridge No:

Approved: Dwing. No:

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0902(17)	1995	5	8



NOTE:
ALL ELEVATIONS ARE FROM PRELIMINARY DESIGN STUDY PLANS DATED MAY 06, 1994.

BASIC MATERIALS SYMBOLS

Organic, Silt, Cobbles/Boulders, Clay, Gravel, Bedrock, Sand

NOTE: SIGNIFICANT SOIL MIXTURES ARE SHOWN BY COMBINING SOIL SYMBOLS.

TYPICAL TEST HOLE SYMBOLS

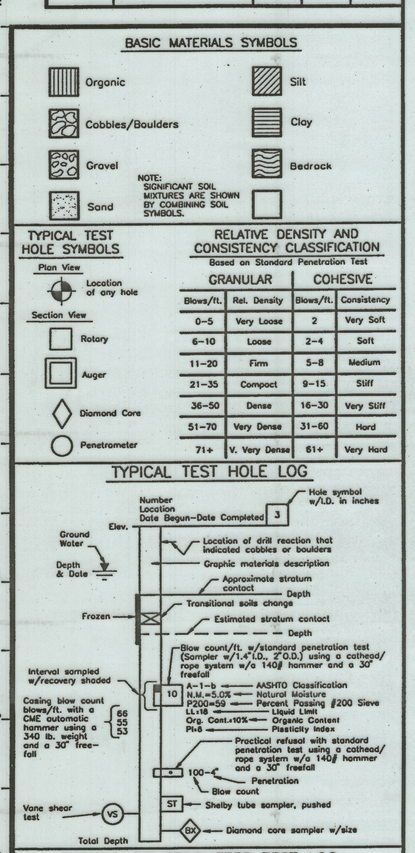
Plan View: Location of any hole
Section View: Rotary, Auger, Diamond Core, Penetrometer

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

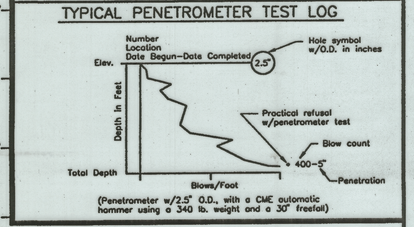
Based on Standard Penetration Test

GRANULAR		COHESIVE	
Blows/ft.	Rel. Density	Blows/ft.	Consistency
0-5	Very Loose	2	Very Soft
6-10	Loose	2-4	Soft
11-20	Firm	5-8	Medium
21-35	Compact	9-15	Stiff
36-50	Dense	16-30	Very Stiff
51-70	Very Dense	31-60	Hard
71+	V. Very Dense	61+	Very Hard

TYPICAL TEST HOLE LOG



TYPICAL PENETROMETER TEST LOG



(Penetrometer w/2.5" O.D., with a CME automatic hammer using a 340 lb. weight and a 30" freefall)

TEST HOLE LOGS
KETCHIKAN
NORTH TONGASS AVE.
CAPACITY IMPROVEMENT-VIADUCT

GENERAL NOTES:

1. TEST HOLE(S) DEPICTED ARE A COMBINATION OF THE ORIGINAL FIELD [illegible]E(S), AND AN OFFICE EXAMINATION OF THE FIELD LOG(S). SOIL SAMPLE(S) AND/OR ROCK CORE(S).
2. THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES OR RELATIVE DENSITIES. THE TRANSITION MAY BE GRADUAL.
3. WHERE CASING IS INDICATED, THE NEED WAS PREDICATED BY THE POSITION OF THE GROUNDWATER TABLE OR BY CAVING GROUND CONDITIONS. THE CASING WAS INSTALLED TO PROVIDE TEMPORARY SOIL SUPPORT AND/OR PROVIDE FOR DRILL FLUID CIRCULATION.
4. FIELD MOISTURE DESCRIPTIONS (DRY, MOIST, AND WET) ARE BASED ON THE FOLLOWING FIELD OBSERVATIONS:
   - A. DRY-A SOIL WITH NO VISIBLE MOISTURE, FEELS DRY WHEN HELD IN THE HAND. WILL NOT FORM A CAST.
   - B. MOIST-A SOIL WITH VISIBLE MOISTURE, FEELS MOIST IN THE HAND, WILL FORM A CAST.
   - C. WET-A SOIL WITH VISIBLE WATER, WETS THE HAND WHEN HELD, HAS FREE WATER WHEN SHAKEN.

   A COMBINATION OF THESE TERMS MAY BE USED TO DESCRIBE THE SOIL MOISTURE CONDITION.

STATE OF ALASKA
49TH
Keith J. Korri
CE 5126
REGISTERED PROFESSIONAL ENGINEER

SOIL GRAIN SIZE DEFINITIONS

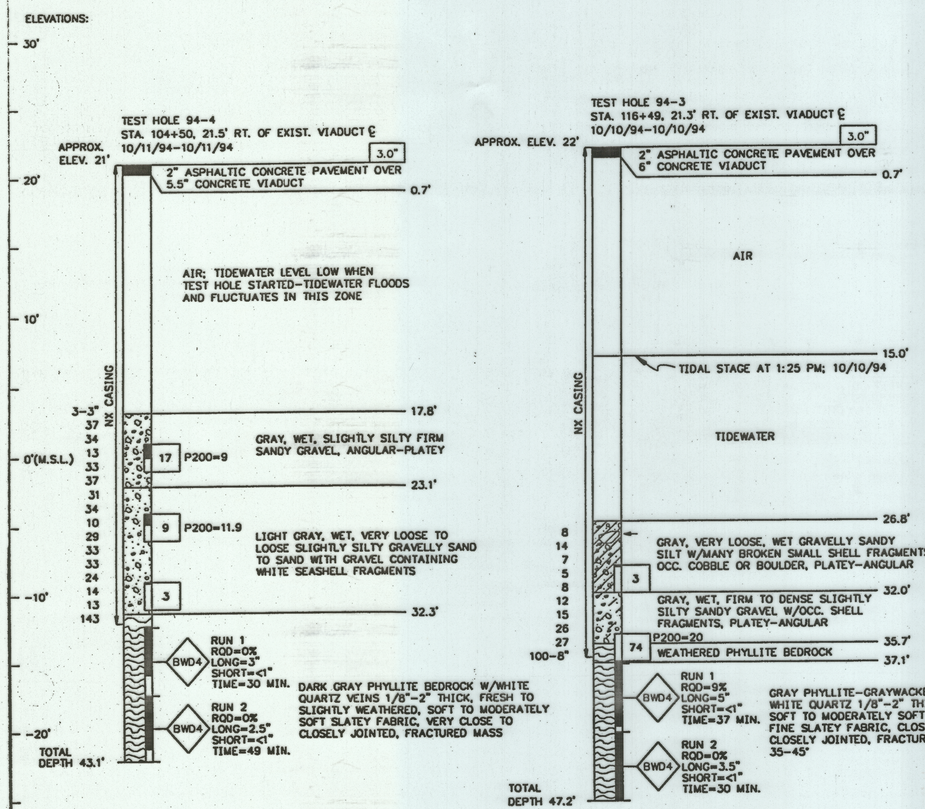
BOULDER	>12" DIAMETER
COBBLE	3"-12" DIAMETER
BROKEN ROCK (ANGULAR)	>3" DIAMETER
GRAVEL (ROUNDED); STONE (ANGULAR)	#10 SIEVE-3" DIA.
SAND	#200 SIEVE-#10
SILT/CLAY	<#200 SIEVE

NOTE: SOIL CLASSIFICATIONS ARE VISUAL ONLY UNLESS AASHTO SOIL CLASS IS SHOWN ON THE LOG.

State of Alaska
DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES
Juneau, Alaska

Date: Bridge No:
Approved: Dwing. No:

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0902(17)	1995	6	8



NOTE:
ALL ELEVATIONS ARE FROM PRELIMINARY DESIGN STUDY PLANS DATED MAY 06, 1994.

BASIC MATERIALS SYMBOLS

Organic; Silt; Cobbles/Boulders; Clay; Gravel; Bedrock; Sand

NOTE: SIGNIFICANT SOIL MIXTURES ARE SHOWN BY COMBINING SOIL SYMBOLS.

TYPICAL TEST HOLE SYMBOLS

Plan View: Location of any hole

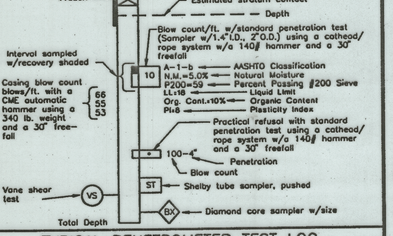
Section View: Rotary; Auger; Diamond Core; Penetrometer

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

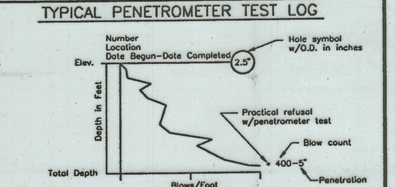
Based on Standard Penetration Test

GRANULAR		COHESIVE	
Blows/ft.	Rel. Density	Blows/ft.	Consistency
0-5	Very Loose	2	Very Soft
6-10	Loose	2-4	Soft
11-20	Firm	5-8	Medium
21-35	Compact	9-15	Stiff
36-50	Dense	16-30	Very Stiff
51-70	Very Dense	31-60	Hard
71+	V. Very Dense	61+	Very Hard

TYPICAL TEST HOLE LOG



TYPICAL PENETROMETER TEST LOG



(Penetrometer w/2.5" O.D., with a CME automatic hammer using a 340 lb. weight and a 30" freefall)

TEST HOLE LOGS
KETCHIKAN
NORTH TONGASS AVE.
CAPACITY IMPROVEMENT-VIADUCT

GENERAL NOTES:

1. THE TEST HOLE(S) DEPICTED ARE A COMBINATION OF THE ORIGINAL FIELD LOG(S), AND AN OFFICE EXAMINATION OF THE FIELD LOG(S), SOIL SAMPLE(S) AND/OR ROCK CORE(S).
2. THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES OR RELATIVE DENSITIES. THE TRANSITION MAY BE GRADUAL.
3. WHERE CASING IS INDICATED, THE NEED WAS PREDICATED BY THE POSITION OF THE GROUNDWATER TABLE OR BY CAVING GROUND CONDITIONS. THE CASING WAS INSTALLED TO PROVIDE TEMPORARY SOIL SUPPORT AND/OR PROVIDE FOR DRILL FLUID CIRCULATION.
4. FIELD MOISTURE DESCRIPTIONS (DRY, MOIST, AND WET) ARE BASED ON THE FOLLOWING FIELD OBSERVATIONS:
   - A. DRY-A SOIL WITH NO VISIBLE MOISTURE, FEELS DRY WHEN HELD IN THE HAND. WILL NOT FORM A CAST.
   - B. MOIST-A SOIL WITH VISIBLE MOISTURE, FEELS MOIST IN THE HAND, WILL FORM A CAST.
   - C. WET-A SOIL WITH VISIBLE WATER, WETS THE HAND WHEN HELD, HAS FREE WATER WHEN SHAKEN.

   A COMBINATION OF THESE TERMS MAY BE USED TO DESCRIBE THE SOIL MOISTURE CONDITION.

STATE OF ALASKA 49TH
Keith J. Korri
CE 526
REGISTERED PROFESSIONAL ENGINEER

SOIL GRAIN SIZE DEFINITIONS

BOULDER	>12" DIAMETER
COBBLE	3"-12" DIAMETER
BROKEN ROCK (ANGULAR)	>3" DIAMETER
GRAVEL (ROUNDED); STONE (ANGULAR)	#10 SIEVE-3" DIA.
SAND	#200 SIEVE-#10
SILT/CLAY	<#200 SIEVE

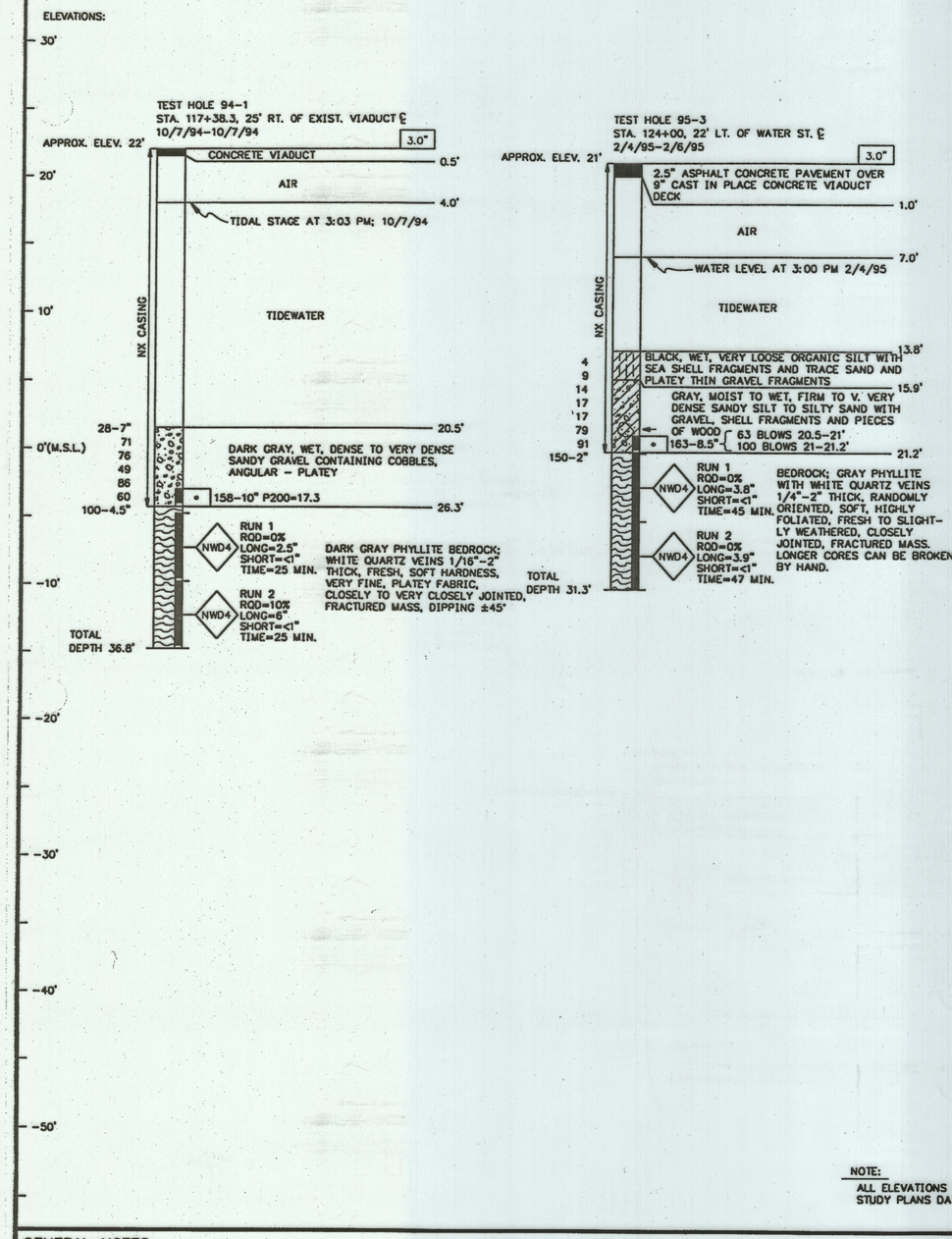
NOTE: SOIL CLASSIFICATIONS ARE VISUAL ONLY UNLESS AASHTO SOIL CLASS IS SHOWN ON THE LOG.

State of Alaska
DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES
Juneau, Alaska

Date: _____ Bridge No: _____

Approved: _____ Dwing. No: _____

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0902(17)	1995	7	8



NOTE:
ALL ELEVATIONS ARE FROM PRELIMINARY DESIGN STUDY PLANS DATED MAY 06, 1994.

T.H. 95-5 NOTES:

1. TEST HOLE 95-5 WAS DRILLED FROM A BARGE.
2. 27.8' WATER AT 12:35 PM, 2/16/95.
3. HIGH TIDE ON 2/16/95 WAS ELEVATION 16.8'.
4. 35' OF NX CASING SANK UNDER ITS OWN WEIGHT TO 3.8' BELOW MUDLINE. IT WAS NECESSARY TO HOLD IT BACK OR IT WOULD HAVE SUNK DEEPER.
5. ADDED APPROX. 200 LBS. AND THE CASING SANK TO 5.5' BELOW MUDLINE.
6. 2.5" VANE SHEAR AT 4.5' BELOW MUDLINE:
   150 IN LB = INITIAL SHEAR
   90 IN LB = REMOULDED
   75 IN LB = TARE ON ROD (NO VANE)
7. VANE SHEAR STA. 126+10, 85' RT. OF EXISTING VIADUCT ℄. 22" BELOW MUDLINE:
   135 IN LB = INITIAL SHEAR
   75 IN LB = REMOULDED 2.5" VANE

BASIC MATERIALS SYMBOLS

Organic, Silt, Cobbles/Boulders, Clay, Gravel, Bedrock, Sand

NOTE: SIGNIFICANT SOIL MIXTURES ARE SHOWN BY COMBINING SOIL SYMBOLS.

TYPICAL TEST HOLE SYMBOLS

Plan View: Location of any hole

Section View: Rotary, Auger, Diamond Core, Penetrometer

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

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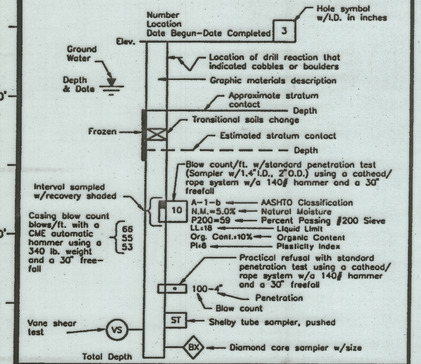
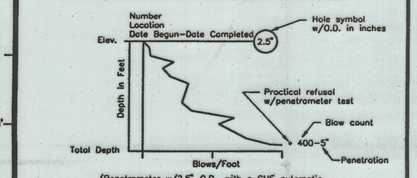
51-70	Very Dense	31-60	Hard
71+	V. Very Dense	61+	Very Hard

TYPICAL TEST HOLE LOG



TYPICAL PENETROMETER TEST LOG



(Penetrometer w/2.5" O.D., with a CME automatic hammer using a 340 lb. weight and a 30" freefall)

TEST HOLE LOGS
KETCHIKAN
NORTH TONGASS AVE.
CAPACITY IMPROVEMENT-VIADUCT

GENERAL NOTES:

1. THE TEST HOLE(S) DEPICTED ARE A COMBINATION OF THE ORIGINAL FIELD LOG(S), AND AN OFFICE EXAMINATION OF THE FIELD LOG(S), SOIL SAMPLE(S) AND/OR ROCK CORE(S).
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   B. MOIST-A SOIL WITH VISIBLE MOISTURE, FEELS MOIST IN THE HAND, WILL FORM A CAST.
   C. WET-A SOIL WITH VISIBLE WATER, WETS THE HAND WHEN HELD, HAS FREE WATER WHEN SHAKEN.

   A COMBINATION OF THESE TERMS MAY BE USED TO DESCRIBE THE SOIL MOISTURE CONDITION.

STATE OF ALASKA * 49TH * REGISTERED PROFESSIONAL ENGINEER
Keith J. Korri
CE 5126

SOIL GRAIN SIZE DEFINITIONS

BOULDER	>12" DIAMETER
COBBLE	3"-12" DIAMETER
BROKEN ROCK (ANGULAR)	>3" DIAMETER
GRAVEL (ROUNDED); STONE (ANGULAR)	#10 SIEVE-3" DIA.
SAND	#200 SIEVE-#10
SILT/CLAY	<#200 SIEVE

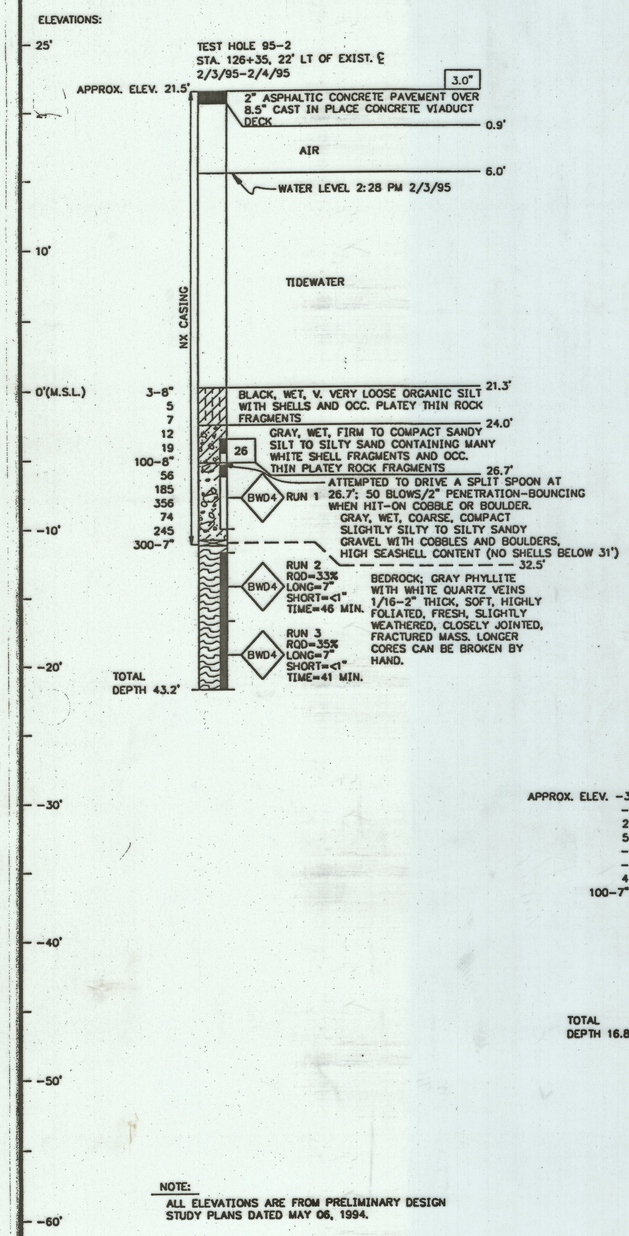
NOTE: SOIL CLASSIFICATIONS ARE VISUAL ONLY UNLESS AASHTO SOIL CLASS IS SHOWN ON THE LOG.

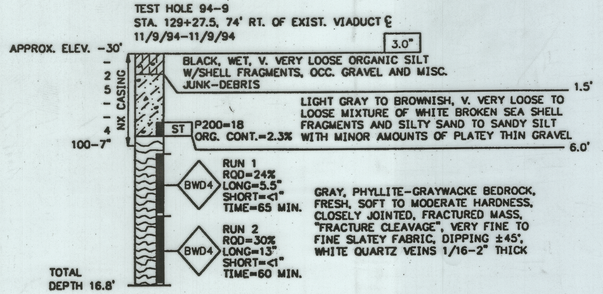
State of Alaska
DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES
Juneau, Alaska

Date: _____ Bridge No: _____

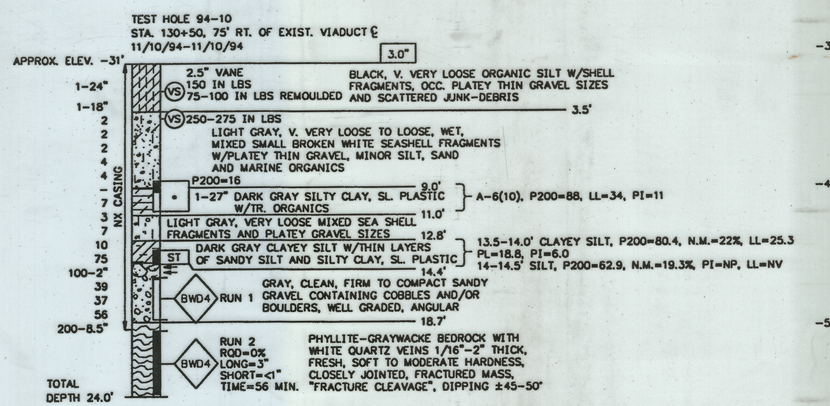
Approved: _____ Dwing. No: _____

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	NH-0902(17)	1995	8	8



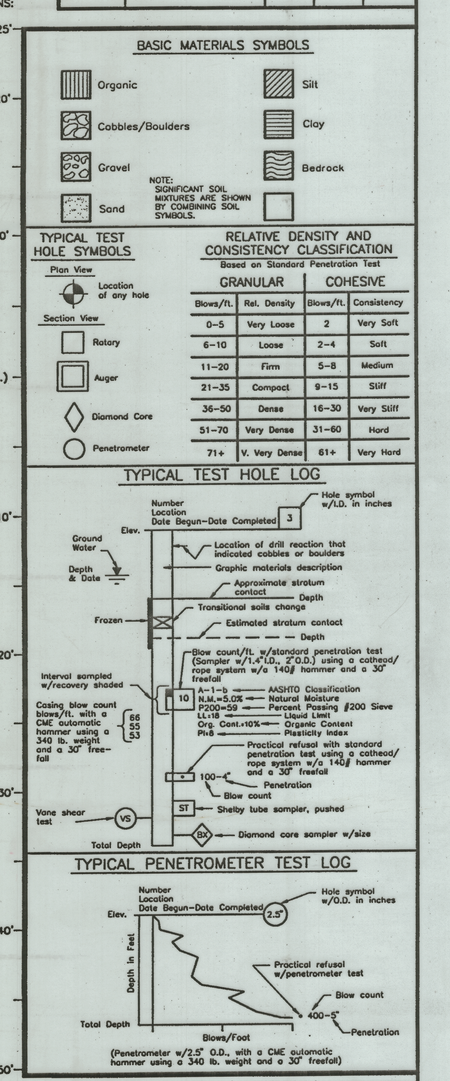


T.H. 94-9 NOTE:
40'10" OF TIDEWATER AT THIS LOCATION WHEN TEST HOLE DRILLING BEGAN AT 8:25 AM, 11/9/94.



T.H. 94-10 NOTE:
48' OF TIDEWATER AT THIS TEST HOLE LOCATION AT 7:45 AM; 11/10/94.

NOTE:
ALL ELEVATIONS ARE FROM PRELIMINARY DESIGN STUDY PLANS DATED MAY 06, 1994.



TEST HOLE LOGS
KETCHIKAN
NORTH TONGASS AVE.
CAPACITY IMPROVEMENT-VIADUCT

GENERAL NOTES:

1. TEST HOLE(S) DEPICTED ARE A COMBINATION OF THE ORIGINAL FIELD (S), AND AN OFFICE EXAMINATION OF THE FIELD LOG(S), SOIL SAMPLE(S) /OR ROCK CORE(S).
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STATE OF ALASKA
49TH
Keith J. Korri
CE 5126
REGISTERED PROFESSIONAL ENGINEER

SOIL GRAIN SIZE DEFINITIONS

BOULDER	>12" DIAMETER
COBBLE	3"-12" DIAMETER
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GRAVEL (ROUNDED); STONE (ANGULAR)	#10 SIEVE-3" DIA.
SAND	#200 SIEVE-#10
SILT/CLAY	<#200 SIEVE

NOTE: SOIL CLASSIFICATIONS ARE VISUAL ONLY UNLESS AASHTO SOIL CLASS IS SHOWN ON THE LOG.

State of Alaska
DEPARTMENT of TRANSPORTATION and PUBLIC FACILITIES
Juneau, Alaska

Date: _____ Bridge No: _____

Approved: _____ Dwing. No: _____