LEGEND

SS Drive Rod in case Control Point
Federal Primary Monument

♥ Control Point₱ Bench Mark

563 Monument Number Section Line

_____ Township Line

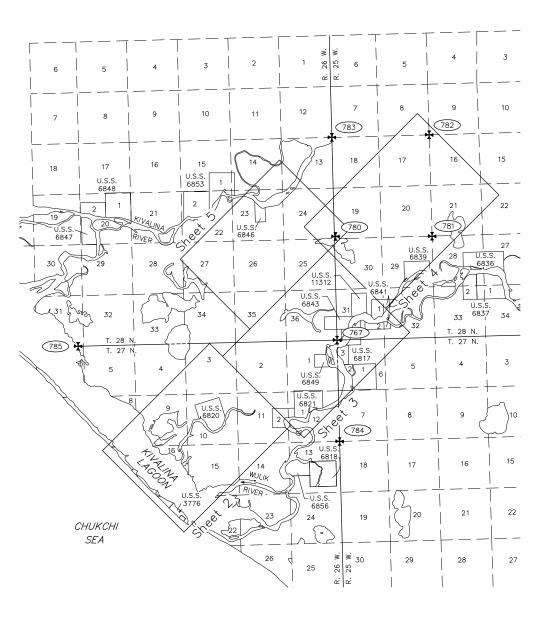
T27,28N R25,26W
K.R. M.

Magnetic Declination 11*9'E
NOAA Geophysical Data Cente
Sept. 2016

HORIZONTAL AND VERTICAL CONTROL							
NAD83(2011) GEODETIC COORDINATES			LOCAL GROUND COORDINATES		ELL. HT. ORTHO HT.		DESCRIPTION
POINT	LATITUDE	LONGITUDE	NORTHING	EASTING	FT.	FT.	DESCRIPTION
767	67°46'30.13267"N	164°24'56.08576"W	5037977.368	1859882.102	20.46	20.50	Fd IP/BC[BLM]: T28N R26W R25W S36 S31 S1 S6 T27N 1976
780	67°48'16.31407"N	164°24'52.99442"W	5048769.685	1859724.586	72.45	72.52	Fd IP/BC[BLM]: WC T28N R26W R25W S24 S19 S25 S30 2008
781	67°48'14.04072"N	164°20'31.34565"W	5048802.206	1869783.868	59.62	59.60	Fd Copper Coated Steel Post[BLM]: S20 S21 S28 S29 T28N R25W
782	67°49'57.91644"N	164°20'32.02496"W	5059356.256	1869474.903	366.27	366.27	Fd IP/BC[BLM]: \$8 \$9 \$16 \$17 T28N R25W
783	67°49'57.93456"N	164°24'56.08149"W	5059092.510	1859341.492	31.25	31.34	Fd SS POST BC[BLM]: S7 S12 S13 S18 T28N R26W R25W 2008
784	67°44'46.22779"N	164°24'56.09895"W	5027419.440	1860151.905	14.68	14.67	Fd SS POST BC[BLM]: S7 S12 S13 S18 T27N R26W R25W 2008 1976
785	67°46'30.16333"N	164°36'36.92804"W	5037332.521	1832919.044	4.94	5.21	Set Rbr/AC[LS5480]: MC 31 T28N S6 T27N R26W 2016

Position, Heights and Elevations derived using Static GPS methods.

Refer to sheets 6 and 7 for more detailed monument descriptions

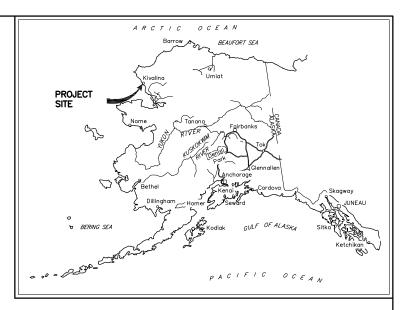


SURVEYOR'S CERTIFICATE

I hereby certify that I am properly Registered and Licensed to practice Land Surveying in the State of Alaska, and that this drawing represents a survey made by me or under my direct supervision, and that the monuments shown hereon actually exist as described, and that all dimensions and other details are correct to the extent shown hereon.

Date

William W. McClintock, LS-5480



HORIZONTAL CONTROL STATEMENT

Basis of Coordinates:

This project uses a new coordinate system developed for the Kivalina Evacuation Road Project. Specifically, it is a modified NAD83(1992) Alaska State Plane Zone 7 coordinate system, U.S. Survey Feet, scaled to ground. It is scaled at point 564 (SACS KVL C), N5,020,923.786, E1,842,249.468 using the combined scale factor of 1.000049160456. Note that this project is not scaled at N0, E0.

The Basis of Bearing is grid.

Transformation Parameters:

To convert local ground coordinates to NAD83 Alaska State Plane Zone 7, scale the local coordinates at point 564 using 0.999950842. No rotation, no translation.

To convert NAD83 Alaska State Plane Zone 7 coordinates to ground, local, scale the SPC coordinates at point 564 using 1.000049160456. No rotation, no translation.

VERTICAL CONTROL STATEMENT

Elevations are NAVD88 orthometric heights expressed in US Survey Feet. The Basis of Elevations is point 564, SACS KVL C, having a value of 16.11 Feet. The NAVD 88 orthometric height for this point is taken from the National Geodetic Survey Datasheet.

The NAVD 88 orthometric height for all other listed points was determined by static GPS observations recorded Sept. 14 through Sept. 21, 2016 using Topcon dual frequency GPS receivers and geoid model (Geoid-2012A).

NOTES:

- 1. The information shown hereon is based on a field survey performed by McClintock Land Associates, Inc. from Sept. 14 through Sept. 21, 2016. Background information depicted is shown for orientation only and should not be used for any other purpose.
- 2. The purpose of this survey was to provide new survey control and tie existing monuments that will determine future project limits and rectangular PLSS monuments of significance.
- 3. Primary horizontal control was established using Static GPS techniques with Topcon dual frequency receivers. Vectors were adjusted by a simultaneous least squares adjustment using Magnet Office v 8.2.3. All recovered monuments were located using Static GPS techniques for positioning. This survey meets or exceeds 1:10,000 closure.
- 4. Roads and property lines are shown for background and orientation only. A true boundary survey was not a part of this survey and no determination has been made to ensure the boundaries are depicted in the proper location. PLSS monuments shown are in their true location related to the project coordinate system. There was no attempt to rectify the background information such that monuments appear to fall in the proper relationship to section and subdivision of section lines.
- 5. All dimensions and coordinates shown are in U.S. Survey Feet unless otherwise noted.
- 6. Micheal P. Frame, PLS (LS6093), was the field surveyor for this project.

Kotzebue Recording District This survey does not constitute a subdivision as defined by AS 40.15.900



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES Survey Control Diagram Record Of Survey

AKSAS Project No. 0002384/NFHWY00162
The Kivalina Evacuation and
School Site Access Road

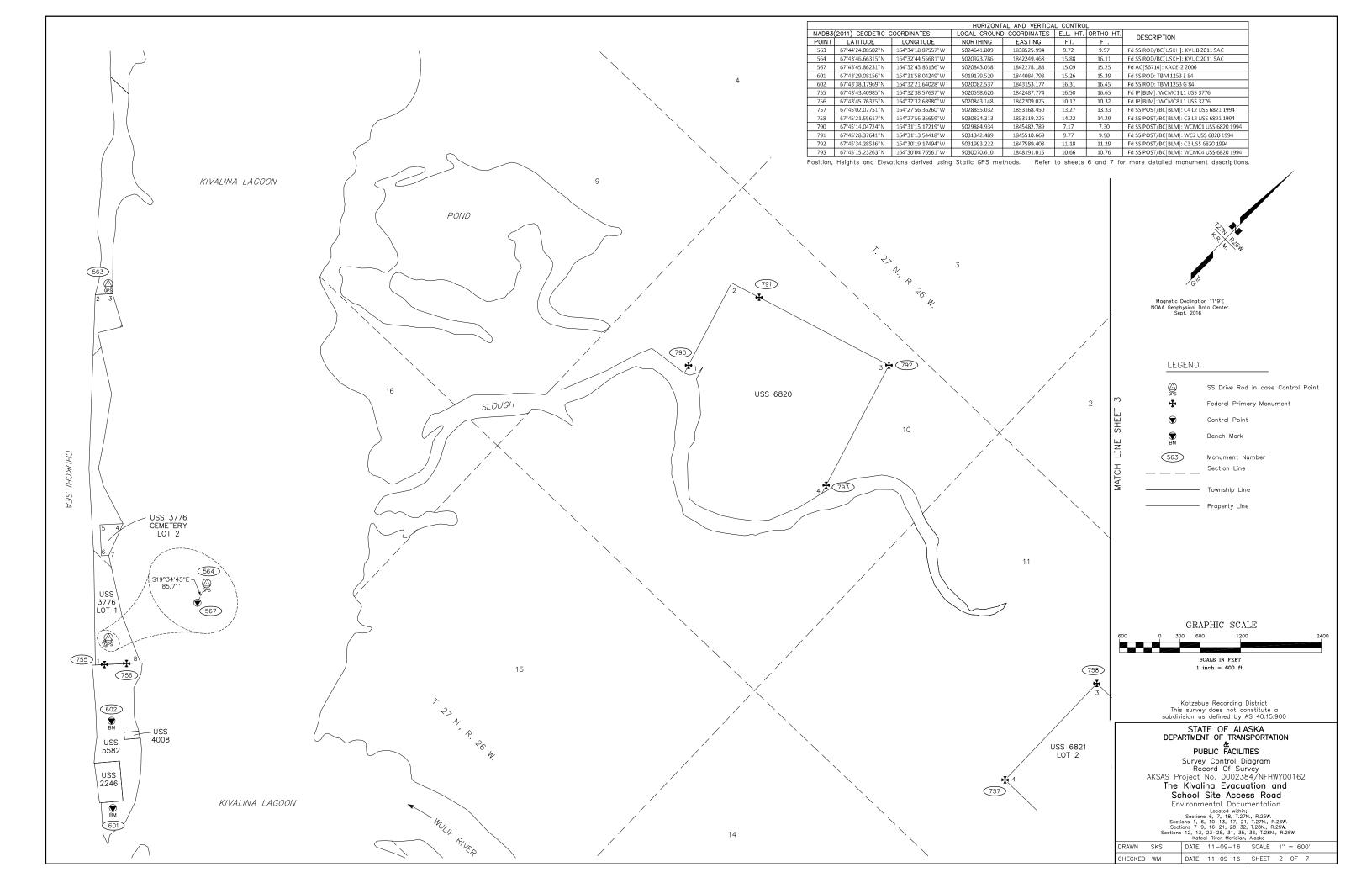
School Site Access Road
Environmental Documentation

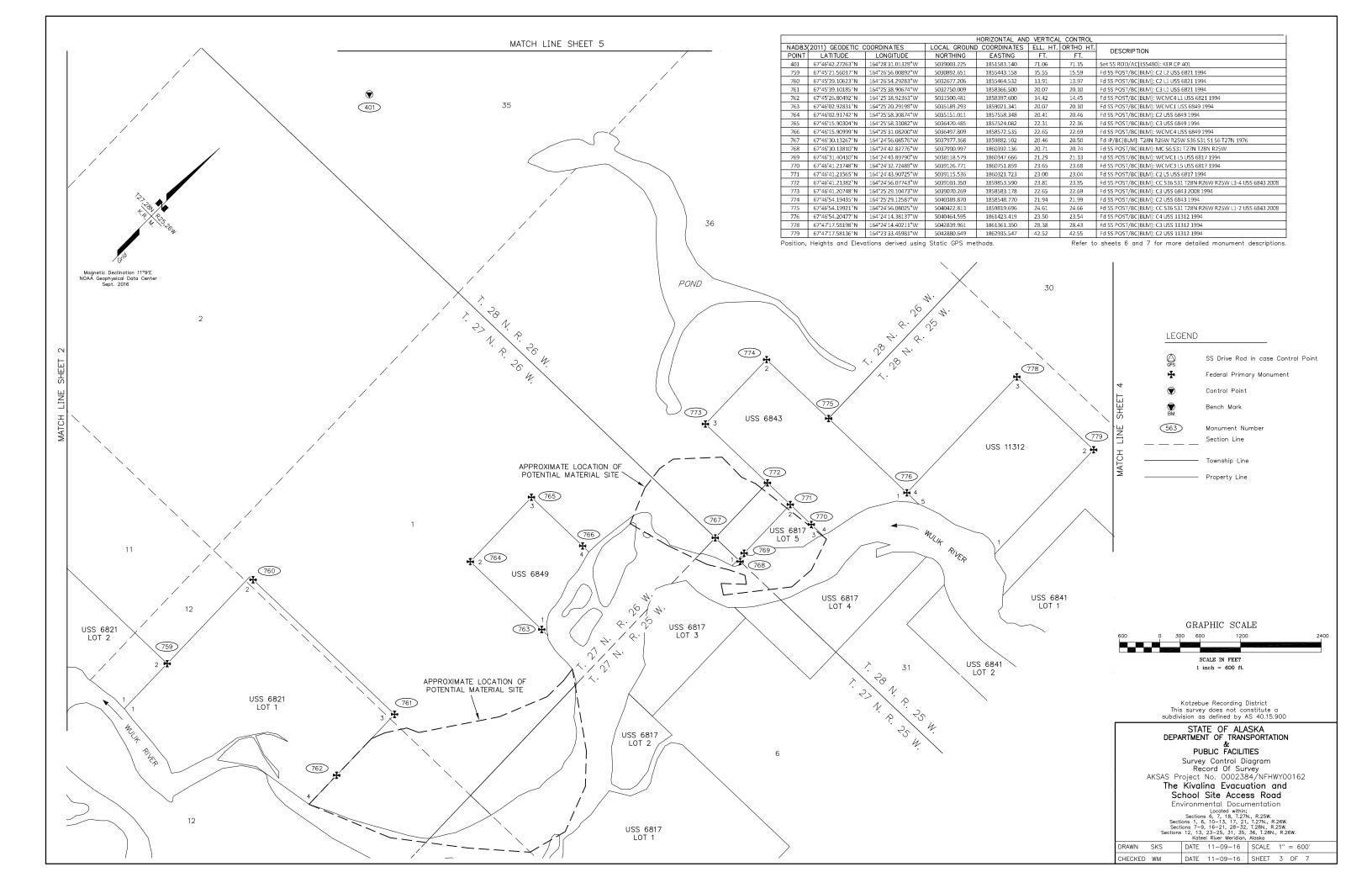
Located within;
Sections 6, 7, 18, T.27N., R.25W.
Sections 1, 6, 10–13, 17, 21, T.27N., R.26W.
Sections 7–9, 16–21, 28–32, T.28N., R.25W.
Sections 12, 13, 23–25, 31, 35, 36, T.28N., R.26W.
Kateel River Meridian, Alaska

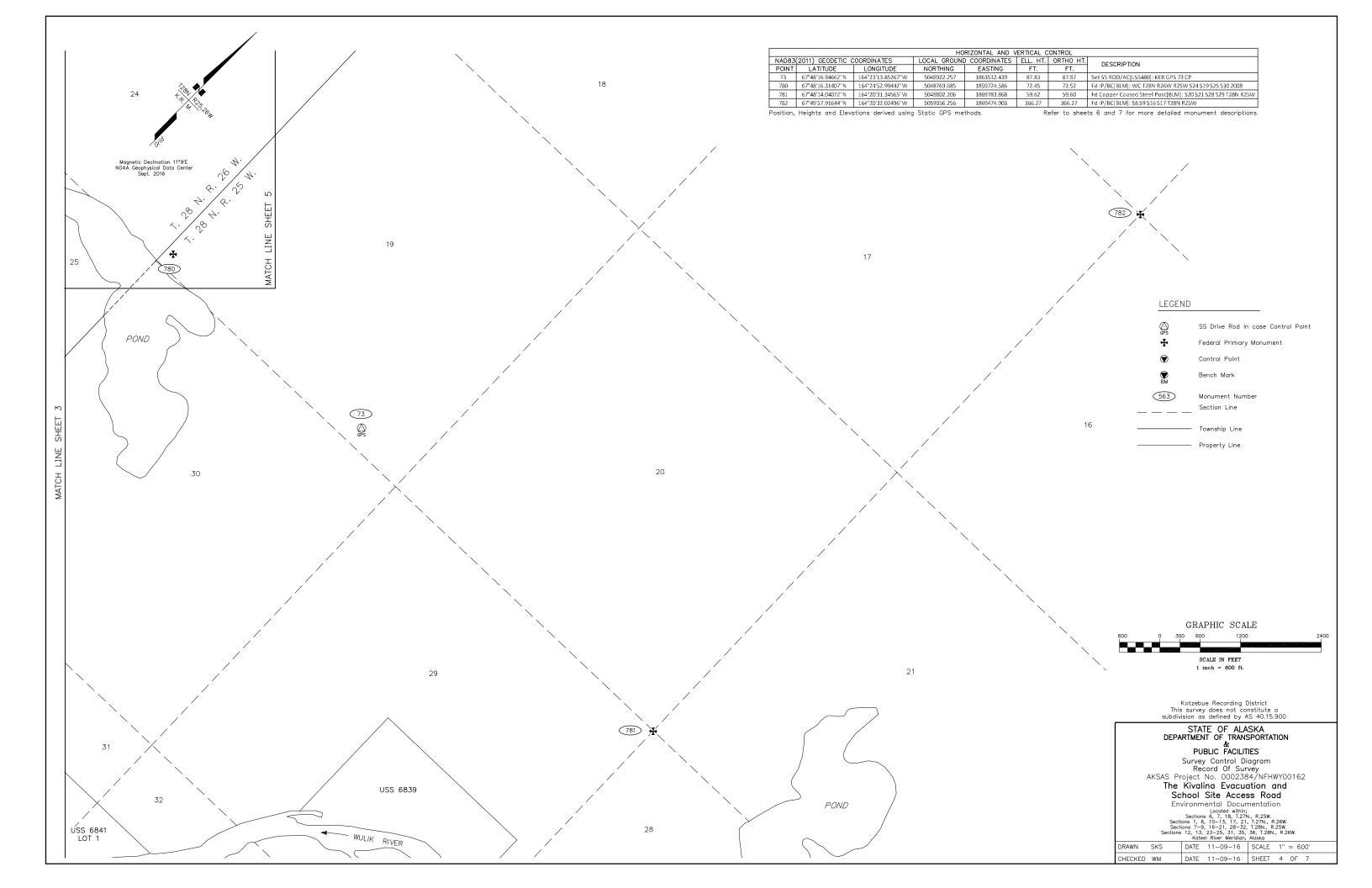
 DRAWN
 SKS
 DATE
 11-09-16
 SCALE
 1" = 5000'

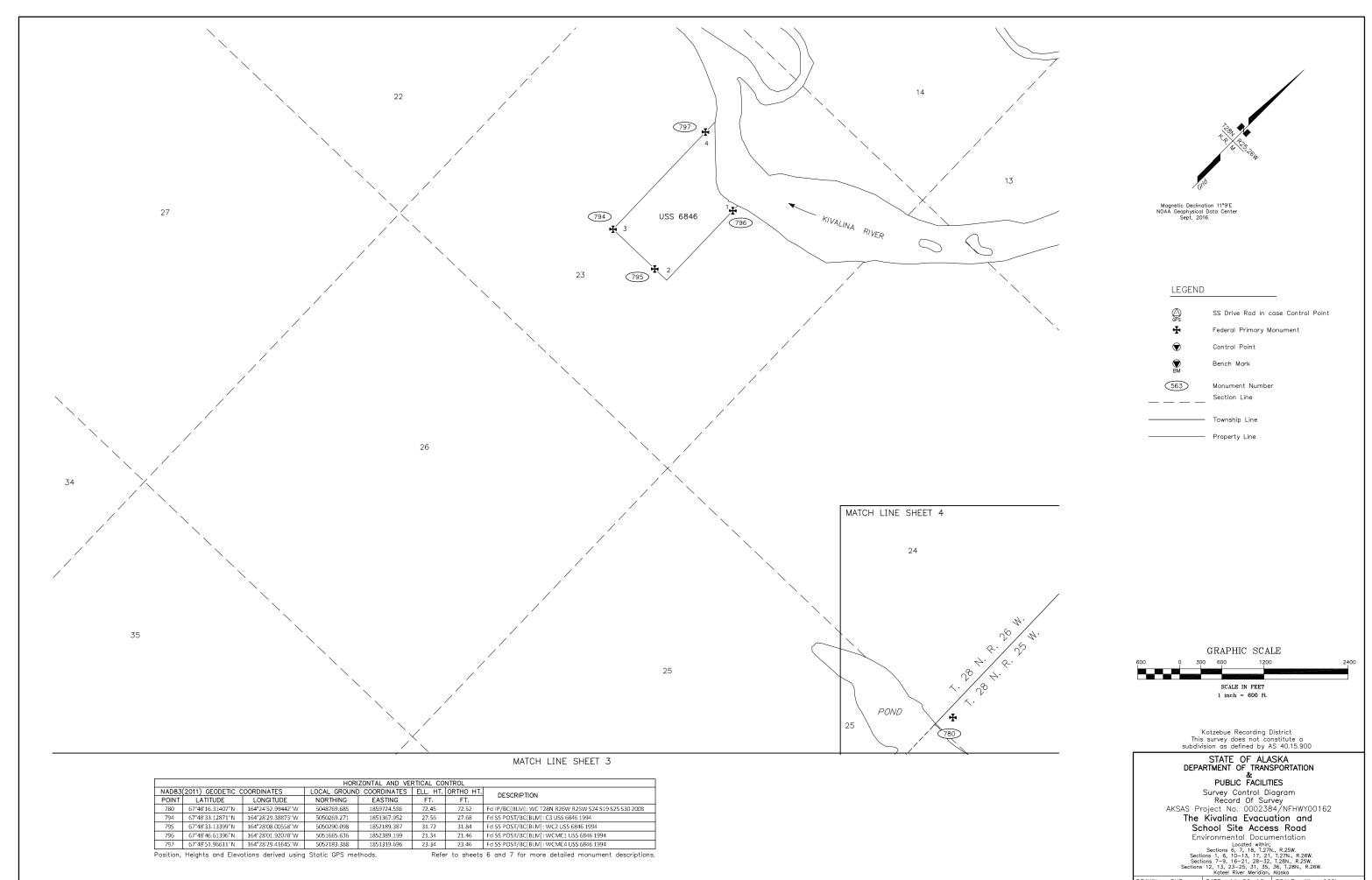
 CHECKED
 WM
 DATE
 11-09-16
 SHEET
 1
 OF
 7











DRAWN SKS DATE 11-09-16 SCALE 1" = 600' DATE 11-09-16 SHEET 5 OF 7 HECKED WM



DRAWN SKS

HECKED WM

DATE 11-09-16 SCALE N/A

DATE 11-09-16 SHEET 6 OF 7



Found 5/8 in. copper coated steel rod, no cap, 24 in. above ground. Poor condition.



Found 3 1/4 in. brass cap on 2 1/2 in. iron pipe, 8 in. above a rock mound, 2.5 ft. diam. Excellent



Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 2 in. above ground. Excellent condition.

783

792

796



Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 2 in. above ground. Excellent condition.



Found 3 1/4 in. brass cap on 5/8 in. copper coated steel rod, 36 in. above ground, bent. Average condition.

Replaced with 2 1/2 in. alum cap on 2 in. aluminum post, marked as shown, projecting 1 in. above ground. Buried original cap alongside.

Set reference monuments as shown below:



790

Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 8 in. above ground. Firmed and plumbed. Good condition.



791 Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 6 in. above ground. Good condition.



Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 3 in. above ground. Good condition.



Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 12 in. above ground, leaning. Firmed, plumbed and drove to 3 in. below ground. Good condition.



Bears N 88°43'11" E 50.00 Ft.

785

Bears N 88°43'11" E 100.00 Ft.



794

Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 5 in. above ground. Excellent condition.



795

Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 5 in. above ground. Good condition.



Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 8 in. above ground, bent. Good condition.



797

793

Found 3 1/4 in. brass cap on 2 1/2 in. stainless steel post, 4 in. above ground. Good condition.

Kotzebue Recording District This survey does not constitute a subdivision as defined by AS 40.15.900

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION

& PUBLIC FACILITIES

Survey Control Diagram Record Of Survey
AKSAS Project No. 0002384/NFHWY00162 The Kivalina Evacuation and

School Site Access Road

Environmental Documentation
Located within;
Sections 6, 7, 18, T.27N, R.25W.
Sections 1, 6, 10–13, 17, 21, T.27N, R.26W.
Sections 7–9, 16–21, 28–32, T.28N, R.26W.
Sections 1, 3, 23–25, 31, 35, 36, T.28N, R.26W.
Kateel River Meridian, Alaska

DRAWN SKS DATE 11-09-16 SCALE N/A DATE 11-09-16 SHEET 7 OF 7 HECKED WM