NOTES:

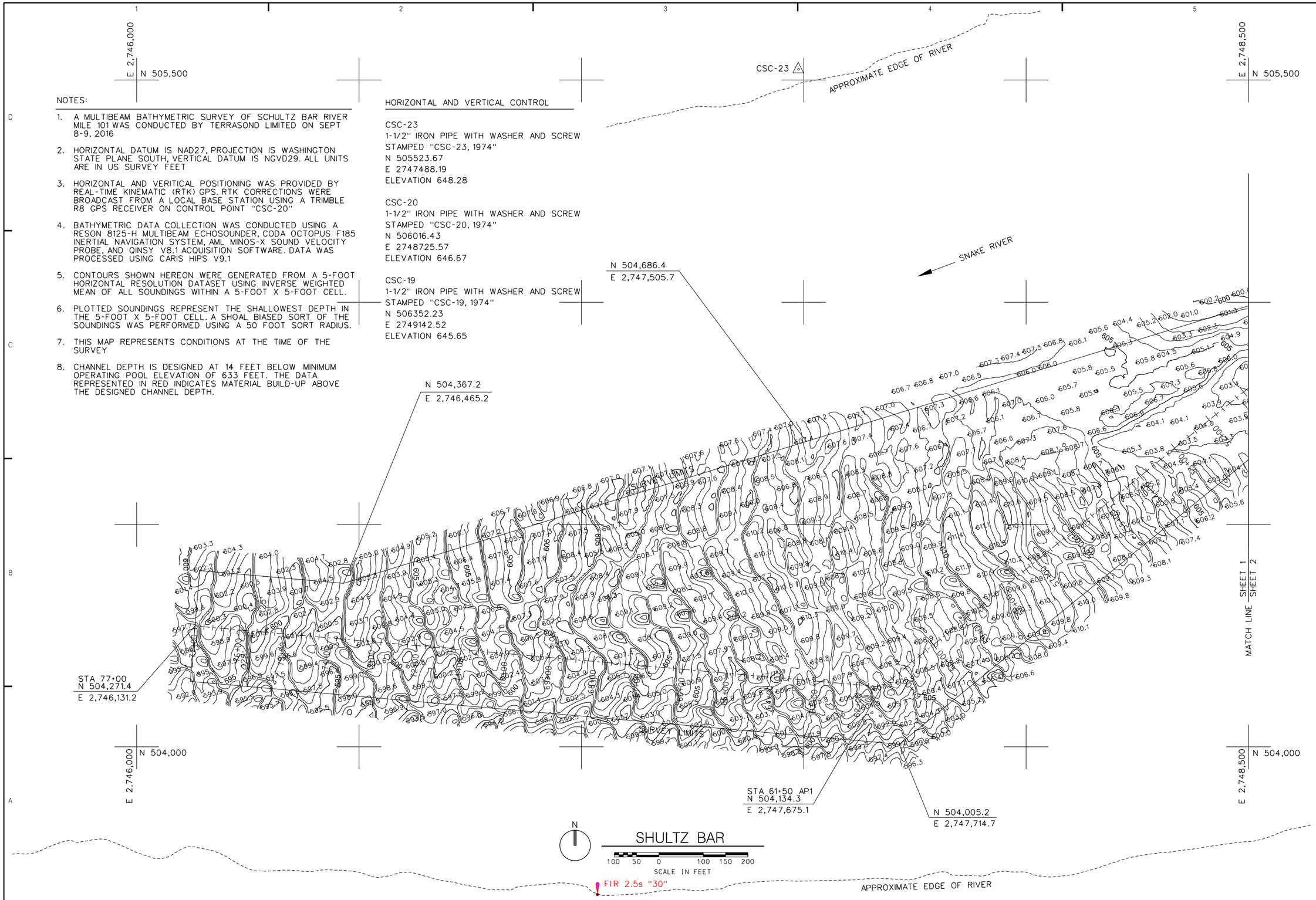
1. A MULTIBEAM BATHYMETRIC SURVEY OF SCHULTZ BAR RIVER MILE 101 WAS CONDUCTED BY TERRASOND LIMITED ON SEPT 8-9, 2016
2. HORIZONTAL DATUM IS NAD27, PROJECTION IS WASHINGTON STATE PLANE SOUTH, VERTICAL DATUM IS NGVD29. ALL UNITS ARE IN US SURVEY FEET
3. HORIZONTAL AND VERITICAL POSITIONING WAS PROVIDED BY REAL-TIME KINEMATIC (RTK) GPS. RTK CORRECTIONS WERE BROADCAST FROM A LOCAL BASE STATION USING A TRIMBLE R8 GPS RECEIVER ON CONTROL POINT "CSC-20"
4. BATHYMETRIC DATA COLLECTION WAS CONDUCTED USING A RESON 8125-H MULTIBEAM ECHOSOUNDER, CODA OCTOPUS F185 INERTIAL NAVIGATION SYSTEM, AML MINOS-X SOUND VELOCITY PROBE, AND QINSY V8.1 ACQUISITION SOFTWARE. DATA WAS PROCESSED USING CARIS HIPS V9.1
5. CONTOURS SHOWN HEREON WERE GENERATED FROM A 5-FOOT HORIZONTAL RESOLUTION DATASET USING INVERSE WEIGHTED MEAN OF ALL SOUNDINGS WITHIN A 5-FOOT X 5-FOOT CELL.
6. PLOTTED SOUNDINGS REPRESENT THE SHALLOWEST DEPTH IN THE 5-FOOT X 5-FOOT CELL. A SHOAL BIASED SORT OF THE SOUNDINGS WAS PERFORMED USING A 50 FOOT SORT RADIUS.
7. THIS MAP REPRESENTS CONDITIONS AT THE TIME OF THE SURVEY
8. CHANNEL DEPTH IS DESIGNED AT 14 FEET BELOW MINIMUM OPERATING POOL ELEVATION OF 633 FEET. THE DATA REPRESENTED IN RED INDICATES MATERIAL BUILD-UP ABOVE THE DESIGNED CHANNEL DEPTH.

HORIZONTAL AND VERTICAL CONTROL

CSC-23
1-1/2" IRON PIPE WITH WASHER AND SCREW
STAMPED "CSC-23, 1974"
N 505523.67
E 2747488.19
ELEVATION 648.28

CSC-20
1-1/2" IRON PIPE WITH WASHER AND SCREW
STAMPED "CSC-20, 1974"
N 506016.43
E 2748725.57
ELEVATION 646.67

CSC-19
1-1/2" IRON PIPE WITH WASHER AND SCREW
STAMPED "CSC-19, 1974"
N 506352.23
E 2749142.52
ELEVATION 645.65



US Army Corps of Engineers
Walla Walla District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

DESIGNED BY: MEYER
DWN BY: L LINDSLAD
CHKED BY: K MILDON
SUBMITTED BY:
DATE: 21 OCTOBER 2016
TASK ORDER NO. 02
CONTRACT NO. W912EF-16-D-0004
FILE NO.:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WALLA WALLA, WASHINGTON

TERRASOND
TERRASOND LIMITED
PROFESSIONAL SURVEYORS & MARINE CONSULTANTS
815 NW 42ND STREET, SUITE 215, SEATTLE, WA 98107
WWW.TERRASOND.COM, INFO@TERRASOND.COM

LITTLE GOOSE LOCK AND DAM
SNAKE RIVER, WASHINGTON
W912EF-16-D-0004 T.O. NO. 02
SCHULTZ BAR
RIVER MILE 101
MULTIBEAM BATHYMETRIC SURVEY

Plate number:
V-001

Sheet 1 of 2

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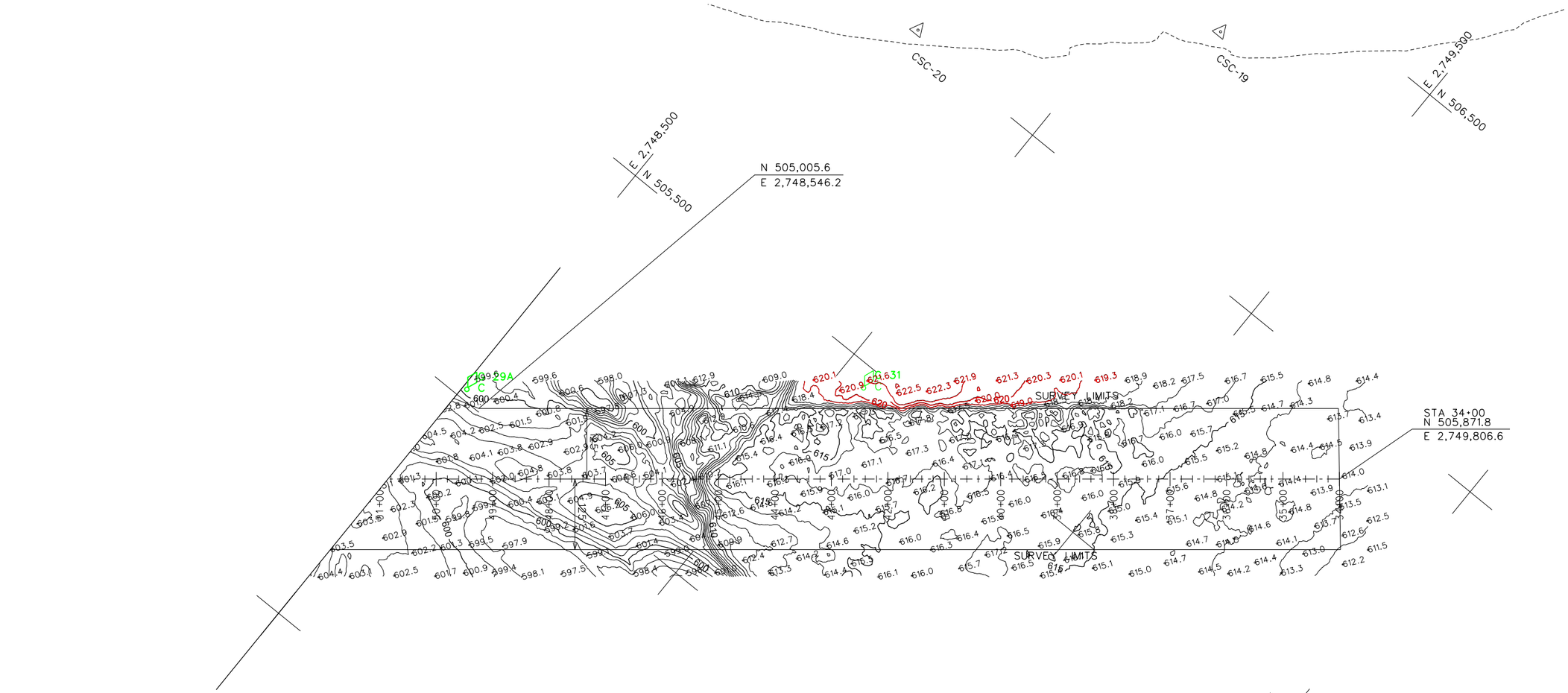
BORDER SIZE IS ANSI D

DATE AND TIME PLOTTED:11/15/2016

DESIGN FILE:L:\Z_SURVEYS\00HYDRO_CONDITION\2016 HYDRO CONTION\LGA_SCHULTZ_BAR\OPERATIONS\LGASB-V-101---.DGN



NOTES:

1. HORIZONTAL DATUM IS NAD27, PROJECTION IS WASHINGTON STATE PLANE SOUTH, VERTICAL DATUM IS NGD29. ALL UNITS ARE IN U.S. SURVEY FEET.

2. CHANNEL DEPTH IS DESIGNED AT 14 FEET BELOW MINIMUM OPERATING POOL ELEVATION OF 633 FEET. THE DATA REPRESENTED IN RED INDICATES MATERIAL BUILD-UP ABOVE THE DESIGNED CHANNEL DEPTH.

USCG IN WATER AIDS TO NAVIGATIOIN

NO.	NORTHING	EASTING	NAME	DESCRIPTION
13841	505,018	2,748,508	SCHULTZ BAR SHOAL BUOY 29A	GREEN CAN
13855	505,464	2,749,051	BUOY 31	GREEN CAN

HORIZONTAL AND VERTICAL CONTROL

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STAMPED "CSC-19, 1974"
N 506352.23
E 2749142.52
ELEVATION 645.65

N

SHULTZ BAR

100 50 0 100 150 200
SCALE IN FEET

US Army Corps of Engineers
Walla Walla District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

DATE: 21 OCTOBER 2016
TASK ORDER NO. 02
CONTRACT NO. W912EF-16-D-0004
DESIGNED BY: MEYER
DWN BY: L LINDBLAD
CHKED BY: K MILDON
SUBMITTED BY:
FILE NO.:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WALLA WALLA, WASHINGTON

TERRASOND
PORTLAND • ANCHORAGE • HONOLULU
811 SW 6TH AVENUE, SUITE 211, PORTLAND, OR 97205
WWW.TERRASOND.COM

LITTLE GOOSE LOCK AND DAM
SNAKE RIVER, WASHINGTON
W912EF-16-D-0004 T.O. NO. 02
SCHULTZ BAR
RIVER MILE 101
MULTIBEAM BATHYMETRIC SURVEY

Plate number:
V-002

Sheet 2 of 2

L:\Z_SURVEYS\00HYDRO_CONDITION\2016 HYDRO CONDITION\LGA_SCHULTZ_BAR\OPERATIONS\LGASB-V-102---.DGN

BORDER SIZE IS ANSI D

DATE AND TIME PLOTTED:11/21/2016

DESIGN FILE:L:\Z_SURVEYS\00HYDRO_CONDITION\2016 HYDRO CONDITION\LGA_SCHULTZ_BAR\OPERATIONS\LGASB-V-102---.DGN