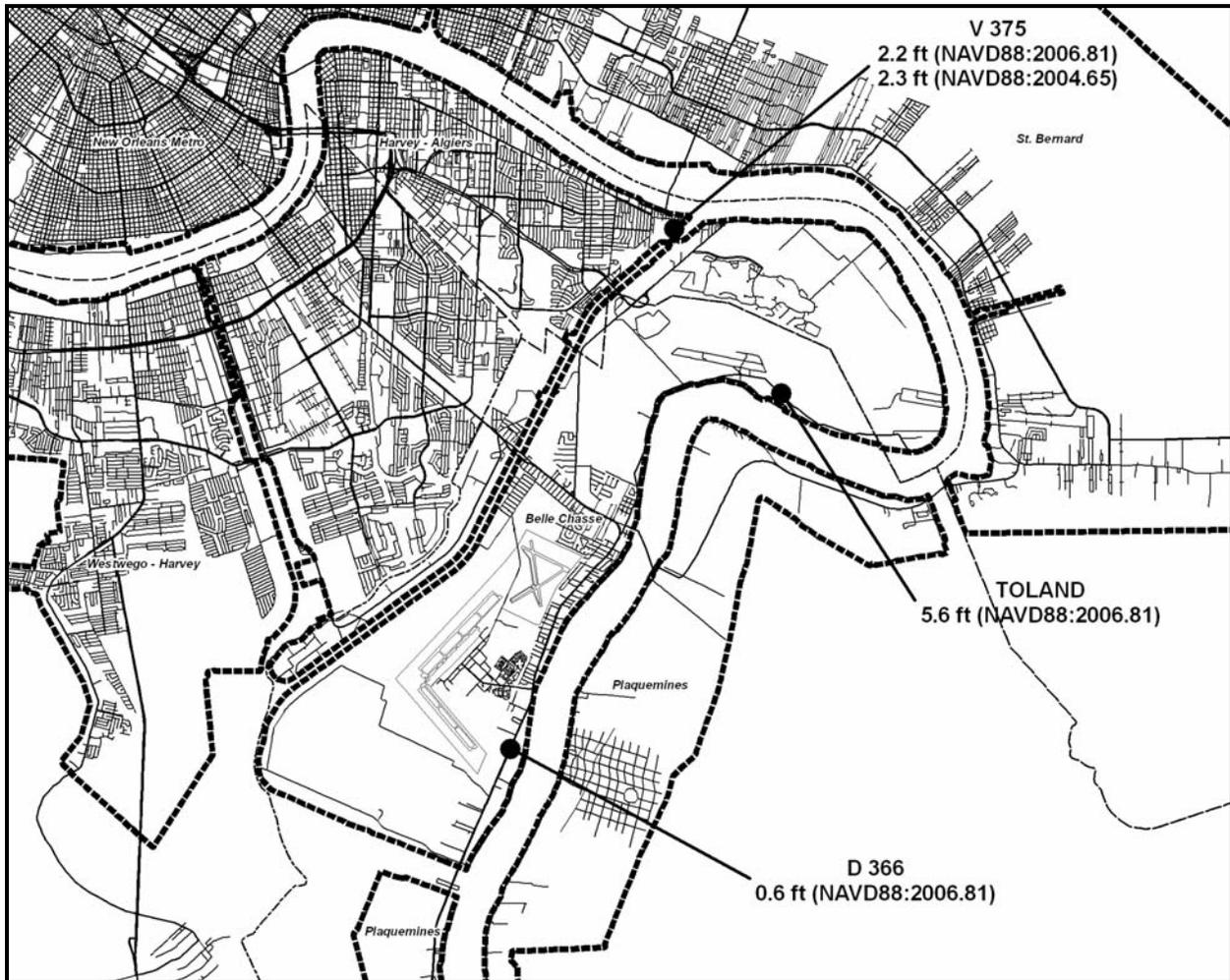


Belle Chasse Polder Vertical Datum Report



Original Date: 1 April 2010
Expiration Date: 31 December 2010

USACE, New Orleans District
CEMVN-ED-SS

Purpose:

This Polder Vertical Datum Report contains detailed information about three National Spatial Reference System (NSRS) "Permanent Bench Marks" established by the National Geodetic Survey (NGS). For USACE-MVN projects that lie within the extent of the subject polder, these "Permanent Bench Marks" are approved for use by USACE-MVN-ED as "Vertical Project Control" for all designs, plans and specifications. This report also contains information (when available) on tide gauges within or near the Polder and their associated geodetic/tidal datum relationships.

Expiration Date:

Due to regional subsidence and global sea-level rise, the published elevations of the referenced benchmarks and the published tidal datum values at the referenced gauges (as well as the geodetic/tidal datum relationships computed there from) are time-dependant and subject to change. Therefore, the information contained in this report shall be updated on a regular basis (every year) and/or as new information becomes available.

Section 1: Belle Chasse, Polder Bench Marks

The three National Spatial Reference System (NSRS) Permanent Bench Marks established by the National Geodetic Survey (NGS) and designated for use in this Polder are as follows:

DESIGNATION: V 375
PID: AT0760

STATE/COUNTY: LA/ORLEANS
USGS QUAD: CHALMETTE (1994)
LAT/LON: N 29°55'01.55072" W 089°58'18.04269" NAD83(2007)
NORTH/EAST: N 517,907.03' E 3,712,188.62' SPC LA S (US feet)
ELEVATION: 2.2 feet NAVD88(2006.81)
ELEVATION: 2.3 feet NAVD88(2004.65)
MARKER: FLANGE-ENCASED ROD
STAMPING: V 375 1985

DESCRIPTION: THE STATION IS LOCATED IN NEW ORLEANS, ON WEST BANK, 4.5 MILES NORTH OF BELLE CHASSE FERRY, 5.5 MILES SOUTHEAST OF GREATER NEW ORLEANS BRIDGE, OVER MISSISSIPPI RIVER, 0.5 MILES SOUTH OF CHALMETTE FERRY. OWNERSHIP- CORPS OF ENGINEERS. TO REACH THE STATION FROM THE INTERSECTION OF GENERAL DE GAULLE AVENUE AND SULLEN ROAD, NEAR THE BRIDGE OVER INTERCOASTAL WATERWAY, GO NORTH ON SULLEN ROAD TO PATTERSON DRIVE (LEVEE ROAD), TURN RIGHT ON PATTERSON DRIVE AND PROCEED EAST ON PATTERSON FOR 0.9 MILES TO BLYTHE ROAD, TURN RIGHT ON BLYTHE AND GO TO GATE ENTRANCE TO LOCKS, PASSING THROUGH GATE AND MARK ON LEFT NEAR GATE. THE STATION IS 22.6 FEET EAST OF CENTERLINE OF ENTRANCE ROAD TO LOCKS, 18.3 FEET SOUTHEAST OF THE EAST GATE POST FOR GATE, 107 FEET SOUTH OF A LIGHT POLE, 10 FEET SOUTH OF A WITNESS SIGN. STATION IS A STAINLESS ROD DRIVEN 25.6 METERS AND STAMPED V 375. RECOVERED IN GOOD CONDITION. RAISED LOGO CAP AND PUT CONCRETE AROUND IT BECAUSE ROD WAS 2 INCHES (5 CM) ABOVE CAP.

DESIGNATION: D 366
PID: AU2140

STATE/COUNTY: LA/PLAQUEMINES
USGS QUAD: BERTRANDVILLE (1992)
LAT/LON: N 29°48'37.96758" W 090°00'41.51178" NAD83(2007)
NORTH/EAST: N 479,014.03' E 3,700,011.35' SPC LA S (US feet)
ELEVATION: 0.6 feet NAVD88(2006.81)
ELEVATION: 0.64 feet (per Job# 07-159C) NAVD88(2004.65)
MARKER: FLANGE-ENCASED ROD
STAMPING: D 366 1984

DESCRIPTION: 5.4 KM (3.35 MI) SW FROM BELLE CHASSE. 5.4 KM (3.35 MI) SOUTHWEST ALONG STATE ROUTE 23 FROM THE POST OFFICE IN BELLE CHASSE TO THE MAIN ENTRANCE TO THE CHEVRON CHEMICAL COMPANY AND THE MARK ON THE LEFT, 19.26 METERS (63.2 FT) EAST-SOUTHEAST OF THE CENTERLINE OF ROUTE 23 NORTHBOUND, 14.3 METERS (46.9 FT) NORTH-NORTHEAST OF THE CENTER OF THE MAIN ENTRANCE TO THE CHEMICAL COMPANY, 1.49 METERS (4.9 FT) EAST-SOUTHEAST OF THE SOUTHEAST RAIL OF THE MAIN TRACKS, 0.73 METERS (2.4 FT) SOUTH-SOUTHWEST OF THE NORTHWEST CORNER OF THE LOG FLOWER BED AROUND THE CHEVRON SIGN AND 0.46 METERS (1.5 FT) WEST-NORTHWEST OF THE WEST-NORTHWEST EDGE OF THE FLOWER BED. THE MARK IS ABOVE LEVEL WITH ROUTE 23.

DESIGNATION: TOLAND

PID: AB3308

STATE/COUNTY: LA/PLAQUEMINES

USGS QUAD: CHALMETTE (1994)

LAT/LON: N 29°52'58.54449" W 089°56'48.48964" NAD83(2007)

NORTH/EAST: N 505,576.88' E 3,720,218.94' SPC LA S (US feet)

ELEVATION: 5.6 feet NAVD88(2006.81)

MARKER: FLANGE-ENCASED ROD

STAMPING: TOLAND 1994

DESCRIPTION: THE STATION IS LOCATED ABOUT 16.1 KM (10.00 MI) EAST-SOUTHEAST OF DOWNTOWN NEW ORLEANS AND 8.0 KM (4.95 MI) NORTH OF BELLE CHASSE AT THE UNITED STATES COAST GUARD COMMUNICATION STATION, NEW ORLEANS. OWNERSHIP--U. S. COAST GUARD, FOR ENTRANCE INTO THE STATION CONTACT CWO GEORGE SANDERS, USGS SUPPORT CENTER, NEW ORLEANS, 4640 URQUHART STREET, NEW ORLEANS, LOUISIANA 70117, PHONE 504-942-3056.\$TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 406 AND 407 ON THE SOUTH SIDE OF THE INTERCOSTAL WATERWAY, GO WEST FOR 0.8 KM (0.50 MI) ON HIGHWAY 406 TO THE JUNCTION WITH F. EDWARD HEBERT BLVD, TURN LEFT AND GO SOUTHEAST FOR 2.3 KM (1.40 MI) ON F. EDWARD HEBERT BLVD TO THE MISSISSIPPI RIVER LEVEE AND A T-ROAD, TURN LEFT AND GO EASTERLY PASSING THROUGH A GATE INTO THE TULANE UNIVERSITY F. EDWARD HEBERT RESEARCH CENTER FOR 3.5 KM (2.15 MI) ON A PAVED ROAD TO A STOP SIGN, CONTINUE STRAIGHT AHEAD AND EASTERLY FOR 0.7 KM (0.45 MI) ON THE PAVED ROAD TO THE GATES INTO THE U. S. COAST GUARD COMMUNICATION STATION, CONTINUE STRAIGHT AHEAD AND EASTERLY THROUGH THE GATES FOR 0.4 KM (0.25 MI) ON THE PAVED ROAD TO A CROSSROADS, CONTINUE STRAIGHT AHEAD FOR 0.08 KM (0.05 MI) ON THE PAVED ROAD TO THE STATION SET ON THE RIGHT AT A CONCRETE DRIVE LEADING INTO A SEWAGE TREATMENT PLANT. THE STATION IS 12.6 M (41.3 FT) NORTH FROM THE NORTEAST CORNER OF A CHAIN LINK FENCE AROUND THE SEWAGE TREATMENT PLANT, 12.1 M (39.7 FT) SOUTH-SOUTHWEST FROM THE CENTER OF THE PAVED ROAD, 8.4 M (27.6 FT) SOUTH FROM THE EAST END OF A CONCRETE CULVERT UNDER THE DRIVE, 6.2 M (20.3 FT) EAST-SOUTHEAST FROM THE CENTER OF THE CONCRETE DRIVE, ACCESS IS HAD BY A 12.7 CM LOGO CAP ABOUT LEVEL WITH THE ROAD.

Use of the above benchmarks for all USACE MVN funded survey field work and in all plans and specifications shall be in accordance with: USACE MVN Engineering Division Datum Policy Memo #3, "Requirements for Use of Benchmarks for USACE Projects," dated March 23, 2009; the USACE New Orleans District Guide for Minimum Survey Standards for performing Topographic, Hydrographic, and Static GPS Control Surveys, Edition 2, dated September 2009 (ref: <http://www.mvn.usace.army.mil/ed/edss/surveyingguidelines.asp>); and a Survey Plan approved by the MVN District Datum Coordinator.

**Section 2: Belle Chasse, Polder Tide Gauge Network
(Complete for each tide gauge in Network)**

The Local Tidal Datum LMSL/MLLW/MHHW (_____ tidal datum epoch) has been determined at USACE/USGS/NOAA gauge _____ on _____ through a comparison of short-term data collected at this station with simultaneously observed data collected at the long-term NOAA tide gauge station _____ located _____. Documentation of the Local Tidal Datum determinations at this tide gauge stations may be found at _____.

The NAVD88:2004.65 elevation of the “gauge zero” of the above described gauge was determined on _____ with respect to permanent benchmarks _____, _____, _____. This gauge was last inspected on _____. Inspection level notes may be found in Survey Section field book _____, pages _____. The full gauge inspection reports may be found at _____.

Various geodetic datum/tidal datum relationships (e.g., the NAVD88:2004.65 and NAVD88:2006.81 elevation of LMSL) at each of the above gauges may be found in the table below.

Summary Tabulation of Geodetic/Tidal Datum Relationships

Gauge ID	Agency	Tidal Datums with respect to Gauge Zero or Station Datum (in feet)			National Tidal Datum Epoch	Geodetic Elev. of Gauge Zero	Geodetic Elevation of Tidal Datums (in feet)			Reference: PBM/TBM, Geodetic Datum/Epoch
		LMSL	MLLW	MHHW			LMSL	MLLW	MHHW	

Section 3: Belle Chasse, Polder Vertical Datum/Control Deficiencies

Local Tidal Datums at tide gauges _____ need to be determined with respect to the current tidal datum epoch (2002-2006).

The “gauge zero” elevations of tide gauges _____ need to be determined with respect to the NAVD88:2004.65/2006.81.

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