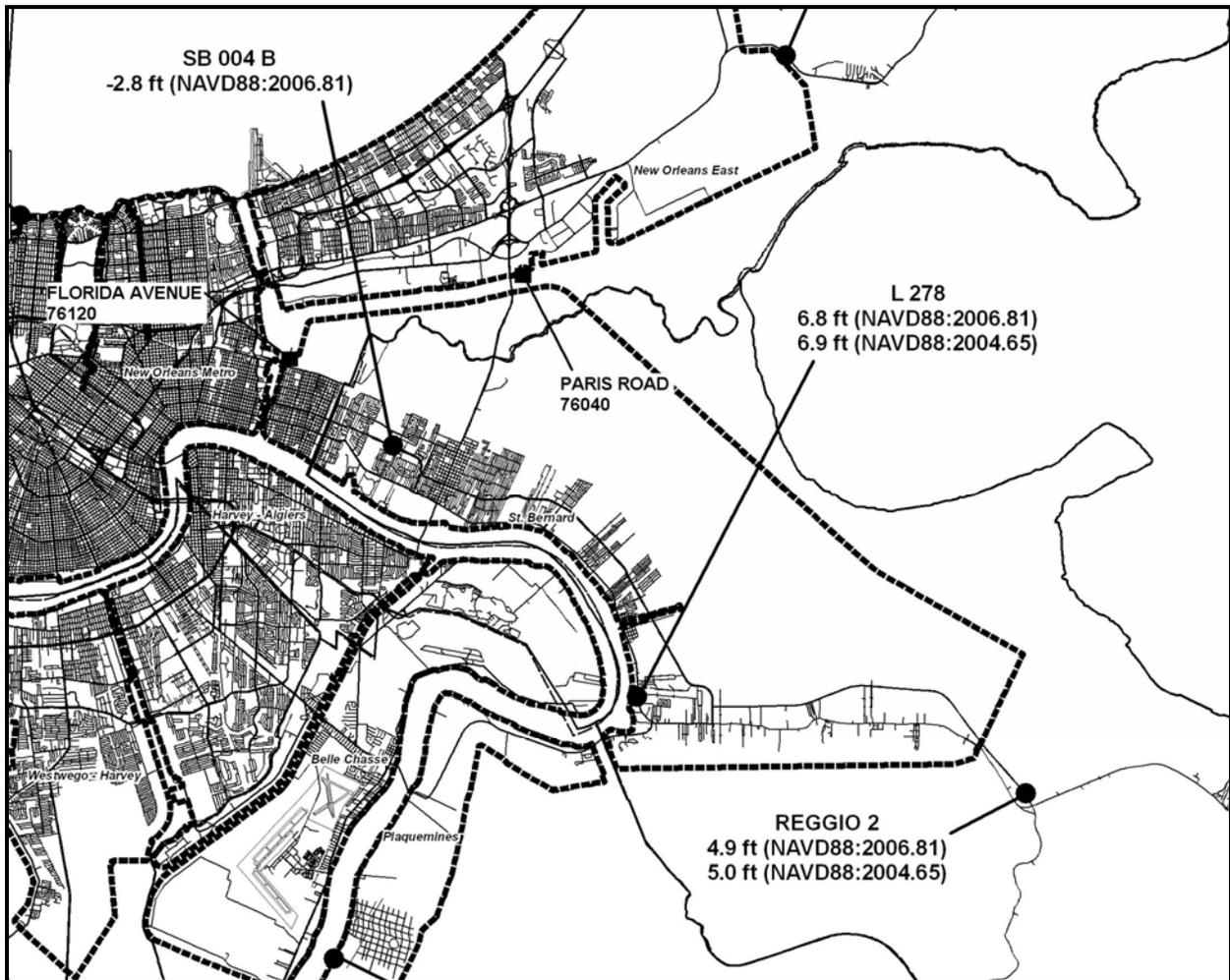


Saint Bernard Polder Vertical Datum Report



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 therefrom) 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: Saint Bernard, 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:	L 278	
PID:	AT0332	
STATE/COUNTY:	LA/ST BERNARD	
USGS QUAD:	CHALMETTE (1994)	
LAT/LON:	N 29°52'34.17140" W 089°53'45.38533"	NAD83(2007)
NORTH/EAST:	N 503,313.62' E 3,736,367.04'	SPC LA S (US feet)
ELEVATION:	6.8 feet	NAVD88(2006.81)
ELEVATION:	6.9 feet	NAVD88(2004.65)
MARKER:	BENCH MARK DISK	
STAMPING:	L 278 1970	
DESCRIPTION:	0.75 MI NW OF POYDRAS ALONG ST BERNARD HWY (STATE HWYS 39 AND 46) FROM THE JUNCTION OF STATE HWYS 39 AND 46 TO THE JUNCTION OF GOODWILL DR. AND THE LADOT AND DEVELOPMENT MAINTENANCE UNIT IN THE SW CORNER OF THE JUNCTION. THE MARK IS ALONG THE FENCELINE NEAR THE NW CORNER OF THE FENCE AROUND THE MAINTENANCE UNIT. IT IS 33 FEET SEOF THE RAILROAD CROSSING, 20 FEET E OF THE E RAIL AND 6 FT S OF THE FENCE CORNER.	

DESIGNATION:	REGGIO 2	
PID:	AT0804	
STATE/COUNTY:	LA/ST BERNARD	
USGS QUAD:	DELACROIX (1994)	
LAT/LON:	N 29°50'40.71876" W 089°45'32.43138"	NAD83(2007)
NORTH/EAST:	N 492,424.54' E 3,779,917.79'	SPC LA S (US feet)
ELEVATION:	4.9 feet	NAVD88(2006.81)
ELEVATION:	5.0 feet	NAVD88(2004.65)
MARKER:	FLANGE-ENCASED ROD	
STAMPING:	REGGIO 2 1987	
DESCRIPTION:	THE STATION IS LOCATED ST. BERNARD PARISH NEAR THE COMMUNITY OF REGGIO, 13.95 MILES SE OF CHALMETTE. OWNERSHIP - LOUISIANA DEPARTMENT OF HWYS. TO REACH THE STATION FROM THE INTERSECTION OF HIGHWAYS 47 AND 39 IN CHALMETTE, GO SE ON HIGHWAY 39 FOR 8.25 MILES TO HIGHWAY 46 ON THE LEFT. TURN LEFT ON HIGHWAY 46 AND GO 7.6 MILES TO THE MARK ON THE LEFT. THE STATION IS 25.0 FEET NE OF THE HIGHWAY 46 NORTHBOUND LANES, 3.6 FEET NORTH OF THE NORTH END OF THE NW CORNER OF A BRIDGE CONCRETE RAIL, 2.1 FEET NE OF A CONCRETE CURB, 1.5 FEET NW OF A CONCRETE ABUTMENT WINGWALL. THE MARK IS A STAINLESS STEEL ROD WITH ACCESS THROUGH A LOGO CAP STAMPED REGGIO 2 1987. NOTE THE COVER IS MISSING.	

DESIGNATION: SB 004 B

PID: AT0765

STATE/COUNTY: LA/ST BERNARD

USGS QUAD: CHALMETTE (1994)

LAT/LON: N 29°57'17.55507" W 089°58'55.01056" NAD83(2007)

NORTH/EAST: N 531,606.19' E 3,708,773.70' SPC LA S (US feet)

ELEVATION: -2.8 feet NAVD88(2006.81)

MARKER: FLANGE-ENCASED ROD

STAMPING: SB 004 B

DESCRIPTION: 0.0 KM (0.00 MI) NW FROM CHALMETTE. THE MARK IS 0.0 BELOW SIDE WALK. LOCATED 2.41 KM (1.50 MI) WEST ALONG JUDGE PEREZ DR. (HIGHWAY 39) FROM ITS INTERSECTION WITH PARIS ROAD (HIGHWAY 47), 0.304 M (1.0 FT) EAST OF THE EAST CURB OF THE WEST ENTRANCE TO THE CIVIC CENTER, 10.06 M (33.0 FT) NORTH OF THE NORTH CURB OF THE WEST-BOUND LANE OF JUDGE PEREZ DR., 14.94 M (49.0 FT) WEST OF THE CENTER OF THE LIBERTY BELL AND 0.304 M (1.0 FT) SOUTH OF THE EAST-WEST SIDEWALK LEADING TO THE LIBERTY BELL. NOTE--ACCESS TO DATUM POINT IS HAD THROUGH A 6-INCH ST. BERNARD PARISH LOGO CAP. RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (GAS) 2.4 KM (1.50 MI) WESTERLY ALONG JUDGE PEREZ DRIVE (STATE HIGHWAY 39) FROM THE JUNCTION OF STATE HIGHWAY 47 IN CHALMETTE, 14.1 M (46.3 FT) NORTHEAST OF THE CENTERLINE OF THE WESTBOUND LANES OF THE DRIVE, 13.9 M (45.6 FT) NORTHWEST OF THE WEST FOOTING FOR A BELL TOWER, 0.5 M (1.6 FT) SOUTHEAST OF THE SOUTHEAST CURB OF THE EASTERN MOST ENTRANCE ROAD TO A CULTURE CENTER PARKING LOT, AND 0.3 M (1.0 FT) ABOVE THE LEVEL OF THE DRIVE. NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH LOGO CAP.

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: Saint Bernard, Polder Tide Gauge Network
(Complete for each tide gauge in Network)**

2.1 Current Data

2.1.1 USACE Gauge 76040, Paris Road

The Local Tidal Datums (LMSL, MLLW, MHHW) for the 2001-2005 National Tidal Datum Epoch (NTDE) have been determined at USACE Gauge 76040, Paris Road. Documentation of the Local Tidal Datum determinations at this tide gauge station may be obtained from NOAA.

The NAVD88:2004.65 geodetic elevation of Local Mean Sea Level (LMSL:2001-2005 NTDE) at the above described gauge was determined to be **0.35 feet** as per tie to USACE Station "TBM BOLT". Documentation of this geodetic/tidal datum relationship may be found in the IPET Study (Volume II - Geodetic Vertical and Water Level Datums) dated 26 March 2007.

2.1.2 USACE Gauge 76120, Florida Avenue

The Local Tidal Datums (LMSL, MLLW, MHHW) for the 2001-2005 National Tidal Datum Epoch (NTDE) have been determined at USACE Gauge 76120, Florida Avenue. Documentation of the Local Tidal Datum determinations at this tide gauge station may be obtained from NOAA.

The NAVD88:2004.65 geodetic elevation of Local Mean Sea Level (LMSL:2001-2005 NTDE) at the above described gauge was determined to be **0.57 feet** as per tie to USACE Station "WEST #4". Documentation of this geodetic/tidal datum relationship may be found in the IPET Study (Volume II - Geodetic Vertical and Water Level Datums) dated 26 March 2007.

2.2 Superseded Data

2.3 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	
76040	USACE				2001-2005		0.35			TBM BOLT NAVD88:2004.65
76120	USACE				2001-2005		0.57			WEST #4 NAVD88:2004.65

Section 3: Saint Bernard, 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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