

City of Seattle Datum Point

City Council
Civil Rights, Utilities, Economic Development &
Arts Committee

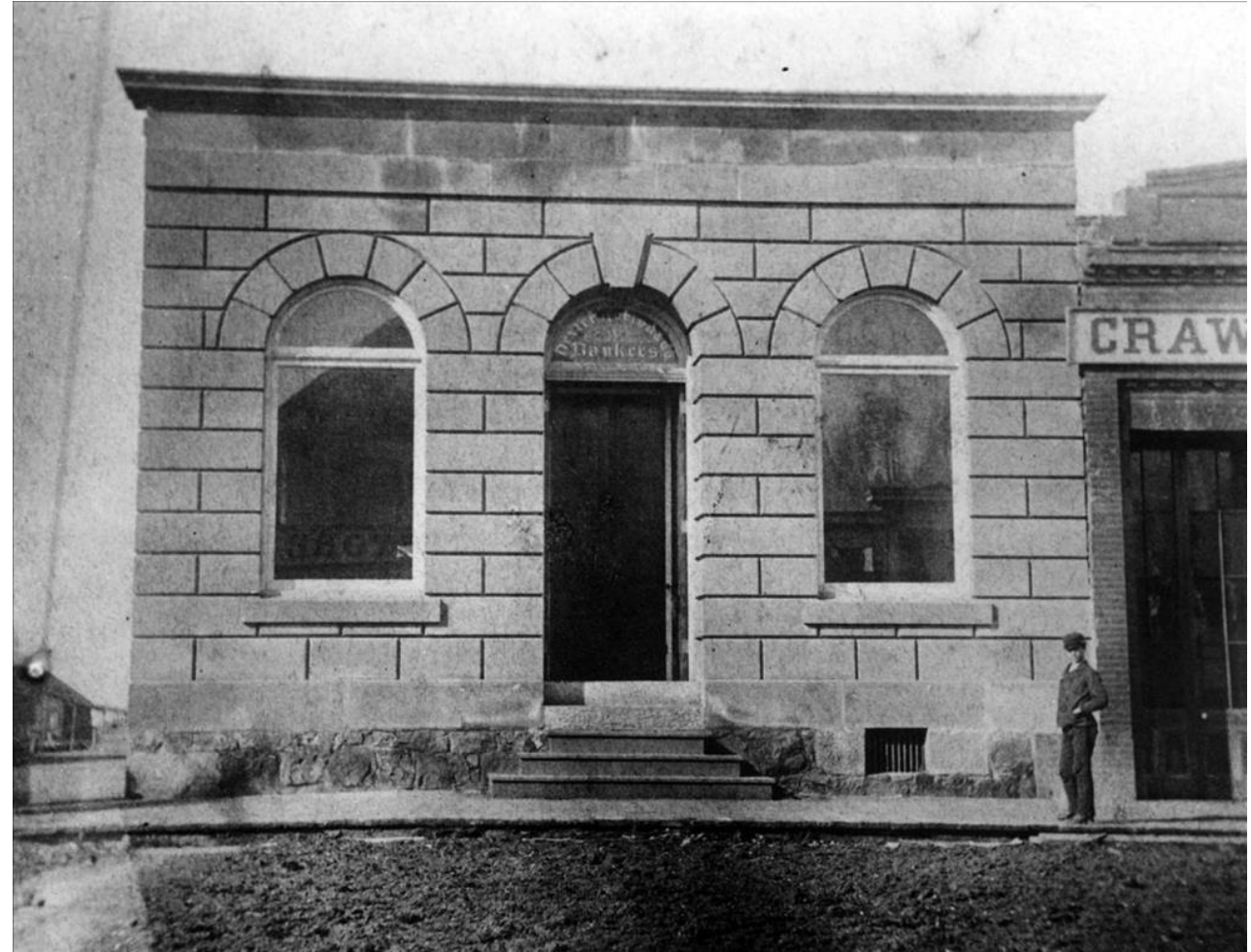


Why are datums important?



Background

- Original vertical datum established in 1877 as 8.835 feet below the top of the granite step of the Dexter Horton Bank (Ordinance 138)
- In 1883, the City amended the datum to 9.6 feet below the top of the granite step (Ordinance 383)



Background

- After the Great fire of 1889, it was moved to 18.79 feet below the lowest step of the Pioneer Building (Ordinance 1836 in 1891) known as the City of Seattle Datum



Background

- In 2003, City adopts National Geodetic Survey (NGS) Datums, NAVD88 and NAD83/(1991), as the reference datum for City of Seattle (Ordinance 121291)
- Current NGS horizontal datum NAD83(2011)
- NGS will update both horizontal and vertical datums in 2022



Horizontal Datum – NAD 83

The North American Datum of 1983 (NAD 83) is the current horizontal control datum.

Vertical Datum - NAVD 88

The North American Vertical Datum of 1988 (NAVD 88) is the current vertical control datum.



Vertical Datums within the City of Seattle:

The National Geodetic Survey (NGS) Benchmark 944 7130 TIDAL 7 PID SY0289 is a disk set 3.0 feet above the concrete sidewalk in the SW granite cornerstone of the National Building located on the NE corner of the intersection of the Western Avenue and Madison Street, Seattle, Washington.

The following elevations are values for that benchmark in different datums.

- NAVD 88 = 19.26 feet
- NGVD 29 = 15.67 feet
- King Co & Metro = 115.67

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NGVD 29 = 15.67 feet
King Co & Metro = 115.67
Obsolete COS Datum = 9.54 feet
USACOE = 22.51 feet
MLLW = 21.59 feet

NOTES

1. Tidal elevations vary according to tidal observations in 18 year epochs.
2. The Old (Obsolete) City of Seattle Datum varies between 9.1 and 9.9 feet below NAVD88 depending on the location in the City. The difference between these two datums must be ascertained from field observations in each specific area. Add approximately 9.7 feet to the old COS Datum to get to the NAVD elevation.

REF STD SPEC SEC 1-07.16(1)A, 1-07.28

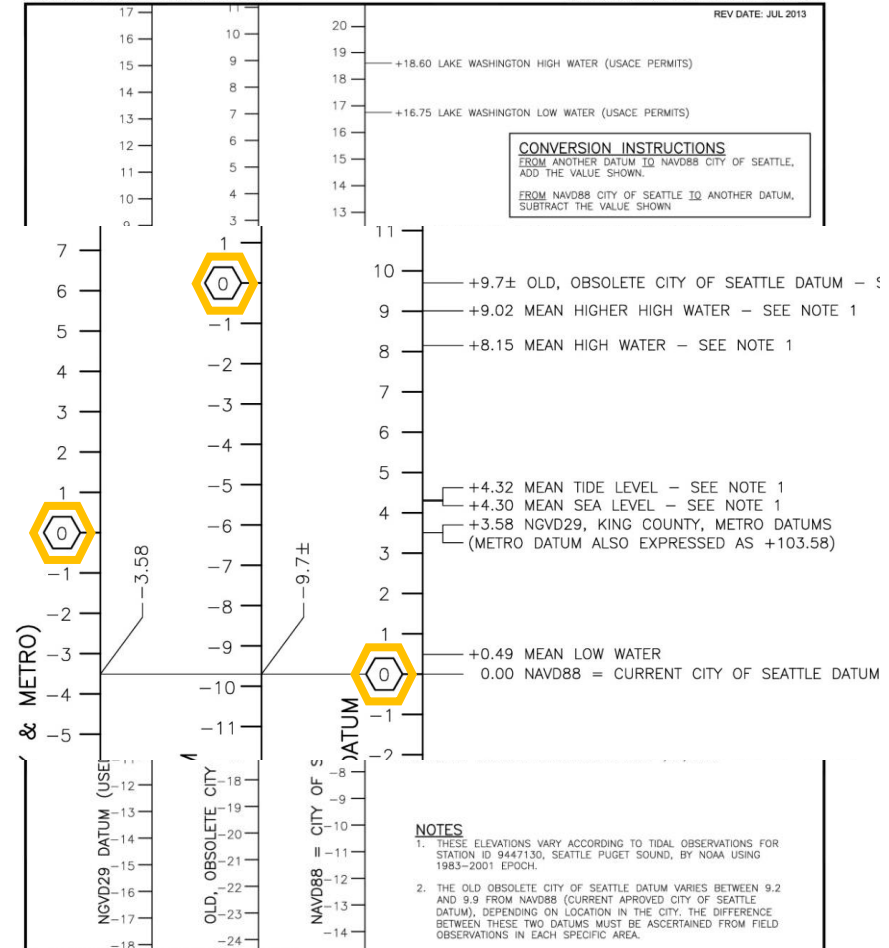


City of Seattle

NOT TO SCALE

ELEVATIONS & DATUMS

2017 Edition City of Seattle Standard Plans for Municipal Construction



REF STD SPEC SEC 1-07.16(1)A, 1-07.28



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ELEVATIONS & DATUMS

2017 Edition City of Seattle Standard Plans for Municipal Construction



The purpose of this legislation is to:

- Ensure the City is always at the most current NGS datum
- Eliminate the need for further amendments to SMC
- Maintain compliance with State requirements



Questions

