


MEMORANDUM

DATE: August 28, 2017

TO: PREM KUMAR, PE, CITY ENGINEER

FROM: DOUGLAS BENASH, PE, QSD 
SR. PROJECT MANAGER/CONSTRUCTION MANAGER
ONWARD ENGINEERING

SUBJECT: CURB RAMPS CONSTRUCTION PROJECT – NO. 601746-15
CERTIFICATE OF COMPLIANCE
RAMP LOCATION – NO. 32 – VORHEES/REDONDO – SOUTHWEST CORNER

The City of Manhattan Beach completed the construction of the ADA ramp at the southwest corner of Vorhees and Redondo in the Winter/Spring of 2017. The installation of ADA curb ramp followed the Caltrans 2015 Revised Standard Plan RSP A88A, and the City of Manhattan Beach Standard Curb Ramp Removal Limits - Sheet D and Sheet E. Normal circumstances allow construction of the design parameters of the standard plans without deviation with level topography.

However, topography and the roadway slopes impact the application of the design standards detailed in the standard plans and the Federal/State ADA guidelines. At a certain point, topography governs and creates a condition that application of the ADA design standards are technically in-feasible.

Upon completion of construction, each ramp was inspected, photographed, documented and slope measurements taken utilizing a four foot (4') long smart level. This yielded the noted slopes in the photograph. The annotated photograph is considered the "As-Built" ramp document. The review of the "As-Built" slopes follows the Federal ADA design guidelines for maximum allowable slopes. These slope values are documented in the Standard Plan for Public Works Construction, Standard Plan 111-5.

Existing Topography

The project constructed ramps in several hillside/sloping neighborhoods that have street slopes greater than 5%. The field conditions were addressed with City staff and the project team. It was mutually agreed upon and determined to use the Standard Plans for Public Works Construction, Standard Plan 111-5, Sheet 9 of 10, Table 2, Slope Adjustments to address the ramp conditions with street slopes in excess of 5%. In order to address street slope values larger than the 5%, engineering judgement, site conditions, constructability and ADA compliance are factored into the following recommended implementation methodology for constructing ADA compliant ramps.

For streets with a slope greater than 5%, application of the Street Slope Adjustment shall be as follows;

"X" Up Dimension shall the End of Curb Return (EC). This complies with City of Manhattan Beach Standard Curb Ramp Removal Limits, Sheet D and Sheet E.

All other standards identified in the Standard Plans shall be implemented to the greatest extent practicable during construction. This recommendation provides compliance with the intent of the ADA Curb Ramp Standards and a provides a logical termination for the ramp construction where the street slope exceeds 5% that are technical in-feasible to construct a fully compliant ADA ramp.

Site Conditions

The sloping streets from the topography also impact the back of walk elevations and slopes. Which in turn impact the interface with the private property improvements. The impacts of the grades from the street slopes and existing back of walk create site conditions that the ADA design standards are technically in-feasible. It was determined and mutually agreed to maintain the back of walk slopes as an acceptable solution to address the sloping street grades.

Conclusion:

Based on the street slopes and site conditions, this ramp was constructed in compliance with Federal ADA Guidelines.

Attachments: Field Review Photograph with Slope Notations

Certificate of Compliance:

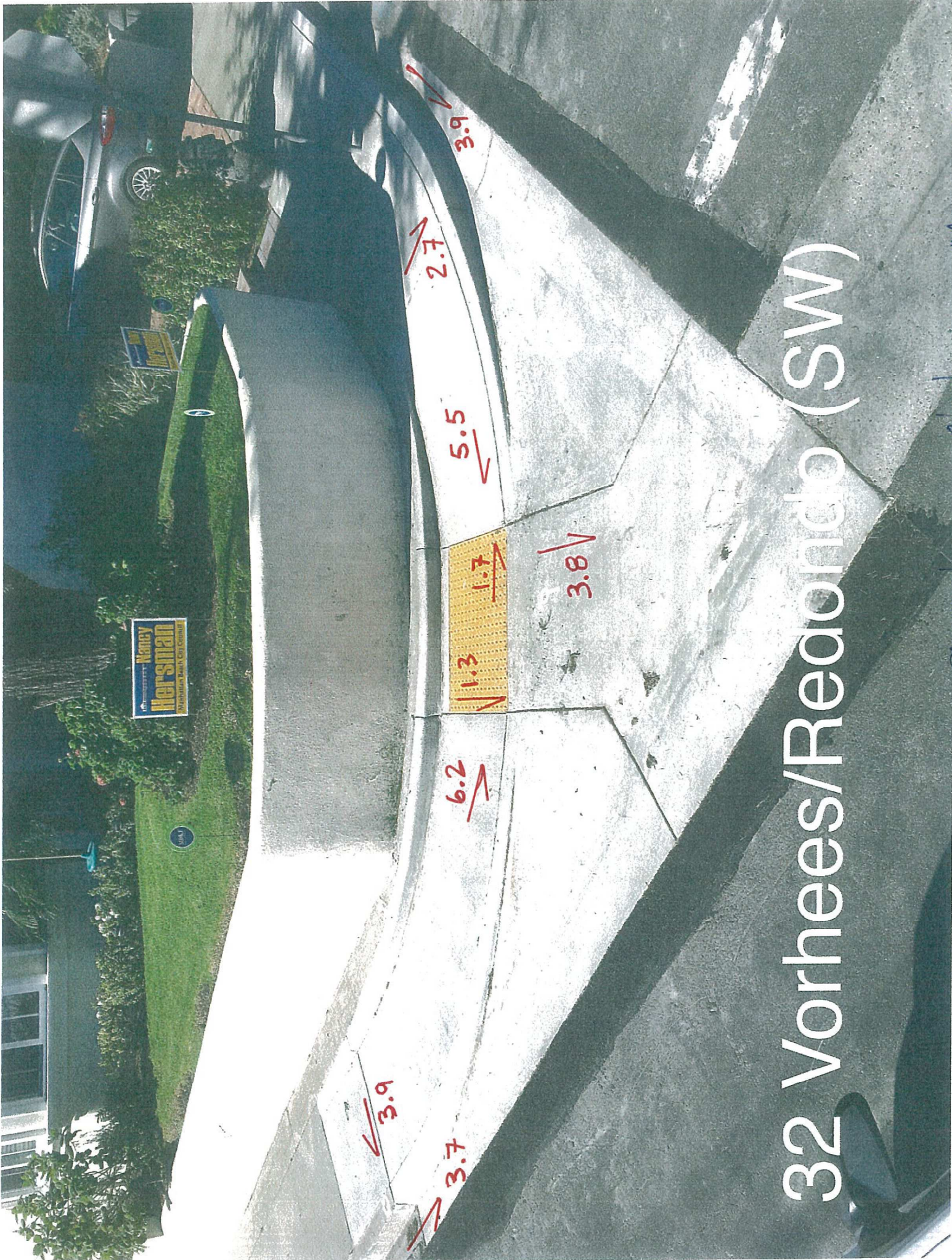
This Certificate of Compliance is prepared after completion of construction activities for the Ramp located at the southwest corner of Vorhees and Redondo that created, altered, or affected pedestrian facilities constructed in accordance with the policies, standards and project specifications in compliance with the standards of the ADA.

I, (Project Engineer), a California Licensed Professional Engineer do hereby certify that the project has been constructed in accordance with the project specifications, and standard plans for this site.



Douglas Benash, PE, QSD
Sr. Project Manager/Construction Manager,
No. C 53935, Exp Date 12-31-17





32 Vorhees/Redondo (SW)

CRANK

8/17/17

"AS BUILT"