



## MEMORANDUM

To: City of Scottsdale  
Hasan Mushtaq – Floodplain Administrator

From: Jason Burm, PE  
Kimley-Horn and Associates, Inc.

Date: October 26, 2023

Subject: 94<sup>th</sup> Street & Bell Road Drainage Hardship Request – Lots 1-52 & Clubhouse

Plan Check # 12-PP-2022

### *Background*

This memorandum is in response to previous correspondence with the City’s Floodplain Administrator, Hasan Mushtaq, and the applicant’s request of the City to grant a datum elevation adjustment in which to determine roof height elevations on the project. Specifically, the request is for 52 lots and a clubhouse as shown on the Preliminary Plat and Preliminary Grading & Drainage Plans currently under review. This memorandum has been prepared to formalize the datum adjustment request as previously discussed with the City for approval.

The project is known as 94th Street and Bell Road (Site). The Site contains an existing >50 cubic feet per second (cfs) wash bisecting the property. This wash is largely maintained in its existing condition with two roadway crossings identified to access the subdivision. The eastern boundary of the Site is bordered by the Reata Wash. A portion of the northeast corner of the Site is encumbered by an existing drainage easement and established engineered berm, designed and constructed by others. Additionally, the Site is located within a Federal Emergency Management Agency (FEMA) Floodzone AO (depth 1') as indicated on Map Number 04013C1320L and 04013C1340L (refer to Exhibit 'A').

As required by FEMA and the City of Scottsdale, all habitable finished floor elevations shall be equal to or greater than 2.0 feet above the Highest Adjacent Grade (HAG) for any habitable structure footprint on each individual lot. Additionally, any garage finished floors that do not meet the minimum 2.0 feet above HAG criteria will require floodproofing per FEMA and City of Scottsdale requirements.

***Drainage Hardship Request – Lots 1-52, Clubhouse, & Guardhouse***

The Site experiences a significant drainage hardship due to the Zone AO (1' depth) floodplain encumbering the property, the nature of the existing terrain, and the Environmentally Sensitive Lands Ordinance (ESLO) requirements as it relates to measuring building roof heights. As allowed with ESLO, a drainage hardship request can be granted by the Floodplain Administrator for projects that require a minimum finished floor elevation to be set due to a drainage hardship, including risk of flooding or regulatory requirements established with the FEMA Zone AO (1' depth) encumbering the Site. This drainage hardship request to identify the datum in which to measure roof heights from is established based on the HAG elevations for each building footprint. Please refer to Exhibit 'B' for the HAG exhibit. The exhibit indicates the existing topography of the Site, the HAG for each individual building footprint, and the Lowest Finished Floor (LFF) for each habitable structure. Please note, any garage finished floors that do not meet the minimum 2.0 feet above HAG criteria will require floodproofing per FEMA and City of Scottsdale requirements.

Based on the identified HAG, we request the City to establish a new datum in which to measure roof heights from. The table below indicates the datum for each lot to be 2.0 feet above the established HAG. This is the minimum elevation per FEMA and the City of Scottsdale that we can permit for a habitable structure. The requested datum adjustment elevations for each lot and or structure are as follows:

<u>Lot #</u>	<u>Governing Highest Adjacent Grade</u>	<u>Datum Adjustment Elevation (HAG + 2.0')</u>
Lot 1	1590.50	1592.50
Lot 2	1591.30	1593.30
Lot 3	1594.10	1596.10
Lot 4	1594.64	1596.64
Lot 5	1595.05	1597.05
Lot 6	1586.90	1588.90
Lot 7	1587.80	1589.80
Lot 8	1588.50	1590.50
Lot 9	1583.05	1585.05
Lot 10	1581.48	1583.48
Lot 11	1579.40	1581.40
Lot 12	1575.30	1577.30
Lot 13	1577.48	1579.48
Lot 14	1578.50	1580.50
Lot 15	1574.30	1576.30
Lot 16	1574.25	1576.25
Lot 17	1574.20	1576.20
Lot 18	1575.41	1577.41
Lot 19	1576.80	1578.80

Lot 20	1578.34	1580.34
Lot 21	1578.00	1580.00
Lot 22	1580.75	1582.75
Lot 23	1583.90	1585.90
Lot 24	1586.40	1588.40
Lot 25	1589.75	1591.75
Lot 26	1590.38	1592.38
Lot 27	1593.10	1595.10
Lot 28	1592.60	1594.60
Lot 29	1597.10	1599.10
Lot 30	1597.65	1599.65
Lot 31	1595.10	1597.10
Lot 32	1593.85	1595.85
Lot 33	1591.06	1593.06
Lot 34	1587.00	1589.00
Lot 35	1587.80	1589.80
Lot 36	1591.00	1593.00
Lot 37	1592.00	1594.00
Lot 38	1588.30	1590.30
Lot 39	1586.30	1588.30
Lot 40	1587.60	1589.60
Lot 41	1584.90	1586.90
Lot 42	1583.70	1585.70
Lot 43	1578.60	1580.60
Lot 44	1583.40	1585.40
Lot 45	1583.70	1585.70
Lot 46	1582.70	1584.70
Lot 47	1583.30	1585.30
Lot 48	1583.08	1585.08
Lot 49	1577.20	1579.20
Lot 50	1578.90	1580.90
Lot 51	1579.70	1581.70
Lot 52	1577.85	1579.85
Clubhouse	1572.31	1574.31
Guardhouse	1584.20	1586.20

Please note, this project will require a final plat application with the City of Scottsdale and it will be the applicant's responsibility to meet the required LFFs for each lot. Furthermore, it will be the applicant's responsibility to ensure roof heights will not exceed the maximum height of 30 feet as measured from the necessary datum adjustment elevation identified in this memorandum. The drainage hardship and datum adjustments are necessary in order to develop the property and are based on the HAG elevations for each structure individually.

Based on this information we believe the drainage hardship and datum adjustment is necessary and appropriate for this Site. Thank you for your time and consideration. Please let me know if you have any questions or need any additional information.

Sincerely,

KIMLEY-HORN



Jason Burm , P.E.

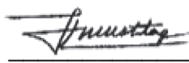
**Exhibit 'A'**

FEMA Floodplain Maps

**Exhibit 'B'**

Highest Adjacent Grade Exhibit

CITY OF SCOTTSDALE

Signature:  \_\_\_\_\_

Name: Hasan Mushtaq \_\_\_\_\_

Title: Floodplain Administrator \_\_\_\_\_

Date: October 30, 2023 \_\_\_\_\_











