PIMA COUNTY
FLOOD CONTROL

January 19, 2023

Global Construction
fhinojosa@colorroomdesign.com

Re: Request for Corrections for Floodplain Use Permit No. P22FC01322
Placement of a Single Family Residence at 4300 W. Potvin Ln.

Global Construction:

The Regional Flood Control District (District) has received your application for a Floodplain Use Permit (FPUP) dated 12/19/2022, for placement of a single family residence at the above-referenced property.

Please note, all responses to this letter, including revised plans, should be directed to Irene Castillo at 201 N. Stone Avenue, 9th Floor, Tucson, AZ 85701.

Unless otherwise noted, all citations to regulations (e.g. Section 16.20.050) refer to the Floodplain Management Ordinance (Ordinance), Title 16 of the Pima County Code.

For the purpose of this letter, unless otherwise noted, the following flood elevations shall be used:
Base Flood Elevation (BFE) = 2.0 feet above highest adjacent natural grade (HANG)
Regulatory Flood Elevation (RFE) = 3.0 feet above highest adjacent natural grade (HANG)

Upon review of the FPUP application, the District has determined that all of the information or documentation required pursuant to Section 16.20.020 of the Ordinance has not been submitted. **As such, the application is not complete. The District cannot proceed with a substantive review of the FPUP until ALL of the following comments are addressed. Please note that the response to the comments below may yield additional comments that need to be addressed.**

1) The site plan submitted does not meet the following requirements pursuant to Section 16.20.020.

- Does not show fill pad dimensions, riparian areas, erosion hazard setbacks, floodplain (identify as FEMA SFHA Zone A02), Limits of Tortolita Soils (area of foundation erosion hazard), statement of vertical datum, or washes.
- Does not show how the driveway is to cross an identified wash, or otherwise contains a statement that the driveway is to remain at-grade; no culverts without permit.

Please provide a site plan that labels all existing and proposed improvements and accurately reflects the locations and dimensions of all existing improvements, including any structures, fences/walls and/or graded areas or other features that may divert, retard or obstruct flow such as driveways, culverts, storage piles, etc. Prior to revising the plans, the District recommends consulting with Development Services to ensure that the changes don't conflict with their regulations, **however, please submit the revised plans to the District for floodplain approval**. The District will make the revised plans available for review by all necessary departments.

See *Technical Procedure 102* (see reference below) for more details on site plan requirements. A complete and accurate site plan will speed up the permit process.

2) The single family residence and leach field are proposed within an erosion hazard setback (EHSB). In accordance with Section 16.28.030, unprotected structural improvements or leach fields are not allowed within the EHSB, which is the area within 75 feet from the nearest bank of the regulatory wash on or near the center portion of the subject property, and 25 ft from the nearest banks of the smaller washes visible from the topography and orthophoto. The placement of a structure within an erosion hazard area requires an analysis by an Arizona registered civil engineer. The following options are available to you.

   A) Relocate the improvements outside the EHSB.

   B) Reduce the erosion hazard setback (if possible) as outlined in Technical Policy 020 (see below), **or,**

   C) design erosion protection for the structure, sealed by the engineer. Erosion protection shall be designed and constructed in accordance with the requirements of *Standard Specifications for Public Improvements, 2003 Edition, Pima County, City of Tucson*.

   Please revised your site plan and/or building plans accordingly. Changes to the site plan should be re-reviewed by Development Services prior to resubmittal to the District.

   Please be advised that in addition to the standard review and approval for engineering submittals, any request to reduce the erosion hazard setback below 25 feet per option B) above will require the approval of the Chief Engineer pursuant to Sections 16.28.030.A.3 and 16.28.030.B.

   The District recommends that your engineer contact the District prior to beginning any work. Enclosed is a list of engineers whose prior work has been accepted by the District.

3) Pursuant to Section 16.26.050.G, residential or nonresidential structures designed or utilized for human habitation are prohibited when flow depths exceed 3 feet or the combination of the flow depth times the flow velocity squared (dv^2) exceeds the numerical value 18 for a period in excess of 30 minutes at any point adjacent to the structure and associated improvements, including fill. It appears that at least one of these conditions may be exceeded for the proposed improvement. Please provide an engineering analysis sealed by an Arizona registered civil engineer which addresses these issues. It is possible that a survey may demonstrate that the ground surface elevation is higher than indicated by the topography available to the District. As such, it may be a beneficial first step to provide the District with ground surface elevations for undisturbed (natural grade) locations around the footprint of the proposed structure. The survey must be conducted by an Arizona registered surveyor. Please have your engineer contact the District prior to beginning any work.

4) The proposed structure is within an area of active alluvial soils per a study titled *Geomorphic Assessment of the Flood-Prone Areas on the Southern Piedmont of the Tortolita Mountains*, by Arizona Geological Survey, dated June 1992 (Tortolita Soils). This is an area in which there are demonstrated hazards to life and property that dictate that an engineering analysis is necessary for proposed structures to demonstrate that they are safe from erosion hazards. The engineering analysis must be sealed by an Arizona registered civil engineer and approved by the District. Please have your engineer contact the District prior to beginning any work.

5) The site plan submitted with your FPUP application indicates that the finished floor elevation (FFE) of the proposed structure is below the RFE, which is not allowed per Section 16.20.040.B. The FFE

of the **lowest finished floor (including any sunken floors and depressed slabs)** must be elevated at or above the RFE. Please revise your site plan and building plans to show the lowest FFE above the RFE. In addition, please revise the site plan to show that all service equipment, such as air conditioning units, water heaters, furnaces, etc. are at or above the RFE.

6) In accordance with Section 16.20.040, indemnification agreements in the form of Covenants must be signed by the current property owner(s) prior to issuance of the FPUP. According to Recorder's Office records, James Deshazo & Jennifer Deshazo are the current owner(s) of the property. If this is no longer accurate, please provide the latest recorded deed for the property. The Covenants will be prepared by the District once the conditions of the FPUP have been established.

   The Covenants must be signed by the current property owner(s) and notarized and the original Covenants provided to the District. If the Covenants are to be notarized at the District office, the owner(s) must bring a photo ID and, if signing on behalf of the owner(s) or corporation, documentation demonstrating that the person signing the Covenants has the authority to do so. **Covenants that have been faxed, scanned or e-mailed cannot be accepted.**

Prior to revising the plans, the District recommends consulting with Development Services to ensure that the changes don't conflict with their regulations, **however, please submit the revised plans to the District for floodplain approval. The District will upload the revised plans for review by all necessary departments.** Please include a comment letter or notes indicating which plan sheets have been modified and detailing what changes have been made on each plan sheet. Alternatively, notes detailing changes may be placed on the respective plan sheet.

Failure to respond to this Request for Corrections letter within 90 days may lead to your application becoming void.

Additional general information about floodplain permitting is available at: http://webcms.pima.gov/government/flood_control/permitting/ If you have any questions or if you would like to schedule a meeting, please contact me at 724-4600.

Sincerely,

Irene Castillo, CFM
Hydrologist
Floodplain Management Division

Enclosure(s): Map(s) to assist in creating a revised site plan
List of Civil Engineers who have successfully submitted reports to the District

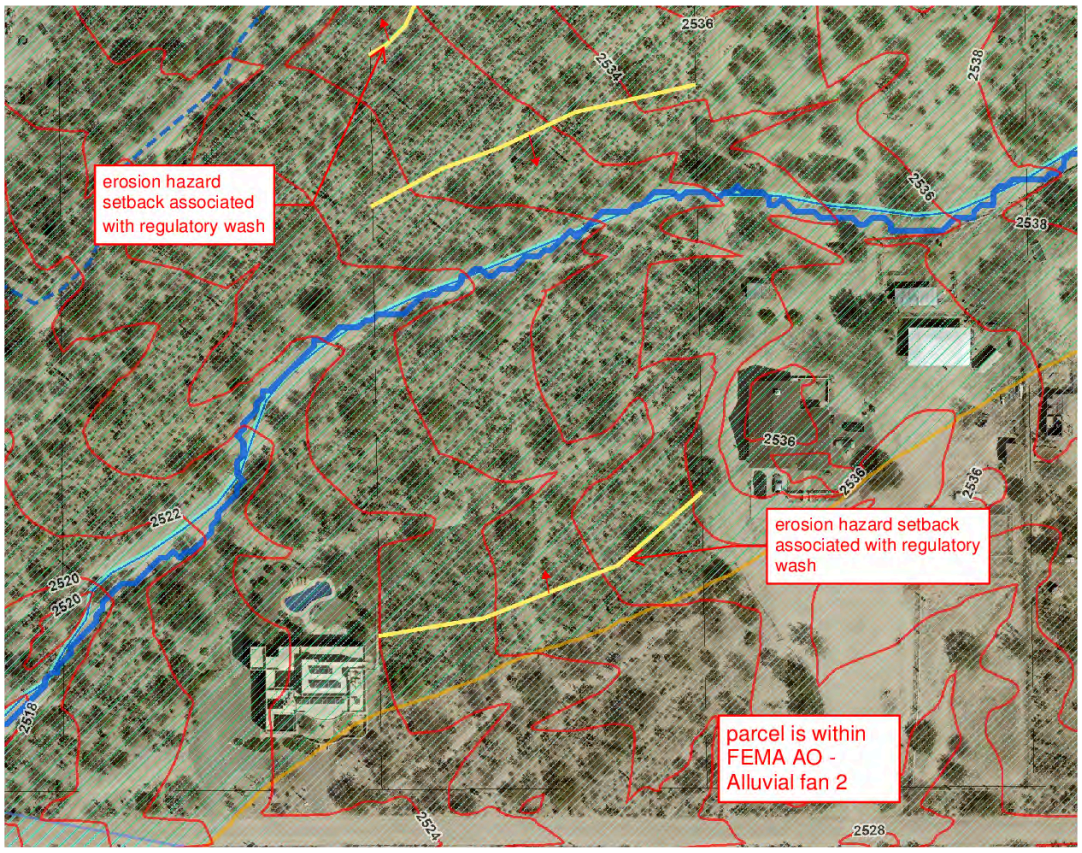
Attached by reference: The following documents are attached by reference to the District web site. If you are unable to view the referenced documents, please contact the District to have them mailed to you.

Technical Policy 020: Engineering Analysis Requirements for Determining an Alternative Safe Erosion Hazard Setback Limit
(http://rfcd.pima.gov/rules/pdfs/tech020.pdf)
Technical Procedure 102: Site Plan Requirements
(http://rfcd.pima.gov/rules/pdfs/tech102.pdf)

cc: Andy Seiger, P.E. Civil Engineer (via e-mail) – Floodplain Management Division (if engineering)

James Deshazo & Jennifer Deshazo
4300 W. Potvin Ln
Tucson, AZ 85742

4300 W POTVIN LN



Legend

- All 2-foot Contours Topography
- Parcels
- Washes - All
  - Unknown Discharge
  - 100-500 CFS
  - 500-1000 CFS
  - 1000-2000 CFS
  - 2000-5000 CFS
  - 5000-10000 CFS
  - Over 10000 CFS
- Washes Greater Than 2000 CI
- Riparian Habitat - Pima County Effective 10/20/2005
  - Xeroriparian A
  - Xeroriparian B
  - Xeroriparian C
  - Xeroriparian D
  - Hydromesoriparian or Mesoriparian
  - IRA - Xeroriparian A
  - IRA - Xeroriparian B
  - IRA - Xeroriparian C
  - IRA - Xeroriparian D
  - IRA - H

200.0 0 100.00

Feet

Pima County GIS

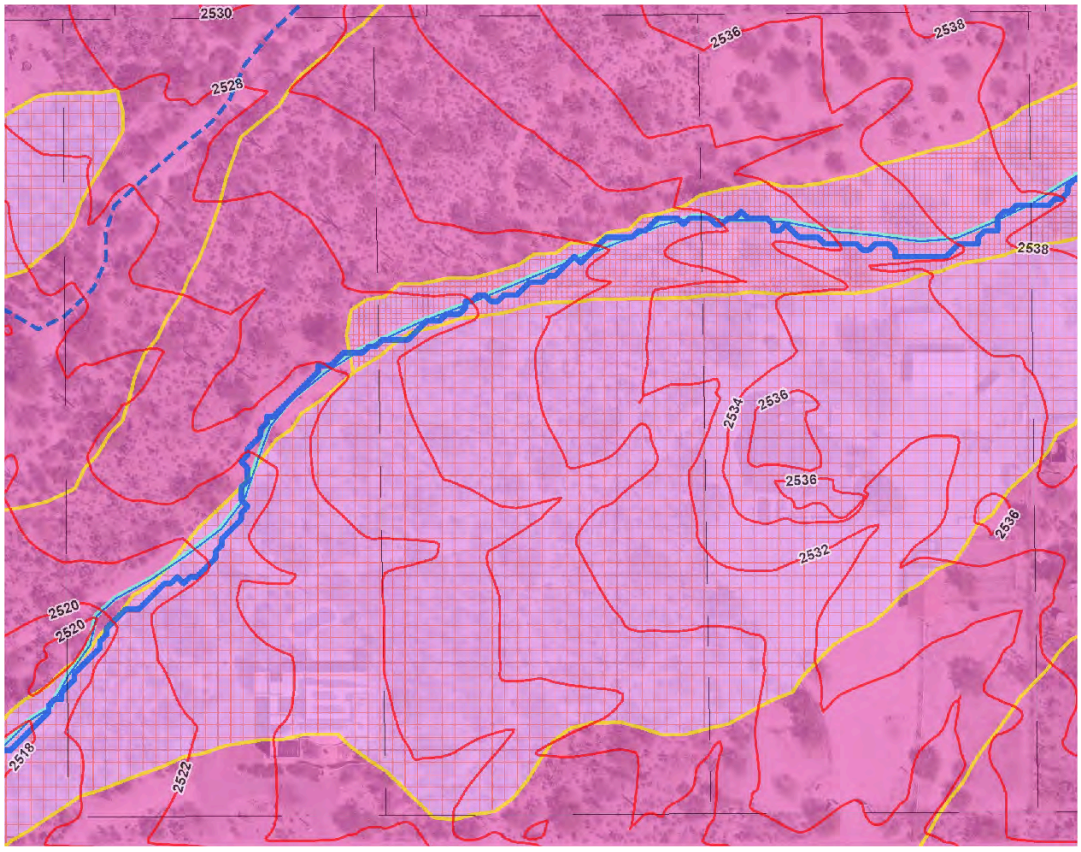
This map is static output from an internet mapping site and no warranty is expressed or implied as to the accuracy, reliability, currency or completeness of the data, and is for reference only

Base flood elevation: 2.0'

regulatory elevation: 3.0'

1/11/2023

4300 W POTVIN LN



Legend

- All 2-foot Contours Topography
- Parcels
- Washes - All
  - Unknown Discharge
  - 100-500 CFS
  - 500-1000 CFS
  - 1000-2000 CFS
  - 2000-5000 CFS
  - 5000-10000 CFS
  - Over 10000 CFS
- Washes Greater Than 2000 CI
- Geology - Tortolita
  - Requires Engineering
  - May Need Erosion Protection
  - Unknown or Bedrock
  - Use FEMA or In-house Tortolita BM
- RFCD Local Erosion Hazard A
- RFCD Local Floodplains

200.0 0 100.00

Feet

Pima County GIS

This map is static output from an internet mapping site and no warranty is expressed or implied as to the accuracy, reliability, currency or completeness of the data, and is for reference only

1/11/2023

PIMA COUNTY
FLOOD CONTROL
201 NORTH STONE AVENUE, 9TH FLOOR
TUCSON, ARIZONA 85701

SUZANNE SHIELDS, P.E.
DIRECTOR

(520) 724-4600
FAX (520) 724-4621

Any qualified Arizona-registered civil engineer can prepare an engineering analysis necessary to support drainage design for a site development permit. Engineers can be found in a phone directory, through the Arizona Board of Technical Registration, or the American Society of Civil Engineers.

As a courtesy to our customers, engineers who have provided the District with engineering analyses for a site development permit within a year prior to the revised date below that resulted in the issuance of a permit are shown in the table below.

This document should not be construed as a recommendation or endorsement of any individual or company, nor does it list all engineers qualified to do drainage work.

Alliance Engineering, PC	Derek Roberts, P.E.	(520) 975-7992
Arroyo Engineering LLC	Larry Roberts, P.E.	(520) 882-0206
Baker and Associates Engineering, Inc.	William Baker, Jr., P.E	(520) 318-1950
Bogardus Engineering LLC	Tracy Bogardus, P.E.	(520) 572-6530
CMG Drainage Engineering, Inc.	Clint Glass, P.E.	(520) 882-4244
Coronado Engineering & Development, Inc	Paul Nzomo, P.E.	(520) 622-6041
Dowl HKM	Nick Westphal, P.E.	(520) 882-8696
Engineering & Environmental Consultants	Ryan Stucki, P.E.	(520) 321-4625
Greg Carlson Engineering LLC	Greg Carlson, P.E.	(520) 624-0070
JE Fuller Hydrology & Geomorphology	John Wallace, P.E.	(520) 623-3112
Patterson Hydrology & Drainage Engineering	Thomas Patterson, P.E.	(520) 327-5363
Perry Engineering	Kenneth D. Perry, P.E.	(520) 620-9870
Physical Resource Engineering	Christopher Langham, P.E.	(520) 690-1669
Presidio Engineering	John Wood, P.E.	(520) 795-6747
Psomas	Regina Beem, P.E.	(520) 292-2300
Rick Engineering	Bruce Paton, P.E.	(520) 795-1000
RMJR Engineeringand Development Company	Richard Murillo P.E.	(520) 807-0247
Stanley Engineering & Drainage	Jeff Stanley, P.E.	(520) 390-7920
Stantec	Warren Thompson, P.E.	(520) 750-7474
Tetra Tech	Morris Riback P.E.	(520) 623-7980
Wise Engineering, LLC	John Wise, P.E.	(520) 548-3530

Revised 02/19/2020