Moonlight Collector Phase 2 Narrative

Moonlight – City of Maricopa

Northwest corner of SR 238 and Phoenix Coast Highway (Green Road)

Submitted: Dated September 25, 2023

Project Team

<u>Owner</u>	<u>Engineer</u>	Landscape Architect
Forestar (USA Real Estate Group Inc)	Atwell, LLC	RVI
1661 E. Camelback Road	4700 E. Southern Ave	4900 N. Scottsdale Road
Phoenix, AZ 85016	Mesa, AZ 85206	Scottsdale, AZ 85251
Silvia Rico	Michael Park, PE	Katie LaBelle
SilviaRico@forestar.com	mikepark@atwell-group.com	Klabelle@rviplanning.com

Project Description

The project "Moonlight" is located at the northwest corner of Smith Enke Road (SR 238) and North Green Road within the City of Maricopa, Pinal County, Arizona.

The pre plat has been approved for this project.

Moonlight Collector Phase 2 is strictly the construction of a roadway with corresponding utilities and drainage features and will not include the construction of residential lots. **See Exhibit 1, Vicinity Map** for the location of the Phase 2 Collector Road improvements within the overall project.

Location and Site Description

The property is located within Section 17, Township 4S, Range 3E of the Gila and Salt River Base and Meridian, Pinal County, Arizona. The assessor parcel numbers include: 510-15-006, 510-15-003A&B, 510-12-035A, B & C. The site is bounded on the south by SR 238 – Smith Enke Road, an active dairy, and vacant land. It is bounded on the east by North Green Road (Future North Phoenix Coast Highway) and State Trust Land, on the north by Gila River Indian Community, and on the west by a drainage channel and the Ak-Chin Southern Dunes Golf Club.

It should be noted that the area is within Floodplain Analysis for Heritage District (FAHD) study area, as prepared by Entellus, Inc. for the City of Maricopa (City of Maricopa Project No. 18-DS03072018). This 2D floodplain study will become effective 8/12/2022 (See LOMR Case # 21-09-0921P). This project will assume the proposed floodplains shown on said LOMR are effective at the time of this report.

Offsite Drainage Analysis

This site is located downstream of Vekol Wash, which empties onto land owned by the Gila River Indian Community (GRIC). The HEC-RAS model provided in the FAHD was used to evaluate the flows impacting the GRIC lands. These flows generally travel in a northerly direction and spread across the flat farmlands at a depth of 2-3 feet.

These flows enter the site through multiple points. The main point of entry is located at the southwest corner of the subject property. Flows from this wash combine with other flows at an existing excavated depression located just south of the point of the main point of entry. Flows from these three sources then spill onto the site and sheet flow across the western portion of the project.

In order to contain these offsite flows, it is proposed that a channel be constructed along the southern property line of the western portion of the project. These flows will be conveyed westerly within the channel along the southern boundary and then northly along the east property line. This channel will widen out at the north end of the property to allow for a spreader basin, which will release the flood waters at the historical flow rate onto the GRIC lands.

Onsite Drainage Analysis

Flows within the collector road are directed to low spots via street and gutter flow and are subsequently captured by catch basins and then conveyed into adjacent retention basins.

Within the collector road, a minimum of 2-10' dry lanes shall be maintained for the 10-year storm event.

Sanitary Sewer

Sanitary sewer will be provided to this project from Global Water Resources (GWR). This project will consist of a gravity wastewater system, which will then discharge into a proposed lift station that will be built onsite. From this lift station, discharge will be pumped 1.4 miles through a force main into a proposed manhole on SR-238. Discharge will ultimately be treated by the Wastewater Reclamation Facility located at 22590 Power Pkwy South, Maricopa, AZ 85138.

Water

Water service will be provided to this project from GWR. This project will consist of 8-inch waterlines, which will tie into the existing 16-inch waterline in State Route 238 and the proposed 12-inch waterline in Phoenix Coast Highway.

Dry Utilities

The project development is serviced by Electrical District #3 for electric, Orbitel Communications and Centurylink for communications, and Southwest Gas for natural gas. The project is serviced by all dry utility demands within designated service areas of these providers.

Access

Moonlight Collector Phase 2 connects to Moonlight Collector Phase 1, which allows for access to both SR-238 and N Green Road.





STATE ROUTE 238 - SMITH ENKE ROAD