
MEMORANDUM

TO: Jack Gilmore, Gilmore Planner and Landscape Architectural

FROM: Jose A. Macias, Planner/GIS. *JM*
Community Development Department, Planning & Zoning

RE: Harriem Trailer Storage Site Plan

DATE: March 2, 2021

Mr. Gilmore,

Please see the comments from El Mirage Technical Advisory Committee (TAC) for the proposed Site Plan Approval for an Exterior Storage Yard and Office Use.

ZONNING APPLICATION

The following document shall be included with the construction and civil plan submittal for staff review;

1. Deed and/or Title Report
2. Drainage Report
3. ALTA Survey
4. Phase I Environment Site Assessment

BUILDING & SAFETY

The following items on the site plan can be address with the construction civil plans submittal.

1. Identify all accessible building entrances.
2. Provide the accessible parking space at the location that is closest to an accessible entrance.
3. Note – If there is a sidewalk on Butler Dr., an accessible pedestrian route to that sidewalk shall be provided.

ECONOMIC DEVELOPMENT

4. Economic Developments supports the trailer storage project in El Mirage.

ENGINEERING

5. See attached memorandum.

FIRE DEPARTMENT

6. A private fire hydrant shall be provided inside the property.

PLANNING & ZONING

The follow Site Plan and Landscape comments can be address with construction and civil plans submittal.

7. Site Plan: No comments.
8. Landscape Plan: 50% of the trees shall be in 24" boxes.
9. Landscape Plan: Please make all trees are 10 feet away from overhead power lines.
10. Please make sure to include a Landscape Irrigation Plan with the Civil Plans for construction review.

POLICE DEPARTMENT

11. No Comments.

PUBLIC WORKS

12. No comments.

MEMORANDUM

TO: Jose Macias, Planner/GIS
FROM: Bryce Christo, P.E., Assistant City Engineer
SUBJECT: Harriem Trailer Storage – Development Application Review
DATE: 03-02-21

Below are the Engineering Division’s comments for the above referenced submittal prepared in February 2021. **These items will have to be addressed prior to the Planning and Zoning Meeting.**

1. None.

The below items will have to be addressed during the Construction Plan Submittal.

Narrative

1. Section 1.0 states that the site will be used for some maintenance of the trailers. The service bays will be required to adhere to any requirements set forth by ADEQ or any other agency for the service station portion. If the site will include vehicle washing, fuel dispensing/storage or will use, store or load hazardous substances, then the site may be required to conform to the following:

Runoff generated from washing vehicles and equipment shall conform to “Arizona Department of Environmental Quality – NOI supplement for Type 3.03 General Aquifer Protection Permit for Vehicles and Equipment Washes” (A.A.C R18-9-D303).

Drywells that drain areas at motor fuel dispensing facilities where motor fuels are stored or loaded, shall conform to “Arizona Department of Environmental Quality – NOI supplement for type 2.04 General Permit. Protection Permit for Vehicles and Equipment Washes” (A.A.C R18-9-D303) and Arizona Administrative Code R18-9-C301. In addition, the design of the system shall be fully automated (human intervention not required) and shall not depend on a power source.

Drywells that drain areas where hazardous substances are used, stored, loaded or treated, shall conform to “Arizona Department of Environmental Quality – NOI supplement for Type 2.01 General Permit and Arizona Administrative Code R18-9-C301. In addition, the design of the system shall be fully automated (human intervention not required) and shall not depend on a power source.

Civil Plans

2. Show the building setback lines.
3. Side slopes adjacent to the public right of way shall be 6:1 or flatter. There shall be at least two feet of level ground between any sidewalk, wall or vertical obstruction and the top of any side slope grading.
4. A retention basin will be required to accommodate the 100-year storm (2.4 inches) for the entire post construction parcel. Show the proposed basin(s) and how the site will drain to it (i.e. drainage arrows). Topographic contours at a minimal interval of two feet shall be shown.
5. Show high water level, bottom elevation, volume required, and volume provided for each retention basin. Show the basin(s) overflow and the ultimate outfall elevation of the site.
6. Basins shall be a minimum of 20 feet away from the septic system, a minimum of 4 feet away from all structures and not located within building setbacks, easements or fire lanes.
7. The proposed driveway entrance shall be per MAG or City details.
8. Show the intersection site distances per City Detail EM-158 for the driveway at Butler Drive.
9. Verify the number of trailer spaces provided. How will the trailer spaces be striped?
10. The site shall have a 6-inch MAG type curb around the entire parking lot. Curb shall not be placed closer than 3 feet to any property line. Parking blocks may be used but curb is still required.
11. Show all existing and proposed utilities on the plans.
12. All water mains and services within the site will be considered private. Any hydrants within the project site will be private and painted red while any within the right of way will be public and painted yellow per City Detail EM-360. All hydrants require markers per MAG Detail 122.
13. The developer is required to perform their own flow test. The City's Fire Department (623-583-7968) shall be contacted as a witness. Also notify the Public Works Department (623-876-4251) one week prior to the test.
14. Domestic water and landscape services each require a meter and a backflow preventer. Meters shall be within the right of way and backflow preventers shall be on private property. The minimum service sizes are 1-inch. Each service requires its own tap.
15. Fire service lines require a backflow preventer and the minimum service size shall be 6 inches.
16. A sewer service stub is recommended for the proposed building in case any future sewer mains are installed along Butler Drive.
17. The electric lines and other overhead utility lines along the project frontage will have to be placed underground.
18. A streetlight is recommended at the proposed driveway.
19. Plans shall include applicable City Notes. Call out MAG, City, etc. details to be used. Use the latest version of the City's Design and Development Standards Manual (DDSM) as a guide during the design.

Exterior Elevations

20. Provide exterior elevations of all four sides of the proposed building.

Preliminary Landscape Plans

21. None.

Drainage Statement

22. A Drainage Statement was not provided. A Final Drainage Report will be required and must include the following:
 - a. A tributary area map to show the areas contributing to each basin.
 - b. Sizing calculations for any storm drain and basin
 - c. Any offsite flows that reach the site.
 - d. For the dry up calculations, use Equations 9.2 and 9.3 from the *MCFC D Drainage Design Manual – Hydraulics* dated December 14, 2018.
23. The calculations will have to adhere to the latest City requirements. The proposed basin will have to be sized for the entire parcel and the adjacent half right of way of Butler Drive.
24. The existing finished floors shall be 12” above the 100-year base flood elevation and 14” above the low outfall of the site.

Preliminary Water Report

25. A Preliminary Water Report was not provided. Provide a Final Water Report using the attached City Water System Design Criteria.

Preliminary Sewer Report

26. A copy of the County’s septic approval shall be provided to the City prior to Certificate of Occupancy.

Traffic Impact Statement

27. The TIS notes that the east side of the driveway will have a 50-foot radius since there is only access from El Mirage Road. Please note that Butler Drive will be extended to Dysart Road in the future as part of a County project. That project is currently anticipated to be complete by 2024.
28. The table provided is labeled “Peak Hour” trips but the last sentence refers to “Average Daily Trips”. Please clarify.
29. The TIS is accepted and no further traffic reports are required for the site as shown.

Deed or Title Report

30. Provide a copy of the deed or title report.

ALTA Survey

31. An ALTA Survey is required.

Phase 1 Environmental Site Assessment

32. A Phase 1 ESA is required.

Miscellaneous

33. A Geotechnical Report will be required to provide on-site pavement sections. Verify the proposed pavement sections can handle 75,000 lbs.
34. A Stormwater Pollution Prevention Plan (SWPPP) will be required per the City’s SWPPP Guidance Document. A Notice of Intent (NOI) from ADEQ will be required prior to the City’s construction permit approval.

35. A Haul Permit will be required if 500 cubic yards or more of material will be brought into or out of the site. This will require a separate application, an exhibit showing the haul route and insurance from the company performing the haul. The fee is \$300.
36. Any cutting of the pavement in Butler Drive will require Pavement Cut Fees per the most current Fee Schedule.
37. A Dust Control Permit from the County will be required prior to the City's construction permit approval.
38. The 8' Public Utility Easement shall be dedicated to the City via separate instrument. The PUE shall be reviewed and approved by the City prior to recordation. A copy of the recorded document shall be provided to the City prior to Certificate of Occupancy.

The above comments are meant to be general in nature and are not considered to be all inclusive. Additional comments will arise during the formal permit submittal.

WATER SYSTEM DESIGN CRITERIA	
DESCRIPTION	CRITERIA
AVERAGE DAY DEMAND	
Gallons per capita per day (gpcd) ⁽¹⁾	117
Density (people per dwelling unit) ⁽²⁾	3.34
Land Use Category ⁽³⁾	Varies
PEAKING FACTORS	
Maximum Day / Average Day	1.7
Peak Hour / Maximum Day	1.7
Peak Hour / Average Day	2.9
VELOCITY CRITERIA	
Maximum Day Condition	Max Velocity < 5 fps
Peak Hour Condition	Max Velocity ≤ 7 fps
Max Day Plus Fire Flow Condition	Max Velocity ≤ 10 fps
HEAD LOSS CRITERIA	
Maximum Day Condition	2 to 7 feet per 1,000 feet of pipe
Peak Hour Condition	≤ 10 feet per 1,000 feet of pipe
PRESSURE CRITERIA	
Max Day Plus Fire Flow Condition	Min Residual Pressure of 20 psi
Peak Hour Condition	Min System Pressure of 40 psi
FIRE DEMAND CRITERIA	
Single Family Residential	1,500 gpm at 2 hours
All Other Land Uses	3,500 gpm for 4 hours

NOTES:

(1) Average per capita water use per 2012 *Water and Wastewater Master Plan* provided by Wilson Engineers

(2) Persons per household, 2014-2018, per US Census Bureau

(3) Use latest version of City of Phoenix *Design Standards Manual for Water and Wastewater Systems*. Other values may be used with prior approval from the Engineering Division.

WASTEWATER SYSTEM DESIGN CRITERIA	
DESCRIPTION	CRITERIA
AVERAGE DAY DEMAND	
Gallons per capita per day (gpcd) ⁽¹⁾	58.5
Density (people per dwelling unit) ⁽²⁾	3.34
Land Use Category ⁽³⁾	Varies
PEAKING FACTORS	
Dry Weather Peaking Factors (Applied to Average Flows)	Per AAC R18-9-E301.D
Wet Weather Peaking Factors (Applied to Peak Flows)	1.17
VELOCITY CRITERIA	
Gravity Mains	2 fps ≤ Velocity ≤ 8 fps
Force Mains	3 fps ≤ Velocity ≤ 7 fps
FLOW DEPTH CRITERIA (d/D) FOR DRY WEATHER PEAK HOUR FLOWS	
d/D for new sewer with diameter less than 10 inches	0.50
d/D for new sewer with diameter 12 inches and above	0.75 (AAC R18-9-E301.D.e.iii)
FLOW DEPTH CRITERIA (d/D) FOR WET WEATHER PEAK HOUR FLOWS	
d/D for designing new sewer pipe	< 0.90
d/D for evaluating existing pipe in developed areas	< 1.00
HEAD LOSS CRITERIA	
Gravity pipe	Manning's n=0.013
Pressure pipe	Hazen Williams' C=120
MANHOLES	
When smaller pipe joins larger pipe	Match Crowns
Invert drop through manhole	0.20 feet

NOTES:

- (1) Average per capita water use per 2012 *Water and Wastewater Master Plan* provided by Wilson Engineers
- (2) Persons per household, 2014-2018, per US Census Bureau
- (3) Use latest version of City of Phoenix *Design Standards Manual for Water and Wastewater Systems*. Other values may be used with prior approval from the Engineering Division