

**ADDENDUM #1
TO THE
TECHNICAL DRAINAGE STUDY
FOR
POLARIS APARTMENTS**

**DRC Job# SN 21-140
Clark County PW22-17381**

**Prepared for:
FORE GREEN DEVELOPMENT, LLC
1741 VILLAGE CENTER CIRCLE
Las Vegas, NV 89134
Ph: (702) 562-6050**

**Prepared by:
DRC Surveying Nevada, Inc.
7080 La Cienega Street, Ste. 200
Las Vegas, Nevada 89119
Ph: (702) 270-6119
Fax: (702) 932-6129**

**Submitted to:
Clark County Public Works
Department of Development Services
500 S. Grand Central Pkwy
Las Vegas, NV 89155**

OCTOBER 2022

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE STUDY INFORMATION FORM

Name of Development: POLARIS APT Date: October 10, 2022

Location of Development:

a) Descriptive (Cross Streets): North/South Polaris Avenue East/West Desert Inn Road
 b) Sect. 17 Twn. 21S Rng. 61E

Name of Owner: FORE GREEN DEVELOPMENT, LLC Assessor's Parcel Number: 162-17-102-002, 003, 005, 007, 009

Telephone Number: (702) 562-6050 Facsimile Number: _____
 Address: 1714 Village Center Circle, Las Vegas, NV 89134

Contact Person - Name: Dennis Wertzler, P.E. Telephone Number: (702) 270-6119

* Email Address: dwertzler@drc-lasvegas.com

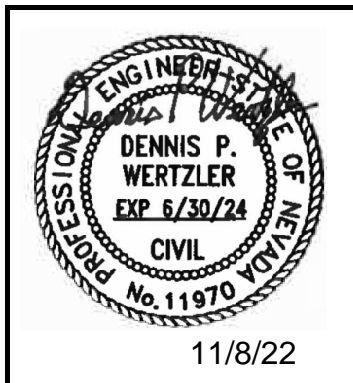
Firm: DRC Surveying Nevada, Inc.

Address: 7080 La Cienega Street, Ste. #200, Las Vegas, NV 89119

Type of Land Development/Land Disturbance Process:

Rezoning		Subdivision Map		Clearing and Grading Only
Parcel Map		Planned Unit Development		Other (Please specify below)
Large Parcel Map	X	Building Permit		

1. Total Owned Land Area: At site: 5.54 acres +/- Being Developed/Disturbed: 5.54 acres +/-
2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? YES** NO
3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control Master Plan Facility? YES** NO
4. Proposed type of development (Residential, Commercial, Etc.): Multi-Family Residential
5. Approximate upstream land area which drains to the subject site: 248 acres.
6. Has the site been evaluated in the past? YES NO If yes, please identify documentation: _____
7. If known, please identify the proposed point(s) of runoff from the site North into Desert Inn & East into Pink Place
8. Briefly describe your proposed schedule for the subject project: ASAP



Submit this form as part of the required drainage study to the local entity which has jurisdiction over the property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

* New Required Field

** Review and concurrence of the Clark County Regional Flood Control District is required.

Revisions	Date

Local Entity File Number

Engineer's Seal

REFERENCE:

STANDARD FORM

DRC Surveying Nevada, Inc

Civil Engineering · Land Surveying · Planning

7080 La Cienega Street, Ste. 200

Las Vegas, NV 89119

October 7, 2022

W. Layne Weber, P.E.
Clark County Public Works
500 S. Grand Central Pkwy 1st Fl
Las Vegas, NV 89155

**Re: Addendum #1 to the Technical Drainage Study for Polaris Apartments
DRC Job # SN21-140
Permit Number: PW22-17381**

Dear Mr. Weber,

We have received the review comments for the above-mentioned study dated September 29, 2022. The comments are restated and addressed below.

- 1) The finished floor elevation(s) of the proposed structure(s) do not meet the requirements of being set at a vertical distance above the gutter flowline of at least twice the depth of flow (measured at the high side of the building), up to a maximum of eighteen (18) inches above the 100-year water surface elevation in the street (per Section 304.4 of the HCDDM). This must be addressed.**

The northwest corner of the building at hydraulic section A, shown on Figure 8, the FL at this point is 37.27' plus a double depth of flow of 2.86' equaling a WSE of 40.13' for the 100-year storm equaling 40.13'. The WSE for the double flow depth at this point exceeds the FF elevation by 0.13' and will be protected by a 6" stem-wall. As the flows continue eastward along Desert Inn Road the depth of flow at hydraulic section B, shown on Figure 8, the FL at this point is 36.79' plus a double depth of flow of 2.86' equaling a WSE of 39.65' which is below the FF elevation of 40.00', as such the building is protected.

- 2) It does not appear that the site entrances are adequate to prevent flow from entering the site. Provide calculations to show that all site entrances are elevated at least 6-inches above the 100-year WSE in the adjacent streets per Section 903.6 of the HCDDM.**

Per Dennis conversation with Jamie the highpoint located at the front of the building along Desert Inn Road has been adjusted and elevated to be at least 6-inches above the 100-year WSE.

- 3) Grading proposed outside of the project boundary and on private property will require notarized, written permission from the offsite owner and must be included with the next submittal. Note private property owner's including Clark County Aviation, School District, Parks and Recreation, Public Works,**

BLM, Water District, etc. may not grant permission and this should be resolved without delay as the site design may change.

Noted, this is in process and a notarized letter to grade will be obtained before final grading.

- 4) **Clark County policy (per Section 1503.4.5 of the HCDDM) states a tributary area of less than .5 acres shall have a minimum of a 30' swale and an area greater than .5 acres shall have a 40' swale. Revise accordingly.**

Where applicable, the basins have been adjusted to have a maximum area of 1 acre, existing SWPP swale lengths have been adjusted, and additional SWPP swales have been added as needed to meet Clark County policy, see updated Figure 9.

- 5) **The grading plans have been redlined. Provide highlighter marks and response on plans to show the issues were addressed. Direct any questions to the reviewer.**

Redlines have been addressed or written explanation added.

Sincerely,
DRC Surveying Nevada, Inc.

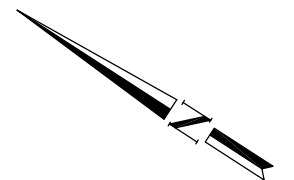
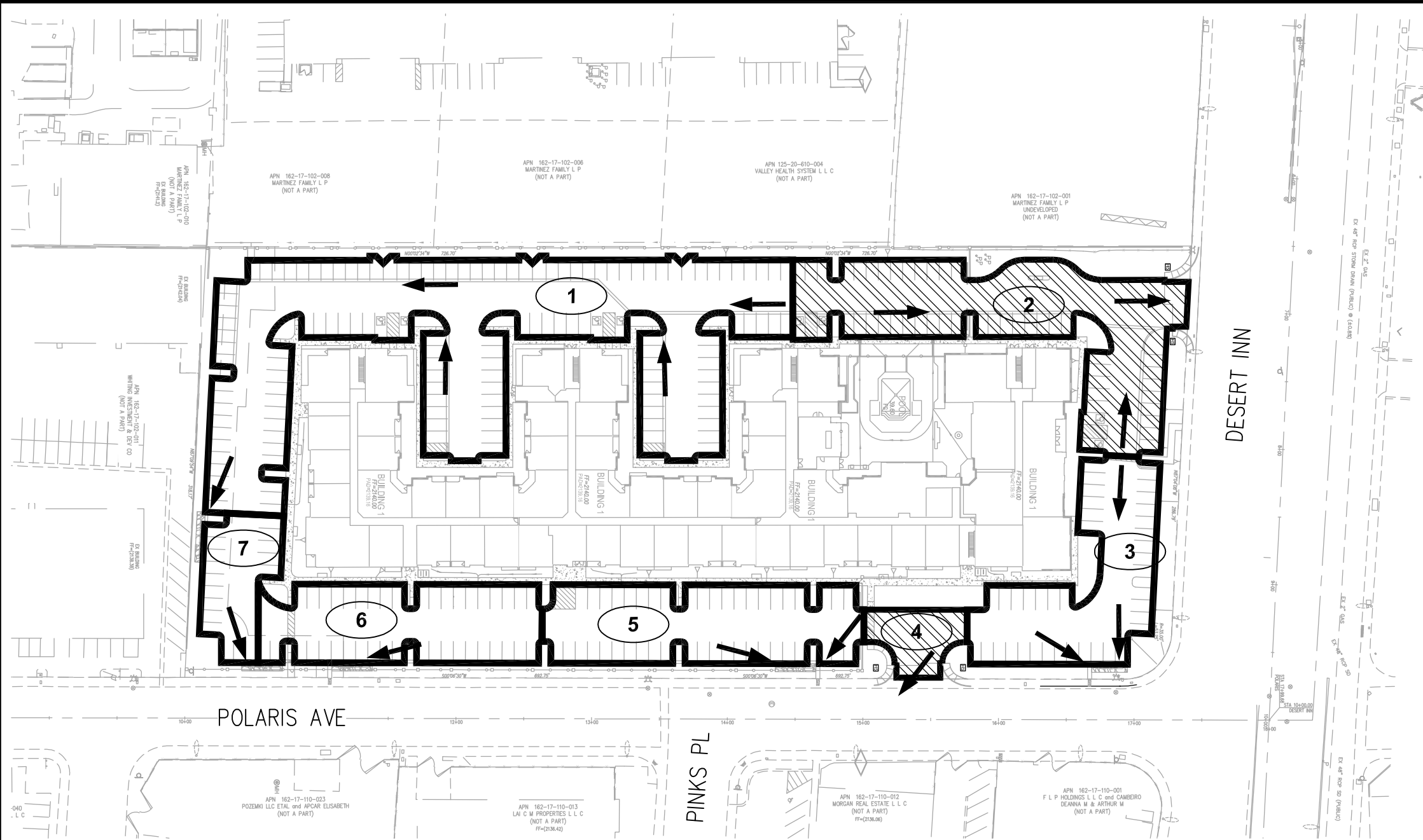
Chad Lark, E.I.

Dennis P. Wertzler, P.E.
President

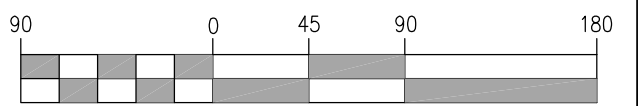
APPENDIX A FIGURES

- **Figure 9 BMP Exhibit**

FILENAME: X:\2021\SV\140_Fors - Polaris_Apt\Engineering\Drainage\ADD1\FIGURES\FIG 9 - SWPPP.dwg, LAST SAVED ON: Oct 10 2022 10:22am PLOTTED BY: CLARK, ON: Oct 10 2022 10:40am







GRAPHIC SCALE



(IN FEET)
1 inch = 90 ft.


LEGEND

-  PARKING AREA WITHOUT BMP SWALE
-  PARKING AREA WITH BMP SWALE
-  BASIN NAME
-  FLOW DIRECTION

IMPERVIOUS AREA SUMMARY		
BASIN NAME	IMPERVIOUS AREA TREATED WITH BMPs (ACRES)	IMPERVIOUS AREA NOT TREATED WITH BMPs (ACRES)
1	0.92	-
2	-	0.44
3	0.27	-
4	-	0.06
5	0.29	-
6	0.26	-
7	0.11	-
TOTAL	1.85	0.50

NOTE: 79% OF THE SITES IMPERVIOUS PARKING AREA IS TREATED WITH BEST MANAGEMENT PRACTICES PRIOR TO DRAINING INTO PUBLIC RIGHT OF WAY.

FIGURE 9
POLARIS APARTMENTS
BMP EXHIBIT


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APPENDIX E
GRADING PLANS