

# CITY OF ALBUQUERQUE

*Planning Department*  
David Campbell, Director



*Mayor Timothy M. Keller*

February 25, 2019

Mark H. Burak, P.E.  
1512 Sagebrush Trail SE  
Albuquerque, NM, 87123

**RE: 211 Maple St. NE**  
**Permanent C.O. - Accepted**  
**Engineer's Certification Dated 02/11/19**  
**Engineer's Stamp Date: 02/28/18**  
**Hydrology File: K15D090**

Dear Mr. Burak:

PO Box 1293

Based on the Certification received 02/25/19 and site visit on 02/25/19, this certification is approved in support of Permanent Release of Occupancy by Hydrology.

Albuquerque

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

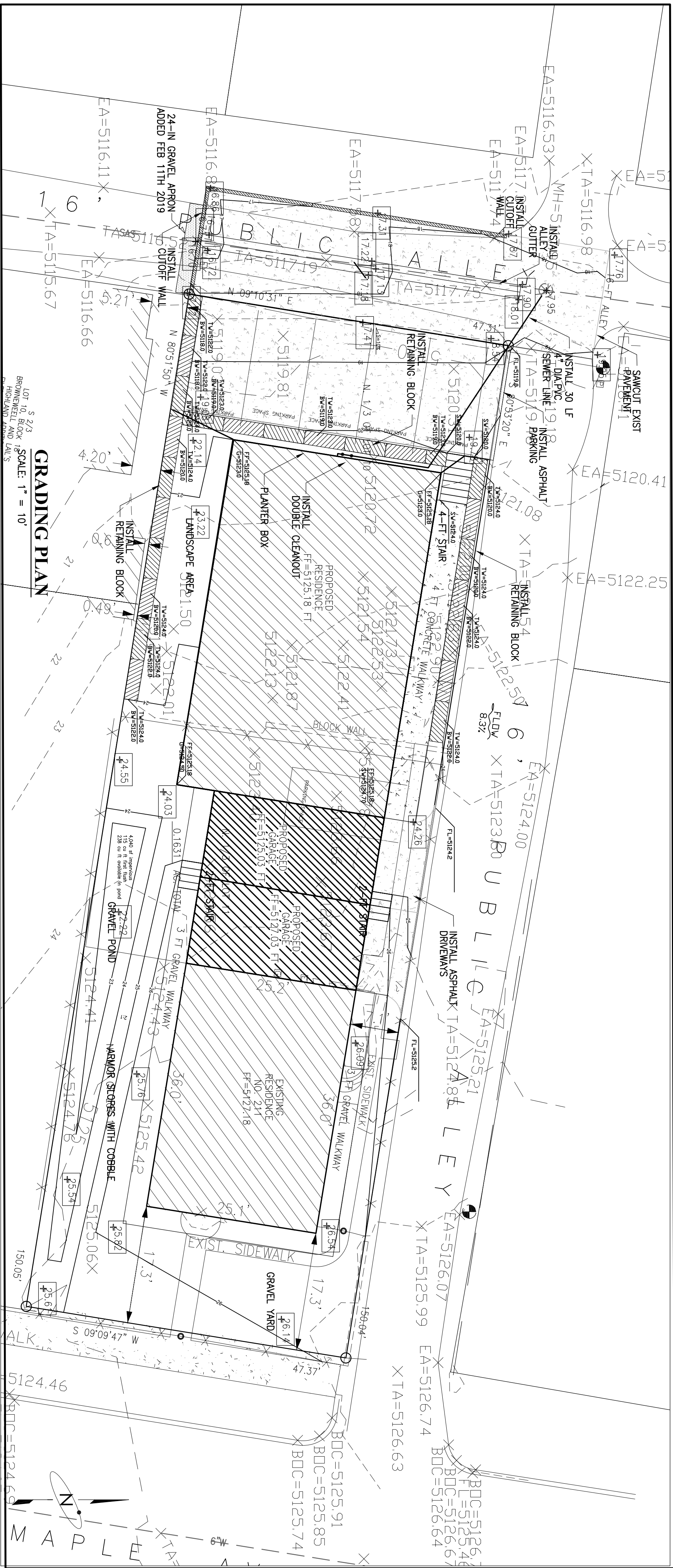
NM 87103

Sincerely,

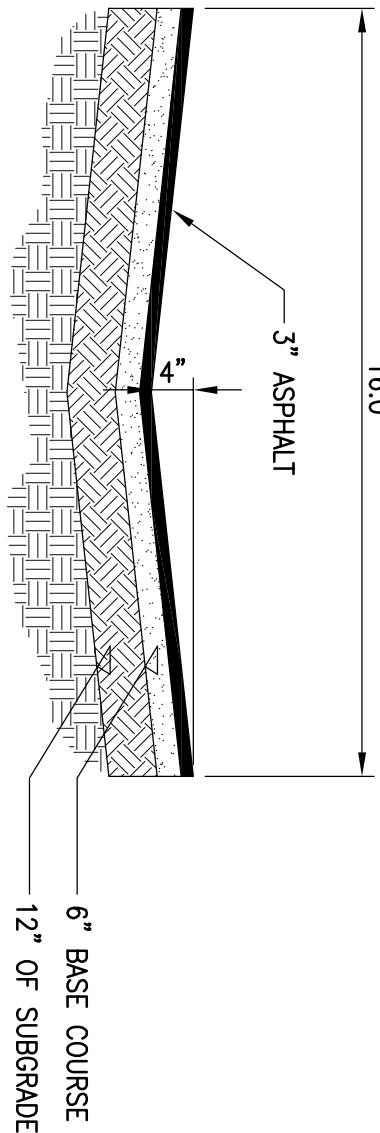
[www.cabq.gov](http://www.cabq.gov)

Renée C. Brissette, P.E. CFM  
Senior Engineer, Hydrology  
Planning Department





ALLEY CROSS SECTION - INVERTED CROWN



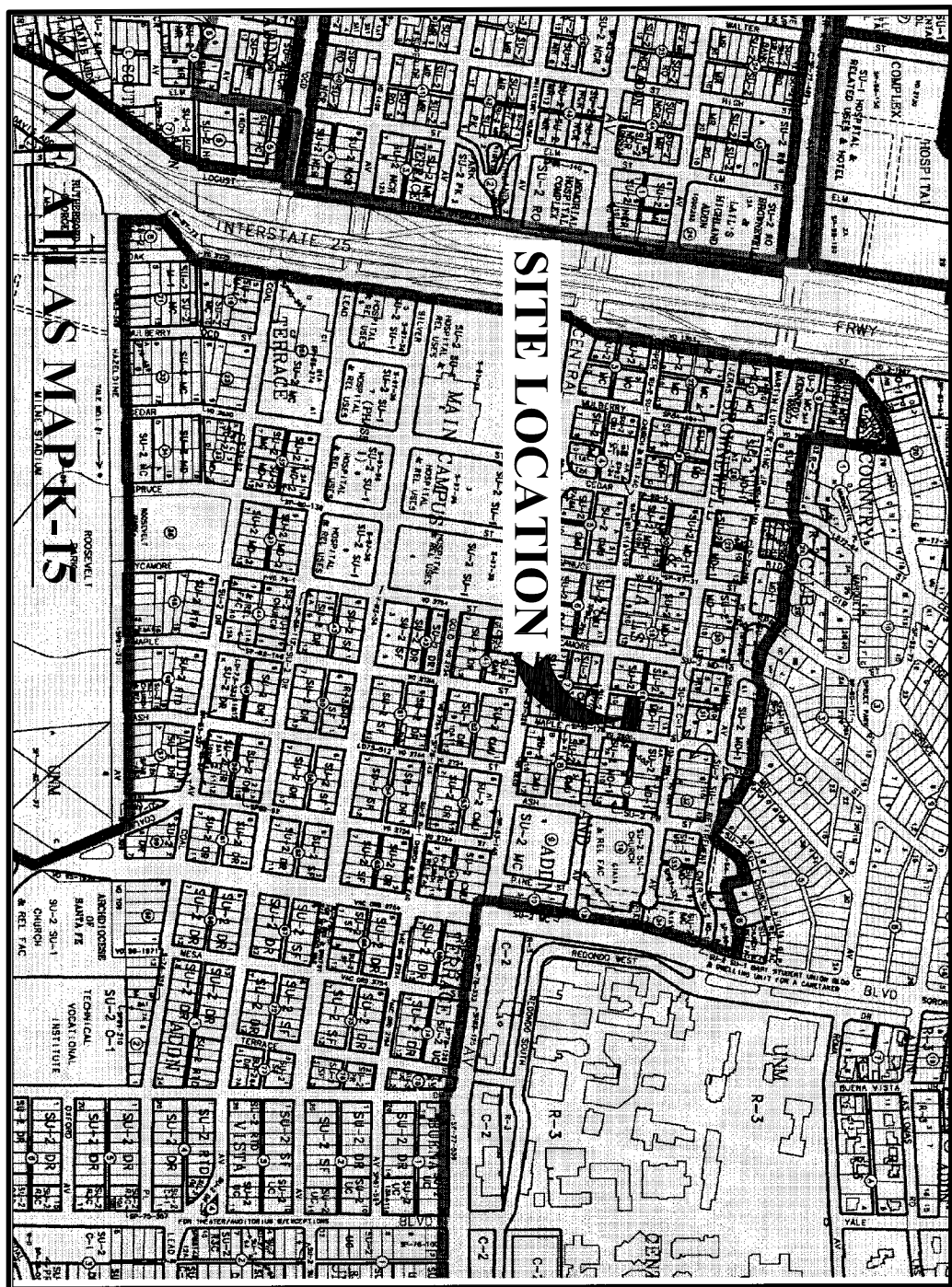
DRAINAGE CERTIFICATION WITH SURVEY WORK BY PROFESSIONAL SURVEYOR

I, Mark Burak, NMEPE 10987, OF THE FIRM Burak Consulting, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED February 28, 2018. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY Tony Harris, NMEPS 11463 OF THE FIRM The Survey Office, Inc. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON February 11<sup>th</sup>, 2019 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR Certificate of Occupancy.

- Field inspection in October 2018 indicated an update to the design by City Engineer. Driveway slope was assessed as too steep. To mitigate that, retaining blocks were installed and an updated drawing was submitted to City Engineer.
- The stacked retaining block is one block higher than design showed which brought the top of wall to the same elevation as the finish floor. Concrete was then added in the one to two foot wide area between the wall and the building where a planter was anticipated.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THE RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

Mark H. Burak  
REGISTERED PROFESSIONAL ENGINEER  
NEW MEXICO  
10987



**Site Location** - As shown by the Vicinity Map (Zone K-15), the proposed residential project site is located on a single lot parcel at 211 Maple Street north of Copper Ave. At present, the eastern portion of the site is developed with an existing residence and drains roughly from east to west into the existing inverted crown alleyway. The purpose of this project is to construct a 2,230 square foot addition with garages, pavement, and parking facilities.

**Legal Description** - Lots 10-A and 10-B Brownwell Latis Highland Addition, City of Albuquerque, New Mexico.

**Benchmark** - Basis of elevation is from City of Albuquerque bench mark "4-K15" with elevation stamped 5,047.765 feet.

**Flood Zone** - As shown by Panel 334G of 825 of the National Flood Insurance Program Flood Insurance Rate Maps (FIRM) for the City of Albuquerque, New Mexico, dated September 26, 2008, this site does not lie within a designated flood hazard zone.

**Existing Conditions** - Currently, the project site drains from east to west across the partially undeveloped 7,105 square foot lot to the existing 16 foot alleyway adjacent to the westerly property boundary. The western half of the lot is unimproved and used for parking. The only off-site runoff impacting the site is generated on or near the existing alleyway that runs along the northern property boundary. All other off-site runoff is contained within the extents of Maple Street and is diverted south to Copper Avenue. The runoff generated on site is carried west in the inverted crown paved alleyway to Sycamore Street where it then turns south to Copper Boulevard.

**Proposed Grading** - The Grading and Drainage Plan shows 1) existing and proposed grades indicated by spot elevations and contours; 2) the limit of existing and proposed improvements. A 3.5-foot stem wall is proposed along the sides of the proposed building to minimize on-site grading. Two feet of the stem wall is to remain exposed next to a planter box. A four foot retaining block will then be placed near the footing to reduce the slope on the parking area. Additional retaining blocks will be placed along the southern and northern property lines to provide walkway and landscape areas within the property. These walls will also contain the on-site runoff within the property. The finish floor is set to allow adequate drainage around the proposed structure. A retention pond is shown on the south side of the existing structure to control the first flush requirements. A swale along the southern edge of the structure will ensure positive drainage to the west from the southern portion of the property and will eliminate cross-lot drainage.

A four inch schedule 40 PVC sewer service is to be installed and connected to the existing line in the alley as shown on the Plan.

**First Flush Management** - The first flush has been mitigated based on 4,040 square feet of the project site to be impervious. This equates to an area of 4,440-0.34/12 or 115 cubic feet. This storage has been provided on the plan by depressing the south side yard area one foot. The maximum volume of the proposed pond is 238 cubic feet.

**Hydrologic Methods** - The drainage basin map shows seven separate subbasins A-G to assess peak flow rates at various points around the project site culminating at either the existing alleyway intersection or Copper Ave. The calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The process outlined in the DPM, Section 22.2 was used to quantify the peak flow rates and volumes. As shown by these calculations, the fully developed improvements will result in a negligible increase in runoff generated by the site. Downstream capacity is sufficient to carry the entire peak runoff of 1.11-cfs generated by the design storm.

The proposed improvements will slightly increase the existing peak runoff by less than one cubic foot per second as shown on the calculations. A spreadsheet for Precipitation Zone 2 is included on this plan. This spreadsheet outlines the peak runoff and volume generated for each subbasin for existing and proposed fully developed and paved conditions. Percentage of each land treatment is shown to illustrate the addition of impervious area related to the proposed construction.



DRAINAGE BASIN

Hydrologic Calculations - COA DPM 22.2									
February 2018									
Subbasin	Area (sq ft)	Area (ac)	Runoff (cfs)	Volume (cu ft)	Time (min)	Peak (cfs)	Volume (cu ft)	Time (min)	Peak (cfs)
Subbasin A	1,134	0.026	0.03	1.0	1.0	0.03	1.0	1.0	0.03
Subbasin B	1,371	0.031	0.04	1.2	1.2	0.04	1.2	1.2	0.04
Subbasin C	1,371	0.031	0.04	1.2	1.2	0.04	1.2	1.2	0.04
Subbasin D	1,371	0.031	0.04	1.2	1.2	0.04	1.2	1.2	0.04
Subbasin E	1,371	0.031	0.04	1.2	1.2	0.04	1.2	1.2	0.04
Subbasin F	1,371	0.031	0.04	1.2	1.2	0.04	1.2	1.2	0.04
Subbasin G	1,371	0.031	0.04	1.2	1.2	0.04	1.2	1.2	0.04
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Subbasin W	1,371	0.031	0.04	1.2	1.2	0.04	1.2	1.2	0.04
Subbasin X	1,371	0.031	0.04	1.2	1.2	0.04	1.2	1.2	0.04
Subbasin Y	1,371	0.031	0.04	1.2	1.2	0.04	1.2	1.2	0.04
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211 Maple House Addition									
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ACTUAL SITE CONDITIONS AND MY KNOWLEDGE AND BELIEF IN SUPPORT OF A REQUEST FOR C

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- The stacked retaining block brought the top of wall to was then added in the one building where a planter was

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*Mark D. Bunker*