# CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



May 1, 2023

Lauren A. Nuffer, P.E. Kimley-Horn and Associates, Inc. 1100 W Town and Country Rd., Suite 700 Orange, CA 92868

RE: Starbucks - Wyoming Blvd. NE Grading Plan and Drainage Report Engineer's Stamp Date: 03/31/23 Hydrology File: H20D003E

Dear Ms. Nuffer:

Based upon the information provided in your submittal received 03/31/2023, the Grading Plan and Drainage Report are approved for Building Permit and Grading Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PO Box 1293

# PRIOR TO CERTIFICATE OF OCCUPANCY:

Albuquerque

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.

NM 87103

2. Please provide the executed paper Drainage Covenant (latest revision) printed on one-side only with Exhibit A and a check for \$25.00 made out to "Bernalillo County" for the detention pond per Article 6-15(C) of the DPM to Hydrology for review at Plaza de Sol.

www.cabq.gov

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Dough Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or <u>rbrissette@cabq.gov</u>.

Sincerely,

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

Renée C. Brissette

Planning Department

# DRAINAGE KEYNOTES (A) NYLOPLAST 18" DRAIN BASIN WITH 2X3 CURB INLET GRATE, SEE DETAIL SHEET C6.1 REPLACE WITH STORM INLET TYPE C PER CITY OF ALBUQUERQUE STANDARD DETAIL 2205, SEE DETAIL SHEET C6.1 (C) | HDPE STORM PIPE C.1 PVC STORM PIPE ROOF DRAIN CLEANOUT, SEE DETAIL SHEET C6.1 ROOF DRAIN CONNECTION INFILTRATING DETENTION POND TOTAL VOLUME = 855 CF **INFILTRATING DETENTION POND 2** TOTAL VOLUME = 603 CF G PROPOSED 2' WIDE DRAINAGE CURB CUT PROPOSED VALLEY GUTTER INLET TO BE CONNECTED TO THE SANITARY SEWER. SEE UTILITY PLAN. (J) CORE INTO EXISTING CURB INLET FOR NEW CONNECTION

# INTRODUCTION AND PROJECT DESCRIPTION:

PROPOSED PROPERTY LINE

**EXISTING CONTOUR** 

<del>\_\_\_ 5382.50</del>

PROPOSED CONTOUR

**EXISTING STORM INLET** 

ADJACENT PROPERTY LINE

PROPOSED SPOT ELEVATION

PROPOSED STORM MANHOLE

PROPOSED STORM CLEANOUT

PROPOSED STORM CLEANOUT

FACE OF CURB (AT FLOWLINE)

MATCH EXISTING ELEVATION

**GRADE BREAK** 

TOP OF PAVEMENT

TOP OF SIDEWALK

TOP OF GRATE

HIGH POINT

FLOW LINE

PROPOSED STORM INLET

PROPOSED FLOW ARROW WITH SLOPE

THE PROJECT SITE IS LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF WYOMING BOULEVARD NE AND NORTHEASTERN BOULEVARD NE IN THE CITY OF ALBUQUERQUE, NM. THE SITE IS ZONED AND PLANNED FOR COMMERCIAL DEVELOPMENT, AND THE USE PROPOSED IS A RESTAURANT WITH DRIVE-THROUGH. AS SHOWN BY MAP #35001C0356H OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO DATED AUGUST 16, 2012, THE SITE IS LOCATED IN ZONE X AND IS NOT WITHIN A FLOOD HAZARD AREA

# METHODOLOGY:

CHAPTER 6 OF THE COA DPM WAS UTILIZED TO CALCULATE THE PEAK FLOW AND RUNOFF VOLUME FOR 10-YEAR AND 100-YEAR, 24-HOUR STORM EVENTS. THE SITE IS LOCATED IN PRECIPITATION ZONE 3. EXISTING BASIN INFORMATION WAS OBTAINED BY SITE AERIALS AND TOPOGRAPHIC SURVEY.

# **EXISTING CONDITIONS:**

THE SITE HISTORICALLY WAS FULLY DEVELOPED, CONTAINED A 11,637 SF BUILDING WITH ASSOCIATED PARKING AND LANDSCAPING. THE SITE IN THE INTERIM CONDITION IS A MASS GRADED SITE WITH NO DEVELOPMENT. THE SITE HISTORICALLY AND IN THE INTERIM CONDITION SURFACE FLOWS TO THE SOUTH TO TWO EXISTING INLETS ON THE SITE, ONE ON THE WEST SIDE AND ONE ON THE EAST SIDE. THE EXISTING STORM DRAIN INLETS DISCHARGE INTO THE PUBLIC STORM DRAIN SYSTEM IN NORTHEASTERN BOULEVARD NE AND WYOMING BOULEVARD NE.

# PROPOSED CONDITIONS:

THE PROJECT IMPROVEMENTS WILL INCLUDE INSTALLATION OF A RESTAURANT WITH DRIVE- THROUGH, CUSTOMER PARKING, SITE DRIVEWAYS, AND LANDSCAPE AREAS. THE PROJECT SITE GENERATES A PEAK FLOW OF 3.64 CFS IN THE 100-YEAR, 6-HOUR STORM EVENT. THE PROPOSED DEVELOPMENT WILL DECREASE THE AMOUNT OF IMPERVIOUS COVER WHEN COMPARED TO THE EXISTING CONDITIONS AND WILL THUS DECREASE THE PEAK DISCHARGE GENERATED BY THE SITE.

THE REQUIRED SWQ VOLUME IS 0.26 INCHES PER SF OF IMPERVIOUS AREA= 0.26\*(1 FT/ 12 IN)\* 27,018 SF= 585 CF. THE SITE HAS PROVIDED APPROXIMATELY 1,458 CF OF SWQV IN DEPRESSED LANDSCAPE AREAS ON THE SITE.

# **CONCLUSIONS:**

THE PROPOSED DEVELOPMENT WILL NOT INCREASE RUNOFF FROM THE SITE NOR WILL IT CHANGE EXISTING DRAINAGE PATTERNS. THE SITE WILL

100- Year

FLOODPLAIN NOTE

DISCHARGE TO AN EXISTING STORM SEWER ON NORTHEASTERN BOULEVARD NE. SITE BENCHMARKS

			Treatme	ent A	Treatn	nent B	Treatn	nent C	Treatn	nent D	Weighted E	Volume	Flow	Weighted E	Volume	Flow
Basin	Area (SF)	Area (AC)	Acres	%	Acres	%	Acres	%	Acres	%	(in)	(ac-ft)	(cfs)	(in)	(ac-ft)	(cfs)
DA 1	38,768	0.89	0.00	0%	0.00	0%	0.03	3%	0.86	97%	2.53	0.19	3.96	1.60	0.12	2.47
DA 2	5,663	0.13	0.00	0%	0.00	0%	0.13	100%	0	0%	1.09	0.01	0.41	1.64	0.02	0.37
					WE	EIGHTED E	CALCULAT	IONS (DEV	ELOPED CC	NDITION)						
											100- Year			10- Year		
											10	00- Year		] 1	l0- Year	
			Treatme	ent A	Treatn	nent B	Treatr	nent C	Treatn	nent D	Weighted E		Flow	Weighted E	l0- Year Volume	Flow
Basin	Area (SF)	Area (AC)	Treatme Acres	ent A %	Treatn Acres	nent B %	Treatr Acres	nent C %	Treatn Acres	nent D %	<u> </u>		Flow (cfs)			Flow (cfs)
Basin DA 1	Area (SF)	Area (AC) 0.75		1	_				_		Weighted E	Volume		Weighted E	Volume	
	. ,	<del>  ` ' </del>	Acres	%	Acres	%	Acres	%	Acres	%	Weighted E (in)	Volume (ac-ft)	(cfs)	Weighted E (in)	Volume (ac-ft)	(cfs)

WEIGHTED E CALCULATIONS (EXISTING CONDITION)

## **SWQ VOL** 27,018 mpervious Area (sf) 945 SWQ VOL Required (CF)\* 1,100 SWQ VOL Provided (CF)

# DELTA ALPHA ANGLE: -0°09'46.08"

→ BENCHMARK #2\* A.G.R.S MONUMENT "14 H20" NORTHING: 1.495.141.626 EASTING: 1,551,771.675 ELEVATION: 5415.798 (NAVD 1988) GROUND TO GRID FACTOR: 0.999653810

A.G.R.S. MONUMENT "13 H21"

ELEVATION: 5499.574 (NAVD 1988)

GROUND TO GRID FACTOR: 0.999649002

NORTHING: 1,496,268.794

EASTING: 1,555,770.607

\*SEE DIMENSION CONTROL PLAN, SHEET C5.1, FOR LOCATIONS

DELTA ALPHA ANGLE: -0°10'13.69"

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP (FIRM), COMMUNITY PANEL NO. 35001C0356H, WHICH BEARS AN EFFECTIVE DATE OF AUGUST 16, 2012 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.



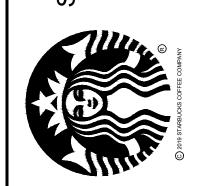
→ BENCHMARK #1\*

# MORROW AVE NE

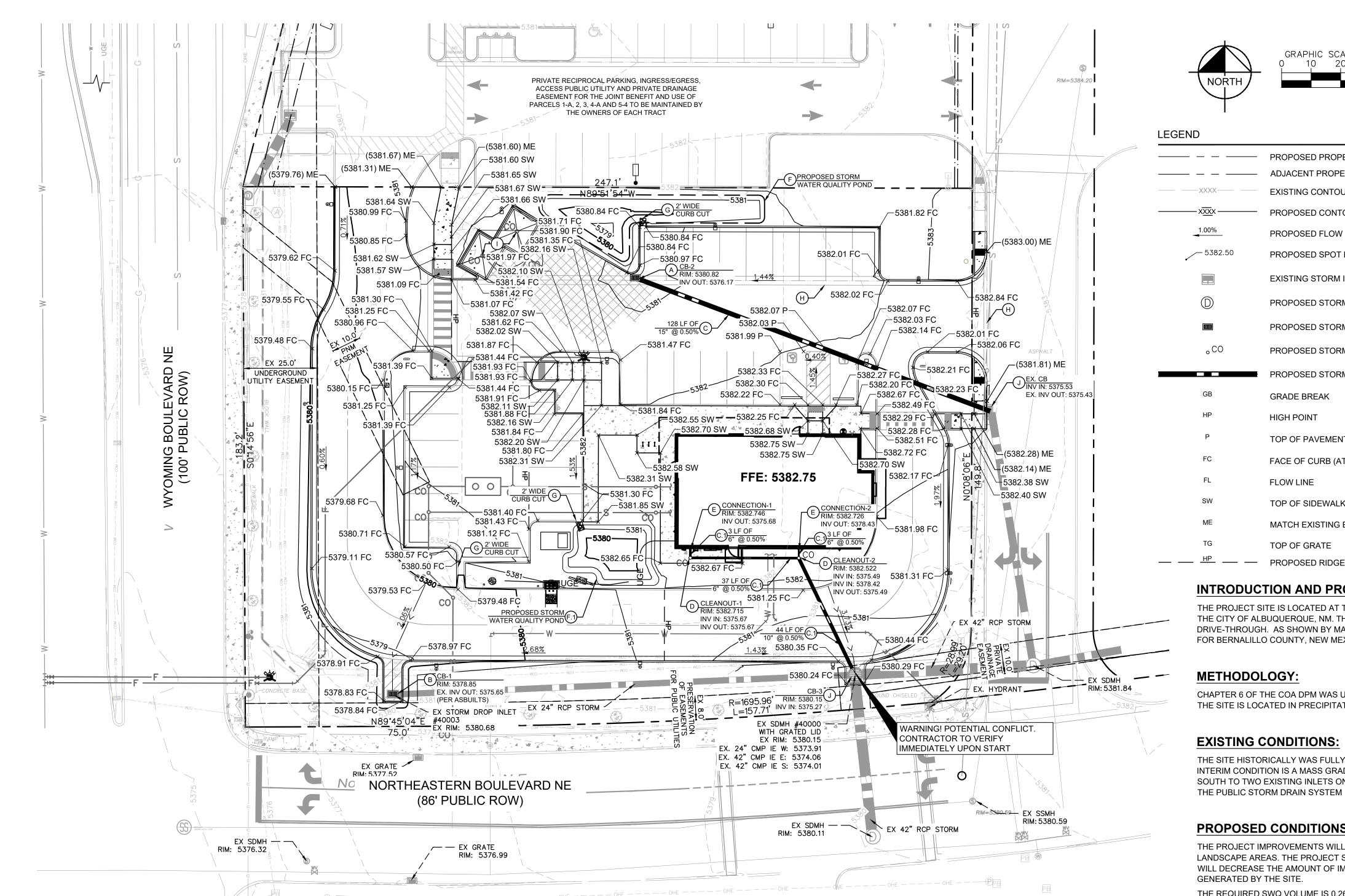
# 



 $\Box$ RADII



SHEET NUMBER



# GRADING AND DRAINAGE NOTES

- 1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THESE PLANS AND THE CITY/AHJ STANDARDS AND SPECIFICATIONS.
- 2. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL MAKE CERTAIN 12. ALL ELEVATIONS ARE TOP OF PAVEMENT UNLESS NOTED OTHERWISE. TO GET THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- 3. THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES. MINOR ADJUSTMENTS TO FINISH GRADE TO ACCOMPLISH SPOT DRAINAGE ARE ACCEPTABLE, IF NECESSARY, UPON PRIOR APPROVAL OF ENGINEER. PAVING
- INSTALLED SHALL "FLUSH OUT" AT ANY JUNCTURE WITH EXISTING PAVING. 4. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING

UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON

- THE PLANS. 5. ALL CUT OR FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED. 6. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY
- TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE. 7. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- 8. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY LAND SURVEYORS. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
- 9. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING FOOTPRINT DIMENSIONS.
- 10. CONTRACTOR SHALL REFER TO FINAL GEOTECH REPORT FOR BUILDING SUBGRADE AND SITE PREPARATION REQUIREMENTS.

- 11. CONTRACTOR SHALL ADJUST EXISTING VALVES, MANHOLE RIMS, ETC. AS
- NECESSARY TO MATCH FINISHED GRADE. TOP OF CURB ELEVATIONS ADD 6" TO THE ELEVATION SHOWN.
- 13. GRADING FOR ALL SIDEWALKS AND ACCESSIBLE ROUTES INCLUDING CROSSING DRIVEWAYS SHALL CONFORM TO ADA STANDARDS. SLOPES SHALL NOT EXCEED 5% LONGITUDINAL SLOPE OR 2% CROSS SLOPE. SIDEWALK ACCESS TO EXTERNAL BUILDING DOORS SHALL BE ADA COMPLIANT. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF ADA CRITERIA CANNOT BE MET AT ANY LOCATION.
- 14. ANY PROPOSED CONTOURS SHOWN ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN THE EVENT OF ANY DISCREPANCIES.
- 15. REFER TO EROSION CONTROL PLAN FOR EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING GRADING OPERATIONS.
- 16. ALL FILL TO BE PLACED SHALL BE IN ACCORDANCE WITH THE CURRENT APPLICABLE GEOTECHNICAL REPORT RECOMMENDATIONS. 17. SIDE SLOPES NEED TO BE STABILIZED WITH NATIVE GRASS SEED (PER CITY OF ALBUQUERQUE SPECIFICATION 1012) WITH AGGREGATE MULCH OR EQUAL (MUST SATISFY THE "FINAL STABILIZATION CRITERIA" CONSTRUCTION GENERAL
- PERMIT 2.2.14.B). 18. REFER TO CITY STANDARD DETAILS FOR TRENCHING, BEDDING, BACKFILL, AND TRENCH COMPACTION REQUIREMENTS
- 19. CONTRACTOR RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF THE CITY WITH REGARDS TO MATERIALS, INSTALLATION, AND UTILITY CROSSINGS.



## Excess Precipitation E (in) Peak Discharge (cfs/acre) Zone 3 | 100-Year | 10-Year | Zone 3 | 100-Year | 10-Year 0.67 0.18 1.84 0.86 0.34 2.49 1.07 1.09 0.52 3.17 2.58 1.64 4.49

\*0.26 in per impervious SF

DA 3 0 0.11 0.02 18% 0.00 0% 0.06 55% 0.03 27% 1.42 0.01 0.36 0.77 0.01 0.20