BURGER KING
PRELIMINARY GRADING AND DRAINAGE PLAN
6758 E UNIVERSITY DR.
MESA, AZ 85205

BENCHMARK:

BENCHMARK IS A BRASS TAG LOCATED AT THE SW CORNER OF THE INTERSECTION OF POWER ROAD AND UNIVERSITY DRIVE. ELEVATION = 1435.22' NAVD 88 (CITY OF MESA DATUM)

BASIS OF BEARING:

THE BASIS OF BEARING AND ALL MONUMENTATION SHOWN HEREON IS BASED ON THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 13, TOWNSHIP 1 NORTH, RANGE 6 EAST, USING A BEARING OF NORTH 89 DEGREES 54 MINUTES 04 SECONDS WEST AS SHOWN IN THE TITLE COMMITMENT PARCEL DESCRIPTION.

PROPOSED LEGEND:

G=XX.XX	GUTTER ELEVATION. TC (TOP OF CURB) = G+0.5'
P=XX.XX	PAVEMENT ELEVATION
C=XX.XX	CONCRETE ELEVATION
	SAWCUT/LIMITS OF CONSTRUCTION
	RIDGE LINE
	PROPERTY LINE
	CONCRETE CURB & GUTTER
	FLOW ARROW
	LIGHT DUTY PAVEMENT
	CONCRETE PAVEMENT
	HEAVY DUTY PAVEMENT
CE:XX.XX	EXISTING CONCRETE ELEVATION
TC:XX.XX GE:XX.XX	EXISTING GUTTER ELEVATION TC (TOP OF CURB) = G+0.5'

DRAINAGE STATEMENT:

PER FIRM MAP NUMBER 04013C2290M DATED 11/04/2015, THIS SITE IS DESIGNATED AS ZONE X WHICH IS FURTHER DESCRIBED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AND THEREFORE IS NOT IN A SPECIAL FLOOD HAZARD AREA.

PER THE CITY OF MESA, THE REQUIRED STORM WATER STORAGE VOLUME IS V=C*P/12*A FOR A 100-YEAR, TWO-HOUR STORM EVENT. A C VALUE OF 0.95 WAS TAKEN FOR CONCRETE, 0.85 FOR ASPHALT AND 0.5 FOR LANDSCAPE AREAS, WHERE THE CW WAS COMPUTED TO BE AROUND 0.90. A RAINFALL DEPTH (P) OF 2.15 INCHES IS USED FOR VOLUME CALCULATIONS.

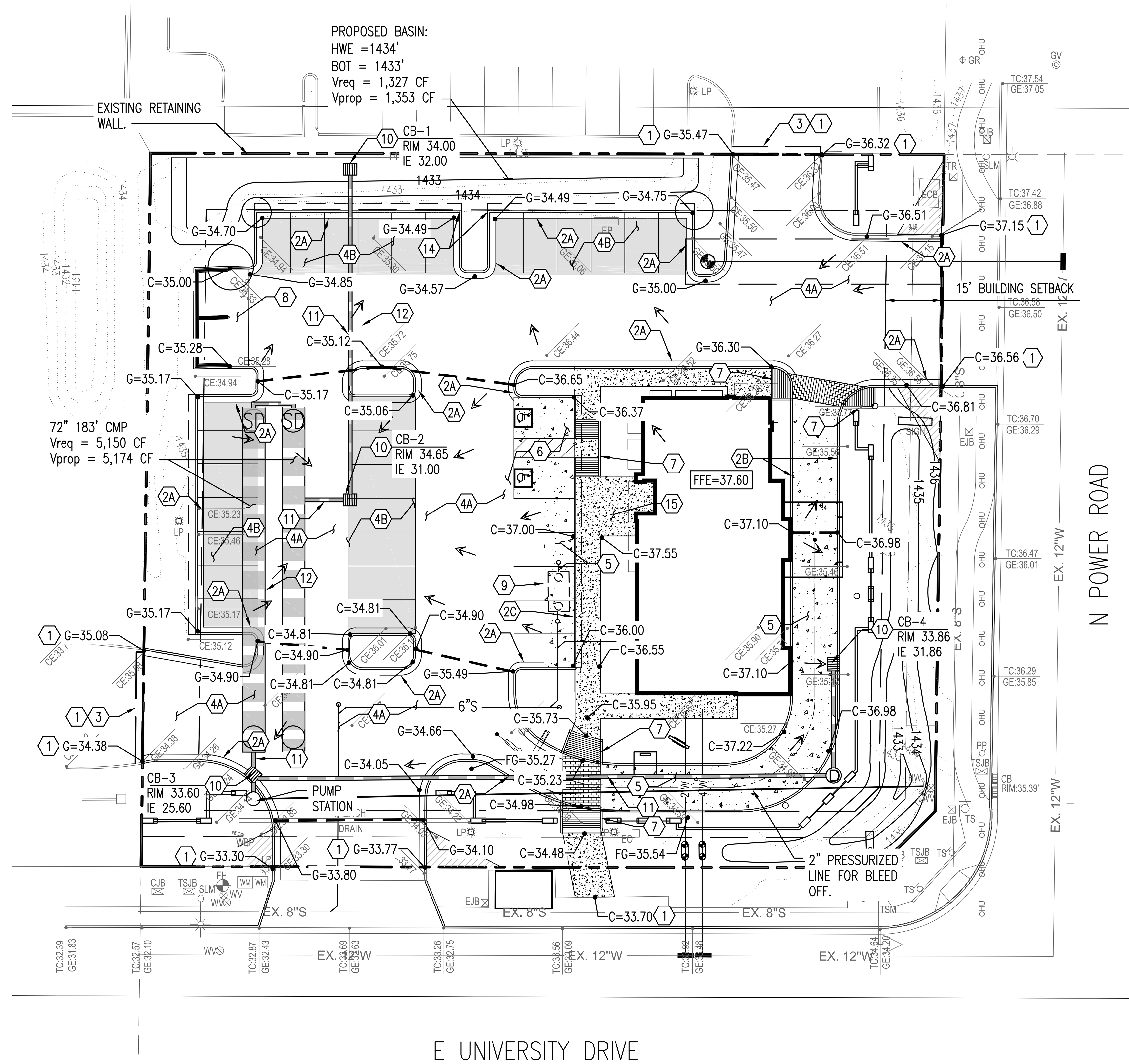
SINCE THIS IS A DEVELOPED LAND, EXISTING STORM WATER DRAINAGE SYSTEMS MUST BE IDENTIFIED AND UTILIZED IF APPLICABLE.

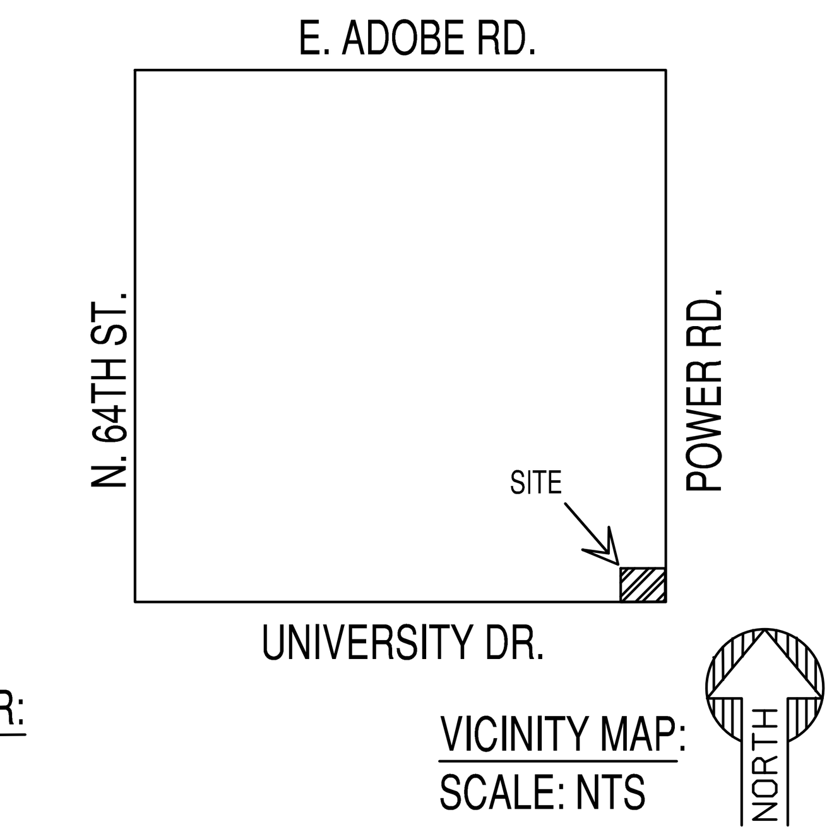
THE TOTAL DRAINAGE AREA IS APPROXIMATELY 0.92 AC. THEREFORE, THE REQUIRED VOLUME (V) IS EQUIVALENT TO V = 0.90*2.15/12*0.92)= 0.148AC-FT= 6,447CF. ANY RETENTION SYSTEM MUST DRAIN ANY STORM EVENT UP TO AND INCLUDING THE 100-YEAR 2-HOUR STORM WITHIN 36 HOURS.

PIPEOUT

*UNDERGROUND RETENTION DISCHARGE TO OCCUR VIA A PUMP TO EXISTING CB ALONG POWER ROAD. - BLEED OFF WILL OCCUR IN LESS THAN 36 HOURS. (5 HOURS ASSUMED).

Q=(6,477 CF/5 HRS)/3,600)=0.36 CFS





VICINITY MAP:
SCALE: NTS

NORTH

0' 20' 40' 60'
SCALE: 1" = 20'

OWNER / DEVELOPER:

KRAF INC/BURGER KING
5070 N. 40TH ST. SUITE 100
PHOENIX, AZ 85018
PHONE: 602-273-7997
ATTN: RON BROATCH
RONBROATCH@AOL.COM

CIVIL ENGINEER:

SUSTAINABILITY ENGINEERING GROUP
8280 E GELDING DR., SUITE 101
SCOTTSDALE, AZ 85260
PHONE 480-237-2507
ATTN: ALI FAKIH
ALI@AZSEG.COM

ARCHITECT

SUSTAINABILITY ENGINEERING GROUP
8280 E GELDING DR., SUITE 101
SCOTTSDALE, AZ 85260
PHONE 480-237-2510
ATTN: BOB HANSEN
BOB@AZSEG.COM

KEYNOTES

1. MATCH EXISTING GRADE; CONTRACTOR TO VERIFY IN FIELD ALL GRADES PRIOR TO ANY CONSTRUCTION ACTIVITIES AND TO CONTACT ENGINEER IN CASE OF ANY DISCREPANCIES.
2A. CONSTRUCT 6" CURB & GUTTER PER MAG STD DET 220-1 TYPE "A".
2B. CONSTRUCT VERTICAL CURB PER MAG STD DET 222 TYPE "A".
2C. CONSTRUCT VERTICAL CURB PER MAG STD DET 222 TYPE "A" WITH TURNDOWN SLAB.
3. SAWCUT EXISTING PAVEMENT/CURB TO PROVIDE STRAIGHT VERTICAL EDGES, FREE FROM IRREGULARITIES. SAWCUT SIDEWALK TO NEAREST JOINT.
4A. CONSTRUCT HEAVY DUTY PAVEMENT.
4B. CONSTRUCT LIGHT DUTY PAVEMENT.
5. CONSTRUCT CONCRETE PAVEMENT.
6. 2% MAXIMUM SLOPE IN ANY DIRECTION AT ACCESSIBLE PARKING STALLS AND 2% MAXIMUM CROSS SLOPE AT ADA ACCESSIBLE ROUTE.
7. CONSTRUCT ADA RAMP.
8. EXISTING TRASH ENCLOSURE
9. PAVEMENT JOINT.
10. FURNISH & INSTALL CATCH BASIN PER MAG STD 534-1.
11. INSTALL 12" HDPE.
12. INSTALL 6' CMP.
13. INSTALL DRYWELL.
14. CURB OPENING.
15. PROPOSED SIDEWALK.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

NOTE TO CONTRACTOR:
THE SET OF DRAWINGS AND DOCUMENTS IS INTENDED AS A SET OF GUIDELINES FOR THE PROJECT AND ARE INTENDED TO BE USED IN CONJUNCTION WITH A SET OF CONSTRUCTION SPECIFICATIONS TO BE SUPPLIED BY OWNER. THEY MUST BE READ TO INCORPORATE ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES INCLUDING FEDERAL A.D.A. REQUIREMENTS. THIS SET ASSUMES THAT THERE ARE NO UNUSUAL SOIL CONDITIONS OR WIND LOADS. THE FAILURE OF THIS CONDITION MAY REQUIRE SIGNIFICANT CHANGES TO THESE DOCUMENTS. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO CONFORM TO ALL APPLICABLE CODES AND TO INFORM THE OWNER/ARCHITECTS OF ANY QUESTIONS OR CLARIFICATIONS WHICH ARE DESIRED. CONTRACTORS SHALL ALSO VISIT THE SITE BEFORE BIDDING. CONTRACTORS ARE REQUIRED TO KNOW ALL OBSERVABLE CONDITIONS AND APPLICABLE CODES.

45621
ALI SAMIH FAKIH
09-11-18
ARIZONA, U.S.A.
EXPIRES 12-31-18

SEG SUSTAINABILITY ENGINEERING GROUP
8280 E GELDING DR #101, SCOTTSDALE, ARIZONA 85260
WWW.AZSEG.COM TEL. 480.588.7226

BURGER KING CORP./ KRAF INC.
5070 NORTH 40TH STREET SUITE 100
PHOENIX, ARIZONA 85018
PHONE: 602.273.7997

PROJECT: BURGER KING POWER & UNIVERSITY
LOCATION: E UNIVERSITY DRIVE & N POWER ROAD MESA, AZ 85205

DRAWN	HARMOUCHE
DESIGNED	HARMOUCHE
CHECKED	COUNSELL
PROJ. MGR.	FAKIH

DATE: 09/11/18

ISSUED FOR: DESIGN REVIEW BOARD (DRB)

REVISION NO.:

JOB NO.: 180302

SHEET TITLE: PRELIMINARY GRADING AND DRAINAGE PLAN

SHEET NO.: C3.00