

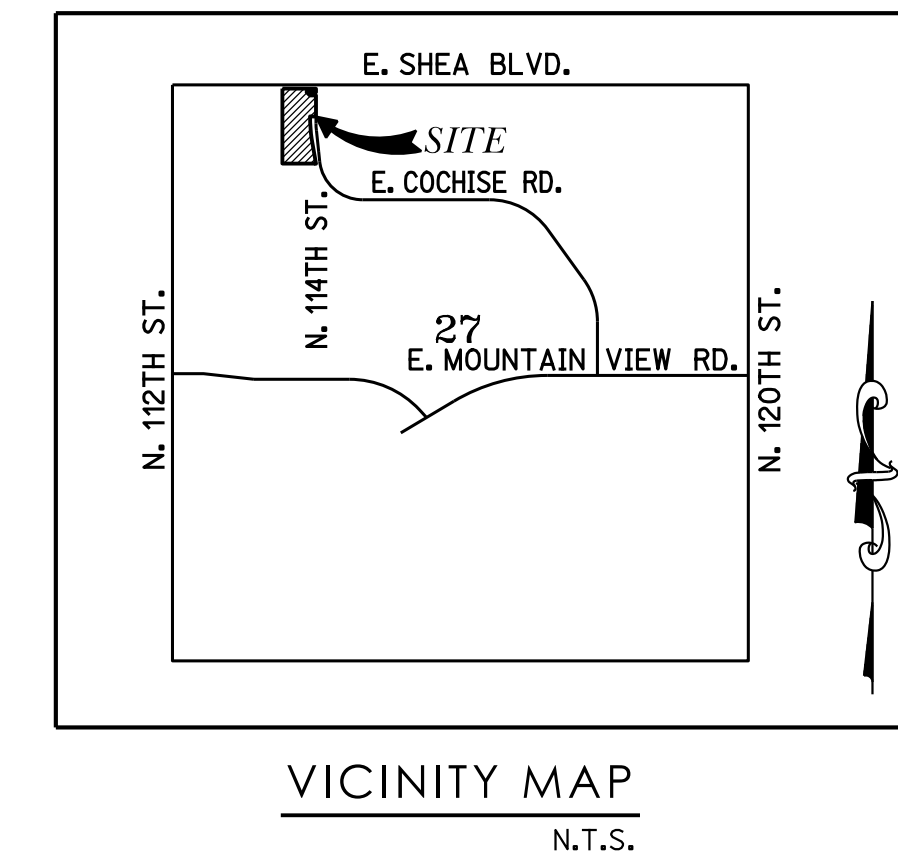
GENERAL NOTES FOR PUBLIC WORKS CONSTRUCTION:

1. ALL CONSTRUCTION IN THE PUBLIC RIGHTS-OF-WAY OR IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION AS AMENDED BY THE LATEST VERSION OF THE CITY OF SCOTTSDALE STANDARD SPECIFICATIONS AND SUPPLEMENTAL STANDARD DETAILS. IF THERE IS A CONFLICT, THE CITY'S SUPPLEMENTAL STANDARD DETAILS WILL GOVERN.
2. THE CITY ONLY APPROVES THE SCOPE, NOT THE DETAIL OF ENGINEERING DESIGNS; THEREFORE IF CONSTRUCTION QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE NOT VERIFIED BY THE CITY.
3. THE APPROVAL OF PLANS IS VALID FOR SIX (6) MONTHS. IF ASSOCIATED PERMIT HAS NOT BEEN ISSUED WITHIN THIS TIME FRAME, THE PLANS MUST BE RESUBMITTED TO THE CITY FOR RE-APPROVAL.
4. A CITY INSPECTOR WILL INSPECT ALL WORKS WITHIN THE CITY OF SCOTTSDALE. NOTIFY INSPECTION SERVICES 72 HOURS BEFORE BEGINNING WORK.
5. WHENEVER EXCAVATION IS NECESSARY, CALL THE BLUE STAKE CENTER, 811, TWO WORKING DAYS BEFORE EXCAVATION BEGINS.
6. PERMISSION TO WORK IN THE RIGHT-OF-WAY (PWR) PERMITS ARE REQUIRED FOR ALL WORKS WITHIN THE RIGHTS-OF-WAY AND EASEMENTS GRANTED FOR PUBLIC PURPOSES. COPIES OF ALL PERMITS MUST BE RETAINED ON-SITE AND BE AVAILABLE FOR INSPECTION AT ALL TIMES. FAILURE TO PRODUCE THE REQUIRED PERMITS WILL RESULT IN IMMEDIATE SUSPENSION OF ALL WORK UNTIL THE PROPER PERMIT DOCUMENTATION IS OBTAINED.

PRELIMINARY GRADING & DRAINAGE PLAN FOR 114TH & SHEA RETAIL

SWC 114TH ST. & SHEA BLVD., SCOTTSDALE, AZ 85259

LOCATED IN A PORTION OF THE NORTHWEST QUARTER OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 5 EAST
OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA



WEIGHTED C CALCULATIONS

DRAINAGE AREA A
 AREA OF IMPERVIOUS = 20,210 SF
 AREA OF PERVIOUS = 24,346 SF
 $WEIGHTED\ C = \frac{(20,210 \times 0.95) + (24,346 \times 0.45)}{44,556}$
 WEIGHTED C = 0.68

DRAINAGE AREA B
 AREA OF IMPERVIOUS = 35,146 SF
 AREA OF PERVIOUS = 18,913 SF
 $WEIGHTED\ C = \frac{(35,146 \times 0.95) + (18,913 \times 0.45)}{54,059}$
 WEIGHTED C = 0.78

DRAINAGE AREA C
 AREA OF IMPERVIOUS = 7,237 SF
 AREA OF PERVIOUS = 5,102 SF
 $WEIGHTED\ C = \frac{(7,237 \times 0.95) + (5,102 \times 0.45)}{12,339}$
 WEIGHTED C = 0.74

RETENTION CALCULATIONS

100-YEAR 2-HOUR STORM EVENT

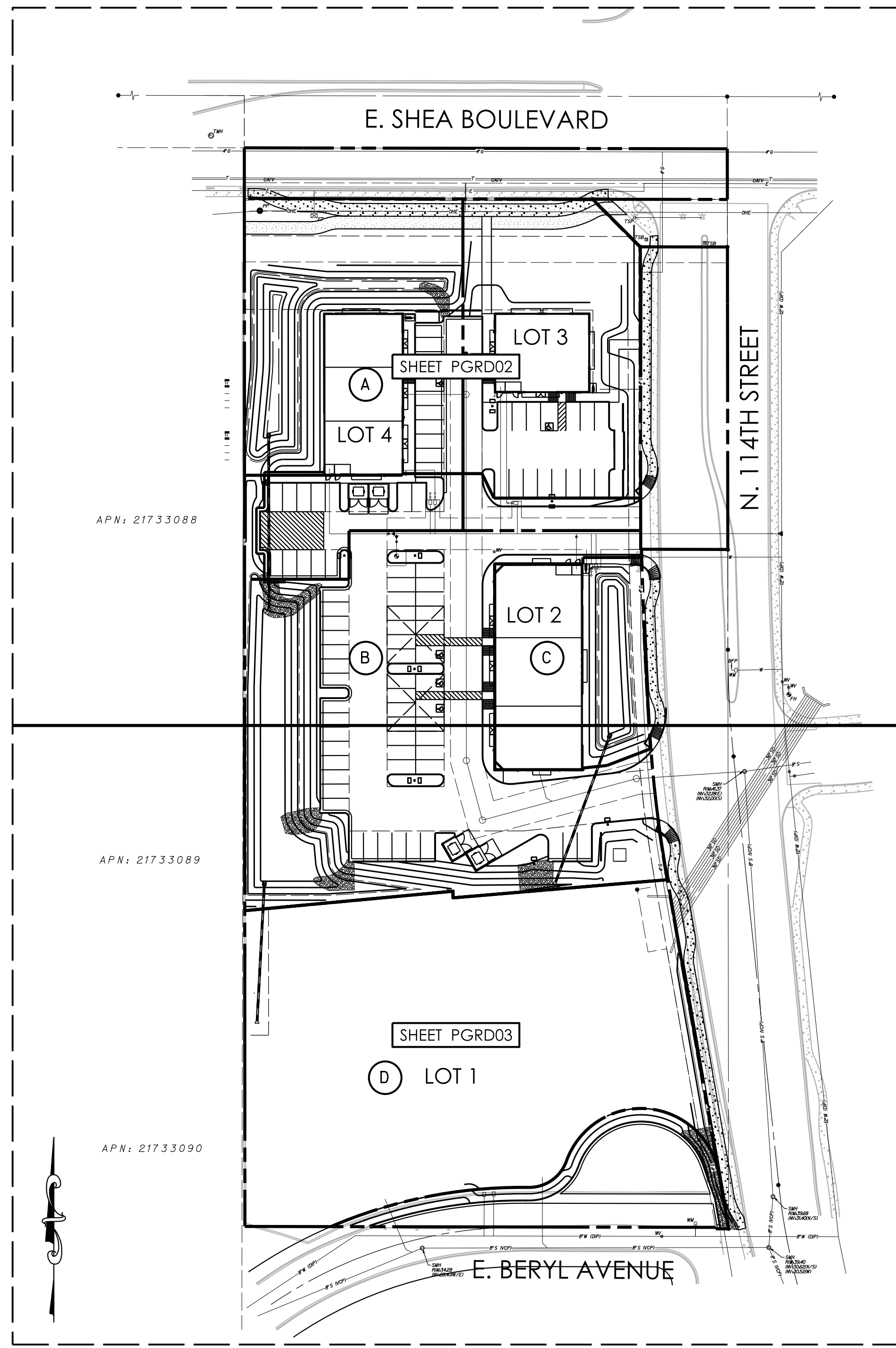
DRAINAGE AREA A
 C = 0.68
 P = 2.30 IN
 AREA = 44,556 SF
 $(0.68) \left(\frac{2.30}{12} \right) (44,556) = 5,780\ CF\ REQUIRED$
6,234 CF PROVIDED

DRAINAGE AREA B
 C = 0.78
 P = 2.30 IN
 AREA = 54,059 SF
 $(0.78) \left(\frac{2.30}{12} \right) (54,059) = 8,031\ CF\ REQUIRED$
10,110 CF PROVIDED

DRAINAGE AREA C
 C = 0.74
 P = 2.30 IN
 AREA = 12,339 SF
 $(0.74) \left(\frac{2.30}{12} \right) (12,339) = 1,758\ CF\ REQUIRED$
2,050 CF PROVIDED

DRAINAGE AREA D
 C = 0.64 (R1-18 ZONING)
 P = 2.30 IN
 AREA = 50,962 SF
 $(0.64) \left(\frac{2.30}{12} \right) (50,962) = 6,251\ CF\ REQUIRED$
6,251 CF PROVIDED

*NOTE: 6,251 CUBIC FEET OF RETENTION IS REQUIRED FOR LOT 1. THIS VOLUME WILL BE REQUIRED TO BE RETAINED ON THE LOT. THIS VOLUME WILL BE NON-WAIVABLE AND WILL BE REQUIRED WITH THE HOUSE PLANS.



LEGEND

- INDICATES PROPERTY / BOUNDARY LINE
- 1560- INDICATES EXISTING CONTOUR ELEVATION
- 58- INDICATES PROPOSED CONTOUR ELEVATION
- TC: 59.13 INDICATES EXISTING TOP OF CURB ELEVATION
- G: 58.64 INDICATES EXISTING GUTTER ELEVATION
- +62.52 INDICATES EXISTING GROUND ELEVATION
- +P: 60.11 INDICATES EXISTING PAVEMENT ELEVATION
- +C: 56.69 INDICATES EXISTING CONCRETE ELEVATION
- x 15.9 INDICATES PROPOSED GROUND ELEVATION
- 1% INDICATES DIRECTION OF FLOW & SLOPE
- ◆ INDICATES GRADE BREAK
- P= INDICATES PROPOSED PAVEMENT ELEVATION
- C= INDICATES PROPOSED TOP OF CONC. ELEVATION
- G= INDICATES PROPOSED GUTTER ELEVATION
- LF₈₈= INDICATES LOWEST FINISH FLOOR ELEVATION
- W- INDICATES PROPOSED WATERLINE
- S- INDICATES PROPOSED SEWERLINE
- INDICATES PROPOSED METER
- INDICATES PROPOSED SEWER CLEANOUT
- INDICATES PROPOSED CATCH BASIN
- INDICATES PROPOSED STORM DRAIN PIPE
- INDICATES PROPOSED STORM DRAIN MANHOLE
- ⊙ INDICATES PROPOSED FIRE HYDRANT
- FH ⊙ INDICATES EXISTING FIRE HYDRANT
- 24" SD--- INDICATES EXISTING STORM DRAIN PIPE
- 8" S --- INDICATES EXISTING SEWER LINE & SIZE
- 12" W (ACP)--- INDICATES EXISTING WATER LINE, VALVE & SIZE
- E --- INDICATES EXISTING BURIED ELECTRIC CONDUIT
- G --- INDICATES EXISTING GAS LINE
- OHE--- INDICATES EXISTING OVERHEAD ELECTRIC
- PP INDICATES EXISTING POWER POLE
- x LP INDICATES EXISTING LIGHT POLE
- ET ⊠ INDICATES EXISTING ELECTRIC TRANSFORMER
- EB ⊙ INDICATES EXISTING ELECTRIC BOX
- WM ⊙ INDICATES EXISTING WATER METER
- BMW ⊙ INDICATES EXISTING BACKFLOW PREVENTER VALVE

SITE MAP
N.T.S.

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
PGRD01	COVER SHEET - PRELIMINARY GRADING & DRAINAGE PLAN
PGRD02	PRELIMINARY GRADING & DRAINAGE PLAN
PGRD03	PRELIMINARY GRADING & DRAINAGE PLAN

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION:

COMMUNITY NUMBER	PANEL NUMBER	PANEL DATE	SUFFIX	FIRM DATE	FIRM ZONE	BASE FLOOD ELEVATION
045012	1780	OCTOBER 16, 2013	L	OCTOBER 16, 2013	X	N/A

ENGINEER'S CERTIFICATION:
 THE LOWEST FINISH FLOOR ELEVATIONS AND/OR FLOOD PROOFING ELEVATIONS ON THIS PLAN ARE SUFFICIENTLY HIGH TO PROVIDE PROTECTION FROM FLOODING CAUSED BY A 100-YEAR STORM, AND ARE IN ACCORDANCE WITH SCOTTSDALE REVISED CODE, CHAPTER 37 - FLOODPLAIN AND STORMWATER REGULATION.

PROJECT SCOPE:

THE SCOPE OF THIS PROJECT IS A NEW RETAIL DEVELOPMENT, UTILITY IMPROVEMENTS AND LANDSCAPE.

CLIENT:

HAWKINS COMPANIES LLC
 4700 S. MCCLINTOCK DR. #160
 TEMPE, ARIZONA 85282
 CONTACT: MARK MITCHELL
 PHONE: (480) 223-8239
 EMAIL: MMITCHELL@HCOLLCC.COM

ENGINEER:

3 ENGINEERING
 6370 E. THOMAS ROAD, SUITE #200
 SCOTTSDALE, ARIZONA 85251
 CONTACT: DANIEL G. MANN, P.E.
 PHONE: (602) 334-4387
 EMAIL: DAN@3ENGINEERING.COM

ASSESSORS PARCEL NUMBERS:

PORTIONS OF APN 217-33-034G, 034F, 034M, 034K, & 034N.

BENCHMARK:

3" BRASS DISK, LOCATED AT THE INTERSECTION OF SHEA BOULEVARD & 114TH STREET.
 ELEVATION = 1444.23 (NAVD'88)
 CITY OF SCOTTSDALE DATUM

I HEREBY CERTIFY THAT ALL ELEVATIONS REPRESENTED ON THIS PLAN ARE BASED ON THE ELEVATION DATUM FOR THE CITY OF SCOTTSDALE BENCHMARK PROVIDED ABOVE.

4/21/2022
 ENGINEER DATE

BASIS OF BEARING:

THE BASIS OF BEARING IS THE CENTERLINE OF EAST SHEA BOULEVARD, ALSO BEING THE NORTHERN SECTION LINE OF SECTION 27, TOWNSHIP 3 NORTH, RANGE 5 EAST, WHICH BEARS N89°53'00"W PER GPS COORDINATE OBSERVATIONS ARIZONA STATE PLANE, CENTRAL ZONE NAD83.

ENGINEER'S STATEMENT:

THE ENGINEER OF RECORD ON THESE PLANS HAS RECEIVED A COPY OF THE APPROVED STIPULATIONS FOR THIS PROJECT AND HAS DESIGNED THESE PLANS IN CONFORMANCE WITH THE APPROVED STIPULATIONS

AS-BUILT CERTIFICATION:

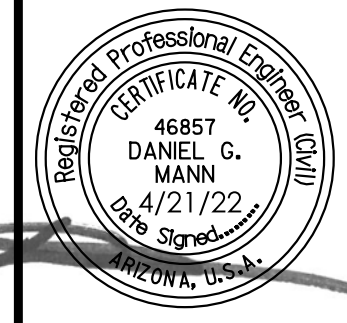
I HEREBY CERTIFY THAT THE RECORD DRAWING MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER/LAND SURVEYOR DATE
 REGISTRATION NUMBER

CIVIL APPROVAL			
REVIEW & RECOMMENDED APPROVAL BY:			
PAVING		TRAFFIC	
G & D		PLANNING	
W & S		FIRE	
RET. WALLS			
ENGINEERING COORDINATION MGR. (OR DESIGNEE)		DATE	

Contact Arizona 811 at least two full working days before you begin excavation. Call 811 or click Arizona811.com

114TH & SHEA RETAIL
 SWC 114TH ST. & SHEA BLVD., SCOTTSDALE, AZ 85259
PRELIMINARY GRADING & DRAINAGE PLAN



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 WWW.3ENGINEERING.COM
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 REGISTERED ENGINEER - DANIEL G. MANN
 CAD TECH - PHILIP Y. CHEN

3 ENGINEERING, LLC
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 SCOTTSDALE, ARIZONA 85251
 PHONE: (602) 334-4387
 FAX: (602) 495-3230
 WWW.3ENGINEERING.COM
 DATE: 04/21/22
 PROJECT NO.
1831
 SHEET NO.
PGRD01
 1 of 3

UTILITY	UTILITY COMPANY	NAME OF COMPANY REPRESENTATIVE	TELEPHONE NUMBER	DATE SIGNED
ELECTRIC	APS			
TELEPHONE	CENTURY LINK			
NATURAL GAS	SOUTHWEST GAS			
CABLE TV	COX COMMUNICATIONS			
OTHER	A.T.&T.			
OTHER				

ENGINEER'S CERTIFICATION
 I DANIEL G. MANN, AS THE ENGINEER OF RECORD FOR THIS DEVELOPMENT, HEREBY CERTIFY THAT ALL UTILITY COMPANIES LISTED ABOVE HAVE BEEN PROVIDED FINAL IMPROVEMENT PLANS FOR REVIEW, AND THAT ALL CONFLICTS IDENTIFIED BY THE UTILITIES HAVE BEEN RESOLVED. IN ADDITION "NO CONFLICT" FORMS HAVE BEEN OBTAINED FROM EACH UTILITY COMPANY AND ARE INCLUDED IN THIS SUBMITTAL.

SIGNATURE _____ DATE _____

C:\My Documents\Projects\1831_114th_Shea\Preliminary\1831pgrd01.dgn

Q.S.#28-55

114TH & SHEA RETAIL

SWC 114TH ST. & SHEA BLVD., SCOTTSDALE, AZ 85259

PRELIMINARY GRADING & DRAINAGE PLAN

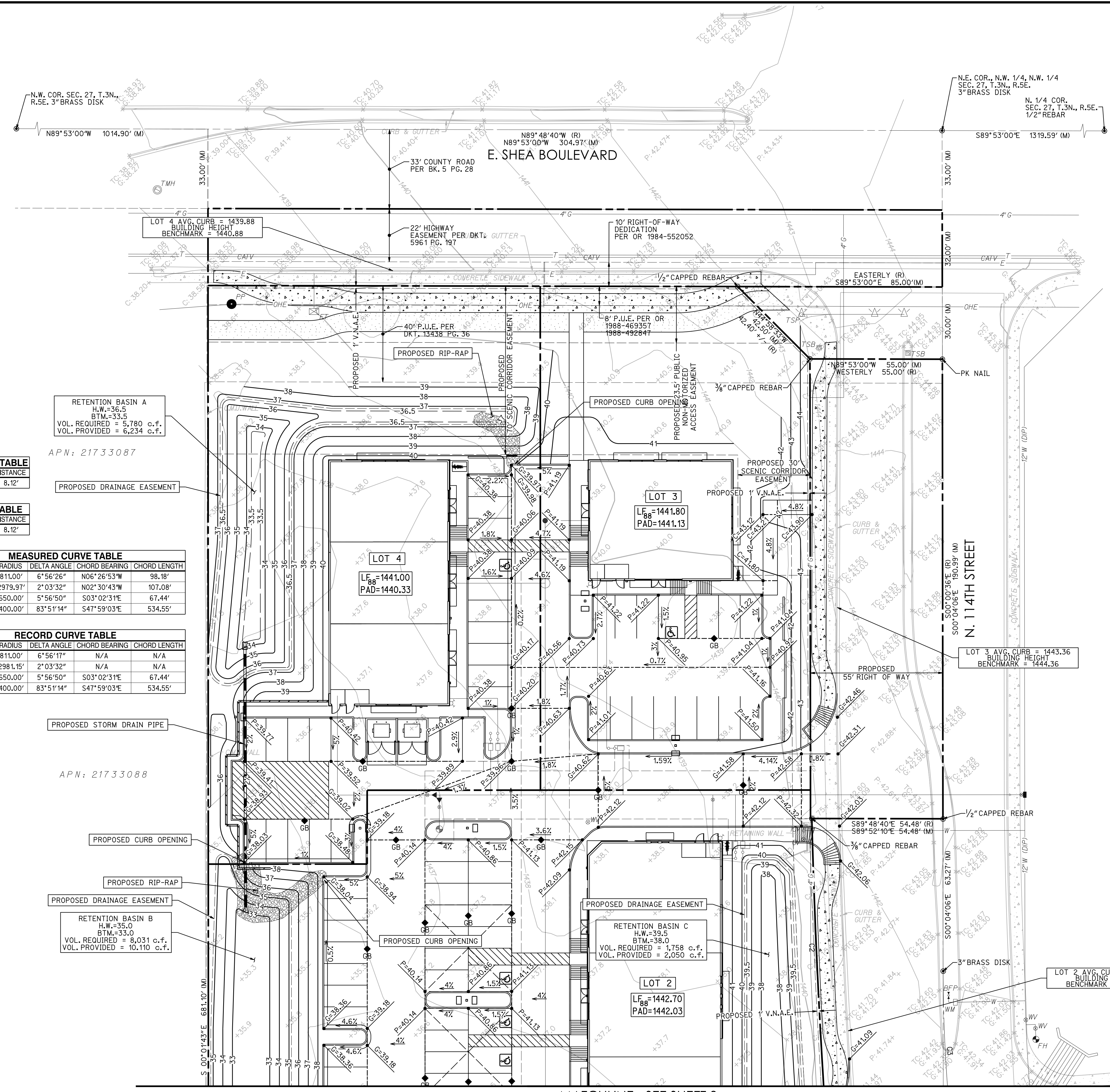


3eengineering
 planning
 civil engineering
 surveying

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 FAX: (602) 495-3230
 WWW.3ENGINEERING.COM

DATE: 04/21/22
 PROJECT NO: 1831
 SHEET NO: PGRD02
 2 of 3

Q.S.#28-55



MEASURED LINE TABLE

LINE	BEARING	DISTANCE
L1	N89°52'10"W	8.12'

RECORD LINE TABLE

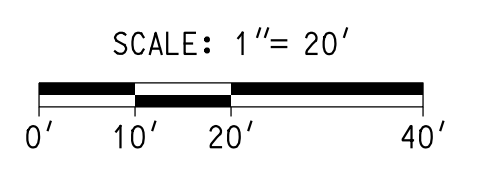
LINE	BEARING	DISTANCE
L1	N89°48'40"W	8.12'

MEASURED CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	98.24'	811.00'	6°56'26"	N06°26'53"W	98.18'
C2	107.09'	2979.97'	2°03'32"	N02°30'43"W	107.08'
C3	67.47'	650.00'	5°56'50"	S03°02'31"E	67.44'
C4	585.41'	400.00'	83°5'14"	S47°59'03"E	534.55'

RECORD CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	98.21'	811.00'	6°56'17"	N/A	N/A
C2	107.13'	2981.15'	2°03'32"	N/A	N/A
C3	67.47'	650.00'	5°56'50"	S03°02'31"E	67.44'
C4	585.41'	400.00'	83°5'14"	S47°59'03"E	534.55'



MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 2

PROPOSED DRAINAGE EASEMENT

RETENTION BASIN B
H.W.=35.0
BTM.=33.0
VOL. REQUIRED = 8,031 c.f.
VOL. PROVIDED = 10,110 c.f.

PROPOSED CURB OPENING

APN: 21733089

PROPOSED RIP-RAP

PROPOSED STORM DRAIN PIPE

PROPOSED 15' PRIVATE DRAINAGE EASEMENT

WALL OPENING
HEIGHT = 8"
WIDTH = 90"

WALL OPENING
HEIGHT = 12"
WIDTH = 66"

APN: 21733090

NOTE: 6,251 CUBIC FEET OF RETENTION IS REQUIRED FOR LOT 1.
THIS VOLUME WILL BE REQUIRED TO BE RETAINED ON THE LOT.
THIS VOLUME WILL BE NON-WAIVABLE AND WILL BE REQUIRED WITH THE HOUSE PLANS.

LOT 1

LOT 2

PROPOSED STORM DRAIN PIPE

PROPOSED CURB OPENING

PROPOSED RIP-RAP

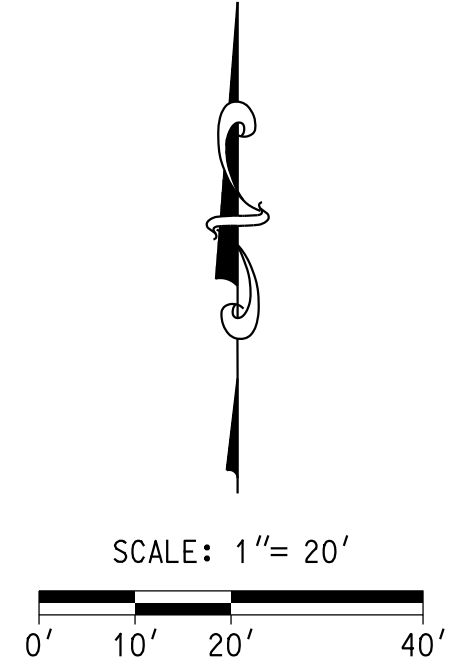
PROPOSED RIP-RAP

PROPOSED 1' V.N.A.E.

PROPOSED RIP-RAP

PROPOSED SAFETY RAILING

E. BERYL AVENUE



Contact Arizona 911 at least two full working days before you begin excavation
Call 911 or click Arizona911.com

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SWC 114TH ST. & SHEA BLVD., SCOTTSDALE, AZ 85259
PRELIMINARY GRADING & DRAINAGE PLAN



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DRAFTER: D. MANN
CAD TECH: PHILIP Y.
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PGRD03
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Q.S.#28-55

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