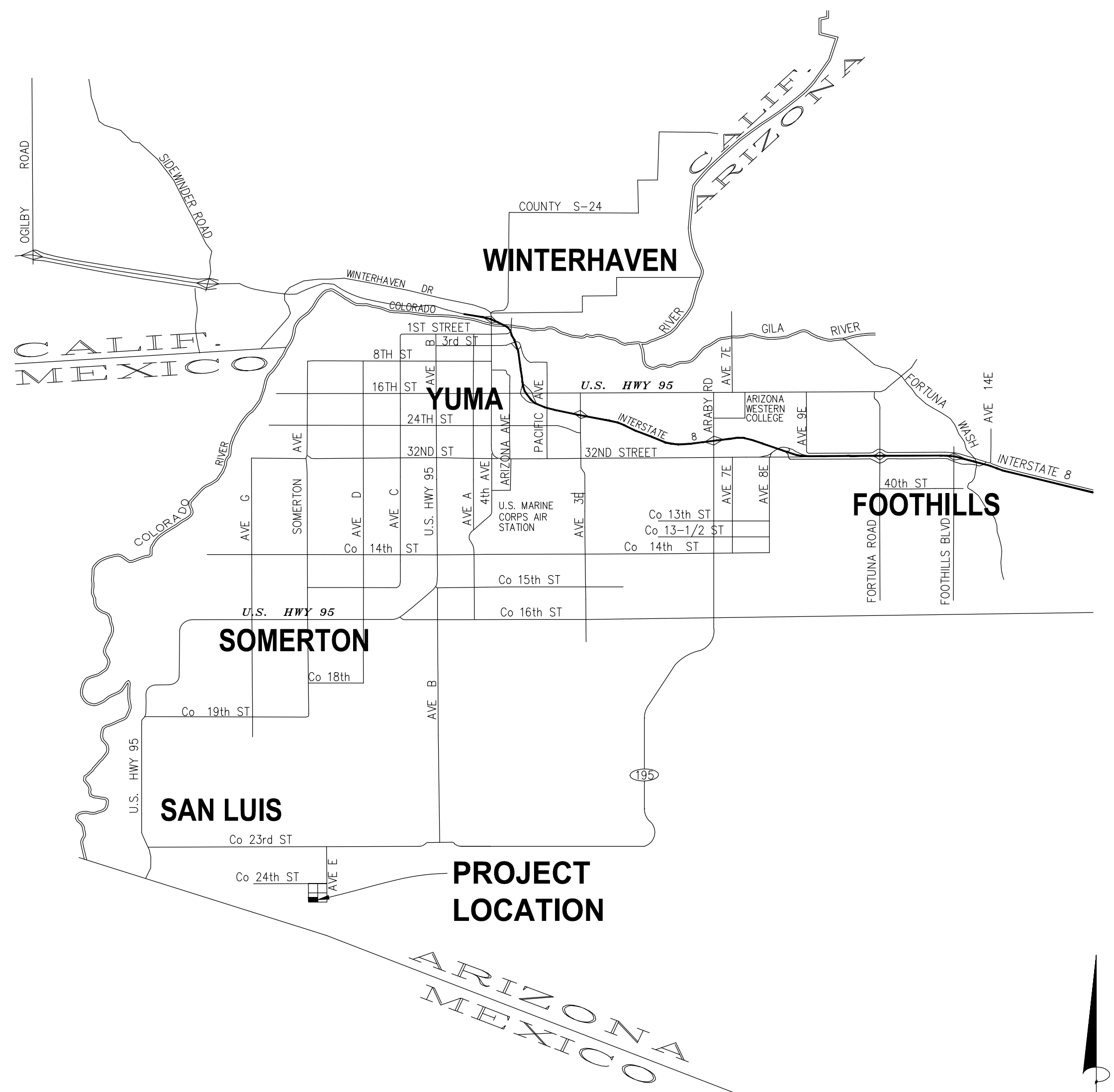






# PRELIMINARY PLAT BELLEZA DEL DESIERTO UNIT III

A SUBDIVISION OF PARCEL B, FEE #2021-20450, Y.C.R., LOCATED IN THE SOUTH HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 11 SOUTH, RANGE 24 WEST, GILA AND SALT RIVER BASE AND MERIDIAN, YUMA COUNTY, ARIZONA  
CREATING 91 LOTS



VICINITY MAP

NTS

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WATER AND SEWER PLAN	C2.1

### OWNER OF RECORD APN 227-15-030

BORDER SAM, LLLP  
10602 S. CAMINO DEL SOL  
YUMA, AZ 85367

### BASIS OF BEARINGS

THE EAST LINE OF THE NORTHEAST QUARTER OF SECTION 15, T11S, R24W, G.&S.R.M., YUMA COUNTY, ARIZONA (THIS LINE BEING THE CENTERLINE OF AVENUE E) AS SHOWN PER SOUTHWEST ARIZONA INDUSTRIAL SUBDIVISION—PHASE 1 AS RECORDED IN AMENDED PLAT AT BOOK 31 OF PLATS PAGES 49 & 50, FEE #2020-06982, Y.C.R.

NAMELY: N 00°27'40" E

### BENCHMARK

PROJECT ELEVATIONS ARE BASED ON A NATIONAL GEODETIC SURVEY (NGS) ONLINE POSITIONING USER SYSTEM (OPUS) SOLUTION AND REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).

### LEGEND

	FOUND SURVEY MONUMENT AS NOTED		FINISHED FLOOR ELEVATION
	CENTER / SECTIONAL LINE		EXISTING GROUND ELEVATION
	NEW PROPERTY LINE		EXISTING CURB ELEVATION
	EXISTING LOT LINE		EXISTING GUTTER ELEVATION
	EXISTING RIGHT-OF-WAY LINE		EXISTING EDGE OF PAVEMENT ELEVATION
	EXISTING WATER LINE		NEW CURB ELEVATION
	EXISTING SEWER LINE		NEW ASPHALT ELEVATION
	NEW BORDER CURB		NEW FLOW WAY ELEVATION
	NEW CONCRETE		NEW GRADE BREAK
	NEW ASPHALT		NEW LOT NUMBER
	NEW SIGN		
	NEW STREET NAME AND STOP SIGN		
	NEW LIGHT POLE		
	NEW BARRICADE		
	EXISTING BARRICADE		
	EXISTING VALVE		
	EXISTING SLOPE		
	NEW SLOPE		
	RIGHT-OF-WAY		

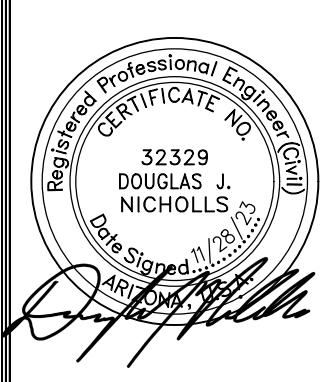
### GENERAL CONSTRUCTION NOTES

- THE LOCATION OF UTILITIES IS APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. UTILITIES SHOWN HERE ARE FOR THE PURPOSE OF ASSISTING THE CONTRACTOR IN LOCATING SAID UTILITIES. THE CONTRACTOR IN ACCORDANCE WITH ARIZONA REVISED STATUTES SHALL CONTACT THE ARIZONA BLUE STAKE CENTER (1-800-782-5348) AT LEAST 48 HOURS MINIMUM PRIOR TO THE BEGINNING OF CONSTRUCTION AND OBTAIN ON-SITE UTILITIES LOCATIONS. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DAMAGE TO A UTILITY LINE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- ALL CITY REQUIRED COMPACTION AND LABORATORY TESTS SHALL BE FURNISHED BY THE CONTRACTOR TO THE CITY PRIOR TO ACCEPTANCE OF THE PROJECT.
- THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR TWO YEARS AFTER THE FINAL ACCEPTANCE. ANY DEFECTIVE MATERIAL OR WORKMANSHIP SHALL BE REPLACED AND/OR REPAIRED PRIOR TO FINAL ACCEPTANCE.
- ALL ROAD SURFACES, EASEMENTS, OR RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION OF ANY PART OF THESE IMPROVEMENTS ARE TO BE RESTORED COMPLETELY BY THE CONTRACTOR TO THE BEFORE CONSTRUCTION CONDITION OR BETTER.
- DURING CONSTRUCTION, THE DEVELOPER/OWNER IS SOLELY RESPONSIBLE FOR INSURING THE PROPER FUNCTIONING OF THE EROSION AND SEDIMENT CONTROL MEASURES. THE DEVELOPER/OWNER SHALL TAKE WHATEVER MEASURES ARE REQUIRED TO INSURE THAT NO SEDIMENT LEAVES THE SITE.
- REFER TO SHEET 2 OF 2 OF THE FINAL PLAT FOR ALL CORRECT DIMENSIONS.
- SEE SUBDIVISION PLAT FOR ALL BOUNDARY INFORMATION AND DIMENSIONS: DO NOT SCALE.
- ALL MATERIALS AND CONSTRUCTION HEREON SHALL CONFORM TO CITY OF SAN LUIS STANDARDS (CITY OF YUMA STANDARD DETAILS, MAG SPECIFICATIONS, CITY OF SAN LUIS SUPPLEMENT), AS ADOPTED BY THE CITY OF SAN LUIS STANDARD SPECIFICATIONS AND CONSTRUCTION STANDARDS UNLESS OTHERWISE SHOWN ON THESE PLANS.
- THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES OR THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO VARIOUS FIELD CONDITIONS, CHANGING SOIL TYPES, ALLOWABLE CONSTRUCTION TOLERANCES AND CONSTRUCTION METHODS THAT ARE BEYOND THE CONTROL OF THE ENGINEER.
- NO STREET, WATER, SEWER AND IMPROVEMENTS TO BE ACCEPTED BY THE CITY OF SAN LUIS FOR MAINTENANCE UNTIL "AS-BUILT" CERTIFIED REPRODUCIBLE PLANS ARE FILED WITH AND ACCEPTED BY THE CITY OF SAN LUIS PUBLIC WORKS DEPARTMENT.
- CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL, STATE, AND FEDERAL SWPPP REQUIREMENTS AND BMP'S.

DRAWING RECORD:	
No.	
DATE:	

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**BELLEZA DEL DESIERTO UNIT III**  
SUBDIVISION OF THE SOUTH HALF, SOUTHEAST QUARTER,  
SECTION 15, TOWNSHIP 11 SOUTH, RANGE 24 WEST  
**COVER SHEET**



Date: NOV 2023  
Designed: J.R.K.  
Drawn: J.R.K.  
Checked: D.J.N.  
Proj. No.: 23-026

**C0.0**  
SHEET

Nov. 27, Nov. 2023 - 3:52pm - 2:\2023\23-026\Map\Preliminary Plat\23-026 Belleza Del Desierto Unit III Paving and Grading.dwg - Core Engineering Group, PLLC

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**KEY NOTES**

- 1 NEW VERTICAL CURB AND GUTTER -COY STD 3-060
- 2 NEW VERTICAL CURB -COY STD 3-075
- 3 NEW 21' DRIVEWAY -COY STD 3-105
- 4 NEW 4' CONCRETE SIDEWALK -COY STD 3-135
- 5 NEW 6' CONCRETE SIDEWALK -COY STD 3-135
- 6 NEW CONCRETE SIDEWALK RAMP (25' RADIUS MEASURED TO FACE OF CURB) -COY STD 3-145
- 7 NEW CONCRETE SIDEWALK RAMP (40' RADIUS MEASURED TO FACE OF CURB) -COY STD 3-145
- 8 NEW STREET MONUMENT -COY STD 4-030
- 9 NEW 8' CROSS VALLEY GUTTER -COY STD 3-085
- 10 NEW 50' CROWN TRANSITION -COY STD 7-010 & 7-015
- 11 NEW STREET LIGHT- TYPE A (4700 LUMENS) -COY STD 7-010 & 7-015

- 12 NEW 6" HIGH (ON THE LOT SIDE) CMU WALL (CMU WALL LOCATED WITHIN THE FRONT OR SIDE SETBACK OF LOTS MUST BE 3'6" HIGH MAXIMUM) -COY STD 1-015
- 13 NEW DOUBLE FACED STREET SIGN-STOP SIGN (USE BLUE AND WHITE COLORS ON 6" WIDE SHEET FOR STREET NAMES) -COY STD 8-020
- 14 NEW DOUBLE FACED STREET SIGN (USE BLUE AND WHITE COLORS ON 6" WIDE SHEET FOR STREET NAMES) -COY STD 8-020
- 15 NEW STORM DRAIN MANHOLE -COY STD 6-020 & 6-035
- 16 NEW TYPE E DOUBLE CATCH BASIN -COY STD 11-025
- 17 NEW 24" Ø RGRCP @ 0.10% -COY STD 5-010
- 18 NEW 18" Ø RGRCP @ 0.12% -COY STD 5-010
- 19 REINFORCED CONCRETE PIPE END SECTION -COY STD 11-060

**UTILITY WARNING**

THE UNDERGROUND UTILITIES INFORMATION SHOWN HAVE BEEN PROVIDED FROM THE MAPS PROVIDED BY UTILITIES COMPANIES AS WELL AS EVIDENCE OBSERVED IN THE FIELD. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

**LEGEND**

- FOUND SURVEY MONUMENT AS NOTED
- CENTER / SECTIONAL LINE
- NEW PROPERTY LINE
- EXISTING LOT LINE
- EXISTING RIGHT-OF-WAY LINE
- EX 12" W — EXISTING WATER LINE
- EX 8" S — EXISTING SEWER LINE
- NEW BORDER CURB
- NEW CONCRETE
- NEW ASPHALT
- NEW SIGN
- NEW STREET NAME AND STOP SIGN
- NEW LIGHT POLE
- NEW BARRICADE
- EXISTING BARRICADE
- EXISTING VALVE
- EXISTING SLOPE
- NEW SLOPE
- R/W RIGHT-OF-WAY

FFE FINISHED FLOOR ELEVATION  
 EXISTING GROUND ELEVATION  
 EXISTING CURB ELEVATION  
 EXISTING GUTTER ELEVATION  
 EXISTING EDGE OF PAVEMENT ELEVATION  
 NEW CURB ELEVATION  
 NEW ASPHALT ELEVATION  
 NEW FLOW WAY ELEVATION  
 NEW GRADE BREAK  
 NEW LOT NUMBER

MEASURED DATA  
 CALCULATED DATA  
 YUMA COUNTY RECORDS  
 YUMA COUNTY ASSESSORS

APN 777-53-000

**STORMWATER RETENTION CALCULATIONS**

**REQUIREMENTS**

1. THE REQUIRED VOLUME IS CALCULATED USING THE RATIONAL METHOD ( $Q=CIA$ ) FOR A 100 YEAR, 1-HOUR STORM PER YUMA COUNTY DRAINAGE POLICY FOR RESIDENTIAL WITH DRAINED STREETS.

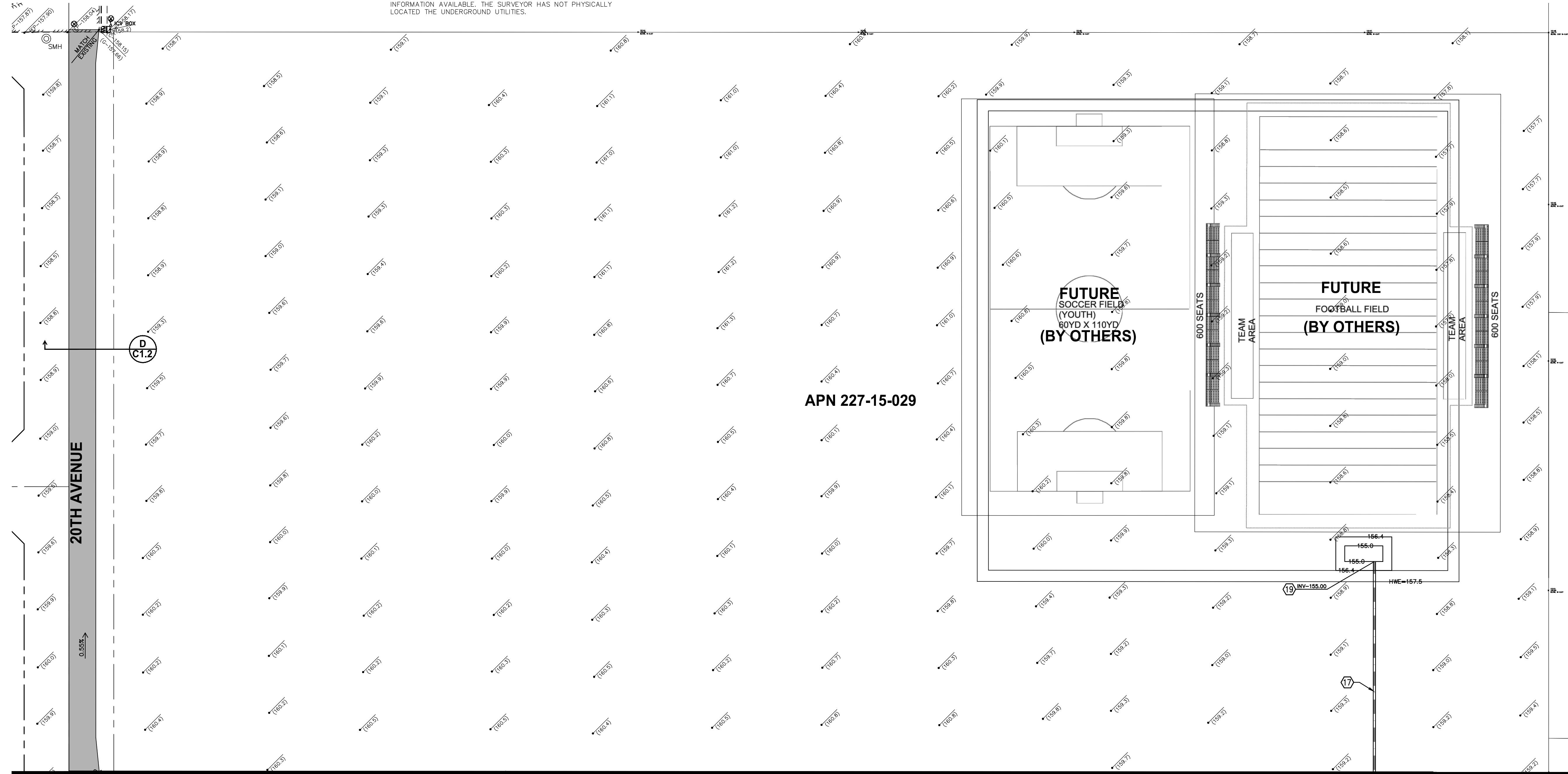
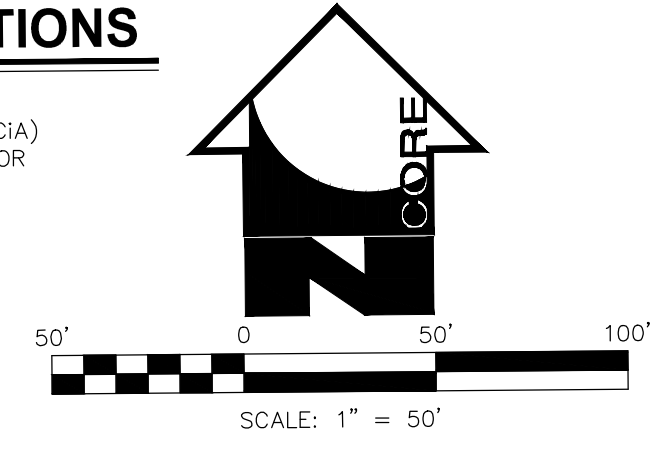
2.  $V_p$  (BASIN) = [BASIN TOP AREA + BASIN BOTTOM AREA]/2 X DEPTH. FOR ELEVATION AT TOP/BOTTOM, SEE PLAN.

**DRAINAGE AREA 1 (DA1)**

VOLUME REQUIRED =  $Q = CIA$   
 $C$  (PEAK RATE RUNOFF) = 0.43  
 $i$  (INTENSITY OF RAINFALL) = 1.22 INCHES / HOUR  
 $A$  (DRAINAGE AREA) = 40.0257 ACRES  
 $Q = (0.43) (1.22) (40.0257) = 20.997$  CFS  
 TOTAL RUNOFF = 7,200 (20.997) = 151,179 CF REQ'D

$V_p$  (BASIN 1) = (AREA @ HWE + AREA AT BOTTOM)/2 X 0.5 FT  
 $V_p$  (BASIN 1) = [184,900 SF + 168,100 SF]/2 X 1.1 FT = 194,150 CF.  $V_p > V_r$

FACTOR OF SAFETY = 194,150 / 151,179 = 1.29



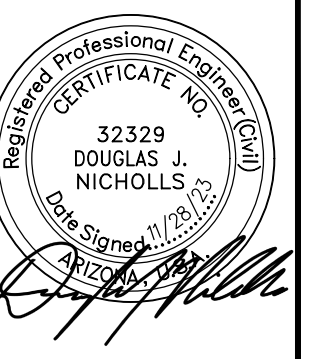
MATCHLINE: SEE SHEET C1.0

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**BELLEZA DEL DESIERTO UNIT III**  
 SUBDIVISION OF THE SOUTH HALF, SOUTHEAST QUARTER,  
 SECTION 15, TOWNSHIP 11 SOUTH, RANGE 24 WEST

**PAVING AND GRADING PLAN**



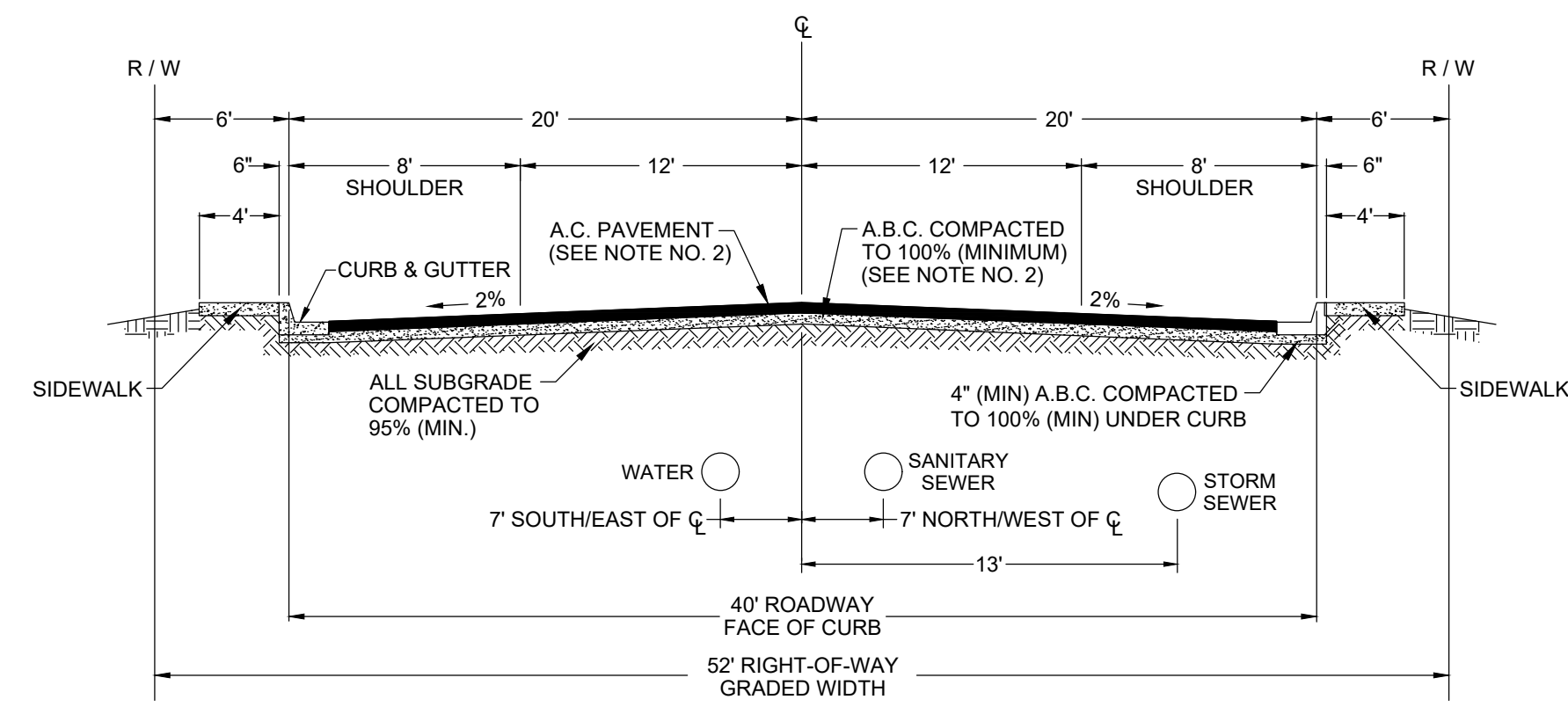
Date: NOV 2023  
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 Drawn: J.R.K.  
 Checked: D.J.N.  
 Proj. No.: 23-026



**C1.1**

Title: 28 Nov 2023 - 3:35pm - Z:\0320\23-026\Draw\Preliminary Plan\23-026 Belleza Del Desierto Unit III Paving and Grading.dwg - Core Engineering Group, PLLC

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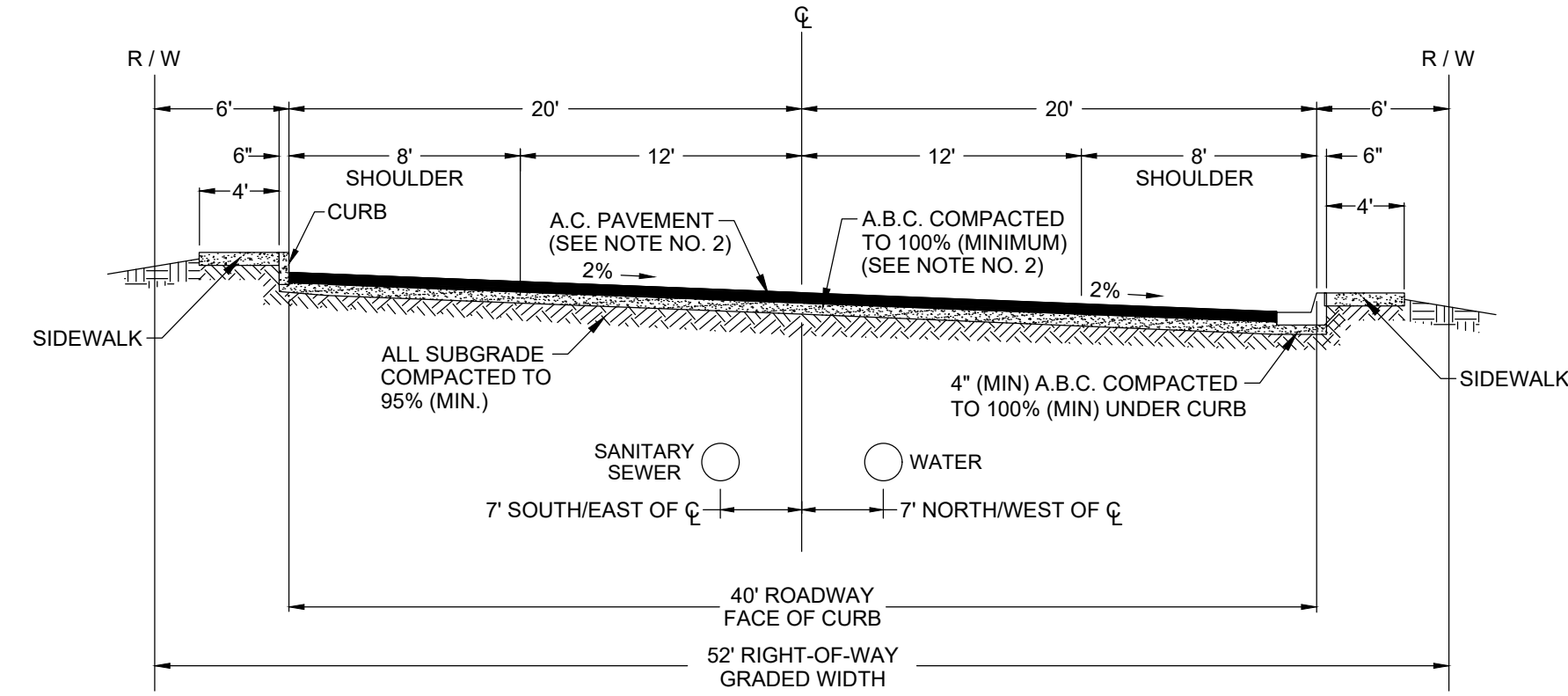
**NOTES**

1. STRUCTURAL DESIGN OF COMBINED THICKNESS OF BASE AND SURFACE SHALL BE DETERMINED BY SOILS TEST.
2. MINIMUM PAVING THICKNESS SHALL BE 3" PLANT HOT MIXED ASPHALT SURFACING OVER 6" OF A.B.C. COMPACTED TO 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 METHOD C OR D. SEE STANDARD DETAIL 3-015 FOR A.B.C. THICKNESS REQUIRED. A.B.C. SHALL BE PER MAG SPECIFICATIONS.
3. SIDEWALK LOCATION ADJACENT TO CURB OR AS APPROVED BY THE CITY ENGINEER.
4. SEE STANDARD DETAIL 3-035 FOR GRADING BEHIND SIDEWALK.
5. EXTEND AGGREGATE BASE COURSE BENEATH CURB & GUTTER. SEE STANDARD DETAIL 3-060.

**LOCAL TWO LANE STREET**

CITY OF YUMA CONSTRUCTION STANDARD DETAIL DRAWINGS STD. NO. 2-039 (MODIFIED, NTS)

NTS  
**A**  
**C1.2**



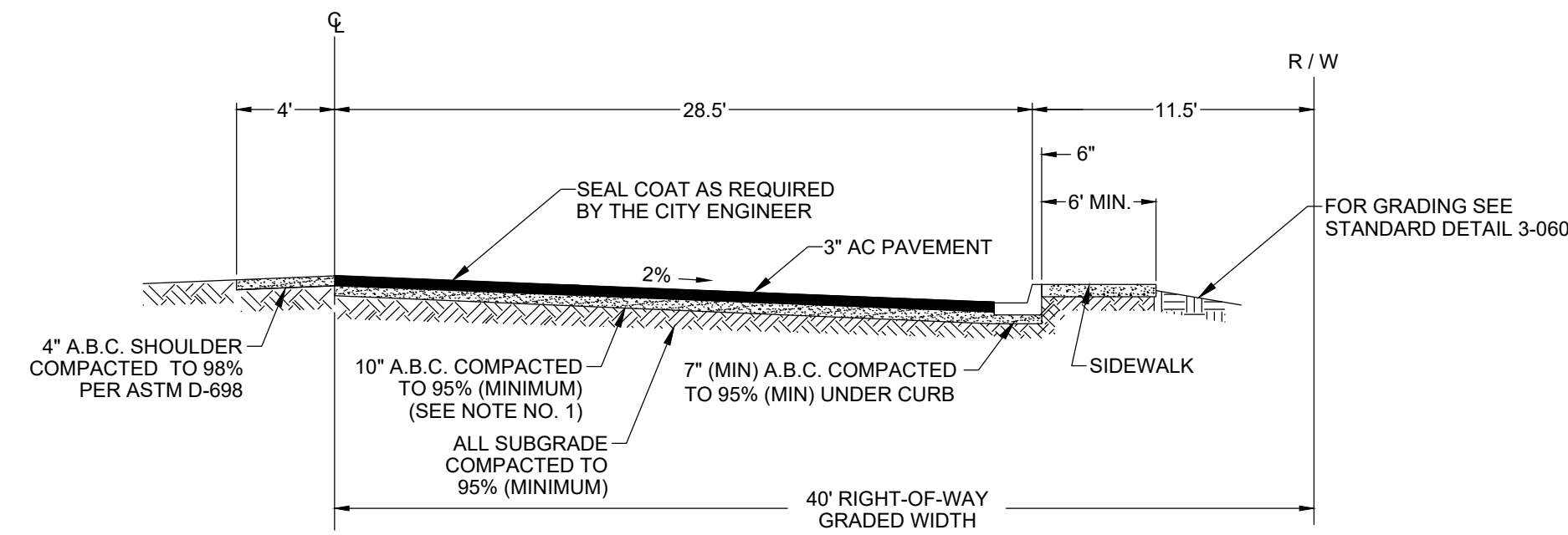
**NOTES**

1. STRUCTURAL DESIGN OF COMBINED THICKNESS OF BASE AND SURFACE SHALL BE DETERMINED BY SOILS TEST.
2. MINIMUM PAVING THICKNESS SHALL BE 3" PLANT HOT MIXED ASPHALT SURFACING OVER 6" OF A.B.C. COMPACTED TO 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 METHOD C OR D. SEE STANDARD DETAIL 3-015 FOR A.B.C. THICKNESS REQUIRED. A.B.C. SHALL BE PER MAG SPECIFICATIONS.
3. SIDEWALK LOCATION ADJACENT TO CURB OR AS APPROVED BY THE CITY ENGINEER.
4. SEE STANDARD DETAIL 3-035 FOR GRADING BEHIND SIDEWALK.
5. EXTEND AGGREGATE BASE COURSE BENEATH CURB & GUTTER. SEE STANDARD DETAIL 3-060.

**LOCAL TWO LANE STREET - CROSS-SLOPE**

CITY OF YUMA CONSTRUCTION STANDARD DETAIL DRAWINGS STD. NO. 2-039 (MODIFIED, NTS)

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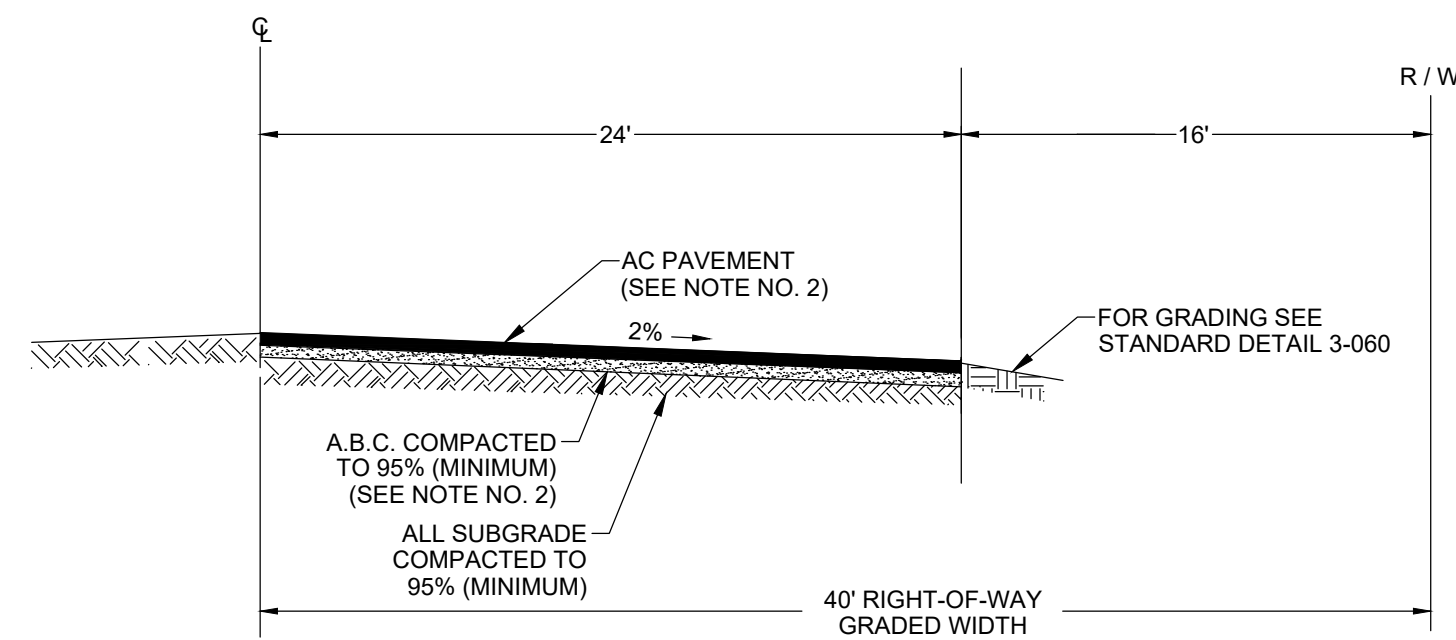
**NOTES**

1. STRUCTURAL DESIGN OF COMBINED THICKNESS OF BASE AND SURFACE SHALL BE DETERMINED BY SOILS TEST.
2. MINIMUM PAVING THICKNESS IS REQUIRED: THREE INCHES (3") PLANT HOT MIXED ASPHALT SURFACING OVER TEN INCHES (10") OF A.B.C. COMPACTED TO 95% (MINIMUM).
3. SIDEWALK LOCATION ADJACENT TO CURB OR AS APPROVED BY THE CITY ENGINEER.
4. ALL PAVEMENT MARKING AND RAISED PAVEMENT MARKER MATERIAL MUST BE IN ACCORDANCE WITH A.D.O.T. MANUAL FOR SIGNING AND MARKING, LATEST EDITION.
5. CASE 1 OR 2 MUST BE USED WITH THERE ARE DRIVEWAYS ALONG COLLECTOR.
6. CASE 3 MAY BE USED WHEN THERE ARE NO DRIVEWAYS ALONG COLLECTOR.
7. BIKE LANES PROVIDED BUT NOT STRIPED.

**COUNTY 24 1/2 STREET AND 20TH AVENUE**

CITY OF YUMA CONSTRUCTION STANDARD DETAIL DRAWINGS STD. NO. 2-039 (MODIFIED, NTS)

NTS  
**C**  
**C1.2**



**NOTES**

1. STRUCTURAL DESIGN OF COMBINED THICKNESS OF BASE AND SURFACE SHALL BE DETERMINED BY SOILS TEST.
2. MINIMUM PAVING THICKNESS SHALL BE 2" PLANT HOT MIXED ASPHALT SURFACING OVER 6" OF A.B.C. COMPACTED TO 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 METHOD C OR D.
3. THE TURNING RADIUS OF A FIRE DEPARTMENT ACCESS ROAD SHALL BE APPROVED BY THE FIRE DEPARTMENT, AND SHALL MAINTAIN THE MINIMUM ROAD WIDTH.
4. A.B.C. SHALL BE PER MAG SPECIFICATIONS.

**ACCESS ROAD**

CITY OF YUMA CONSTRUCTION STANDARD DETAIL DRAWINGS STD. NO. 2-045 (MODIFIED, NTS)

NTS  
**D**  
**C1.2**

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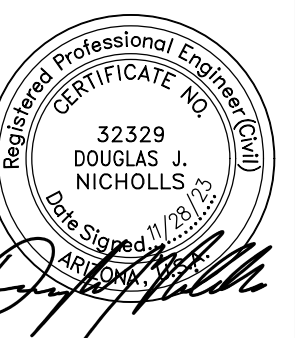
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**CORE**

**BELLEZA DEL DESIERTO UNIT III**  
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SECTION 15, TOWNSHIP 11 SOUTH, RANGE 24 WEST

**TYPICAL STREET SECTIONS**



Date: NOV 2023  
Designed: J.R.K.  
Drawn: J.R.K.  
Checked: D.J.N.  
Proj. No.: 23-026

**C1.2**

SHEET

Title: 28 Nov 2023 - 3:45pm - 2:000(32-026)Sheet/Preliminary Plan/23-026 Belleza del Desierto Unit III Parking and Sidewalks - Core Engineering Group, PLLC

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**UTILITY WARNING**

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**WATER SCHEDULE OF WORK**

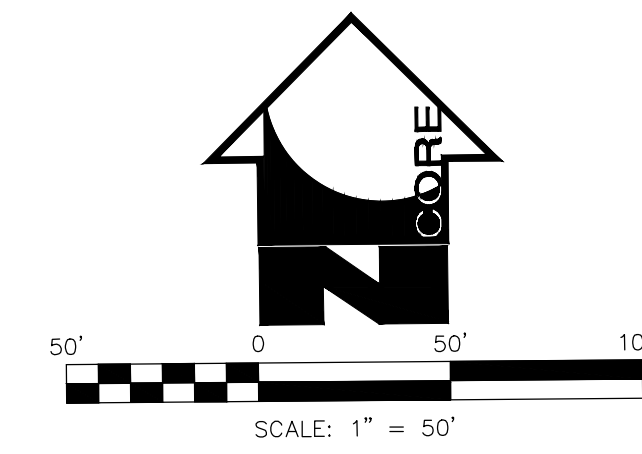
30	1" DUAL WATER SERVICE	-COY STD 5-045 & 5-055
31	1" SINGLE WATER SERVICE	-COY STD 5-035 & 5-055
32	8" PVC C-900 WATER LINE	-COY STD 5-010
33	10" PVC C-900 WATER LINE	-COY STD 5-010
34	12" PVC C-900 WATER LINE	-COY STD 5-010
35	8" WATER VALVE	-COY STD 5-065, 5-075, & 5-080
36	10" WATER VALVE	-COY STD 5-065, 5-075, & 5-080
37	12" WATER VALVE	-COY STD 5-065, 5-075, & 5-080
38	8" PVC ELL WITH THRUST BLOCK	-COY STD 5-020 & 5-025
39	8" PVC TEE WITH THRUST BLOCK	-COY STD 5-020 & 5-025
40	10" X 8" TEE WITH THRUST BLOCK	-COY STD 5-020 & 5-025
41	10" X 12" TEE WITH THRUST BLOCK	-COY STD 5-020 & 5-025
42	12" X 8" TEE WITH THRUST BLOCK	-COY STD 5-020 & 5-025
43	COMPLETE FIRE HYDRANT	-COY STD 5-155
44	TEMPORARY BLOWOFF VALVE	-COY STD 5-085
45	REMOVE EXISTING BLOWOFF VALVE AND CONNECT NEW 10" WATER LINE TO EXISTING WATER SYSTEM. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF EXISTING WATER MAIN. IF CONDITIONS ARE DIFFERENT THAN WHAT IS SHOWN ON PLANS CONTRACTOR TO NOTIFY ENGINEER BEFORE MAKING ANY DETERMINATION.	

**SEWER SCHEDULE OF WORK**

50	4" PVC SEWER SERVICE	-COY STD 6-015
51	8" PVC SEWER LINE @ 0.33% MINIMUM	-COY STD 5-010
52	10" PVC SEWER LINE @ 0.24% MINIMUM	-COY STD 5-010
53	SANITARY SEWER MANHOLE	-COY STD 6-020 & 6-035
54	SANITARY SEWER CLEANOUT	-COY STD 6-005
55	14' EXTRA PROTECTION ON NEW SEWER LINE (7' EACH SIDE OF CROSSING)	-COY STD 5-005
56	CONNECT TO EXISTING MANHOLE	

**LEGEND**

	EX. MANHOLE
	EX. CLEAN OUT
	EX. WATER METER
	EX. GAS METER
	EX. MAIL BOX
	EX. IRRIGATION CONTROL VALVE
	EX. HOSE BIBB
	EX. SIGN
	NEW DOMESTIC WATER LINE
	NEW SEWER LINE
	NEW SEWER MANHOLE
	NEW SEWER CLEANOUT
	NEW SEWER CLEANOUT
	NEW GATE VALVE
	NEW THRUST BLOCK
	NEW INCREASES / REDUCER
	NEW FIRE DEPARTMENT CONNECTION
	NEW WATER METER
	NEW DUAL WATER METER



**WATER AND SEWER NOTES**

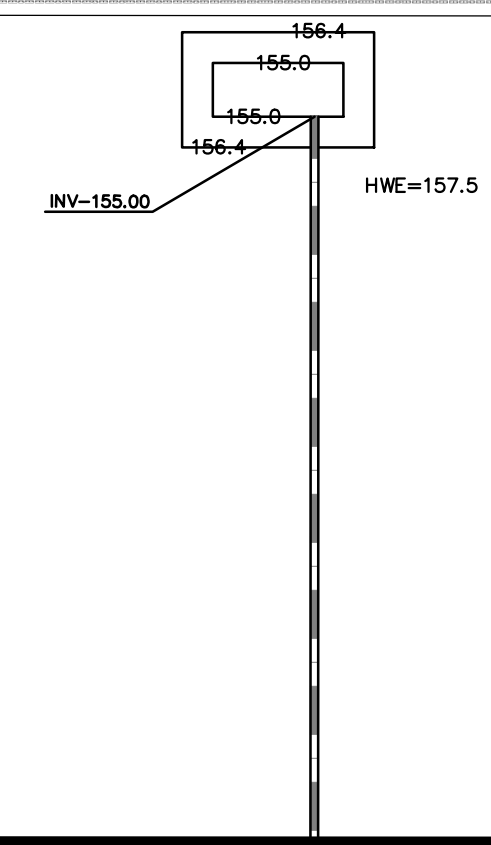
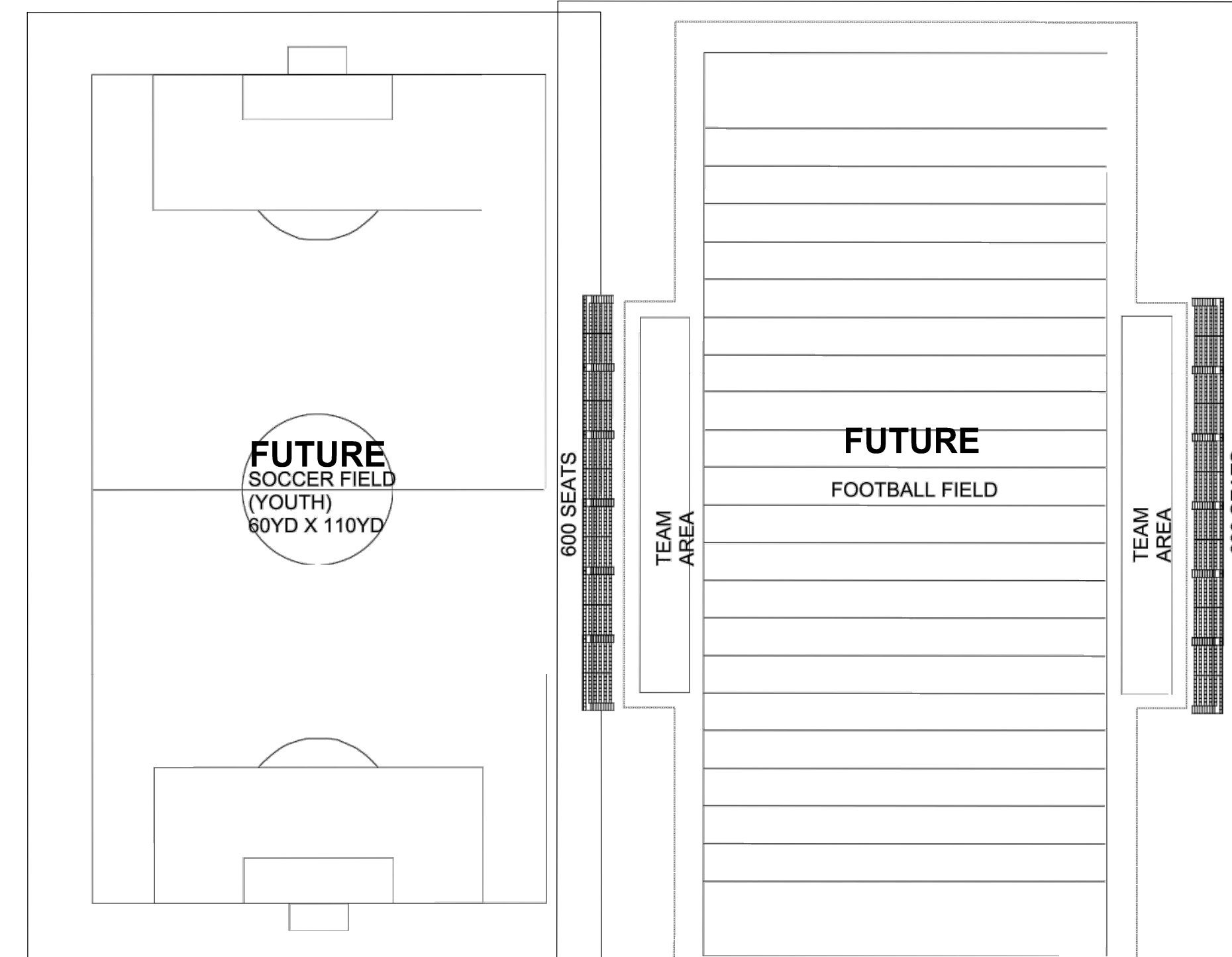
- ALL MATERIALS AND CONSTRUCTION HEREON SHALL CONFORM TO CITY OF SAN LUIS STANDARDS (CITY OF SAN LUIS STANDARD DETAILS, MAG SPECIFICATIONS, AND CITY OF SAN LUIS SUPPLEMENTS) AND SHALL BE IN ACCORDANCE WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND FURNISHING TO THE ENGINEER OF "AS-BUILT" RECORD DRAWINGS. THE CONTRACTOR SHALL OBTAIN ONE SET OF PLANS FROM THE ENGINEER AND SHALL RECORD IN RED COLORED PENCIL ALL CASES WHERE ACTUAL FIELD CONSTRUCTION DIFFERS FROM WORK SHOWN ON PLANS, TO INCLUDE SERVICE LOCATIONS. ALL CONCEALED WORK AND UTILITIES SHALL BE DIMENSIONED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE BLUE STAKE CENTER PER GENERAL NOTES.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES. OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO OPERATIONS. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
- THE ELEVATION OF THE EXISTING UTILITIES SHOWN ON THE PLANS IS APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND ELEVATION PRIOR TO ANY UNDERGROUND CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF DISCREPANCIES EXIST BETWEEN DESIGN INFORMATION AND ACTUAL FIELD CONDITIONS.
- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL "POTHOLE" ALL POTENTIAL POINTS OF CONFLICT BETWEEN NEW UTILITIES AND EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF DISCREPANCIES EXIST BETWEEN DESIGN INFORMATION AND ACTUAL FIELD CONDITIONS.
- ALL UNDERGROUND NONMETALLIC CONDUITS AND LINES SHALL HAVE A MINIMUM #12 INSULATED COPPER TRACER WIRE SECURELY ATTACHED PER CITY OF YUMA STANDARD DETAILS AND HAVE 12" OF WIRE EXPOSED ON ONE END. BLUE STAKE LAW ARS 40-360.
- CONTRACTOR TO COORDINATE BACTERIOLOGICAL TEST RESULTS TAKEN ON THE SYSTEM WITH THE CITY OF SAN LUIS AND ENGINEER.
- ALL PVC WATERLINES SMALLER THAN 4" IN DIAMETER SHALL BE SCHEDULE 40 APPROVED BY NSF AND INSTALLED IN ACCORDANCE WITH NOTED MAG SPECIFICATIONS.
- ALL WATERLINES 4" IN DIAMETER AND LARGER SHALL BE PVC COMPLYING WITH AWWA C-900, CLASS DR18 AND MARKED NSF APPROVED FOR POTABLE WATER.
- SEWER PIPE SHALL BE ASTM D3034, SDR-35 PVC PIPE AND SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND SPECIAL CONDITIONS.
- SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH ADEQ STANDARDS.
- LEAKAGE TESTING OF THE SEWER LINE IS REQUIRED TO BE CONDUCTED IN ACCORDANCE WITH ASTM F1417 (OR MAG STANDARDS) AND PER A.A.C. R18-9-E301.D.2.J. LEAKAGE TESTING OF MANHOLES SHALL BE CONDUCTED IN ACCORDANCE WITH A.A.C. R18-9-E301.D.3.f AND g.
- A MINIMUM COVER OF 42" SHALL BE MAINTAINED ABOVE THE TOP OF ALL SEWER LINES.
- TRACER WIRE AND MONUMENTS SHALL BE SET PER CITY OF YUMA STANDARDS. (SEE NOTES 1 AND 8)
- CONTRACTOR SHALL VERIFY LOCATION OF WATER LINE RESTRAINTS. SEE SPECIFICATIONS FOR JOINT RESTRAINT REQUIREMENTS.
- WATER DISTRIBUTION SYSTEM SHALL CONFORM TO CURRENT AWWA, ASTM, NFS STANDARDS. (EB 10, CHAPTER 10, SECTION 8)
- ALL MATERIALS THAT COME INTO CONTACT WITH WATER SHALL CONFORM TO ANSI/NFS STANDARD 60 AND 61 (R18-4-23. A&B)
- INSTALLATION OF WATER MAINS, PRESSURE AND LEAKAGE TESTING, AND DISINFECTION SHALL BE IN ACCORDANCE WITH AWWA C600, EB 10, CHAPTER 7, SECTION L AND MAG 610 & 611
- DISINFECTION SHALL BE IN ACCORDANCE TO EB 8, CHAPTER 5, SECTION A AND MAG 611.2
- MANHOLE DESIGN SHALL CONFORM TO A.A.C. SECTION R18-9-E301(c)/MAG 625/MAG 505
- DESIGN, CONSTRUCTION AND CONNECTIONS OF SEWER LINES SHALL CONFORM TO A.A.C. SECTION R18-9-E301(D)(2)(g)/MAG 615

**WATER LINE TESTING PROCEDURE**

- ALL VISIBLE LEAKS SHALL BE REPAIRED REGARDLESS OF THE AMOUNT OF LEAKAGE & REGARDLESS OF WHETHER LEAK DEVELOPS UNDER TEST PRESSURE OR LINE PRESSURE.
- INITIAL PRESSURES FOR BOTH THE PRESSURE TEST AND ALLOWABLE LEAKAGE TEST SHALL BE A MINIMUM OF 150 PSI FOR WATERLINES AND 200 PSI FOR FIRELINES.
- A PRESSURE TEST SHALL BE DEEMED AS SUCCESSFUL IF IT PASSES THE CRITERIA SET FORTH BY AWWA C-600, SEC. 4 (LATEST EDITION) AND THAT CRITERIA NOTED ABOVE.
- SHOULD THE PRESSURE TEST BE UNSUCCESSFUL, THE CONTRACTOR HAS THE OPTION OF ATTEMPTING THE ALLOWABLE LEAKAGE TEST. THIS TEST WILL BE DEEMED SUCCESSFUL IF IT PASSES THE CRITERIA SET FORTH IN AWWA C-600, SEC. 4 (LATEST EDITION) OR AWWA M-23 (LATEST EDITION), WHICHEVER IS MORE RESTRICTIVE AND COMPLIES WITH THAT CRITERIA NOTED ABOVE.

**SEWER LINE TESTING PROCEDURE (COSL / MAG 2015 EDITION)**

- ALL SEWER LINES WILL BE PRESSURE TESTED WITH A MINIMUM OF 4 FT OF HEAD WITH LEAKAGE NOT TO EXCEED 50 GAL/IN-DIA/MILE/DAY.
- ALL SEWER LINE TESTS SHALL BE PERFORMED IN ACCORDANCE WITH A.A.C. SECTION R18-9-E301 (D) (2) (E) OR (K) / MAG 611.3
- LEAKAGE TESTING OF THE SEWER LINE IS REQUIRED TO BE CONDUCTED IN ACCORDANCE WITH ASTM F1417-92 AND PER A.A.C. SECTION R18-9-E301(D)2.J. LEAKAGE TESTING OF MANHOLES SHALL BE CONDUCTED IN ACCORDANCE WITH A.A.C. R18-9-E301.D.3.f AND g / MAG 611.3
- DEFLECTION TESTING AND UNIFORM SLOPE TESTING OF ALL (100%) OF THE SEWER LINE IS REQUIRED IN ACCORDANCE WITH A.A.C. SECTION R18-9-E301(D)2.i AND k / MAG 611.
- HOLIDAY TESTING OF A LINED MANHOLE SHALL CONFORM TO A.A.C. SECTION R18-9-E301(D)3.e.iii./MAG 611.4



**MATCHLINE: SEE SHEET C2.0**

Date: 28 Nov 2023 - 4:18pm. 2:00233325-029 (plan) Preliminary Plan (3/23/2023) Matchline: See Elements of Elements with 11 Planning and Grading. Core Engineering Group, PLLC

DRAWING RECORD:

No.	DATE:

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**BELLEZA DEL DESIERTO UNIT III**  
SUBDIVISION OF THE SOUTH HALF, SOUTHEAST QUARTER,  
SECTION 15, TOWNSHIP 11 SOUTH, RANGE 24 WEST

**WATER AND SEWER PLAN**

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Registered Professional Engineer (PE)  
CERTIFICATE NO. 32329  
DOUGLAS J. NICHOLLS  
Date signed: 11/28/23  
Arizona State Seal

Date: NOV 2023  
Designed: J.R.K.  
Drawn: J.R.K.  
Checked: D.J.N.  
Proj. No.: 23-026

**C2.1**

SHEET

Call at least two full working days before you begin excavation.

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