LAND SURVEYOR

KIMLEY-HORN AND ASSOCIATES, INC. 7740 N. 16TH STREET, SUITE 300 PHOENIX, AZ 85020 PH: (602) 837-5511 CONTACT: CHAD HUBER, RLS.

DEVELOPER

TOLL BROTHERS APARTMENT LIVING 8767 E. VIA DE VENTURA, SUITE 390 SCOTTSDALE, ARIZONA 85258 PH: (480) 596-5857 CONTACT: SEAN MURPHY

DRAINAGE STATEMENT

THE EXISTING SITE CONSISTS OF VACANT DESERT WITH LIGHT VEGETATION. SITE-GENERATED STORM WATER CURRENTLY SURFACE FLOWS FROM EAST TO WEST ON TO THE NEIGHBORING SITE. THE SITE IS GENERALLY FLAT WITH A SLOPE OF 0.25% EAST TO WEST.

THIS SITE WILL PROVIDE STORM WATER STORAGE VOLUME FOR THE 100-YEAR, 2-HOUR STORM EVENT. STORAGE WILL BE PROVIDED IN MULTIPLE 10' DIAMETER UNDERGROUND CMP TANKS. PER CITY OF MESA STANDARDS, THE STORM WATER WILL BE DISPOSED OF THROUGH A BLEED OFF PIPE TO A STORM DRAIN PUMP AND ULTIMATELY DISCHARGE INTO THE REGIONAL DRAINAGE CHANNEL NORTH OF WILLIAMS FIELD ROAD.

OFF-SITE DRAINAGE INFRASTRUCTURE WILL BE CONSTRUCTED BY OTHERS FOR THE WILLIAMS FILED ROAD HALF STREET TO NORTH OF THE SITE AND THE LABELLE ROAD WEST OF THE SITE. OFF-SITE HALF-STREET DRAINAGE WILL NOT BE RETAINED ON-SITE.

THIS SITE IS LOCATED IN FLOOD ZONE 'X'. NO MAJOR OFF-SITE FLOWS IMPACT THE SITE. RETENTION IS PROVIDED FOR 100-YEAR, 2-HOUR EVENT. THE ULTIMATE SITE OUTFALL IS LOCATED AT THE NORTH WEST CORNER OF THE SITE NEAR WILLIAMS FIELD ROAD.

FLOOD INFORMATION

ACCORDING TO THE FLOOD INSURANCE RATE MAP #04013C2790L, DATED OCTOBER 16, 2013, THIS PROPERTY IS LOCATED IN FLOOD ZONE "X". AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

BENCHMARK

MARICOPA COUNTY BM # 2BN2, AN ALUMINUM ROD IN HANDHOLE NEAR ELLSWORTH ROAD AND WARNER ROAD. ELEVATION = 1387.31' (NAVD88 DATUM)

BASIS OF BEARINGS

THE BASIS OF BEARING FOR THIS PROJECT IS THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER MERIDIAN, SAID LINE BEARS S89°38'16"E.

GENERAL NOTES

- ADD 1300' TO ALL ELEVATIONS. 2. ADD 0.5 TO PAVEMENT ELEVATIONS FOR TOP OF CURB ELEVATION, UNLESS OTHERWISE NOTED.
- 3. ALL SPOT ELEVATIONS ARE FINISHED GRADE PAVEMENT (P), GUTTER/GRADE (G), OR SIDEWALK (SW) ELEVATIONS UNLESS OTHERWISE NOTED.
- 4. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES IN PLACE UNLESS NOTED OTHERWISE. 5. CONTRACTOR TO PROTECT ALL EXISTING LANDSCAPE NOT
- LOCATED WITHIN PROPOSED IMPROVEMENTS. 6. CONTRACTOR TO COORDINATE LANDSCAPE SLEEVE LOCATIONS, TYPE, ETC. WITH LANDSCAPE ARCHITECT
- PRIOR TO PAVEMENT/CONCRETE CONSTRUCTION. 7. CONTRACTOR TO COORDINATE LIGHTING CONDUIT LOCATIONS, TYPE, ETC. WITH LANDSCAPE ARCHITECT/ELECTRICIAN PRIOR TO SITE GRADING AND PAVEMENT/CONCRETE CONSTRUCTION.

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12
2

LEGEND

RETENTION CALCULATIONS VOLUME REQUIRED = (CPA)/12
C= 0.50 FOR LANDSCAPING, 0.95 FOR BUILDING/PAVEMENT
P= 2.20 INCHES
A= DRAINAGE AREA IN S.F.

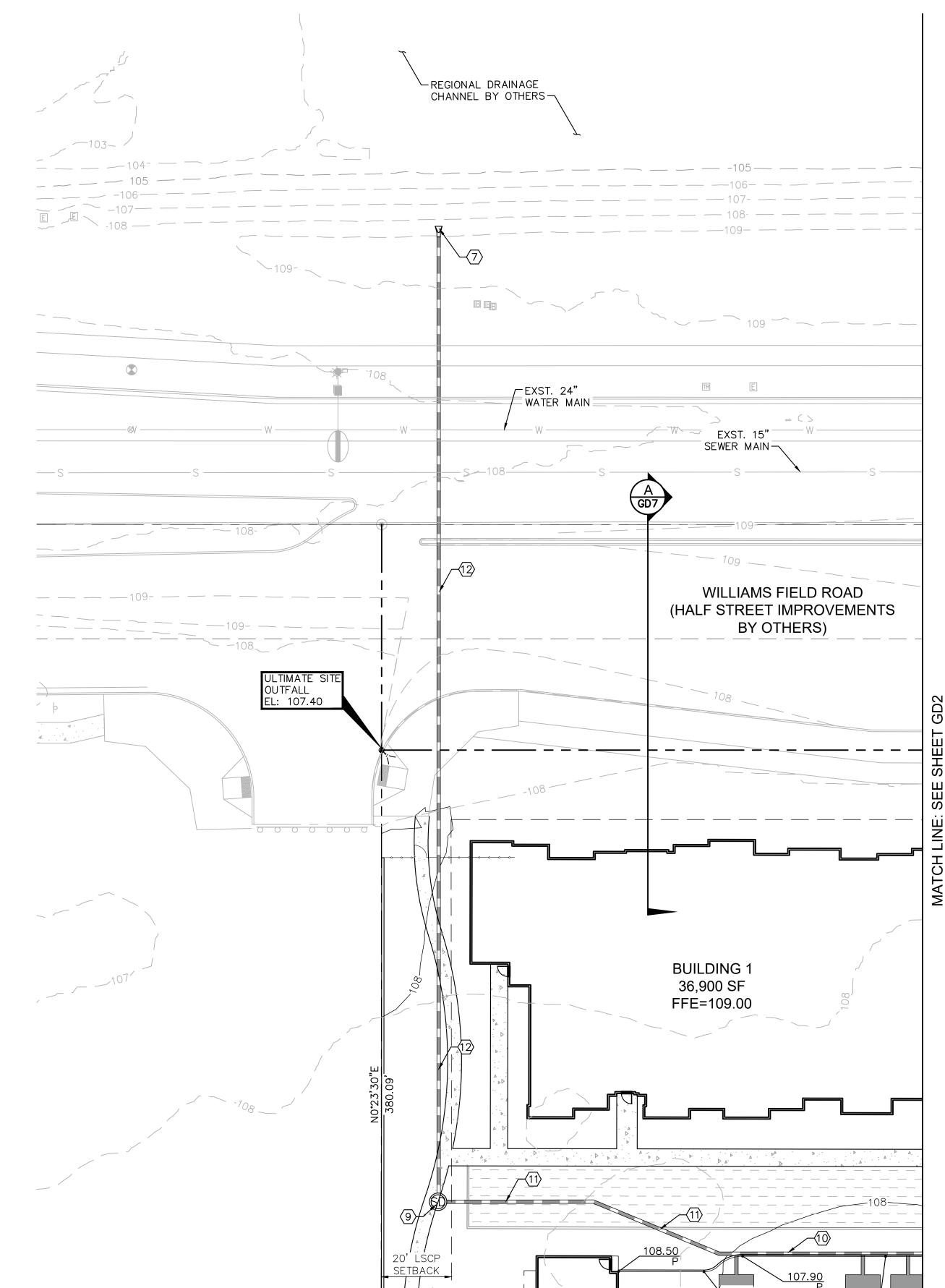
STORMWATER RETENTION REQUIREMENTS						
LAND TYPE	AREA (SF)	RUNOFF COEFFICIENT	PRECIPITATION DEPTH (IN)	REQUIRED STORAGE (CF)		
LANDSCAPE	330,517	0.50	2.20	27,268		
BUILDING	235,677	0.95	2.20	41,047		
PAVEMENT	280,335	0.95	2.20	48,825		
TOTAL	846,529			120,169		

UNDERGROUND STORAGE PROVIDED					
TANK	DIAMETER (FT)	LENGTH (FT)	VOLUME PROVIDED (CF)	VOLUME REQUIRED (CF)	SURPLUS (CF)
TOTAL	10	1531	120,241	120,169	71

STORMWATER DISPOSAL					
	RETENTION (CF)	DISPOSAL RATE (CFS)	DISPOSAL TIME (HR)		
TOTAL	120,241	1.00	33.4		

PROPERTY LINE ---- RIGHT OF WAY LINE — EASEMENT LINE — EXISTING SEWER MAIN — EXISTING PUBLIC WATER MAIN — PROPOSED WATER MAIN — PROPOSED SEWER MAIN ■ PROPOSED STORM DRAIN EXSTING STORM DRAIN __ HIGH POINT __ LOW POINT PROPOSED CONTOUR EXISTING CONTOURS PROPOSED PAVEMENT SPOT ELEVATION EXISTING SPOT ELEVATION EXISTING SANITARY SEWER MANHOLE EXISTING FIRE HYDRANT PROPOSED FIRE HYDRANT PROPOSED CATCH BASIN

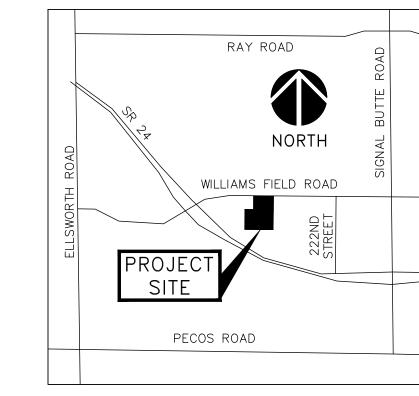
SURFACE F	LOW	DIRECT	ION	
EXISTING S	TORM	DRAIN	MANH	OLE
	_	NOI	RTH /	_
	GRAPI	HIC SC	ALE IN	FFF
O	1	0 2		'



<u> 108.50</u>

MATCH LINE: SEE SHEET GD3

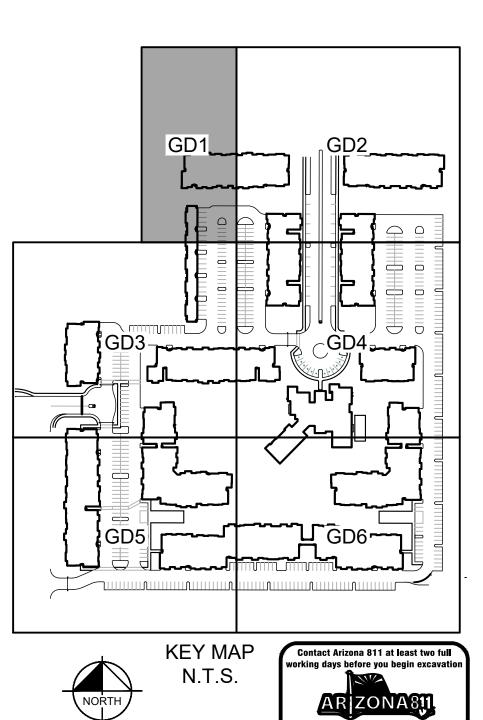
PROP. PROPERTY LINE -

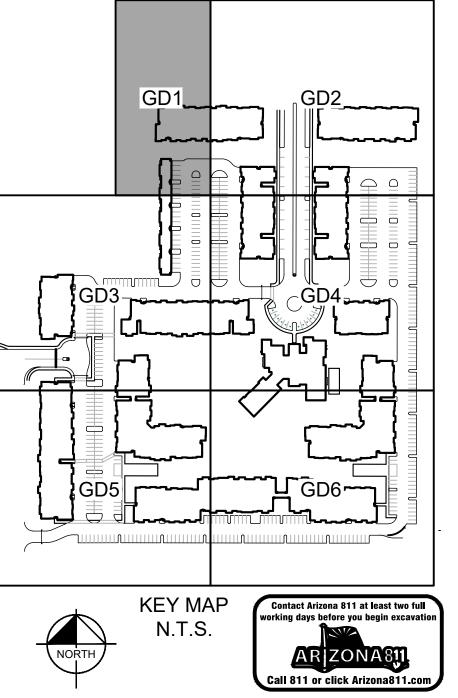


VICINITY MAP MESA, AZ N.T.S.

GRADING AND DRAINAGE NOTES

- 3 PROPOSED 10' DIAMETER CMP STORM WATER RETENTION TANK, LENGTH PER PLAN.
- (7) PROPOSED FLARED END SECTION.
- (9) PROPOSED STORM DRAIN PUMP.
- (10) PROPOSED STORM DRAIN EQUALIZER PIPE.
- (11) PROPOSED STORM DRAIN BLEED PIPE.
- (12) PROPOSED STORM DRAIN FORCE MAIN.
- PROPOSED UNDERGROUND RETENTION ACCESS GRATE.





Kimley»Horn ENGINEER _____T. JONES PE NO.<u>52738</u> DATE<u>04/26</u>

09Pre-GD.dwg GD1 1 OF 8 SHEETS

DIN

IMINAR' DRAIN

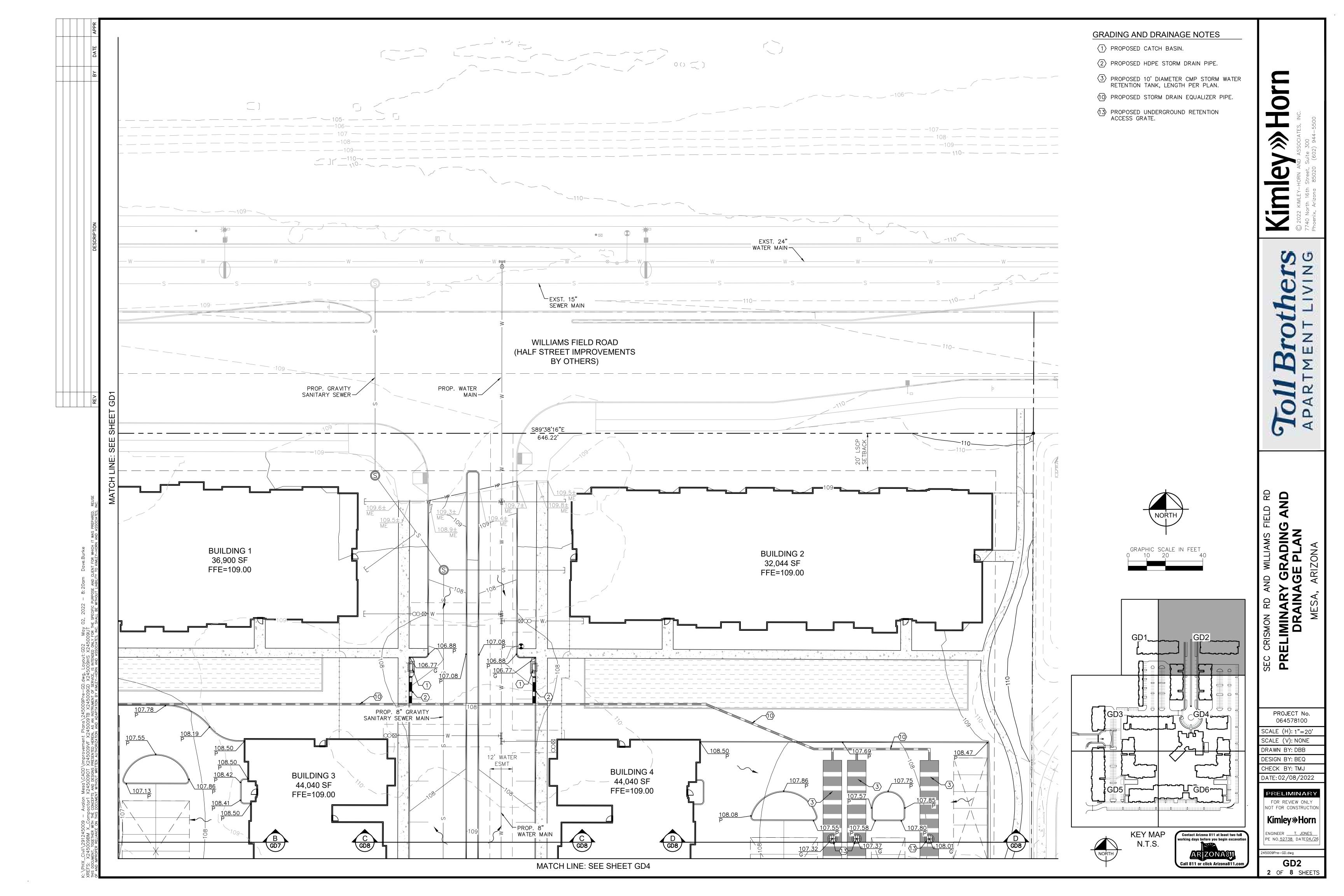
PROJECT No. 064578100

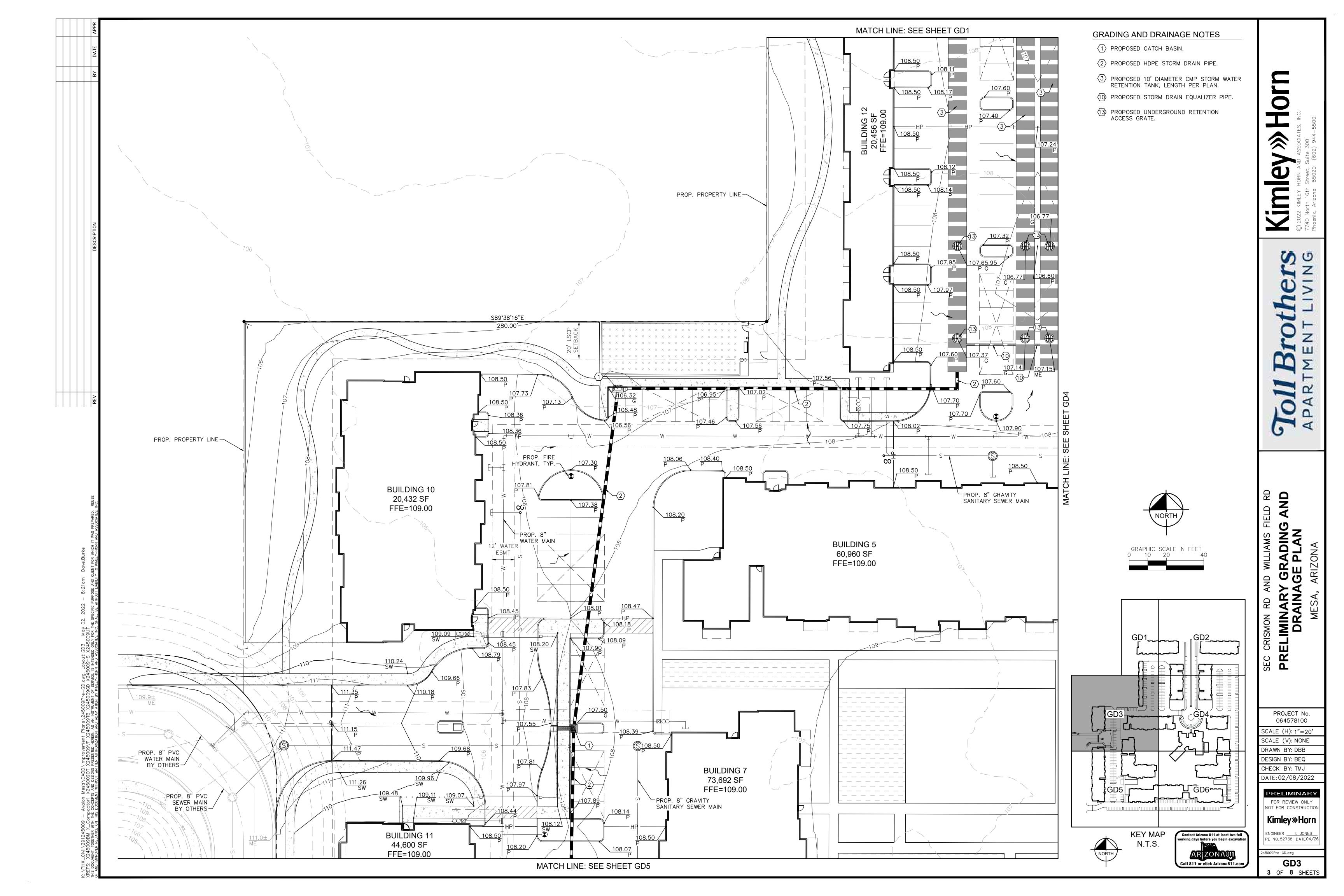
SCALE (H): 1"=20" SCALE (V): NONE

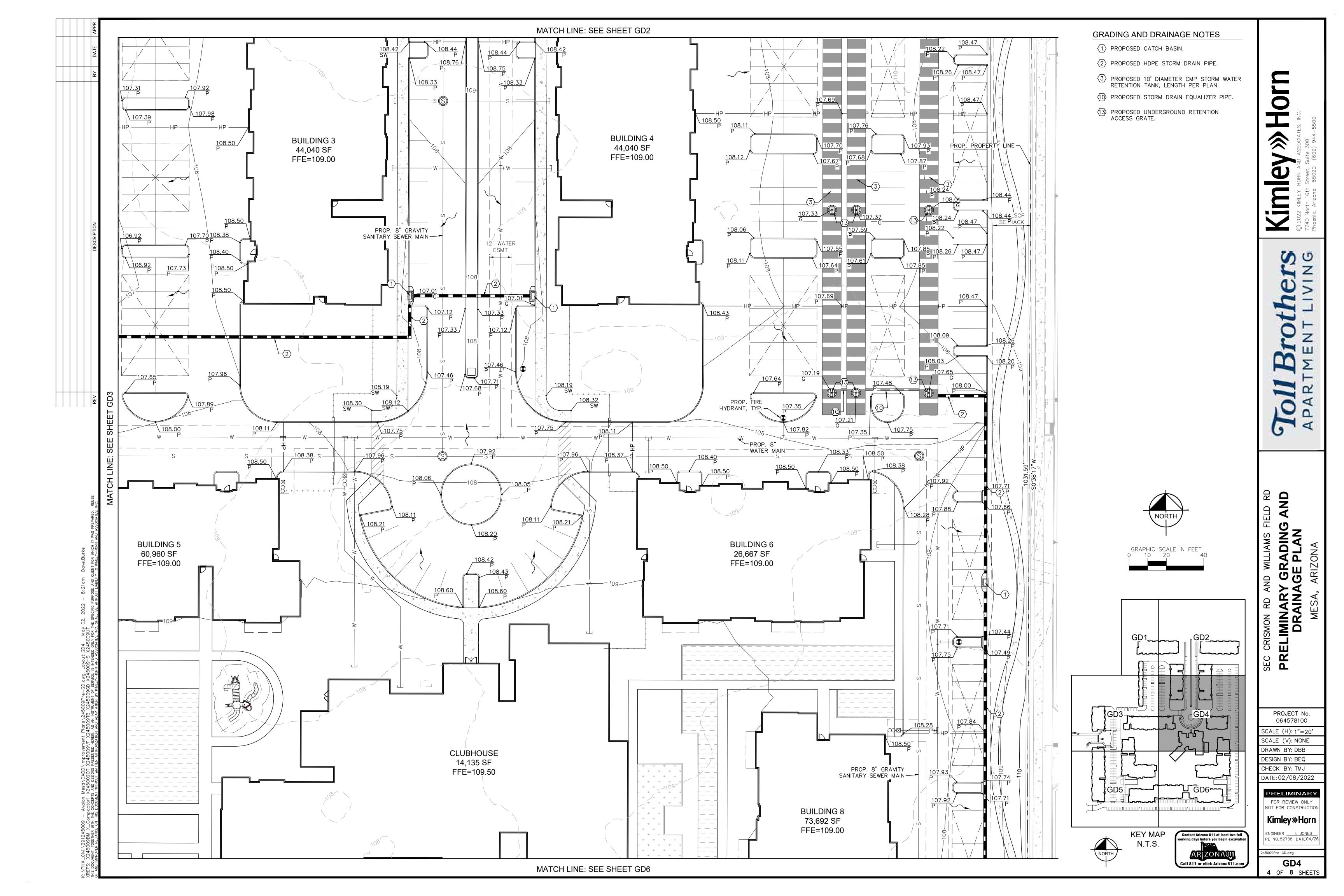
DRAWN BY: DBB

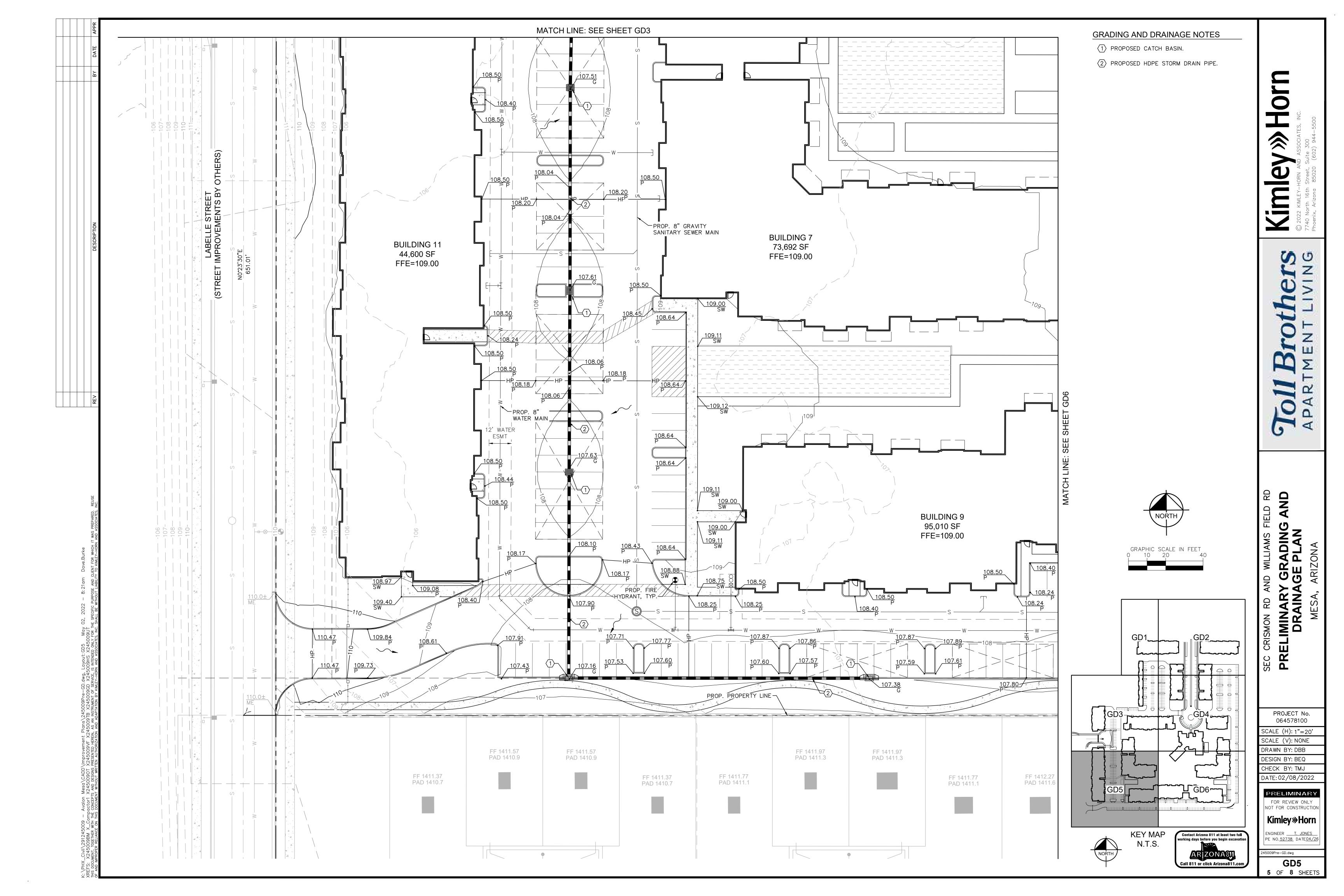
DESIGN BY: BEQ CHECK BY: TMJ DATE: 02/08/2022

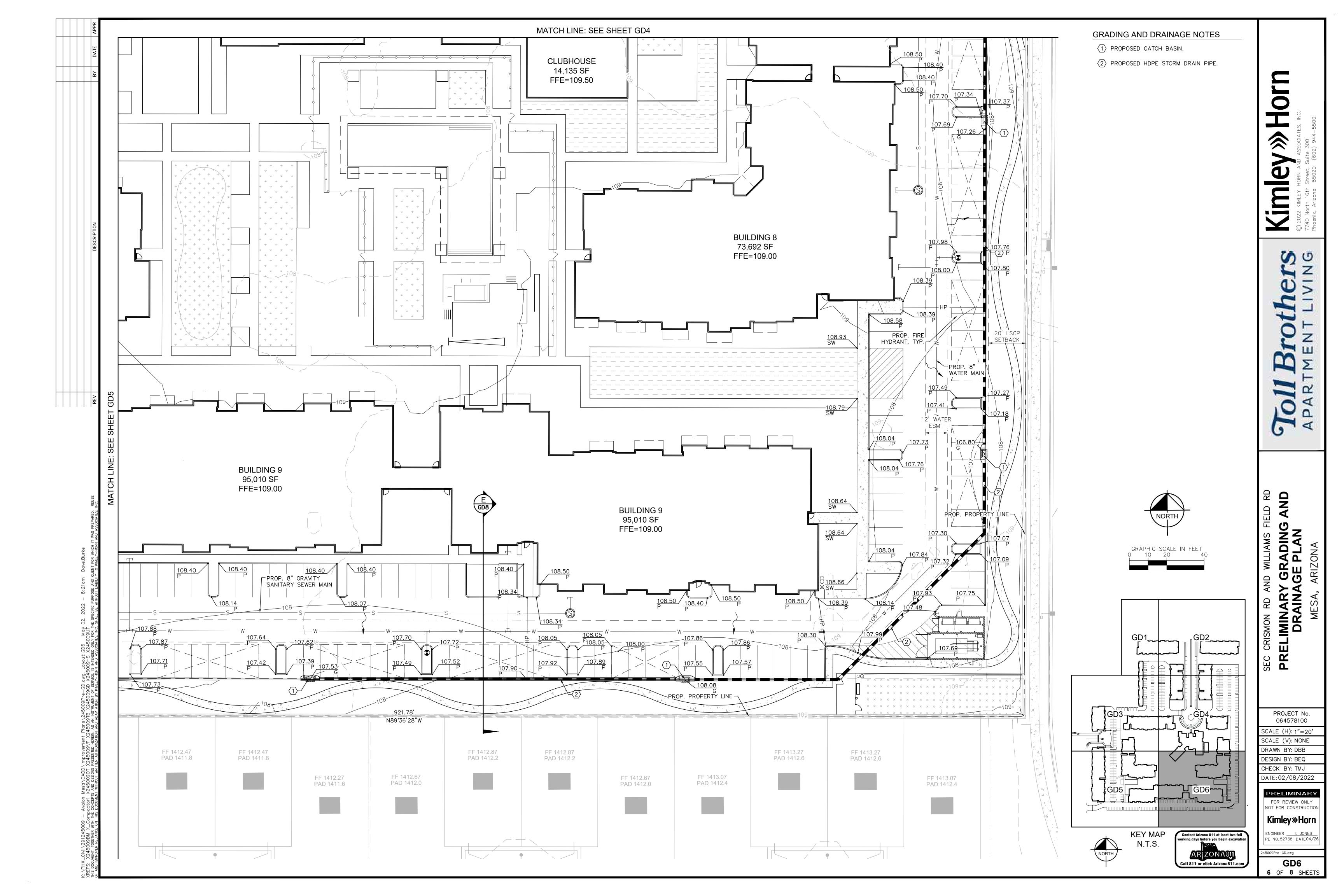
PRELIMINARY FOR REVIEW ONLY NOT FOR CONSTRUCTION

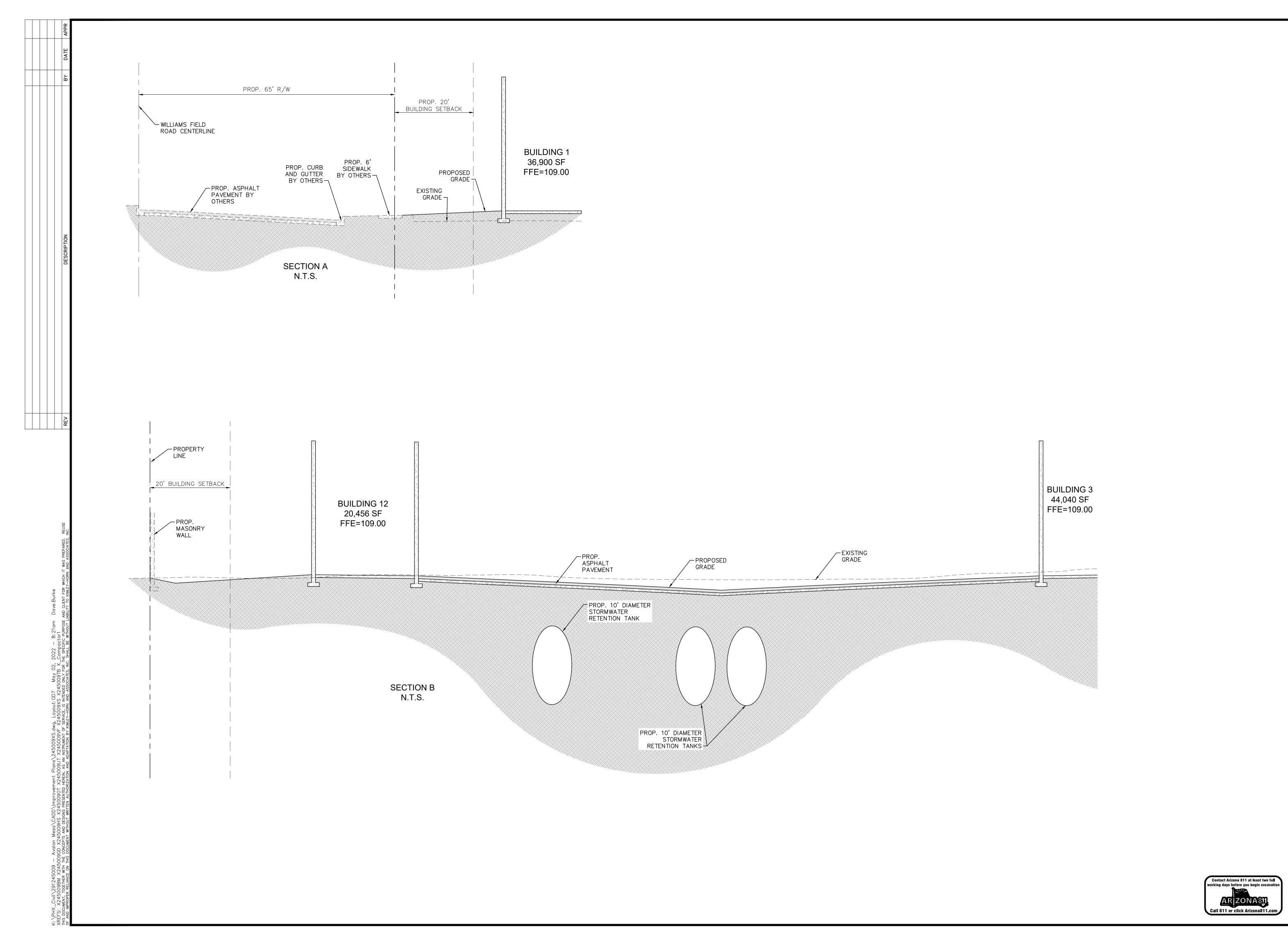












KIMIEY-HORN AND ASSOCIATES, INC.
7740 North 16th Street, Suite 300
Phoenix, Arizona 85020 (602) 944-5500

Toll Brother

SECTIONS

SEC

PROJECT No. 064578100

SCALE (H): NONE
SCALE (V): NONE

DRAWN BY: DBB
DESIGN BY: BEQ

CHECK BY: TMJ
DATE: 02/08/2022

PRELIMINARY

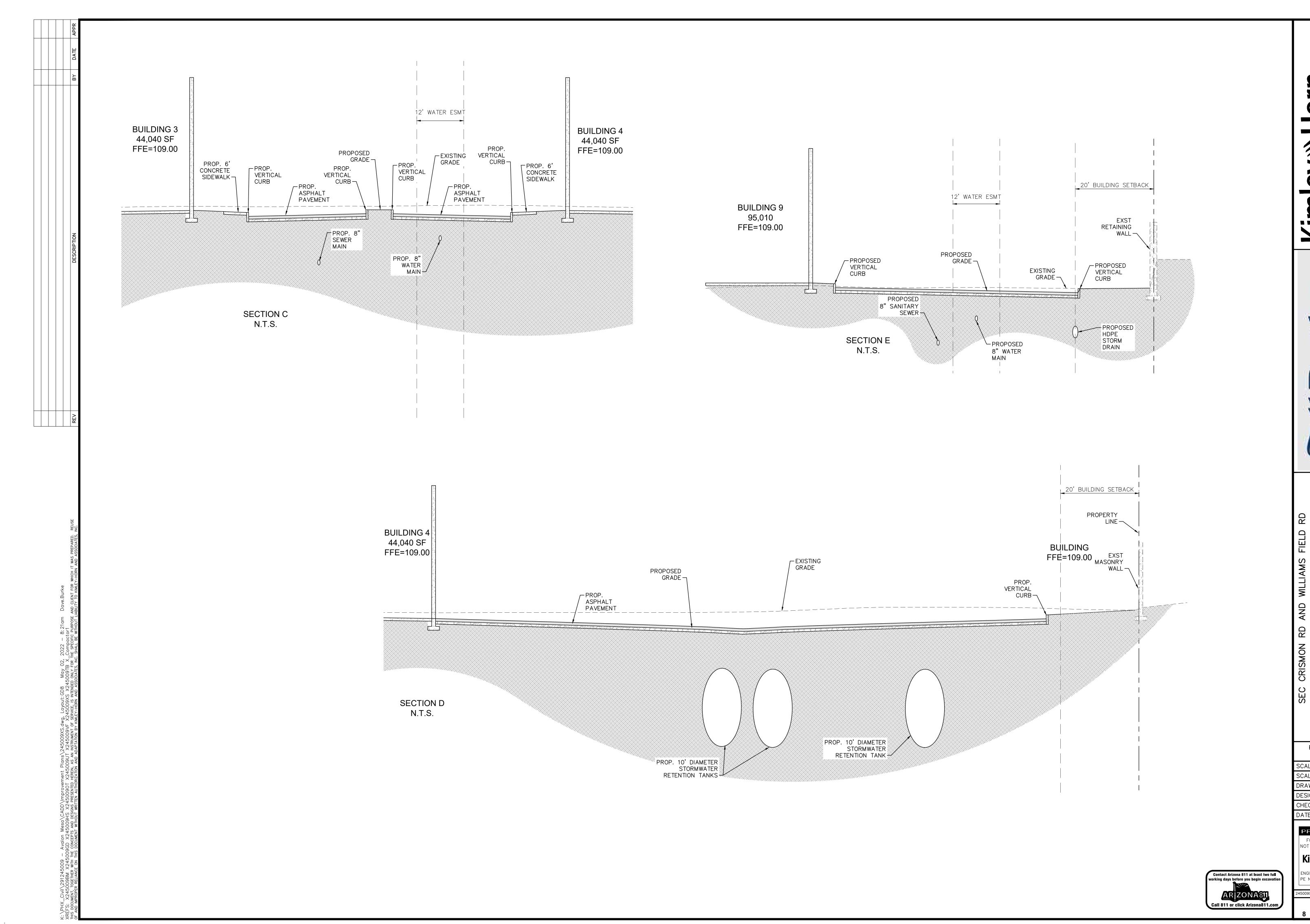
FOR REVIEW ONLY

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Kimley»Horn

ENGINEER ______T. JONES ______PE NO. 52738 DATE 04/26 ______245009XS.dwg

GD7 7 OF **8** SHEETS



AND

ARIZONA

PROJECT No. 064578100

SCALE (H): NONE SCALE (V): NONE

DRAWN BY: DBB DESIGN BY: BEQ CHECK BY: TMJ

DATE: 02/08/2022 PRELIMINARY

FOR REVIEW ONLY NOT FOR CONSTRUCTION Kimley»Horn ENGINEER <u>T. JONES</u> PE NO. <u>52738</u> DATE <u>04/26</u>

GD8

8 OF 8 SHEETS