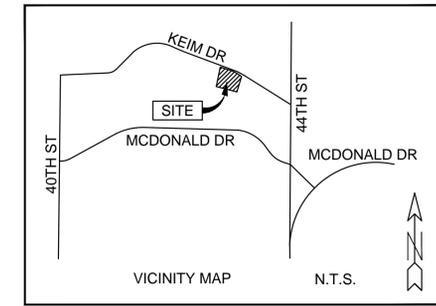


# Dinan Residence

4275 East Keim Drive, Paradise Valley, Arizona



- A-0 COVER SHEET
- A-1.0 AERIAL PHOTO & SITE PHOTOS
- A-2.0 ARCHITECTURAL RENDERING
- ST-1 BOUNDARY & TOPOGRAPHIC SURVEY

- C-1 GRADING & DRAINAGE NOTES
- C-2 GRADING & DRAINAGE SITE PLAN
- C-3 GRADING & DRAINAGE DETAILS
- A-3.0 ARCHITECTURAL SITE PLAN

- A-4.0 EXTERIOR ELEVATIONS
- A-4.1 EXTERIOR ELEVATIONS
- A-4.2 EXTERIOR ELEVATIONS
- A-5.0 BUILDING SECTIONS A & B

- A-5.1 BUILDING SECTION C
- A-6.0 EXTERIOR BUILDING LIGHTING PLAN
- A-7.0 MASSING MODEL
- A-8.0 EXTERIOR MATERIALS




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PH 480.951.8558  
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KENDLEDESIGN.COM

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5		
4		
3	3-18-22	2ND HILLSIDE CONCEPT SUBMITTAL
2	4-1-21	1ST HILLSIDE CONCEPT SUBMITTAL
1	3-22-21	HILLSIDE PRE-APP MEETING
MARK	DATE	DESCRIPTION

ISSUE: 7-05-22 3RD HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:

CAD DWG FILE:

DRAWN BY: AU/JM

CHECKED BY: BK

SHEET TITLE:

**COVER**

**A-0.0**



IMAGE 1



IMAGE 2



IMAGE 3



IMAGE 4



IMAGE 5



IMAGE 6



IMAGE 7



IMAGE 8



IMAGE 9



IMAGE 10



IMAGE 11



IMAGE 12



IMAGE 13



IMAGE 14



IMAGE 15



IMAGE 16



IMAGE 17



IMAGE 18



IMAGE 19



IMAGE 20



IMAGE 21



IMAGE 22



IMAGE 23



IMAGE 24



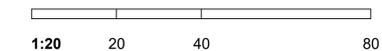
IMAGE 25



IMAGE 26



SITE PLAN + PHOTOS



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△	3-22-21	HILLSIDE PRE-APP MEETING

ISSUE: 7-05-22 3RD HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:

CAD DWG FILE:

DRAWN BY: AU/JM

CHECKED BY: BK

SHEET TITLE:

**AERIAL PHOTO  
& SITE PHOTOS**

**A-1.0**



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MARK	DATE	DESCRIPTION

ISSUE: 7-05-22 3RD HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:

CAD DWG FILE:

DRAWN BY: AU/JM

CHECKED BY: BK

SHEET TITLE:

RENDERING

A-2.0



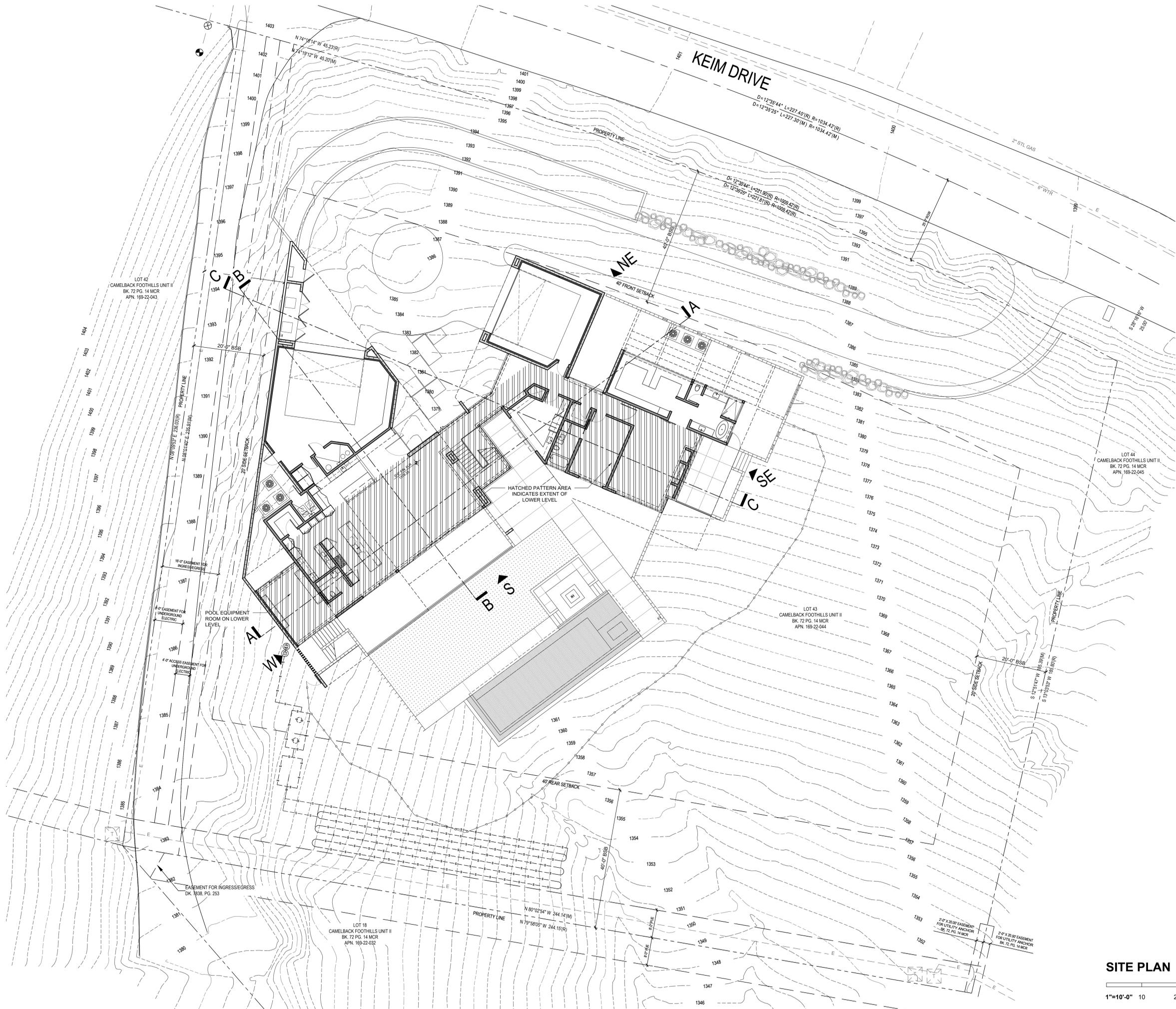
RENDERING



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△		
△		
△	4-1-21	1ST HILLSIDE CONCEPT SUBMITTAL
△	3-22-21	HILLSIDE PRE-APP MEETING
MARK	DATE	DESCRIPTION

ISSUE: 3-18-22 2ND HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:  
CAD DWG FILE:

DRAWN BY: -  
CHECKED BY: -

SHEET TITLE:

**ARCHITECTURAL  
SITE PLAN**

**A-3.0**



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△	3-22-21	HILLSIDE PRE-APP MEETING

ISSUE: 7-05-22 3RD HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:

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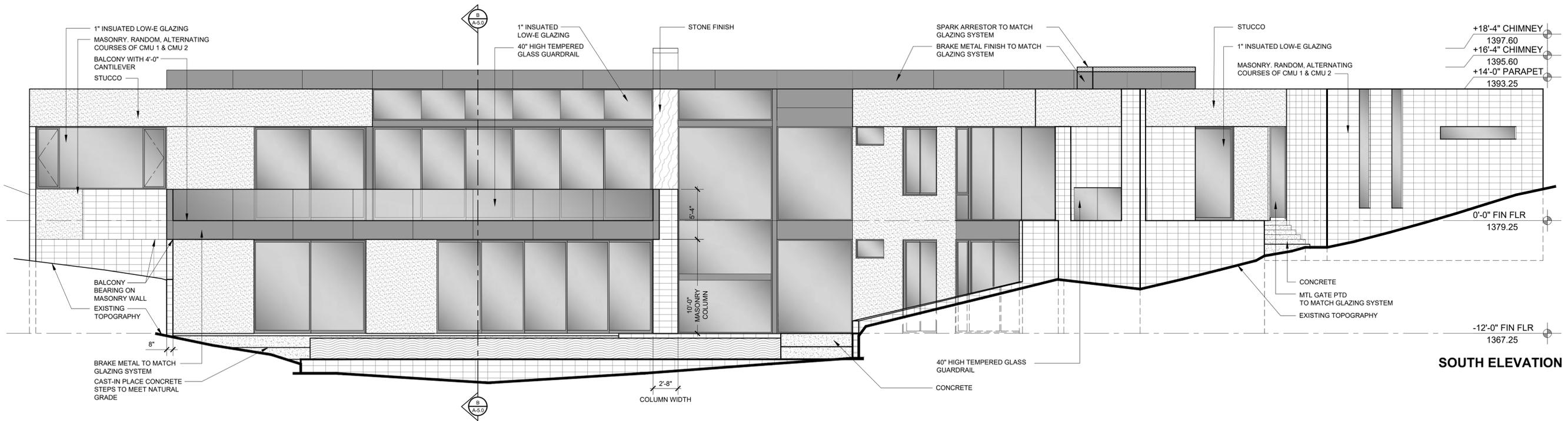
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CHECKED BY: BK

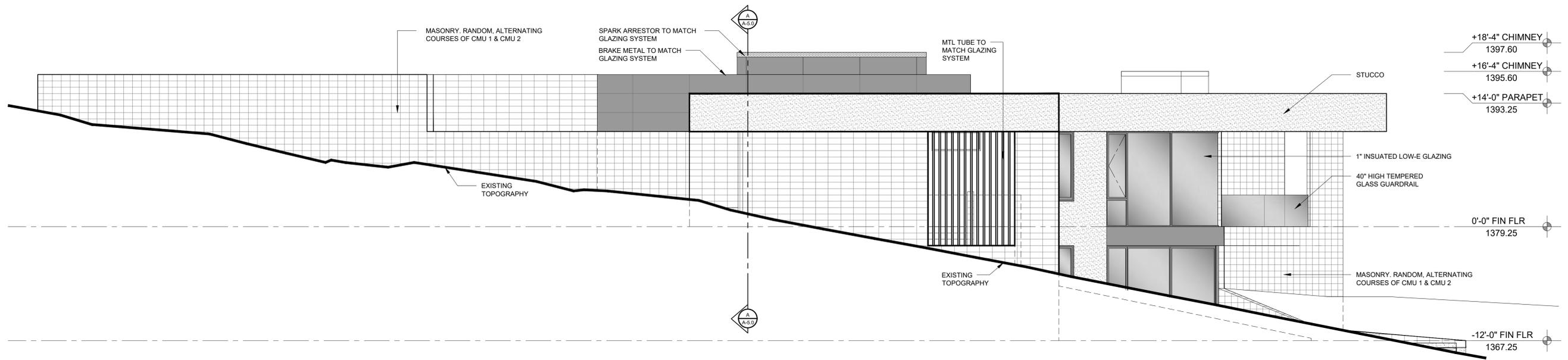
SHEET TITLE:

EXTERIOR  
ELEVATIONS

A-4.0



**SOUTH ELEVATION**



**WEST ELEVATION**

**EXTERIOR ELEVATIONS**



3/16

5

10

15

20

25



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ISSUE: 7-05-22 3RD HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:

CAD DWG FILE:

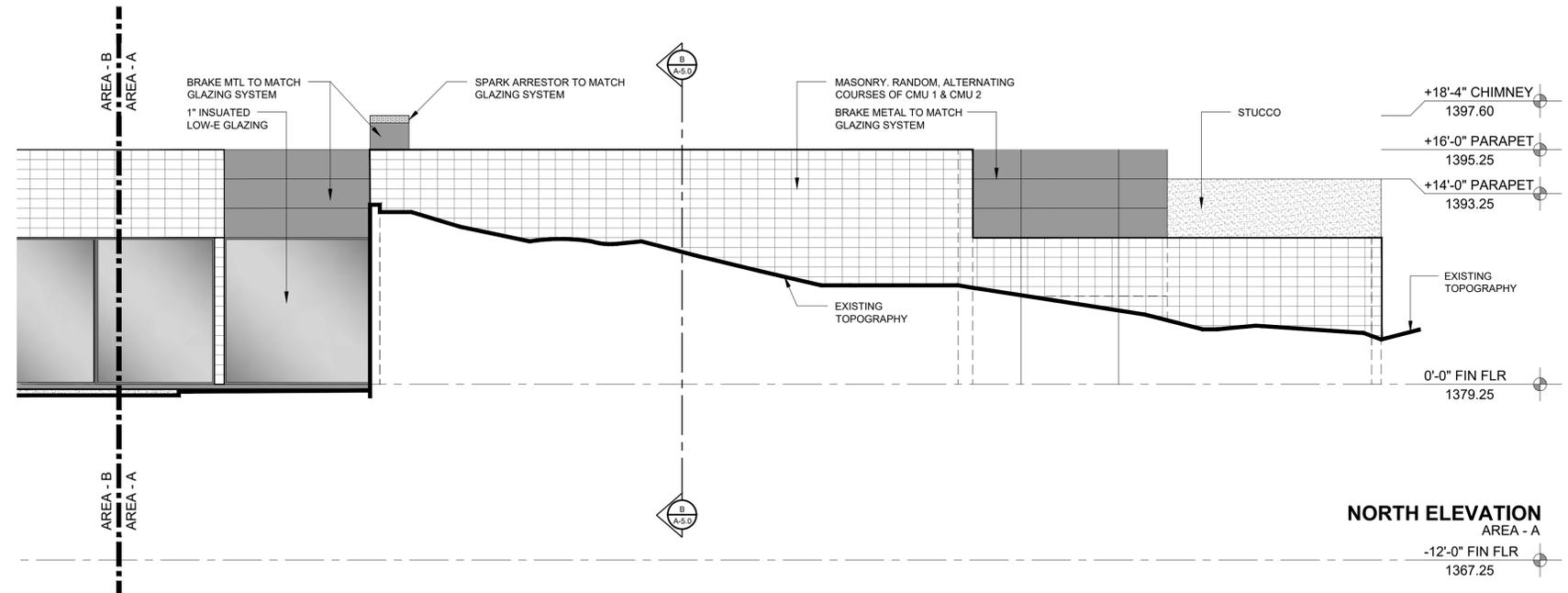
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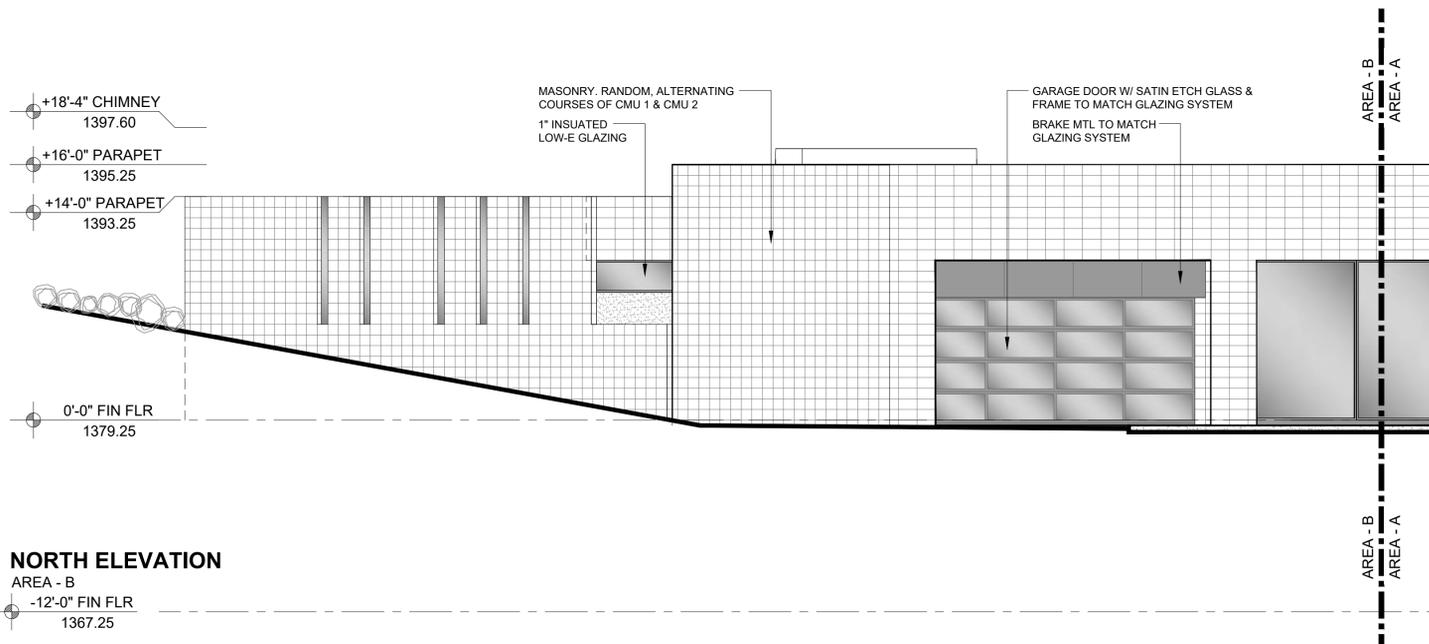
SHEET TITLE:

**EXTERIOR  
ELEVATIONS**

**A-4.1**



**NORTH ELEVATION**  
AREA - A  
-12'-0" FIN FLR  
1367.25



**NORTH ELEVATION**  
AREA - B  
-12'-0" FIN FLR  
1367.25

**EXTERIOR ELEVATIONS**





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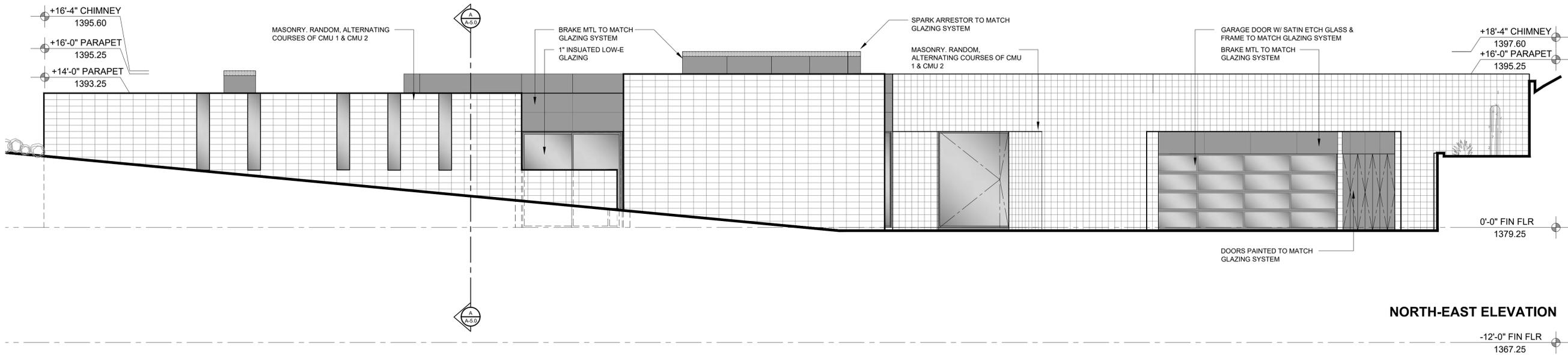
MARK	DATE	DESCRIPTION
△ 3		
△ 4		
△ 3	3-18-22	2ND HILLSIDE CONCEPT SUBMITTAL
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ISSUE: 7-05-22 3RD HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:  
CAD DWG FILE:  
DRAWN BY: AU/JM  
CHECKED BY: BK  
SHEET TITLE:

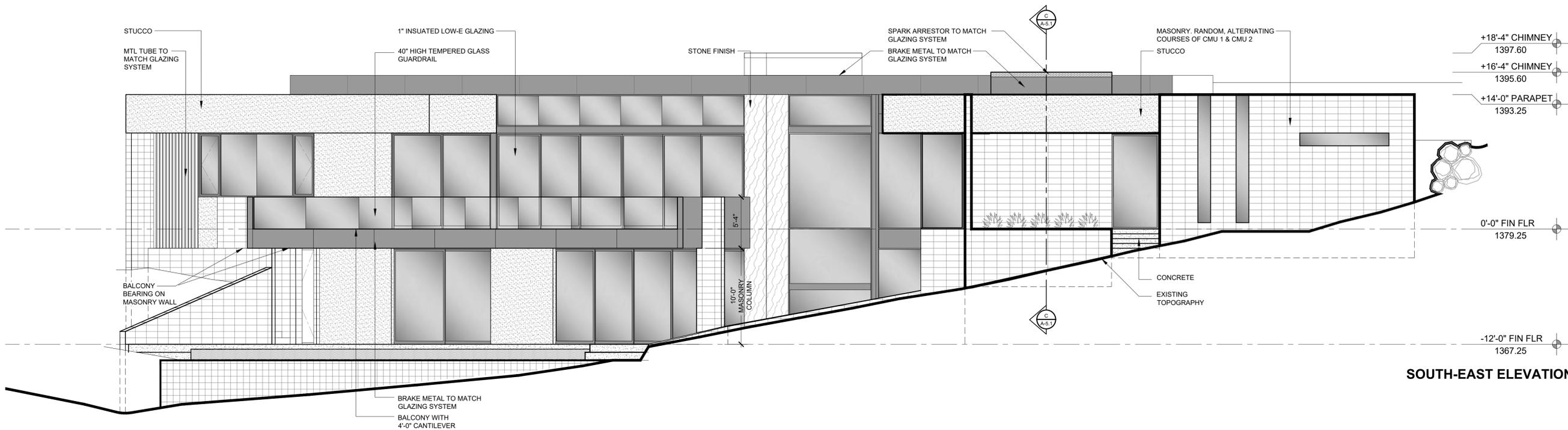
EXTERIOR  
ELEVATIONS

A-4.2



NORTH-EAST ELEVATION

-12'-0" FIN FLR  
1367.25



SOUTH-EAST ELEVATION

EXTERIOR ELEVATIONS





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PROJECT NO:

CAD DWG FILE:

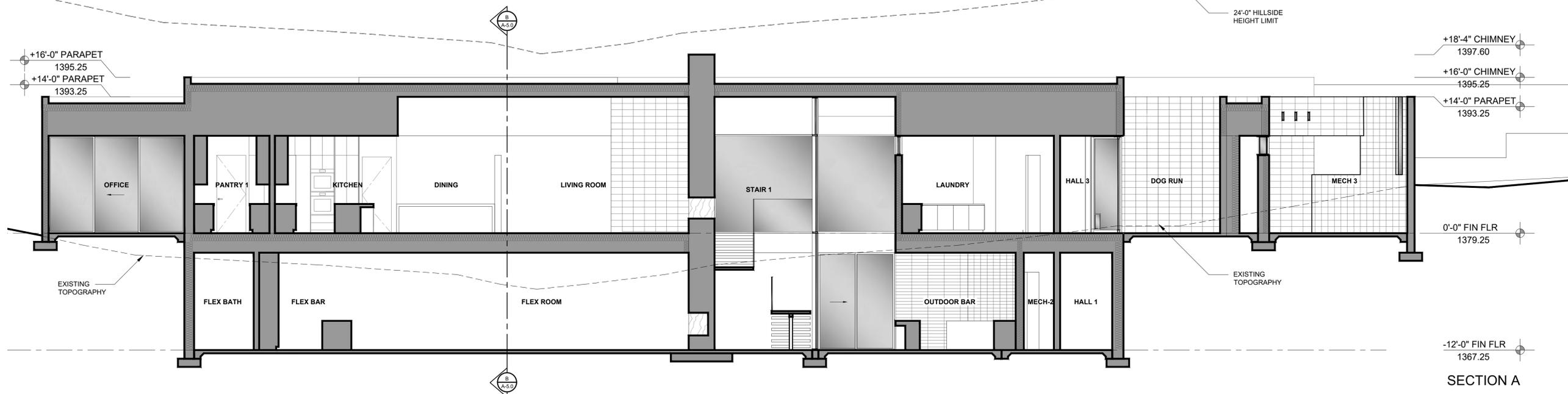
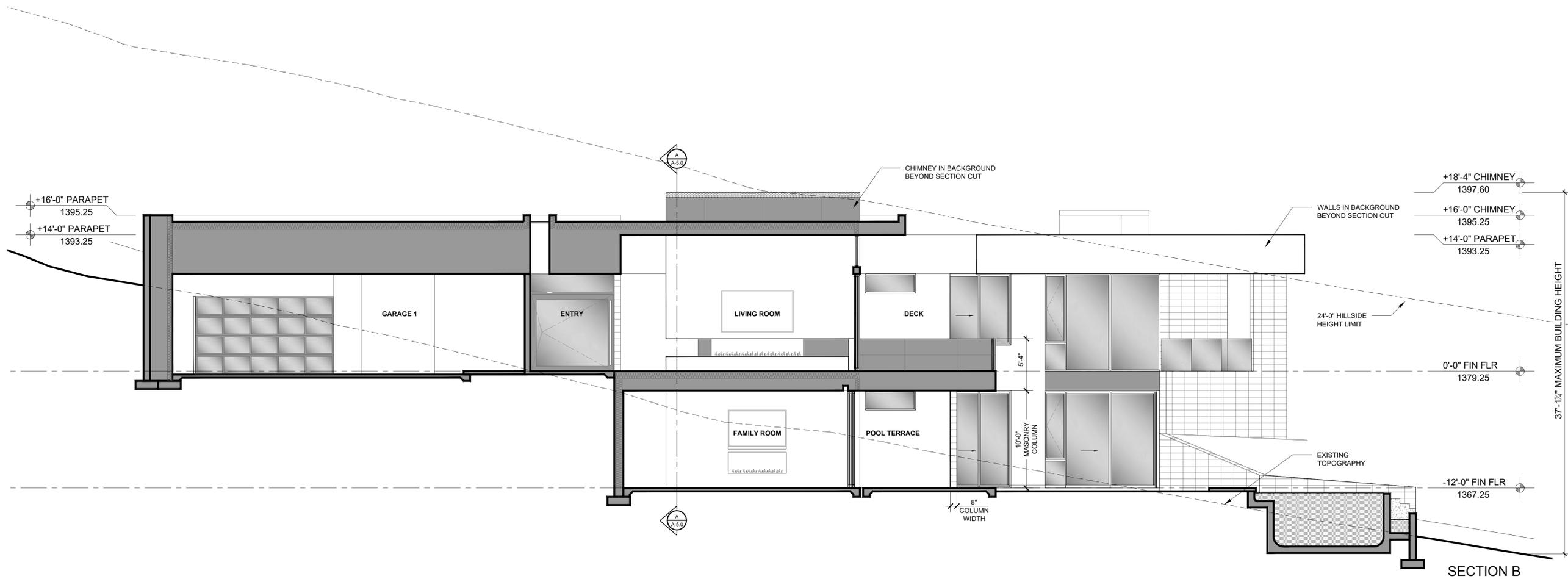
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SHEET TITLE:

**BUILDING  
SECTIONS**

**A-5.0**



**BUILDING SECTIONS**





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ISSUE: 7-05-22 3RD HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:

CAD DWG FILE:

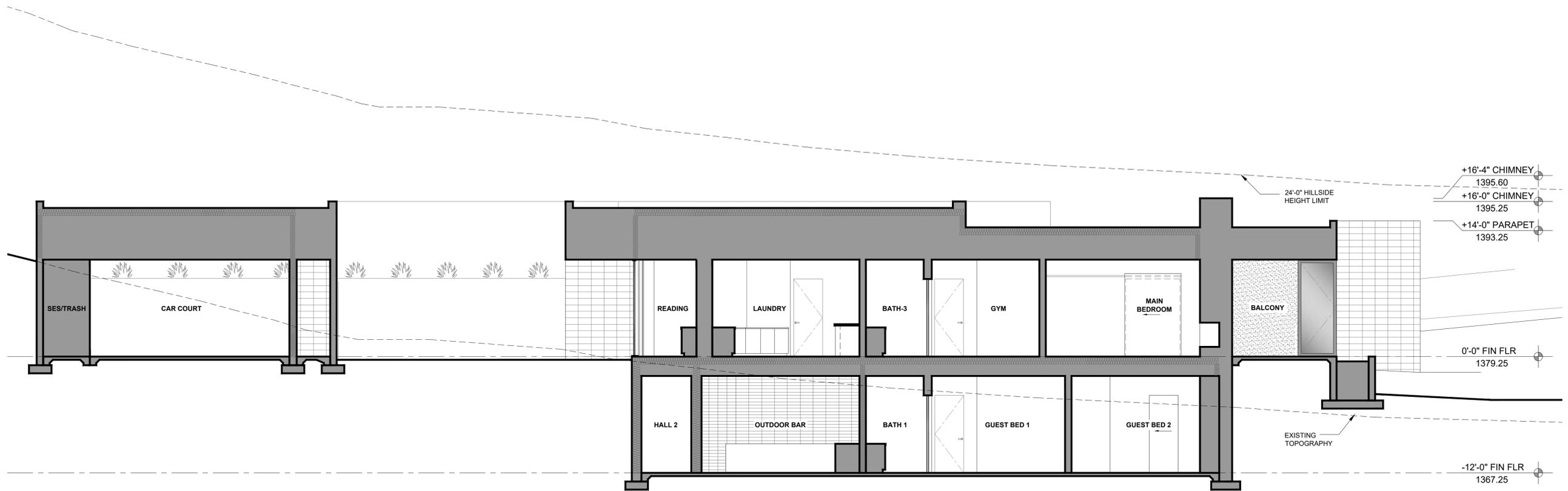
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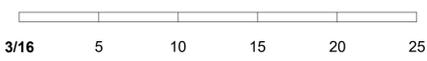
**BUILDING  
SECTIONS**

**A-5.1**



SECTION C

**BUILDING SECTIONS**







VIEW 1



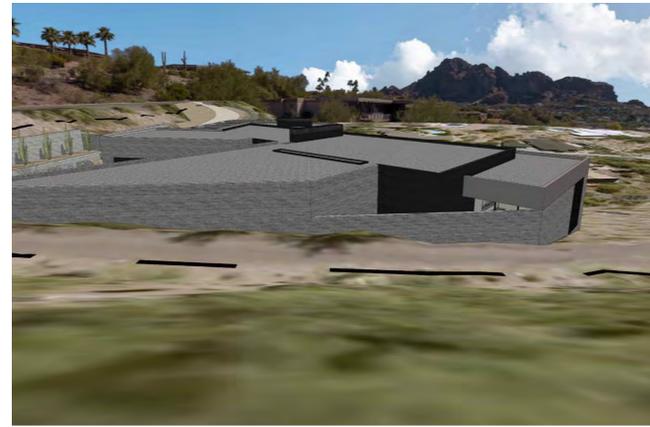
VIEW 2



VIEW 3



VIEW 4



VIEW 5



VIEW 6



VIEW 7



VIEW 8



KEY PLAN

1:40' 40' 80' 160' 240'



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ISSUE: 7-05-22 3RD HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:

CAD DWG FILE:

DRAWN BY: AU/JM

CHECKED BY: BK

SHEET TITLE:

**MASSING  
MODEL**

**A-7.0**



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1	3-22-21	HILLSIDE PRE-APP MEETING
MARK	DATE	DESCRIPTION

ISSUE: 7-05-22 3RD HILLSIDE CONCEPT SUBMITTAL

PROJECT NO:

CAD DWG FILE:

DRAWN BY: AU/JM

CHECKED BY: BK

SHEET TITLE:

EXTERIOR  
MATERIALS

A-8.0

**GARAGE DOORS**  
TRANSLUCENT PANELS W/ FRAME  
TO MATCH METAL 2



**DRIVEWAY: PERMEABLE PAVERS**  
ACKER-STONE PALOMINO GRIND  
GROUND FACE  
LRV: 24



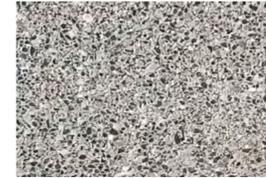
**CAST IN PLACE CONCRETE SLAB**  
INTEGRAL COLOR, EXPOSED AGGREGATE  
DAVIS COLORS COBBLESTONE 860  
LRV: 28.1



**BALLAST ROOF**  
TBD  
LRV: NOT TO BE GREATER THAN 38%



**MASONRY WALLS TO BE RANDOM ALTERNATING COURSES OF CMU-1 & CMU-2**  
CMU 1 - RUNNING BOND 4x8x16  
SUPERLITE BLOCK, TRENDSTONE  
COLOR: PEPPERCORN  
LRV: 23.2



**FENCE**  
NATURALLY OXIDIZED FINISH



**METAL 1**  
TO MATCH WINDOW SYSTEM FINISH  
LRV: 2.5



**GLAZING**  
CLEAR, LOW-E INSULATED GLAZING  
IN DARK BRONZE ANODIZED FRAME



**STONE**  
SAPIAN LARGE FORMAT CERAMIC TILE  
LRV: 6.5



**STUCCO**  
SMOOTH SAND FINISH. MATCH BENJAMIN  
MOORE 1475 GRAYSTONE  
LRV 29.88



**GUARDRAIL**  
42" HIGH TEMP. GLASS, CLEAR



**MASONRY WALLS TO BE RANDOM ALTERNATING COURSES OF CMU-1 & CMU-2 RUNNING BOND 8x8x16**  
SUPERLITE BLOCK, SPLITFACE  
COLOR: PEPPERCORN  
LRV: 23.2



**OWNER OF RECORD**

YEE BERNE/LILY TR  
 Property Address: 4275 E KEIM DR PARADISE VALLEY AZ. 85253  
 Mailing Address: 9435 N 42ND ST PHOENIX, AZ. 85028

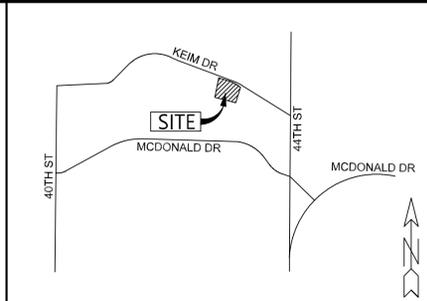
**BENCHMARK**

FND CPS AT THE INTERSECTION OF 44TH STREET AND LINCOLN DRIVE AVENUE (THE CENTER OF SECTION 7 TOWNSHIP 2 NORTH, RANGE 4 EAST).  
 ELEVATION = 1367.502 (NAVD88 DATUM)

**SYMBOL LEGEND**

- ☒ WATER METER
- ☒ TELEPHONE RISER
- ⊙ PP POWER POLE
- ⊙ FIRE HYDRANT
- ⊙ DOWN GUY
- ⊙ BRASS CAP IN HANDHOLE
- ⊙ BRASS CAP FLUSH
- SET REBAR/CAP L5#34559 OR AS NOTED

- 🌳 PALOVERDE TREE
- 🌳 MESQUITE TREE
- 🌵 SAGUARO CACTUS
- 🌵 BARREL CACTUS



**VICINITY MAP** N.T.S.

**SURVEYORS NOTES**

1. MONUMENTS FOUND DURING THIS FIELD SURVEY WERE ACCEPTED UNLESS OTHERWISE NOTED HEREIN.
2. CURRENT MINERAL CLAIMS ON LANDS SHOWN IN THIS SURVEY ARE NOT KNOWN TO THIS SURVEYOR.
3. IT IS RECOMMENDED THAT THE CLIENT RETAIN LEGAL CONSULTATION TO THOROUGHLY EXAMINE TITLE FOR ANY CLAIMS, DEFECTS OR LIABILITY UNDISCLOSED BY THIS SURVEY.
4. THIS DOCUMENT MUST BE COMPARED TO THE ORIGINAL HARD COPY ISSUE AT THE SURVEY DATE WITH ITS ORIGINAL SEAL TO ENSURE THE ACCURACY OF THE INFORMATION AND TO FURTHER ENSURE THAT NO CHANGES, ALTERATIONS OR MODIFICATIONS HAVE BEEN MADE.
5. THIS SURVEY WAS PERFORMED USING GPS (GLOBAL POSITIONING SYSTEMS) TO OPTIMIZE THE RELATIVE POSITIONINGS OF FOUND CORNERS. EXTREME CARE HAS BEEN TAKEN TO PRODUCE SURFACE MEASUREMENTS OF THE MONUMENTS FOUND.
6. THIS SURVEYOR WAS NOT CONTRACTED TO PERFORM A BOUNDARY SURVEY.
7. EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS PART OF THIS SURVEY IS NOTED HEREON. ONLY THE DOCUMENTS NOTED HEREON WERE SUPPLIED TO OR OBTAINED BY THIS SURVEYOR. NO ABSTRACT OF TITLE WAS FURNISHED TO THIS SURVEYOR. THERE MAY EXIST OTHER DOCUMENTS OF RECORD WHICH WOULD AFFECT THIS PARCEL.

**LEGAL DESCRIPTION**

LOT 43, OF CAMELBACK FOOTHILLS UNIT II, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 72 OF MAPS, PAGE 14.

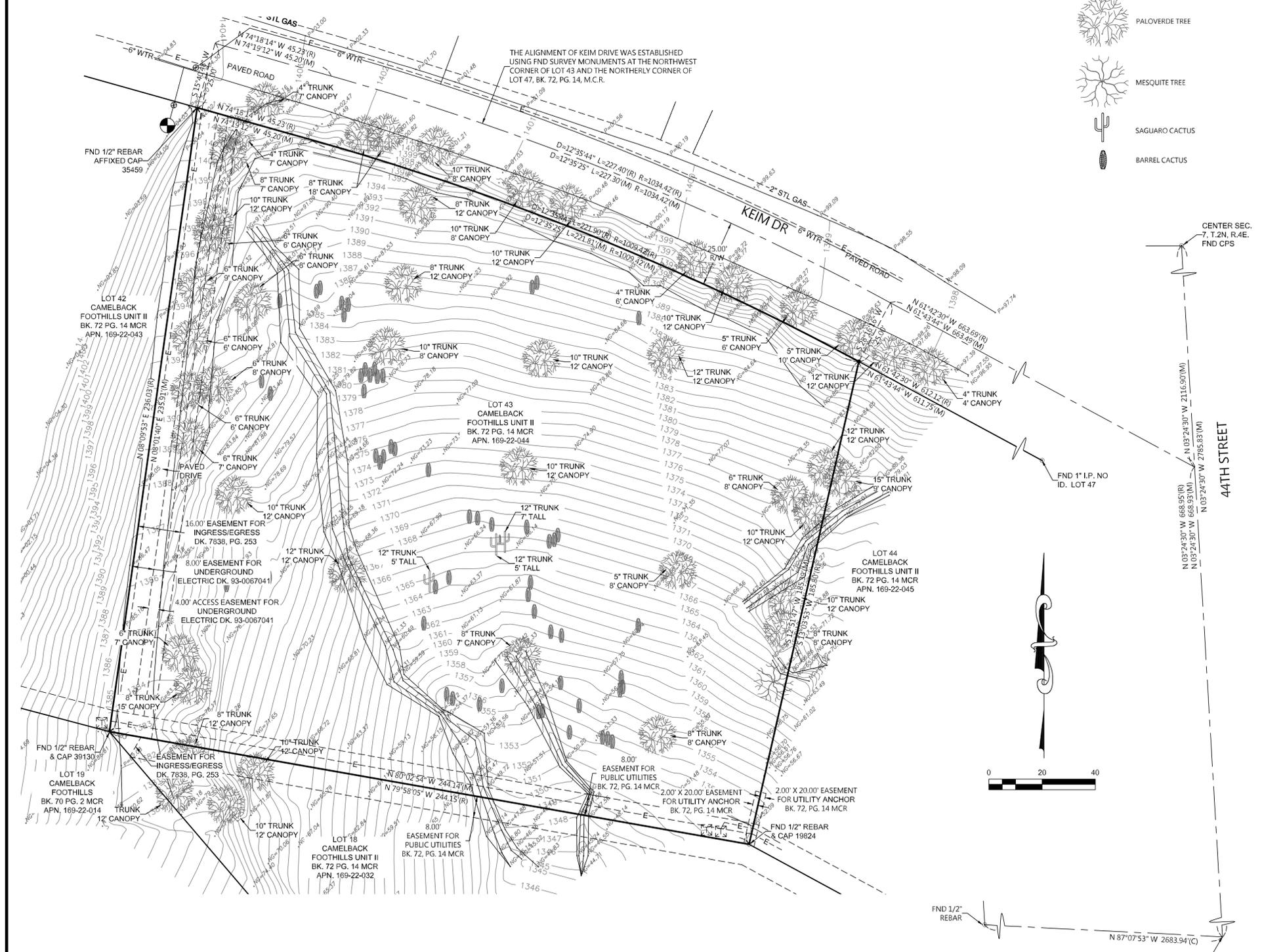
**LAND SURVEYORS CERTIFICATION**

I HEREBY CERTIFY THAT THE SURVEY OF THE PREMISES DESCRIBED AND MAPPED HEREON WERE MADE UNDER MY DIRECTION DURING THE MONTH OF JUNE, 2020; THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN; THAT THE MONUMENTS SHOWN ACTUALLY EXIST OR WILL BE SET AS SHOWN; THAT THEIR POSITIONS ARE CORRECTLY SHOWN AND THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

*Paul M. Miller*



REGISTRATION NO. 34559, AZ.  
 REGISTERED LAND SURVEYOR



CENTER SEC. 7, T.2N, R.4E. FND CPS

44TH STREET



FND 1/2" REBAR  
 N 87°07'53" W 2683.94'(C)  
 NOTHING FND. OR SET POSITION CALCULATED

**BOUNDARY AND TOPOGRAPHIC SURVEY**

OF A PORTION OF SOUTHWEST QUARTER OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA

REVISIONS:	DESIGN BY: N/A
REV. 1	DRAWN BY: MMM
REV. 2	SCALE: 1"=20'
REV. 3	DATE: 6/24/20
REV. 4	JOB NO. 20-050
	1 of 1

**MILLER & SONS SURVEYING**



2432 W PEORIA AVE. STE. 1302 BLDG 17 PHOENIX, AZ. 85029  
 PH: (623) 875-1200 F: (623) 875-3777

**GENERAL NOTES**

- PRIOR TO THE FIRST INSPECTION OF STRUCTURES WITHIN 3 FEET OF A SETBACK LINE, THE PROPERTY PINS SHALL BE PLACED BY A REGISTERED CIVIL ENGINEER OR LAND SURVEYOR OF THE STATE OF ARIZONA, AND THE PROPERTY LINE(S) IDENTIFIED.
- WHERE EXCAVATION IS TO OCCUR THE TOP 4" OF EXCAVATED NATIVE SOIL SHALL REMAIN ON THE SITE AND SHALL BE REUSED IN A MANNER THAT TAKES ADVANTAGE OF THE NATURAL SOIL SEED BANK IT CONTAINS.
- ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL MUNICIPALITY UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR IS TO COMPLY WITH ALL LOCAL STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION COVERED BY THIS PLAN.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
- ALL EXTERIOR SITE LIGHTING SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS FOR TYPE, LOCATION, HEIGHT, WATTAGE, AND LUMEN BASED UPON THE FIXTURES INSTALLED PURSUANT TO SECTION 1023 OF THE TOWN OF PARADISE VALLEY ZONING ORDINANCE FOR NON-HILLSIDE PROPERTIES, SECTION 2208 OF THE TOWN OF PARADISE VALLEY ZONING ORDINANCE FOR HILLSIDE PROPERTIES, OR AS SPECIFIED IN THE SPECIAL USE PERMIT FOR SPECIAL USE PERMIT PROPERTIES.
- A DUST CONTROL PLAN AND PERMIT MEETING THE REQUIREMENTS OF RULE 310 OF THE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED.
- A SEPARATE RIGHT-OF-WAY PERMIT IS NECESSARY FOR ANY OFF-SITE CONSTRUCTION.
- AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- EAVE PROJECTIONS INTO REQUIRED SETBACKS ARE LIMITED TO A MAXIMUM OF 24" PURSUANT TO SECTION 1008 OF THE TOWN OF PARADISE VALLEY ZONING ORDINANCES.
- ALL STRUCTURES AND LANDSCAPING WITHIN THE SIGHT VISIBILITY TRIANGLE SHALL HAVE A 2 FOOT MAXIMUM HEIGHT.
- ALL NEW AND EXISTING ELECTRICAL SERVICE LINES SHALL BE BURIED PER THE TOWN OF PARADISE VALLEY REQUIREMENTS.
- IT SHALL BE THE RESPONSIBILITY OF THE PERMITTEE TO ARRANGE FOR THE RELOCATION AND RELOCATION COSTS OF ALL UTILITIES, AND TO SUBMIT A UTILITY RELOCATION SCHEDULE PRIOR TO THE ISSUANCE OF AN ENGINEERING CONSTRUCTION PERMIT.
- EXISTING AND/OR NEW UTILITY CABINETS AND PEDESTALS SHALL BE LOCATED A MINIMUM OF 4' BEHIND ULTIMATE BACK OF CURB LOCATION.
- POOL, SPA, BARBECUE AND ANY PROPOSED STRUCTURES OVER 8" ABOVE GRADE REQUIRE SEPARATE PERMIT APPLICATIONS.
- POOLS SHALL BE CONSTRUCTED BY SEPARATE PERMIT AND SECURED FROM UNWANTED ACCESS PER TOWN CODE, ARTICLE 5-2.
- ALL FILL MATERIAL UNDER SLABS AND WALKS SHALL BE COMPACTED TO NOT LESS THAN 95%.
- SETBACK CERTIFICATION IS REQUIRED AND SHALL BE PROVIDED TO TOWN INSPECTOR PRIOR TO STEM WALL INSPECTION.

**LEGAL DESCRIPTION**

LOT 43 OF CAMELBACK FOOTHILLS UNIT II, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE MARICOPA COUNTY RECORDER IN BOOK 72 OF MAPS, PAGE 14

**LEGEND**

- NG NATURAL GRADE
- P PAVEMENT
- TF TOP OF FOOTING
- FG FINISHED GRADE
- C CONCRETE/PAVER
- TRW TOP OF RETAINING WALL
- TC TOP OF CURB
- PG PAGE
- BK BOOK
- MCR MARICOPA COUNTY RECORDER
- TC TOP OF CURB
- WO WALL OPENING
- G GUTTER
- BRASS CAP IN HAND HOLE
- BRASS CAP FLUSH
- SET RBR/CAP LS#34559
- SEWER MANHOLE
- WATER METER
- GAS VALVE
- GAS MARKER
- TELEPHONE RISER
- TRANSFORMER
- C.M.U. WALL ROAD CENTERLINE BOUNDARY
- EXISTING MESQUITE TREE
- EXISTING OCOTILLO
- EXISTING SAGUARO
- PROPOSED OCOTILLO
- PROPOSED SAGUARO

**NOTE:**

CONTRACTOR TO COORDINATE SEWER AND WATER SERVICE ENTRY LOCATIONS WITH PLUMBING PLANS PRIOR TO CONSTRUCTION.

ALL SEPTIC SYSTEM MODIFICATIONS WILL BE DESIGNED AND PERMITTED BY OTHERS.

PLANT LIST FOR REMOVAL AND REPLACEMENT OF EXISTING TREES AND OTHER VEGETATION WILL BE PERFORMED BY OTHERS

THESE PLANS ARE BASED ON BOUNDARY & TOPOGRAPHIC INFORMATION PROVIDED M.A.S. SURVEYING, LLC. THE ENGINEER, JACOBS WALLACE, LLC ASSUMES NO RESPONSIBILITY FOR ERRORS RESULTING FROM ERRORS ON THE BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED AND SHOWN HEREON.

THE EXISTING UTILITIES SHOWN HEREON ARE BASED ON INFORMATION OBTAINED IN THE FIELD AS WELL AS MAPS SUPPLIED BY THE CITY, VARIOUS UTILITY COMPANIES & THE SURVEYOR. THE ENGINEER, JACOBS WALLACE LLC ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES NOT SHOWN. CALL BLUESTAKE PRIOR TO ANY DIGGING. IF DISCREPANCIES EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

**PRELIMINARY GRADING & DRAINAGE PLAN**

4275 E. KEIM DRIVE

OF  
A PORTION OF SOUTHWEST QUARTER OF SECTION 7, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

**SITE ADDRESS**

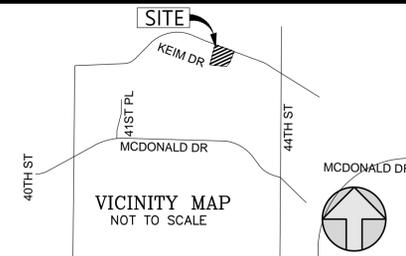
4275 E KEIM DR  
PARADISE VALLEY, AZ 85253

**ZONING**

RU-43 HILLSIDE

**A.P.N.**

169-22-044



**RETENTION**

**FIRST FLUSH FIRST FLUSH**

DRAINAGE AREA DATA			
AREA ID	AREA	"A" RUNOFF COEFFICIENT "C"	100-YEAR REQUIRED VOLUME CF
SOUTHWEST	7,184	0.84	251
NORTHEAST	16,624	0.84	582
<b>Total</b>	<b>23,808</b>		<b>833</b>

V=0.5/12 X A X C

A=AREA OF DISTURBANCE FIRST FLUSH EVENT

**PRE VS. POST PRE VS. POST**

**PRE-DEVELOPE PRE-DEVELOPE**

AREAD ID	DRAINAGE AREA DATA				DRAINAGE AREA DATA			
	RAINFALL "P" IN/HR	AREA "A"	RUNOFF COEFFICIENT "C"	100-YEAR REQUIRED VOLUME CF	RAINFALL "P" IN/HR	AREA "A"	RUNOFF COEFFICIENT "C"	100-YEAR REQUIRED VOLUME CF
SOUTHWEST	2.22	7,184	0.68	904	2.22	7,184	0.84	1116
NORTHEAST	2.22	15,570	0.68	1959	2.22	15,570	0.84	2420

Vr=POST Vr- PRIVr=POST Vr- PRE Vr

SOUTHWEST	Vr=	213	CF	Use First Flush
NORTHEAST	Vr=	461	CF	Use First Flush

Vr=(C \*\* P)/12

A=AREA OF SITE (NET)

P=RAINFALL DEPTHS IN INCHES (NOAA ATLAS 14)

PRE

C=AVERAGE RUNOFF COEFFICIENT (Appendix SA PV SDDM)

Impervious=2612 sf (0.95) (Pavement & Rooftops)

Hillslopes=21196 sf (0.65)

Qw = 0.68

POST

C=AVERAGE RUNOFF COEFFICIENT (Appendix SA PV SDDM)

Impervious=12022 sf (0.95) (Concrete & Rooftops)

Pavers=4690 sf (0.65) (Driveway)

Hillslopes=7096 sf (0.65)

Qw = 0.84

**PROVIDED RETENTION**

STORM TECH	EXCAVATION			AS-BUILT			DRAIN TIME			
	MC	Excavation Area (sf)	Stone (cf)	End Caps	PROVIDED Volume (ft³)	REQUIRED Volume (ft³)	Number of Drywells (ea)	Retained Volume (cf)	Perc Rate (cfs)	Drain Time (hr)
Chamber										
	4	243	1143	2	955	833	1	955	0.1	2.7
<b>TOTAL=</b>					<b>955</b>	<b>833</b>				

**DRAINAGE STATEMENT/PROJECT DESCRIPTION**

CONSTRUCT NEW HOME ON VACANT LOT WITHIN THE GUIDELINES OF THE TOWN OF PARADISE VALLEY REQUIREMENTS. EXISTING HOME WAS DEMOLISHED AND REMOVED FROM SITE. IN GENERAL THE LOT DRAINS FROM NORTHWEST TO SOUTHEAST.

- THE ULTIMATE STORM WATER OUTFALL OCCURS NEAR THE SOUTHEAST CORNER OF THE SITE AT AN ELEVATION OF **1351.0**.
- PROPOSED DEVELOPMENT DOES NOT IMPACT DRAINAGE CONDITIONS OF ADJOINING LOTS.
- RETENTION IS PROVIDED FOR THE 100-YEAR, 2-HOUR STORM EVENT PER THE STORM WATER DRAINAGE DESIGN MANUAL.
- THE LOWEST FINISHED FLOOR ELEVATION OF **1367.25** IS SAFE FROM INUNDATION DURING 100 YR PEAK RUN OFF EVENT IF CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS.

**DISTRUBED AREA CALCULATION**

LOT AREA: 55995 SF = 1.285 AC

AREA UNDER ROOF:  
LIVABLE AREA: 6,935 SF  
MECH/UNCONDITIONED: 250 SF  
GARAGE AREA: 1,687 SF  
COVERED PATIO: 882 SF  
TOTAL AREA: 9,754 SF

EXISTING DISTURBED AREA (DRIVEWAY): 2,612 SF

MAIN LEVEL: 6071 SF  
ROOF OVERHANG: 2327 SF  
COURTYARD: 1109 SF  
TOTAL: 9507 SF  
FLOOR AREA RATIO:  $\frac{9507}{55995} = 16.98\%$

BUILDING PAD SLOPE: 18.0%  
VERTICAL= 33.5 FT  
HORIZONTAL= 185.8 FT

ALLOWABLE DISTURBED AREA =24.46% =13,696 SF

PROPOSED GROSS DISTURBED AREA =31,312 SF

- (-) TOTAL FOOTPRINT 8067 SF
- (-) GARAGE FOOTPRINT 1687 SF
- (-) EXISTING ASPHALT DRIVEWAY
- REMOVE/INSTALL STABILIZED DG DRIVEWAY CREDIT  $2612 = 1306$  SF (ARTICLE XXII)
- (-) RESTORED AREAS 1804 SF (SEPTIC SYSTEM)
- (-) RESTORED AREAS 2433 SF (NG AT RETAINING WALLS)
- (-) RESTORED AREAS 1036 SF (STORM DRAIN FOR OFFSITE FLOW)
- (-) RESTORED AREAS 1361 SF (STORM DRAIN & UNDERGROUND RETENTION SYSTEM)

PROPOSED DISTURBED AREA 13,618 SF

**OWNER**

MIKE DINAN  
PROPERTY ADDRESS:  
4275 E KEIM DR  
PARADISE VALLEY, AZ 85253  
MDINAN@DINANCOMPANY.COM

**ENGINEER**

JACOBS WALLACE, LLC  
2233 W BETHANY HOME RD  
PHOENIX, AZ 85015  
CHUCK JACOBS  
602.757.5964  
JACOBS@JACOBSWALLACE.COM

**UTILITY PROVIDERS**

WATER: EPCOR USA  
SANITARY SEWER: PRIVATE SEPTIC SYSTEM  
ELECTRIC: SALT RIVER PROJECT  
TELEPHONE: COX  
GAS: SOUTHWEST GAS  
CABLE: COX

**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 \_\_\_\_\_ DATE \_\_\_\_\_

REGISTRATION NUMBER \_\_\_\_\_

**FLOOD ZONE (FIRM)**

ACCORDING TO FIRM FLOOD INSURANCE RATE MAP NO. 04013C1765L DATED OCTOBER 16, 2013, THE SUBJECT PROPERTY IS LOCATED IN ZONE X DESCRIBED AS: "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN."

**SITE AREA**

GROSS AREA: 61,418.27 SF = 1.4099 AC  
NET AREA: 54,674.35 SF = 1.285 AC

**SHEET INDEX**

C1.0 GRADING & DRAINAGE PLAN COVER SHEET  
C2.0 GRADING & DRAINAGE PLAN

**BENCHMARK**

FND CPS AT THE INTERSECTION OF 44TH STREET AND LINCOLN DRIVE AVENUE (THE CENTER OF SECTION 7 TOWNSHIP 2 NORTH, RANGE 4 EAST).

ELEVATION = 1367.502 (NAVD88 DATUM)

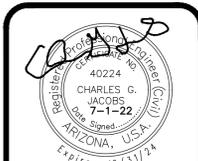
APPROVED: \_\_\_\_\_  
TOWN OF PARADISE VALLEY TOWN ENGINEER DATE \_\_\_\_\_

THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH TOWN OF PARADISE VALLEY REQUIREMENTS PRIOR TO ISSUANCE OF PERMIT. THE TOWN NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. THIS COMPLIANCE APPROVAL SHALL NOT PREVENT THE TOWN ENGINEER FROM REQUIRING CORRECTIONS OF ERRORS OR OMISSIONS IN THE PLANS TO BE FOUND IN VIOLATION OF LAWS OR ORDINANCES.

CUSTOM HOME  
4275 E KEIM DR  
PARADISE VALLEY, AZ  
PRELIMINARY  
GRADING AND DRAINAGE  
PLAN

JACOBS WALLACE, LLC  
ENGINEERING - PLANNING - MANAGEMENT

2233 W BETHANY HOME ROAD  
PHOENIX, AZ 85015  
602.757.5964



DATE: JAN 2021

DRAWING NO.

**C1.0**

JOB#: 0164

**NATIVE PLAN STATEMENT**

ALL NATIVE PLANTS IMPACTED BY CONSTRUCTION SHALL BE RELOCATED ON SITE. SEE LANDSCAPE PLAN AND NATIVE PLANT INVENTORY & SALVAGE PLAN

**NOTE**

PRIOR TO FIRST FOOTING INSPECTION OF ANY TYPE, ALL PROPERTY PINS SHALL BE PLACED BY A REGISTERED LAND SURVEYOR OF THE STATE OF ARIZONA, AND PROPERTY LINES MUST BE PHYSICALLY LOCATED AND IDENTIFIED PRIOR TO INSPECTION.



BD\*

**(X) CONSTRUCTION NOTES**

1. CONSTRUCT PAVER DRIVEWAY. SEE ARCHITECT PLANS FOR DETAILS
2. INSTALL PATIO PAVERS AT ELEVATIONS SHOWN. SEE ARCHITECT PLANS FOR DETAILS.
3. 8' WALLS WITH 8'-1" SPACE BETWEEN TIERED RAISED PLANTER AREAS. SEE LANDSCAPE PLANS FOR DETAILS.
4. CONSTRUCT RETAINING WALL. SEE STRUCTURAL PANS FOR DETAILS.
5. POOL EQUIPMENT. (CARTRIDGE FILTER)
6. SAWCUT EXISTING PAVEMENT AND REPLACE MATCHING EXISTING SECTION IN KIND. MIN. 2' SAWCUT.
7. EXISTING ASPHALT PAVED ACCESS DRIVE TO HAVE ASPHALT REMOVED AND RESURFACED. INSTALL STABILIZED DG DRIVE WITHIN 6" OF NG UPON PAVEMENT REMOVAL
8. INSTALL RIP-RAP AT OUTLET. MIN. 8'X4' AREA. D50-6" WITH 12" DEPTH. RIP RAP TO BE NATIVE ANGULAR STONE MATCHING EXISTING LANDSCAPE COLORS AND SHAPES. RIRRAP TO ACT AS LEVEL SPREADER AT OFFSITE FLOW OUTLETS
9. TURF AREA. SEE LANDSCAPE PLANS
10. SEPTIC SYSTEM TO BE DESIGNED AND PERMITTED BY OTHERS. RESTORE TO NATURAL GRADE AND RE-VEGETATE
11. INSTALL 24" ROUND INLET NYOPLAST DRAIN BASIN PER MANUFACTURERS SPECIFICATIONS.
12. INSTALL 15" HDPE STORM DRAIN AT INVERTS SHOWN PER MANUFACTURERS SPECIFICATIONS.
13. INSTALL HEADWALL PER MAG STD DTL 501
14. CONSTRUCT BOULDER RETAINING WALL. SEE ARCHITECT PANS FOR DETAILS.
15. STEM WALL OF HOUSE TO ACT AS RETAINING WALL
16. INSTALL MAXWELL IV DRYWELL. DRILL LOG AND PER TEST DATA TO BE PROVIDED TO TOWN OF PARADISE VALLEY UPON INSTALLATION. SEE DETAIL SHEET C3.0
17. INSTALL MC-4500 STORMTECH SYSTEM PER DETAILS SHEET C3.0. SPECIAL INSPECTION REQUIRED BY MANUFACTURER ENSURING PROPER INSTALLATION.

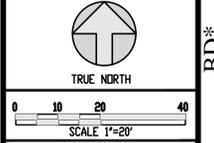
RELEASE	DATE	BY	APP.	DESCRIPTION
D	7-1-22	CGJ	CGJ	PRELIMINARY SUBMITTAL
C	3-8-22	CGJ	CGJ	PRELIMINARY SUBMITTAL
B	1-31-22	CGJ	CGJ	PRELIMINARY SUBMITTAL
A	2-9-21	CGJ	CGJ	PRELIMINARY SUBMITTAL

CUSTOM HOME  
4275 E KEIM DR  
PARADISE VALLEY, AZ

PRELIMINARY  
GRADING AND DRAINAGE  
PLAN

**JACOBS WALLACE, LLC**  
ENGINEERING - PLANNING - MANAGEMENT

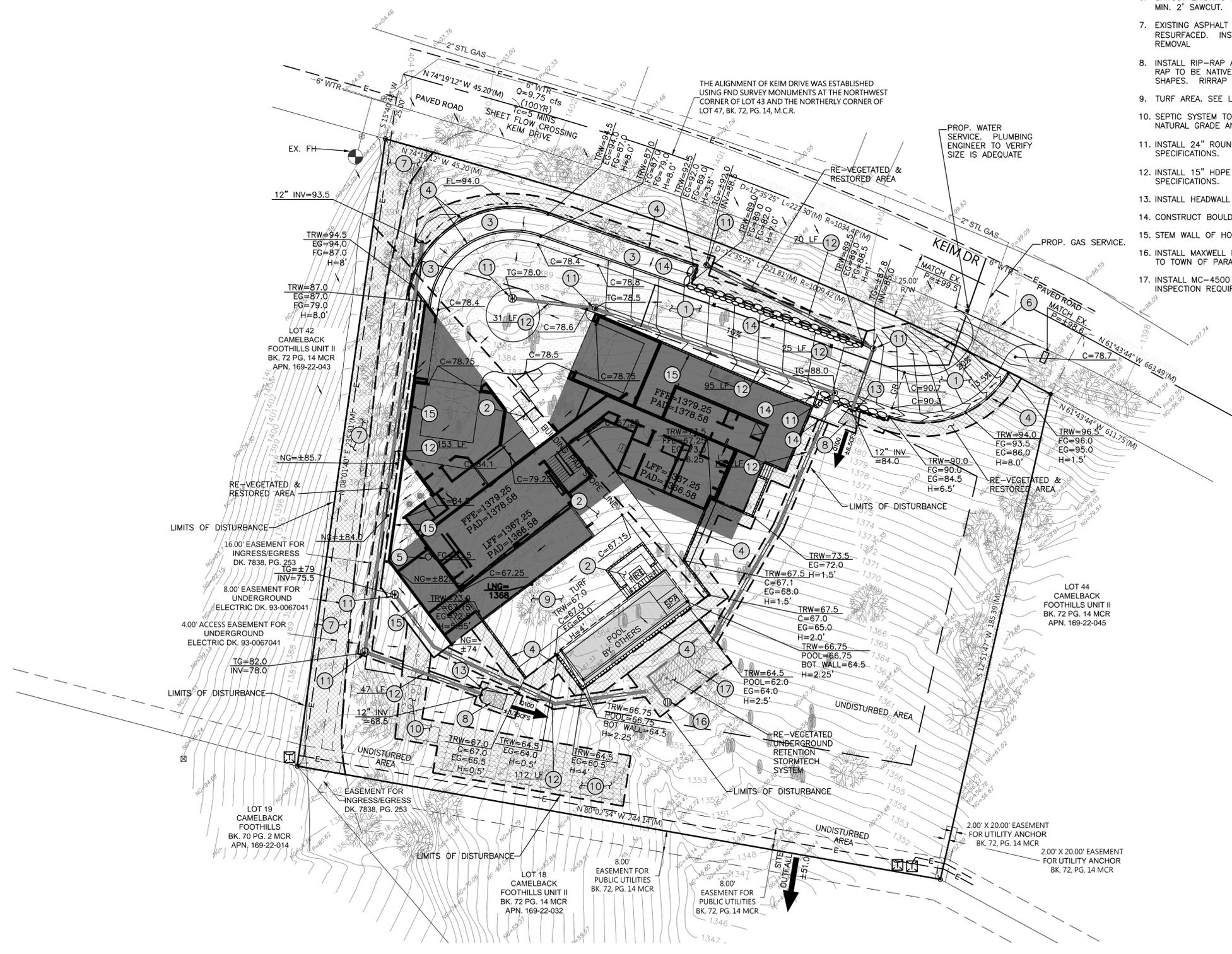
2235 W BETHANY HOME ROAD  
PHOENIX, AZ 85015  
602.757.5864



DATE: DEC 2020

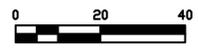
DRAWING NO.  
**C2.0**

JOB: 0164



AREAS TO BE RESTORED TO NATURAL GRADE AND/OR RE-VEGETATED

ROOF DRAINS TO CONNECT TO UNDERGROUND STORM DRAIN SYSTEM AND BE PIPED TO STORMTECH RETENTION SYSTEM.

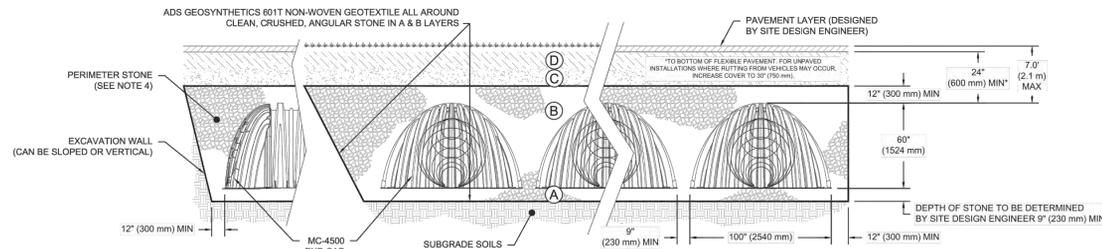


BD#

**ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS**

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2, A-3, A-3 OR AASHTO M43 <sup>3</sup> 3, 3S7, 4, 4E7, 5, 5E, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL, AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43 <sup>3</sup> 3, 4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43 <sup>3</sup> 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>3,3</sup>

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
  - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
  - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
  - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



\*FOR COVER DEPTHS GREATER THAN 7.0' (2.1 m) PLEASE CONTACT STORMTECH

**NOTES:**

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING SLUGS.
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN<sup>2</sup>. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

4640 TRUBMAN BLVD  
HILLIARD, OH 44020  
440-898-8188 (888-898-8188) WWW.STORMTECH.COM

**StormTech**  
ADVANCED CORROSION RESISTANT

MC-4500  
STANDARD CROSS SECTION  
DATE: 05-10-19  
DRAWN: KR  
CHECKED: KR

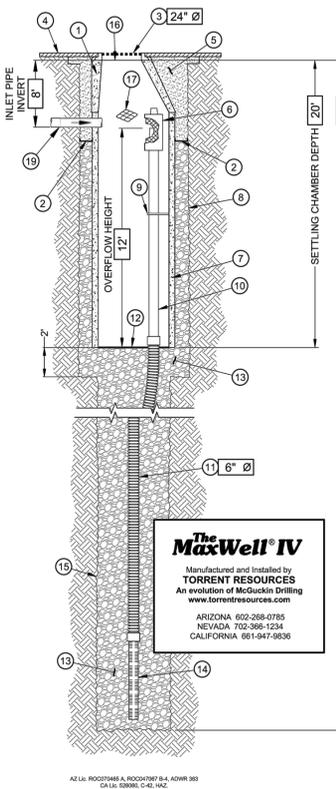
PROJECT #:  
DESCRIPTION:

1 SHEET OF 1

**The MaxWell® IV Drainage System Detail And Specifications**

**NOTES**

- MANHOLE CONE** - MODIFIED FLAT BOTTOM.
- MOISTURE MEMBRANE** - 8 MIL. PLASTIC. APPLIES ONLY WHEN NATIVE MATERIAL IS USED FOR BACKFILL. PLACE MEMBRANE SECURELY AGAINST ECCENTRIC CONE AND HOLE SIDEWALL.
- BOLTED RING & GRATE** - DIAMETER AS SHOWN. CLEAN CAST IRON WITH WORDING "STORM WATER ONLY" IN RAISED LETTERS. BOLTED IN 2 LOCATIONS AND SECURED TO CONE WITH MORTAR. RIM ELEVATION ±0.02 OF PLANS.
- GRADED BASIN OR PAVING** (BY OTHERS).
- STABILIZED BACKFILL** - 1 SACK SLURRY.
- PUREFLO® DEBRIS SHIELD** - ROLLED 16 GA. STEEL X 24" LENGTH WITH VENTED ANTI-SIPHON AND INTERNAL .285" MAX. SWO FLATTENED EXPANDED STEEL SCREEN X 12" LENGTH. FUSION BONDED EPOXY COATED.
- PRE-CAST LINER** - 4000 PSI CONCRETE 48" ID. X 54" OD. CENTER IN HOLE AND ALIGN SECTIONS TO MAXIMIZE BEARING SURFACE.
- MIN. 6" Ø DRILLED SHAFT.**
- SUPPORT BRACKET** - FORMED 12 GA. STEEL. FUSION BONDED EPOXY COATED.
- OVERFLOW PIPE** - SCH. 40 PVC MATED TO DRAINAGE PIPE AT BASE SEAL.
- DRAINAGE PIPE** - ADS HIGHWAY GRADE WITH TRI-A COUPLER. SUSPEND PIPE DURING BACKFILL OPERATIONS TO PREVENT BUCKLING OR BREAKAGE. DIAMETER AS NOTED.
- BASE SEAL** - GEOTEXTILE OR CONCRETE SLURRY.
- ROCK** - WASHED, SIZED BETWEEN 3/8" AND 1-1/2" TO BEST COMPLEMENT SOIL CONDITIONS.
- FLOFAST® DRAINAGE SCREEN** - SCH. 40 PVC 0.120" SLOTTED WELL SCREEN WITH 32 SLOTS PER ROW/FT. 120" OVERALL LENGTH WITH TRI-B COUPLER.
- MIN. 4" Ø SHAFT** - DRILLED TO MAINTAIN PERMEABILITY OF DRAINAGE SOILS.
- FABRIC SEAL** - U.V. RESISTANT GEOTEXTILE - TO BE REMOVED BY CUSTOMER AT PROJECT COMPLETION.
- ABSORBENT** - HYDROPHOBIC PETROCHEMICAL SPONGE. MIN. 128 OZ. CAPACITY.
- FREEBOARD DEPTH** VARIES WITH INLET PIPE ELEVATION. INCREASE SETTLING CHAMBER DEPTH AS NEEDED TO MAINTAIN ALL INLET PIPE ELEVATIONS ABOVE OVERFLOW PIPE INLET.
- INLET PIPE** (BY OTHERS).



AT L.L. ROOSTER & COMPANY P.L.L.C. 4000 9th  
CALIF. 602-966-0142  
NEV. 702-399-1234  
N.V. 1-800-274-1111  
U.S. Patent No. 4,823,330-17, 17A, 17B, 17C, 17D, 17E, 17F, 17G, 17H, 17I, 17J, 17K, 17L, 17M, 17N, 17O, 17P, 17Q, 17R, 17S, 17T, 17U, 17V, 17W, 17X, 17Y, 17Z

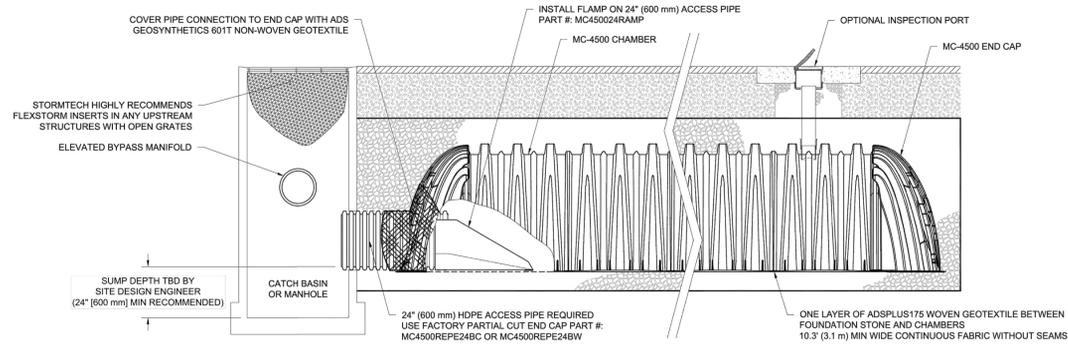
4640 TRUBMAN BLVD  
HILLIARD, OH 44020  
440-898-8188 (888-898-8188) WWW.STORMTECH.COM

**StormTech**  
ADVANCED CORROSION RESISTANT

MC-4500  
ISOLATOR ROW PLUS DETAILS  
DATE: 08/26/20  
DRAWN: ALI  
CHECKED: ALI

PROJECT #:  
DESCRIPTION:

1 SHEET OF 1



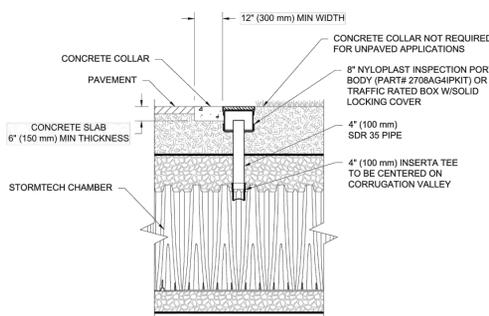
**MC-4500 ISOLATOR ROW PLUS DETAIL**  
NTS

**INSPECTION & MAINTENANCE**

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
  - REMOVE/OPEN LID ON NYLON/PLAST INLINE DRAIN
  - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROW PLUS ROWS
- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
  - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
  - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

**NOTES**

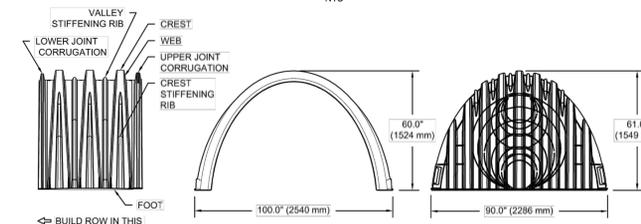
- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



**4" PVC INSPECTION PORT DETAIL**  
(MC SERIES CHAMBER)  
NTS

1 SHEET OF 1

**MC-4500 TECHNICAL SPECIFICATION**  
NTS



**NOMINAL CHAMBER SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	100.0' X 60.0' X 48.3'	(2540 mm X 1524 mm X 1227 mm)
CHAMBER STORAGE	106.5 CUBIC FEET	(3.01 m <sup>3</sup> )
MINIMUM INSTALLED STORAGE*	162.6 CUBIC FEET	(4.60 m <sup>3</sup> )
WEIGHT (NOMINAL)	125.0 lbs.	(56.7 kg)

**NOMINAL END CAP SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	90.0' X 61.0' X 32.8'	(2286 mm X 1549 mm X 833 mm)
END CAP STORAGE	39.5 CUBIC FEET	(1.12 m <sup>3</sup> )
MINIMUM INSTALLED STORAGE*	115.3 CUBIC FEET	(3.28 m <sup>3</sup> )
WEIGHT (NOMINAL)	90 lbs.	(40.8 kg)

\*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"  
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"  
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC4500EPP06T	6" (150 mm)	42.54" (1081 mm)	---
MC4500EPP06B	---	---	0.86" (22 mm)
MC4500EPP06T	8" (200 mm)	40.50" (1029 mm)	---
MC4500EPP06B	---	---	1.01" (26 mm)
MC4500EPP10T	10" (250 mm)	38.37" (975 mm)	---
MC4500EPP10B	---	---	1.33" (34 mm)
MC4500EPP12T	12" (300 mm)	35.69" (907 mm)	---
MC4500EPP12B	---	---	1.55" (39 mm)
MC4500EPP15T	15" (375 mm)	32.72" (831 mm)	---
MC4500EPP15B	---	---	1.70" (43 mm)
MC4500EPP18T	---	29.36" (746 mm)	---
MC4500EPP18TW	18" (450 mm)	---	---
MC4500EPP18B	---	---	1.97" (50 mm)
MC4500EPP18BW	---	---	---
MC4500EPP24T	24" (600 mm)	23.05" (585 mm)	---
MC4500EPP24B	---	---	2.26" (57 mm)
MC4500EPP24BW	---	---	---
MC4500EPP26BW	30" (750 mm)	---	2.95" (75 mm)
MC4500EPP26BW	36" (900 mm)	---	3.25" (83 mm)
MC4500EPP42BW	42" (1050 mm)	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

CUSTOM PRECURED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

DATE	BY	DESCRIPTION
7-1-22	CGJ	PRELIMINARY SUBMITTAL
3-8-22	CGJ	PRELIMINARY SUBMITTAL
1-31-22	CGJ	PRELIMINARY SUBMITTAL
2-9-21	CGJ	PRELIMINARY SUBMITTAL

**CUSTOM HOME**  
4275 E KEIM DR  
PARADISE VALLEY, AZ

**PRELIMINARY GRADING AND DRAINAGE DETAILS**

**JACOBS WALLACE, LLC**  
ENGINEERING - PLANNING - MANAGEMENT

2235 W. BETHANY HOME ROAD  
PHOENIX, AZ 85015  
602.757.5964



DATE: DEC 2020

DRAWING NO.  
**C3.0**  
JOB#: 0164