Town of Paradise Valley

6401 E Lincoln Dr
Paradise Valley, AZ 85253

Meeting Notice and Agenda

Hillside Building Committee

Chair Scott Jarson, Sue-Meng Lau, Blair Portigal

Wednesday, May 13, 2026 | **8:00 AM** | **Town Hall Boardroom**

Committee Members

Chair Scott Jarson, Blair Portigal, Sue-Meng Lau, William Nassikas, Pamela Georgelos, Robert Brown

1. Call to Order

Notice is hereby given that members of the Committee will attend either in person or by telephone conference call, pursuant to A.R.S. §38-431(4).

2. Executive Session

The Committee may convene into an executive session at one or more times during the meeting as needed to confer with the Town Attorney for legal advice regarding any of the items listed on the agenda as authorized by A.R.S. §38-431.03.A.3.

3. Application Review

The Committee may take action on these items.

A. 26-128 Combined Review for an Addition and Exterior Improvements to the existing House at 7102 N 57th Place (APN 169-55-033E).

Attachments:

A. Staff Report
B. Hillside & Vicinity Maps
C. Application
D. Narrative, Plans & Docs
E. Notification Materials
F. Standard Approval Information

B. 26-129 Concept Review for a New Single-Family Residence 6740 N Silver Mountain Road (APN 169-53-028)

Attachments:

A. Staff Report
B. Hillside & Vicinity Maps
C. Application
D. Plans
E. Notification Materials.pdf

C. **26-131** **Solar Combined Review for new rooftop solar panels at 7000 N Mummy Mountain Road - Solar (APN 169-06-007D).**

Attachments:
A. Staff Report
B. Hillside & Vicinity Maps
C. Application
D. Plans
E. Photos
F. Notification Materials
G. Standard Approval Information

D. **26-132** **Solar Combined Review for new rooftop solar panels at 8201 N 54th Street - Solar (APN 168-75-022).**

Attachments:
A. Staff Report
B. Hillside & Vicinity Maps
C. Plans
D. Notification Materials
E. Standard Approval Information

4. Staff Reports

5. Committee Reports

6. Next Meeting Date

The next Hillside Building Committee meeting dates are tentatively scheduled for Wednesday, June 10, 2026 at 8:00 a.m. and Wednesday, July 8, 2026 at 8:00 a.m.

7. Adjournment

AGENDA IS SUBJECT TO CHANGE

**Notice is hereby given that pursuant to A.R.S. §1-602.A.9, subject to certain specified statutory exceptions, parents have a right to consent before the State or any of its political subdivisions make a video or audio recording of a minor child. Meetings of the Planning Commission are audio and/or video recorded, and, as a result, proceedings in which children are present may be subject to such recording. Parents in order to exercise their rights may either file written consent with the Town Clerk to such recording, or take personal action to ensure that their child or children are not present when a recording may be made. If a child is present at the time a recording is made, the Town will assume that the rights afforded parents pursuant to A.R.S. §1-602.A.9 have been waived.*

The Town of Paradise Valley endeavors to make all public meetings accessible to persons with disabilities. With 72 hours advance notice, special assistance can also be provided for disabled persons at public meetings. Please call 480-948-7411 (voice) or 480-483-1811 (TDD) to request accommodation to participate in the meeting.

Town of Paradise Valley

6401 E Lincoln Dr
Paradise Valley, AZ 85253

Action Report

File #: 26-128

AGENDA TITLE:
Combined Review for an Addition and Exterior Improvements to the existing House at 7102 N 57th Place (APN 169-55-033E).

STAFF CONTACT:
George Burton, 480-348-3525

TOWN
Welcome of
PARADISE VALLEY

STAFF REPORT

TO: **Hillside Building Committee**

FROM: **Chad Weaver, Community Development Director**
Shar Johnson, Town Engineer
Paul Michaud, Planning Manager
George Burton, Senior Planner

DATE: **May 13, 2026**

DEPARTMENT: Community Development Department
George Burton, (480) 348-3525

AGENDA TITLE:
Combined Review
Remodel/Addition
Miguel Saucedo – Candelaria Design Associates
7102 N. 57th Place (APN 169-55-033E)
HILL-26-11

RECOMMENDATION:
Staff recommends the Hillside Building Committee **approve** Case HILL-26-11, a request by Mr. & Mrs. Van Houten, for a remodel and addition of the existing Single-Family Residence located at 7102 N. 57th Place.

BACKGROUND/DISCUSSION/SUMMARY (PROVIDED BY APPLICANT)

Scope of Request

The proposed improvements include a two-story addition (a one car garage bay on the ground floor and an office addition on the second floor) on the east side of the home, the replacement of the existing awnings and railing with new awnings and railings around the house, the addition of a new bay window on the northern part of the home, and repainting the entire house.

History

This property received two variances from the Board of Adjustment. BA-12-14 was approved on February 6, 2013 and allowed for an addition to encroach into the setbacks and maintain nonconforming portions of the home. BA-25-04 was approved on September 3, 2025 and allowed a two-story garage and office addition to encroach into the rear yard setback. The combined hillside review includes this two-story addition and is compliant with the approved variance.

The table below lists the pertinent development information:

Lot Data*		
1.	Area of Lot	1.14 ac or 49,596 S.F.
2.	Footprint	8,947 S.F.
3.	Floor Area Ratio	18.04% (8,847 S.F.)
4.	Building Site Slope	20.8 %
5.	Allowable Disturbed Area	8,947 S.F. (18.04%)
6.	Existing Gross Disturbed Area	31,465 S.F. (63.44%)
7.	Existing Net Disturbed Area	22,518 S.F. (45.40%)
8.	Proposed Net Disturbed Area	22,254 S.F. (44.87%)
9.	Maximum Building Height	23'-5"
10.	Overall Height	39'-3"
11.	Volume of Cut/Fill	0 CY
12.	Hillside Assurance	$0

Single Family Residence

The applicant is adding a two-story addition to the existing home. Since the lot is triangular in shape the house has a 40-foot setback from the north/front yard, a 40-foot setback from the south/rear yard, and a 20-foot setback from the west/side yard.

The two-story garage/office addition is compliant with the approved variance and the hillside code. The addition will be setback 30 feet from the south property line (instead of the required 40-foot setback), has a total of 550 square feet of floor area (with approximately 433 square feet of floor area encroaching into the setback), and is 23 feet 5 inches tall (measured from the natural grade). The addition will have stucco and paint finish to match the existing house.

A new bay window will also be added to the northern part of the house and is setback approximately 60 feet from the front/north property line (a minimum setback of 40-feet is required). The bay window will have a finish and color to match the house and the entire home will also be repainted a brownish/earthtone color. The applicant is also replacing all the existing awnings, the existing railings, and the exterior light fixtures to match that on the new two-story addition.

Variance

The proposed improvements are compliant with approved variance BA-25-04 (allowing the garage/office addition at a 30-foot setback from the south/rear property line).

Guesthouse and/or Accessory Structures

N/A. No accessory structures are proposed with these improvements.

Driveway

The proposed garage/office addition will be located on part of the existing driveway. There are no other driveway modifications.

Pool
N/A. There are no modifications to the existing pool.

Solar
N/A. No solar panels are proposed with these improvements.

Walls and Fences
N/A. There are no new site walls and fences associated with these improvements.

Building Materials
The two-story addition and bay window addition will have stucco and paint finish to match the house. The proposed colors are compliant with the hillside code, which limits the light reflective value (LRV) to a maximum of 38%, encourages the use of earth tone colors, and limits the use of accent colors.

The entire house will be painted a brownish color called Sorrel Felt with an LRV of 31%. The roof of the addition will have an elastomeric coating that will match the Sorrel Felt color of the house. The garage door and shutters will be painted Slate Gray with an LRV of 16%, the metal awnings, roof trim, and railing will be painted a dark brown color called Black Fox with an LRV of 7%, and the doors and windows will be painted a Slate Blue accent color with an LRV of 15%.

Hardscape Materials
N/A. There is no hard-scape improvement associated with this project.

Building Lighting
The applicant will be adding one exterior light to the new two-story addition and replacing all the existing exterior light fixtures on the house to match the new one (for a total of 13 light fixtures). These new light fixtures are carriage type fixtures that are compliant with the hillside code. The light source is recessed in the hood of the fixture, the light is directed downward, and the color temperature is 2700 Kelvins.

Driveway Lighting
N/A. There is no driveway lighting associated with these improvements.

Landscaping
N/A. There is no landscape improvement associated with this project.

Mountain Profile Inviolate
At and above an elevation of 1,500 feet mean sea level, no development shall occur which will alter the mountain top ridge lines. Further, no structure may extend above a plane that originates on the Primary Ridge Line and angles downward from the Primary Ridge Line by twenty degrees. The property is above 1,500 feet in elevation and the existing home and the proposed improvements do not alter the mountain top ridge line.

Land Disturbance
These improvements do not create additional disturbance to the hillside. The lot has an existing gross disturbance of 31,465 S.F. (63.44%) and the applicant has proposed a net disturbance of approximately 22,254 S.F. (44.87%).

Grading and Drainage
The new two-story addition is located over existing hardscape/driveway area. As a result, a grading and drainage plan is not required since there is no new impervious surface being added to the site.

Sewer
The existing home is connected to Paradise Valley sewer.

Fire Protection
Per Fire Marshal review, the site meets fire protection requirements.

Hillside Safety Improvement Plan
The applicant was not required to submit a Safety Improvement Plan.

ANALYSIS:
The proposed improvements meets the requirements of the Town Code, the Town Zoning Ordinance, and approved variance BA-25-04.

STIPULATIONS:
1.) All improvements shall be in compliance with the enclosed Standard Approval Information.

REQUIRED ACTION:
The Hillside Building Committee must consider the facts and determine if the application is in compliance with Article XXII - Hillside Development Regulations. The Hillside Building Committee may take the following actions:

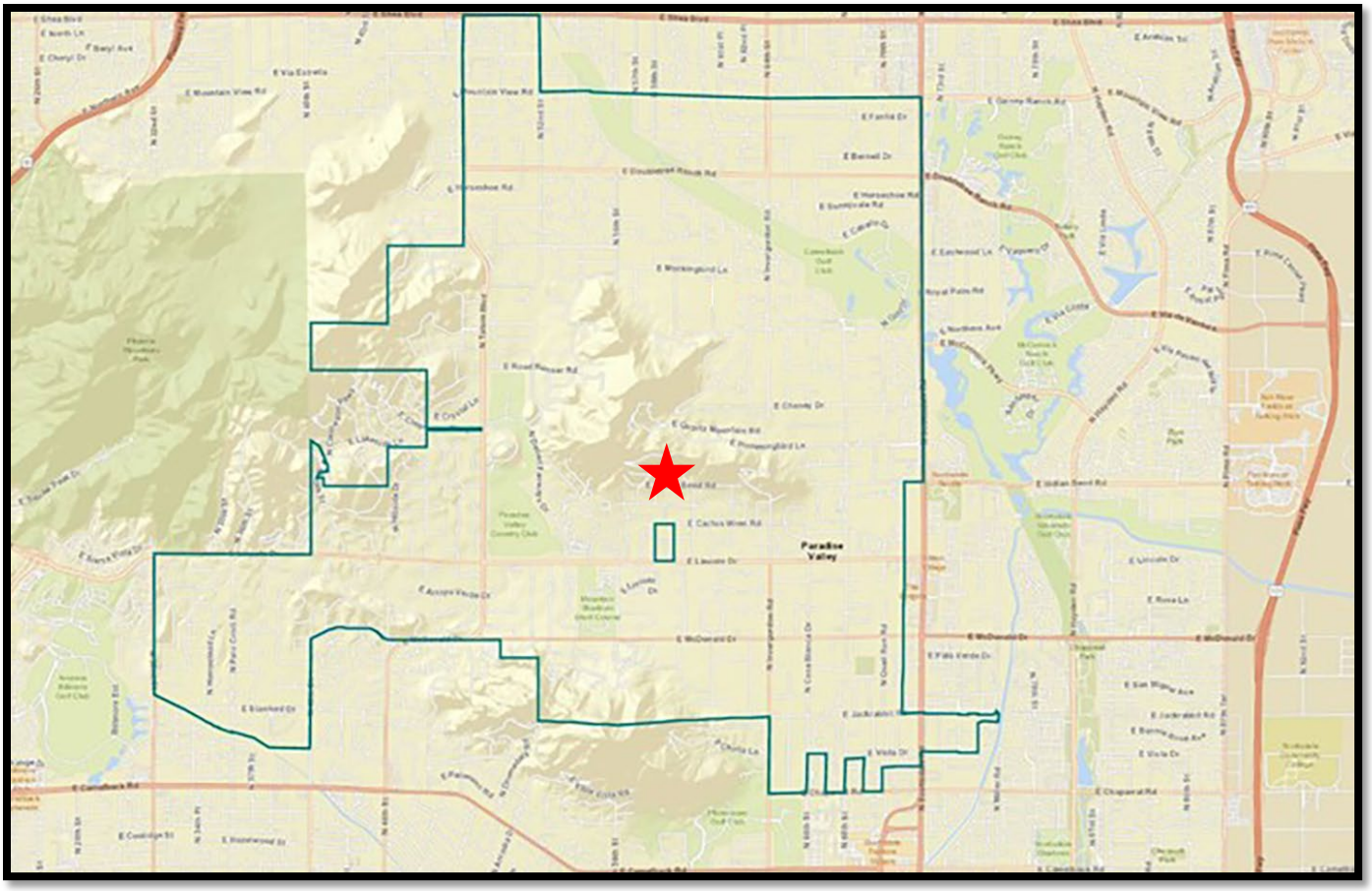
1. Approve the application requests, subject to the stipulations noted by Staff and/or Hillside Building Committee.
2. Deny the application request if not compliant with Article XXII or if further information is needed.
3. Continue the application for further review.

NOTICING:
Public notification was performed in accordance with the public hearing process. Staff received no comments.

NEXT STEPS:
If approved, the applicant shall acquire all required permits to complete the proposed scope of work. Plans submitted to the Town for permits shall be in compliance with the plans, stipulations, and documents approved by the Hillside Building Committee.

ATTACHMENTS:
A. Staff Report
B. Hillside & Vicinity Maps
C. Application
D. Narrative & Plans
E. Notification Materials
F. Standard Approval Information

VICINITY MAP



Club Estates 2

7102 N 57th Place

AERIAL

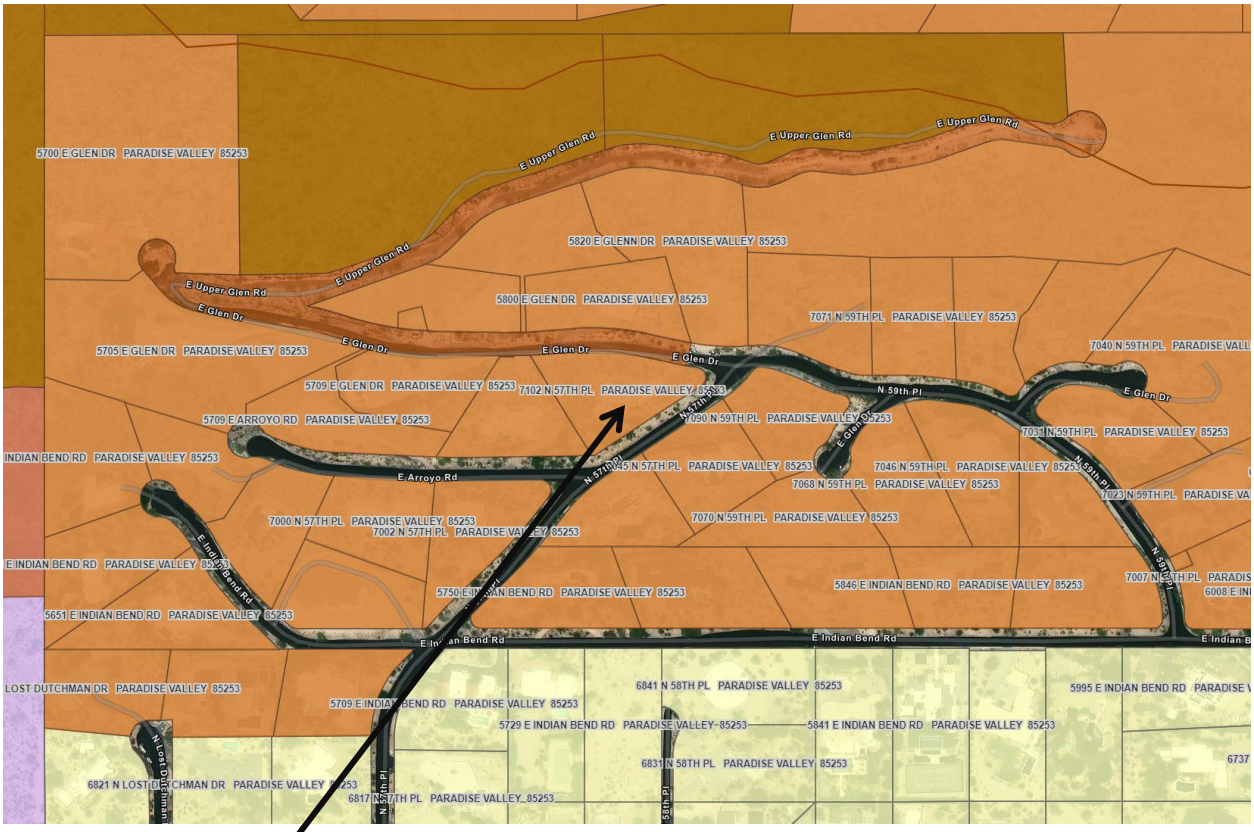


Subject Property

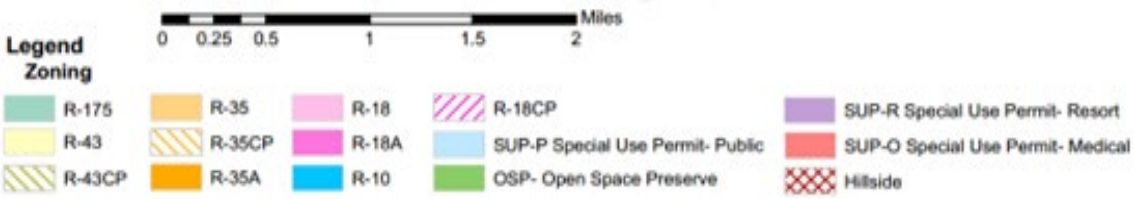
Club Estates 2

7102 N 57th Place

ZONING



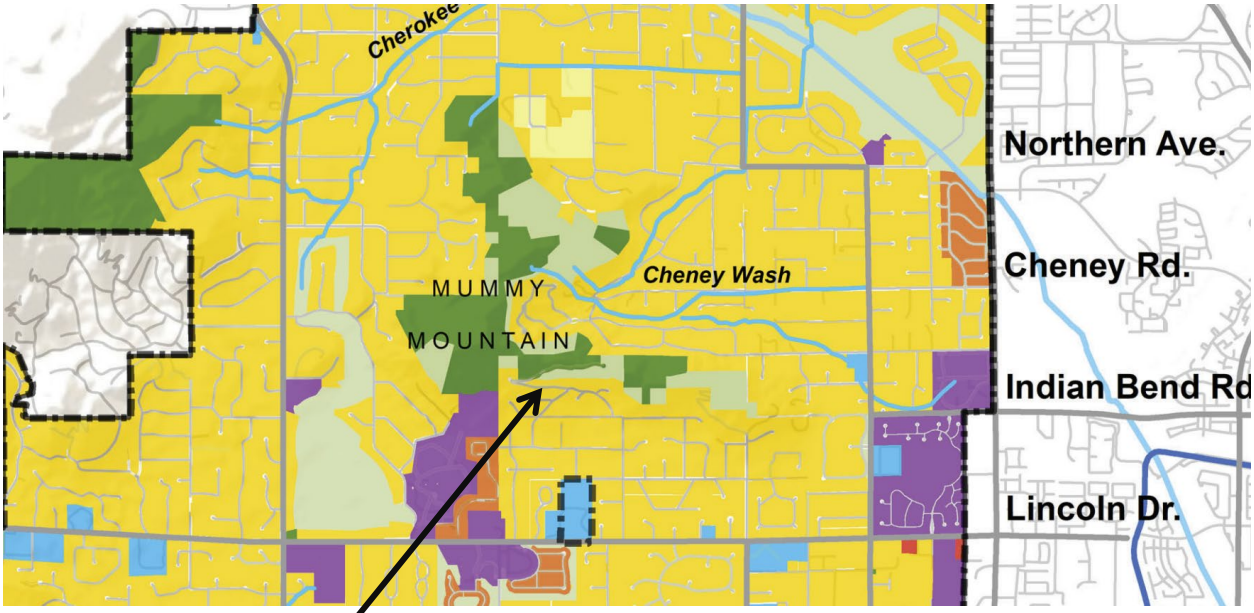
Subject Property



Club Estates 2

7102 N 57th Place

GENERAL PLAN



Subject Property

Legend

- Planning Area
- Municipal Limits
- Roads
- Indian Bend Wash
- Arizona Canal
- Major Washes

Land Use Classifications

- Very Low Density Residential
- Low Density Residential
- Medium Density Residential
- Private Open Space
- Public Open Space
- Medical Office
- Public/Quasi Public
- Resort/Country Club

NOTE: All public right-of-ways shall be considered Public Open Space.

Club Estates 2

7102 N 57th Place

TOWN
Of
PARADISE VALLEY

6401 E Lincoln Dr
Paradise Valley, AZ 85253
(480) 948-7411

HILL-26-11 - Van Houten Addition

Application Summary

Description of Work:	2 Story Addition and Awning Railing Updates to Main House
File Date:	4/7/2026
Address:	7102 N 57TH PL, PARADISE VALLEY, AZ 85253
Parcel No:	16955033E
Zoning:	
Owner Name:	LEGACY HILL ACQUISITIONS LLC
Owner Address:	7102 N 57TH PL, PARADISE VALLEY, AZ 85253
Owner Contact Info:	-
Applicant Name:	TIM MATHEWSON
Applicant Address:	6900 E. CAMELBACK ROAD, SUITE 400, SCOTTSDALE, Az 85251
Applicant Contact Info:	480.874.7105 - TIM@CANDELARIADESIGN.COM

The owner hereby certified with their electronic submittal to the Town of Paradise Valley that the ownership, applicant/professional contacts, plans, and related documents are true and accurate. The owner further certified that the description of work will comply with all Federal, State, County and Town laws.
This electronic submission is legally binding and has the same validity and effect as a signature affixed by hand.

April 7, 2026

Re: Project Narrative for combined hillside review 7102 N. 57th Place, Paradise Valley, AZ 85253

To Whom It May Concern,

The enclosed combined hillside review submission is for a new two-story addition designed for the Van Houten Residence, a hillside lot located at 7102 N. 57th Place in Paradise Valley. The project also includes replacing fabric awnings with metal awnings and new railings at existing balconies to replace the existing guardrails.

The lot is 1.139 acres in size and the western third is unusable due to steep terrain cut off by a desert wash.

The proposed two-story addition provides an additional garage stall to a family with teenagers at a home with three existing enclosed garage parking spaces. This proposed fourth enclosed garage bay will suit the needs of this family and more closely match the homes of comparable size in their neighborhood. The area above the garage will be livable space, a Flex Room addition that will be used as both an exercise space as well as a home office.

Due to a number of lot restraints, this new addition is forced to lie within the setback. This two-story addition was approved by variance in 2025 (BA-25-04). The existing disturbed area on this lot is in excess of the current standards of the Hillside Ordinance, however the disturbed area calculation will decrease with the proposed increase in building footprint. The addition does not propose to disturb any new area as the proposed building site is currently covered by non-permeable concrete driveway pavers. No native plants will be affected by this construction and no new landscaping or landscape lights are proposed.

With the size of the addition and the anticipated cost of construction falling below the Town threshold for requiring a grading & drainage plan, no grading & drainage plan is being provided. Considering the topography surrounding the proposed building site, it is anticipated that the new structure will have no impact on existing drainage. The proposed design complies with Town of Paradise Valley FAR, as well as the 24' & 40' height requirements.

The existing home and the new addition will be contemporary in style with a combination of stucco, metal, glass and stone. All exterior building materials, including Acrylic Elastomeric Foam Roof will be painted same color as the house stucco and will meet the Town of Paradise Valley hillside LRV requirements. All lighting and landscaping will be in accordance with the hillside ordinance.

Please let me know if you have any questions. Thank you for your consideration of this matter and we look forward to hearing back from you.

Sincerely,

Tim Mathewson, Principal
Candelaria Design Associates, LLC
6900 E. Camelback Road, Suite 400
Scottsdale, AZ 85251
602.604.2001, ext. 7105
480.874.7105, direct line
tim@candelariadesign.com
www.candelariadesign.com

If any items in these Meeting Notes are in error and require correction, please call CDA within five (5) business days after the date of issue as noted above, or all items shall become a matter of record.



SITE PLAN LEGEND

PROPOSED NEW ADDITION WORK

NOTE:
SEE SITE PLAN SHEET A1.0 FOR SITE INFORMATION AND PROJECT DATA

Vicinity Map

Site Plan - Cover Sheet (1)

NORTH

1/16" = 1'-0"

0 8' 16' 32'

LIFESTYLE ARCHITECTURE
Candelaria Design Associates
6900 East Camelback Rd. Suite 400 Scottsdale, AZ 85251
602.604.2001 candelariadesign.com fax 480.874.7098

Additions & Alterations To:
Van Houten Residence
7102 N. 57th Place
Paradise Valley, AZ 85253

2409

26 Celebrating Years 1999-2025

All reports, drawings, specifications, computer files, field data, notes and other documents and instruments prepared by the Architect as instruments of service shall remain the property of the Architect. Candelaria Design Associates, LLC. shall retain all common law, statutory and other reserved rights, including copyright thereto. The use of this architectural work for any purpose other than that for which it was prepared and publication thereof is expressly limited to such use. Reproduction or publication by any method, in whole or in part, is prohibited without written consent from the Architect.

Registered Professional Architect
Mark B. Candelaria
32341
Date Signed 03.31.2026
Arizona U.S.A.

Expiration: .09.30.2026

April. 07, 2026

3	Revision	Date
2	Hillside review	04.07.2026
1	Hillside review	03.24.2026

Checked By: T.M.
Drawn By: L.Z.
Scale: As noted
Drawing: 2 Site Plan/ Cover Sht.
Sheet:

A1.1

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VAN HOUTEN RESIDENCE
GRADING AND DRAINAGE PLANS

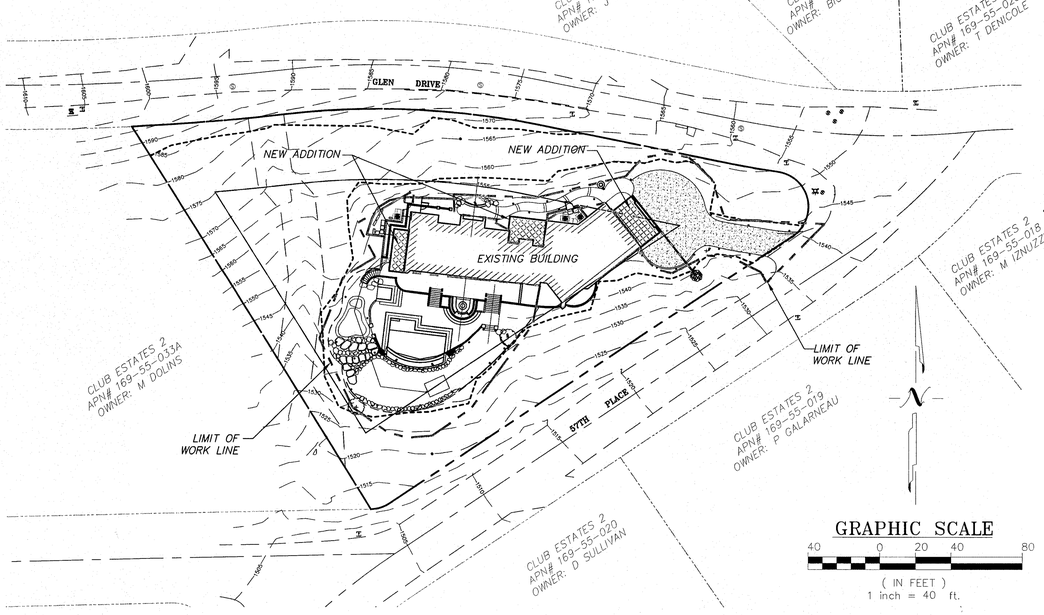
7102 N 57TH PLACE, PARADISE VALLEY AZ., 85253

(APN 169-55-033E)

A PART OF SECTION 4, T2N, R4E, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA

GRADING AND DRAINAGE NOTES

1. A GRADING PERMIT IS REQUIRED UNDER THE PARADISE VALLEY TOWN CODE.
2. HAUL PERMIT, WHEN REQUIRED, MUST BE OBTAINED PRIOR TO OR CONCURRENTLY WITH THE GRADING AND DRAINAGE PERMIT.
3. EXCAVATING CONTRACTOR MUST GIVE LOCATION FOR WASTING EXCESS EXCAVATION AND A LETTER FROM OWNER GIVING PERMISSION FOR DUMPING PRIOR TO STARTING ON-SITE CONSTRUCTION. IF EXCESS EXCAVATION EXCEEDS 100 CUBIC YARDS, THE DISPOSAL SITE WILL ALSO REQUIRE A GRADING AND DRAINAGE PERMIT.
4. DEVELOPMENT SERVICES DEPARTMENT FIELD INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS BEFORE ANY ON-SITE AND /OR OFF SITE CONSTRUCTION BEGINS.
5. MINIMUM FINISH FLOOR ELEVATIONS SHOWN ARE SAFE FROM THE 100-YEAR FLOOD OR PER MINIMUM SPECIFIED IN THE PARADISE VALLEY STORM DRAIN DESIGN MANUAL, WHICHEVER IS GREATER.
6. STAKING PAD ELEVATIONS IS THE RESPONSIBILITY OF THE OWNER AND HIS ENGINEER. THE OWNER'S ENGINEER SHALL SUBMIT THREE SEALED COPIES OF THIS GRADING AND DRAINAGE PLAN DESIGNATED AS "RECORD DRAWING" BEARING AN ORIGINAL SIGNATURE PRIOR TO THE REQUEST FOR FINAL INSPECTION.
7. STAKING FINISH FLOOR ELEVATIONS IS THE RESPONSIBILITY OF THE OWNER AND HIS ENGINEER. THE OWNER'S ENGINEER SHALL SUBMIT THREE SEALED COPIES OF THIS GRADING AND DRAINAGE PLAN DESIGNATED AS "RECORD DRAWING" (BEARING AN ORIGINAL SIGNATURE) PRIOR TO THE REQUEST FOR FINAL INSPECTION.
8. A FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) "ELEVATION CERTIFICATE" MUST BE COMPLETED FOR EACH STRUCTURE CONSTRUCTED IN A SPECIAL FLOOD HAZARD AREA (SFHA) PRIOR TO AN ELECTRICAL CLEARANCE FOR THAT STRUCTURE. ONE COPY OF THE "ELEVATION CERTIFICATE" IS TO BE SUBMITTED TO THE GENERAL BUILDING SAFETY INSPECTOR ON SITE AND ONE COPY IS TO BE SUBMITTED TO THE TOWN OF PARADISE VALLEY FLOOD PLAIN MANAGER. IN ADDITION, SPECIFY THE NAME, ADDRESS, AND TELEPHONE NUMBER OF THE ARIZONA REGISTERED ENGINEER OR LAND SURVEYOR RESPONSIBLE FOR PROVIDING CERTIFICATION.
9. PAD CERTIFICATIONS WILL BE REQUIRED ON ALL LOTS WITHIN THE SUBDIVISION AND SUBMITTED TO THE CIVIL/SITE INSPECTOR PRIOR TO ANY CONCRETE CONSTRUCTION IN THE RIGHT-OF-WAY. PAD CERTIFICATION CAN BE SUBMITTED TO THE CIVIL/SITE INSPECTOR BY EITHER SUBMITTING ONE APPROVED BLACK-LINE-AS-BUILT GRADING AND DRAINAGE PLAN OR IN LETTER FORMAT SHOWING THE DESIGN AND AS BUILT PAD ELEVATIONS AS SHOWN ON THE APPROVED GRADING AND DRAINAGE PLAN. IT IS REQUIRED THAT THE AS-BUILT PLAN AND LETTER SEALED BY A CIVIL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA.
10. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
11. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY APPROVED PLAN REVISION.
12. GRADING AND DRAINAGE PLAN APPROVAL INCLUDES THE CONSTRUCTION OF ALL SURFACE IMPROVEMENTS SHOWN ON THE APPROVED PLAN, INCLUDING, BUT NOT LIMITED TO, RETENTION AREAS, SEDIMENTATION BASINS, AND/OR OTHER DRAINAGE FACILITIES, DRAINAGE PATTERNS, WALLS, CURBS, ASPHALT PAVEMENT, AND BUILDING FLOOR ELEVATION.
13. CONTRACTORS SHALL PROVIDE LEVEL BOTTOM IN ALL RETENTION BASINS AT ELEVATIONS SHOWN ON THE PLANS. SLOPE PROTECTION SHALL BE APPLIED TO PREVENT EROSION.
14. GRADES SHOWN IN RETENTION BASINS ARE DESIGN FINISHED GRADES. SHOULD THE CONTRACTOR OR ANY SUB-CONTRACTOR PLAN TO PLACE SPOIL DIRT FROM FOOTINGS, UTILITY TRENCHES, LANDSCAPING, SWIMMING POOLS, ETC., IN THE BASINS, THE BASINS SHOULD BE SUFFICIENTLY OVER-EXCAVATED DURING THE ROUGH GRADING OPERATION TO ALLOW FOR THE PLACEMENT OF THE FILL OR LANDSCAPING MATERIALS.
15. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND CONFIRMING DEPTHS OF ALL THE EXISTING UTILITY LINES WITHIN BASIN AREAS. IF THE BASIN CANNOT BE CONSTRUCTED PER PLAN BECAUSE OF CONFLICTS, THE CONTRACTOR SHOULD DISCUSS MODIFICATION IF BASIN CONFIGURATION WITH THE TOWN INSPECTOR TO DETERMINE IF A PLAN REVISION OR A FIELD CHANGE IS REQUIRED.
16. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS, OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION.
17. RETENTION BASIN SIDE SLOPES SHALL BE A MAXIMUM OF 4:1 UNLESS APPROVAL IS RECEIVED FROM THE PLAN REVIEWER FOR A STEEPER SLOPE.
18. REQUIRED RETAINING WALLS SHOWN ON THE GRADING AND DRAINAGE PLANS ARE TO BE REVIEWED, PERMITTED, AND INSPECTED BY THE BUILDING SAFETY BRANCH OF THE DEVELOPMENT SERVICES DEPARTMENT.
19. CERTIFICATE OF OCCUPANCY (C OF O) AND/OR FINAL ELECTRICAL CLEARANCE FOR ANY BUILDING IS DENIED UNTIL ALL GRADING AND DRAINAGE IMPROVEMENTS ARE COMPLETED.
20. EXISTING OR NEWLY DAMAGED AND/OR DISPLACED CONCRETE CURB, GUTTER, SIDEWALK, OR DRIVEWAY SLAB THAT IS WITHIN THE RIGHT-OF-WAY SHALL BE REPAIRED OR REPLACED, AS NOTED BY CITY INSPECTORS, BEFORE FINAL ACCEPTANCE OF THE WORK.
21. THE ENGINEERING DESIGN ON THESE PLANS ARE ONLY APPROVED BY THE CITY IN SCOPE AND NOT IN DETAIL. CONSTRUCTION QUANTITIES ON THESE PLANS ARE NOT VERIFIED BY THE CITY. APPROVAL OF THESE PLANS ARE FOR PERMIT PURPOSES ONLY AND SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE SUBSEQUENTLY FOUND TO BE IN VIOLATION OF ANY LAW, ORDINANCE, HEALTH, SAFETY, OR OTHER DESIGN ISSUES.
22. THE TOWN OF PARADISE VALLEY POLICE DEPARTMENT ENFORCES LAWS REGULATING THE OPERATION OF COMMERCIAL VEHICLES. THIS INCLUDES ENFORCEMENT OF FEDERAL, STATE, COUNTY AND LOCAL LAWS AND ORDINANCES. QUESTIONS REGARDING COMMERCIAL VEHICLE ENFORCEMENT MAY BE DIRECTED TO THE COMMERCIAL VEHICLE ENFORCEMENT SUPERVISOR
23. CONSTRUCTION WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO THE LATEST APPLICABLE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND DETAILS AND THE LATEST CITY OF SCOTTSDALE SUPPLEMENT TO MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS.
24. PLAN APPROVAL IS VALID FOR TWELVE (12) MONTHS. IF APPROVAL EXPIRES, THE PLANS MUST BE RESUBMITTED FOR CITY UPDATE REVIEW AND APPROVAL.
25. COMPACTION SHALL COMPLY WITH M.A.G SECTION 601.
26. OBSTRUCTIONS TO PROPOSED IMPROVEMENTS IN THE RIGHT-OF-WAY SHALL BE REMOVED OR RELOCATED BEFORE BEGINNING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
27. THE ACTUAL POINT OF PAVEMENT MATCHING AND/OR TERMINATION SHALL BE DETERMINED IN THE FIELD BY THE CITY OF SCOTTSDALE, DEVELOPMENT SERVICES DEPARTMENT FIELD INSPECTOR.
28. TREES AND SHRUBBERY IN THE RIGHT-OF-WAY THAT CONFLICT WITH PROPOSED IMPROVEMENTS SHALL NOT BE REMOVED WITHOUT APPROVAL OF THE CITY LANDSCAPE ARCHITECT OR HIS ASSIGNEES. THE PERMITTEE SHALL BE RESPONSIBLE FOR OBTAINING AUTHORIZATION TO REMOVE AND/OR RELOCATE SAID TREES OR SHRUBBERY BY CALLING THE PLANNING INSPECTOR AT (480) 312-5750.
29. A PAVEMENT CUT SURCHARGE SHALL BE ASSESSED ON THIS PROJECT FOR ANY TRENCHING OR POTHOLING IN NEW ASPHALT PAVEMENT THAT IS LESS THAN 30 MONTHS OLD. SURCHARGE FEES ASSESSED ARE IN ADDITION TO THE REGULAR PERMIT FEES AND ARE OVER AND ABOVE ANY SPECIAL BACKFILL, COMPACTION, AND PAVEMENT REPLACEMENT STIPULATIONS THAT MAY BE IMPOSED AS A CONDITION OF PERMITTING. PAVEMENT CUT SURCHARGE FEES IS ASSESSED IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE TOWN OF PARADISE VALLEY CODE.
30. POOL SHALL BE SECURED FROM UNWANTED ACCESS AND APPROVED THROUGH SEPARATE PERMIT.
31. ALL MECHANICAL EQUIPMENT (AIR CONDITIONER, POOL EQUIPMENT, ECT.) SHALL BE SCREENED A MINIMUM OF ONE FOOT HIGHER THAN THE HIGHEST PORTION OF THE EQUIPMENT, AND SHALL BE COMPATIBLE WITH THE ADJACENT MAIN BUILDING.



LEGAL DESCRIPTION

THAT PART OF TRACT "A", CLUB ESTATES NO. 2, ACCORDING TO BOOK 91 OF MAPS, PAGE 7, BEING ALSO A PART OF LOT 11 IN SECTION 4, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE MERIDIAN, MARICOPA COUNTY, ARIZONA:

COMMENCING AT A STONE MARKING THE SOUTHWEST CORNER OF THE SAID LOT 11, SECTION 4;

THENCE NORTH 00°59'51" EAST, ALONG THE WESTERLY LINE OF THE SAID LOT 11, SECTION 4 A DISTANCE OF 580 FEET;

THENCE SOUTH 72°14'30" EAST, 418.84 FEET TO A POINT ON A CURVE HAVING A RADIUS POINT BEARING SOUTH 72°14'30" EAST, 40.00 FEET;

THENCE NORTHEASTERLY 90.01 FEET ALONG THE ARC OF THIS CURVE THROUGH 128°56'30" OF CENTRAL ANGLE TO THE BEGINNING OF A CURVE HAVING A RADIUS BEARING NORTH 56°42'00" EAST, 45.00 FEET;

THENCE SOUTHEASTERLY 27.15 FEET ALONG THE ARC OF THIS CURVE THROUGH 34°34'00" OF CENTRAL ANGLE;

THENCE SOUTH 67°52'00" EAST, 30.25 FEET TO THE BEGINNING OF A CURVE HAVING A RADIUS POINT BEARING NORTH 22°08'00" EAST, 350 FEET;

THENCE SOUTHEASTERLY 113.82 FEET ALONG THE ARC OF THIS CURVE THROUGH 18°34'00" OF CENTRAL ANGLE;

THENCE SOUTH 86°30'00" EAST, 217.03 FEET TO THE BEGINNING OF A CURVE HAVING A RADIUS BEARING NORTH 03°30'00" EAST, 975.00 FEET;

THENCE EASTERLY 59.56 FEET ALONG ALONG THE ARC OF THIS CURVE THROUGH 03°30'00" OF CENTRAL ANGLE;

THENCE EAST 276.40 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTH 30°49'50" WEST, 252.86 FEET TO APPOINT ON A CURVE HAVING A RADIUS POINT BEARING NORTH 01°36'10" WEST, 1,275.00 FEET;

THENCE EASTERLY 86.73 FEET ALONG THE ARC OF THIS CURVE THROUGH 03°53'50" OF CENTRAL ANGLE TO THE BEGINNING OF A CURVE HAVING A RADIUS POINT BEARING SOUTH 05°30'00" EAST, 450.00 FEET;

THENCE EASTERLY 142.68 FEET ALONG THE ARC OF THIS CURVE THROUGH 18°10'00" OF CENTRAL ANGLE;

THENCE SOUTH 77°20'00" EAST, 110.00 FEET TO THE BEGINNING OF A CURVE HAVING A RADIUS POINT BEARING NORTH 12°40'00" EAST, 450,00 FEET;

THENCE SOUTHEASTERLY 26.33 FEET ALONG THE ARC OF THIS CURVE THROUGH 03°21'10" OF CENTRAL ANGLE TO THE BEGINNING OF A CURVE HAVING A RADIUS POINT BEARING SOUTH 09°18'50" WEST 20.00 FEET;

THENCE SOUTHERLY 48.20 FEET ALONG THE ARC OF THIS CURVE THROUGH 138°21'10" OF CENTRAL ANGLE;

THENCE SOUTH 57°40'00" WEST, 270.63 FEET TO THE BEGINNING OF A CURVE HAVING A RADIUS BEARING NORTH 32°20'00" WEST, 20.00 FEET;

THENCE SOUTHWESTERLY 11.29 FEET ALONG THE ARC OF THIS CURVE THROUGH 32° 20'00" OF CENTRAL ANGLE TO THE TRUE POINT OF BEGINNING.

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.

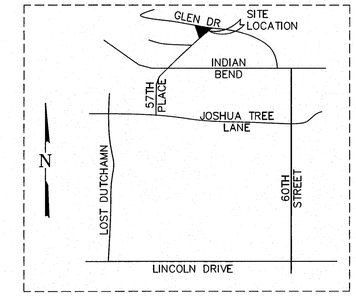
REGISTERED ENGINEER/LAND SURVEYOR _____ DATE _____

REGISTRATION NUMBER _____

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

MAP NUMBER: 04013C1690G

COMMUNITY NUMBER	PANEL NUMBER	PANEL DATE	SUFFIX	FIRM DATE	FIRM ZONE	BASE FLOOD ELEVATION (AO ZONE, USE DEPTH)
04013	1690	SEP 30 2005	G	SEP 30 2005	"X"	-



VICINITY MAP
N.T.S.

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch = 40 ft.

LEGEND

SYMBOL	DESCRIPTION
	PROPERTY LINE
	CENTER/SECTION LINE
OHE	OVER HEAD ELECTRIC
	EXISTING CURB AND GUTTER
8" W	EXISTING WATER LINE
S	EXISTING SEWER LINE
	EXISTING WALL
8" W	PROPOSED WATER LINE
S	PROPOSED SEWER LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	REMOVED CONTOUR
	FOUND PROPERTY CORNER
	FOUND BRASS CAP IN HANDHOLE
	IRON PIPE
	EXISTING POWER POLE
	EXISTING SEWER MANHOLE
	EXISTING WATER METER
	EXISTING WATER VALVE
	EXISTING POWER POLE

OWNER/LOT ADDRESS

OWNER: J. VAN HOUTEN/STONEBLU REVOCABLE TRUST
SITE ADDRESS: 7102 NORTH 57TH PLACE
PARADISE VALLEY, AZ 85253
WARRANTY DEED PER DOC# 2012-0734267, MCRO
APN: 169-55-033E
AREA: 47,159 SF OR 1.08 ACRES
DISTURBED AREA PROJECT: 22,924 SF OR 0.53 ACRES

BENCHMARK

ALUMINUM CAP AT THE SW CORNER OF SECTION 04, T.02 N., R.04 E., NAVD 88
ELEVATION: 1458.27 PER MARICOPA COUNTY GDACS

ENGINEER

HOOK ENGINEERING, INC.
3221 N. 24TH ST., SUITE 10
PHOENIX, AZ 85016
TEL (602) 954-0166
FAX (602) 956-0289

ARCHITECT

CANDELARIA DESIGN
4450 N. 12TH STREET #278
PHOENIX, AZ 85014
TEL (602) 604-2001

ENGINEER'S CERTIFICATION:

THE LOWEST FLOOR ELEVATION(S) AND/OR FLOOD PROOFING ELEVATIONS(S) ON THIS PLAN ARE SUFFICIENTLY HIGH TO PROVIDE PROTECTION FROM FLOODING CAUSED BY A ONE HUNDRED YEAR STORM EVENT.

NOTES:

1. NO CERTIFICATE OF OCCUPANCY SHALL BE ISSUED UNTIL ALL HILLSIDE STIPULATIONS AND ALL TOWN CODE REQUIREMENTS ARE COMPLIED INCLUDING, BUT NOT LIMITED TO LANDSCAPING, GROUND RESTORATION, FIRE FLOW, FIRE SAFETY AND ALL ONSITE ANDOFFSITE IMPROVEMENTS.
2. ALL OUTDOOR LIGHTING SHALL BE IN CONFORMANCE WITH ARTICLE XXII OF THE TOWN ZONING ORDINANCE.
3. ALL EXCESS FILL MATERIAL SHALL BE REMOVED FROM THE SITE WITH NO NEW SPILL SLOPES.
4. THE USE OF HYDRAULIC RAM HAMMERS OR OTHER HEAVY EQUIPMENT USED TO CUT THROUGH ROCK, INCLUDING MACHINERY WITH AUDIBLE BACK-UP WARNING DEVICES, SHALL BE LIMITED TO USE BETWEEN THE HOURS OF 7:00 A.M. OR SUNRISE (WHICHEVER IS LATER) AND 6:00 P.M. OR SUNSET (WHICHEVER IS EARLIER), MONDAY THROUGH FRIDAY, WITH LIMITED WORK ON SATURDAY AND NO WORK ON SUNDAY OR LEGAL HOLIDAYS.
5. CONSTRUCTION STAKING AND/OR FENCING SHALL BE PLACED AROUND THE CONSTRUCTION SITE SO AS TO PROTECT THE UNDISTURBED NATURAL

Two working days before you dig CALL FOR THE BLUE STAKES 263-1100 Blue Stake Center CALL COLLECT

VAN HOUTEN RESIDENCE

Hook Engineering, Inc.
3221 N. 24TH STREET, SUITE 10 PHOENIX, AZ 85016 Tel: (602) 954-0166 Fax (602) 956-0289

Designed by:	MLW	Checked by:	MH
Drawn by:	MLW	Date:	6/28/13
Horiz. Scale:	AS NOTED	Vertical Scale:	N/A

By	Date	Revisions

Registered Professional Engineer (Civil) JAMES E. HOOK 23990 MICHAEL E. HOOK Date Signed 3/5/15 ARIZONA, U.S.A. Expires 03/31/15

JOB NUMBER
9083.13.01

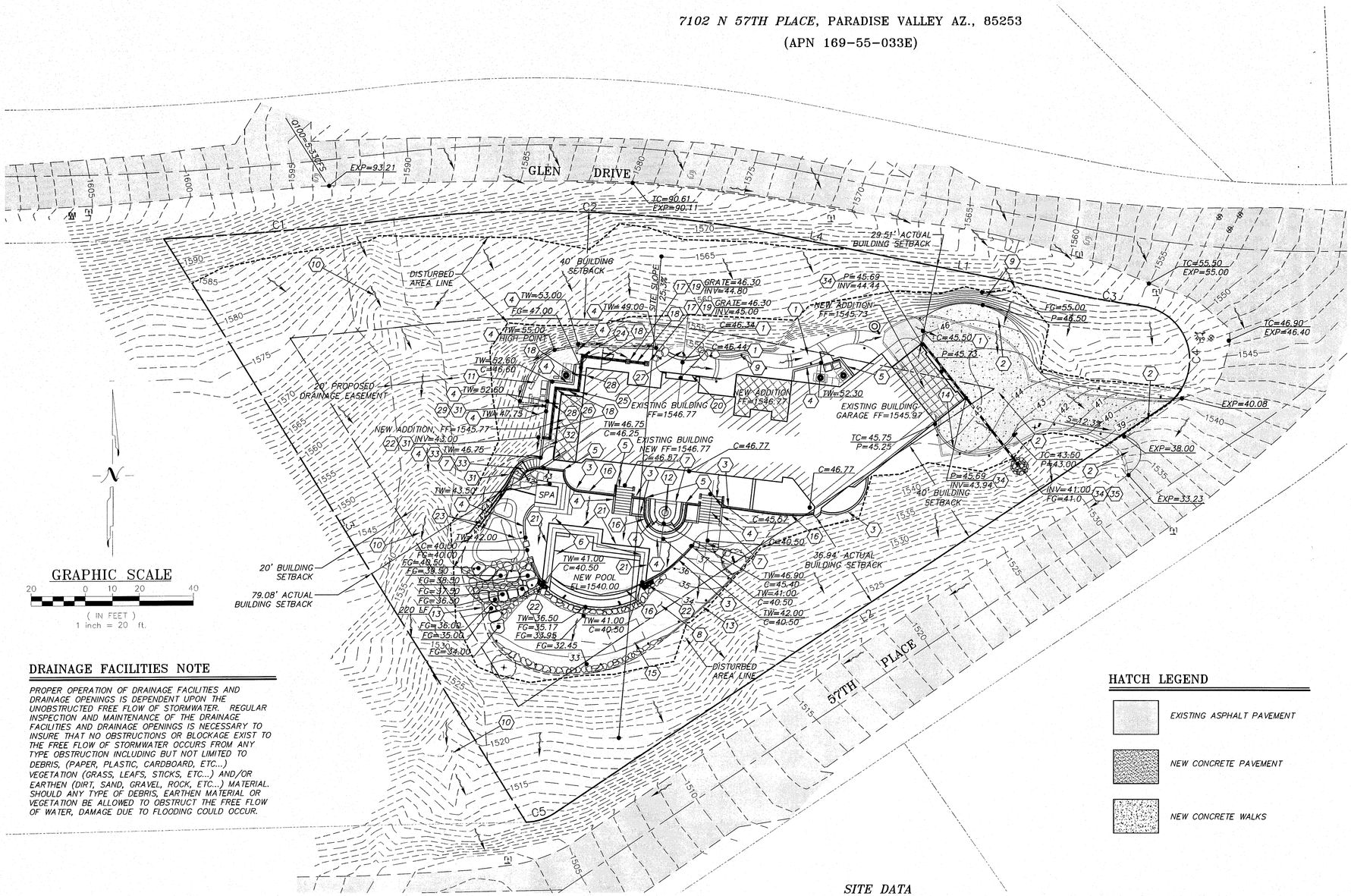
SHEET
1 OF 2

7102 N 57TH PLACE
GRADING AND DRAINAGE PLAN

VAN HOUTEN RESIDENCE
GRADING AND DRAINAGE PLANS

7102 N 57TH PLACE, PARADISE VALLEY AZ., 85253

(APN 169-55-033E)



GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

DRAINAGE FACILITIES NOTE

PROPER OPERATION OF DRAINAGE FACILITIES AND DRAINAGE OPENINGS IS DEPENDENT UPON THE UNOBSTRUCTED FREE FLOW OF STORMWATER. REGULAR INSPECTION AND MAINTENANCE OF THE DRAINAGE FACILITIES AND DRAINAGE OPENINGS IS NECESSARY TO INSURE THAT NO OBSTRUCTIONS OR BLOCKAGE EXIST TO THE FREE FLOW OF STORMWATER OCCURS FROM ANY TYPE OBSTRUCTION INCLUDING BUT NOT LIMITED TO DEBRIS, (PAPER, PLASTIC, CARDBOARD, ETC...) VEGETATION (GRASS, LEAFS, STICKS, ETC...) AND/OR EARTHEN (DIRT, SAND, GRAVEL, ROCK, ETC...) MATERIAL. SHOULD ANY TYPE OF DEBRIS, EARTHEN MATERIAL OR VEGETATION BE ALLOWED TO OBSTRUCT THE FREE FLOW OF WATER, DAMAGE DUE TO FLOODING COULD OCCUR.

LINE TABLE

LINE	BEARING	DISTANCE
L1	N78°28'33"W	84.93
L2	N56°31'27"E	270.71
L3	N31°57'33"W	252.88
L4	N78°28'33"W	25.07

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH
C1	3°53'48"	1275.00	86.71
C2	18°10'00"	450.00	142.68
C3	3°21'17"	450.00	26.35
C4	138°21'17"	20.00	48.29
C5	32°20'00"	20.00	11.29

DRAINAGE NARRATIVE

THIS SITE IS LOCATED IN FEMA FLOOD ZONE "X" AS SHOWN IN FEMA FIRM MAP 04013C, PANEL 1690G. FINISH FLOOR ELEVATIONS ARE SAFE FROM THE 100 YEAR STORM EVENT.

THE EXISTING HISTORIC FLOWS OF 5.33 CFS PASSES THROUGH THE SITE IN THE EXISTING WASH, TO BE DEDICATED IN A NEW DRAINAGE EASEMENT, THE WASH WILL NOT BE DISTURBED. HISTORICALLY THE RUNOFF FROM NORTH OF THE PROPERTY SHEET FLOWS ACROSS GLEN DRIVE IN TWO AREAS. ALONG THE WESTERN HALF OF THE NORTH PROPERTY LINE THE RUNOFF SHEET FLOWED ACROSS GLEN DRIVE, RAN DOWN THE HILLSIDE TO COLLECT ALONG THE NORTH SIDE OF THE EXISTING RESIDENCE AND DRAINED TO THE EAST, INTO THE DRIVEWAY AND OUT TO THE 57TH PLACE R.O.W. ALONG THE EASTERN HALF OF THE NORTH PROPERTY LINE THERE IS AN EXISTING EXTRUDED CURB WHICH CHANNELS THE SHEET FLOW ACROSS GLEN DRIVE TO A POINT AT THE NORTH EAST CORNER OF THE SITE WHERE IT FLOWS INTO THE SITE, DOWN THE HILLSIDE, AND INTO THE DRIVEWAY AND INTO THE 57TH PLACE R.O.W.

THE PATIOS AND POOL DECKS WILL ALL SHEET DRAIN TO THE LAWN AREA AND FROM THERE TO THE EXISTING OUTFALL LOCATIONS ALONG 57TH PLACE. THE DRAINAGE PATTERNS ALONG THE REST OF THE SOUTHERN PROPERTY LINE WILL REMAIN UNCHANGED

SITE DATA

AREA OF LOT	49,596 S.F. = 1.139 ACRES
AREA UNDER ROOF	8,264.3 S.F.
FLOOR AREA RATIO	16.66%
BUILDING SITE SLOPE	25.3% – 45' VERTICAL, 177.8' HORIZONTAL
EXISTING DISTURBED AREA	22,924 S.F.
EXISTING DISTURBED AREA PERCENTAGE	46.22%
ALLOWABLE DISTURBED AREA	6,399 S.F.
ALLOWABLE DISTURBED AREA PERCENTAGE	12.9%
NEW DISTURBED AREA	0.0 S.F.
TOTAL NEW AND EXISTING DISTURBED AREA	19,770.4 S.F.
TOTAL NEW AND EXISTING DISTURBED AREA PERCENTAGE	39.86%
PERCENTAGE OF LOT STEEPER THAN NATURAL GRADE	2.58%
VOLUME OF CUT	170 C.Y.
VOLUME OF FILL	142 C.Y.
HILLSIDE ASSURANCE @ $25/C.Y. OF CUT+FILL	312 C.Y. FILL @ $25/C.Y. = $7,800
SLOPE OF DRIVEWAY	12.3%

HATCH LEGEND

- EXISTING ASPHALT PAVEMENT
- NEW CONCRETE PAVEMENT
- NEW CONCRETE WALKS

CONSTRUCTION NOTES

1. INSTALL NEW 5' WIDE 4" THICK DECORATIVE CONCRETE SIDEWALK PER ARCHITECTURAL DTL
2. SAWCUT AND REMOVE EXISTING DRIVEWAY, INSTALL NEW CONCRETE DRIVEWAY PER ARCHITECTURAL DETAIL
3. EXISTING SITE WALL TO BE PROTECTED IN PLACE
4. NEW SITE WALL, SEE ARCHITECTURAL PLANS FOR DETAILS AND SPECIFICATION
5. TIE NEW SITE WALL INTO EXISTING SITE WALL
6. REMOVE EXISTING POOL, CONSTRUCT NEW POOL AND POOL DECK PER ARCHITECTURAL PLANS AND SPECIFICATIONS
7. CONSTRUCT NEW STAIRCASE, SEE ARCHITECT'S DTL
8. NEW LAWN AREA, SEE LANDSCAPE PLANS FOR SPECIFICATIONS
9. REMOVE EXISTING SOLID ROCK HILLSIDE STABILIZE AS REQUIRED TO MAINTAIN VERTICAL FACE
10. EXISTING HISTORIC DRAINAGE PATH RUNNING THROUGH SITE, TO BE PROTECTED AS IS
11. REGRADE AREA AS NEEDED FOR THE INSTALLATION OF NEW POOL EQUIPMENT
12. FIRE PIT AREA, SEE ARCHITECTURAL PLAN FOR DETAILS AND SPECIFICATIONS
13. INSTALL 5' TALL POOL FENCE, SEE ARCHITECTURAL PLANS FOR DETAILS AND SPECIFICATIONS
14. CONSTRUCT 6" VERTICAL CURB PER MAG STD DTL 222
15. PROPOSED SEPTIC LOCATION, SEE ARCHITECTURAL PLAN FOR DETAILS AND SPECIFICATIONS
16. INSTALL NEW HANDRAIL, SEE ARCHITECTURAL PLANS FOR DETAILS AND SPECIFICATIONS.
17. CONSTRUCT NEW CONCRETE CATCH BASINS, INTERIOR TO BE 1' SQUARE, WALL THICKNESS 4" MIN., BOTTOM TO INVERTS PROVIDED.
18. INSTALL NEW 2–4" PVC, SCHEDULE 40, DRAIN PIPES TO INVERTS SHOWN ON PLAN.
19. INSTALL CATCH BASIN STEEL GRATE COVERS TO GRADES SHOWN ON PLAN. COVERS SELECTED BY OTHERS, FASTEN PER MANUFACTURER'S REQUIREMENTS.
20. INSTALL NEW DECO DRAIN TO LIMITS SHOWN AT FRONT DOOR OF RESIDENCE, SEE ARCHITECT'S PLANS FOR INFORMATION.
21. INSTALL NEW DECO DRAIN TO LIMITS SHOWN AROUND POOL, SEE ARCHITECT'S PLANS FOR INFORMATION.
22. INSTALL RIP RAP EROSION PROTECTION TO LIMITS SHOWN. D50 = 6", THICKNESS = 12", SEE LANDSCAPE PLANS FOR ROCK TYPE AND COLOR.
23. PUTTING GREEN TO BE GRADED FLAT WITH GENTLE SLOPE TO THE WEST. PROVIDE DRAINAGE SWALE ALONG WEST SIDE OF PUTTING GREEN.
24. INVERT OF 44.35 AT BEND, 2–4" PVC, SCHEDULE 40, DRAIN PIPES.
25. INVERT OF 44.00 AT BEND, 2–4" PVC, SCHEDULE 40, DRAIN PIPES.
26. INVERT OF 43.80 AT BEND, 2–4" PVC, SCHEDULE 40, DRAIN PIPES.
27. LANDSCAPE FEATURE AT RESIDENCE ENTRY.
28. INSTALL SLOTTED DRAIN AT WEST SIDE OF RESIDENCE. SLOTTED DRAIN TO DISCHARGE AT GRADE ON WEST SIDE OF BLOCK WALL.
29. PROVIDE BLOCK WALL DRAINAGE OPENING AT GRADE BY PLACING ONE BLOCK ON–SIDE AT LOCATION SHOWN.
30. REMOVE DIRT AND ROCK AS NEEDED TO OBTAIN A FINISH GRADE OF 42.75 AT OUTLET OF DRAINAGE PIPES. GRADE AS NECESSARY TO PROVIDE A POSITIVE SLOPE OF 1% TO EFFECTIVELY DRAIN WATER AWAY.
31. SHOULD GRADING CUT ALONG WEST SIDE OF WALL AND CURVED STAIRS BE HARD STABLE ROCK, NO RIPRAP EROSION PROTECTION IS NEEDED, OTHERWISE INSTALL ANGULAR ROCK RIPRAP, D50=6", MINIMUM THICKNESS 1.0', MINIMUM WIDTH OF 2.0' FROM BASE OF WALL FOR EROSION PRTECTION.
32. EXISTING SEWER CLEANOUTS, USE CAUTION EXCAVATING & INSTALLING 2–4" STORMDRAIN PIPES.
33. HEIGHT OF WEST STAIR WALL TO BE A MINIMUM OF 36 INCHES ABOVE FRONT EDGE OF STAIR TREAD, SEE ARCHITECT'S PLANS FOR ADDITIONAL INFORMATION & DETAILS.
34. INSTALL TRAFFIC RATED ALUMINIZED METAL SLOTTED DRAIN PIPE, 12" DIAMETER, IN FRONT OF GARAGE DOOR TO INVERTS SHOWN. INSTALL 12" DIAMETER ALUMINIZED METAL DRAINAGE PIPE TO INVERTS SHOWN.
35. INSTALL 6' X 8' ANGULAR RIPRAP SPLASH PAD, D50=12", 2.0' THICK, AT OUTLET OF 12" DIAMETER DRIVEWAY DRAIN PIPE.

CUT AND FILL

TOTAL SITE CUT = 170 C.Y.

TOTAL SITE FILL = 142 C.Y.

TOTAL FOR SITE = 312 C.Y. OF CUT AND FILL

VAN HOUTEN RESIDENCE

Hook Engineering, Inc.
3221 N. 24TH STREET, SUITE 10 PHOENIX, AZ 85016 Tel: (602) 954-0166 Fax: (602) 956-0289

Designed by:	MLW	Date	By	Revisions
Drawn by:	MLW			
Checked by:	MH			
Horiz. Scale:	AS NOTED			
Vertical Scale:	N/A			
Date:	6/27/13			

7102 N 57TH PLACE
GRADING AND DRAINAGE PLAN

Registered Professional Engineer
CERTIFICATE NO.
23990
MICHAEL E. HOOK
Date Signed 6/27/13
ARIZONA, U.S.A.
Expires 03/31/15

JOB NUMBER
9083.13.01

SHEET
2 OF 2



Hook Engineering, Inc.
Civil Engineers ~ Land Surveyors

LEGEND

XXXX — HISTORICAL CONTOURS

EXISTING LIMITS OF DISTURBANCE

VAN HOUTEN RESIDENCE
HISTORICAL CONTOUR

7102 N 57TH PLACE
PARADISE VALLEY, AZ
APN: 169-55-033E

SCALE	1"=30'
DESIGN	PJG
JOB No.	2026-001-01
DATE :	3/30/2026
EXHIBIT 1	



EXISTING CONDITIONS 1
N.T.S.



EXISTING CONDITIONS 2
N.T.S.



EXISTING CONDITIONS 3
N.T.S.

SITE INFORMATION AND PROJECT DATA

ZONING DISTRICT — R-43
PARCEL NUMBER — 164-55-035E
SECTION TOWNSHIP RANGE — 42ME
SUBDIVISION NAME — CLUB ESTATES 2
LOT # — 11
DESERT LAND FORM — HILLSIDE

LEGAL DESCRIPTION — A PORTION OF THE SOUTHWEST QUARTER IN SECTION 04, 02 NORTH, RANGE 04 EAST OF THE GILA AND SALT RIVER MERIDIAN, COUNTY OF MARICOPA, STATE OF ARIZONA ALSO BEING A PORTION OF CLUB ESTATES NO. 2 RECORDED IN BOOK 91 OF PLATES, ON PAGES 07, MARICOPA COUNTY RECORDS, ARIZONA.

LOT INFORMATION:

AREA OF LOT — 49,596 S.F. / 1.139 acres
EXISTING LIVABLE FLOOR AREA — 6,141 S.F.
EXISTING ENCLOSED NON-LIVABLE AREA — 1,144 S.F.
EXISTING COVERED OUTDOOR AREA — 455 S.F.
EXISTING F.A.R. — 7,285 S.F. / 49,596 S.F. = 14.6%
LOT SLOPE — 20.8% (37' VERTICAL / 177.81' HORIZONTAL)
ALLOWABLE DISTURBED AREA — (18.04% OR 8,947.3 S.F.)
EXISTING DISTURBED AREA — 45.40% OR 22,518 S.F.
PROPOSED DISTURBED AREA — 44.87% OR 22,254.5 S.F.) 2

SQUARE FOOTAGE CALCULATIONS:

BREAKDOWN OF PROPOSED IMPROVEMENTS: 2

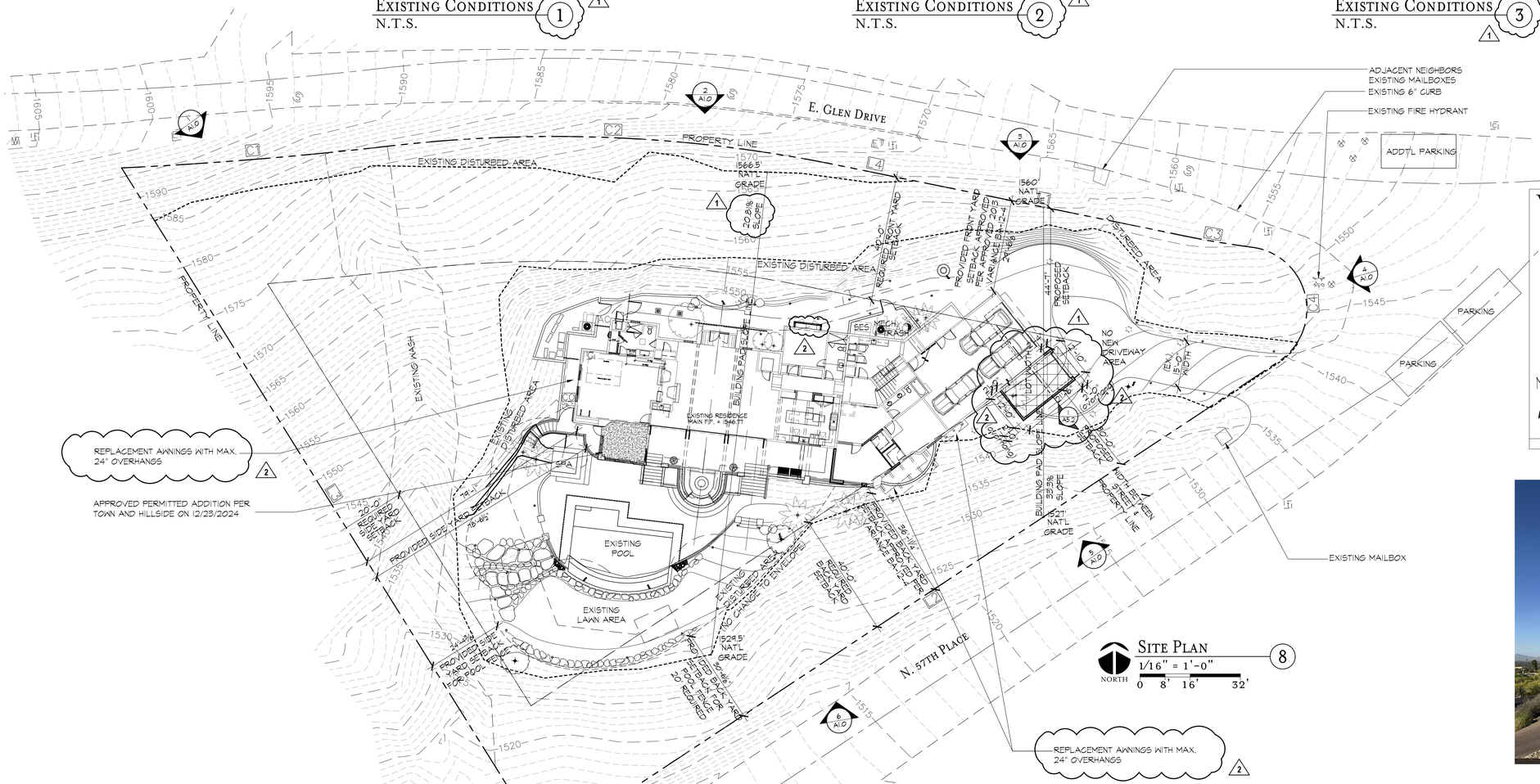
PROPOSED MAIN LEVEL LIVABLE ADDITION (BD RM, BAY) — 165 S.F.
PROPOSED ENCLOSED NON-LIVABLE GARAGE ADDITION (245.54 S.F. OF WHICH LIES BEYOND THE SETBACK) — 263.5 S.F.
PROPOSED UPPER LEVEL LIVABLE OFFICE ADDITION (210 S.F. OF UPPER LEVEL ENCROACH INTO 40' SETBACK) — 263.5 S.F.
PROPOSED UPPER LEVEL LIVABLE BAY ADDITION — 15.8 S.F.
PROPOSED OUTDOOR COVERED AREA(OVERHANGS), (PROPOSED OVERHANGS ARE SMALLER THAN EXISTING) — 173 S.F.

REVISED TOTALS: 2

REVISED 1ST FLOOR LIVABLE AREA — 4,080.5 S.F.
REVISED 1ST FLOOR ENCLOSED NON-LIVABLE AREA — 1,410 S.F.
REVISED EXT. COVERED AREAS, BALCONIES, WALKWAYS — 1,128 S.F.
REVISED 2ND FLOOR LIVABLE AREA — 2,548.8 S.F.
REVISED TOTAL AREA UNDER ROOF — 8,947.3 S.F.

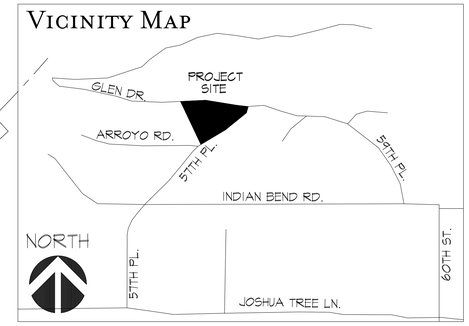
EXISTING FOOTPRINT: 7,285 SF
PROPOSED FOOTPRINT: 8,947.3 SF
REVISED FLOOR AREA RATIO: 8,947.3 S.F. / 49,596 S.F. = 18.04% (25% ALLOWED) 1

NEW FENCE / RETAINING WALLS: — 0 LINEAL FEET
EXISTING MAIN RESIDENCE MAXIMUM BUILDING HEIGHT — 24'-6 3/4" ABOVE LOWEST ADJACENT NATURAL GRADE APPROVED PER VARIANCE BA-12-4
PROPOSED GARAGE ADDITION MAXIMUM BUILDING HEIGHT — 22'-2 3/8" ABOVE LOWEST ADJACENT NATURAL GRADE



SITE PLAN 8
1/16" = 1'-0"

VICINITY MAP





EXISTING CONDITIONS 4
N.T.S.



EXISTING CONDITIONS 5
N.T.S.



EXISTING CONDITIONS 6
N.T.S.



EXISTING CONDITIONS 7
N.T.S.

LIFESTYLE
ARCHITECTURE
Candelaria Design Associates
6900 East Camelback Rd. Suite 400 Scottsdale, AZ 85251
602.604.2001 candelariadesign.com FAX 480.874.7098

ADDITIONS & ALTERATIONS TO:
Van Houten Residence
7102 N. 57th Place
Paradise Valley, AZ 85253

2409

26 CELEBRATING YEARS 1999-2025

All reports, drawings, specifications, computer files, field data, notes and other documents prepared by the Architect as instruments of service, shall remain the property of the Architect whether the project for which they are made is executed or not. The Architect shall retain all common law, statutory and other reserved rights, including the copyright thereto. The Owner shall be permitted to retain copies, including reproducible copies, of the drawing and specifications for information and reference in connection with the Owner's use and occupancy of the project. The drawings and specifications shall not be used by the Owner or others on other projects, for additions to this project, or for completion of this project by others, except by agreement in writing and with appropriate compensation to the Architect, and only for the purposes stated in such agreement. The Owner shall not change the drawings and specifications in any way or extend the project to another site without the written consent of the Architect without liability to the Architect and without the Architect's authorization and adaptation. The Owner shall indemnify and hold harmless the Architect and his consultants from all claims and causes of action arising from such unauthorized use. Submission or distribution of documents to meet official regulatory requirements or for purposes in connection with the project is not to be construed as publication in derogation of the Architect's reserved rights.

REGISTERED ARCHITECT
MARK B. CANDELARIA
No. 35541
STATE OF ARIZONA U.S.A.

EXPIRATION: .09.30.2026

APRIL. 07, 2026

3	Revision	Date
2	Hillside review	04.07.2026
1	Hillside review	03.24.2026

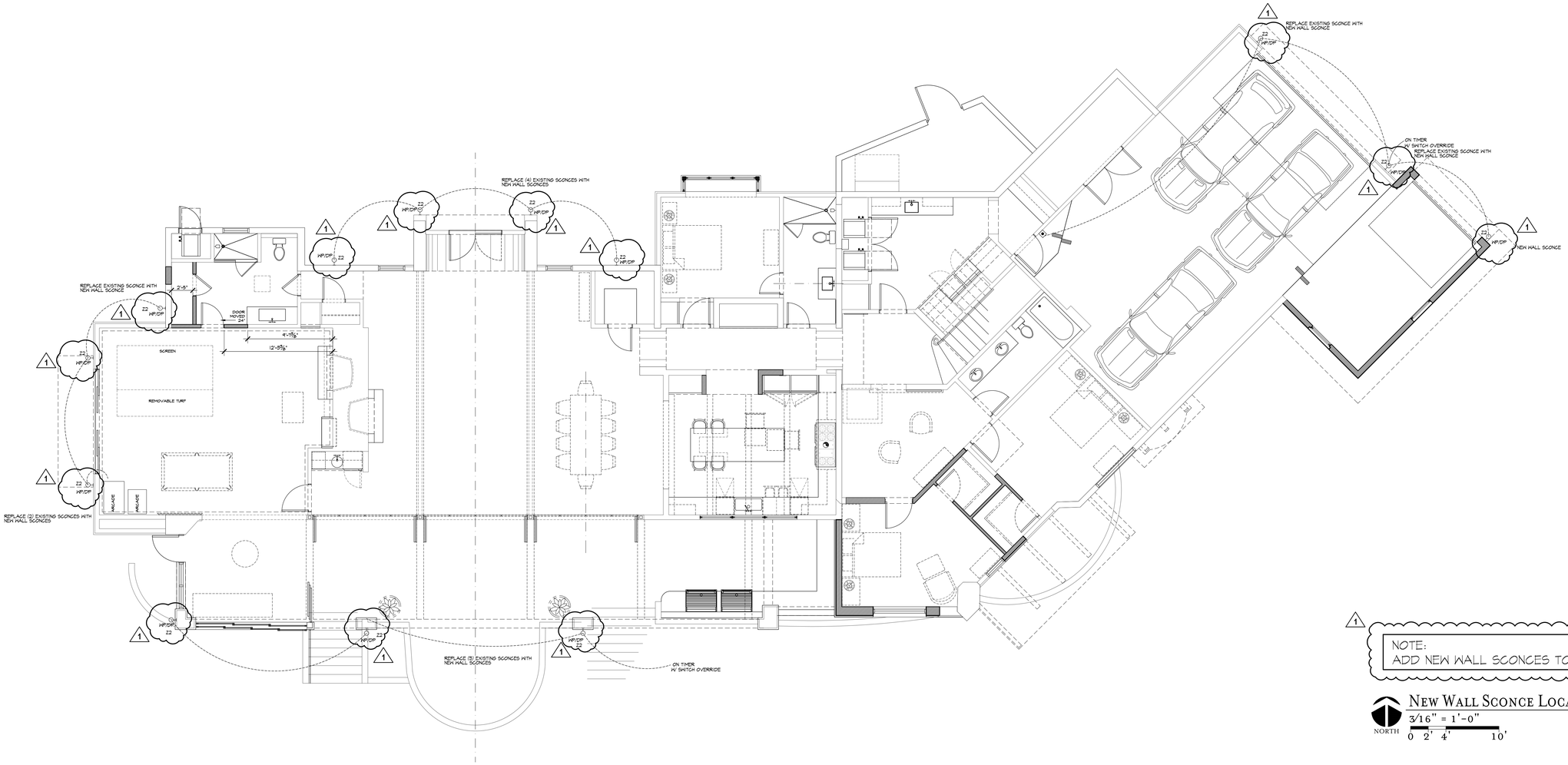
Checked By: T.M.
Drawn By: M.S.
Scale: AS NOTED
Drawing:

SITE PLAN

Sheet:

A1.0

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1 NOTE:
ADD NEW WALL SCONCES TO EXISTING LIGHTING CIRCUIT

NEW WALL SCONCE LOCATION PLAN (1)

NORTH

3/16" = 1'-0"

0 2' 4' 10'

LIGHTING FIXTURE LEGEND

TYPICAL NOTES:

1. Note that ALL recessed fixtures shall have a (SQUARE OR ROUND) configuration and that the aperture size shall be kept consistent to the greatest degree possible.
2. The individual descriptions & specified fixtures in this Legend are meant to establish the required performance criteria and level of manufacturing quality. Alternate fixtures equaling or exceeding the criteria may be submitted for review.
3. Upon determination and selection of the specific fixtures by the Contractor/ Lighting Supplier, the Contractor shall provide a complete submittal package (in accordance with the Division 1 Specifications within these Drawings) for review by the Owner and Design Team. Receipt and resolution of any review comments is required prior to placing any lighting fixture order(s).
4. Only light fixtures rated for insulation contact shall be used in insulated assemblies.
5. U.N.O., the selection of the appropriate drivers, transformers, etc. for the lighting fixtures shall be the responsibility of the Contractor/Lighting Supplier.
6. This is a Master Legend- not all fixtures may be used on the corresponding Plan(s).

LTR.	SYMB.	FIXTURE TITLE, DESCRIPTION & SPECIFICATION
A	○	FLAT CEILING 4" RECESSED LED DOWNLIGHT w/ REFLECTOR TRIM. IC Rated w/ 50W PAR20 LED Lamp w/ E26 Base containing 1% Dimmability. Where required provide rating for damp location or lens cover for Closet location. "Elite" B4IC-AT. Trim: B4022HVHH (or equal).
B	◎	FLAT CEILING 4" RECESSED LED DOWNLIGHT w/ SLOT APERTURE TRIM. IC Rated w/ 50W PAR20 LED Lamp w/ E26 Base containing 1% Dimmability. Beam spread T.B.D.- fixture to be rated for damp location where required. "Elite" B4IC-AT. Trim: B4058HVHH (or equal).
C	◎	FLAT CEILING 4" RECESSED LED DOWNLIGHT w/ PINHOLE TRIM. IC Rated w/ 50W PAR20 LED Lamp w/ E26 Base containing 1% Dimmability. Fixture to be rated for damp location where required. "Elite" B4IC-AT. Trim: B422HVHH (or equal).

LTR.	SYMB.	FIXTURE TITLE, DESCRIPTION & SPECIFICATION
G	⊕	CEILING SURFACE-MOUNTED CLOSET LED LENSED FIXTURE. 9" diam. slim surface mount dimmable fixture with 1200 Lumens & 90+ CRI. "Elite" RL49I-1200L-DIMTR-120-30K-90-HH (or equal).
H	▭	WALL SURFACE-MOUNTED LINEAR CLOSET LED LENSED FIXTURE. Fixture to be centered horizontally on door & vertically between door header and ceiling with 3000K Lamp. Verify length required (6" to 48"). "Elite" ESL-LED-24-120-30K (or equal).
J	⊞	RECESSED REINFORCED CLG. JUNCTION BOX FOR LIGHT FIXTURE/FAN. 120V & rated for damp location where req'd.- "Arlington" FB4412. Verify light fixture/fan specification w/ Owner/Interior Designer prior to order.
K	⊙	ADJ. INT./EXT. SURFACE-MTD. LOW VOLTAGE DIRECTIONAL FIXTURE. Provide a remote 12-volt transformer and mounting accessories based upon req'd. attachment to exposed surface or beam/joist/trellis member as shown. "Lumiere/Cambria" Model: 203-FL-50MR16-12-BZ (or equal).
L	▭	INT. LINEAR UNDERCABINET OR CLG. COVE ACCENT LED LIGHT FIXTURE. Indoor 3000K LED Tape Light with remote electronic transformer & alum. channel. Contractor to piece together lengths as req'd. "National Spec. Lighting" LTP-20-YY-HRO. Channel: "NSL" LV-ALP2208 (or equal).
ZI	⊕	INT./EXT. CLG. SURFACE-MOUNTED DESIGNER PENDANT LIGHT FIXTURE. 120V fixture to be specified by Owner or Interior Designer. Contractor to verify weight & provide additional support or blocking if/as required.
Z2	⊢⊕	EXTERIOR WALL SURFACE-MTD. DESIGNER SCONCE/LANTERN LIGHT FIXT. 120V fixture to be specified by Owner or Interior Designer. Contractor to verify height and placement.

GENERAL ELECTRICAL NOTES

A. CONTRACTOR TO VERIFY ALL OUTLET, FIXTURE & CONTROL LOCATIONS W/ ARCHITECT/INT. DESIGNER AT ROUGH-IN STAGE. MAKE MINOR ADJUSTMENTS (WITHIN 36") AS DIRECTED WITHOUT ADDITIONAL COST.
B. WIRING & LOCATIONS FOR AUDIO SPEAKERS, SECURITY SYSTEM, ETC. TO BE DETERMINED AND PROVIDED BY SEPARATE VENDORS. CONTR. TO PROVIDE ALL NECESSARY COORDINATION. USE CARE IN PLACEMENT OF DEVICES TO ALIGN WITH & RELATE TO OTHER WORK.
C. COMBINATION CARBON MONOXIDE AND SMOKE DETECTOR SHALL BE PROVIDED OUTSIDE OF EACH SLEEPING AREA & SMOKE DETECTORS SHALL BE PROVIDED INSIDE OF EACH SLEEPING AREA. THE DETECTORS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING, NOT BE ON AN ARC FAULT CIRCUIT, WITH A BATTERY BACKUP. THE DETECTORS SHALL EMIT A SIGNAL WHEN THE BATTERIES ARE LOW. REQUIRED SMOKE DETECTORS SHALL BE INTERCONNECTED SO IF ONE DETECTOR IS ACTIVATED ALL DETECTORS ARE ACTIVATED. (R314 & R315)
D. ALL 120-VOLT, SINGLE PHASE, 15 AND 20 AMP BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUN ROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC FAULT CIRCUIT INTERRUPTER, COMBINATION TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. (E3402.12)
E. IN AREAS SPECIFIED IN SECTION E3901.1, 125-VOLT, 15- AND 20- AMPERE RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
F. OUTLET BOXES IN THE WALL BETWEEN THE RESIDENCE AND GARAGE SHALL BE METAL OR UL-APPROVED FIRE RESISTIVE PLASTIC. OUTLET BOXES IN GARAGE CEILING SHALL BE METAL.
G. PER IRC N1101.6 A PERMANENT CERTIFICATE SHALL BE POSTED ON OR IN THE ELECTRICAL DISTRIBUTION PANEL. THE CERTIFICATE SHALL LIST THE R-VALUES OF THE INSULATION AT WALLS, CEILINGS, FLOORS, & DUCTS THAT ARE OUTSIDE THE THERMAL ENVELOPE. U-FACTORS & SOLAR HEAT GAIN COEFFICIENTS OF FENESTRATION SHALL BE LISTED. RESULTS OF ANY AIR LEAKAGE TESTING SHALL BE LISTED. THE CERTIFICATE SHALL LIST THE TYPES & EFFICIENCIES OF HEATING, COOLING, & SERVICE WATER HEATING EQUIPMENT. GAS LOG SETS SHALL BE LISTED W/O EFFICIENCIES.
H. A FIXTURE, OUTLET, CIRCUIT OR SWITCH WITH AN "E" AS PART OF ITS LABEL ON THE POWER/LIGHTING PLAN(S) DESIGNATES THAT IT'S AN EXISTING CONDITION THAT SHALL REMAIN IN PLACE. THE DEVICE SHALL BE TESTED, EXAMINED FOR WEAR AND REPLACED WHEREVER NOTED OR AS REQUIRED TO MATCH THE UPDATED ADJACENT CONDITIONS.

FURNITURE GRAPHICS NOTE

ANY FURNITURE SHOWN IN THIS PLAN IS FOR GENERAL REFERENCE ONLY. COORDINATE FINAL POWER OUTLET AND LIGHT FIXTURE LOCATIONS AS REQUIRED IN THE FIELD WITH THE OWNER AND INTERIOR DESIGNER.

TOWN OF P.V. SITE LIGHTING NOTE

OUTDOOR LIGHTING SHALL CONFORM TO THE TOWN OF PARADISE VALLEY ZONING ORDINANCE, ARTICLE 10, SECTION 1023, LANDSCAPE LIGHTING CANNOT EXCEED 25 WATTS AND SECURITY LIGHTING CANNOT EXCEED 75 WATTS.

POWER SYMBOLS LEGEND

◊	DIMMER SWITCH AT 42" A.F.F. (U.N.O.)
$	SINGLE POLE "DECORA" LIGHT SWITCH MOUNTED AT 42" A.F.F. (U.N.O.)
⊖	AFCI (U.N.O.) DUPLEX OUTLET MOUNTED AT 14" A.F.F. (U.N.O.)
⊖	GFCI (U.N.O.) DUPLEX OUTLET LOCATED ABOVE COUNTER.
⊖	AFCI (U.N.O.) SWITCHED DUPLEX RECEPTACLE, 1/2 HOT.
⊖	SWITCHED (1/2 HOT) GFCI (U.N.O.) DUPLEX OUTLET LOCATED ABOVE COUNTER
⊕	AFCI (U.N.O.) FOURPLEX OUTLET
⊖	220 VOLT OUTLET | OCCUPANCY SENSOR
⊖	220 VOLT SWITCHED OUTLET, 1/2 HOT
⊖	DEDICATED OUTLET, NOTED ON PLAN
▭	GFCI (U.N.O.) FLOOR OUTLET (RECESSED INTO SLAB TO CONCEAL PLUGS W/ FLUSH COVER PLATE). FIELD VERIFY LOC'N., 1/2 HOT WHERE SHOWN
◪ ▢	EQUIP. CONTROLLER & NEMA 3R-NF DISCONNECT SWITCH (220 VOLT)
⊖	SWITCHED GARBAGE DISPOSAL OUTLET, GFCI RATED
◭	BUNDLED CABLE OUTLET COMPOSED OF (1) COAX & (3) CAT6 ORIGINATING FROM UTILITY ROOM
◬	TELEPHONE/COMMUNICATION OUTLET (CAT6)
◪	FLOOR MOUNTED BUNDLED CABLE OUTLET
Ⓢ	APPROVED 110V SMOKE DETECTOR INTERCONNECTED & WITH BATTERY BACK-UP PER IRC R313.2.1
Ⓒ	APPROVED 110V CARBON MONOXIDE DETECTOR INTERCONNECTED & WITH BATTERY BACK-UP
C ●	WALL CHIME AND EXTERIOR PUSHBUTTON
⊠ ◒	EXHAUST FAN - 150 WATT, 120V, U.N.O. ON MECHANICAL PLANS
▭	GFCI (U.N.O.) POWER & COMMUNICATION FLOOR OUTLET, VERIFY LOCATION
▷ ● GFD GDO	GARAGE DOOR OPENER WITH INTERIOR PUSHBUTTON & EXTERIOR KEYPAD CONTROL
◈	NATURAL GAS OUTLET
PH	ROOF MTD. PHOTOCELL W/ TIMER FOR OUTDOOR LIGHTING
⊔	GROUND MTD. WEATHERPROOF JUNCTION BOX OUTLET
◇	LIGHTING CONTROL SYSTEM WALL KEYPAD
	6FT PLUGMOLD STRIP AT UNDERSIDE OF UPPER CABINET WITH OUTLETS SPACED AT 18" O.C., MAX.
	SERVICE ENTRY SECTION, VERIFY BY HOST UTILITY CO.
	SUB PANEL (APPROX. LOCATION) V.I.F.
	SMART PANEL (APPROX. LOCATION) V.I.F.

SYMBOL TEXT ABBREVIATION KEY:

3	3-WAY CONTROL FOR SWITCH
4	4-WAY CONTROL FOR SWITCH
WP	WEATHERPROOF COVER FOR DEVICE (WATER TIGHT)
DED	DEDICATED OUTLET PER ELECTRICAL PANEL SCHEDULE
U.C.	UNDER COUNTER
M.R.	MOISTURE RESISTANT
GFCI	GROUND FAULT INTERRUPT PROTECTION FOR DEVICE
AFCI	ARC FAULT INTERRUPT PROTECTION OUTLETS PER N.E.C. ARTICLE 210.52.A
E	EXIST. OUTLET, SWITCH, FIXTURE OR CIRCUIT. REFER TO GENERAL ELECT. NOTE "I", THIS SHEET

ELECTRICAL DRAWING KEYNOTES

16.1 LOCATION OF EXIST. 600 AMP SERVICE ENTRY SECTION AND METER IN ACCORDANCE WITH POWER COMPANY REQUIREMENTS
16.2 EXIST. ELECTRICAL SUB PANELS
16.3 COORDINATE LOCATION FOR RANGE HOOD OUTLET WITH FINAL APPLIANCE AND CABINETRY SELECTIONS BY OWNER/INTERIOR DESIGNER.
16.4 COORDINATE FINAL PLACEMENT AND HEIGHTS OF PERIMETER OUTLETS IN THIS ROOM WITH FINAL BUILT-IN CABINET AND SHELVING DESIGN PER OWNER/INTERIOR DESIGNER.
16.5 COORDINATE HEIGHT & LOCATION OF REFRIGERATOR/FREEZER/ICE MAKER OUTLET W/ MANUFACTURER'S REQUIREMENTS.
16.6 COORDINATE HEIGHT AND LOCATION FOR MICROWAVE OUTLET BASED UPON FINAL APPLIANCE SELECTION BY OWNER/INTERIOR DESIGNER.
16.7 REFER TO GENERAL ELECTRICAL NOTE "G" FOR ALL ROOMS WHICH REQUIRE (AFCI) PROTECTED CIRCUITS PER THE 2014 N.E.C.
16.8 INTEGRATE OUTLETS INTO FORTHCOMING ISLAND CABINETRY DESIGN.
16.9 N.E.M.A. POWER DISCONNECT AT HVAC CONDENSER UNITS PER MANUFACTURER'S REQUIREMENTS. THE DISCONNECT SWITCH SHALL NOT BE LOCATED BEHIND THE UNIT(S) AS SHOWN ON THE PLAN.
16.10 COORDINATE HEIGHT OF POWER & TELEVISION OUTLET FOR OWNER'S FLAT SCREEN TELEVISION IN THE FIELD.
16.11 GROUND-MOUNTED OUTLET FOR SITE GATE OPERATOR- CONFIRM LOCATION AND REQUIREMENTS WITH GATE OPERATOR MANUFACTURER.
16.12 COORDINATE HEIGHT AND LOCATION OF SMOKER OUTLET BASED UPON FINAL APPLIANCE SELECTION BY OWNER.
16.13 COORDINATE RANGE/OVEN OUTLET RATING WITH APPLIANCE SELECTION.
16.14 SWITCH, LIGHT & CONVENIENCE OUTLET LOCATED IN ATTIC SPACE.
16.15 OUTLET AT BACK OF BOTTOM RIGHT BASE CABINET DOOR/DRAWER. CONNECT TO PLUGMOLD STRIP WITHIN CABINET OR DRAWER.
16.16 COORDINATE FINAL PLACEMENT AND HEIGHT OF OUTLET(S) AND/OR ACCENT LIGHTING IN THIS RECESS OR BUILT-IN WITH THE INTERIOR DESIGN DWGS.
16.17 120 VOLT, HARD WIRED & INTERCONNECTED CARBON MONOXIDE DETECTOR W/ BATTERY BACK-UP IN A VESTIBULE/HALLWAY OR A SLEEPING ROOM CONTAINING A FUEL-FIRED APPLIANCE.
16.18 DEDICATED 15AMP CIRCUIT FOR GOLD PLUNGE- VERIFY FINAL LOCATION & REQUIREMENTS IN THE FIELD
16.19 COORDINATE OUTLETS / POWER REQUIREMENTS FOR GOLF SIMULATOR PROVIDED BY OWNER
16.20 DEDICATED CIRCUIT FOR SAUNA- VERIFY FINAL LOCATION & REQUIREMENTS IN THE FIELD.

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26 Celebrating Years 1999-2025

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Registered Architect 25341 Mark B. Candelaria Date Signed 03.24.26 Arizona, U.S.A.

Expiration: .09.30.2026

Mar. 24, 2026

3	Revision Date
2	Revision Date
1	Hillside review 03.24.2026

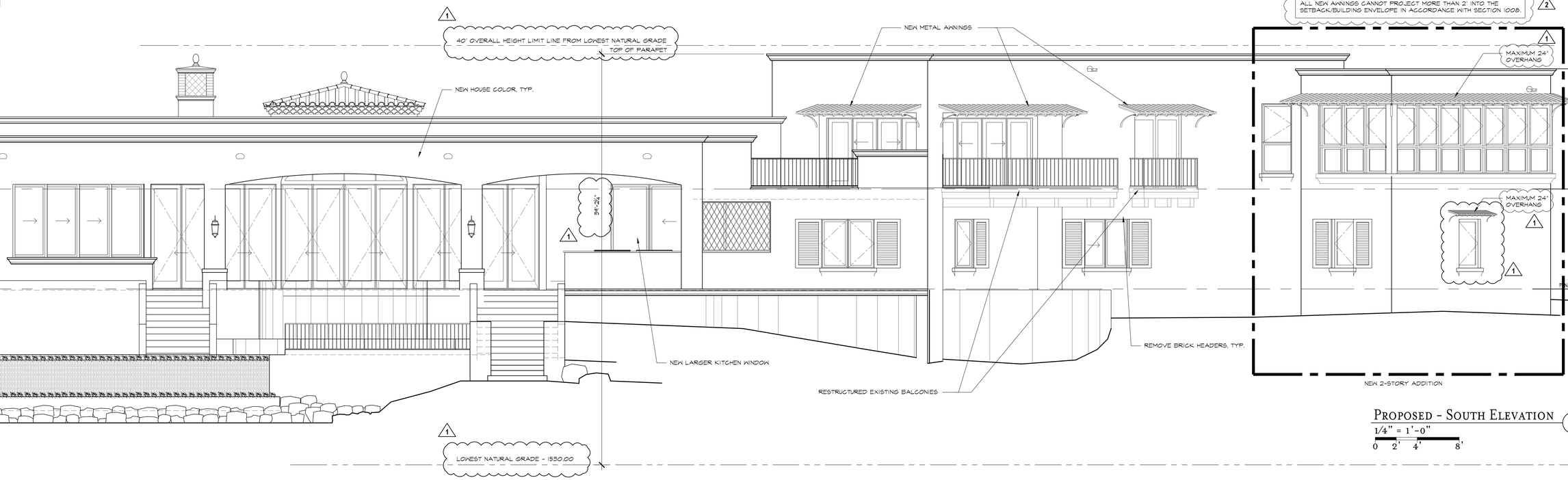
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Power & Lighting Plan

Sheet:

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PROPOSED - SOUTH ELEVATION (1)
1/4" = 1'-0"
0 2' 4' 8'



EXISTING - SOUTH ELEVATION (2)
1/4" = 1'-0"
0 2' 4' 8'

DRAWING KEYNOTES

2.1 PLANTER OR LANDSCAPED AREA.
2.2 APPROXIMATE LINE OF PROPOSED FINISHED GRADE.
2.3 INTEGRALLY COLORED CONCRETE WITH BROOM FINISH DAVIS COLORS, SAN DIEGO BUFF 5257.
2.4 FILL-IN EXISTING DEPRESSED SLAB W/ COMPACTED A.B.C. TO ALLOW 4" CONCRETE SLAB TO BE FLUSH WITH ADJACENT CONCRETE.
2.5 WALKWAY PAVERS TO MATCH EXISTING
2.6 NEW C.M.U. BENCH AND WALL WITH PLANTER. REF. TO DETAILS. PAINTED STUCCO O/ MASONRY.

3.1 4" thk. EXTERIOR CONCRETE SLAB ON COMPACTED GRADE WITH INTEGRAL COLOR; OWNER AND ARCH. TO SELECT COLOR AND FINISH
3.2 +/- 4" thk. STD. GRAY EXTERIOR CONCRETE SLAB ON COMPACTED GRADE FOR FINISHED STONE OR PAVER SURFACING.
3.3 4" thk. RESIDENCE CONCRETE FLOOR SLAB OVER 4" ABC.
3.4 NEW/MODIFIED CONCRETE APRON/LANDING. HEIGHT TO MATCH INTERIOR FINISHED FLOOR.
3.5 APPROX. LINE OF TRANSITION FROM EXIS TO NEW CONCRETE FLOOR SLAB.

4.1 8" x 8" x 16" REINFORCED CONCRETE MASONRY UNIT WALL.
4.2 24" SQ. REINFORCED MASONRY PIER CENTERED ON ADJACENT SITE WALLS
4.3 ADOBE X350, CO1 PRECAST MANTEL, TRIM, CAP, SILL OR SURROUND AS OCCURS. OWNER/ ARCHITECT TO CONFIRM FINAL PROFILE.
4.4 4"h. WALL OR PIER CAP TO MATCH BRICK VENEER.
4.5 8" X 8" X 16" REINFORCED CONCRETE MASONRY UNIT SITE WALL. HEIGHT PER SITE PLAN
4.6 MASONRY LINTEL - REFER TO STRUCTURAL DRAWINGS
4.7 ADOBE X350, CO1 PRECAST ENTRY SURROUND, SCUPPERS AND PARAPET CAPS.
4.8 SMOKESTACK, THIN BRICK, ROBINSON BRICK HEADER OR CHIMNEY.
4.9 DECORATIVE RECESS DETAIL. CUT INTO EXT. C/MU WALL APPROX. 3/4". REPAIR ANY DAMAGED OR ROUGH CUT MASONRY, STUCCO OVER TO MATCH SURROUNDING.

5.1 EXISTING STEEL COLUMN, BEAM, OR LINTEL PER STRUCTURAL DRAWINGS.
5.2 STEEL COLUMN, BEAM OR LINTEL PER STRUCTURAL. WHERE STEEL COLUMN MEETS WINDOW OR DOOR SYSTEM, CLAD WITH MANUFACTURER'S METAL TO MATCH ADJACENT SYSTEM.
5.3 36" to 38" HIGH GUARDRAIL (MEASURED FROM STEP NOSE) W/ 4" SPACING BTW. VERTICAL RODS. KNUCKLE EVERY FIFTH VERTICAL ROD, CENTERED. NEWEL POST AT FIRST TREAD FINAL MATERIAL & DESIGN BY OWNER.
5.4 1-1/2" HANDRAIL AT 36" FROM STEP NOSE. HANDRAIL TO BE CAPABLE TO RESIST A LOAD OF 250#.
5.5 WROUGHT IRON OVERLAY AT FAUX DECORATIVE STEEL SCREEN. FINAL DESIGN T.B.D.
5.6 PRE-FABRICATED ROMEO & JULIET BALCONY BY OTHERS; REF. STRUCTURAL
5.7 DECORATIVE FORGED STEEL SCREEN - FINAL DESIGN T.B.D.
5.8 3/4" SQ. GROSS FORGED STEEL BARS. RUSTED STEEL FINISH. FINAL DESIGN BY OWNER.

6.1 2x6 WOOD STUD WALL @ 16" O.C.
6.2 2x8 WOOD STUD WALL @ 16" O.C.
6.3 EXISTING 2x FURRING STUDS AT 16" O.C. O/ EXISTING WALL (V.I.F.) REPAIR OR REPLACE AS REQUIRED.
6.4 PLYWOOD SHEATHING PER STRUCTURAL DRAWINGS.
6.5 DECORATIVE HAND HEWN WOOD CLG BEAM - SIZE AND SPACING AS NOTED ON REF. CEILING PLAN.
6.6 HAND HEWN VENEER WOOD O/ EXISTING BEAMS. FINAL BEAM WIDTH TO BE 10" MIN.
6.7 DECORATIVE HAND SAWN WOOD BRACKET/CORBEL AS OCCURS - FINAL DESIGN T.B.D.
6.8 WINDOW SHED. HAND SAWN WOOD BEAMS - SIZE AND SPACING AS PER STRUCTURAL DRAWINGS.
6.9 PREFABRICATED WOOD ROOF TRUSS OR 2X ROOF JOISTS - SPACING AND SIZE PER STRUCTURAL DRAWINGS.
6.10 18"h. FRAMED PLATFORM FOR RETURN AIR DUCT W/ GYPSM BOARD FINISH AT INTERIOR AND PLYWOOD SHEATHING/SHT. METAL TOP AT MECHANICAL. CLOSETS.
6.11 POLYMER COMPOSITE WOOD SHUTTER IN HEIGHT TO MATCH WINDOW OR DOOR UNIT. SW 6082 GOBBLE BROWN.
6.12 CASEWORK: CABINETRY & COUNTERTOP PER OWNER, BUILDER, ARCH. & INT. DESIGNER. REFER TO SUPPLIER'S SHOP DRAWINGS FOR ADDITIONAL. INFO.
6.13 WOOD MILLWORK AS OCCURS. BASE, WAINSCOT, TRIM, CASING, COFFERS, CROWN MOLDING, ETC.- EXTENT & SPECS. T.B.D. BETWEEN OWNER, BUILDER & ARCHITECT
6.14 LOWERED 2x CEILING OR SOFFIT FRAMING WITH FIREBLOCKING.
6.15 DECORATIVE STAINED WOOD RAFTER TAIL - SEE DETAILS FOR EXACT SIZE AND PROFILE
6.16 2x WOOD STUD TO INFILL OPENING. MATCH ADJACENT WALL OR AS SPECIFIED WALL THICKNESS.
6.17 FRAMED COLUMNS AT EXTERIOR PATIO. SEE ELEVATIONS FOR HEIGHT AND TREATMENT.
6.18 WOOD BEAMS, WOOD TAILS, GARAGE DOORS, & DECORATIVE EXTERIOR SHUTTERS COLOR SW 6082 GOBBLE BROWN (LRV 15)
6.19 FUR OUT EXIS 4X4 STEEL COLUMN FOR NEW DOOR JAMBS AND ELECTRICAL ROUGH INS, CONTRACTOR TO COORDINATE
6.20 2x4 STUDWALL @ 16" O.C.
6.21 STRUCTURAL WOOD POST PER STRUCTURAL DWGS.

7.1 WATERPROOFING OR DAMPROOFING SYSTEM AT FACES OF MASONRY WALLS OR CONCRETE STEM WALLS BELOW FINISHED GRADE.
7.2 BLOW CELLULOSE INSULATION AS PER CONDITION. R-13 AT 2x FURRING R-19 AT 2x6 STUDS; ICYNENE SPRAY FOAM INSULATION AT ROOF DECK; R-38 MIN. ICYNENE THROUGHOUT AT OWNER'S REQUEST.
7.5 GAGO-FLEX WALK DECK WATERPROOFING MEMBRANE (ICC ESR 1284)
7.8 MIN. 1" EPS FOAM AT NEW EXTERIOR WALLS, FOAM TO ALIGN W/ EXISTING C/MU.
7.9 SLOPPED FOAM/STUCCO SILL POP-OUT AT WINDOW

8.1 ALUM. CLAD WOOD WINDOW WITH INSULATED LOW-E GLAZING. SEE WINDOW SCHEDULE, SHEET A8.1, FOR LOCATIONS OF TEMPERED GLAZING. COLOR T.B.D.
8.2 ALUM. CLAD WOOD DOOR WITH TEMPERED INSULATED SOLAR GLAZING. COLOR T.B.D.

9.1 5/8" GYP. BOARD TYP. AT INTERIOR WALLS AND CEILINGS (U.N.O.).
9.2 DECORATIVE PLASTER TRIM OR MOLDING AS SHOWN. VERIFY PROFILE W/ OWNER, ARCHITECT, & INT. DESIGNER.
9.3 STUCCO SYSTEM FINISH TO MATCH RESIDENCE APPLIED DIRECTLY OVER MASONRY WALL CONSTRUCTION OR WESTERN 1-KOTE STUCCO SYSTEM (ESR 1601 OR ESL) WITH "STO" SYNTHETIC FINISH CONTAINING INTEGRAL COLOR & A SMOOTH SAND FREESTYLE "AGED" FINISH. EXTEND BELOW GRADE MINIMUM 8" AT WALL BASE. COLOR SW 6130 MANNERED GOLD (LRV 35)
9.4 STONE OR TILE FLOOR
9.5 1" THICK SPRAYED IN PLACE POLYURETHANE FOAM O/ ROOF SHEATHING (UL #RI6024 OR SIM.) PAINTED W/ 3 COATS OF ACRYLIC ELASTOMERIC PAINT SW 6130 MANNERED GOLD (LRV 35)
9.6 PLASTER PAINTED CORBELS.
9.7 WATERPROOF GYP. BOARD AS REQUIRED
10.1 BUILT-IN SHELVING, RODS, ETC. FOR CLOTHES, DECORATIVE, STORAGE OR FUNCTIONAL USE. EXTENT & SPECS. PER BUILDER OWNER & INT. DESIGNER.
10.2 SMOKER & OUTDOOR KITCHEN - FINAL SELECTION BY OWNER.

15.1 ELECTRICAL EXTERIOR CONDENSER UNIT PER MECHANICAL PLANS
15.2 PROVIDE GAS AT RANGE
15.3 APPROXIMATE LOCATION OF SUPPLY AIR DUCT (OR CENTERED REGISTER).
15.4 APPROXIMATE LOCATION OF RETURN AIR DUCT (OR GRILLE).
15.5 EXHAUST FAN WITHIN HOOD VENTED DIRECTLY TO EXTERIOR PER M505.6.
15.6 FRESH AIR INTAKE, SIZED PER MECHANICAL DRAWINGS
15.7 SAUNA UNIT - FINAL DESIGN TBD BY OWNER/ BUILDER.
15.8 EXHAUST FAN IN BATHROOM

16.1 (E) 600 AMP ELECTRICAL SERVICE & METER PER ELECT. SHTS. & POWER CO.
16.2 APPROXIMATE LOCATION OF ELECTRICAL SUB PANEL
16.3 ELECTRICAL LIGHT FIXTURE, DEVICE OR JNCT. BOX PER SHEETS AE____

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26 CELEBRATING YEARS 1999-2025

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REGISTERED ARCHITECT
35341
MARK B. CANDELARIA
Date Signed 04/07/2026
ARIZONA U.S.A.

EXPIRATION: .09.30.2026

APRIL. 07, 2026

3	Revision	Date
2	Hillside review	04.07.2026
1	Hillside review	03.24.2026

Checked By: T.M.
Drawn By: L.Z.
Scale: 1/4" = 1'-0"
Drawing:

EXTERIOR ELEVATIONS

Sheet:

A6.1

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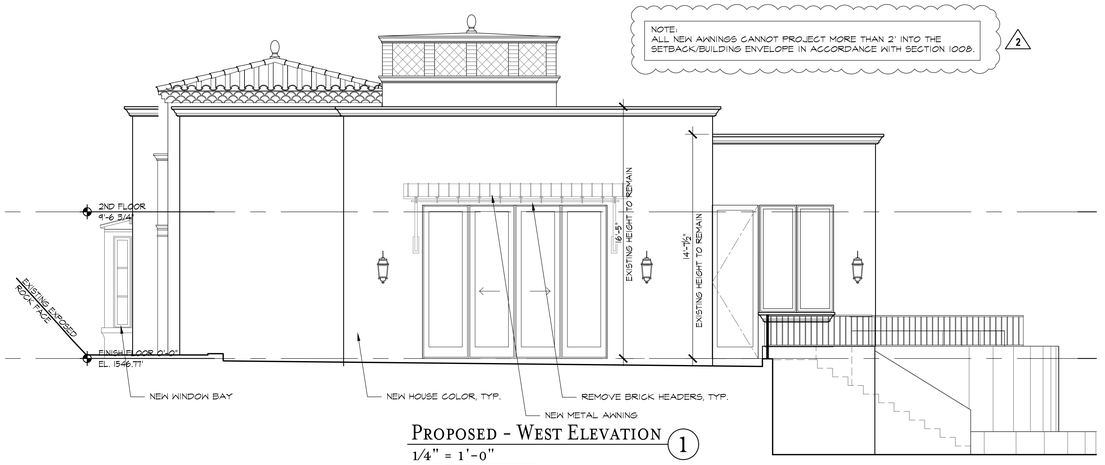


EXISTING - WEST ELEVATION (2)

1/4" = 1'-0"

0 2' 4' 8'

NOTE:
ALL NEW AWNINGS CANNOT PROJECT MORE THAN 2' INTO THE SETBACK/BUILDING ENVELOPE IN ACCORDANCE WITH SECTION 1008. (2)



PROPOSED - WEST ELEVATION (1)

1/4" = 1'-0"

0 2' 4' 8'



NEW 2-STORY ADDITION

PROPOSED - SOUTHEAST ELEVATION (3)

1/4" = 1'-0"

0 2' 4' 8'

EXISTING - SOUTHEAST ELEVATION (4)

1/4" = 1'-0"

0 2' 4' 8'

DRAWING KEYNOTES

2.1 PLANTER OR LANDSCAPED AREA.
2.2 APPROXIMATE LINE OF PROPOSED FINISHED GRADE.
2.3 INTEGRALLY COLORED CONCRETE WITH BROOM FINISH DAVIS COLORS, SAN DIEGO BUFF 5251.
2.4 FILL-IN EXISTING DEPRESSED SLAB W/ COMPACTED A.B.C. TO ALLOW 4" CONCRETE SLAB TO BE FLUSH WITH ADJACENT CONCRETE.
2.5 WALKWAY PAVERS TO MATCH EXISTING
2.6 NEW C.M.U. BENCH AND WALL WITH PLANTER. REF. TO DETAILS. PAINTED STUCCO O/ MASONRY.

3.1 4" thk. EXTERIOR CONCRETE SLAB ON COMPACTED GRADE WITH INTEGRAL COLOR; OWNER AND ARCH. TO SELECT COLOR AND FINISH
3.2 +/- 4" thk. STD. GRAY EXTERIOR CONCRETE SLAB ON COMPACTED GRADE FOR FINISHED STONE OR PAVER SURFACING.
3.3 4" thk. RESIDENCE CONCRETE FLOOR SLAB OVER 4" ABC.
3.4 NEW-MODIFIED CONCRETE APRON/LANDING. HEIGHT TO MATCH INTERIOR FINISHED FLOOR.
3.5 APPROX. LINE OF TRANSITION FROM EXIS TO NEW CONCRETE FLOOR SLAB.

4.1 8" x 8" x 16" REINFORCED CONCRETE MASONRY UNIT WALL.
4.2 24" SQ. REINFORCED MASONRY PIER CENTERED ON ADJACENT SITE WALLS
4.3 ADOBE X350, CO1 PRECAST MANTEL, TRIM, CAP, SILL OR SURROUND AS OCCURS. OWNER/ ARCHITECT TO CONFIRM FINAL PROFILE.
4.4 4"h. WALL OR PIER CAP TO MATCH BRICK VENEER.
4.5 8" x 8" x 8" x 16" REINFORCED CONCRETE MASONRY UNIT SITE WALL. HEIGHT PER SITE PLAN
4.6 MASONRY LINTEL - REFER TO STRUCTURAL DRAWINGS
4.7 ADOBE X350, CO1 PRECAST ENTRY SURROUND, SCUPPERS AND PARAPET CAPS.
4.8 SMOKESTACK, THIN BRICK, ROBINSON BRICK HEADER OR CHIMNEY.
4.9 DECORATIVE RECESS DETAIL. CUT INTO EXT. CMU WALL APPROX. 3/4". REPAIR ANY DAMAGED OR ROUGH CUT MASONRY, STUCCO OVER TO MATCH SURROUNDING.

5.1 EXISTING STEEL COLUMN, BEAM, OR LINTEL PER STRUCTURAL DRAWINGS.
5.2 STEEL COLUMN, BEAM OR LINTEL PER STRUCTURAL. WHERE STEEL COLUMN MEETS WINDOW OR DOOR SYSTEM, CLAD WITH MANUFACTURER'S METAL TO MATCH ADJACENT SYSTEM.
5.3 36" to 38" HIGH GUARDRAIL (MEASURED FROM STEP NOSE) W/ 4" SPACING BTW. VERTICAL RODS. KNUCKLE EVERY FIFTH VERTICAL ROD, CENTERED. NEWEL POST AT FIRST TREAD FINAL MATERIAL & DESIGN BY OWNER.
5.4 1-1/2" HANDRAIL AT 36" FROM STEP NOSE. HANDRAIL TO BE CAPABLE TO RESIST A LOAD OF 250#.
5.5 WROUGHT IRON OVERLAY AT FAUX DECORATIVE STEEL SCREEN. FINAL DESIGN T.B.D.
5.6 PRE-FABRICATED ROMEO & JULIET BALCONY BY OTHERS; REF. STRUCTURAL
5.7 DECORATIVE FORGED STEEL SCREEN - FINAL DESIGN T.B.D.
5.8 3/4" SQ. CROSS FORGED STEEL BARS. RUSTED STEEL FINISH. FINAL DESIGN BY OWNER.

6.1 2x6 WOOD STUD WALL @ 16" O.C.
6.2 2x8 WOOD STUD WALL @ 16" O.C.
6.3 EXISTING 2x FURRING STUDS AT 16" O.C. O/ EXISTING WALL (V.I.F.) REPAIR OR REPLACE AS REQUIRED.
6.4 PLYWOOD SHEATHING PER STRUCTURAL DRAWINGS.
6.5 DECORATIVE HAND HEWN WOOD CLG BEAM - SIZE AND SPACING AS NOTED ON REF. CEILING PLAN.
6.6 HAND HEWN VENEER WOOD O/ EXISTING BEAMS. FINAL BEAM WIDTH TO BE 10" MIN.
6.7 DECORATIVE HAND SAWN WOOD BRACKET/CORBEL AS OCCURS - FINAL DESIGN T.B.D.
6.8 WINDOW SHED. HAND SAWN WOOD BEAMS - SIZE AND SPACING AS PER STRUCTURAL DRAWINGS.
6.9 PREFABRICATED WOOD ROOF TRUSS OR 2X ROOF JOISTS - SPACING AND SIZE PER STRUCTURAL DRAWINGS.
6.10 18"h. FRAMED PLATFORM FOR RETURN AIR DUCT W/ GYPSM BOARD FINISH AT INTERIOR AND PLYWOOD. SHEATHING/SHT. METAL TOP AT MECHANICAL. CLOSETS.
6.11 POLYMER COMPOSITE WOOD SHUTTER IN HEIGHT TO MATCH WINDOW OR DOOR UNIT. SW 6082 GOSSIE BROWN.
6.12 CASEWORK: CABINETRY & COUNTERTOP PER OWNER, BUILDER, ARCH. & INT. DESIGNER. REFER TO SUPPLIER'S SHOP DRAWINGS FOR ADDITIONAL. INFO.
6.13 WOOD MILLWORK AS OCCURS. BASE, WAINSCOT, TRIM, CASING, COFFERS, CROWN MOLDING, ETC.- EXTENT & SPECS. T.B.D. BETWEEN OWNER, BUILDER & ARCHITECT.
6.14 LOWERED 2x CEILING OR SOFFIT FRAMING WITH FIREBLOCKING.
6.15 DECORATIVE STAINED WOOD RAFTER TAIL - SEE DETAILS FOR EXACT SIZE AND PROFILE
6.16 2x WOOD STUD TO INFILL OPENING. MATCH ADJACENT WALL OR AS SPECIFIED WALL THICKNESS.
6.17 FRAMED COLUMNS AT EXTERIOR PATIO. SEE ELEVATIONS FOR HEIGHT AND TREATMENT.
6.18 WOOD BEAMS, WOOD TAILS, GARAGE DOORS, & DECORATIVE EXTERIOR SHUTTERS COLOR SW 6082 GOBBLE BROWN (LRV 15)
6.19 FUR OUT EXIS 4X4 STEEL COLUMN FOR NEW DOOR JAMBS AND ELECTRICAL ROUGH INS, CONTRACTOR TO COORDINATE
6.20 2x4 STUDWALL @ 16" O.C.
6.21 STRUCTURAL WOOD POST PER STRUCTURAL DWGS.

7.1 WATERPROOFING OR DAMPROOFING SYSTEM AT FACES OF MASONRY WALLS OR CONCRETE STEM WALLS BELOW FINISHED GRADE.
7.2 BLOW CELLULOSE INSULATION AS PER CONDITION. R-13 AT 2x FURRING R-19 AT 2x6 STUDS; ICYNENE SPRAY FOAM INSULATION AT ROOF DECK, R-38 MIN. ICYNENE THROUGHOUT AT OWNER'S REQUEST.
7.5 GACO-FLEX WALK DECK WATERPROOFING MEMBRANE (ICC ESR 1284)
7.8 MIN. 1" EPS FOAM AT NEW EXTERIOR WALLS, FOAM TO ALIGN W/ EXISTING CMU.
7.9 SLOPPED FOAM/STUCCO SILL POP-OUT AT WINDOW

8.1 ALUM. CLAD WOOD WINDOW WITH INSULATED LOW-E GLAZING. SEE WINDOW SCHEDULE, SHEET A8.1, FOR LOCATIONS OF TEMPERED GLAZING. COLOR T.B.D.
8.2 ALUM. CLAD WOOD DOOR WITH TEMPERED INSULATED SOLAR GLAZING. COLOR T.B.D.

9.1 5/8" GYP. BOARD TYP. AT INTERIOR WALLS AND CEILINGS (U.N.O.).
9.2 DECORATIVE PLASTER TRIM OR MOLDING AS SHOWN. VERIFY PROFILE W/ OWNER, ARCHITECT, & INT. DESIGNER.
9.3 STUCCO SYSTEM FINISH TO MATCH RESIDENCE APPLIED DIRECTLY OVER MASONRY WALL CONSTRUCTION OR WESTERN 1-KOTE STUCCO SYSTEM (ESR 1601 OR ESL) WITH "STO" SYNTHETIC FINISH CONTAINING INTEGRAL COLOR & A SMOOTH SAND FREESTYLE "ASED" FINISH. EXTEND BELOW GRADE MINIMUM 8" AT HALL BASE. COLOR SW 6130 MANKERED GOLD (LRV 35)
9.4 STONE OR TILE FLOOR
9.5 1" THICK SPRAYED IN PLACE POLYURETHANE FOAM O/ ROOF SHEATHING (UL #RI8024 OR SIM.) PAINTED W/ 3 COATS OF ACRYLIC ELASTOMERIC PAINT SW 6130 MANKERED GOLD (LRV 35)
9.6 PLASTER PAINTED CORBELS.
9.7 WATERPROOF GYP. BOARD AS REQUIRED
10.1 BUILT-IN SHELVING, RODS, ETC. FOR CLOTHES, DECORATIVE, STORAGE OR FUNCTIONAL USE. EXTENT & SPECS. PER BUILDER OWNER & INT. DESIGNER.
10.2 SMOKER & OUTDOOR KITCHEN - FINAL SELECTION BY OWNER.

15.1 ELECTRICAL EXTERIOR CONDENSER UNIT PER MECHANICAL PLANS
15.2 PROVIDE GAS AT RANGE
15.3 APPROXIMATE LOCATION OF SUPPLY AIR DUCT (OR CENTERED REGISTER).
15.4 APPROXIMATE LOCATION OF RETURN AIR DUCT (OR GRILLE).
15.5 EXHAUST FAN WITHIN HOOD VENTED DIRECTLY TO EXTERIOR PER M505.6.
15.6 FRESH AIR INTAKE, SIZED PER MECHANICAL DRAWINGS
15.7 SAUNA UNIT - FINAL DESIGN TBD BY OWNER/ BUILDER.
15.8 EXHAUST FAN IN BATHROOM

16.1 (E) 600 AMP ELECTRICAL SERVICE & METER PER ELECT. SHTS. & POWER CO.
16.2 APPROXIMATE LOCATION OF ELECTRICAL SUB PANEL
16.3 ELECTRICAL LIGHT FIXTURE, DEVICE OR JUNCT. BOX PER SHEETS AE____

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ADDITIONS & ALTERATIONS TO:
Van Houten Residence
7102 N. 57th Place
Paradise Valley, AZ 85253

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26 CELEBRATING YEARS 1999-2025

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EXPIRATION: .09.30.2026

APRIL. 07, 2026

3	Revision Date	
2	Hillside review	04.07.2026
1	Hillside review	03.24.2026

Checked By: T.M.
Drawn By: L.Z.
Scale: 1/4" = 1'-0"
Drawing:

EXTERIOR ELEVATIONS

Sheet:

A6.2

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Conceptual East Elevation Rendering 1



Conceptual West Elevation Rendering 2

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PROGRESS SET
NOT FOR CONSTRUCTION

Feb. 17, 2026

Checked By: T.M.
Drawn By: M.S.
Scale: NTS
Drawing:
Conceptual Renderings
Sheet:
R-2

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Conceptual North Elevation Rendering — 1



Conceptual South Elevation Rendering — 2

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Registered Architect
32541
Mark B. Candelaria
Date Signed 03-24-26
Arizona, U.S.A.

Expiration: .09.30.2026

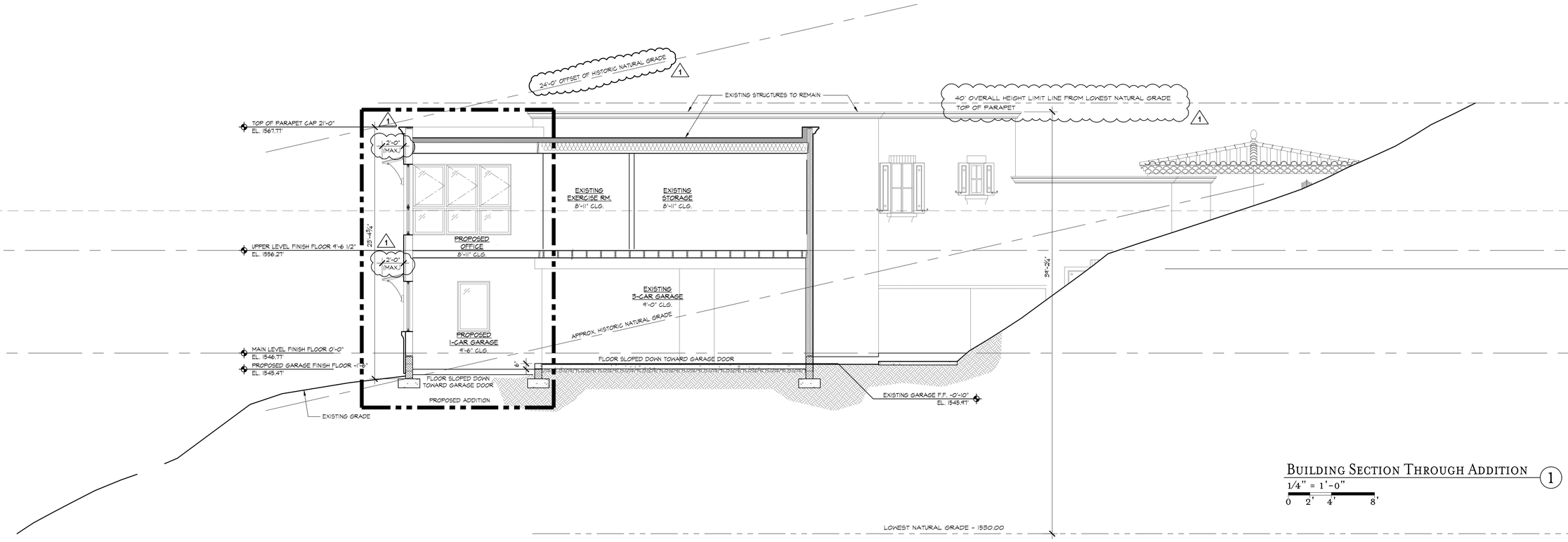
Mar. 24, 2026

3	Revision Date	
2	Revision Date	
1	Hillside Review	03.24.2026

Checked By: T.M.
Drawn By: M.S.
Scale: NTS
Drawing:
Conceptual Renderings
Sheet:

R-1

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Building Section Through Addition (1)

1/4" = 1'-0"

0 2' 4' 8'

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Expiration: .09.30.2026

April. 07, 2026

3	Revision Date
2	Hillside review 04.07.2026
1	Hillside review 03.24.2026

Checked By: T.M.
Drawn By: L.Z.
Scale: 1/4" = 1'-0"
Drawing: Building Sections
Sheet: A5.2

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WAC LIGHTING

Manchester

Outdoor Wall Sconce 4CCT

Fixture Type:

Catalog Number:

Project:

Location:

Model & Size	Color Temp	Finish	LED Watts	LED Lumens	Delivered Lumens
❍ WS-W33516 16"	● 2700K	❍ BK Black	13W	1000	670
	◯ 3000K				
	◯ 3500K				
	◯ 4000K				
	27				

Example: **WS-W33516-40-BK**
For custom requests please contact customs@waclighting.com

DESCRIPTION

A thick hammered glass shade sends a textured glow from this modern wall lantern. An open cage frame and clean geometric accents provides added style.



FEATURES

• Built in color temperature adjustability. Switch from 2700K/3000K/3500K/4000K
• Option to pre-select color temperature or adjust in the field
• Light engine is factory sealed for maximum protection from the elements
• Weather resistant powder coated finish
• ACLED driverless technology
• 5 Year warranty

SPECIFICATIONS

Color Temp:	2700K,3000K,3500K,4000K
Input:	120,50/60Hz
CRI	90
Dimming:	ELV: 100-10% , TRIAC: 100-10%
Rated Life:	54,000 Hours
Standards:	ETL, cETL, IP65, Title 24 JA8 Compliant, Wet Location Listed, Dark Sky
Construction	Aluminum hardware

FINISHES:



Black

REPLACEMENT PARTS

RPL-GLA-33516 - REPLACEMENT GLASS FOR WS-33516

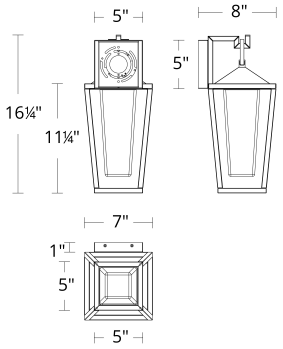
WAC LIGHTING

Manchester

Outdoor Wall Sconce 4CCT

Fixture Type:	
Catalog Number:	
Project:	
Location:	

LINE DRAWING:



WS-W33516

WAC LIGHTING

Manchester

Outdoor Wall Sconce 4CCT

Fixture Type:	
Catalog Number:	
Project:	
Location:	

Model & Size	Color Temp	Finish	LED Watts	LED Lumens	Delivered Lumens
❍ WS-W33525 25"	● 2700K ○ 3000K ○ 3500K ○ 4000K	❍ BK Black	19W	1515	1033

Example: **WS-W33525-40-BK**
For custom requests please contact customs@waclighting.com

DESCRIPTION

A thick hammered glass shade sends a textured glow from this modern wall lantern. An open cage frame and clean geometric accents provides added style.



FEATURES

- Built in color temperature adjustability. Switch from 2700K/3000K/3500K/4000K
- Option to pre-select color temperature or adjust in the field
- Light engine is factory sealed for maximum protection from the elements
- Weather resistant powder coated finish
- ACLED driverless technology
- 5 Year warranty

SPECIFICATIONS

Color Temp:	2700K,3000K,3500K,4000K
Input:	120,50/60Hz
CRI	90
Dimming:	ELV: 100-10% , TRIAC: 100-10%
Rated Life:	54,000 Hours
Standards:	ETL, cETL, IP65, Title 24 JA8 Compliant, Wet Location Listed, Dark Sky
Construction	Aluminum hardware

FINISHES:



Black

REPLACEMENT PARTS

RPL-GLA-33525 - REPLACEMENT GLASS FOR WS-33525

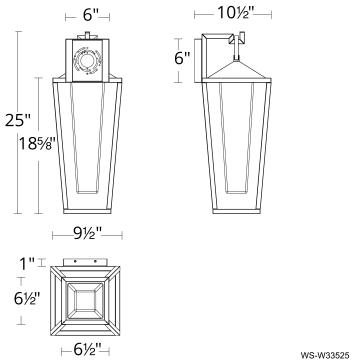
WAC LIGHTING

Manchester

Outdoor Wall Sconce 4CCT

Fixture Type:	
Catalog Number:	
Project:	
Location:	

LINE DRAWING:



WAC LIGHTING

Manchester

Outdoor Wall Sconce 4CCT

Fixture Type:	
Catalog Number:	
Project:	
Location:	

Model & Size	Color Temp	Finish	LED Watts	LED Lumens	Delivered Lumens
❍ WS-W33534 34"	● 2700K	❍ BK Black	25W	1996	1491
	○ 3000K				
	○ 3500K				
	○ 4000K				

Example: **WS-W33534-40-BK**
For custom requests please contact customs@waclighting.com

DESCRIPTION

A thick hammered glass shade sends a textured glow from this modern wall lantern. An open cage frame and clean geometric accents provides added style.



FEATURES

• Built in color temperature adjustability. Switch from 2700K/3000K/3500K/4000K
• Option to pre-select color temperature or adjust in the field
• Light engine is factory sealed for maximum protection from the elements
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SPECIFICATIONS

Color Temp:	2700K,3000K,3500K,4000K
Input:	120,50/60Hz
CRI	90
Dimming:	ELV: 100-10% , TRIAC: 100-10%
Rated Life:	54,000 Hours
Standards:	ETL, cETL, IP65, Title 24 JA8 Compliant, Wet Location Listed, Dark Sky
Construction	Aluminum hardware

FINISHES:



Black

REPLACEMENT PARTS

RPL-GLA-33534 - REPLACEMENT GLASS FOR WS-33534

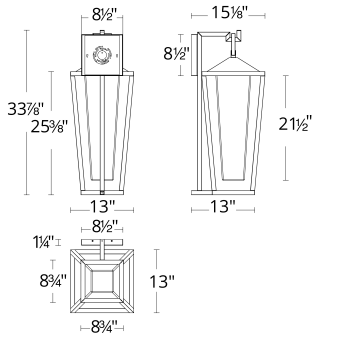
WAC LIGHTING

Manchester

Outdoor Wall Sconce 4CCT

Fixture Type:	
Catalog Number:	
Project:	
Location:	

LINE DRAWING:



WS-W33534

Exterior Building Material Samples For:

Van Houten Residence

7102 N. 57th Place
Paradise Valley, AZ 85253



Stucco - Whole house to be repainted Color:"Sorrel Felt - DET624" LRV:31
Dunn Edwards



Precast Concrete - parapet caps and trim: "Oatmeal", by CDI, LRV: 28.71 to match existing conditions
1



Outdoor Wall Sconce:
"WS-W33534-34" Clr. Temp: 2700K
Manchester Lighting
Light Fixtures - Per Interior Designer



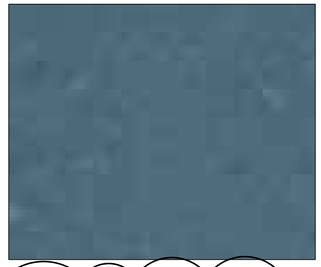
Outdoor Wall Sconce - to replace exst. wall sconces: "WS-W3325-25"
Clr. Temp: 2700K
Manchester Lighting



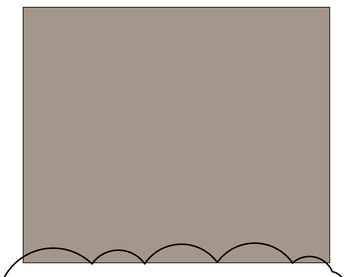
Accent Color: Shutters & Garage Door
"Slate Gray" LRV:16
Dunn Edwards DEGR 73
1



Metal Roofing & Trim and New Awnings and Railing:
"Black Fox", LRV=7
Sherwin Williams
2



Doors & Windows: Aluminum clad wood to match existing conditions
"Slate Blue 008" LRV: 14.76
Sierra Pacific
1



ACRYLIC ELASTOMERIC ROOF
Color:"Sorrel Felt - DET624"
LRV:31
Dunn Edwards
2

ARCHITECTURE LIFESTYLE
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A Remodel & addition to the:
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20__

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Registered Professional Architect
20041
Mark B. Candelaria
Date Signed 09.30.2025
Arizona, U.S.A.

Expiration: 09.30.2026

April 07, 2026

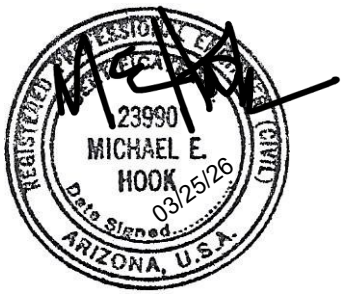
	Revision	Date
3		
2	Hillside review	04.07.2026
1	Hillside review	03.24.2026

Checked By: T.M.
Drawn By: A.B.
Scale: NTS
Drawing: Sample Board
Sheet: S1
1 of 1

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Drainage Memo
March 22, 2026

Hook Engineering, Inc.
Civil Engineers ~ Land Surveyors



Re: Drainage Memo
APN: 169-55-033E
Address: 7102 N 57th Place, Paradise Valley, Arizona
Subdivision: Club Estates 2
Owner: Irina & Jameson Van Houten

Site Description and Proposed Development
The subject property consists of an existing single-family residence situated on an approximately 1.14-acre hillside lot in Paradise Valley, Arizona. The site features significant natural topography, with established drainage patterns conveying runoff downslope to the southwest.

The proposed project includes additions to the existing residence, consisting of a garage extension and expansions to rooms along the north and west sides of the residence. Refer to Figure 1 for the site location.

FEMA Floodplain Classification
Figure 2 includes the Flood Insurance Rate Map (FIRM) #04013C1765L effective October 16,2013 and shows that the parcel lies within Zone X. The flood insurance rate map describes Zone X as 0.2% chance of annual flooding.

Off-site Flows
The historic offsite flows of approximately 5.33 CFS pass through the property within an existing wash west of the residence. This wash will be preserved in place and protected within a dedicated drainage easement, with no disturbance to its natural function.

Runoff from the north side of Glenn Drive, as well as runoff collected within Glenn Drive, is conveyed along Glenn Drive and ultimately discharges to 57th Place. Runoff generated between Glenn Drive and the north side of the building is divided into eastbound and westbound flow paths, both of which ultimately discharge to 57th Place.

On-Site Flows
The proposed additions are situated within areas that are already impervious, including existing pavement and hardscape. Since these surfaces currently generate runoff, the proposed improvements will not increase the overall impervious area or stormwater runoff from the site.

Therefore, the existing drainage characteristics of the site are expected to remain substantially unchanged. Refer to the existing and proposed Rational Method calculations in Appendices B and C, respectively, and the corresponding drainage area maps in Figures 3 and 4.

Conclusions

- The proposed conditions result in negligible contributions to the overall runoff generated on the site.
- The new improvements will have no adverse impacts on adjacent properties.

References Cited

- Flood Control District of Maricopa County, *Drainage Design Manual for Maricopa County, Arizona - Volume I Hydrology,* December 2018.
- Storm Drainage Design Manual, Town of Paradise Valley, June 2018.
- Federal Emergency Management Agency, *Flood Insurance Rate Maps for Maricopa County Arizona, and Incorporated Areas*, *Map Number 04013C1756L,* dated October 16, 2013.

Appendix

Appendix A – NOAA Rainfall Data

Appendix B – Existing Rational Method Calculation

Appendix C – Proposed Rational Method Calculation

Exhibits

Figure 1-Location & Vicinity Map

Figure 2-FEMA Firmette

Figure 3-Existing Drainage Map

Figure 4-Proposed Drainage Map

Appendix A – NOAA Rainfall Data

NOAA Atlas 14, Volume 1, Version 5
Location name: Paradise Valley, Arizona, USA*
Latitude: 33.5398°, Longitude: -111.9565°
Elevation: 1543 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	2.27 (1.90-2.77)	2.96 (2.50-3.62)	4.02 (3.35-4.90)	4.84 (4.01-5.86)	5.93 (4.82-7.15)	6.77 (5.45-8.11)	7.62 (6.02-9.12)	8.48 (6.60-10.1)	9.66 (7.31-11.6)	10.5 (7.82-12.6)
10-min	1.72 (1.44-2.11)	2.26 (1.90-2.76)	3.07 (2.55-3.73)	3.68 (3.05-4.46)	4.51 (3.67-5.44)	5.15 (4.14-6.17)	5.80 (4.58-6.94)	6.46 (5.02-7.72)	7.35 (5.56-8.80)	8.03 (5.95-9.62)
15-min	1.43 (1.19-1.74)	1.87 (1.57-2.28)	2.53 (2.11-3.08)	3.04 (2.52-3.68)	3.73 (3.04-4.50)	4.26 (3.42-5.10)	4.79 (3.79-5.74)	5.34 (4.15-6.38)	6.08 (4.60-7.27)	6.63 (4.92-7.95)
30-min	0.962 (0.802-1.17)	1.26 (1.06-1.54)	1.70 (1.42-2.07)	2.05 (1.69-2.48)	2.51 (2.04-3.03)	2.87 (2.31-3.44)	3.23 (2.55-3.86)	3.60 (2.79-4.30)	4.09 (3.10-4.89)	4.47 (3.31-5.35)
60-min	0.595 (0.497-0.727)	0.778 (0.654-0.950)	1.06 (0.878-1.28)	1.27 (1.05-1.54)	1.55 (1.26-1.87)	1.77 (1.43-2.13)	2.00 (1.58-2.39)	2.22 (1.73-2.66)	2.53 (1.92-3.03)	2.76 (2.05-3.31)
2-hr	0.344 (0.292-0.412)	0.446 (0.378-0.534)	0.596 (0.503-0.711)	0.711 (0.594-0.845)	0.867 (0.717-1.03)	0.986 (0.804-1.16)	1.11 (0.891-1.31)	1.23 (0.973-1.45)	1.40 (1.08-1.65)	1.53 (1.15-1.81)
3-hr	0.252 (0.212-0.305)	0.323 (0.274-0.392)	0.423 (0.357-0.512)	0.503 (0.420-0.605)	0.614 (0.506-0.733)	0.703 (0.571-0.836)	0.795 (0.635-0.946)	0.891 (0.700-1.06)	1.02 (0.780-1.22)	1.13 (0.841-1.35)
6-hr	0.152 (0.131-0.180)	0.192 (0.166-0.227)	0.246 (0.211-0.290)	0.289 (0.246-0.339)	0.348 (0.292-0.405)	0.393 (0.326-0.457)	0.441 (0.360-0.512)	0.489 (0.392-0.570)	0.556 (0.434-0.647)	0.608 (0.464-0.709)
12-hr	0.084 (0.073-0.099)	0.107 (0.093-0.125)	0.135 (0.117-0.157)	0.158 (0.135-0.183)	0.188 (0.160-0.217)	0.211 (0.177-0.243)	0.235 (0.194-0.271)	0.259 (0.212-0.299)	0.291 (0.232-0.338)	0.316 (0.247-0.369)
24-hr	0.050 (0.044-0.059)	0.064 (0.056-0.076)	0.083 (0.072-0.098)	0.098 (0.085-0.116)	0.119 (0.102-0.140)	0.136 (0.116-0.159)	0.153 (0.130-0.180)	0.171 (0.144-0.201)	0.196 (0.163-0.230)	0.216 (0.177-0.254)
2-day	0.027 (0.024-0.032)	0.035 (0.030-0.040)	0.046 (0.040-0.053)	0.055 (0.047-0.064)	0.067 (0.058-0.078)	0.077 (0.066-0.089)	0.087 (0.074-0.102)	0.098 (0.083-0.114)	0.114 (0.094-0.132)	0.126 (0.104-0.147)
3-day	0.019 (0.017-0.022)	0.025 (0.021-0.029)	0.033 (0.028-0.038)	0.039 (0.034-0.045)	0.048 (0.041-0.056)	0.055 (0.047-0.064)	0.063 (0.053-0.073)	0.071 (0.060-0.083)	0.083 (0.069-0.096)	0.092 (0.076-0.107)
4-day	0.015 (0.013-0.018)	0.019 (0.017-0.023)	0.026 (0.022-0.030)	0.031 (0.027-0.036)	0.038 (0.033-0.045)	0.044 (0.038-0.052)	0.051 (0.043-0.059)	0.058 (0.048-0.067)	0.067 (0.056-0.078)	0.075 (0.062-0.087)
7-day	0.010 (0.008-0.011)	0.012 (0.011-0.014)	0.017 (0.014-0.019)	0.020 (0.017-0.023)	0.025 (0.021-0.029)	0.029 (0.024-0.033)	0.033 (0.028-0.038)	0.037 (0.031-0.043)	0.044 (0.036-0.051)	0.049 (0.040-0.057)
10-day	0.007 (0.006-0.008)	0.009 (0.008-0.011)	0.012 (0.011-0.014)	0.015 (0.013-0.017)	0.018 (0.016-0.021)	0.021 (0.018-0.025)	0.024 (0.021-0.028)	0.028 (0.023-0.032)	0.032 (0.027-0.037)	0.036 (0.029-0.041)
20-day	0.004 (0.004-0.005)	0.006 (0.005-0.006)	0.008 (0.006-0.009)	0.009 (0.008-0.010)	0.011 (0.009-0.013)	0.013 (0.011-0.014)	0.014 (0.012-0.016)	0.016 (0.013-0.018)	0.018 (0.015-0.021)	0.020 (0.016-0.023)
30-day	0.003 (0.003-0.004)	0.004 (0.004-0.005)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.008 (0.007-0.010)	0.010 (0.008-0.011)	0.011 (0.009-0.013)	0.012 (0.010-0.014)	0.014 (0.012-0.016)	0.015 (0.013-0.017)
45-day	0.002 (0.002-0.003)	0.003 (0.003-0.004)	0.004 (0.004-0.005)	0.005 (0.004-0.006)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.008 (0.007-0.009)	0.009 (0.008-0.010)	0.010 (0.009-0.012)	0.011 (0.009-0.013)
60-day	0.002 (0.002-0.002)	0.003 (0.002-0.003)	0.003 (0.003-0.004)	0.004 (0.004-0.005)	0.005 (0.004-0.006)	0.006 (0.005-0.007)	0.006 (0.006-0.007)	0.007 (0.006-0.008)	0.008 (0.007-0.009)	0.009 (0.007-0.010)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

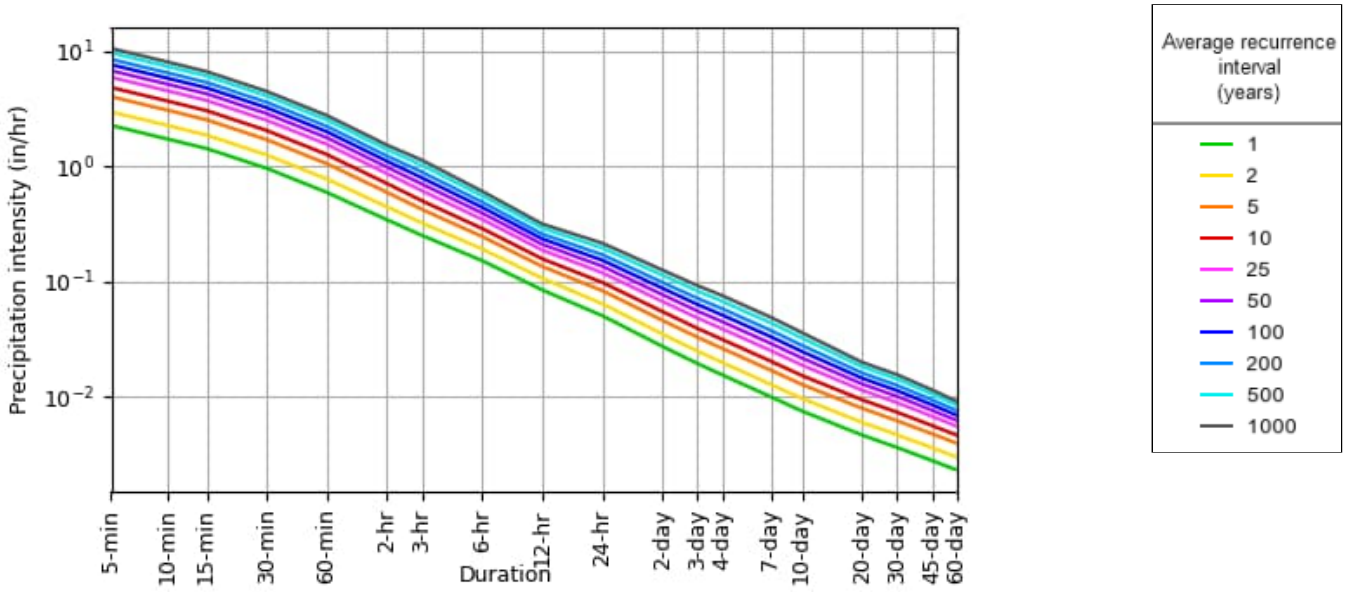
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

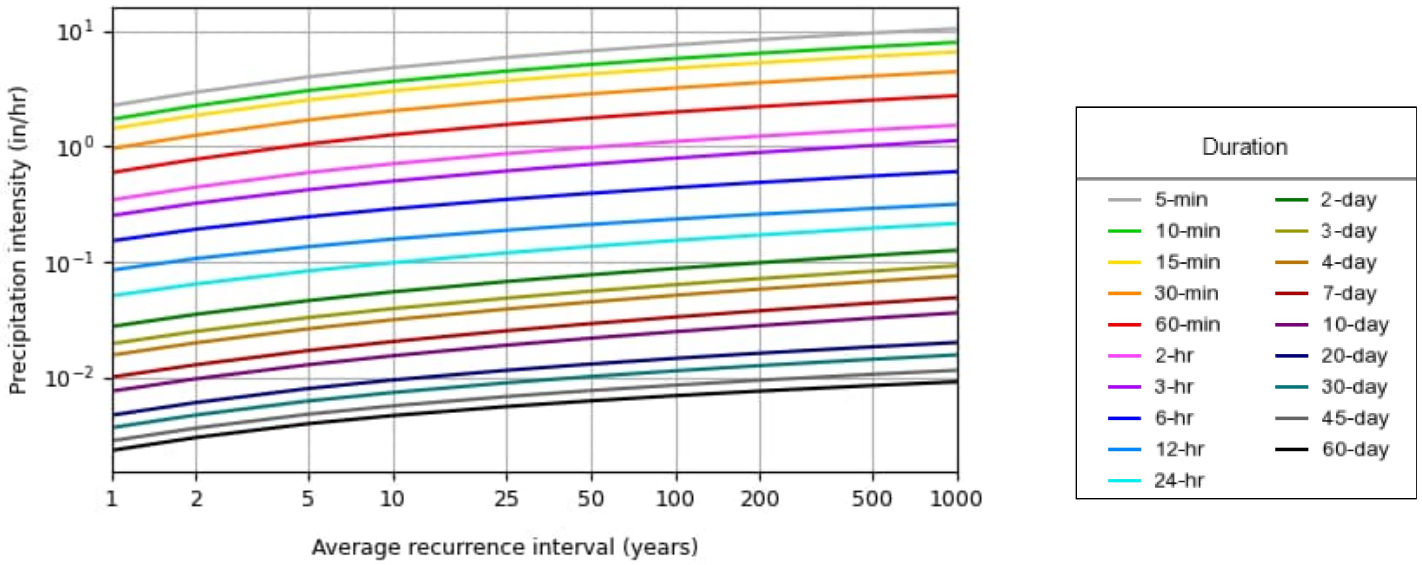
Please refer to NOAA Atlas 14 document for more information.

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PF graphical

PDS-based intensity-duration-frequency (IDF) curves
Latitude: 33.5398°, Longitude: -111.9565°





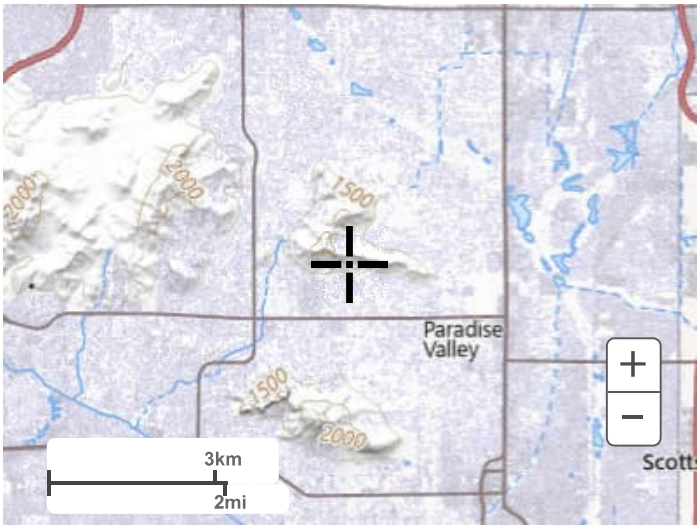
NOAA Atlas 14, Volume 1, Version 5

Created (GMT): Sat Mar 21 03:00:18 2026

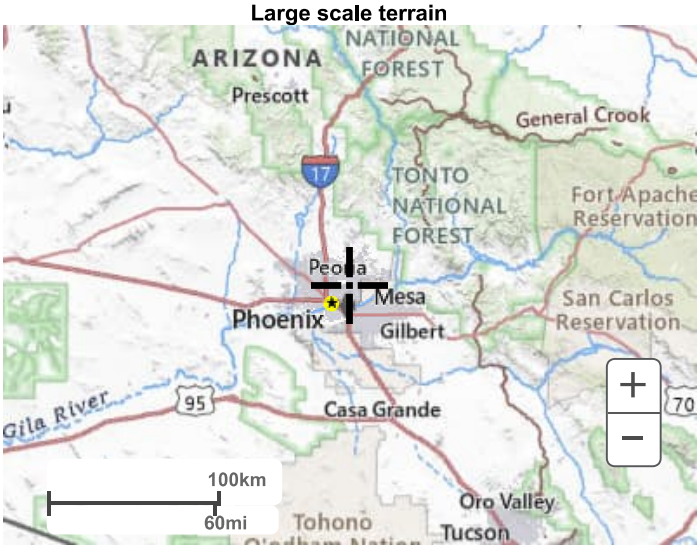
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Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

Appendix B – Existing Rational Method Calculation

Existing Rational Method Calculation

Hydrology - Rational Method (Q = CiA)

Project Name

Step 1. Compute Weighted "C" Values

Table 3.2 Runoff Coefficients for Maricopa County, FCDMC

Land Use Code	Land Use Category	Runoff Coefficients by Storm Frequency							
		2-10YR		25YR		50YR		100YR	
		min	max	min	max	min	max	min	max
P	Pavement and Rooftops	0.75	**0.85**	0.83	**0.94**	0.90	**0.95**	0.94	**0.95**

		A	C	
Drainage Area ID	area, sf	area ,ac	Weighted C Values	
			2-10YR	100YR
EX10	2,529	**0.058**	**0.85**	**0.95**
EX20	1,891	**0.043**	**0.85**	**0.95**
EX30	2,089	**0.048**	**0.85**	**0.95**
EX40	269	**0.006**	**0.85**	**0.95**
EX50	180	**0.004**	**0.85**	**0.95**

Step 2. Compute Time of Concentration, Tc and Rainfall intensity, i

Tc min = 5

References:

1. Eqn. (3.2), FCDMC, Drainage Design Manual-Hydrology, December 14, 2018
2. NOAA Atlas 14, Point Precipitation Frequency Estimates

Drainage Area ID	Area (ac.)	Tc (min)			Rainfall intensity, i (in/hr)		
		2-YR	10-YR	100-YR	2-YR	10-YR	100-YR
EX10	0.058	5	5	5	2.96	4.84	7.62
EX20	0.043	5	5	5	2.96	4.84	7.62
EX30	0.048	5	5	5	2.96	4.84	7.62
EX40	0.006	5	5	5	2.96	4.84	7.62
EX50	0.004	5	5	5	2.96	4.84	7.62

Step 3. Compute Rational Method, Discharge Q

Q= C i A

where:

C =Runoff Coefficient

i = Average rainfall intensity, inches/hour

A = Drainage Area of watershed, acres

	C			i			A=	Q		
Drainage Area ID	Weighted C Values			Rainfall intensity, i (in/hr)				Discharge, Q (cfs)		
	2-YR	10-YR	100-YR	2-YR	10-YR	100-YR	Area, ac.	2-YR	10-YR	100-YR
EX10	0.85	0.85	0.95	2.96	4.84	7.62	0.058	**0.15**	**0.24**	**0.42**
EX20	0.85	0.85	0.95	2.96	4.84	7.62	0.043	**0.11**	**0.18**	**0.31**
EX30	0.85	0.85	0.95	2.96	4.84	7.62	0.048	**0.12**	**0.20**	**0.35**
EX40	0.85	0.85	0.95	2.96	4.84	7.62	0.006	**0.02**	**0.03**	**0.04**
EX50	0.85	0.85	0.95	2.96	4.84	7.62	0.004	**0.01**	**0.02**	**0.03**

Appendix C – Proposed Rational Method Calculation

Proposed Rational Method Calculation

Hydrology - Rational Method (Q = CiA)

Project Name

Step 1. Compute Weighted "C" Values

Table 3.2 Runoff Coefficients for Maricopa County, FCDMC

Land Use Code	Land Use Category	Runoff Coefficients by Storm Frequency							
		2-10YR		25YR		50YR		100YR	
		min	max	min	max	min	max	min	max
P	Pavement and Rooftops	0.75	**0.85**	0.83	**0.94**	0.90	**0.95**	0.94	**0.95**

		A	C	
Drainage Area ID	area, sf	area ,ac	Weighted C Values	
			2-10YR	100YR
10	2,234	**0.051**	**0.85**	**0.95**
20	319	**0.007**	**0.85**	**0.95**
30	1,891	**0.043**	**0.85**	**0.95**
40	269	**0.006**	**0.85**	**0.95**
50	2,089	**0.048**	**0.85**	**0.95**
60	180	**0.004**	**0.85**	**0.95**

Step 2. Compute Time of Concentration, Tc and Rainfall intensity, i

Tc min = 5

References:

1. Eqn. (3.2), FCDMC, Drainage Design Manual-Hydrology, December 14, 2018
2. NOAA Atlas 14, Point Precipitation Frequency Estimates

Drainage Area ID	Area (ac.)	Tc (min)			Rainfall intensity, i (in/hr)		
		2-YR	10-YR	100-YR	2-YR	10-YR	100-YR
10	0.051	5	5	5	2.96	4.84	7.62
20	0.007	5	5	5	2.96	4.84	7.62
30	0.043	5	5	5	2.96	4.84	7.62
40	0.006	5	5	5	2.96	4.84	7.62
50	0.048	5	5	5	2.96	4.84	7.62
60	0.004	5	5	5	2.96	4.84	7.62

Step 3. Compute Rational Method, Discharge Q

Q= C i A

where:

C =Runoff Coefficient

i = Average rainfall intensity, inches/hour

A = Drainage Area of watershed, acres

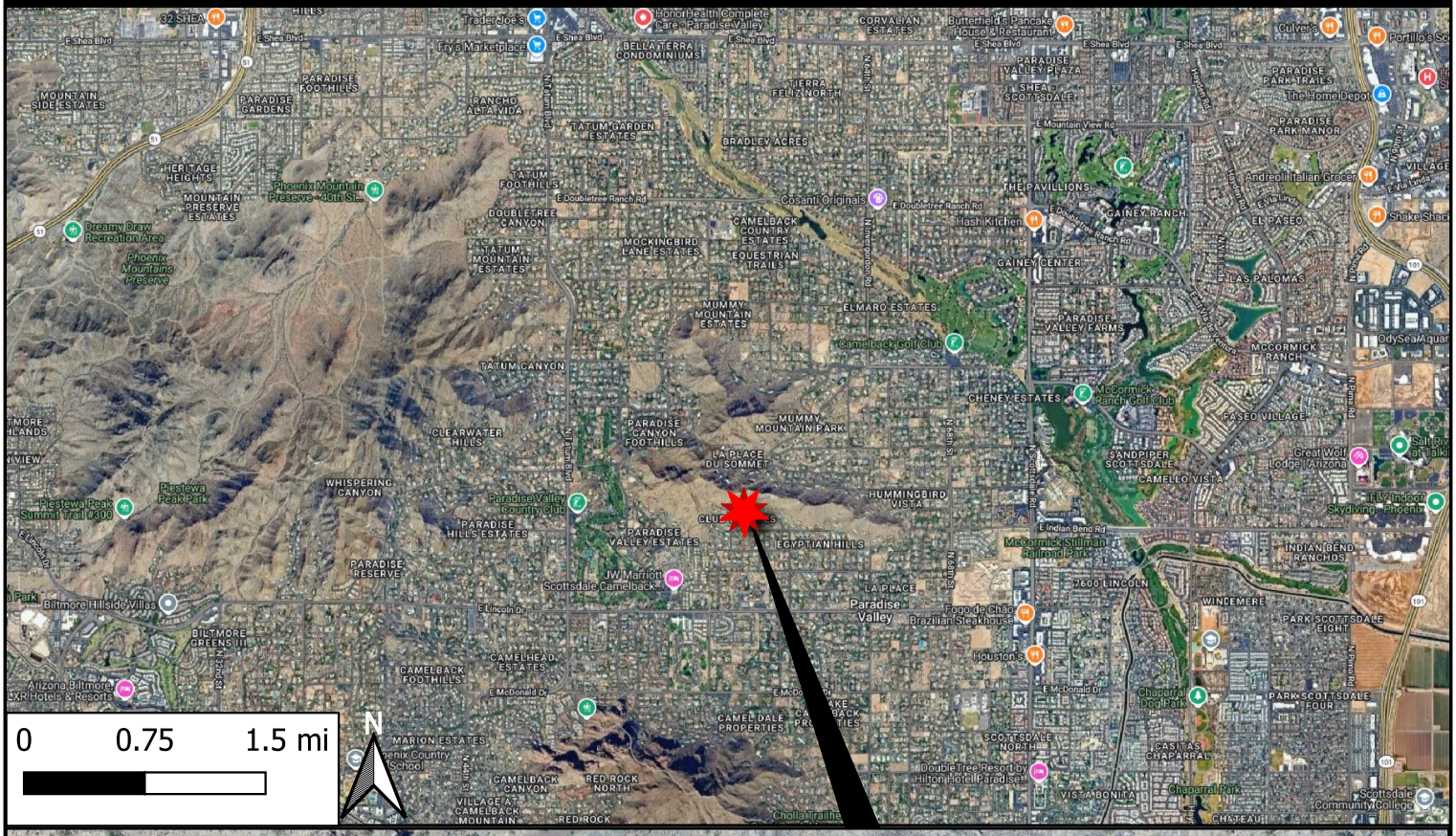
	C			i			A=	Q		
Drainage Area ID	Weighted C Values			Rainfall intensity, i (in/hr)				Discharge, Q (cfs)		
	2-YR	10-YR	100-YR	2-YR	10-YR	100-YR	Area, ac.	2-YR	10-YR	100-YR
10	0.85	0.85	0.95	2.96	4.84	7.62	0.051	**0.13**	**0.21**	**0.37**
20	0.85	0.85	0.95	2.96	4.84	7.62	0.007	**0.02**	**0.03**	**0.05**
30	0.85	0.85	0.95	2.96	4.84	7.62	0.043	**0.11**	**0.18**	**0.31**
40	0.85	0.85	0.95	2.96	4.84	7.62	0.006	**0.02**	**0.03**	**0.04**
50	0.85	0.85	0.95	2.96	4.84	7.62	0.048	**0.12**	**0.20**	**0.35**
60	0.85	0.85	0.95	2.96	4.84	7.62	0.004	**0.01**	**0.02**	**0.03**

Figure 1-Location & Vicinity Map

VICINITY MAP

VAN HOUTEN RESIDENCE

7102 N 57TH PLACE
PARADISE VALLEY, AZ



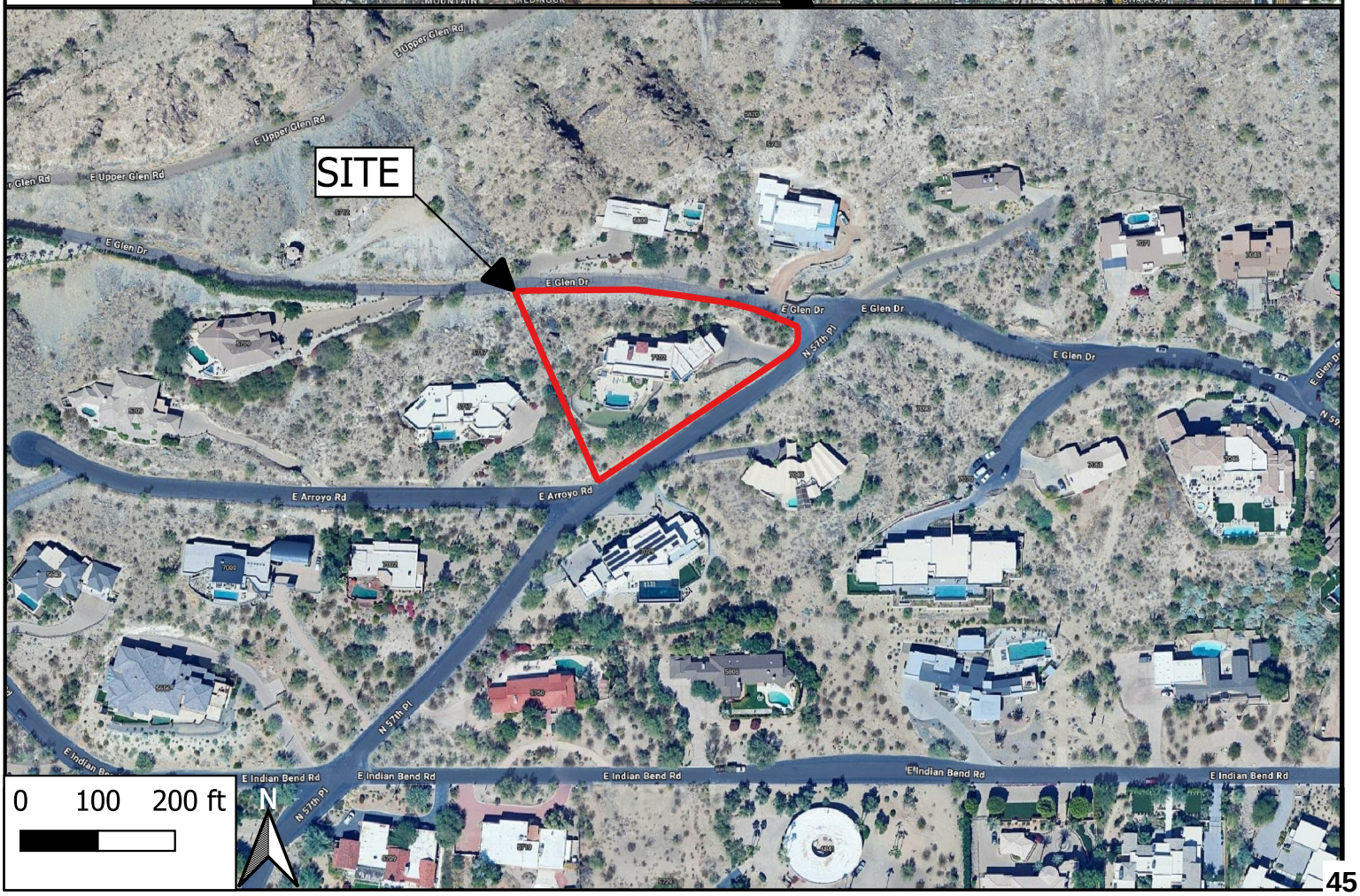
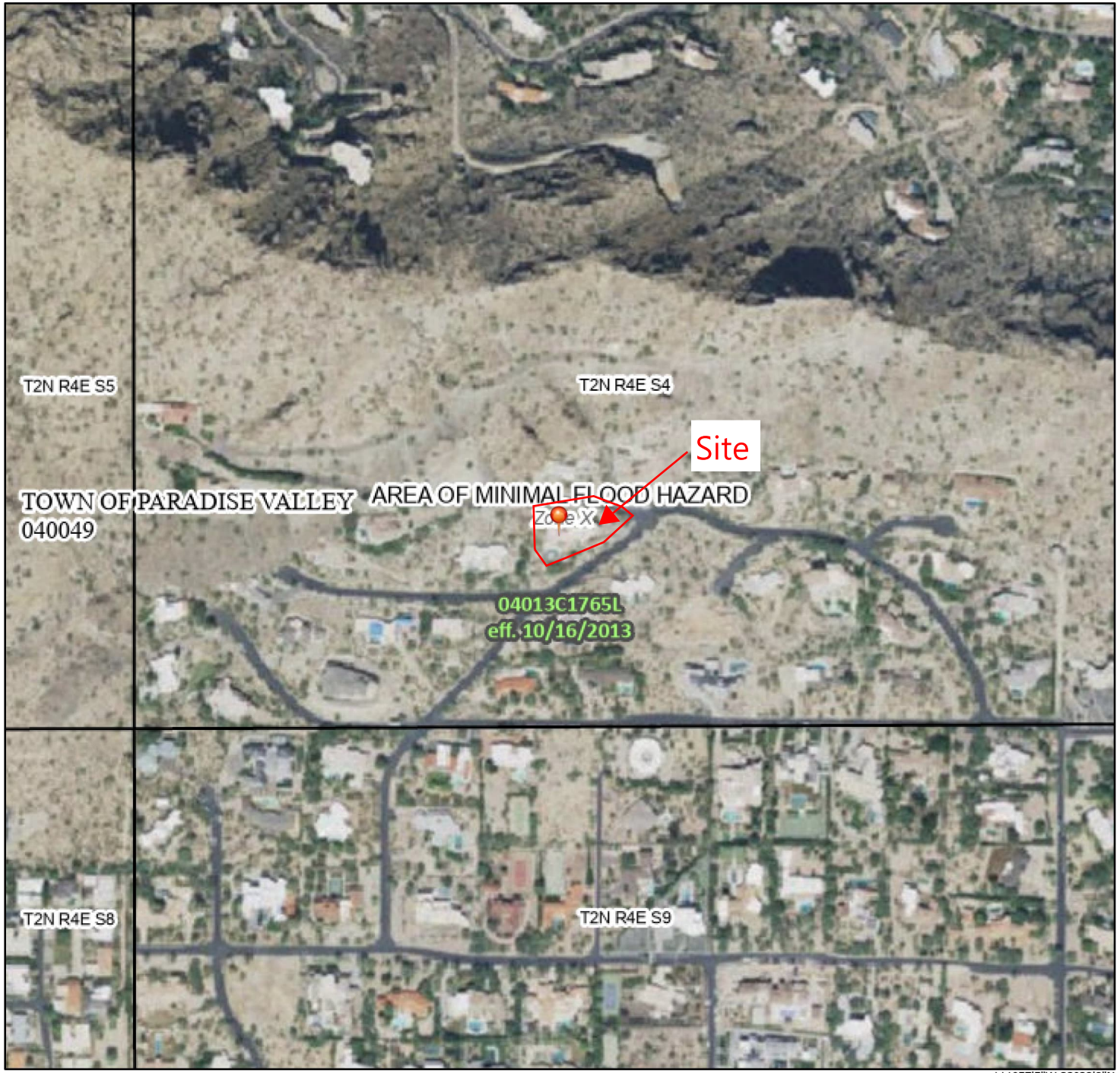


Figure 2-FEMA Firmette

National Flood Hazard Layer FIRMette

FEMA

111°57'42"W 33°32'38"N



111°57'5"W 33°32'8"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

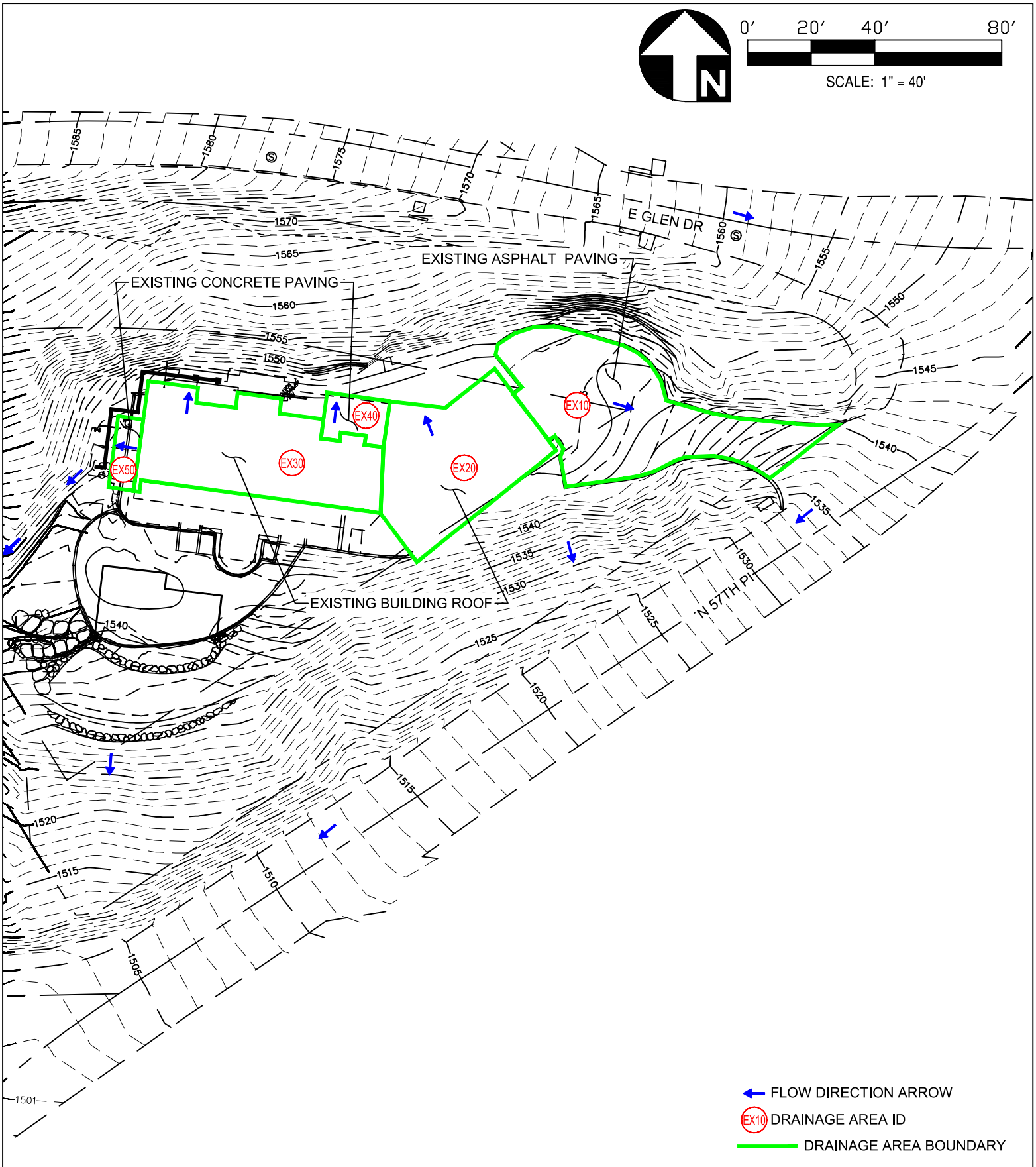
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/21/2026 at 4:43 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

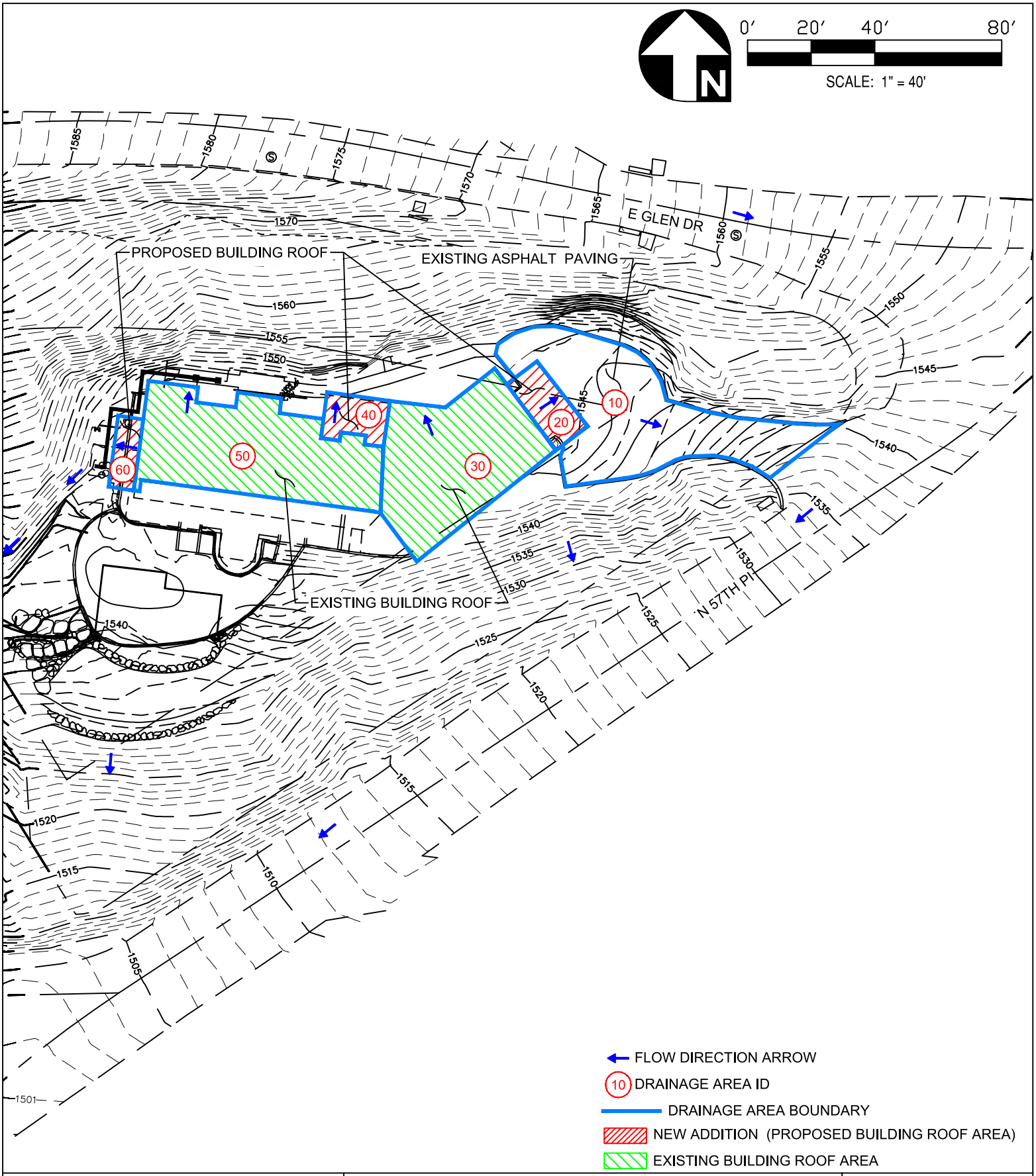
Figure 2-FEMA Firmette

Figure 3-Existing Drainage Map



Hook Engineering, Inc. *Civil Engineers ~ Land Surveyors*	**VAN HOUTEN RESIDENCE** **EXISTING DRAINAGE AREA MAP**	SCALE 1"=40' DESIGN JOB No. DATE : 3/22/2026 FIGURE 3

Figure 4-Proposed Drainage Map



Hook Engineering, Inc.
Civil Engineers ~ Land Surveyors

VAN HOUTEN RESIDENCE
PROPOSED DRAINAGE AREA MAP

SCALE	1"=40'
DESIGN	
JOB No.	
DATE :	3/22/2026
FIGURE 4	

Town of Paradise Valley
Native Plant Preservation Plan

Upon application for a Building Permit valued $500,000 or greater, and all Demolition and Grading Permits, this Native Plant Preservation Plan must be completed.

Project Address: 7102 N. 57TH PLACE, Paradise Valley, AZ 85253

Parcel Number: 169-55-033E

Owner Name, Address & Phone: JAMESON AND IRINA VAN HOUTEN

7102 N. 57TH PLACE, PARADISE VALLEY, AZ 85253 (602-953-8450) JAMESON

Number of protected plants within area of disturbance, if any: 0

Number of plants to remain in place: 0

Number of protected plants to be relocated on site: 0

Number of protected plants to be relocated off-site: 0

Number of unsalvageable protected plants: 0

Total number of plants affected: 0

Proposed Salvage Contractor N/A

Telephone Number: _____

Please give a brief description of the native plant salvage plan including estimated date of salvage, place of relocation, and any other relevant information:

_____

_____

_____

Attach this sheet to the Native Plant Inventory consisting of:

1) An Aerial photograph and/or site plan showing the location of all protected native plants within the area of disturbance; and

2) A Listing of the number, species, size, general condition, and salvage status of all protected native plants within the area of disturbance.

Return to Planning and Building Department with your building/demo/grading application. Only complete submittals will be accepted. Do not attempt to move any plant materials prior to permit issuance. *Before requesting final inspection, Applicant will be required to submit a Native Plant Certification.*

Applicant Signature: Miguel Saucedo - CANDELARIA DESIGN *Date:* 03.24.2026

NOTICE: Failure to comply with the Native Plant Preservation Plan shall cause immediate suspension of all inspection activity. In addition, any violation of the Native Plant Preservation Ordinance is a misdemeanor punishable by fine and/or imprisonment.

March 19, 2026

Re: Formal Hillside Plan Review for single-family home located at 7102 N. 57th Place Paradise Valley

Dear Property Owner,

An application has been submitted to the Town of Paradise Valley for a Combined Hillside Plan Review at 7102 N. 57th Place. In compliance with town requirements, this letter is being sent to you as a courtesy to inform you of the pending application. The Hillside Building Committee will be reviewing this application on May 13th at 8:00 AM at the Paradise Valley Town Hall located at 6401 East Lincoln Dr.

The purpose of the Combined Review meeting is for the Hillside Building Committee to review the submittal for compliance with the goals, purposes, and specific criteria of the Town of Paradise Valley Development Regulations.

The Hillside Building Committee will approve, approve the stipulations, continue, or deny the submittal. This meeting is open to the public and you may feel free to attend.

If you have any questions, please call me at 602-604-2001.

Sincerely,

Tim Mathewson, Principal
Candelaria Design Associates, LLC
6900 E. Camelback Road, Suite 400
Scottsdale, AZ 85251
602.604.2001, ext. 7105
480.874.7105, direct line
tim@candelariadesign.com
www.candelariadesign.com

If any items in these Meeting Notes are in error and require correction, please call CDA within five (5) business days after the date of issue as noted above, or all items shall become a matter of record.

Van Houten Hillside Notification Mailing List

Parcel numbers within 1,500sf radius.

BETTY MELAMED

7031 N 59TH PL.

PARADISE VALLEY, AZ 85253

HEBETS JAMES B/CAROL M TR

5831 E INDIAN BEND RD.

PARADISE VALLEY, AZ 85253

PERRY STEPHEN B/FELICIA M

4415 FAIRMOUNT BLVD.

CHAGRIN FALLS, OH 44022-6608

TSSC OUTLOT LLC

7007 N 59TH PL.

PARADISE VALLEY, AZ 85253

MCBURNETT FAMILY TRUST

7050 N 59TH PL .

PARADISE VALLEY, AZ 85253

WDI FAMILY TRUST

7002 N 57TH PL.

PARADISE VALLEY, AZ 85253

5712 E GLEN LLC

15610 E SIERRA MADRE DR.

FOUNTAIN HILLS, AZ 85268

LYNCH BROS DEVELOPMENT COMPANY

4615 E LA MIRANDA WAY

PHOENIX, AZ 85044

SCHAFFNER FAMILY TRUST

5750 E INDIAN BEND RD.

PARADISE VALLEY, AZ 85253

SPELTS LOUIS C JR/INGRID

6008 E INDIAN BEND RD.

PARADISE VALLEY, AZ 85253

KRUMWIEDE REVOCABLE LIVING TRUST

7045 N 59TH PL.

PARADISE VALLEY, AZ 85253

ELIZABETH BRUNGS

5806 E INDIAN BEND RD.

PARADISE VALLEY, AZ 85253

LONGO JOSEPH A III/MAUREEN C

5995 E INDIAN BEND RD.

PARADISE VALLEY, AZ 85253

RANA MARIO/ANGELA

7071 N 59TH PL.

PARADISE VALLEY, AZ 85253

SULLIVAN LIVING TRUST

7029 N 57TH PL.

PARADISE VALLEY, AZ 85253

WEISSMAN BURTON /MARY ANN DEARDEN TR

6736 N 60TH ST.

PARADISE VALLEY, AZ 85253

TINA DENICOLE

7111 N 59TH PL.

PARADISE VALLEY, AZ 85253

WYTHE 40 LLC

5225 E DESERT VISTA RD.

PARADISE VALLEY, AZ 85253-3301

GREGORY ROWE

6732 N 60TH ST.

PARADISE VALLEY, AZ 85253

CLUB ESTATES LLC

1211 E DENNY WAY B20

SEATTLE, WA 98122

JOUDEH FAMILY TRUST

PO BOX 42050

MESA, AZ 85274

RECTOR RICHARD/DEPENDAHL ROBYN

5921 E INDIAN BEND RD.

PARADISE VALLEY, AZ 85253

NICK AND KATIE TARATSAS TRUST

5800 E GLEN DR.

PARADISE VALLEY, AZ 85253

PARADISE VALLEY LLC

7070 N 59TH PL.

PARADISE VALLEY, AZ 85253

AUGUSTA INVESTMENTS LLC

370 E WINDMILL LN.

LAS VEGAS, NV 89123

PATRICK LEWIS TRUST

PO BOX 14136

SCOTTSDALE, AZ 85267

BRENDA A BRUNSON FAMILY LIVING TRUST

7068 N 59TH PL.

PARADISE VALLEY, AZ 85253

PJM INVESTORS LLC

1300 N STATE PKWY UNIT 1102

CHICAGO, IL 60610

DONALD NEUERMAN REVOCABLE TRUST

3104 E CAMELBACK RD UNIT 713

PHOENIX, AZ 85016-4502

WISLEY INVESTMENTS LLC

7046 N 59TH PL.

PARADISE VALLEY, AZ 85253

MITCHELL DOLINS TRUST

5717 E ARROYO RD.

PARADISE VALLEY, AZ 85253

CASPIAN LEGACY & ELLSWORTH HOLDINGS

5739 E QUARTZ MOUNTAIN RD.

PARADISE VALLEY, AZ 85253

TAHERI KAVEH

5939 E HUMMINGBIRD LN.

PARADISE VALLEY, AZ 85253

RICHARDS SUSAN B QUALIFIED Trust

6333 N SCOTTSDALE RD.

SCOTTSDALE, AZ 85250

LA PLACE DU SOMMET HOMEOWNERS ASC

7255 E HAMPTON AVE. STE 101

MESA, AZ 85209

DALE GIBBONS

5959 E HUMMINGBIRD LN.

PARADISE VALLEY, AZ 85253

BEHSHAD FAMILY TRUST

5709 E ARROYO RD.

PARADISE VALLEY, AZ 85253

JACKSON JILL M/LORMAN ROBERT

5689 E QUARTZ MOUNTAIN RD.

PARADISE VALLEY, AZ 85253

PLENGE ROBERT W/DORRANCE BENNETT

6401 E LINCOLN DR.

PARADISE VALLEY, AZ 85253

ELAINE E JOHNSON TRUST

4701 121ST ST.

URBANDALE, IA 50323

JONATHAN & DANIELLE ROBERTS REVOCABLE LIVING TRUST

10042 W. AVENIDA DEL SOL

PEORIA, AZ 85383

844 LLC

4228 E HIGHLANDS DR.

PARADISE VALLEY, AZ 85253

WIRTH JAMES F/GAIL J TR

5700 E GLENN DR.

PARADISE VALLEY, AZ 85253

KARBASSI MASOUD/LADEN

5750 E QUARTZ MOUNTAIN RD

PARADISE VALLEY, AZ 85253

SALAHEDDINE TOMEH MD PC

5600 E DOUBLETREE RD

PARADISE VALLEY, AZ 85253

MUMMY MOUNTAIN PRESERVE TRUST

6401 E LINCOLN DR.

PARADISE VALLEY, AZ 85253-4399

JEWELL LINDSAY A/MORROW CHARLES

5784 E QUARTZ MOUNTAIN RD.

PARADISE VALLEY, AZ 85253

5850 LLC

PO BOX 925

SCOTTSDALE, AZ 85252

LENGE ROBERT W/DORRANCE BENNETT ETAL TR

6401 E Lincoln Dr.

PARADISE VALLEY, AZ 85253-4399

DANIEL AND ELAINE GRUBER TRUST

7420 N 58TH PL.

PARADISE VALLEY, AZ 85253

MCBURNETT FAMILY TRUST

7050 N 59TH PL.

PARADISE VALLEY, AZ 85253

MAFFRY INVESTMENTS LLC

12804 E PARKVIEW LN.

SCOTTSDALE, AZ 85255

P DUGEL FAMILY LTD PARTNERSHIP

5841 E QUARTZ MOUNTAIN RD.

PARADISE VALLEY, AZ 85253

LYNCH BROS DEVELOPMENT COMPANY LTD

4615 E LA MIRANDA WAY

PHOENIX, AZ 85044

TERRY B. BRODKIN

5650 E CHENEY DR.

PARADISE VALLEY, AZ 85253

SOMMET MUMMY PROPERTY LLC

5801 E QUARTZ MOUNTAIN RD.

PARADISE VALLEY, AZ 85253

PAVIO ANTHONY M/JEANNES

7040 N 59TH PL.

PARADISE VALLEY, AZ 85253

EAGLES NEST HOLDINGS LLC

5665 E CHENEY DR.

PARADISE VALLEY, AZ 85253

ELLIOT ROVINSKY

5841 HUMMINGBIRD LN.

PARADISE VALLEY, AZ 85253

ROSS WHEELER REVOCABLE TRUST

7023 N 59TH PL.

PARADISE VALLEY, AZ 85253

MERAZ JOSE JR/FRIAS NUVIA M GARDEA

5639 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

ROESKE JEROME D/KATHRYN A TR

5709 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85255

LIANA HAMILTON HANS REVOCABLE TRUST

5729 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

MARTIN J VANDERPLOEG 2001 REVOCABLE LIV TRUST

5716 E CACTUS WREN RD.

PARADISE VALLEY, AZ 85253

DESOUZA CALUM BRUNO/TRICIA

5736 E CACTUS WREN RD.

PARADISE VALLEY, AZ 85253

EDWIN D GONZALES AND KENDA B GONZALES TR

5740 E CACTUS WREN RD.

PARADISE VALLEY, AZ 85253

SINGH FAMILY TRUST

5739 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

CHA CHA BAMBA LLC

5815 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

TAZ DIAMOND LLC

5815 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

MCDOUGAL REVOCABLE TRUST

6719 N. 58 TH PL.

PARADISE VALLEY, AZ 85253

ERIC AND LORI RISSER FAMILY TRUST

5829 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

URBAN GLOBAL REAL ESTATE COMPANY LLC

32100 TELEGRAPH RD 250

BINGHAM FARMS, MI 48025

WESSELS-COVINGTON FAMILY TRUST

5900 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

5920 EJTL TRUST

5920 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

SHERMAN REVOCABLE TRUST

5840 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

KEITH W BRUCH TRUST/JULIE A BRUCH TRUST

1627 MONTEREY DR.

GLENVIEW, IL 60026

JOSHUA TREE LANE LLC

5816 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

OYA TYLOR REVOCABLE TRUST

6815 N 58TH PL.

PARADISE VALLEY, AZ 85253

FRANCES J HAYNES FAMILY TRUST

6831 N 58TH PL.

PARADISE VALLEY, AZ 85253

INDIAN BEND PROPERTIES LLC

2345 S PONTE VEDRA BLVD.

PONTE VEDRA BEACH, FL 32082

MORSE JOHN DAVID/CAROL KAY TR

5744 E JOSHUA TREE

PARADISE VALLEY, AZ 85253

TUCHIN REVOCABLE LIVING TRUST

5730 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

ERIC AND LORI RISSER FAMILY TRUST

5829 E JOSHUA TREE LN.

PARADISE VALLEY, AZ 85253

INDIAN BEND VENTURE LLC

6710 N SCOTTSDALE RD. STE 180

SCOTTSDALE, AZ 85253

SCOTT D GOLDMAN REVOCABLE TRUST
5720 E JOSHUA TREE LN.
PARADISE VALLEY, AZ 85253

GEAR BARBARA F TR
6817 N 57TH PL.
PARADISE VALLEY, AZ 85253

RICHARDS PHILLIP CROCE/STEPHANIE JEAN
5709 E INDIAN BEND RD.
PARADISE VALLEY, AZ 85253

LEWIS THOMAS E/SUZANNE TR
6820 N 57TH PL.
SCOTTSDALE, AZ 85251

SCOTT GUY/SHELLEY
N-11950 100 AVE NW
EDMONTON, AB CAN T5K 0K5

KRAMER REVOCABLE TRUST
5640 E JOSHUA TREE LN.
PARADISE VALLEY, AZ 85253

KATHRYN JO LINCOLN TRUST
6813 N LOST DUTCHMAN DR.
PARADISE VALLEY, AZ 85253

WE'RE BACK LLC
1622 WILLOW RD. 201
NORTHFIELD, IL 60093

HOLLENBECK RICK/PAM TR
6820 N LOST DUTCHMAN DR.
PARADISE VALLEY, AZ 85253

RUNBECK ROBERT KEVIN/NEUMAN SANTRA KAY

PO BOX 5985

SCOTTSDALE, AZ 85261

MERIDIAN 6837 LLC

6837 N LOST DUTCHMAN DR.

PARADISE VALLEY, AZ 85253

PETERSON MARK/KARA

6837 N LOST DUTCHMAN DR.

PARADISE VALLEY, AZ 85253

CAMELBACK PROPERTIES INN INC

PO BOX 696583

SAN ANTONIO, TX 78269

MUMMY MOUNTAIN PRESERVE TRUST

6401 E LINCOLN DR.

PARADISE VALLEY, AZ 85253

NORMAN TRUST

330 W LAWRENCE RD.

PHOENIX, AZ 85013

5651 LLC

5651 E INDIAN BEND RD.

PARADISE VALLEY, AZ 85253

PLUMMER LIVING TRUST

5600 E INDIAN BEND RD.

PARADISE VALLEY, AZ 85253

DAVE SHORT

4156 N 33RD PL.

PHOENIX, AZ 85018

TERRY L PHILLIPS FAM TR/LISA E FITZNER FAM TR

5640 E INDIAN BEND RD.

PARADISE VALLEY, AZ 85253

SCAP 5 LLC

7433 N 62ND ST.

PARADISE VALLEY, AZ 85253

MUMMYBACK HOLDINGS LLC

7010 N. 59TH PL.

PARADISE VALLEY, AZ 85253

RESIDENT

7024 N. 59TH PL.

PARADISE VALLEY, AZ 85253

COMMUNITY DEVELOPMENT DEPARTMENT
AFFIDAVIT OF MAILING NOTIFICATION

Town of Paradise Valley • 6401 East Lincoln Drive • Paradise Valley, Arizona 85253 • Phone: (480) 348-3692

STATE OF ARIZONA)
) ss:
County of Maricopa)

In accordance with the requirements of the Town of Paradise Valley, the undersigned hereby certifies that all the property owners within 1,500 feet of the property, as obtained from the Maricopa County Assessor's Office on 3-20-26, for the proposed application PA-26-19 has been mailed on the following date April 8th, 20 26.
(Case Number)

(This property list shall not be older than thirty (30) days at the time of filing of the application).

The foregoing instrument was acknowledged by me this 8th day of April, 20 26, by Timothy I Mathewson.
Name

NOTARY PUBLIC

My commission expires:

1/8/2028

Selena Iniguez Roman
Notary Public
Maricopa County, Arizona
My Comm. Expires 01-08-28
Commission No. 663242

NOTICE OF
HEARING

COMMUNITY DEVELOPMENT DEPARTMENT
AFFIDAVIT OF POSTING

Town of Paradise Valley • 6401 East Lincoln Drive • Paradise Valley, Arizona 85253 • Phone: (480) 348-3692

STATE OF ARIZONA)
) ss:
County of Maricopa)

I, Tim Mathewson depose and state that the attached notice, of proposed application Combined Hillside Hearing located at 7102 N. 57th Place for the Planning Commission/Town Council meeting date of May 13th, 20 26 is a true and correct copy of a notice which I cause to be posted by the following day of the week Friday, and on the following date April 10th, 20 26 in the following location(s):

In front of 7102 N. 57th Place, Paradise Valley, AZ 85253

All in the Town of Paradise Valley, Arizona and County and State aforesaid, the same being public places in said County and in the following locations:

All to the Town of Paradise Valley, Arizona and County and State aforesaid.

DATED this 13th day of April, 20 26.

Signature

This affidavit was Subscribed and sworn to before me on this 13th day of April 20 26.

NOTARY PUBLIC

JAMIE POPE, NOTARY PUBLIC
COMM. NO 690569
COMM. EXP. 01-19-30
MARICOPA CO AZ

My commission expires:

1/19/2030

TOWN
Of
PARADISE VALLEY

Standard Approval Information
7102 N 57th Place - Combined Review

1. All construction documents submitted for permit reviews shall include all approved Hillside-approved documents, including but not limited to, approved material references, cross sections, landscape plans, lighting plans, and lighting specifications. Any changes to the Hillside-approved plans may result in delays in permit plan review and inspection processes. Any proposed changes should be reported to the Staff to determine compliance with Hillside Development Regulations. Changes may be subject to a Staff, Chair, or Committee review.

2. All construction documents submitted for permit reviews shall include all approved Hillside-approved documents, including but not limited to, approved material references, cross sections, landscape plans, lighting plans, and lighting specifications.

3. The Applicant shall submit a Construction Staging Plan to the Town per the Hillside Safety Improvement Measures and Process Manual for review and approval prior to being issued a building permit.

4. The Applicant shall submit a liability insurance policy for the proposed project in the amount of $2 million per occurrence and $5 million aggregate naming the Town of Paradise Valley as an additional insured prior to being issued a building permit.

5. Prior to issuance of a permit, the Applicant shall submit a Hillside Assurance in the amount of $0.

6. All construction parking shall be located on the property as much as possible. Any offsite parking shall be confined to the adjacent streets along the immediate property frontage. All offsite parking shall be located on the same side of the street. No construction materials will be allowed to be stored on the Town's right-of-way.

7. All recommendations provided in the Safety Improvement Plan shall be followed by the applicant. An Arizona Registered Engineer contracted by the applicant shall review, for compliance with the recommendations provided in the Safety Improvement Plan, the proposed plans prior to submitting for a permit. The contracted Arizona Registered Engineer shall provide a sealed letter stating that the plans submitted are in accordance with the Safety Improvement Plan. Any field work related to the Safety Improvement Plan, including but not limited to rock bolting, rock cuts, mesh placement, and boulder stabilization methods, shall be inspected by a qualified Special Inspector contracted by the applicant. The qualified inspector shall be required to provide a written verification that the improvements were completed per plan prior to the final approval.

8. No final approval or certificate of occupancy shall be issued until all Hillside stipulations and all Town Code requirements are complied with, including, but not limited to, landscaping, fire flow, fire safety and all onsite and offsite improvements.

9. The limits of construction and proposed disturbed areas shall be clearly staked in the field, with visible roping, prior to demolition and during construction and shall conform to the approved individual site analysis plan. Photos of the staking shall be provided prior to issuance of a demolition and/or building permit.

10. Noise from construction that can be heard off-site, including, but not limited to, hydraulic ram hammers, equipment used to cut through rock, machinery with audible back-up warning devices, powered machinery, truck delivery and idling, constant and persistent hammering, shall comply with Article 8-10, Nuisance Noise, as set forth in the Town Code. Heavy Equipment and construction-related deliveries are generally limited between the hours of 7:00 a.m. and 5:00 p.m. Monday through Friday; no work on Saturday, Sunday or legal holidays. Exceptions include a one hour early start time in summer, time exceptions granted by the Town Manager, and construction not defined as Heavy Equipment or deliveries that can occur outside the 7:00 a.m. to 5:00 p.m., Monday through Friday, time frame.

11. The Hillside Building Committee review is not a complete building permit review of grading and drainage plans. Additional comments may be generated during the building permit review process. Offsite improvements such as curb installation may be required during the permitting process.

12. Desert varnish, such as Eonite or equivalent, shall be provided on all exposed rock cuts.

13. Natural stone selections shall not exceed the maximum allowable LRV of 38, unless explicitly approved by the Hillside Building Committee. Care should be taken when selecting to ensure that the maximum LRV is not exceeded. Failure to comply with may result in delays obtaining a Certificate of Occupancy.

14. A landscape as-built plan shall be provided by the landscape designer at the time of the Final Hillside inspection and prior to the issuance of a Certificate of Occupancy. See Stipulation #1 for more information.

15. A suitable desert seed mix shall be provided for all undisturbed areas requiring revegetation and all retention basins. Any existing non-native fountain or buffel grasses shall be removed from the property.

Action Report

File #: 26-129

AGENDA TITLE:
Concept Review for a New Single-Family Residence
6740 N Silver Mountain Road (APN 169-53-028)

STAFF CONTACT:
Juan Gonzalez Jr., 480-348-3528

TOWN
Of
PARADISE VALLEY

STAFF REPORT

TO: **Hillside Building Committee**

FROM: **Chad Weaver, Community Development Director**
Shar Johnson, Town Engineer
Paul Michaud, Planning Manager
Jose Mendez, Hillside Development Planner
Juan Gonzalez Jr., Hillside Associate Engineer

DATE: **May 13, 2026**

DEPARTMENT: Community Development Department
Juan Gonzalez Jr., (480)348-3528

AGENDA TITLE:
Concept Review
New Single-Family Residence
Kendle design Collaborative
6740 N Silver Mountain Road (APN 169-53-028)
HILL-26-13

RECOMMENDATION:
No recommendation is provided for the Concept Review meeting. The Hillside Building Committee will discuss, review, and give guidance to the applicant for Case HILL-26-13, a request by Kendle design Collaborative, at 6740 N Silver Mountain Road, for a new 9,169 SF Single-Family Residence.

BACKGROUND/DISCUSSION/SUMMARY (PROVIDED BY APPLICANT)
The request is to construct a new 9,169 square-foot (SF) Single-Family Residence and to provide on-site retention.

Lot Data		
1.	Area of Lot	1.039 ac or 45,258 SF
2.	Area Under Roof	9,169 SF
3.	Floor Area Ratio	20.3%
4.	Building Site Slope	16.8%
5.	Allowable Disturbed Area	12,342 SF (27.27%)
6.	Existing Gross Disturbed Area	31,364 SF (69.3%)
7.	Proposed Disturbed Area	30,582 SF (67.57%)
8.	Maximum Building Height	Approximately 39 ft - 10 in

9.	Overall Height	Approximately 30 ft - 0 in
10.	Volume of Cut/Fill	6,861 C.Y.
11.	Hillside Assurance	$234,360

Single Family Residence
The request is to construct a new 9,169 SF Single-Family Residence with an attached 1,364 SF Garage.

Guesthouse and/or Accessory Structures
N/A

Driveway
The location of the existing asphalt driveway accessing the property from 6740 N Silver Mountain Road will be in approximately the same location with driveway finishing using colored concrete or pavers.

Pool
A pool and spa are proposed on the south side of the property in compliance with Town setbacks.

Solar
There is no proposed solar with the application.

Walls and Fences
The applicant is proposing retaining walls varying in height from 1 foot to 8 feet in height. All meet setback requirements and are within the allowable height requirements.

Building Materials
The applicant provided the following materials: Break Metal wall finish Rustic Steel (LRV 7.86), Wood ceiling T&G clear vertical grain Douglass Fir (LRV32.4), Masonry Doe Skin (LRV 28), black metal for the glazing system (LRV 2.5), steel column (LRV 7.86) and Cast in place concrete walls in Dune finish (LRV 25). Materials subject to approval prior to Formal Review. All materials shall have a Light Reflective Value (LRV) of 38 or less, per Hillside Development Regulations.

Hardscape Materials
The applicant did not provide Hardscape Materials. Materials subject to approval prior to Formal Review. All materials shall have a Light Reflective Value (LRV) of 38 or less, per Hillside Development Regulations.

Building Lighting
The applicant has not provided a building lighting plan. Building lighting plan is subject to approval prior to Formal Review.

Landscape & Driveway Lighting
The applicant has not provided a landscape or driveway lighting plan. Landscape and driveway lighting plan is subject to approval prior to Formal Review.

Landscaping
No landscape plan has been provided. Landscape plan subject to approval prior to Formal Review.

Mountain Profile Inviolate
At and above an elevation of 1,500 feet mean sea level, no development shall occur which will alter the mountain top ridge lines. Further, no structure may extend above a plane that originates on the Primary Ridge Line and angles downward from the Primary Ridge Line by twenty degrees. The property is not within the vicinity of a Primary Ridge Line and no further restrictions shall apply.

Land Disturbance
31,364 SF (69.3%) of disturbance currently exists on the lot and the building pad slope of 16.8% allows a disturbance of 12,342 SF (27.27%) on the lot. The applicant is proposing 30,582 SF (67.57 %) which is less than the allowable 31,364 SF of existing disturbance on site.

Grading and Drainage
The proposed construction of the property shall be required to properly retain the greater of “pre vs post” or “first flush” storm water volumes for the 100-year, 2-hour rainfall event per the Town’s Storm Drainage Design Manual requirements. All historic flows shall be required to maintain the same entry and exit points on the property. The applicant is proposing to mitigate on-site retention with 12” catch basins, 12” trench drain, in connection with 6” and 24” pipes for conveyance, with surface basins, and rip-rap lined swales with check dams for water dissipation.

Sewer
The home will be on septic.

Fire Protection
Applicant to meet with Fire Marshal prior to Formal Review for Fire Safety measures.

Hillside Safety Improvement Plan
The Applicant was not required to submit a Hillside Safety Improvement Plan prior to Concept Review.

ANALYSIS:
The applicant has proposed a New Single-Family Residence that meets the minimum requirements of the Concept Review.

STIPULATIONS:
No stipulations are provided for the Concept Review.

REQUIRED ACTION:
The purpose of the Concept Plan Review Meeting is to discuss, review, and give suggestions and guidance to the applicant.

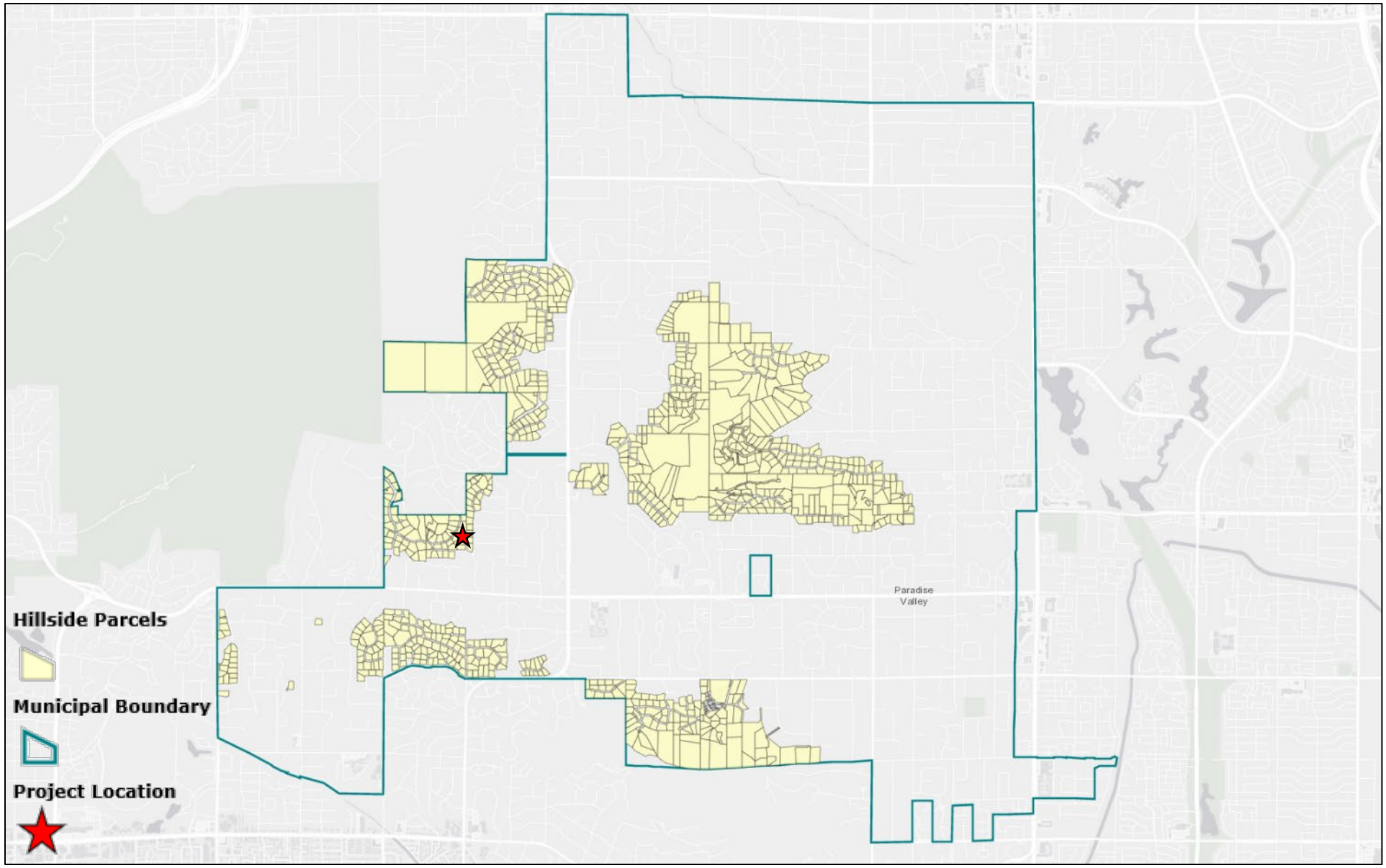
NOTICING:
Public notification was performed in accordance with the public hearing process. Staff received no comments.

NEXT STEPS:
A detailed set of plans will be submitted for the Formal Review in accordance with Article XXII, Section 2206.I.

ATTACHMENTS:
A. Staff Report
B. Hillside & Vicinity Maps
C. Application
D. Plans
E. Notification Materials

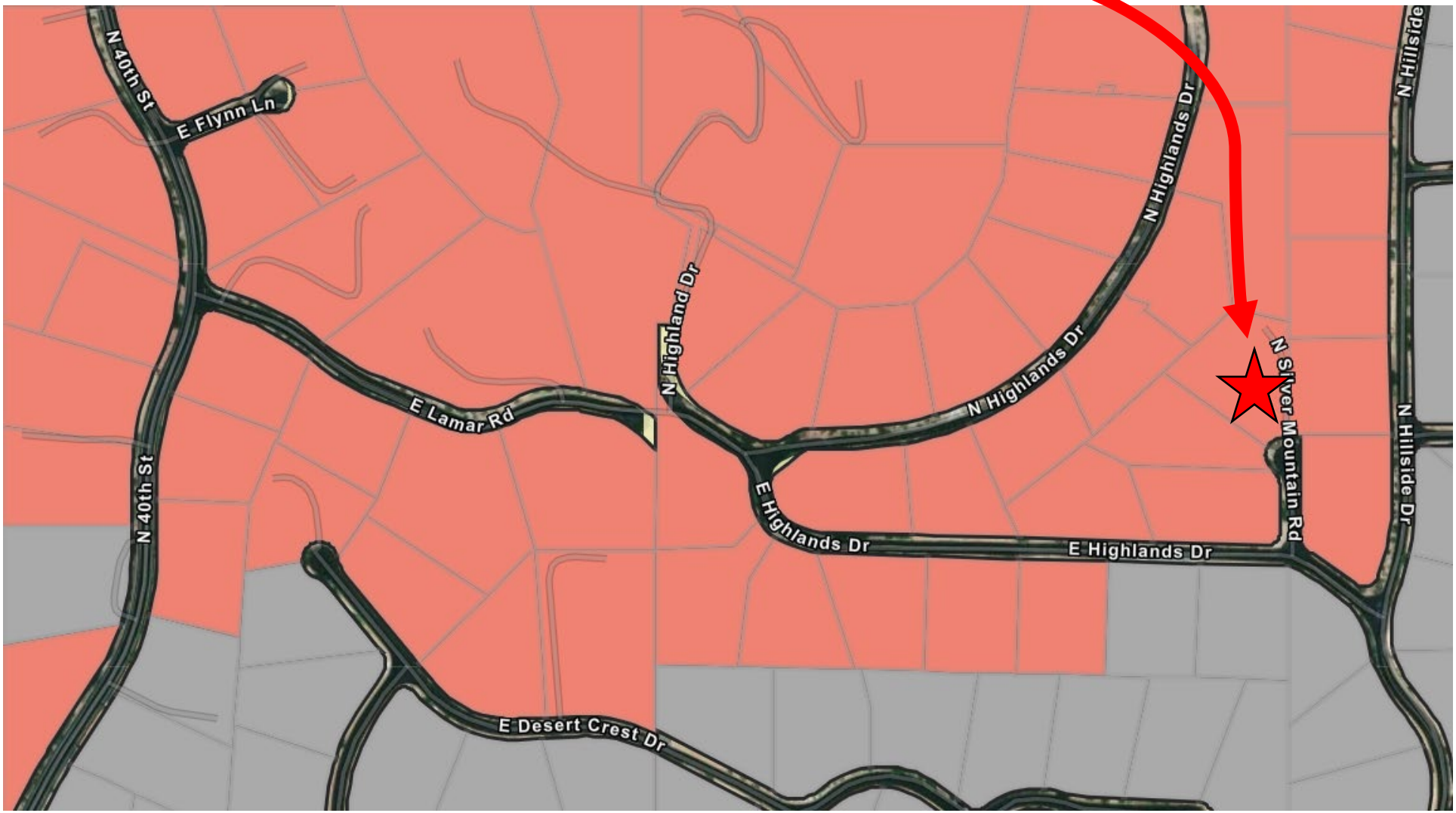
HILLSIDE MAP (OVERVIEW)

6740 N Silver Mountain Road



HILLSIDE MAP (ZOOM)

6740 N Silver Mountain Road



VICINITY MAP (ZOOM)

6740 N Silver Mountain Road



TOWN of PARADISE VALLEY

Hillside Application
Community Development Department
6401 E Lincoln Drive
Paradise Valley, AZ 85253

(480) 348-3692

HILLSIDE APPLICATION

DATE: 3.24.26

SUBDIVISION NAME:

PROPERTY ADDRESS: 6740 NORTH SILVER MOUNTAIN ROAD PARADISE VALLEY, AZ 85253

ASSESSOR'S PARCEL NUMBER: 169-53-028

LEGAL: DESCRIPTION LOT 2, MIRADOR, ACCORDING TO THE PLAY OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, IN BOOK 67 OF MAPS, PAGE 15.

EXCEPT ALL COAL AND ALL OTHER MINERALS AS RESERVED ONTO THE UNITED STATES OF AMERICA IN THE RECORDED PATENT OF SAID LAND THE PROPERTY AND LIMITATIONS OF THE ACT OF DECEMBER 29, 1916 (39 STAT. 862).

SCOPE OF WORK:

6,114 LIVABLE SQUARE FOOT CUSTOM SINGLE FAMILY RESIDENCE, LOCATED AT 6740 NORTH SILVER MOUNTAIN ROAD, PARADISE VALLEY, AZ 85253. THIS CONFORMS TO ALL RELEVANT CODES.

ARCHITECT:

PRINT NAME	PHONE NUMBER
Kendle Design Collaborative	480 951.8558
ADDRESS 6115 North Cattletrack Road Scottsdale Arizona	

ENGINEER:

Land Development Group	602. 889. 1984
PRINT NAME	PHONE NUMBER
ADDRESS 8808 N Central Ave, Suite 288. Phoenix AZ 85020	

OWNER:

Bell Family Living Trust	
PRINT NAME	PHONE NUMBER
6740 N Silver Mountain Rd Paradise Valley Arizona 85253	
ADDRESS	



3.24.26

OWNER OR AUTHORIZED AGENT SIGNATURE | DATE

STATEMENT OF ACCURACY

BUILDING INFORMATION[1]

USE	AREA (SF) OR LENGTH (FT)
LIVABLE AREA (EXISTING)	0
LIVABLE AREA (NEW)	6,114
LIVABLE AREA (REMODEL)	0
PERCENT NEW + REMODEL	0

[1]THE FOLLOWING CONDTIONS MAY APPLY TO REMODELS OR ADDITIONS OF 50% OR GREATER: 1) ZONING ORDINANCE, ARTICLE XXIII – SECTION 2307 REQUIRES THAT NON-CONFORMING STRUCTURES BE BROUGHT INTO COMPLIANCE IF THEY DO NOT MEET CURRENT HEIGHT, SETBACK, FINISH, AND ANY OTHER APPLICABLE ORDINANCE REQUIREMENTS. 2) ZONING ORDINANCE, ARTICLE XXIV – SECTION 2415 REQUIRES THAT NON-CONFORMING WALLS BE BROUGHT BE INTO COMPLIANCE IF THEY DO NOT MEET CURRENT HEIGHT AND/OR SETBACK REQUIREMENTS. 3)TOWN CODE, CHAPTER 13 REQUIRES FIRE SPRINKLER SYSTEMS.

VALUATION CALCULATION[2]

USE	UNIT - AREA (SF), LENGTH (FT), OR COUNT	VALUATION PER (UNIT)	VALUATION TOTAL
LIVABLE AREA (NEW)	6,114	$225.00	1,375,650
LIVABLE AREA (REMODEL)	0	$112.50	
GARAGE	2,421	$50.00	121,050
STORAGE	Built into garage sf.	$50.00	
PATIOS/RAMADAS/PORHCES	2,629	$35.00	92,015
FENCES	93	$30.00	2,790
POOL	1	1% OF COST	16,139.55
BBQ	1	$4,200.00 (EA)	4,200
FIREPLACE	3	$5,250.00 (EA)	15,750
WATER FOUNTAIN		$1,000.00 (EA)	
WATER FEATURE	1	$2,500.00 (EA)	2,500
SUM	-	-	1,630,094

[2]TOWN CODE, CHAPTER 5 REQUIRED IMPROVEMENTS MAY INCLUDE RIGHT-OF-WAY DEDICATION AND STREET IMPROVEMENTS, DRAINAGE IMPROVEMENTS, SEWER IMPROVEMENTS, FIRE HYDRANT INSTALLATION, AND ELECTRICAL UNDERGROUNDING FOR BUILDING PERMIT VALUATIONS OF $500,000 OR GREATER CALCULATED OVER A 730 DAY PERIOD. YOU MAY USE THE TOWN MASTER FEE SCHEDULE TO DETERMINE THE MINIMUM CONSTRUCTION VALUATION: https://www.paradisevalleyaz.gov/DocumentCenter/View/104/Master-Fee-Schedule

CERTIFICATION

- I hereby certify that the above information and the information in this application is true and accurate. I further certify that I will comply with all Federal, State, County and Town laws relating to construction and demolition.
- I understand that any changes made during or after the hillside development process may require a modification to the statement of accuracy. Additional requirements may be required for a modified scope of work.
- The issuance of an approval shall not be considered as an adoption by the inspector of the manifested technical construction or demolition contained in the plans and specifications, if thereafter it can be shown that any portion of the work is in conflict with any portion of the ordinances and laws of the Town of Paradise Valley, Arizona. It is agreed that this work will be done in conformity with the laws of the Town of Paradise Valley, Arizona, Maricopa County, and the State of Arizona.

OWNER OR AUTHORIZED AGENT SIGNATURE

☒ Authorization Letter for Agent if Value > $25,000

Town of Paradise Valley
6401 E Lincoln Drive
Paradise Valley, AZ 85253
hillside@paradisevalleyaz.gov

SUMMARY OF SUBMITTAL DOCUMENTS

CONCEPT REVIEW:

1. COVER SHEET WITH VICINITY MAP
2. SITE PLAN
3. HISTORIC/NATURAL GRADE EXHIBIT
4. GRADING AND DRAINAGE PLAN (WITH PRELIMINARY DISTURBANCE/CUT/FILL)
5. ARCHITECTURAL RENDERINGS (INCLUDING 3-D MASSINGS)
6. AERIAL PHOTO WITH IMPROVEMENTS AND TOPOGRAPHIC MAP

FORMAL/COMBINED REVIEW:

1. COVER SHEET WITH VICINITY MAP
2. PHOTOGRAPHS OF PROPERTY
3. ARCHITECTURAL RENDERINGS
4. 3-D MODEL
5. AERIAL PHOTO WITH IMPROVEMENTS AND TOPOGRAPHIC MAP
6. LEGAL SURVEY
7. HISTORIC/NATURAL GRADE EXHIBIT
8. GRADING & DRAINAGE PLAN (WITH PRELIMINARY DISTURBANCE/CUT/FILL)
9. SITE PLAN
10. CROSS SECTIONS
11. BUILDING LIGHTING PLAN
12. LANDSCAPE AND LANDSCAPE LIGHTING PLAN(S)
13. MATERIAL SAMPLE BOARD

SOLAR COMBINED REVIEW:

1. COVER SHEET
2. SITE PLAN
3. CROSS SECTIONS
4. AERIAL PHOTO WITH IMPROVEMENTS
5. SITE PHOTOS
6. DETAILS

DEMOLITION-ONLY REVIEW:

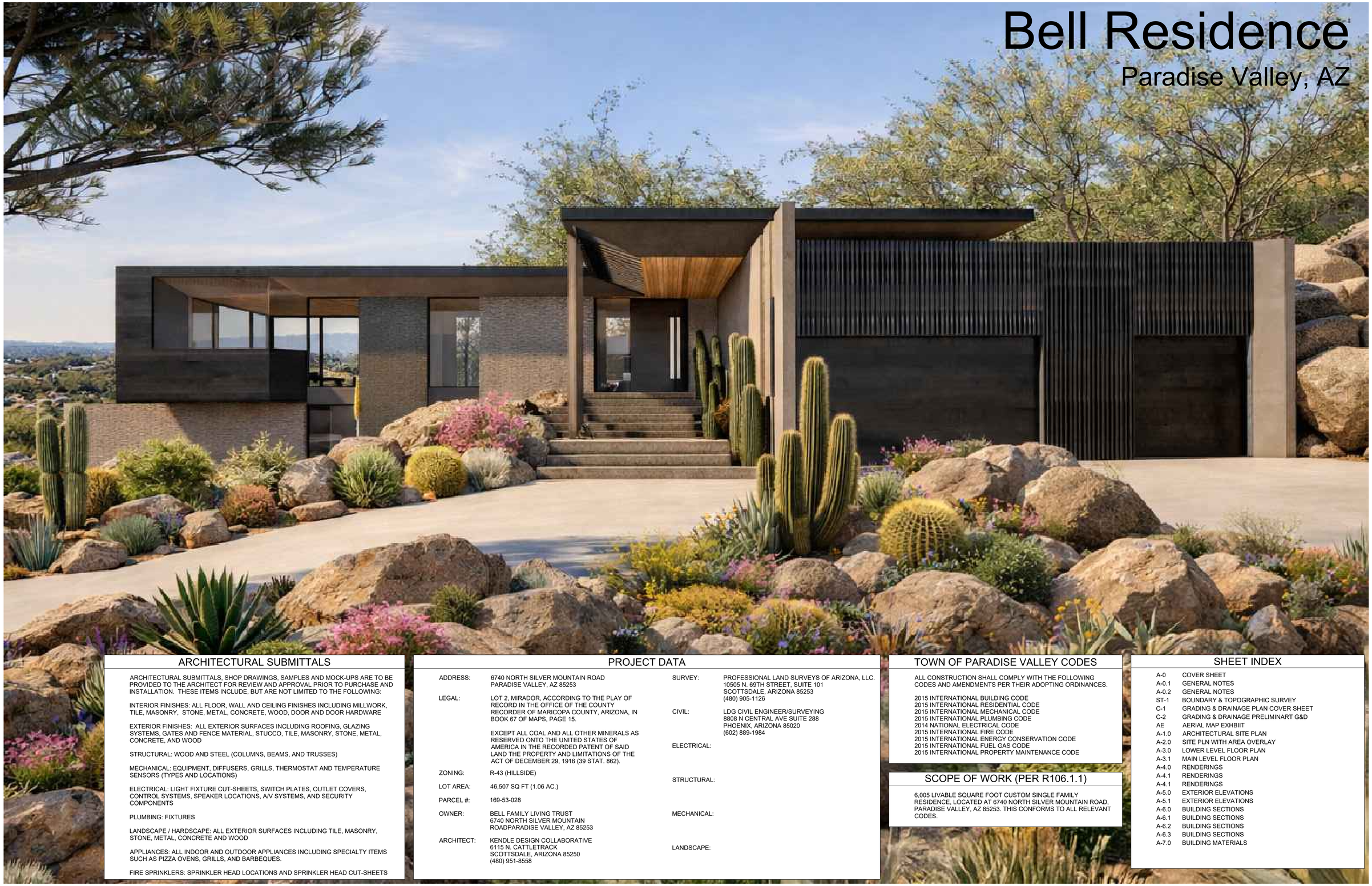
1. LEGAL SURVEY
2. HISTORIC/NATURAL GRADE EXHIBIT
3. GRADING & DRAINAGE PLAN (FOR DEMO DISTURBANCE)
4. STORM WATER POLLUTION PREVENTION PLAN
5. GRADING PERMIT APPLICATION
6. DEMOLITION PERMIT APPLICATION

SAFETY IMPROVEMENT PLAN (FOR FORMAL/COMBINED REVIEWS):

1. SEE HILLSIDE “SAFETY IMPROVEMENT MEASURES AND PROCESS MANUAL” (MUST BE REVIEWED AND APPROVED PRIOR TO FORMAL OR COMBINED HILLSIDE BUILDING COMMITTEE REVIEW)

Bell Residence

Paradise Valley, AZ



ARCHITECTURAL SUBMITTALS

ARCHITECTURAL SUBMITTALS, SHOP DRAWINGS, SAMPLES AND MOCK-UPS ARE TO BE PROVIDED TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

INTERIOR FINISHES: ALL FLOOR, WALL AND CEILING FINISHES INCLUDING MILLWORK, TILE, MASONRY, STONE, METAL, CONCRETE, WOOD, DOOR AND DOOR HARDWARE

EXTERIOR FINISHES: ALL EXTERIOR SURFACES INCLUDING ROOFING, GLAZING SYSTEMS, GATES AND FENCE MATERIAL, STUCCO, TILE, MASONRY, STONE, METAL, CONCRETE, AND WOOD

STRUCTURAL: WOOD AND STEEL (COLUMNS, BEAMS, AND TRUSSES)

MECHANICAL: EQUIPMENT, DIFFUSERS, GRILLS, THERMOSTAT AND TEMPERATURE SENSORS (TYPES AND LOCATIONS)

ELECTRICAL: LIGHT FIXTURE CUT-SHEETS, SWITCH PLATES, OUTLET COVERS, CONTROL SYSTEMS, SPEAKER LOCATIONS, A/V SYSTEMS, AND SECURITY COMPONENTS

PLUMBING: FIXTURES

LANDSCAPE / HARDSCAPE: ALL EXTERIOR SURFACES INCLUDING TILE, MASONRY, STONE, METAL, CONCRETE AND WOOD

APPLIANCES: ALL INDOOR AND OUTDOOR APPLIANCES INCLUDING SPECIALTY ITEMS SUCH AS PIZZA OVENS, GRILLS, AND BARBEQUES.

FIRE SPRINKLERS: SPRINKLER HEAD LOCATIONS AND SPRINKLER HEAD CUT-SHEETS

PROJECT DATA

ADDRESS:	6740 NORTH SILVER MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
LEGAL:	LOT 2, MIRADOR, ACCORDING TO THE PLAY OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, IN BOOK 67 OF MAPS, PAGE 15. EXCEPT ALL COAL AND ALL OTHER MINERALS AS RESERVED ONTO THE UNITED STATES OF AMERICA IN THE RECORDED PATENT OF SAID LAND THE PROPERTY AND LIMITATIONS OF THE ACT OF DECEMBER 29, 1916 (39 STAT. 862).
ZONING:	R-43 (HILLSIDE)
LOT AREA:	46,507 SQ FT (1.06 AC.)
PARCEL #:	169-53-028
OWNER:	BELL FAMILY LIVING TRUST 6740 NORTH SILVER MOUNTAIN ROADPARADISE VALLEY, AZ 85253
ARCHITECT:	KENDLE DESIGN COLLABORATIVE 6115 N. CATTLETRACK SCOTTSDALE, ARIZONA 85250 (480) 951-8558
SURVEY:	PROFESSIONAL LAND SURVEYS OF ARIZONA, LLC. 10505 N. 69TH STREET, SUITE 101 SCOTTSDALE, ARIZONA 85253 (480) 905-1126
CIVIL:	LDG CIVIL ENGINEER/SURVEYING 8808 N CENTRAL AVE SUITE 288 PHOENIX, ARIZONA 85020 (602) 889-1984
ELECTRICAL:	
STRUCTURAL:	
MECHANICAL:	
LANDSCAPE:	

TOWN OF PARADISE VALLEY CODES

ALL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CODES AND AMENDMENTS PER THEIR ADOPTING ORDINANCES.

2015 INTERNATIONAL BUILDING CODE
2015 INTERNATIONAL RESIDENTIAL CODE
2015 INTERNATIONAL MECHANICAL CODE
2015 INTERNATIONAL PLUMBING CODE
2014 NATIONAL ELECTRICAL CODE
2015 INTERNATIONAL FIRE CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE
2015 INTERNATIONAL FUEL GAS CODE
2015 INTERNATIONAL PROPERTY MAINTENANCE CODE

SCOPE OF WORK (PER R106.1.1)

6,005 LIVABLE SQUARE FOOT CUSTOM SINGLE FAMILY RESIDENCE, LOCATED AT 6740 NORTH SILVER MOUNTAIN ROAD, PARADISE VALLEY, AZ 85253. THIS CONFORMS TO ALL RELEVANT CODES.

SHEET INDEX

A-0	COVER SHEET
A-0.1	GENERAL NOTES
A-0.2	GENERAL NOTES
ST-1	BOUNDARY & TOPOGRAPHIC SURVEY
C-1	GRADING & DRAINAGE PLAN COVER SHEET
C-2	GRADING & DRAINAGE PRELIMINART G&D
AE	AERIAL MAP EXHBIIT
A-1.0	ARCHITECTURAL SITE PLAN
A-2.0	SITE PLN WITH AREA OVERLAY
A-3.0	LOWER LEVEL FLOOR PLAN
A-3.1	MAIN LEVEL FLOOR PLAN
A-4.0	RENDERINGS
A-4.1	RENDERINGS
A-4.1	RENDERINGS
A-5.0	EXTERIOR ELEVATIONS
A-5.1	EXTERIOR ELEVATIONS
A-6.0	BUILDING SECTIONS
A-6.1	BUILDING SECTIONS
A-6.2	BUILDING SECTIONS
A-6.3	BUILDING SECTIONS
A-7.0	BUILDING MATERIALS

KENDLE DESIGN COLLABORATIVE

6115 NORTH CATTLETRACK
SCOTTSDALE, ARIZONA 85250
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Bell Residence
6740 North Silver Mountain Road
Paradise Valley, AZ 85253

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MARK	DATE	DESCRIPTION
5		
4		
3		
2		
1		

ISSUE: 03/13/2026 PV HS CONCEPT

-
PROJECT NO:
CAD DWG FILE:
DRAWN BY: RV
CHECKED BY: BK

SHEET TITLE:

COVER SHEET

A-0

FASTENER SCHEDULE FOR STRUCTURAL MEMBERS (TABLE R602.3(1))

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[b, c, e]	SPACING OF FASTENERS
ROOF		
Blocking between joists or rafters to top plate, toe nail	3-8d (2-1/2"x0.113")	-
Ceiling joists to plate, toe nail	3-8d (2-1/2"x0.113")	-
Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d	-
Collar tie to rafter, face nail or 1-1/4"x20 gage ridge strap	3-10d (3"x0.128")	-
Rafter or roof truss to plate, toe nail	3-16d box nails (3-1/2"x0.135") or 3-10d common nails (3"x0.148")	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss
Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d (3-1/2"x0.135") 3-16d (3-1/2"x0.135")	-
WALL		
Built-up studs-face nail	10d (3"x0.128")	24" O.C.
Abutting studs at intersecting wall corners, face nail	16d (3-1/2"x0.135")	12" O.C.
Built-up header, two pieces with 1/2" spacer	16d (3-1/2"x0.135")	16" O.C. along each edge
Continued header, two pieces	16d (3-1/2"x0.135")	16" O.C. along each edge
Continuous header to stud, toe nail	4-8d (2-1/2"x0.133")	-
Double studs, face nail	10d (3"x0.128")	24" O.C.
Double top plates, face nail	10d (3"x0.128")	24" O.C.
Double top plates, minimum 24-inch offset of end joints, face nail in lapped area	8-16d (3-1/2"x0.135")	-
Sole plate to joist or blocking, face nail	16d (3-1/2"x0.135")	16" O.C.
Sole plate to joist or blocking at braced wall panels	3-16d (3-1/2"x0.135")	16" O.C.
Stud to sole plate, toe nail	3-8d (2-1/2"x0.113") or 2-16d (3-1/2"x0.135")	-
Top or sole plate to stud, end nail	2-16d (3-1/2"x0.135")	-
Top plates, laps at corners and intersections, face nail	2-10d (3"x0.128")	-
1" brace to each stud and plate, face nail	2-8d (2-1/2"x0.113") 2 staples 1-3/4"	-
1"x6" sheathing to each bearing, face nail	2-8d (2-1/2"x0.113") 2 staples 1-3/4"	-
1"x8" sheathing to each bearing, face nail	2-8d (2-1/2"x0.113") 3 staples 1-3/4"	-
Wider than 1"x8" sheathing to each bearing, face nail	3-8d (2-1/2"x0.113") 4 staples 1-3/4"	-
FLOOR		
Joist to sill or girder, toe nail	3-8d (2-1/2"x0.113")	-
Rim joist to top plate, toe nail (roof applications also)	8d (2-1/2"x0.113")	6" O.C.
Rim joist or blocking to sill plate, toe nail	8d (2-1/2"x0.113")	6" O.C.
1"x6" subfloor or less to each joist, face nail	2-8d (2-1/2"x0.113") 2 staples 1-3/4"	-
2" subfloor to joist or girder, blind and face nail	2-16d (3-1/2"x0.135")	-
2" planks (plank & beam - floor & roof)	2-16d (3-1/2"x0.135")	At each bearing
Built-up girders and beams, 2-inch lumber layers	10d (3"x0.128")	Nail each layer as follows: 32" O.C. at top and bottom and staggered. Two nails at ends and at each splice.
Ledger strip supporting joists or rafters	3-16d (3-1/2"x0.135")	At each joist or rafter

DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER[b, c, e]	SPACING OF FASTENERS: EDGES (INCHES)[f]	SPACING OF FASTENERS: INTERMEDIATE SUPPORT (INCHES)[f]
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING			
3/8" - 1/2"	6d common (2"x0.113") nail (subfloor, wall)[i] 8d common (2-1/2"x0.131") nail (roof)[i]	6	12[g]
19/32" - 1"	8d common (2-1/2"x0.131")	6	12[g]
1 1/8" - 1 1/4"	10d common (3"x0.148") nail or 8d (2-1/2"x0.131") deformed nail	6	12[g]
OTHER WALL SHEATHING[h]			
1/2" structural cellulosic fiberboard sheathing	1-1/2" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1-1/4" long	3	6
25/32" structural cellulosic fiberboard sheathing	1-3/4" galvanized roofing nail, 7/16" crown or 1" crown staple 16 ga., 1-1/2" long	3	6
1/2" gypsum sheathing[d]	1-1/2" galvanized roofing nail; staple galvanized, 1-1/2" long; 1-1/4" screws, Type W or S	7	7
5/8" gypsum sheathing[d]	1-3/4" galvanized roofing nail; staple galvanized, 1-5/8" long; 1-5/8" screws, Type W or S	7	7
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING			
3/4" and less	6d deformed (2"x0.120") nail or 8d common (2-1/2"x0.113") nail	6	12
7/8" - 1"	8d common (2-1/2"x0.113") nail or 8d deformed (2-1/2"x0.120") nail	6	12
1-1/8" - 1-1/4"	10d common (3"x0.148") nail or 8d deformed (2-1/2"x0.120") nail	6	12

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s; 1 Ksi = 6.895 MPa.

NOTES:

a. All nails are smooth - common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown : 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.
b. Staples are 16 gage wire and have a minimum 7/16" on diameter crown width.
c. Nails shall be placed at not more than 6" o.c. at all supports where spans are 48" or greater.
d. Four foot by eight foot or four foot by nine foot panels shall be applied vertically.
e. Spacing of fasteners not included in this table shall be based on Table R602.3(2)
f. For regions having basic wind speed of 110 mph or greater, 8d deformed nails shall be used for attaching plywood and wood structural panel roof sheathing to framing within a distance from gable end walls, if mean roof height is more than 25', up to 35' maximum.
g. For regions having basic wind speed of 100 mph or less, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6" o.c.. When basic wind speed is greater than 100 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6" o.c. for minimum 48" distance from edges, eaves and gable end walls ; and 4" o.c. to gable wall framing.
h. Gypsum sheathing shall conform to ASTM C 79 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C 208.
i. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at all floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provide except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.
j. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The tow nail on the opposite side of the rafter shall not be required.

ENERGY CODE

CITY OF PARADISE VALLEY PRESCRIPTIVE (MINIMUM) ENERGY REQUIREMENTS:

1. CEILING/ATTIC R-VALUE = R-38 (MIN)
2. FRAME WALL R-VALUE = R-13 (MIN)
3. MASONRY WALL R-VALUE = R-4 (MIN)
4. WINDOW U-VALUE = 0.40 (MAX)
5. SOLAR HEAT GAIN COEFFICIENT = 0.25 (MAX)
6. SUPPLY & RETURN AIR DUCT R-VALUE = R-8 (MIN)

NOTES:
A PERMANENT ENERGY CERTIFICATE WILL BE REQUIRED AT TIME OF FINAL TO BE POSTED IN THE ELECTRICAL DISTRIBUTION PANEL (R, U, & SHGC VALUES OF EQUIPMENT).
THESE 'PRESCRIPTIVE' REQUIREMENTS ARE THE CODE-REQUIRED MINIMUM. HIGHER ENERGY PERFORMANCE STANDARDS MAY BE SPECIFIED BY THESE PLANS.

FIRE SUPPRESSION

1. AUTOMATIC SPRINKLERS REQUIRED PER IFC AND SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13D.
2. ALL SPRINKLER LOCATIONS TO BE CONCEALED HEADS.
3. FINISH OF SPRINKLER HEAD COVERS TO MATCH ADJACENT SURFACE OR AS SELECTED BY ARCHITECT.
4. SPRINKLER HEADS TO BE ALIGNED WITH AND CENTERED BETWEEN LIGHT FIXTURES & MECHANICAL DIFFUSERS.
5. CONTRACTOR TO PROVIDE A DRAWING WITH SPRINKLER HEAD LOCATIONS FOR ARCHITECT'S REVIEW AND APPROVAL PRIOR TO INSTALLATION.
6. CONTRACTOR TO USE STRING LINE LAYOUT FOR ACCURACY AND ALIGNMENT OF SPRINKLER HEADS, LIGHT FIXTURES & MECHANICAL DIFFUSERS.

CONCRETE

1. MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS FOOTINGS AND FOUNDATIONS: 3000 PSI
2. REINFORCING STEEL SHALL BE INTERMEDIATE GRADE ASTM 615-40 (Fy = 60KSI)
3. ARRANGEMENT AND BENDING OF BARS PER ACI MANUAL
4. LAP REINFORCEMENT MIN. OF 48 BAR DIAMETERS
5. CONCRETE PROTECTION FOR BARS PER ACI 318
6. ANCHOR BOLTS SHALL BE ASTM A-307. Fy = 33,000 PSI.

****VERIFY ABOVE NOTES WITH STRUCTURAL REQUIREMENTS**

7. INTEGRAL WATER REPELLANT ADD-MIXTURE FOR ALL BUILDINGS
8. APPLY MANUFACTURER'S APPROVED FLUID APPLIED AIR AND WATER-RESISTIVE BARRIER TO ALL ABOVE GRADE INTERIOR WALL SURFACES (EXCLUDING CONDITIONS WHERE THE CONCRETE WALL IS EXPOSED ON BOTH SIDES). SPRAY ON APPLICATION PRIOR TO ANY WOOD FRAMING/FURRING, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS (SIMILAR TO PROSOCO R-GUARD CAT 5 AIR AND WATERPROOF BARRIER)

MASONRY

ABOVE-GRADE, SINGLE-WYTHE MASONRY SPECIFICATION:

MASONRY SIZE, COLOR, FINISH, AND JOINT TYPE AND COLOR PER FINISH NOTES ON EXTERIOR ELEVATIONS. MORTAR JOINTS SHALL BE FULL DEPTH HEAD AND BED JOINTS WITH COMPRESSED TOOLED JOINTS (CONCAVE OR V-JOINT) PER EXTERIOR FINISH NOTES. SOLID CAP BLOCK AT PARAPETS AND WINDOW SILLS. ALL CELLS TO BE FULLY GROUTED. MASONRY, GROUT, AND MORTAR TO HAVE MANUFACTURER'S APPROVED INTEGRAL WATER-REPELLENT ADMIXTURE. APPLY MASONRY MANUFACTURER'S APPROVED CLEAR, MATTE, WATER-RESISTANT SEALER TO ALL EXTERIOR SURFACES IN ACCORDANCE WITH SEALER MANUFACTURER'S INSTRUCTIONS. APPLY MASONRY MANUFACTURER'S APPROVED FLUID APPLIED AIR AND WATER-RESISTIVE BARRIER TO ALL ABOVE GRADE INTERIOR SURFACES (EXCLUDING CONDITIONS WHERE THE MASONRY IS EXPOSED ON BOTH SIDES). SPRAY ON APPLICATION PRIOR TO ANY WOOD FRAMING/FURRING, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS (SIMILAR TO PROSOCO R-GUARD CAT 5 AIR AND WATERPROOF BARRIER). SUBMIT PRODUCT LITERATURE FOR ALL ADD-MIXTURES AND SEALERS TO ARCHITECT FOR REVIEW. PROVIDE SAMPLE APPLICATION ON AREAS TO RECEIVE SEALER FOR OWNER AND ARCHITECT REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS. PROVIDE WRITTEN MAINTENANCE INSTRUCTIONS TO OWNER. MASONRY WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE MUNICIPALITY'S ADOPTED VERSION OF THE INTERNATIONAL RESIDENTIAL CODE.

****VERIFY BELOW NOTES WITH STRUCTURAL REQUIREMENTS**

1. MASONRY UNITS SHALL BE GRADE "N" (ASTM C-90) CONCRETE UNITS f'c = 1900 PSI DESIGN f'm = 1500 PSI
2. MASONRY WALLS SHALL HAVE 1- #5 VERT. BARS AT CORNERS, ENDS, JAMBS AND AT 32" O.C. ELSEWHERE U.N.O.
3. ALL WALLS TO HAVE AN 8" CONTINUOUS BOND BEAM WITH 2-#5 BARS AT ROOF AND FLOOR LINE
4. PROVIDE STD. #9 GA. JOINT REINFORCEMENT AT 16" O.C. IN HORIZONTAL JOINTS
5. MORTAR SHALL BE TYPE "S" f'c = 1800 PSI
6. GROUT SHALL HAVE A MIN. STRENGTH OF 2500 PSI IN 28 DAYS
7. REINFORCING STEEL SHALL BE INTERMEDIATE GRADE ASTM 615-60 (Fy = 60 KSI)
8. LAP REINFORCING MIN. OF 52 BAR DIAMETERS
9. ADD 1-#5 BAR ADJ. TO EACH SIDE BELOW ALL OPENINGS U.N.O., EXTEND PAST JAMB 24" MIN.
10. MASONRY BED AND HEAD JOINTS SHALL BE 3/8 INCH-THICK, THE THICKNESS OF THE BED JOINT OF THE STARTING COURSE PLACED OVER FOUNDATIONS SHALL NOT BE LESS THAN 1/4 INCH AND NOT MORE THAN 3/4 INCH. MORTAR JOINT THICKNESS SHALL BE WITHIN THE FOLLOWING TOLERANCES FROM THE SPECIFIED DIMENSIONS: 1. BED JOINT: + 1/8 INCH. 2. HEAD JOINT: 1/4 INCH + 3/8 INCH. 3. COLLAR JOINTS: 1/4 INCH + 3/8 INCH. (R607.2.1)

WOOD

****VERIFY BELOW NOTES WITH STRUCTURAL REQUIREMENTS**

1. SAWN LUMBER - FRAMING LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY. JOISTS, LEDGERS, BEAMS, ETC. SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

	GRADE	Fb (psi)	Fv (psi)	E (psi)
DIMENSION LUMBER	#2	900	180	1,600,000
BEAMS > 4" WIDE	#1	1350	170	1,600,000
POSTS > 5"x5"	#1	1200	170	1,600,000
STUDS	STUD	700	180	1,400,000

2. PLYWOOD - ALL PLYWOOD SHALL BE APA RATED SHEATHING, EXPOSURE 1 AND SHALL BEAR THE STAMP OF AN APPROVED TESTING AGENCY. LAY UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS, STAGGER JOINTS. ALL NAILING COMMON NAILS. ALL PLYWOOD SHALL BE OF THE FOLLOWING THICKNESS, SPAN / INDEX RATIO AND SHALL BE NAILED AS FOLLOWS:

USE	THICK'S	S/I RATIO	NAILING (EDGE)	NAILING (INTERM)
ROOF	1/2"	32/16	8d @ 6"	8d @ 12"
FLOOR (N/A)	1-1/8" T&G	40/20	SCREWS @ 6"	SCREWS @ 12"

ALL FLOOR SHEATHING SHALL BE SCREWED AND GLUED WITH #10 X 2-1/2" LONG SCREWS AND APA AFG - 01 QUALIFIED GLUE

3. GLUELAM BEAMS - GLUELAM BEAMS SHALL BE DOUGLAS FIR/LARCH COMBINATION 24F-V4 WITH THE FOLLOWING PROPERTIES:

Fb = 2400 PSI Fv = 265 PSI E = 1,800,000 PSI

ALL BEAMS SHALL BE FABRICATED USING WATERPROOF GLUE. FABRICATION AND HANDLING PER LATEST AITC AND WCLA STANDARDS. BEAMS TO BEAR AITC STAMP AND CERTIFICATE AND GRADE STAMP. CAMBER AS SHOWN ON DRAWINGS.

4. PREFABRICATED ROOF TRUSSES - DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH TRUSS PLATE INSTITUTE'S "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES". ALL TRUSSES SHALL BE DESIGNED TO CARRY A TOTAL LOAD OF 55 PSF MIN. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS COMPLETE WITH STRESS ANALYSIS, STRESS DIAGRAMS AND PLACING DRAWINGS FOR REVIEW PROIR TO MANUFACTURE. ICC RESEARCH RECOMMENDATION REPORT FOR THE METAL PLATE CONNECTIONS USED SHALL BE SUBMITTED ALSO.
NOTE: FLOOR TRUSSES TO CARRY A TOTAL LOAD OF 100 PSF MIN. W/ LL DEF = L/900

5. GENERAL - DO NOT NOTCH OR DRILL JOISTS, BEAMS, OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF STRUCTURAL ENGINEER. DOUBLE UP FLOOR JOISTS UNDER PARTITIONS. PROVIDE 1X3 OR METAL CROSS BRIDGING AT MIDSPAN OF ALL JOISTS. PROVIDE 2X SOLID BLOCKING AT SUPPORTS OF ALL JOISTS. DOUBLE UP STUDS AT JAMBS AND UNDER BEAMS IN BEARING WALLS. PROVIDE MID HEIGHT BLOCKING. ALL NAILING OF JOINTS SHALL BE COMMON OR SMOOTH BOX NAILS. ALL DIAPHRAGM ATTACHMENTS SHALL BE ASSUMED AS COMMON NAILS WITH ACCEPTABLE ALTERNATIVES AS SHOWN IN ICC-ES EVALUATION REPORT ESR-1539 FOR THE SAME ALLOWABLE LATERAL STRENGTH AS GIVEN FOR NAILING SPECIFIED ON DRAWINGS. NAILING NOT NOTED SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE

STEEL

1. STRUCTURAL - ASTM A-36, Fy = 36,000 PSI. W-SECTIONS - Fy = 50,000 PSI, PIPE STEEL - WELDABLE, WITH Fy = 35,000 PSI MINIMUM, BOLTS - ASTM A-307 UNLESS OTHERWISE NOTED.
LATEST AISC AND AWS CODES APPLY. ALL CONSTRUCTION PER LATEST AISC HANDBOOK. FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION.

EMERGENCY ESCAPE AND RESCUE OPENINGS

1. ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MAXIMUM SILL HEIGHT OF 44", WITH A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET.
2. ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING HEIGHT OF 24", AND A MINIMUM NET CLEAR OPENING WIDTH OF 20".
3. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS, TOOLS OR SPECIAL KNOWLEDGE.

MEANS OF EGRESS

1. NOT LESS THAN ONE EXIT DOOR CONFORMING TO IRC SECTION R311 SHALL BE PROVIDED FOR EACH DWELLING UNIT.
2. THE REQUIRED EXIT DOOR SHALL BE A SIDE HINGED DOOR NOT LESS THAN 3'-0" IN WIDTH AND 6'-8" IN HEIGHT. OTHER DOORS SHALL NOT BE REQUIRED TO COMPLY WITH THESE MINIMUM DIMENSIONS.
3. THE EXTERIOR LANDING AT AN EXTERIOR DOOR WAY SHALL NOT BE MORE THAN 7-3/4" BELOW THE TOP OF THE THRESHOLD, PROVIDED THE DOOR, OTHER THAN AN EXTERIOR STORM OR SCREEN DOOR DOES NOT SWING OVER THE LANDING.
4. EXTERIOR LANDING WIDTH SHALL NOT BE LESS THAN THE DOOR SERVED, EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36" MEASURED IN THE DIRECTION OF TRAVEL.
5. ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE OR EFFORT.

SMOKE ALARMS

SMOKE ALARMS SHALL BE INSTALLED IF THE FOLLOWING LOCATIONS :

1. IN EACH SLEEPING ROOM.
2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
3. ON EACH ADDITIONAL STORY OF THE DWELLING , INCLUDING BASEMENTS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.
4. WHEN MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.
5. SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING, AND WHEN PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

HANDRAILS

1. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH FOUR OR MORE RISERS.
2. HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING SHALL NOT BE LESS THAN 34" AND NOT MORE THAN 38".
3. HANDRAILS SHALL BE CONTINUOUS FOR THE FULL LENGHT OF THE FLIGHT, FROM A POINT DIRECTLY ABOVE TOP RISER TO A POINT DIRECTLY ABOVE THE BOTTOM RISER.
4. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS.
5. HANDRAILS ADJACENT TO WALLS SHALL HAVE A SPACE NOT LESS THAN 1-1/2" BETWEEN THE WALL AND HANDRAIL.
6. HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIMENSION OF AT LEAST 1-1/4"AND NOT GREATER THAN 2". IF HANDRAIL IS NOT CIRCULAR IT SHALL HAVE A PERIMETER DIMENSION OF AT LEAST 4" AND NOT GREATER THAN 6-1/4" WITH A MAXIMUM CROSS SECTION DIMENSION OF 2-1/4".
7. HANDRAILS WITH A PERIMETER GREATER THAN 6-1/4" SHALL PROVIDE A GRASPABLE FINGER RECESS AREA ON BOTH SIDES OF THE PROFILE. THE FINGER RECESS SHALL BEGIN WITHIN A DISTANCE OF 3/4" MEASURED VERTICALLY FROM THE TALLEST PORTION OF THE PROFILE AND ACHIEVE A DEPTH OF AT LEAST 5/16" WITHIN 7/8" BELOW THE WIDEST PORTION OF THE PROFILE. THIS REQUIRED DEPTH SHALL CONTINUE FOR AT LEAST 3/8" TO A LEVEL THAT IS NOT LESS THAN 1-3/4" BELOW THE TALLEST PORTION OF THE PROFILE. THE MINIMUM WIDTH OF THE HANDRAIL ABOVE THE RECESS SHALL BE 1-1/4" TO A MAXIMUM OF 2-3/4". EDGES SHALL HAVE A MINIMUM RADIUS OF 0.01".

GUARDS

1. PORCHES, BALCONIES, RAMPS OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS NOT LESS THAN 36" IN HEIGHT. OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS NOT LESS THAN 34" IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS.
2. REQUIRED GUARDS ON OPEN STAIRWAYS, RAISED FLOOR AREAS, BALCONIES AND PORCHES SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL CLOSURES WHICH DO NOT ALLOW PASSAGE OF A SPHERE 4" OR MORE IN DIAMETER.

AIR CONDITIONING

1. EVERY DWELLING UNIT SHALL BE PROVIDED WITH HEATING AND COOLING FACILITIES CAPABLE OF MAINTAINING ROOM TEMPERATURES BETWEEN 70°F AND 90°F AT A POINT 3' ABOVE THE FLOOR AND 2' FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS. THE INSTALLATION OF ONE OR MORE PORTABLE SPACE HEATERS OR COOLERS SHALL NOT BE USED TO ACHIEVE COMPLIANCE WITH THIS REQUIREMENT.

TOILET, BATH AND SHOWER SPACES

FIXTURES SHALL BE PLACED AS FOLLOWS:

1. LAVATORIES - 4" MINIMUM CLEAR FROM ADJACENT WALL, 4" MINIMUM CLEAR FROM ADJACENT LAVATORY AND OR WATER CLOSET, 2" MINIMUM CLEAR FROM ADJACENT TUB AND SHALL HAVE A MINIMUM 21" CLEAR SPACE DIRECTLY IN FRONT OF SINK.
2. WATER CLOSETS - 15" MINIMUM CLEAR FROM CENTER LINE OF WATER CLOSET TO ADJACENT WALL OR TUB AND SHALL HAVE A MINIMUM 21" CLEAR SPACE IN FRONT OF WATER CLOSET.
3. SHOWER STALLS SHALL HAVE A MINIMUM CLEAR WIDTH AND DEPTH OF 30" AND A MINIMUM 24" CLEAR SPACE IN FRONT OF OPENING.
4. BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6'-0" ABOVE THE FLOOR.
5. SHOWER COMPARTMENTS AND BATHTUBS WITH INSTALLED SHOWER HEADS SHALL BE ENCLOSED WITH SHOWER ROD AND CURTAIN, TEMPERED SAFETY GLASS OR AN APPROVED EQUAL.

LUMBER

1. ALL LUMBER MUST BEAR AN APPROVED GRADING STAMP.
2. BEARING WALL BOTTOM PLATES SHALL BE TREATED OR FOUNDATION REDWOOD.
3. FIRE BLOCK STUD WALLS AT DROPPED CEILING, SOFFITS, AND AT MAXIMUM 10' INTERVALS.
4. INTERIOR BEARING WALLS OVER 10' IN HEIGHT TO BE MIN. 2x6's AT 16" O.C.
5. PROVIDE MINIMUM 22"x30" ATTIC SCUTTLE TO ALL ATTIC AREAS WITH A MIN. 30" CLEAR HEIGHT

CEILING JOIST SCHEDULE

SIZE	SPACING	MAX. SPAN	SIZE	SPACING	MAX. SPAN
2x4	24" O.C.	7'-2"	2x8	24" O.C.	13'-3"
2x6	24" O.C.	10'-6"	2x10	24" O.C.	16'-3"

CEILING JOISTS SHALL BE DOUGLAS FIR LARCH NUMBER 2 OR BETTER, LL=20#PSF, Δ =240

EXTERIOR FRAME WALL ASSEMBLY

WESTERN ONE- KOTE STUCCO SYSTEM, ESR-1607 OVER 1" THICK 1.5 P.C.F. DENSITY TYPE 2 T&G EXPANDED POLYSTYRENE INSULATION BOARD (ON AIS BOARD AT ATTIC AREAS) OVER 2 LAYERS GRADE 'D' BUILDING PAPER OR 1LAYER OF TYPE 15 ASPHALT SATURATED ORGANIC FELT PAPER OVER, OR EXTERIOR GRADE PLYWOOD OVER 2 X 6 MINIMUM STUDS AT 16" O.C. (STAGGER JOINTS LAPPED MINIMUM 6" VERTICAL AND 2" MINIMUM WITH BUILDING PAPER OR FELT HORIZONTAL CORNER REINFORCEMENT (K-LATH CORP. KWIK CORNER FOR EXTERIOR ANGLES (PER MFR'S. INSTALLATION INSTRUCTIONS.

PROVIDE A GALVANIZED CORROSION RESISTANT METAL WEEP SCREED AS MANUFACTURED BY 'FRY REGLET CORPORATION' LOS ANGELES, CA. OF EXTRUDED ALUMINUM .050" THICK WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2 INCHES PLACED A MINIMUM 3/4 INCH BELOW THE FOUNDATION PLATE LINE ON ALL FRAME WALLS AND A MINIMUM 4 INCHES ABOVE ADJACENT FINISH GRADE. INSTALL PER TOWN APPROVED DETAILS.

MAG ONE COAT STUCCO COMPLIANCE PROGRAM

MAG ONE-COAT STUCCO COMPLIANCE PROGRAM ALL ONE-COAT STUCCO SYSTEMS SHALL BE APPLIED BY MFR APPROVED INSTALLERS. AN APPROVED WEATHERRESISTIVE BARRIERS SHALL BE INSTALLED OVER ALL FRAMING, AND WOOD BASED SHEATHING. ONE-COAT STUCCO SYSTEM SHALL BE WESTERN ONE-COAT STUCCO SYSTEM ICC ESR 1607 OR OTHER APPROVED 1-COAT STUCCO SYSTEM. THIS ONE-COAT STUCCO SYSTEM SHALL BE APPLIED OVER A WEATHERRESISTIVE BARRIER
CONSISTING OF:
A. ONE LAYER OF GRADE "D" KRAFT WATER-PROOF BUILDING PAPER OR OTHER WEATHERRESISTIVE BARRIER CONFORMING TO IRC SECTION 703.2, OVER ALL OPEN STUD WALL FRAMING.
B. TWO LAYERS OF GRADE "D" KRAFT WATERRESISTIVE BARRIER CONFORMING TO IRC SECTION 703, OVER ALL WOOD BASED WALL SHEATHING.

FIRE BLOCKING REQUIRED

1. FIREBLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS AS FOLLOWS :
2. VERTICALLY AT THE CEILING AND FLOOR LEVELS.
3. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET
4. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS.
5. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES SHALL COMPLY WITH SECTION R311.2.2.
6. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION.

GLAZING (HAZARDOUS AREAS)

GLAZING INSTALLED IN HAZARDOUS LOCATIONS AS DEFINED IN IRC SECTION R308.4 SHALL BE SAFETY GLASS. THE FOLLOWING SHALL BE CONSIDERED SPECIFIC HAZARDOUS LOCATIONS FOR THE PURPOSE OF GLAZING :

1. GLAZING IN SWINGING DOORS EXCEPT JALOUSIES.
2. GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOOR ASSEMBLIES AND PANELS IN SLIDING AND BIFOLD CLOSET DOOR ASSEMBLIES.
3. GLAZING IN STORM DOORS.
4. GLAZING IN ALL UNFRAMED SWINGING DOORS.
5. GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS,WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS. GLAZING IN ANY PART OF A BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE FLOOR OR WALKING SURFACE.
6. GLAZING, IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARC OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60" ABOVE THE FLOOR OR WALKING SURFACE.
7. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL, OTHER OTHER THAN THOSE LOCATIONS IN ITEMS 5 AND 6 ABOVE THAT MEETS ALL OF THE FOLLOWING CONDITIONS :
7.1. EXPOSED AREA OF AN INDIVIDUAL PANE LARGER THAN 9 SQUARE FEET.
7.2. BOTTOM EDGES LESS THAN 18" ABOVE THE FLOOR.
7.3. TOP EDGE MORE THAN 36" ABOVE THE FLOOR.
7.4. ONE OR MORE WALKING SURFACES WITHIN 36" HORIZONTALLY OF THE GLAZING.
8. ALL GLAZING IN RAILINGS REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE. INCLUDED ARE STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL INFILL PANELS
9. GLAZING IN WALLS AND FENCES ENCLOSING INDOOR AND OUTDOOR SWI

TOWN OF PARADISE VALLEY POOL BARRIER REQUIREMENTS

SWIMMING POOLS, SPAS AND HOT TUBS

SWIMMING POOL IS DEFINED AS ANY CONTAINED BODY OF WATER 18 INCHES (457 MM) OR MORE IN DEPTH AT ANY POINT AND THAT IS WIDER THAN 8 FEET (2400 MM) AT ANY POINT. THIS INCLUDES IN-GROUND, ABOVE GROUND AND ON-GROUND SWIMMING POOLS AND HOT TUBS AND SPAS.

BARRIER REQUIREMENTS

THE PROVISIONS OF THIS CHAPTER SHALL CONTROL THE DESIGN OF BARRIERS FOR RESIDENTIAL SWIMMING POOLS, SPAS AND HOT TUBS. THESE DESIGN CONTROLS ARE INTENDED TO PROVIDE PROTECTION AGAINST POTENTIAL DROWNINGS AND NEAR DROWNINGS BY RESTRICTING ACCESS TO SWIMMING POOLS, SPAS AND HOT TUBS.

AN OUTDOOR SWIMMING POOL, INCLUDING AN IN-GROUND, ABOVE-GROUND OR ON-GROUND POOL, HOT TUB OR SPA SHALL BE SURROUNDED BY A BARRIER WHICH SHALL COMPLY WITH THE FOLLOWING:

1. THE TOP OF THE BARRIER SHALL BE AT LEAST 60 INCHES (1524 MM) ABOVE GRADE MEASURED ON THE SIDE OF THE BARRIER WHICH FACES AWAY FROM THE SWIMMING POOL. THE TOP OF THE BARRIER THAT SEPARATES TEH SWIMMING POOL ONLY FROM HABITABLE SPACES ON THE SAME PROPERTY SHALL BE AT LEAST 48 INCHES (1219 MM) ABOVE GRADE MEASURED ON THE SIDE OF THE BARRIER WHICH FACES AWAY FROM THE SWIMMING POOL. THE MAXIMUM VERTICAL CLEARANCE BETWEEN BETWEEN GRADE AND THE BOTTOM OF THE BARRIER SHALL BE 2 INCHES (51 MM). THE MAXIMUM VERTICAL CLEARANCE AT THE BOTTOM OF THE BARRIER MAY BE INCREASED TO 4 INCHES (102 MM) WHEN GRADE IS A SOLID SURFACE SUCH AS CONCRETE. THE BARRIER SHALL BE AT LEAST 20 INCHES FROM THE WATER'S EDGE.
2. OPENINGS IN THE BARRIER SHALL NOT ALLOW PASSAGE OF A 4 INCH DIAMETER (102 MM) SPHERE. ANY DECORATIVE DESIGN WORK SUCH AS PROTRUSIONS,INDENTATIONS OR CUTOUTS WHICH MAKE THE BARRIER EASILY CLIMBABLE IS PROHIBITED.
3. SOLID BARRIERS WHICH DO NOT HAVE ANY OPENINGS, SUCH AS A MASONRY OR STONE WALL, SHALL NOT CONTAIN INDENTATIONS OR PROTRUSIONS EXCEPT FORNORMAL CONSTRUCTION TOLERANCES AND TOOLED MASONRY JOINTS.
4. THERE SHALL BE AT LEAST 45 INCHES BETWEEN HORIZONTAL ELEMENTS.
5. MAXIMUM MESH SIZE FOR CHAIN LINK FENCES SHALL BE A 2-1/4 INCH (57 MM) SQUARE UNLESS THE FENCE HAS SLATS FASTENED AT THE TOP OR THEBOTTOM WHICH REDUCE THE OPENINGS TO NOT MORE THAN 1-3/4 INCHES (44 MM). CHAIN LINK FENCING SHALL NOT BE LESS THAN 11 GAUGE.
6. WHERE THE BARRIER IS COMPOSED OF DIAGONAL MEMBERS, SUCH AS A LATTICE FENCE, THE MAXIMUM OPENING FORMED BY THE DIAGONAL MEMBERSSHALL NOT BE MORE THAN 1-3/4 INCHES (44 MM).
7. ACCESS GATES SHALL COMPLY WITH THE REQUIREMENTS OF THIS SECTION, ITEMS 1 THROUGH 6, AND SHALL BE EQUIPPED TO ACCOMMODATE A LOCKING DEVICE. PEDESTRIAN ACCESS GATES SHALL OPEN OUTWARD AWAY FROM THE POOL AND SHALL BE SELF-CLOSING AND HAVE A SELF-LATCHING DEVICE. GATES OTHER THAN PEDESTRIAN ACCESS GATES SHALL BE LOCKABLE. WHERE THE RELEASE MECHANISM OF THE SELF-LATCHING DEVICE IS LOCATED LESS THAN 54 INCHES (1372 MM) FROM THE BOTTOM OF THE GATE, THE RELEASE MECHANISM AND OPENINGS SHALL COMPLY WITH THE FOLLOWING:
   7.1 THE RELEASE MECHANISM SHALL BE LOCATED ON THE POOL SIDE OF THE GATE AT LEAST 3 INCHES (76 MM) BELOW THE TOP OF THE GATE; AND
   7.2 THE GATE AND BARRIER SHALL HAVE NO OPENINGS LARGER THAN $\frac{1}{2}$ INCH (13 MM) WITHIN 18 INCHES (457 MM) OF THE RELEASE MECHANISM.
8. WHERE A WALL OF A DWELLING SERVES AS PART OF THE BARRIER, ONE OF THE FOLLOWING CONDITIONS SHALL BE MET:
   8.1 IN LIEU OF THE BARRIER BETWEEN THE DWELLING AND THE SWIMMING POOL, THE SWIMMING POOL SHALL BE EQUIPPED WITH A POWERED SAFETY COVER IN COMPLIANCE WITH ASTM F1346; OR
   8.2 DOORS WITH A DIRECT ACCESS TO THE POOL THROUGH THAT WALL SHALL BE EQUIPPED WITH AN ALARM WICH PRODUCES AN AUDIBLE WARNING WHEN THE DOOR AND/OR ITS SCREEN, IF PRESENT, ARE OPENED. THE ALARM SHALL BE LISTED IN ACCORDANCE WITH UL 2017. THE AUDIBLE ALARM SHALL ACTIVATE WITHIN 7 SECONDS AND SOUND CONTINUOUSLY FOR A MINIMUM OF 30 SECONDS AFTER THE DOOR AND/OR ITS SCREEN, IF PRESENT, ARE OPENED AND BE CAPABLE OF BEING HEARD THROUGHOUT THE HOUSE DURING NORMAL HOUSEHOLD ACTIVITIES. THE ALARM SHALL AUTOMATICALLY RESET UNDER ALL CONDITIONS. THE ALARM SYSTEM SHALL BE EQUIPPED WITH A MANUAL MEANS, SUCH AS TOUCH PAD OR SWITCH, TO TEMPORARILY DEACTIVATE THE ALARM FOR A SINGLE OPENING. DEACTIVATION SHALL LAST FOR NOT MORE THAN 15 SECONDS. THE DEACTIVATION SWITCH(ES) SHALL BE LOCATED AT LEAST 54 INCHES (1372 MM) ABOVE THE THRESHOLD OF THE DOOR; OR
   8.3 OTHER MEANS OF PROTECTION, SUCH AS SELF-CLOSING DOORS WITH SELF-LATCHING DEVICES, WHICH ARE APPROVED BY THE GOVERNING BODY, SHALL BE ACCEPTABLE SO LONG AS THE DEGREE OF PROTECTION AFFORDED IS NOT LESS THAN THE PROTECTION AFFORDED BY ITEM 8.1 OR 8.2 DESCRIBED ABOVE. SELF-CLOSING AND SELF-LATCHING DEVICES SHALL BE INSTALLED ON ALL DOORS WITH DIRECT ACCESS TO THE POOL AREA, WITH THE RELEASE MECHANISM LOCATED A MINIMUM OF FIFTY-FOUR INCHES ABOVE THE FLOOR.
9. WHERE AN ABOVE-GROUND POOL STRUCTURE IS USED AS A BARRIER OR WHERE THE BARRIER IS MOUNTED ON TOP OF THE POOL STRUCTURE, AND THE MEANSOF ACCESS IS A LADDER OR STEPS:
   9.1 THE LADDER OR STEPS SHALL BE CAPABLE OF BEING SECURED, LOCKED OR REMOVED TO PREVENT ACCESS; OR
   9.2 THE LADDER OR STEPS SHALL BE SURROUNDED BY A BARRIER WHICH MEETS THE REQUIREMENTS OF THIS SECTION, ITEMS 1 THROUGH 9. WHEN THE LADDER OR STEPS ARE SECURED, LOCKED OR REMOVED, ANY OPENING CREATED SHALL NOT ALLOW THE PASSAGE OF A 4 INCH DIAMETER (102 MM) SPHERE.
10. PET DOORS WHICH PROVIDE DIRECT ACCESS TO THE POOL AREA ARE PROHIBITED UNLESS THEY MEET THE REQUIREMENTS OF ITEM 2 OR ARE EQUIPPED WITHAN ALARM THAT MEETS ITEM 8.2.

11. WINDOWS WITH ACCESS TO THE POOL AREAS WILL BE PROTECTED IN THE FOLLOWING WAYS:
   1. EMERGENCY ESCAPE OR RESCUE WINDOWS FROM SLEEPING AREAS WITH ACCESS TO THE SWIMMING POOL WILL BE EQUIPPED WITH A LATCHING DEVICE NOT LESS THAN 54 INCHES (1372 MM) ABOVE THE FLOOR.
   2. ALL OTHER OPENABLE WINDOWS WITH SIMILAR ACCESS WILL ALSO BE EQUIPPED WITH A LATCHING DEVICE NOT LESS THAN 54 INCHES (1372 MM) ABOVE THE FLOOR OR SHALL BE EQUIPPED WITH A LATCHING DEVICE NOT LESS THAN 54 INCHES (1372 MM) ABOVE THE FLOOR OR SHALL BE EQUIPPED WITH A KEY LOCK DEVICE THAT PREVENTS OPENING THE WINDOW MORE THAN 4 INCHES (102 MM).

WALLS SURROUNDING AN INDOOR SWIMMING POOL SHALL COMPLY WITH ITEM 8.

BARRIERS SHALL BE LOCATED TO PROHIBIT PERMANENT STRUCTURES, EQUIPMENT OR SIMILAR OBJECTS FROM BEING USED TO CLIMB THEM.

SPAS OR HOT TUBS WITH A SAFETY COVER WHICH COMPLIES WITH ASTM F 1346 SHALL BE EXEMPT FROM THE PROVISIONS OF THIS SECTION.

PROJECT INFO

AREA SUMMARY

INTERIOR

	LIVABLE	MECH/ UNCONDITIONED	GARAGE/ STORAGE	TOTALS
LOWER LEVEL	533 SQ FT	557 SQ FT	1,178 SQ FT	2,268 SQ FT
MAIN LEVEL	5,581 SQ FT	77 SQFT	1,243 SQ FT	6,901 SQ FT
TOTAL	6,114 SQ FT	634 SQ FT	2,421 SQ FT	9,169 SQ FT

LOT COVERAGE

TOTAL ENCLOSED AREA	-
MAIN HOUSE AREA UNDER ROOF	-
CAR BARN AREA UNDER ROOF	-
TOTAL AREA UNDER ROOF	-
AREA OF LOT	-
LOT COVERAGE: TOTAL AREA UNDER ROOF/AREA OF LOT	-
MAX LOT COVERAGE:	25%

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MARK	DATE	DESCRIPTION
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4		
3		
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ISSUE: 03/13/2026 PV HS CONCEPT

-
PROJECT NO:
CAD DWG FILE:
DRAWN BY: RV
CHECKED BY: BK

SHEET TITLE:
GENERAL NOTES

A-0.2

PRELIMINARY GRADING & DRAINAGE PLAN
BELL RESIDENCE
6740 N SILVER MOUNTAIN RD., PARADISE VALLEY, AZ 85253
LOT 28 - PARADISE HIGHLANDS

A SUBDIVISION PLAT RECORDED IN BOOK 84 OF MAPS, PAGE 36, MCR.,
LOCATED IN A PORTION OF THE SE 1/4 OF THE NE 1/4 OF THE NW 1/4 OF SECTION 7, T.2N, R.4E
OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA

TOWN OF PARADISE VALLEY NOTES

1. GRADING SHALL BE IN CONFORMANCE WITH 2018 IBC.
2. 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 IDENTIFIED PRIOR TO INSPECTION.
3. 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.
4. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) SPECIFICATIONS AND STANDARD DETAILS.
5. ALL EXTERIOR SITE LIGHTING SHALL COMPLY WITH REQUIREMENTS OF SECTION 2208 OF THE TOWN OF PARADISE VALLEY ZONING ORDINANCES FOR FUTURE TYPE, LOCATION, HEIGHT, WATTAGE BASED UPON FIXTURES INSTALLED.
6. A DUST CONTROL PLAN MEETING THE REQUIREMENTS OF RULE 310 OF THE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED.
7. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
8. 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.
9. EAVE PROJECTIONS INTO REQUIRED SETBACKS ARE LIMITED TO A MAXIMUM OF 24" PURSUANT TO SECTION 1008 OF THE TOWN OF PARADISE VALLEY ZONING ORDINANCES.
10. ALL STRUCTURES AND LANDSCAPING WITHIN THE SIGHT VISIBILITY TRIANGLE SHALL HAVE A 2 FOOT MAXIMUM HEIGHT.
11. ALL NEW AND EXISTING ELECTRICAL SERVICE TO BE BURIED UNDERGROUND PER THE TOWN OF PARADISE VALLEY STANDARDS.
12. POOL, SPA, BARBECUE AND ANY PROPOSED STRUCTURES OVER 8 INCHES ABOVE GRADE REQUIRE SEPARATE PERMIT APPLICATIONS.
13. POOLS SHALL BE CONSTRUCTED BY SEPARATE PERMIT AND SECURED FROM UNWANTED ACCESS PER SECTION 5-2-2 OF THE TOWN OF PARADISE VALLEY ORDINANCES.
14. A SETBACK CERTIFICATION IS REQUIRED AND MUST BE GIVEN TO TOWN INSPECTOR AT STEM WALL INSPECTION.
15. MAIL BOX TO COMPLY WITH THE TOWN OF PARADISE VALLEY STANDARDS FOR MAIL BOXES IN THE R.O.W. FOR HEIGHT, WIDTH AND BREAK AWAY FEATURES.
16. ALL PATIOS, WALKS, AND DRIVES TO SLOPE AWAY FROM BUILDING AND GARAGES AT A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS SPECIFIED OTHERWISE. ALL LAWN AREAS ADJOINING WALKS OR SLABS WILL BE GRADED TO 2" BELOW THE TOP OF SLAB. TYPICAL FINISHED GRADE AROUND PERIMETER OF BUILDING IS MINUS 6" BELOW FINISHED FLOOR UNLESS SPECIFIED OTHERWISE.
17. ALL MATERIAL TO BE UNDER SLABS AND WALKS SHALL BE COMPACTED TO NOT LESS THAN 95% PER ASTM D698.
18. SOILS COMPACTION TEST RESULTS MUST BE SUBMITTED TO THE TOWN ENGINEER'S OFFICE FOR BUILDING PADS THAT HAVE ONE (1) FOOT OR MORE OF FILL MATERIAL INDICATED. THIS INFORMATION MUST BE SUPPLIED PRIOR TO REQUEST FOR FINAL INSPECTION.
19. TRENCH BED SHALL BE FREE OF ROCKS AND DEBRIS.
20. LOWEST FLOOR ELEVATION CERTIFICATE (LFE) IS REQUIRED AND SHALL BE UPLOADED TO YOUR PERMIT DOCUMENTS PRIOR TO SCHEDULING OF STRAP SHEAR INSPECTION.
21. REGULATION II RULE 20-3 OF THE MARICOPA COUNTY HEALTH DEPARTMENT, BUREAU OF AIR POLLUTION CONTROL SHALL BE OBSERVED AND ENFORCED.
22. ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE M.A.G. STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL CITY OR TOWN UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL REQUIRED STANDARD SPECIFICATIONS, DETAILS AND SUPPLEMENTS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
23. THE CONTRACTOR IS TO COMPLY WITH ALL LOCAL STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION COVERED BY THIS PLAN.
24. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
25. 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.
26. THE TOWN 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 TOWN.
27. THE APPROVAL OF PLANS IS VALID FOR SIX (6) MONTHS. IF AN ENCROACHMENT PERMIT FOR THE CONSTRUCTION HAS NOT BEEN ISSUED WITHIN SIX MONTHS, THE PLANS MUST BE RESUBMITTED TO THE TOWN FOR RE-APPROVAL.
28. A PUBLIC WORKS INSPECTOR WILL INSPECT ALL WORKS WITHIN THE TOWN OF PARADISE VALLEY RIGHTS-OF-WAY AND IN EASEMENTS. NOTIFY INSPECTION SERVICES 24 HOURS PRIOR TO BEGINNING CONSTRUCTION BY CALLING 480- 312-5750.
29. WHENEVER EXCAVATION IS NECESSARY, CALL THE BLUE STAKE CENTER, 602-263-1100, TWO WORKING DAYS BEFORE EXCAVATION BEGINS. THE CENTER WILL SEE THAT THE LOCATION OF THE UNDERGROUND UTILITY LINES IS IDENTIFIED FOR THE PROJECT. CALL "COLLECT" IF NECESSARY.
30. ENCROACHMENT PERMITS ARE REQUIRED FOR ALL WORK IN PUBLIC RIGHTS-OF-WAY AND EASEMENTS GRANTED FOR PUBLIC PURPOSES. AN ENCROACHMENT PERMIT WILL BE ISSUED BY THE TOWN ONLY AFTER THE REGISTRANT HAS PAID A BASE FEE PLUS A FEE FOR INSPECTION SERVICES. 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.
31. ALL EXCAVATION AND GRADING THAT IS NOT IN THE PUBLIC RIGHTS-OF-WAY OR NOT IN EASEMENTS GRANTED FOR PUBLIC USE MUST CONFORM TO CHAPTER 70, EXCAVATION AND GRADING, OF THE LATEST EDITION OF THE IBC BY THE ICC. A PERMIT FOR THIS GRADING MUST BE SECURED FROM THE TOWN FOR A FEE ESTABLISHED BY THE UNIFORM BUILDING CODE.
32. EXCAVATIONS SHALL COMPLY WITH REQUIREMENTS OF OSHA EXCAVATION STANDARDS (29 CFR, PART 1926, SUBPART P). UNDER NO CIRCUMSTANCES WILL THE CONTRACTORS BE ALLOWED TO WORK IN A TRENCH LOCATED WITHIN THE TOWN'S RIGHT-OF-WAY WITHOUT PROPER SHORING OR EXCAVATION METHODS.
33. ON DEMOLITION, GRADING, REMODELING AND NEW CONSTRUCTION PROJECTS, PERMITTEE MUST NOTIFY ADJACENT PROPERTY OWNERS REGARDING THE NATURE OF THE PROJECT, THE tIME PERIOD FOR CONSTRUCTION, AND ANY UNUSUAL ACTIVITIES THAT MAY CAUSE DISRUPTION OF THE NORMAL COURSE OF TRAFFIC DURING CONSTRUCTION.
34. ALL PERMITTEES MUST POST A 6 SQUARE FOOT (2'X3') IDENTIFICATION SIGN, MADE OF DURABLE MATERIAL, IN THE FRONT YARD OF SUBJECT PROPERTY AND NOT IN THE TOWN RIGHT-OF-WAY. THE SIGN MAY NOT EXCEED A MAXIMUM OF 6 FEET IN HEIGHT FROM GRADE TO TOP OF THE SIGN. THE SIGN MUST INCLUDE THE PERMITTEE OR COMPANY NAME, PHONE NUMBER. TYPE OF WORK, AND ADDRESS OF PROJECT.
35. WHEN DEEMED NECESSARY, A 6-FOOT HIGH CHAIN LINK FENCE MUST BE INSTALLED AROUND THE CONSTRUCTION AREA TO PREVENT ANY POTENTIAL SAFETY HAZARD FOR THE PUBLIC. THE FENCE SHALL BE SETBACK AT LEAST 10 FEET FROM ALL RIGHTS-OF-WAY AND HAVE A 50-FOOT STREET CORNER SITE TRIANGLE WHERE APPLICABLE.
36. CLEAR ACCESS FOR NEIGHBORING PROPERTIES AND EMERGENCY VEHICLES MUST BE MAINTAINED AT ALL TIMES. CONSTRUCTION RELATED VEHICLES MUST BE LEGALLY PARKED ONLY ON ONE SIDE OF THE STREET OR JOB SITE PROPERTY. IF A STAGING AREA IS NEEDED ON A PROPERTY OTHER THAN THE CONSTRUCTION SITE FOR CONSTRUCTION SUPPLIES AND EQUIPMENT, THE PERMITTEE MUST OBTAIN PROPERTY OWNER AND TOWN APPROVAL FIRST AND MUST INFORM THE ADJACENT PROPERTY OWNERS OF THE LOCATION OF STAGING AREA, AND TIME AND HOURS DURING THE DAY THE AREA WILL BE USED.
37. EXCEPT AS OUTLINED IN ITEM 4, ALL CONSTRUCTION DEBRIS AND EQUIPMENT MUST BE CONTAINED ON SITE AT ALL TIMES. CONTRACTOR AND PROPERTY OWNER MUST MAINTAIN THE JOB SITE FREE OF LITTER AND UNSIGHTLY MATERIALS AT ALL TIMES. CONSTRUCTION MATERIALS ARC PROHIBITED IN THE TOWN RIGHT-OF-WAY OR NEAR ADJACENT PROPERTIES.
38. BUILDING CONSTRUCTION MUST NOT START SOONER THAN SUNRISE AND MUST STOP NO LATER THAN SUNSET. ALSO, ORDINANCE #561 IMPOSES RESTRICTIONS ON CONSTRUCTION WORK ON SATURDAYS, SUNDAYS AND MAJOR BUSINESS HOLIDAYS. HILLSIDE PROJECTS MAY HAVE ADDITIONAL RESTRICTIONS. EQUIPMENT WITH AUDIBLE REVERSE DIRECTION WARNINGS MUST NOT BE OPERATED PRIOR TO 7:00 A.M.
39. THE USE AND OPERATION OF FUEL-FIRED GENERATORS ON ANY CONSTRUCTION SITE, NEW, EXISTING OR REMODELING, IS PROHIBITED UNLESS DUE TO A HARDSHIP TOWN APPROVAL IS OBTAINED.
40. THE CONTRACTOR AND PROPERTY OWNER WILL BE LIABLE FOR ANY DAMAGE DONE TO ANY PUBLIC PROPERTY AS A RESULT OF ANY CONSTRUCTION OR CONSTRUCTION RELATED ACTIVITIES. NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL AFFECTED RIGHTS-OF-WAY ARE CLEANED AND/OR REPAIRED TO THEIR ORIGINAL CONDITION AND UNTIL ANY AND ALL DAMAGES TO AFFECTED PROPERTIES ARE RESTORED TO ORIGINAL CONDITION, OR UNTIL SUCH TIME THAT A WRITTEN, SIGNED AND LEGALLY BINDING AGREEMENT HAS BEEN REACHED BY THC PARTIES INVOLVED TO REMEDY ANY VIOLATION WITHIN A REASONABLE TIME PERIOD, AND UNTIL ALL REQUIRED FEES ARE PAID IN FULL.
41. THE NATURAL FLOW OF RAINWATER AND OTHER SURFACE DRAINAGE FROM THE PROPERTY MAY NOT BE ALTERED IN ANY WAY.
42. A KEY SWITCH SHALL BE REQUIRED ON ALL NEW AND EXISTING ELECTRIC ENTRY CONTROL GATES. THE KEY SWITCH SHALL BE INSTALLED IN A LOCATION ON THE GATE CONTROL PANEL THAT IS READILY VISIBLE AND ACCESSIBLE. KNOX BOX ORDER FORMS ARE AVAILABLE AT THE PARADISE VALLEY BUILDING DEPARTMENT.
43. ALL EQUIPMENT OF ALL TRADES ON OR AFFECTING THE JOB MUST BE CLEANED ONLY IN A PRE-DETERMINED AND DESIGNATED AREA. DEBRIS AND RUNOFF FROM SAID AREA MAY NOT EXTEND BEYOND THE BUILDING AREA.
44. PROPERTY OWNER, BUILDER, OR GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR CONTROLLING DUST FROM THE SITE AT ALL TIMES. ALL MEANS NECESSARY SHALL BE USED BY THE BUILDER OR GENERAL CONTRACTOR TO CONTROL THE EXISTENCE OF DUST CAUSED BY ANY EARTHWORK, SPRAY APPLICATION OF MATERIALS, OR OTHER DUST-CAUSING PRACTICES REQUIRED BY THE CONSTRUCTION PROCESS.
45. AN INSPECTION FEE WILL BE CHARGED IF THE INSPECTION IS REQUIRED AS A RESULT OF A CODE VIOLATION.
46. FOR DEMOLITION INSPECTION OWNER OR PERMITTEE SHALL NOTIFY OSHA FOR ASBESTOS INSPECTION. ALL DEMOLITIONS AND ALL RENOVATION ACTIVITIES THAT WILL DISTURB FRIABLE ASBESTOS CONTAINING MATERIALS MUST BE REPORTED TO THE MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT.

ENGINEERS NOTES

1. MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION INCLUDING LATEST REVISION AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL TOWN OR CITY) ARE INCORPORATED INTO THIS PLAN IN THEIR ENTIRETY.
2. ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE M.A.G. STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL CITY OR TOWN UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL REQUIRED STANDARD SPECIFICATIONS, DETAILS AND SUPPLEMENTS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
3. GRADING SHALL BE IN CONFORMANCE WITH 2018 IBC SEC. 1803 AND APPENDIX J.
4. 5% MINIMUM SLOPE AWAY FROM BUILDING FOR A MINIMUM 10', U.N.O.
5. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) SPECIFICATIONS AND STANDARD DETAILS.
6. A DUST CONTROL PLAN MEETING THE REQUIREMENTS OF RULE 310 OF THE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED.
7. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
8. 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.
9. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION.
10. ALL STRUCTURES AND LANDSCAPING WITHIN THE SIGHT VISIBILITY TRIANGLE SHALL HAVE A 2 FOOT MAXIMUM HEIGHT.
11. ALL PATIOS, WALKS, AND DRIVES TO SLOPE AWAY FROM BUILDING AND GARAGES AT A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS SPECIFIED OTHERWISE. ALL LAWN AREAS ADJOINING WALKS OR SLABS WILL BE GRADED TO 2" BELOW THE TOP OF SLAB. TYPICAL FINISHED GRADE AROUND PERIMETER OF BUILDING IS MINUS 6" BELOW FINISHED FLOOR UNLESS SPECIFIED OTHERWISE.
12. ALL MATERIAL TO BE UNDER SLABS AND WALKS SHALL BE COMPACTED TO NOT LESS THAN 95% PER ASTM D698.
13. THE QUANTITIES AND SITE CONDITIONS DEPICTED IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE SUBJECT TO ERROR AND OMISSION. CONTRACTORS SHALL SATISFY THEMSELVES AS TO ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
14. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
15. THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE.
16. A REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THEIR CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL CALL 48 HOURS IN ADVANCE FOR BLUE STAKE (1-800-STAKE-IT) PRIOR TO ANY EXCAVATION.
17. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK.
18. ALL PAVING, GRADING, EXCAVATION, TRENCHING, PIPE BEDDING, CUT, FILL AND BACKFILL SHALL COMPLY WITH THE RECOMMENDATIONS SET FORTH IN THE SOILS (GEOTECHNICAL) REPORT FOR THIS PROJECT IN ADDITION TO THE REFERENCED REQUIRED SPECIFICATIONS AND DETAILS.
19. THE CONTRACTOR IS TO VERIFY THE LOCATION AND THE ELEVATIONS OF ALL EXISTING UTILITIES AT POINTS OF TIE-IN PRIOR TO COMMENCING ANY NEW CONSTRUCTION. SHOULD ANY LOCATION OR ELEVATION DIFFER FROM THAT SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE OWNER'S AGENT.
20. CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND SITE LAYOUT WITH ARCHITECTURE'S FINAL SITE PLAN AND FINAL BUILDING DIMENSIONS BEFORE STARTING WORK. REPORT DISCREPANCIES TO OWNER'S AGENT.
21. COORDINATION BETWEEN ALL PARTIES IS ESSENTIAL PART OF CONTRACT.
22. CONTRACTOR IS RESPONSIBLE FOR PROJECT AND SITE CONDITIONS, AND TO WORK WITH WEATHER CONDITIONS AS THE PROJECT SITE MAY BE LOCATED IN A FLOOD PRONE AREA AND SUBJECT TO FLOODING AND ITS HAZARDS.
23. THE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION, CONDITION, AND PAVEMENT CROSS-SLOPE OF ALL EXISTING SURFACES AT POINTS OF TIE-IN AND MATCHING, PRIOR TO COMMENCEMENT OF GRADING, PAVING, CURB AND GUTTER, OR OTHER SURFACE CONSTRUCTION. SHOULD EXISTING LOCATIONS, ELEVATIONS, CONDITION, OR PAVEMENT CROSS-SLOPE DIFFER FROM THAT SHOWN ON THESE PLANS, RESULTING IN THE DESIGN INTENT REFLECTED ON THESE PLANS NOT ABLE TO BE CONSTRUCTED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S AGENT IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL COSTS ASSOCIATED WITH CORRECTIVE ACTION IF THESE PROCEDURES ARE NOT FOLLOWED.
24. CONTRACTOR IS RESPONSIBLE TO COORDINATE UTILITY CROSSINGS AT CULVERT CROSSINGS BEFORE STARTING WORK ON CULVERT. COORDINATE WITH OWNER REPRESENTATIVE. VERIFY UTILITY LINES AND/OR CONDUITS ARE IN PLACE BEFORE STARTING CULVERT WORK.
25. ALL ON-SITE UTILITIES PER OTHERS.
26. THIS PROJECT REQUIRES A REGULAR ONGOING MAINTENANCE PROGRAM FOR THE DESIGNED DRAINAGE SYSTEM(S) TO PRESERVE THE DESIGN INTEGRITY AND THE ABILITY TO PERFORM ITS OPERATIONAL INTENT. FAILURE TO PROVIDE MAINTENANCE WILL JEOPARDIZE THE DRAINAGE SYSTEM(S)' PERFORMANCE AND MAY LEAD TO IT'S INABILITY TO PERFORM PROPERLY AND/OR CAUSE DAMAGE ELSEWHERE IN THE PROJECT.
27. IF A DISCREPANCY IS FOUND BETWEEN ENGINEER'S PLAN OR SURVEYOR'S STAKING AND THE ARCHITECTURAL PLAN. ENGINEER SHALL BE NOTIFIED IMMEDIATELY. FAILURE TO NOTIFY ENGINEER SHALL NEGATE ENGINEER'S LIABILITY.
28. ALL DISTURBED AREAS ARE TO BE ROPED AND ROPING MUST MATCH PLAN.
29. VEGETATION OUTSIDE OF CONSTRUCTION AREA TO REMAIN.
30. AREAS OUTSIDE THE WALL AND CUT AND FILL SLOPES SHALL BE REVEGETATED WITH SIMILAR PLANT TYPES AND DENSITIES FOUND ON THE SITE. REVEGETATION SHALL BE COMPLETED PRIOR TO OCCUPANCY AND THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
31. MECHANICAL EQUIPMENT SHALL BE SCREENED TO A MINIMUM OF ONE FOOT ABOVE TOP OF EQUIPMENT.
32. ANY FUTURE IMPROVEMENTS SHOWN HEREON SHALL REQUIRE A SEPARATE PERMIT.
33. ANY POINTS OF DRAINAGE CONCENTRATION SHOULD BE PROTECTED AGAINST EROSION WITH NATIVE STONE.
34. THIS PLAN IS DESIGNED TO SHOW SITE GRADING AND DRAINAGE CONTRACTOR SHALL USE THE ARCHITECTURAL SITE PLAN TO DETERMINE FINAL HOUSE, WALL, STEP, ETC., LOCATIONS AND ELEVATIONS.
35. ALL DRAINAGE FACILITIES TO BE MAINTAINED BY HOMEOWNER.
36. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR SITE AND RETAINING WALLS LAYOUT, DIMENSIONS, AND DETAILS. TOP OF FOOTING ELEVATIONS SHOWN IN PLAN ARE APPROXIMATE ONLY. ACTUAL TOP OF FOOTINGS TO BE DETERMINED AT TIME OF CONSTRUCTION AND TO BE A MINIMUM OF SIX INCHES BELOW EXISTING NATURAL GRADE OR FINISHED GRADE WHICHEVER IS LOWER (TYPICAL).
37. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING LAYOUT, DIMENSIONS AND ELEVATIONS.
38. REFER TO STRUCTURAL DRAWINGS, DETAILS AND CALCULATIONS FOR ALL PROPOSED RETAINING WALLS.
39. FOR CHANGE IN ELEVATION THAT ARE GREATER THAN 30", PROVIDE 36" HIGH GUARDRAILS FOR TOTAL OF 42" FALL PROTECTION BARRIER U.N.O.
40. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURE – 5% MIN SLOPE FOR FIRST 10 FEET, U.N.O.
41. ALL WATER AND SEWER LINES AND CONNECTIONS MUST BE INSTALLED PER IPC 2018, MAG AND TOWN OF PARADISE VALLEY SUPPLEMENT TO MAG.
42. WATERPROOF ALL EXTERIOR WALLS 18" ABOVE FINISH GRADE–(BITUTHENE® 3000 HC MEMBRANE W/ GRACE PROTECTION 03 OR APPROVED EQUAL).
43. ALL PIPES AND FITTINGS SHALL BE INSTALLED PER MANUFACTURE'S SPECIFICATIONS AND DETAILS.
44. ABANDONMENT OF EXISTING AND INSTALLATION OF NEW SEPTIC SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT RULES AND STANDARDS, AND WILL REQUIRE SEPARATE PERMIT.
45. COORDINATE RIPRAP COLOR WITH LANDSCAPE PLANS AND DETAILS.
46. VERIFY AND COORDINATE WITH LANDSCAPE PLANS FINAL LOCATION AND GRATE TYPE OF SPECIFIED AREA DRAINS AND TRENCH DRAINS.
47. VERIFY AND COORDINATE WITH ARCHITECTURAL AND LANDSCAPE PLANS LOCATION AND HEIGHT OF ALL SITE WALLS.
48. DISTURBED AREA: TOTAL ACRES = 0.954 ACRES < 1 ACRE; NPDES PERMIT IS NOT REQUIRED.
49. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR DEMOLITION AND REMOVAL OF ANY EXISTING BUILDING STRUCTURES, SITE WALLS, POOL AND PAVEMENT ETC.
50. REFER TO GEOTECHNICAL REPORT FOR SPECIFIC RECOMMENDATIONS AND MAXIMUM ALLOWED FILL AND CUT SLOPES.
51. THE PROPOSED POOL EQUIPMENT FOR THIS PROJECT SHALL BE EQUIPPED WITH CARTRIDGE FILTER IN ORDER TO AVOID THE BACKWASH
52. THE SCOPE OF THIS GRADING AND DRAINAGE PLAN COVERS CERTAIN SITE DRAINAGE IMPROVEMENTS AS DELINEATED BY THE LIMITS OF THE CONSTRUCTION AND IN ACCORDANCE TO THE PREPARED BY THE ARCHITECT SITE PLAN, WHITCH HAS BEEN COORDINATED AND APPROVED BY THE OWNER. LAND DEVELOPMENT GROUP (LDG) ASSUMES NO LIABILITY FOR DRAINAGE ISSUES THAT MAY EXIST AND COULD CAUSE DAMAGE TO THE SUBJECT OR NEIGHBORING PROPERTIES BEYOND THE LIMITS OF THE CONSTRUCTION SHOWN ON THESE PLANS.
53. THE GRADING AND DRAINAGE DESIGN PRESENTED HEREIN IS BASED ON EVALUATING STORMWATER RUNOFF RESULTING FROM A STATISTICAL ANALYSIS OF STORM EVENTS OF PARTICULAR FREQUENCY, UP TO AND INCLUDING 100-YEAR EVENT AS REQUIRED BY THE CITY OF PHOENIX AND MARICOPA COUNTY DRAINAGE DESIGN MANUALS. A STORM EVENT EXCEEDING THE 100-YEAR EVENT MAY CAUSE OR CREATE THE RISK OF GREATER STORM IMPACT THAN IS PRESENTED AND ADDRESSED ON THIS PLAN.

FIRE SPRINKLER SYSTEM

FIRE SPRINKLER SYSTEM TO BE INSTALLED PER THE REQUIREMENTS OF THE TOWN OF PARADISE VALLEY AND IN ACCORDANCE WITH I.B.C. SECT. 904.2.2 AMD. AND 2018 IFC, SEC. 903.

UTILITIES

WATER: EPCOR
SANITARY SEWER: SEPTIC
ELECTRIC: SRP
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS
NATURAL GAS: SOUTHWEST GAS
CABLE TV: CENTURY LINK, COX COMMUNICATIONS

SHEET INDEX

C-1 COVER SHEET
C-2 PRELIMINARY GRADING AND DRAINAGE IMPROVEMENT PLAN DETAILS

LEGEND

- FOUND REBAR OR AS NOTED
- SET REBAR OR AS NOTED
- CALCULATED POINT
- PROPERTY LINE
- MONUMENT LINE
- EASEMENT LINE
- WM WATER METER
- E.M. ELECTRIC METER
- GAS METER
- TELEPHONE PEDESTAL
- STORM DRAIN INLET
- CTV CABLE TV RISER
- POOL EQUIPMENT
- STORM DRAIN PIPE
- CHAINLINK FENCE
- G GAS LINE
- S SEWER LINE
- W WATER LINE
- E ELECTRIC LINE
- C COMMUNICATIONS LINE
- 1452 EXISTING CONTOUR
- EXIST. DRAINAGE FLOW
- CITRUS TREE
- PALM TREE
- TREE
- MESQUITE TREE
- PALO VERDE
- SAGUARO
- AFRICAN SUMAC
- PRICKLY PEAR
- XX.XX PROPOSED SPOT ELEVATION
- XX PROPOSED CONTOUR
- EXISTING DISTURBED AREA
- PROPOSED DISTURBED AREA
- STORM DRAIN PIPE
- CATCH BASIN
- RETAINING WALL
- TP: XX.XX TOP OF PARAPET
- TW: XX.XX TOP OF WALL
- TRW: XX.XX TOP OF RETAINING WALL
- FG: XX.XX FINISH GRADE
- BW: XX.XX BOTTOM OF WALL
- TF: XX.XX TOP OF FOOTING

ABBREVIATIONS

BSL	BUILDING SETBACK LINE
EL, ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EX, EXIST.	EXISTING
G	GUTTER, GAS
(M)	MEASURED
MCR	MARICOPA COUNTY RECORDER
P, PVMT	PAVEMENT
PUE	PUBLIC UTILITY EASEMENT
(R), REC.	RECORDED
(C)	CALCULATED
R/W	RIGHT OF WAY
T	TANGENT, TELEPHONE
W	WEST, WATERLINE
WM	WATER METER

UTILITIES NOTES

HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE ONLY AND WILL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION WORK. CALL BLUE STAKE @ (602) 263-1100.

DISTURBED AREA CALCULATIONS

EXISTING LOT AREA:	45,258 S.F. (1.039 AC.)
AREA UNDER ROOF:	9,169 SF
FLOOR AREA RATIO:	20.3% < 25%
BUILDING PAD SLOPE:	16.8%
VERTICAL:	32 FT
HORIZONTAL:	190 FT
ALLOWABLE DISTURBED AREA:	27.27%
ALLOWABLE DISTURBED AREA:	12,342 S.F.
EXISTING DISTURBED AREA:	69.3%
EXISTING DISTURBED AREA:	31,364 S.F.
PROPOSED DISTURBED AREA:	67.57%
PROPOSED DISTURBED AREA:	30,582 S.F.
TOTAL LIVABLE FOOTPRINT:	5,568 S.F.
ATTACHED GARAGE FOOTPRINT:	1,364 S.F.
RESTORED AND REVEG AREA:	3,243 S.F.
RETENTION BASIN CREDIT @50% 1,160 S.F.X50%=580 S.F.	
NET PROPOSED DISTURBED AREA:	19,827 S.F. (43.81%)
PERCENT OF LOT STEEPER THAN NATURAL GRADE (5% MAX.):	2,215 S.F. (4.89%)
VOLUME OF CUT:	6,484 C.Y.
VOLUME OF FILL:	377 C.Y.
TOTAL CUT&FILL:	6,861 C.Y.

HILLSIDE ASSURANCE = 35 TIMES THE GRADING PERMIT FEE.

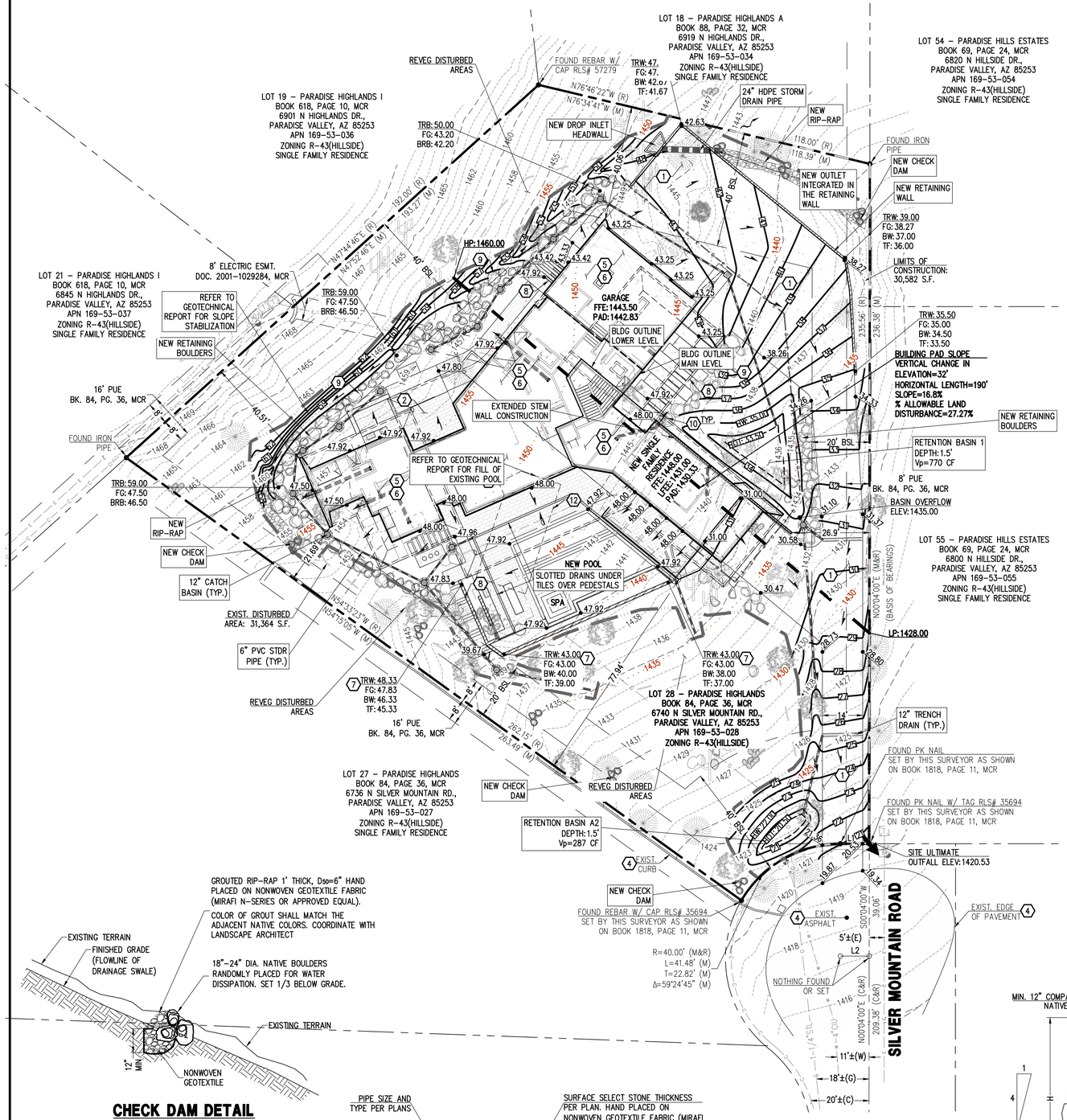
GRADING PERMIT FEE:	$6,696
($168 FIRST 100 CY / $96 EA. ADDITIONAL 100 CY).	
ASSURANCE AMOUNT:	$234,360

ALL QUANTITIES LISTED ON THESE PLANS ARE ESTIMATES ONLY. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF THE QUANTITIES AND BASE THEIR BIDS ON THEIR ESTIMATES.

EARTHWORK QUANTITIES

CUT:	6,484 C.Y.
FILL:	377 C.Y.
NET CUT:	6,107 C.Y.

ALL QUANTITIES LISTED ON THESE PLANS ARE ESTIMATES ONLY. NO SHRINK OR SWELL IS ASSUMED. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF THE QUANTITIES AND BASE THEIR BIDS ON THEIR ESTIM



RETENTION CALCULATIONS

ON-SITE RETENTION FOR THE PRE VS. POST DEVELOPMENT RUNOFF FROM 100-YEAR, 2-HOUR STORM EVENT

V=DxAx(Cw,post−Cw,pre)/12 | D – RAINFALL DEPTH = 2.23" | A – TRIBUTARY AREA, SF | Cw – WEIGHTED RUNOFF COEFFICIENT
Vf=(DfxAxCw,post)/12 | Df – RAINFALL DEPTH = 0.5" FIRST FLUSH | A – TRIBUTARY AREA, SF | Cw – WEIGHTED RUNOFF COEFFICIENT

DRAINAGE AREA	AREA	RUNOFF COEFFICIENT	VOLUME REQUIRED PRE VS POST	VOLUME REQUIRED FIRST FLUSH	RETENTION BASIN ID	CONTOUR ELEVATION		CONTOUR AREA	DEPTH	VOLUME PROVIDED	AS-BUILT VOLUME PROVIDED
	S.F.	Cw	C.F.	C.F.				S.F.	FT	C.F.	C.F.
A	27,339*	0.05	254	991 (GOVERNS)	A1	HW	1,435.00	840	1.50	770	
						BOTTOM	1,433.50	187			
					A2	HW	1,422.00	319	1.50	287	
						BOTTOM	1,420.50	63			
TOTAL			254	991						1,057	

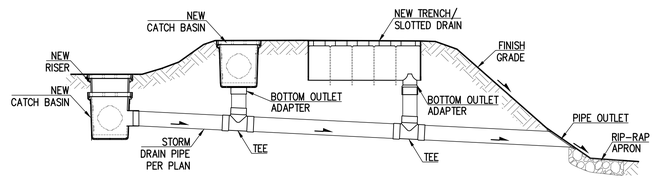
(1) RAINFALL DEPTH IS PER NOAA ATLAS 14, VOLUME 1, VERSION 5.
*RETENTION VOLUME IS CALCULATED FOR THE AREAS OF NEW DISTURBANCE.
AREAS (3,847 S.F.) THAT CONVEYS OFFSITE FLOWS ARE EXCLUDED FROM THE CALCULATIONS.

WEIGHTED RUNOFF COEFFICIENT, Cw PRE- DEVELOPMENT

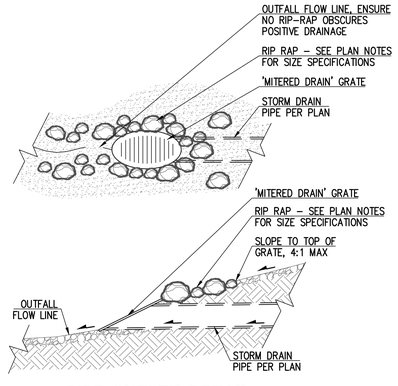
SURFACE TYPE	RUNOFF COEFFICIENT	AREA	C*AREA
	C	SF	
PAVEMENT & ROOF	0.95	14,189	13,480
NATIVE HILLSIDE	0.70	13,150	9,205
	TOTAL	27,339	22,685
Cw = C * AREA / TOTAL AREA			0.83

WEIGHTED RUNOFF COEFFICIENT, Cw POST- DEVELOPMENT

SURFACE TYPE	RUNOFF COEFFICIENT	AREA	C*AREA
	C	SF	
PAVEMENT & ROOF	0.95	19,797	18,807
NATIVE HILLSIDE	0.70	7,542	5,279
	TOTAL	27,339	24,087
Cw = C * AREA / TOTAL AREA			0.88



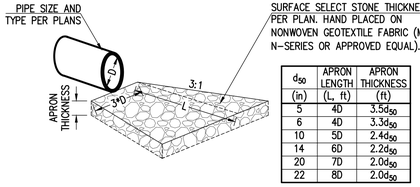
SCHEMATIC STORM DRAIN SYSTEM
N.T.S.



PIPE OUTLET DETAIL
N.T.S.

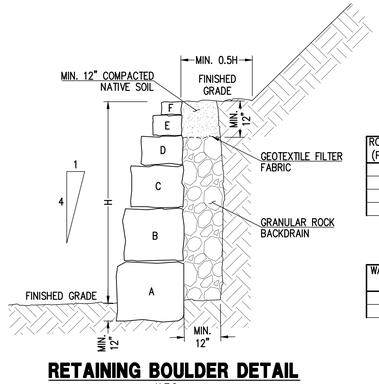
CHECK DAM DETAIL
N.T.S.

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	10.00' (M&R)	S89°56'00"E (M&R)
L2	10.00' (C&R)	N89°56'00"W (C&R)



d_{50} (in)	APRON LENGTH (L, ft)	APRON THICKNESS (ft)
5	4D	$3.5d_{50}$
6	4D	$3.3d_{50}$
10	5D	$2.4d_{50}$
14	6D	$2.2d_{50}$
20	7D	$2.0d_{50}$
22	8D	$2.0d_{50}$

APRON LENGTH AND THICKNESS
N.T.S.



RETAINING BOULDER DETAIL
N.T.S.

ROCK SIZE

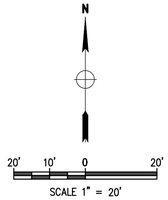
ROCK SIZE (PERSON)	ROCK WEIGHT (POUNDS)	AVERAGE DIMENSIONS (FT.)
1	50 TO 200	0.7 TO 1.1
2	200 TO 650	1.1 TO 1.6
3	650 TO 1950	1.6 TO 2.3
4	1950 TO 3900	2.3 TO 2.9

ROCK SIZE DESIGNATION

WALL HEIGHT H (FT.)	A	B	C	D	E	F
3	3	2	–	–	–	–
6	4	3	2	–	–	–

PERCENT PASSING	SIZE	D_{50} CLASS, INCHES			
		4	6	8	12
100 TO 90	1.5 D_{50}	6	8	12	18
85 TO 70	1.3 D_{50}	5	7	10	16
50 TO 30	1.0 D_{50}	4	6	8	12
15 TO 5	0.67 D_{50}	3	4	5	8
5 TO 0	0.50 D_{50}	2	3	4	6

RIP-RAP GRADATION TABLE
N.T.S.



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

DATE: 03/20/26
SCALE: 1"=20'
DESIGNED BY: NP
DRAWN BY: DL
CHECKED BY: JI
PLOT DATE: 03/20/26
JOB: 2507249
VERSION: 1.1

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REVISIONS: DATE:

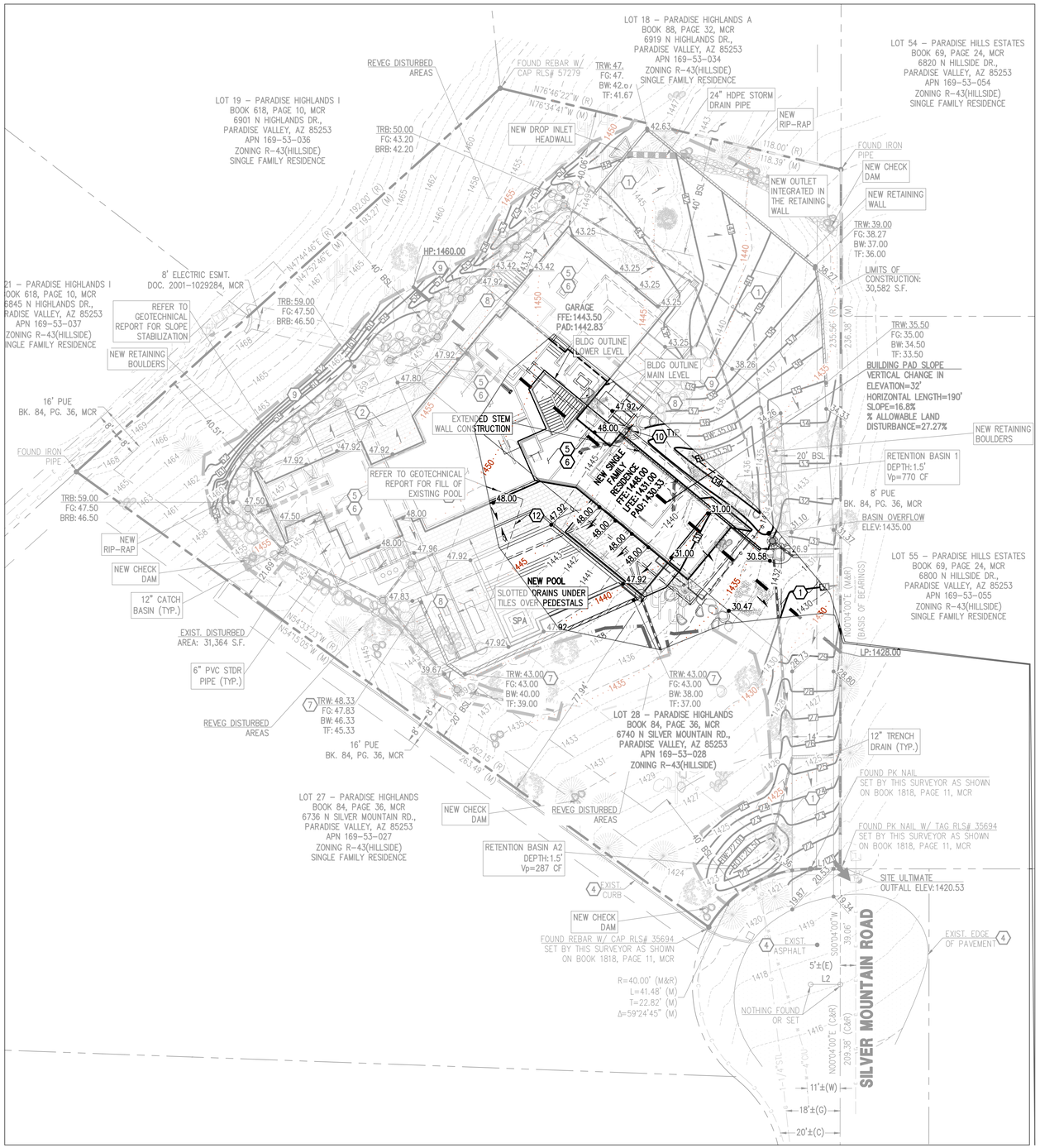
PRELIMINARY GRADING & DRAINAGE IMPROVEMENT PLAN

BELL RESIDENCE
6740 N SILVER MOUNTAIN RD.,
PARADISE VALLEY, AZ 85253

P 602 889 1984 | F 602 445 9452
8808 N CENTRAL AVE., SUITE 285
PHOENIX, AZ 85020
PHOENIX@LDGENG.COM
Land DEVELOPMENT GROUP

PRELIMINARY NOT FOR CONSTRUCTION

C-2
2 OF 2



GRADING AND DRAINAGE KEY-NOTES

1. CONSTRUCT CONCRETE DRIVEWAY OR PAVERS ON COMPACTED SUBGRADE. THICKNESS, PATTERN, TEXTURE AND COLOR PER ARCHITECTURAL AND LANDSCAPE PLANS AND DETAILS.
2. INSTALL DECORATIVE PAVING WALKWAY. THICKNESS, PATTERN, TEXTURE AND COLOR PER ARCHITECTURAL AND LANDSCAPE PLANS AND DETAILS.
3. MATCH EXISTING GRADE.
4. PROTECT IN PLACE.
5. CLEAR AND GRUB EXISTING SITE AREA. REMOVE ALL VEGETATION, EXISTING UTILITIES AND CONSTRUCTION DEBRIS. CUT AND FILL EXISTING TERRAIN AS NECESSARY TO ACHIEVE THE DESIGNED SUBGRADE ELEVATIONS.
6. VERIFY AND COORDINATE WITH STRUCTURAL AND GEOTECHNICAL ENGINEERS, THE ENGINEERED FILL UNDER SLAB AND FOOTINGS.
7. NEW RETAINING WALL PER STRUCTURAL AND ARCHITECTURAL PLANS AND DETAILS. WATERPROOF WALL 1.0' ABOVE FINISH GRADE. (BITUTHENE® 3000 HC MEMBRANE W/ GRACE PROTECTION 03 OR APPROVED EQUAL).
8. NEW STEPS PER ARCHITECTURAL AND LANDSCAPE PLANS AND DETAILS
9. NEW BOULDERS PER ARCHITECTURE AND LANDSCAPE PLANS AND DETAILS.
10. INSTALL ANGULAR RIP-RAP D50=6", 1' THICK PLACED ON NONWOVEN GEOTEXTILE FABRIC (MIRAFI N-SERIES OR APPROVED EQUAL).
11. NEW BOULDERS PER ARCHITECTURE AND LANDSCAPE PLANS AND DETAILS.
12. APPROXIMATE LOCATION OF EXISTING POOL THAT WAS DEMOLISHED. REFER TO GEOTECHNICAL ENGINEER'S REPORT FOR RECOMMENDATION FOR OVEREXCAVATION AND BACKFILL OF EXISTING POOL AREAS.

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	10.00' (M&R)	S89°56'00"E (M&R)
L2	10.00' (C&R)	N89°56'00"W (C&R)

PERCENT PASSING	SIZE	Dso CLASS, INCHES			
		4	6	8	12
100 TO 90	1.5 Dso	6	9	12	18
85 TO 70	1.3 Dso	5	7	10	16
50 TO 30	1.0 Dso	4	6	8	12
15 TO 5	0.67 Dso	3	4	5	8
5 TO 0	0.50 Dso	2	3	4	6

RIP-RAP GRADATION TABLE
N.T.S.

N

20' 10' 0 20'
SCALE 1" = 20'

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.com

DATE: 03/20/26
SCALE: 1"=20'
DESIGNED BY: NP
DRAWN BY: DL
CHECKED BY: JI
PLOT DATE: 03/20/26
JOB: 2507249
VERSION: 1.1

REVISIONS: DATE:

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GRADING & DRAINAGE PLAN
BASEMENT LEVEL DETAILS

BELL RESIDENCE
6740 N SILVER MOUNTAIN RD.,
PARADISE VALLEY, AZ 85253

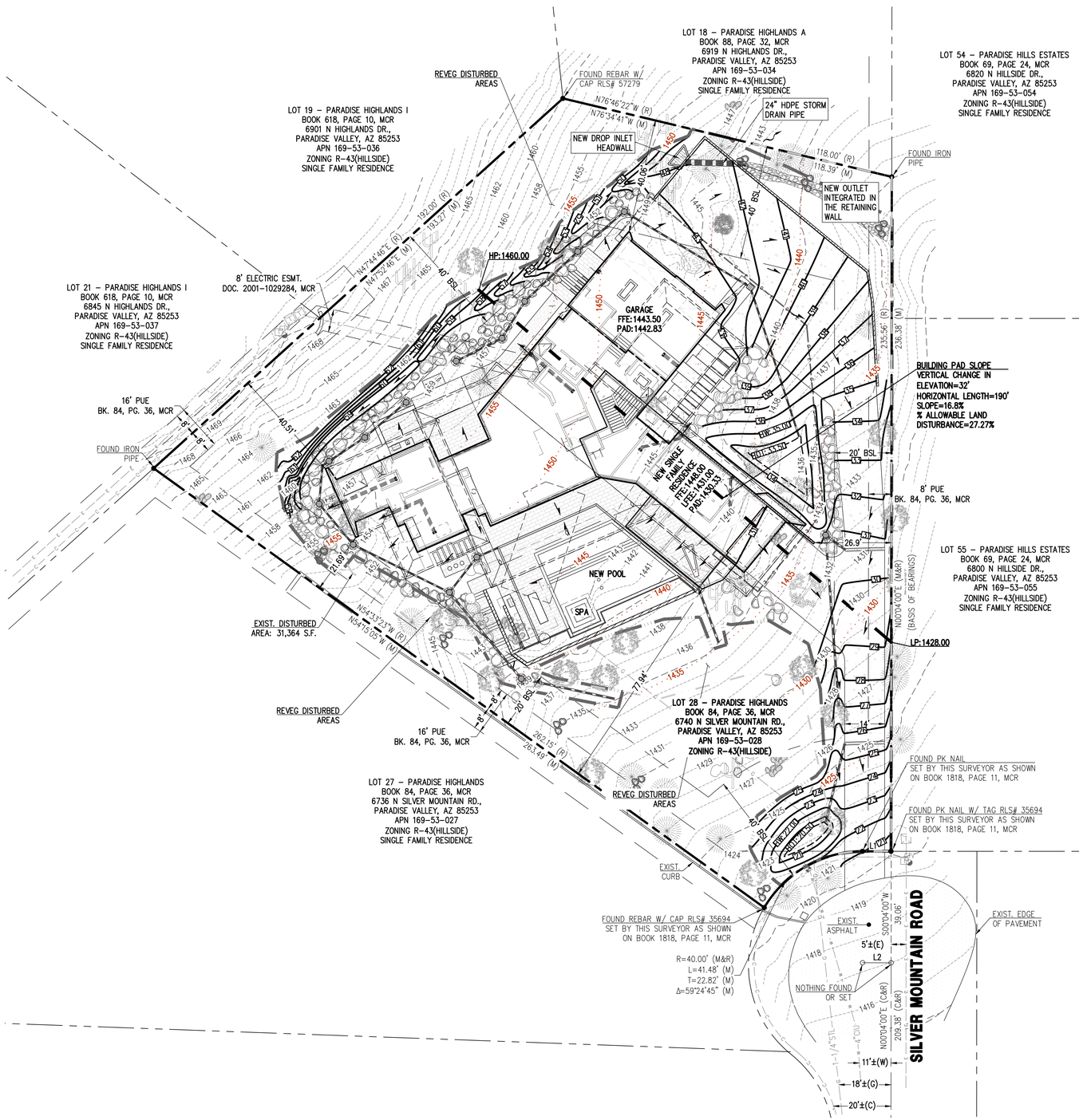
P. 602 889 1984 | F. 602 445 9482
8808 N. CENTRAL AVE., SUITE 288
PHOENIX, AZ. 85020
PHOENIX@LDGENG.COM
Land DEVELOPMENT GROUP

REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE NO.
41005
NICKOLA J. PRODANOV
Date Signed 03/20/26
ARIZONA U.S.A.

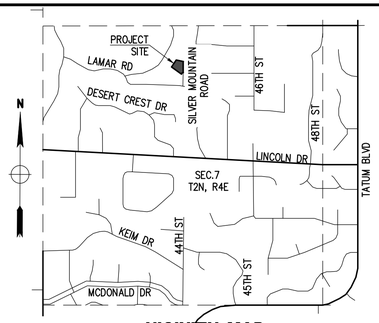
C-3
3 OF 3

AERIAL MAP EXHIBIT
BELL RESIDENCE
6740 N SILVER MOUNTAIN RD., PARADISE VALLEY, AZ 85253
LOT 28 - PARADISE HIGHLANDS

A SUBDIVISION PLAT RECORDED IN BOOK 84 OF MAPS, PAGE 36, MCR.,
LOCATED IN A PORTION OF THE SE 1/4 OF THE NE 1/4 OF THE NW 1/4 OF SECTION 7, T.2N, R.4E
OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA



LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	10.00' (M&R)	S89°56'00"E (M&R)
L2	10.00' (C&R)	N89°56'00"W (C&R)



VICINITY MAP
N.T.S.

OWNER
BELL FAMILY LIVING TRUST
6740 N SILVER MOUNTAIN RD.,
PARADISE VALLEY, AZ 85253

ARCHITECT
KENDLE DESIGN COLLABORATIVE
6115 N CATTLETRACK,
SCOTTSDALE, AZ 85250
P: 480-951-8558
BRENT@KENDLEDESIGN.COM

SITE DATA
APN: 169-53-028
ADDRESS: 6740 N SILVER MOUNTAIN RD., PARADISE VALLEY, AZ 85253
ZONING: R-43(HILLSIDE)
LOT AREA: 45,258 S.F. (1.039 AC.)
CONSTRUCTION YEAR: 1962
QS #: 22-37

CIVIL ENGINEER
LAND DEVELOPMENT GROUP, LLC
8808 N CENTRAL AVE, SUITE 288
PHOENIX, AZ 85020
CONTACT: NICK PRODANOV, PE
P: 602-889-1984

LEGAL DESCRIPTION
LOT 28, OF PARADISE HIGHLANDS, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 84 OF MAPS, PAGE 36.

BENCHMARK
BRASS CAP FLUSH AT THE INTERSECTION OF INDIAN BEND ROAD AND 48TH STREET, HAVING AN ELEVATION OF 1419.804 NAVD 88 DATUM, GDACS# 24521-2.

BASIS OF BEARINGS
THE EAST PROPERTY LINE OF SUBJECT PROPERTY, ALSO BEING THE EAST SUBDIVISION LINE AS RECORDED IN BOOK 84, PAGE 36 MCR, THE BEARING OF WHICH IS N00°04'00"E.

FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #		SUFFIX	
040049	1765 OF 4425		L	BASE FLOOD ELEVATION
MAP #	PANEL DATE	FIRM INDEX DATE	ZONE	
04013C	10/16/2013	11/04/2015	X*	N/A

*AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

LEGEND
1462 EXISTING CONTOUR
1462 EXISTING CONTOUR

N
20' 10' 0 20'
SCALE 1" = 20'

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 Arizona Blue Stake, Inc.
Call 811 or click Arizona811.com

REVISIONS: | DATE: | SCALE: 1"=20' | DESIGNED BY: NP | DRAWN BY: DL | CHECKED BY: JH
DATE: 03/20/26 | JOB: 2507249 | VERSION: 1.1 | PLOT DATE: 03/20/26

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AERIAL MAP EXHIBIT

BELL RESIDENCE
6740 N SILVER MOUNTAIN RD.,
PARADISE VALLEY, AZ 85253

P 602 889 1984 | F 602 445 9482
8808 N CENTRAL AVE., SUITE 288
PHOENIX, AZ 85020
PHOENIX@LDGENG.COM
Land DEVELOPMENT GROUP

REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE NO. 41005
NICKOLA J. PRODANOV
We Stand @ It's Best
ARIZONA, U.S.A.

AE
1 OF 1

STORM WATER POLLUTION PREVENTION PLAN
BELL RESIDENCE
6740 N SILVER MOUNTAIN RD., PARADISE VALLEY, AZ 85253
LOT 28 - PARADISE HIGHLANDS

A SUBDIVISION PLAT RECORDED IN BOOK 84 OF MAPS, PAGE 36, MCR.,
LOCATED IN A PORTION OF THE SE 1/4 OF THE NE 1/4 OF SECTION 7, T.2N, R.4E
OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	10.00' (M&R)	S89°56'00"E (M&R)
L2	10.00' (C&R)	N89°56'00"W (C&R)

NOTE

1. NO WORK OF ANY KIND CAN COMMENCE UNTIL ALL STORM WATER POLLUTION BMP'S ARE IN PLACE AND INSPECTED BY THE TOWN. ONLY UNTIL THE TOWN HAS APPROVED THE STORM WATER BMP'S MAY ANY CONSTRUCTION BEGIN.
2. SEDIMENTATION CONTROL DEVICES (SILT BARRIERS) SHALL REMAIN IN PLACE AT ALL TIME. SEDIMENTATION CONTROL DEVICES SHALL BE KEPT IN GOOD REPAIR, INSPECTED MONTHLY, INSPECTED AFTER EACH RAIN EVENT, AND MAINTAINED AS NEEDED BY THE APPLICANT/OWNER.
3. SEDIMENTATION CONTROL DEVICE INSPECTION LOG SHALL BE MAINTAINED BY APPLICANT AND/OR OWNER AND MADE AVAILABLE TO THE TOWN UPON REQUEST.

GENERAL NOTES

1. THIS PROJECT IS SUBJECT TO THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS FOR CONSTRUCTION SITES UNDER THE ENVIRONMENTAL PROTECTION AGENCY (EPA) GENERAL PERMIT FOR ARIZONA. OWNERS, DEVELOPERS, ENGINEERS, AND/OR CONTRACTORS ARE REQUIRED TO PREPARE ALL DOCUMENTS REQUIRED BY THIS REGULATION, INCLUDING BUT NOT LIMITED TO STORM WATER POLLUTION PROTECTION PLAN (SWPPP), NOTICE OF INTENT (NOI) AND NOTICE OF TERMINATION (NOT).
2. A COPY OF THE APPROVED GRADING AND DRAINAGE PLAN FOR THIS PROJECT, TOGETHER WITH A COPY OF THE NOTICE OF INTENT (NOI) AND THIS STORM WATER POLLUTION PROTECTION PLAN (SWPPP), SHALL BE MAINTAINED ON THE SITE AND AVAILABLE FOR REVIEW. THOSE ELEMENTS OF THE GRADING AND DRAINAGE PLAN PERTINENT TO OR REFERENCED ON THE SWPPP SHALL BE CONSIDERED A PART OF THE SWPPP.
2. COMMUNITY DEVELOPMENT DEPARTMENT'S FIELD INSPECTION GROUP SHALL BE NOTIFIED 48 HOURS BEFORE ANY ON-SITE AND/OR OFF-SITE CONSTRUCTION BEGINS, AT (480) 348-3692.
3. THE OPERATOR SHALL OBTAIN A DUST CONTROL PERMIT FROM MARICOPA COUNTY HEALTH DEPARTMENT AND PERFORM MEASURES AS REQUIRED BY THE PERMIT TO PREVENT EXCESS DUST. ALL PERMITTEES MUST SUBMIT A TENTATIVE CONSTRUCTION SCHEDULE AND COMPLETION TIME.
4. THE OPERATOR SHALL PERFORM, AT A MINIMUM, A VISUAL INSPECTION OF THE CONSTRUCTION SITE ONCE EVERY MONTH AND WITHIN 24 HOURS OF RAINFALL GREATER THAN OR EQUAL TO A HALF OF AN INCH OR MORE. THE OPERATOR SHALL PREPARE A REPORT DOCUMENTING HIS/HER FINDINGS ON THE CONDITIONS OF THE SWPPP CONTROLS AND NOTE ANY EROSION PROBLEM AREAS. THE OPERATOR'S REPORT IS TO BE SUBMITTED TO THE DEVELOPMENT SERVICES DEPARTMENT PROJECT ENGINEERING DIVISION CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL. FACILITIES SHALL BE MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED.
5. THE OPERATOR SHALL AMEND THIS PLAN AS NECESSARY DURING THE COURSE OF CONSTRUCTION TO RESOLVE ANY PROBLEM AREAS, WHICH BECOME EVIDENT DURING THE CONSTRUCTION AND/OR DURING RAINFALLS.
6. THE PERMITTEE SHALL FILE A NOTICE OF TERMINATION (NOT) AFTER COMPLETION OF CONSTRUCTION AND PLACEMENT OF FINAL LANDSCAPE MATERIALS. THE NOT IS TO BE SUBMITTED TO THE DEVELOPMENT SERVICES DEPARTMENT PROJECT ENGINEERING INSPECTOR TO FINAL THE SWPPP PERMIT.
7. THE PERMITTEE SHALL SAVE ALL RECORDS, INCLUDING THE NOI, SWPPP, NOT, AND INSPECTION REPORTS, ON FILE FOR A MINIMUM OF THREE YEARS FROM THE DATE OF FILING THE NOT.
8. THE IMPLEMENTATION OF THESE PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED AND NOT SUBMITTED TO THE DEVELOPMENT SERVICES DEPARTMENT PROJECT ENGINEERING DIVISION INSPECTOR.
9. THE FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO INSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS, AND MUST BE INSTALLED AND IN OPERATION PRIOR TO ANY GRADING OR LAND CLEARING. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
10. THE CONTRACTOR'S NOI MUST BE RECEIVED PRIOR TO THE SWPPP PERMIT BEING ISSUED. THE CONTRACTOR THAT WILL BE PULLING THE G&D PERMIT MUST HAVE THE SWPPP PERMIT ISSUED IN THEIR NAME.
11. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION. THE NATURAL FLOW OF RAINWATER AND OTHER SURFACE DRAINAGE FROM THE PROPERTY MAY NOT BE ALTERED IN ANY WAY.
12. CONTRACTOR SHALL PROVIDE STABILIZATION FABRIC TO ALL SLOPES EQUAL TO OR GREATER THAN 3H:1V.
13. STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT ALL LOCATIONS WHERE CONSTRUCTION VEHICLES WILL ENTER AND EXIT THE CONSTRUCTION SITE.
14. REFER TO SHEET 2 FOR STANDARD DETAILS OF BEST MANAGEMENT PRACTICES.
15. WHEN DEEMED NECESSARY, A 6-FOOT HIGH CHAIN LINK FENCE MUST BE INSTALLED AROUND THE CONSTRUCTION AREA TO PREVENT ANY POTENTIAL SAFETY HAZARD FOR THE PUBLIC.

SWPPP KEY-NOTES

1. STABILIZED CONSTRUCTION ENTRANCE PER FCDMC BMP-37 THROUGH BMP-40 AND DETAILS ON SHEET SP-2
2. DUST CONTROL PER FCDMC BMP-43 THROUGH BMP-46
3. SILT FENCE PER FCDMC BMP-63 THROUGH BMP-68, EPA STANDARDS AND DETAILS, AND DETAILS ON SHEET SP-2 OR STRAW WATTILES PER MARICOPA COUNTY EROSION CONTROL MANUAL SPC-1 ORGANIC FILTER BARRIER.
4. DESIGNATED CONCRETE WASHOUT VESSEL PER FCDMC BMP-99 THROUGH BMP-100 AND DETAILS ON SHEET SP-2
5. DUMPSTER/TRASH CONTAINER
6. DESIGNATED PAINT/SOLVENT WASHOUT VESSEL PER FCDMC BMP-99 THROUGH BMP-100 AND DETAILS ON SHEET SP-2
7. DESIGNATED HAZARDOUS WASTE CONTAINMENT AREA. SEGREGATE POTENTIALLY HAZARDOUS WASTE FROM NON-HAZARDOUS CONSTRUCTION SITE WASTE. HAZARDOUS WASTES ARE NOT TO BE DISPOSED OF IN DUMPSTER AND SHALL BE HAULED TO AN APPROPRIATE DISPOSAL AND/OR RECYCLING FACILITY.
8. DROP INLET PROTECTION.
9. RETENTION/SEDIMENTATION BASIN.

LEGEND

- SF — SILT FENCE
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- W.A. — DESIGNATED WASHOUT AREA
- DESIGNATED HAZARDOUS WASTE CONTAINMENT AREA
- TRASH CONTAINER

ABBREVIATIONS

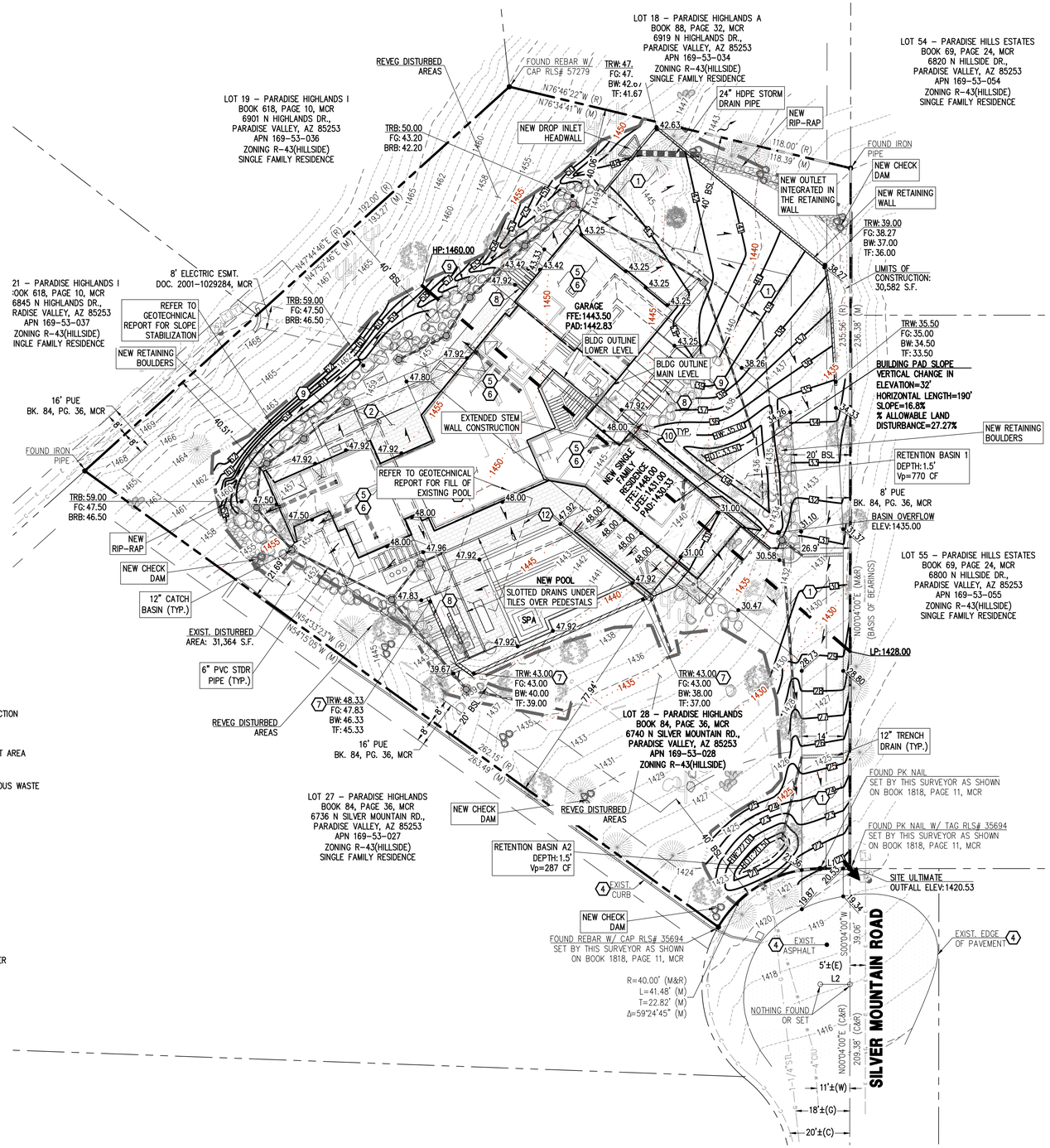
BSL	BUILDING SETBACK LINE
EL, ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EX, EXIST.	EXISTING
G	GUTTER, GAS
(M)	MEASURED
MCR	MARICOPA COUNTY RECORDER
P, PVMT	PAVEMENT
PUE	PUBLIC UTILITY EASEMENT
(R), REC.	RECORDED
(C)	CALCULATED
R/W	RIGHT OF WAY
T	TANGENT, TELEPHONE
W	WEST, WATERLINE
WM	WATER METER

UTILITIES

WATER: EPCOR
SANITARY SEWER: SEPTIC
ELECTRIC: SRP
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS
NATURAL GAS: SOUTHWEST GAS
CABLE TV: CENTURY LINK, COX COMMUNICATIONS

SHEET INDEX

SP1 - COVER SHEET/SWPPP PLAN
SP2 - DETAILS



VICINITY MAP
N.T.S.

OWNER

BELL FAMILY LIVING TRUST
6740 N SILVER MOUNTAIN RD.,
PARADISE VALLEY, AZ 85253

ARCHITECT

KENDLE DESIGN COLLABORATIVE
6115 N CATTLETRACK,
SCOTTSDALE, AZ 85250
P: 480-951-8558
BRENT@KENDLEDESIGN.COM

SITE DATA

APN: 169-53-028
ADDRESS: 6740 N SILVER MOUNTAIN RD., PARADISE VALLEY, AZ 85253
ZONING: R-43(HILLSIDE)
LOT AREA: 45,258 S.F. (1.039 AC.)
CONSTRUCTION YEAR: 1962
QS #: 22-37

CIVIL ENGINEER

LAND DEVELOPMENT GROUP, LLC
8808 N CENTRAL AVE, SUITE 288
PHOENIX, AZ 85020
CONTACT: NICK PRODANOV, PE
P: 602-889-1984

LEGAL DESCRIPTION

LOT 28, OF PARADISE HIGHLANDS, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 84 OF MAPS, PAGE 36.

BENCHMARK

BRASS CAP FLUSH AT THE INTERSECTION OF INDIAN BEND ROAD AND 48TH STREET, HAVING AN ELEVATION OF 1419.804 NAVD 88 DATUM, GDACS# 24521-2.

BASIS OF BEARINGS

THE EAST PROPERTY LINE OF SUBJECT PROPERTY, ALSO BEING THE EAST SUBDIVISION LINE AS RECORDED IN BOOK 84, PAGE 36 MCR, THE BEARING OF WHICH IS N00°04'00"E.

FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #		SUFFIX	BASE FLOOD ELEVATION
040049	1765 OF 4425		L	N/A
MAP #	PANEL DATE	FIRM INDEX DATE	ZONE	
04013C	10/16/2013	11/04/2015	X*	

*AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

CONSTRUCTION SEQUENCE

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
2. CLEAR AND GRUB.
3. CONSTRUCT RETENTION/SEDIMENTATION BASINS.
4. ROUGH GRADE SITE WHILE PROVIDING POSITIVE DRAINAGE TO BASINS.
5. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICABLE.
6. FINAL GRADE AND CONSTRUCT BUILDING PADS.
7. INSTALL UNDERGROUND STORM DRAIN PIPES AND ALL UNDERGROUND UTILITIES.
8. COMPLETE BUILDING CONSTRUCTION.
9. CONSTRUCT PAVING AND SIDEWALKS.
10. COMPLETE FINAL GRADING, INSTALL PERMANENT SEEDING AND LANDSCAPING.

APPROVAL

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.

TOWN ENGINEER
TOWN OF PARADISE VALLEY

DATE

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.com

REVISIONS: | DATE: | SCALE: 1"=20' | DATE: 03/20/26
DESIGNED BY: NP | JOB: 2507249
DRAWN BY: DL | VERSION: 1.1
CHECKED BY: JH | PLOT DATE: 03/20/26

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STORM WATER POLLUTION PREVENTION PLAN

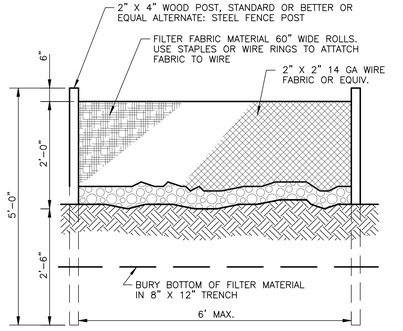
BELL RESIDENCE
6740 N SILVER MOUNTAIN RD., PARADISE VALLEY, AZ 85253

P 602 889 1984 | F 602 445 9482
8808 N CENTRAL AVE., SUITE 288
PHOENIX, AZ 85020
PHOENIX@LDGENG.COM
Land DEVELOPMENT GROUP

REGISTERED PROFESSIONAL ENGINEER
CERTIFICATE NO.
41005
NICKOLA J. PRODANOV
Date Signed 03/20/26
ARIZONA, U.S.A.

SP-1
1 OF 2

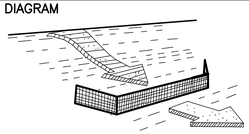
STORM WATER POLLUTION PREVENTION PLAN
BEST MANAGEMENT PRACTICES DETAILS



SILT FENCE
BMP-67

SYMBOL	SILT FENCE
S.F.	

DIAGRAM



CONDITIONS WHERE PRACTICE APPLIES
- ___ PERIMETER CONTROL
- ___ SLOPE PROTECTION
- * SEDIMENT TRAPPING
- ___ DRAINAGEWAY & STREAM PROTECTION
- ___ TEMPORARY STABILIZATION
- ___ PERMANENT STABILIZATION & EXPOSURE LIMITS
- ___ NON-SEDIMENT POLLUTION CONTROL

DEFINITION

A TEMPORARY SEDIMENT BARRIER CONSISTING OF A FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS, ENTRENCHED, AND, DEPENDING UPON THE STRENGTH OF THE FABRIC USED, WITH WIRE FENCE FOR SUPPORT.

PURPOSE

1. TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE.
2. TO DECREASE THE VELOCITY OF SHEET FLOWS AND LOW-TO-MODERATE LEVEL CHANNEL FLOWS.

APPROPRIATE APPLICATIONS

FILTER FENCES MUST BE PROVIDED JUST UPSTREAM OF THE POINT(S) OF DISCHARGE OF RUNOFF FROM A SITE, BEFORE THE FLOW BECOMES CONCENTRATED. THEY MAY ALSO BE USED:

1. BELOW DISTURBED AREAS WHERE RUNOFF MAY OCCUR IN THE FORM OF SHEET AND RILL EROSION; WHEREVER RUNOFF HAS THE POTENTIAL TO IMPACT DOWNSTREAM RESOURCES.

2. PERPENDICULAR TO MINOR SWALES OR DITCH LINES FOR UP TO ONE ACRE CONTRIBUTING DRAINAGE AREAS.

NOT INTENDED FOR USE IN DETAINING CONCENTRATED FLOWS.

SYNTHETIC FABRIC FILTER FENCES ARE ONLY APPLICABLE FOR SHEET OR OVERLAND FLOWS AND NOT THE VOLUMES OF WATER IN CONCENTRATED FLOWS.

BMP-63

SYMBOL	SILT FENCE
S.F.	

LIMITATIONS
1. FILTER FENCES WILL CREATE A TEMPORARY SEDIMENTATION POND ON THE UPSTREAM SIDE OF THE FENCE WHICH MAY CAUSE TEMPORARY FLOODING. FENCES NOT CONSTRUCTED ON A LEVEL CONTOUR WILL BE OVERTOPPED BY CONCENTRATED FLOW RESULTING IN FAILURE OF THE FILTER FENCE.
2. FILTER FENCES ARE NOT PRACTICAL WHERE LARGE FLOWS OF WATER ARE INVOLVED, HENCE THE NEED TO RESTRICT THEIR USE TO DRAINAGE AREAS OF ONE ACRE OR LESS, AND FLOW RATES OF LESS THAN 0.5 CFS.
3. PROBLEMS MAY ARISE FROM INCORRECT SELECTION OF PORE SIZE AND/OR IMPROPER INSTALLATION.
4. DO NOT ALLOW WATER DEPTH TO EXCEED 1.5 FEET AT ANY POINT.
5. IMPROPERLY INSTALLED FENCES ARE SUBJECT TO FAILURE FROM UNDERCUTTING, OVERTOPPING, OR COLLAPSING.

PLANNING CONSIDERATIONS
LABORATORY WORK AT THE VIRGINIA HIGHWAY AND TRANSPORTATION RESEARCH COUNCIL HAS SHOWN THAT SILT FENCES CAN TRAP A MUCH HIGHER PERCENTAGE OF SUSPENDED SEDIMENTS THAT CAN STRAW BALES. SILT FENCES ARE PREFERABLE TO STRAW BARRIERS IN MANY CASES. HOWEVER WHILE THE FAILURE RATE OF SILT FENCES IS LOWER THAN THAT OF STRAW BARRIERS, THERE ARE MANY INSTANCES LOCALLY IN WHICH SILT FENCES HAVE BEEN IMPROPERLY INSTALLED. THE INSTALLATION METHODS OUTLINED HERE CAN IMPROVE PERFORMANCE.

1. CONSTRUCT ALONG A LEVEL CONTOUR.
2. SILT FENCES SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.
3. PROVIDE SUFFICIENT ROOM FOR SEDIMENT REMOVAL EQUIPMENT BETWEEN THE SILT FENCE AND TOES OF SLOPES OR OTHER OBSTRUCTIONS.
4. THE ENDS OF THE FILTER FENCE SHOULD BE TURNED UPHILL TO PREVENT STORMWATER FROM FLOWING AROUND THE FENCE.
5. PROVIDE AN UNDISTURBED OR STABILIZED OUTLET SUITABLE FOR SHEET FLOW.
6. DO NOT CONSTRUCT IN LIVE STREAMS OR INTERMITTENTLY FLOWING CHANNELS.

DESIGN & SIZING CRITERIA
1. UPSTREAM DRAINAGE AREA LIMITED TO 1 ACRE OR LESS WHEN USED ALONE OR IN COMBINATION WITH SEDIMENT BASIN IN A LARGER SITE.
2. MAXIMUM SLOPE STEEPNESS PERPENDICULAR TO FENCE LINE, 1:1.
MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE FENCE = 100 FEET.
3. NO CONCENTRATED FLOWS GREATER THAN 0.5 CFS.

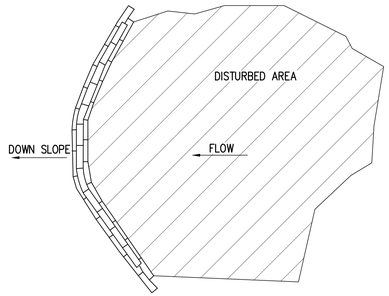
SELECTION OF A FILTER FABRIC IS BASED ON SOIL CONDITIONS AT THE CONSTRUCTION SITE (WHICH AFFECT THE EQUIVALENT OPENING SIZE (EOS) FABRIC SPECIFICATION) AND CHARACTERISTICS OF THE SUPPORT FENCE (WHICH AFFECT THE CHOICE OF TENSILE STRENGTH). THE DESIGNER SHALL SPECIFY A FILTER FABRIC THAT RETAINS THE SOIL FOUND ON THE CONSTRUCTION SITE YET WILL HAVE OPENINGS LARGE ENOUGH TO PERMIT DRAINAGE AND PREVENT CLOGGING. THE FOLLOWING CRITERIA IS RECOMMENDED FOR SELECTION OF THE EQUIVALENT OPENING SIZE:

1. IF 50 PERCENT OR LESS OF THE SOIL, BY WEIGHT, WILL PASS THE U.S. SIEVE NO. 200, SELECT THE EOS TO RETAIN 85 PERCENT OF THE SOIL. SHOULD NOT BE FINER THAN EOS 70.
2. FOR ALL OTHER SOIL TYPES, THE EOS SHOULD BE NO LARGER THAN THE OPENINGS IN THE U.S. STANDARD SIEVE NO. 70 [0.0083 IN. (0.21 MM.)] EXCEPT WHERE DIRECT DISCHARGE TO A STREAM, LAKE, OR WETLAND WILL OCCUR, THEN THE EOS SHALL BE NO LARGER THAN STANDARD SIEVE NO. 100.

TO REDUCE THE CHANCE OF CLOGGING, IT IS PREFERABLE TO SPECIFY A FABRIC WITH OPENINGS AS LARGE AS ALLOWED BY THE CRITERIA. NO FABRIC SHOULD BE SPECIFIED WITH AN EOS SMALLER THAN U.S. STANDARD SIEVE NO. 100 [0.0059 IN. (0.15MM.)]. IF 85 PERCENT OR MORE OF A SOIL, BY WEIGHT, PASSES THROUGH THE OPENINGS IN A NO. 200 SIEVE [0.0029 IN. (0.074 MM.)], FILTER FABRIC SHALL NOT BE USED. MOST OF THE PARTICLES IN SUCH A SOIL WOULD NOT BE RETAINED IF THE EOS WAS TOO LARGE, AND THEY WOULD CLOG THE FABRIC QUICKLY IF THE EOS WAS SMALL ENOUGH TO CAPTURE THE SOIL.

BMP-64-65

GRAVELBAG SEDIMENT TRAP DETAIL



SEDIMENT TRAP ALONG THE DOWNSLOPE PERIMETERS OF CONSTRUCTION DISTURBED AREA
N.T.S.

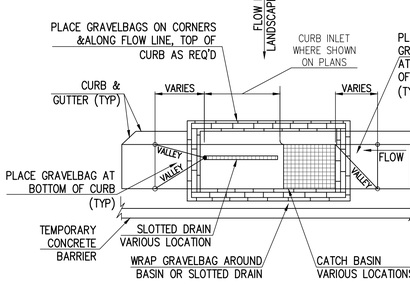
SELECTION OF FABRIC TENSILE STRENGTH AND BURSTING STRENGTH CHARACTERISTICS SHALL BE SUPPORTED WITH WIRE MESH IN AND AS RECOMMENDED BY THE FABRIC MANUFACTURER.
FILTER FABRIC MATERIAL SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF SIX MONTHS OF EXPECTED USABLE LIFE AT A TEMPERATURE RANGE OF 0° F. TO 120° F.

1. TYPICAL INSTALLATION:

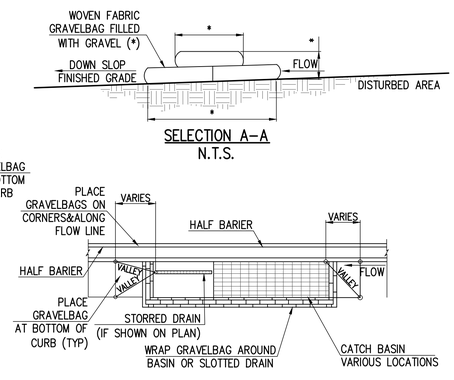
FILTER FENCES ARE TO BE CONSTRUCTED ON A LEVEL CONTOUR TO MAXIMIZE THE AVAILABLE PONDING AREA AND PREVENT CONCENTRATION OF FLOW AGAINST THE FENCE.
A. POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 30 INCHES.
B. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 8 INCHES WIDE AND 12 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
C. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES.
D. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL EXTEND INTO THE TRENCH. WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT WIRED DIRECTLY FENCE MAY BE ELIMINATED AND THE FILTER FABRIC STAPLED OR WIRED DIRECTLY TO THE POSTS.
E. THE USE OF JOINTS SHOULD BE AVOIDED. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP AND BOTH ENDS SECURELY FASTENED TO THE POST.
F. THE TRENCH SHALL BE BACKFILLED WITH 3/4-INCH MINIMUM DIAMETER WASHED GRAVEL OR COMPACTED NATIVE MATERIAL.

NOTES:

1. * SEE SPECIAL PROVISIONS.
2. GRAVELBAG MATERIEL SHALL BE FROM POLYPROPYLENE, POLYETHYLENE, OR POLYAMIDE WOVEN FABRIC. SEE SPECIAL PROVISIONS FOR MULLEN BURST STRENGTH AND ULTRAVIOLET STABILITY REQUIREMENTS.
3. WHEN SEDIMENT DEPTH REACHES 3 INCHES, REMOVE. AND PROPERLY DISPOSE OF ACCUMULATED MATERIAL.
4. TOP OF GRAVELBAG TO BE 2 INCHES BELOW TOP OF ADJACENT ROADWAY TO ALLOW DRAINAGE INTO THE CATCH BASIN.
5. GRAVELBAG BMP SHALL NOT BE APPLIED IN THE AREA OF OPEN TRAFFIC.
6. THE INSTALLATION AND MAINTENANCE OF GRAVELBAG BMPS SHALL NOT NEGATIVELY IMPACT TRAFFIC SAFETY, AS WELL AS THE DESIGN FUNCTION OF ROADWAY OR BRIDGE DRAINAGE FACILITIES. FOR EROSION/SEDIMENT CONTROL PURPOSES, GRAVELBAG BMPS SHALL BE INSTALLED AND MAINTAINED TO CARRY THE STORM WATER OF AT LEAST 2-YEAR, 24-HOUR EVENTS.
7. THE GRAVELBAG BMPS PAY/BID ITEM SHALL INCLUDE ALL MATERIALS USED FOR THIS BMP, ALL GROUND PREPARATION, FURNISHING, INSTALLING, FINAL REMOVAL, AND DISPOSAL OF THIS TEMPORARY BMP, AS WELL AS RETURNING THE AREA TO AN ACCEPTABLE CONDITION AS APPROVED BY THE ENGINEER.



PLAN VIEW
N.T.S.

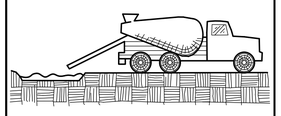


PLAN VIEW
N.T.S.

SELECTION A-A
N.T.S.

SYMBOL	DESIGNATED WASHOUT AREA
W.A.	

DIAGRAM



CONDITIONS WHERE PRACTICE APPLIES
- ___ PERIMETER CONTROL
- ___ SLOPE PROTECTION
- ___ SEDIMENT TRAPPING
- ___ DRAINAGEWAY & STREAM PROTECTION
- ___ TEMPORARY STABILIZATION
- ___ PERMANENT STABILIZATION & EXPOSURE LIMITS
- * NON-SEDIMENT POLLUTION CONTROL

DEFINITION

A TEMPORARY PIT OR BERMED AREA FOR WASHOUT OF CONCRETE TRUCKS, TOOLS, MORTAR MIXERS, ETC.

PURPOSE

IMPROPER WASHOUT OF CONCRETE TRUCKS, TOOLS, ETC. MAY ALLOW FRESH CONCRETE OR CEMENT LADEN MORTAR TO ENTER A STORM DRAINAGE SYSTEM.

APPROPRIATE APPLICATIONS

EFFECTIVE WHEN VEHICLES, TOOLS, AND MIXERS CAN BE MOVED TO THE PIT LOCATION. WHERE THIS IS NOT PRACTICAL, TEMPORARY PONDS MAY BE CONSTRUCTED TO ALLOW FOR SETTLING AND HARDENING OF CEMENT AND AGGREGATES. WASHOUT AREA/PITS ARE APPROPRIATE FOR MINOR AMOUNTS OF WASH WATER WHICH RESULT FROM CLEANING OF AGGREGATE MATERIALS OR CONCRETE TRUCKS, TOOLS, ETC.

PLANNING CONSIDERATIONS

1. WASH OUT INTO A SLURRY PIT WHICH WILL LATER BE BACKFILLED. DO THIS ONLY WITH THE APPROVAL OF THE PROPERTY OWNER.

2. WASH OUT INTO A TEMPORARY PIT WHERE THE CONCRETE WASH CAN HARDEN, BE BROKEN UP, AND THEN PROPERLY DISPOSED OF OFF-SITE.

DESIGN & SIZING CRITERIA

1. LOCATE WASHOUT PITS AWAY FROM STORM DRAINS, OPEN DITCHES, OR STORMWATER RECEIVING WATERS.

2. DO NOT WASHOUT CONCRETE TRUCKS INTO STORM DRAINS, SANITARY SEWERS, STREET GUTTERS, OR STORMWATER CHANNELS.

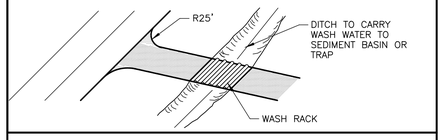
MAINTENANCE REQUIREMENTS

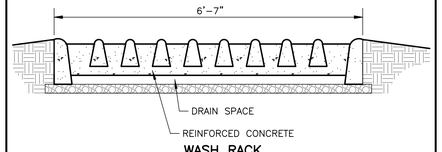
PROPERLY DISPOSE OF HARDENED CONCRETE PRODUCTS ON A ROUTINE BASIS TO PREVENT THE BUILDUP OF WASTE MATERIALS TO AN UNMANAGEABLE SIZE AND TO MAINTAIN PERCOLATION OF WATER.

REFERENCE (14)

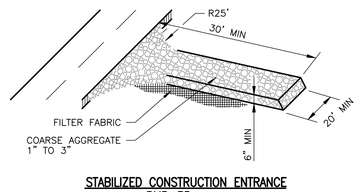
BMP-99&100

SYMBOL	STABILIZED CONSTRUCTION ENTRANCE





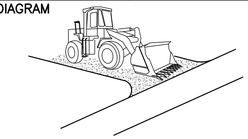
WASH RACK



STABILIZED CONSTRUCTION ENTRANCE
BMP-35

SYMBOL	STABILIZED CONSTRUCTION ENTRANCE
S.C.E.	

DIAGRAM

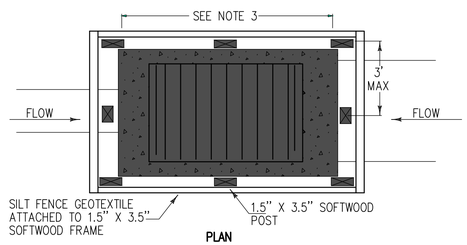


CONDITIONS WHERE PRACTICE APPLIES
- ___ PERIMETER CONTROL
- ___ SLOPE PROTECTION
- * SEDIMENT TRAPPING
- ___ DRAINAGEWAY & STREAM PROTECTION
- * TEMPORARY STABILIZATION
- ___ PERMANENT STABILIZATION & EXPOSURE LIMITS
- * NON-SEDIMENT POLLUTION CONTROL

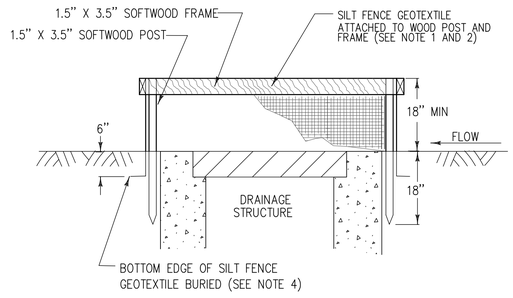
DEFINITION
A STABILIZED PAD OF AGGREGATE UNDERLAIN WITH FILTER CLOTH LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, SIDEWALK OR PARKING AREA.
PURPOSE
THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY OR STREETS. REDUCING TRACKOUT OF SEDIMENTS AND OTHER POLLUTANTS ONTO PAVED ROADS HELPS PREVENT DEPOSITION OF SEDIMENTS INTO LOCAL STORM DRAINS AND PRODUCTION OF AIRBORNE DUST.
APPROPRIATE APPLICATIONS
A STABILIZED CONSTRUCTION ENTRANCE SHOULD BE USED AT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS. NPDES PERMITS REQUIRE THAT APPROPRIATE MEASURES BE IMPLEMENTED TO PREVENT TRACKOUT OF SEDIMENTS ONTO PAVED ROADWAYS.
LIMITATIONS
THE STABILIZED CONSTRUCTION ENTRANCE PLAN SHOULD BE REVIEWED AS PART OF THE PROJECT TRAFFIC CONTROL PLAN.
– CONSTRUCT ON LEVEL GROUND.
– STABILIZED CONSTRUCTION ENTRANCES ARC RATHER EXPENSIVE TO CONSTRUCT AND WHEN A WASH RACK IS INCLUDED, A SEDIMENT TRAP OF SOME KIND MUST ALSO BE PROVIDED TO COLLECT WASH WATER RUNOFF.
PLANNING CONSIDERATIONS
STABILIZED CONSTRUCTION ENTRANCES ARE NOT VERY EFFECTIVE IN REMOVING SEDIMENT FROM EQUIPMENT LEAVING A CONSTRUCTION SITE. EFFICIENCY IS GREATLY INCREASED, THOUGH WHEN A WASHING RACK IS INCLUDED AS PART OF A STABILIZED CONSTRUCTION ENTRANCE. BUILD ON LEVEL GROUND.
1. ADVANTAGES:
– DOES REMOVE SOME SEDIMENT FROM EQUIPMENT AND SERVES TO CHANNEL CONSTRUCTION TRAFFIC IN AND OUT OF THE SITE.
DESIGN & SIZING CONSIDERATIONS
THE AGGREGATE FOR STABILIZED CONSTRUCTION ENTRANCE APRONS SHALL BE 1 TO 3 INCHES IN SIZE, WASHED, WELL-GRADED GRAVEL OR CRUSHED ROCK. THE APRON DIMENSIONS RECOMMENDED ARE 30 FT. X 50 FT. AND 6 INCHES DEEP.
ENTRANCE MUST BE PROPERLY GRADED TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE. WHEN WASH AREAS ARE PROVIDED, WASHING SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO A PROPERLY CONSTRUCTED SEDIMENT TRAP OR BASIN (POND).
MAINTENANCE REQUIREMENTS
– INSPECT MONTHLY AND AFTER EACH RAINFALL.
REPLACE GRAVEL MAT WHEN SURFACE VOIDS ARE NO LONGER VISIBLE.
– PERIODIC TOP DRESSING WITH ADDITIONAL STONE WILL BE REQUIRED.
ALL SEDIMENTS DEPOSITED ON PAVED ROADWAYS MUST BE REMOVED WITHIN 24 HOURS.
– REMOVE GRAVEL AND FILTER FABRIC UPON COMPLETION OF CONSTRUCTION.
REFERENCES (1, 2)

BMP-37&38

DROP INLET PROTECTION
SILT FENCE DROP INLET PROTECTION



PLAN



SECTION

APPLICATION NOTES:

A. THE PRIMARY PURPOSE OF DRAINAGE STRUCTURE INLET PROTECTION IS TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM BY PONDING WATER WHICH ALLOWS SEDIMENT TO FALL OUT OF SUSPENSION.
B. THESE EXAMPLES OF DROP INLET PROTECTION ARE NOT INTENDED FOR USE ON GRADES. ON GRADE THEY MAY CAUSE WATER TO BYPASS THE STRUCTURE, CREATING ADDITIONAL EROSION OR FLOODING.
C. POSSIBLE MODIFICATIONS FOR USE ON GRADE INCLUDE ADDING A BERM DOWNSTREAM OF THE INLET TO CREATE PONDING. CHECK DAMS MAY ALSO BE USED UPSTREAM OF THE INLET TO SLOW VELOCITIES.
D. PREFABRICATED DROP INLET PROTECTION SPECIFICATIONS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.

GENERAL NOTES:

1. THE TOP OF THE INLET PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL, BASED ON FIELD LOCATION AND CONDITIONS.
2. SILT FENCE GEOTEXTILE SHALL BE A SINGLE CONTINUOUS PIECE TO ELIMINATE JOINTS.
3. SPACE SILT FENCE POSTS EVENLY AROUND INLET WITH A MAXIMUM SPACING OF 3 FEET. DRIVE POSTS A MINIMUM OF 18 INCHES INTO GROUND. WIRE MESH MAY BE REQUIRED BEHIND GEOTEXTILE TO PROVIDE SUPPORT.
4. SECURE THE ENDS OF THE APRON FOR THE PREFABRICATED DRAINAGE STRUCTURE INLET PROTECTION WITH STAPLES AS DETAILED IN THE PLAN VIEW OR AS RECOMMENDED BY THE MANUFACTURERS SPECIFICATIONS.
5. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
6. MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.com

DATE: 03/20/26
SCALE: N.T.S.
DESIGNED BY: NP
DRAWN BY: DL
CHECKED BY: JI
JOB: 2507249
VERSION: 1.1
PLOT DATE: 03/20/26
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REVISIONS:

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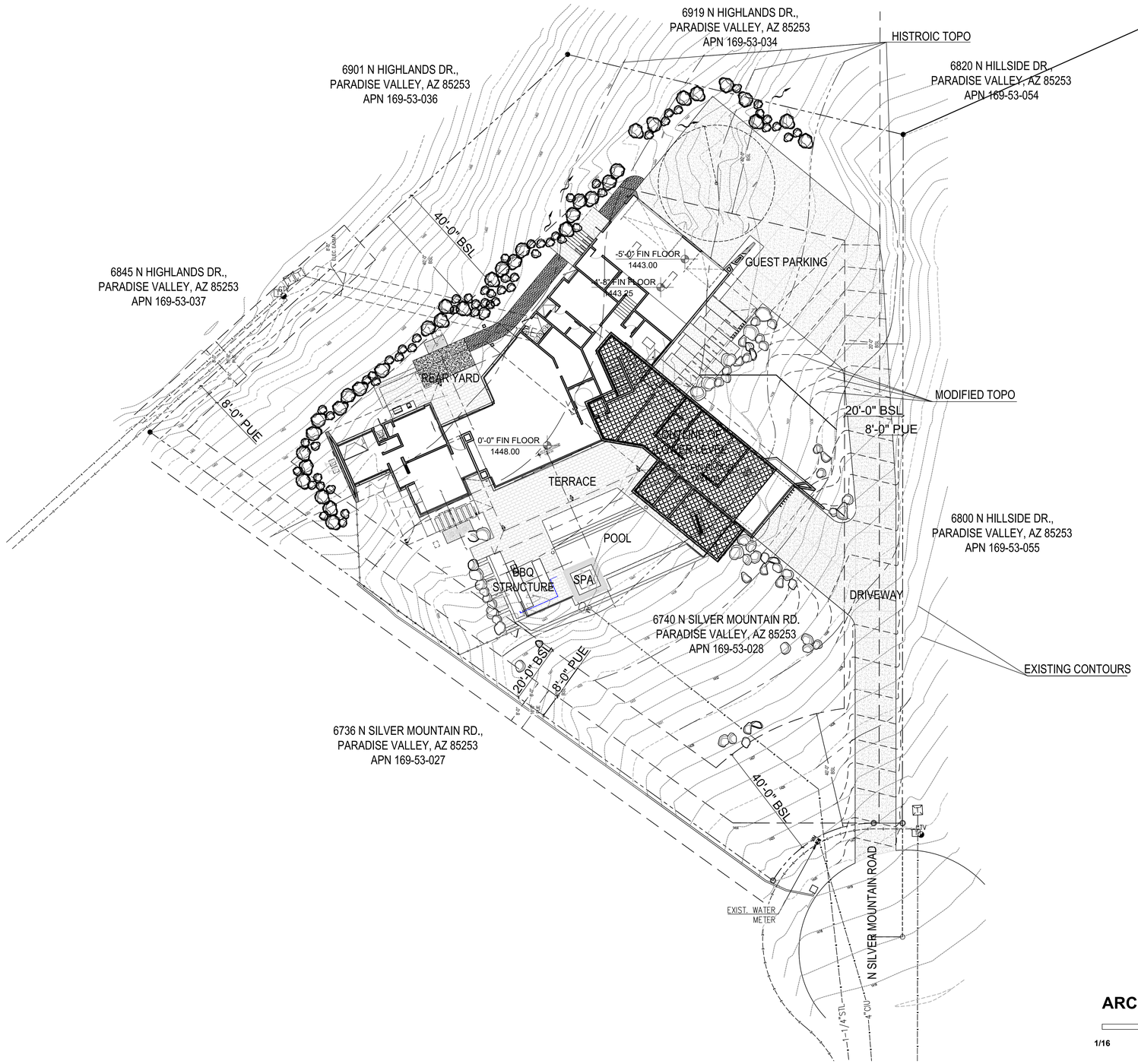
STORM WATER POLLUTION PREVENTION PLAN DETAILS

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Land DEVELOPMENT GROUP

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 41005 NICKOLA J PRODANOV Date Signed 03/20/26 ARIZONA U.S.A.

SP-2
2 OF 2



ARCHITECTURAL SITE PLAN

1/16 16 32 64 96

N

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Mountain Road
Paradise Valley, AZ 85253

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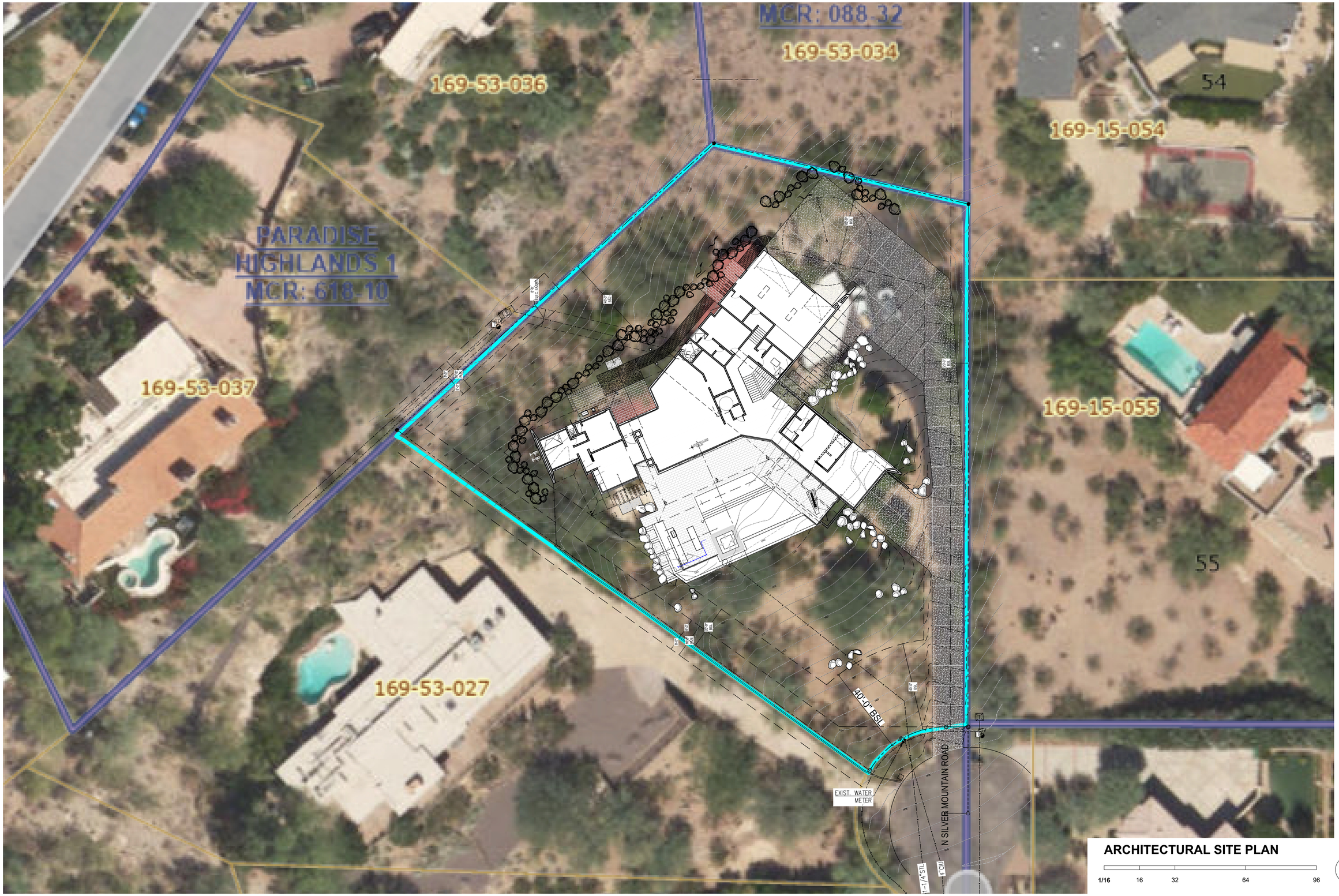
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ISSUE: 03/13/2026 PV HS CONCEPT

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PROJECT NO:
CAD DWG FILE:
DRAWN BY: RV
CHECKED BY: BK

SHEET TITLE:
ARCHITECTURAL SITE PLAN

A-1.0



KENDLE DESIGN COLLABORATIVE

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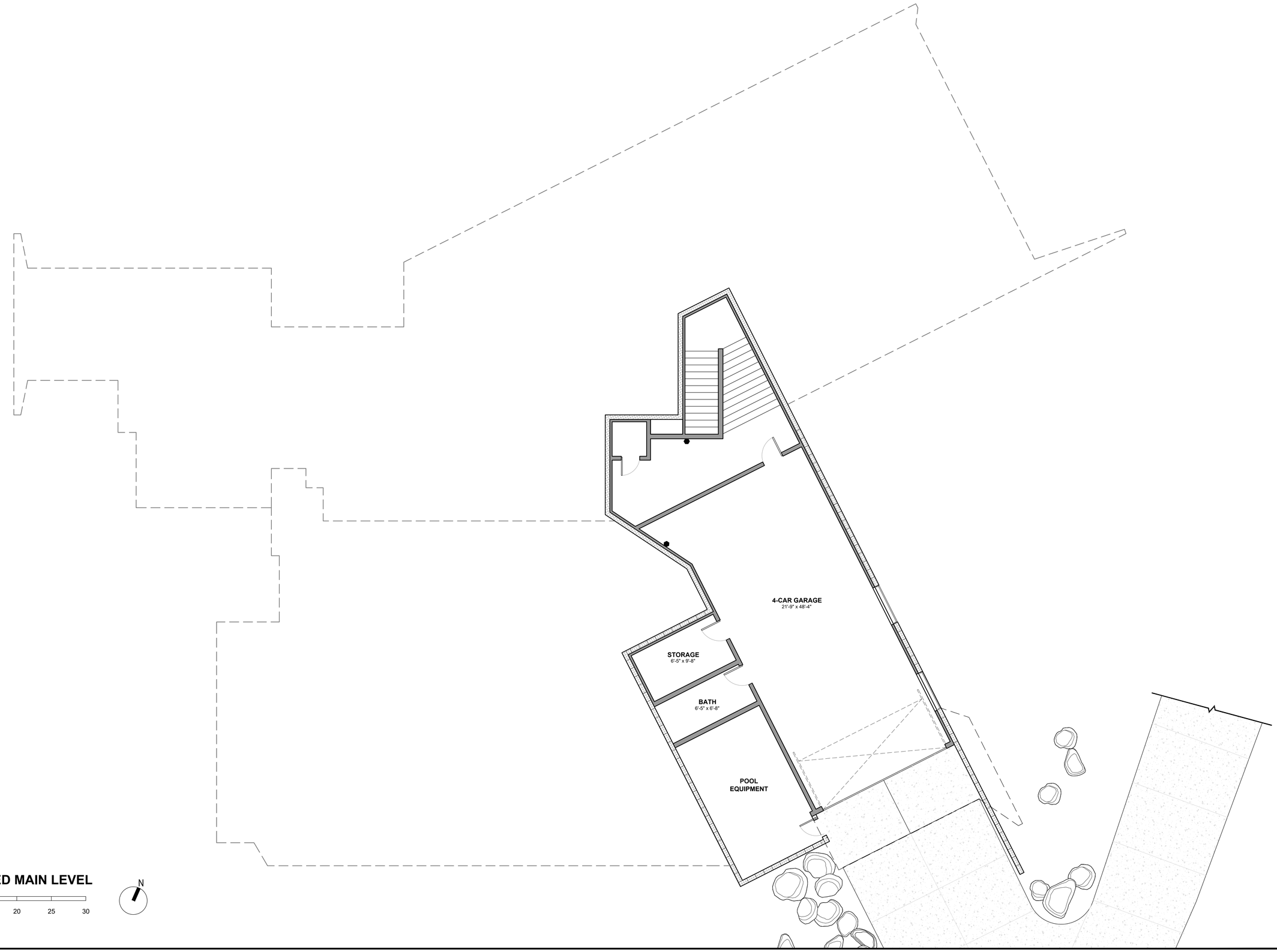
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CAD DWG FILE:
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SHEET TITLE:
AERIAL OVERLAY

A-2.0



FLOOR PLAN NOTED MAIN LEVEL

3/16 5 10 15 20 25 30

N

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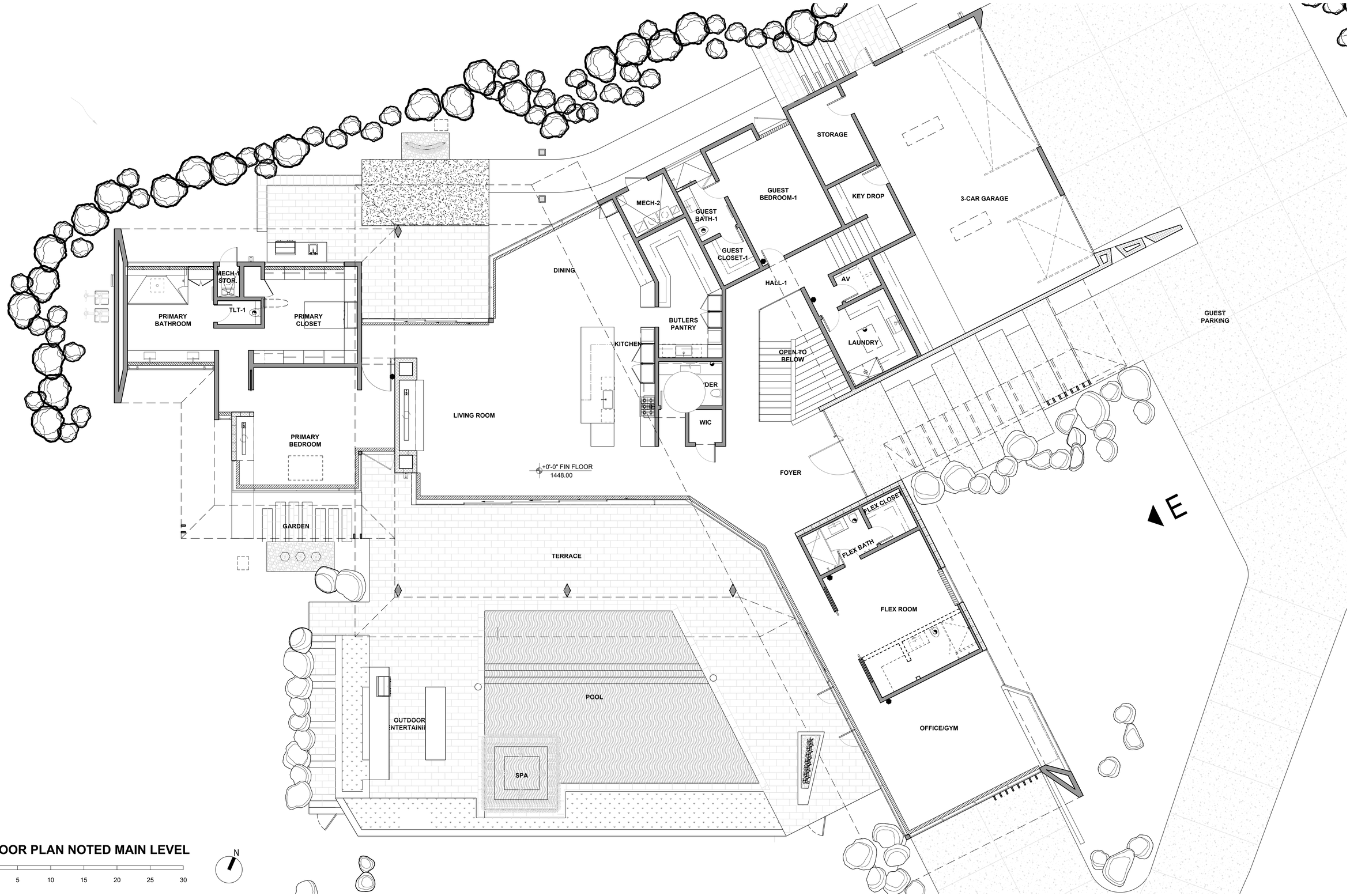
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PROJECT NO:
CAD DWG FILE:
DRAWN BY: RV
CHECKED BY: BK

SHEET TITLE:
FLOOR PLAN NOTED LOWER LEVEL

A-3.0



FLOOR PLAN NOTED MAIN LEVEL

3/16 5 10 15 20 25 30

N

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SHEET TITLE:
FLOOR PLAN NOTED MAIN LEVEL

A-3.1



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CAD DWG FILE:

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SHEET TITLE:

RENDERING

A-4.0

GENERAL NOTES

NOTES:

1. SEE A-4 SHEETS FOR HEAD, JAMB AND SILL DETAILS FOR EACH EXTERIOR OPENING.
4. SEE DETAIL # ON A-#.# FOR TYPICAL STANDING SEAM METAL FINISH PATTERNING AND DETAILING.
5. SEE DETAIL # ON A-#.# FOR TYPICAL EXTERIOR OUTER CORNER DETAIL @ STANDING SEAM METAL FINISH.
6. SEE DETAIL # ON A-#.# FOR TYPICAL EXTERIOR INNER CORNER DETAIL @ STANDING SEAM METAL FINISH.
7. SEE DETAILS # ON A-#.# FOR CONNECTION INFORMATION @ DISSIMILAR WALL MATERIAL CORNERS.
8. SEE DETAIL # ON A-#.# FOR TYPICAL EXTERIOR CORNER DETAIL @ STUCCO-FINISHED WALL.
9. SEE DETAIL # ON A-#.# FOR WEEP SCREED DETAIL @ STUCCO WALL.
9. SEE DETAIL # ON A-#.# FOR BASE DETAIL @ STONE FINISH OVER CMU WALL.
10. CONTRACTOR TO PROVIDE FULL-SIZED MOCK-UP OF ALL FINISH FOR REVIEW AND APPROVAL BY OWNER & ARCHITECT.
11. SEE ROOF PLANS (A-7 SHEETS) FOR ROOF SLOPES.

INSULATION SPECIFICATIONS

BUILDING THERMAL ENVELOPE MUST BE DURABLY SEALED TO LIMIT INFILTRATION OR LEAKAGE, SEE IECC SECTION 402.4.

ROOF:

R-VALUE R-38 MINIMUM. INSTALLED AT UNDERSIDE OF ROOF DECK. ICYNENE CLASIC MAX SELECT SPRAY-IN-PLACE LOW DENSITY OPEN CELLED POLYURETHANE FOAM INSULATION MANUFACTURED BY ICYNENE, INC. INSULATION SPRAYED FROM INSIDE OF BUILDING TO FILL ALL CRACKS, VOIDS AND TO COVER ALL SURFACES OF THE ROOF ASSEMBLY. ICC REPORT ESR 1826

WALLS:

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STATE SOUND ATTENUATION REQUIREMENTS PER ARS 28-8482

FRAME EXTERIOR WALL ASSEMBLY

WESTERN ONE-KOTE STUCCO SYSTEM, ICC-ES ESR-2729, OVER 1" THICK 1.5 P.C.F. DENSITY TYPE 2 T&G E.P. BOARD (ON AIS BOARD AT ATTIC AREAS) OVER 2 LAYERS OF GRADE 'D' BUILDING PAPER OR 1 LAYER TYPE 15 ASPHALT SATURATED ORGANIC FELT OVER 3/8" O.S.B. OVER 2X6'S AT 16" O.C. STAGGER JOINTS LAPPED MINIMUM 6" VERTICAL AND 2" HORIZONTAL WITH BUILDING PAPER OR FELT.

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CORNER REINFORCEMENT - 'K-LATH CORP.' KWIK CORNER FOR EXTERIOR ANGLES (PER MANUFACTURER'S INSTALLATION INSTRUCTIONS).

ONE-COAT STUCCO SYSTEM

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THE BUILDING DEVELOPMENT DIVISION WILL REQUIRE THE INSTALLATION CARD FROM THE STUCCO MANUFACTURER'S APPROVED APPLICATOR BE ON THE JOB SITE BEFORE THE APPLICATION OF THE WEATHER-RESISTIVE BARRIER.

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MEMBRANE UNDERLAYMENT SPECIFICATION

THE WEATHER RESISTIVE BARRIER SHALL BE A HIGH-TEMPERATURE, SELF-ADHERING RUBBERIZED ASPHALT MEMBRANE UNDERLAYMENT WITH SPLIT-RELEASE FILM SIMILAR TO CARLISLE WIP 300 HT. INSTALL AND OVERLAP JOINTS PER MANUFACTURER'S SPECIFICATIONS.

EXTERIOR FINISH SPECIFICATIONS

METAL:

MTL-1: BRAKE METAL FINISH KG RUSTIC METAL FINISHES "VULCAN STEEL". SEE DETAILS ## AND ## ON A-#.# FOR ASSEMBLY AND SPACING INFORMATION. 22 GAUGE. SEE MEMBRANE UNDERLAYMENT SPECIFICATION ON THIS SHEET. SEE DETAIL ## ON A-#.# FOR ADDITIONAL ASSEMBLY INFORMATION.

MTL-2: BRAKE METAL FINISH
22 GAUGE MIN. METAL, FINISH TO MATCH MTL. GLAZING SYSTEM ON HOUSE. VERTICAL JOINTS TO USE A GROOVED FLAT LOCK SEAM. HORIZONTAL BUTT-JOINTS W/ A BACK SLICE SEAM AND 1/8" TO 1/4" GAP BETWEEN FOR EXPANSION. SEE DETAIL 1 ON A-8.1 FOR INTENT. ESR-4730

MTL-3: PAINTED METAL
PAINTED FINISH TO MATCH GLAZING SYSTEM. CARDINAL PAINT, COLOR: P000-BK247 (FS 37038 BLACK FLAT). VERIFY COLOR W/ OWNER AND ARCHITECT. SEE STRUCTURAL DRAWINGS FOR BEAM AND COLUMN SIZING. SEE OPENING DETAILS FOR WINDOW AND DOOR CONDITIONS.

MTL-4: METAL SPARK ARRESTOR
3/8" ROUND ON 1/2" STAGGERED CENTERS (51% OPEN AREA) PERFORATED METAL SCREEN COVER. SEE DETAIL # ON A-#.#. FINISH TO GLAZING SYSTEM. (VERIFY COLOR W/ OWNER AND ARCHITECT).

MTL-5: ROOF DRAIN DOWNSPOUT
MAJESTIC WATER SPOUTS "HUGO" 6 INCH ROOF DRAINAGE SCUPPER, STAINLESS STEEL FINISH. SEE DETAIL # ON A-#.#. SEE ROOF AND FLOOR FINISH PLANS FOR DRAIN LOCATIONS AND INFORMATION

MTL-6: BRAKE METAL FINISH
22 GAUGE MIN. METAL, FINISH TO MATCH MTL-1. VERTICAL JOINTS TO USE A GROOVED FLAT LOCK SEAM. HORIZONTAL BUTT-JOINTS W/ A BACK SLICE SEAM AND 1/8" TO 1/4" GAP BETWEEN FOR EXPANSION. SEE DETAILS # & # ON A-#.# FOR INTENT.

MASONRY:

CMU-1: 4x8x16
"BLOCKLITE" COLOR: DOESKIN. FINISH: GROUND. BOND: RUNNING BOND. VERTICAL JOINTS: TOOLED, HORIZONTAL JOINTS: V-JOINT. MORTAR COLOR: COHILLS 1#610. SEE GENERAL NOTES ON SHEET A-0.1 FOR SPECIFICATIONS.

STUCCO:

STC-1: INTEGRAL COLOR SYNTHETIC STUCCO FINISH SYSTEM (WALLS)
SMOOTH SAND FINISH. COLOR: TBD. NOT TO EXCEED LRV.

STC-2: INTEGRAL COLOR SYNTHETIC STUCCO FINISH SYSTEM (SOFFITS)
5/8" EXTERIOR GRADE FIBERGLASS MAT-FACED GYPSUM BOARD W/ MOISTURE & MOLD RESISTANCE SUCH AS DENSGLASS "GOLD" SHEATHING. INTEGRALLY COLORED SYNTHETIC STUCCO W/ FREESTYLE FINISH & COLOR TO MATCH THE INTERIOR CEILING.NOT TO EXCEED LRV

GLAZING/OPENINGS:

1" LOW-E INSULATED DOOR OR WINDOW GLAZING
DARK BRONZE ANODIZED ALUMINUM FRAMES/CLEAR TEMP. GLASS. SATIN ETCH SECOND SURFACE WHERE OCCURS PER WINDOW AND DOOR SCHEDULE.

OVERHEAD GARAGE DOOR
FINISH TO MATCH MTL-1. JACKSHAFT OPENER. SATIN ETCH SECOND SURFACE WHERE OCCURS PER WINDOW AND DOOR SCHEDULE.

WOOD:

CLG-1: WOOD CEILING
3/4" T&G CLEAR VERTICAL GRAIN DOUGLASS FIR, STAIN TBD. 5-1/2" T&G PLANKS MILLED TO CREATE 1/8" GAP BETWEEN PLANKS WHEN INSTALLED, SEE DETAIL # ON A-#.#. WOOD GRAIN TO CONTINUE WHEN TURNING A CORNER. SEALER: CLEAR WATER-BASED SEALER W/ UV PROTECTION.

NOTES:

1. VERIFY ALL FINISHES W/ OWNER AND ARCHITECT. CONTRACTOR TO PROVIDE MINIMUM 24"x24" SAMPLE FINISHES ON SITE FOR REVIEW & APPROVAL BY OWNER AND ARCHITECT.
2. ARCHITECT TO REVIEW SHOP DRAWINGS FOR FLASHING CONDITIONS. CONTRACTOR TO PROVIDE MOCK-UP OF FLASHING CONDITIONS FOR ARCHITECT'S REVIEW.

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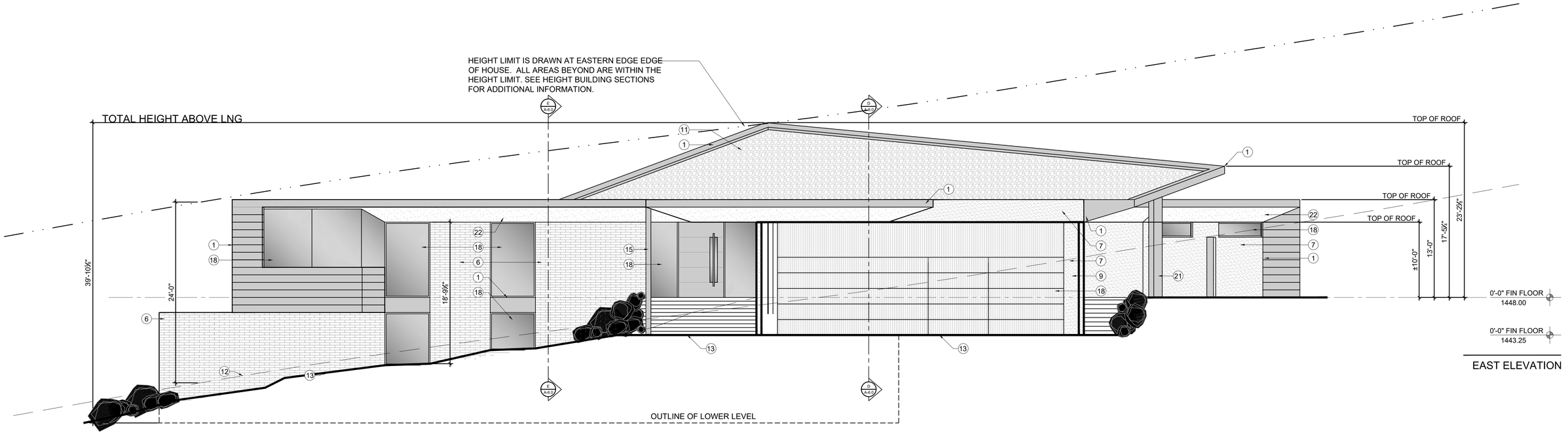
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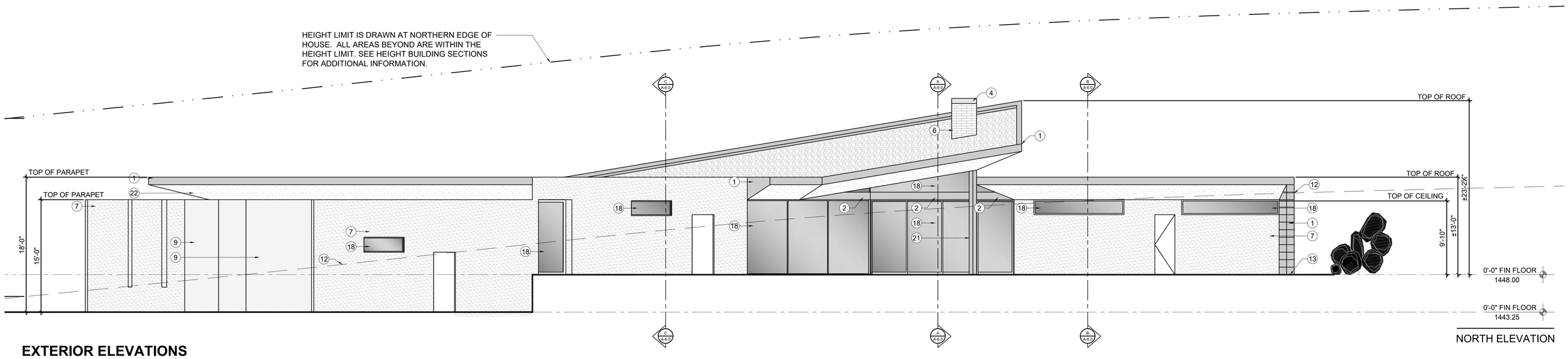
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CAD DWG FILE:
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NOTE
SEE LANDSCAPE DRAWINGS FOR LANDSCAPE SPECIFICATIONS

SHEET TITLE:
EXTERIOR MATERIAL SPECIFICATIONS

A-5.0





EXTERIOR ELEVATIONS

3/16 5 10 15 20 25 30

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EXTERIOR ELEVATIONS

A-5.1

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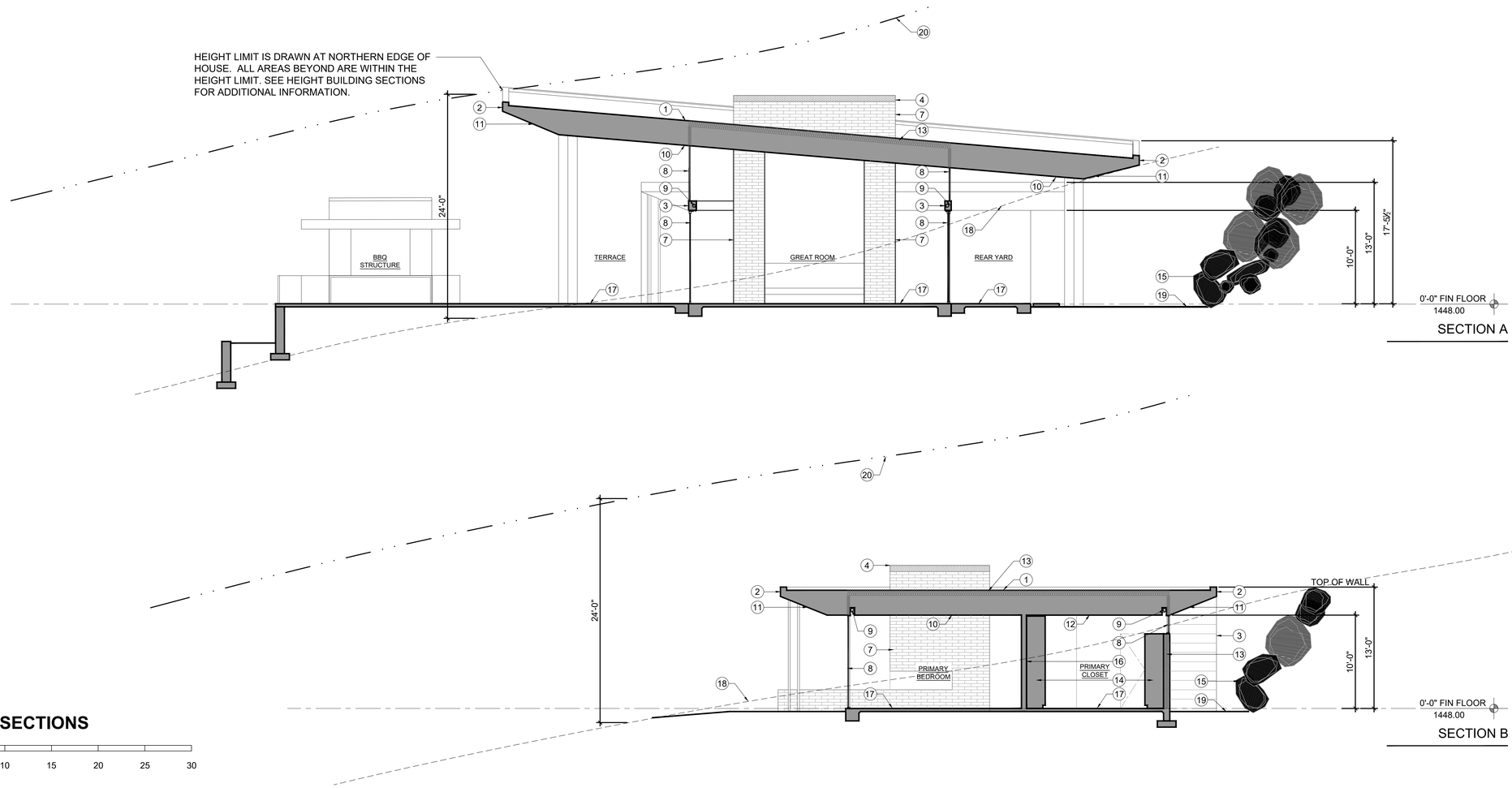
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BUILDING SECTION KEYNOTES

1. ROOFING, SEE ROOF PLAN FOR SPEC
2. MTL-1: FLAT METAL FINISH SYSTEM
3. MTL-2: BRAKE METAL FINISH SYSTEM
4. MTL-3 PAINTED METAL
5. MTL-4: METAL SPARK ARRESTOR
6. FIRE FEATURE, SEE FLOOR PLAN FOR SPEC. AND DETAIL INFORMATION
7. CMU-1: 8x8x16
8. 1" LOW-E INSULATED DOOR OR WINDOW GLAZING
9. WINDOW ROLLERSHADE, SEE OPENING DETAILS FOR MORE INFO
10. WD-1: WOOD CEILING
11. EXTERIOR SOFFIT W/ STUCCO FINISH, SEE RCP FOR SPEC.
12. CEILING, SEE RCP FOR SPEC
13. INSULATION, SEE INSULATION SPEC ON THIS SHEET
14. MILLWORK, SEE INTERIOR ELEVS FOR FINISH INFORMATION
15. BOULDER RETAINING WALL. SEE CIVIL DRAWINGS
16. TYP. INT. WALL: 5/8" PAINTED GYP. BOARD (U.N.O. ON INTERIOR ELEVATIONS) OVER 2x6's AT 16" O.C.
17. 4" CONCRETE OVER 4" TERMITE TREATED ABC, SEE FLOOR FINISH PLANS FOR SPEC
18. PRE DISTURBED GRADE
19. PROPOSED TOPOGRAPHY
20. 24' SLOPING HEIGHT LIMITS & 24' MAXIMUM BUILDING HEIGHT ABOVE LOWEST ADJACENT NATURAL GRADE FOR TOWN OF PARADISE VALLEY
21. STC-2 STUCCO FINISH SYSTEM



BUILDING SECTIONS

3/16 5 10 15 20 25 30

KENDLE DESIGN COLLABORATIVE
6115 NORTH CATTLETRACK
SCOTTSDALE, ARIZONA 85250
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BRENT@KENDLEDESIGN.COM
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Bell Residence
6740 North Silver Mountain Road
Paradise Valley, AZ 85253

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ISSUE: 03/13/2026 PV HS CONCEPT

-
PROJECT NO:
CAD DWG FILE:
DRAWN BY: RV
CHECKED BY: BK

NOTE
SEE LANDSCAPE DRAWINGS FOR LANDSCAPE SPECIFICATIONS

NOTE
INTERIORS SHOWN FOR DESIGN INTENT ONLY, SEE INTERIOR ELEVATION SHEETS

SHEET TITLE:
BUILDING SECTIONS

A-6.0

GENERAL NOTES

NOTES:

1. SEE A-4 SHEETS FOR HEAD, JAMB AND SILL DETAILS FOR EACH EXTERIOR OPENING.
4. SEE DETAIL # ON A-#.# FOR TYPICAL STANDING SEAM METAL FINISH PATTERNING AND DETAILING.
5. SEE DETAIL # ON A-#.# FOR TYPICAL EXTERIOR OUTER CORNER DETAIL @ STANDING SEAM METAL FINISH.
6. SEE DETAIL # ON A-#.# FOR TYPICAL EXTERIOR INNER CORNER DETAIL @ STANDING SEAM METAL FINISH.
7. SEE DETAILS # ON A-#.# FOR CONNECTION INFORMATION @ DISSIMILAR WALL MATERIAL CORNERS.
8. SEE DETAIL # ON A-#.# FOR TYPICAL EXTERIOR CORNER DETAIL @ STUCCO-FINISHED WALL.
9. SEE DETAIL # ON A-#.# FOR WEEP SCREED DETAIL @ STUCCO WALL
9. SEE DETAIL # ON A-#.# FOR BASE DETAIL @ STONE FINISH OVER CMU WALL.
10. CONTRACTOR TO PROVIDE FULL-SIZED MOCK-UP OF ALL FINISH FOR REVIEW AND APPROVAL BY OWNER & ARCHITECT.
11. SEE ROOF PLANS (A-7 SHEETS) FOR ROOF SLOPES.

INSULATION SPECIFICATIONS

BUILDING THERMAL ENVELOPE MUST BE DURABLY SEALED TO LIMIT INFILTRATION OR LEAKAGE, SEE IECC SECTION 402.4.

ROOF:
R-VALUE R-38 MINIMUM. INSTALLED AT UNDERSIDE OF ROOF DECK. ICYNENE CLASIC MAX SELECT SPRAY-IN-PLACE LOW DENSITY OPEN CELLED POLYURETHANE FOAM INSULATION MANUFACTURED BY ICYNENE, INC. INSULATION SPRAYED FROM INSIDE OF BUILDING TO FILL ALL CRACKS, VOIDS AND TO COVER ALL SURFACES OF THE ROOF ASSEMBLY. ICC REPORT ESR 1826

WALLS:
R-VALUE R-13 MINIMUM. ICYNENE CLASIC MAX SELECT SPRAY-IN-PLACE LOW DENSITY OPEN CELLED POLYURETHANE FOAM INSULATION MANUFACTURED BY ICYNENE, INC. INSULATION SPRAYED FROM INSIDE OF BUILDING TO FILL ALL CRACKS, VOIDS AND TO COVER ALL SURFACES OF THE ROOF ASSEMBLY. ICC REPORT ESR 1826

STATE SOUND ATTENUATION REQUIREMENTS PER ARS 28-8482

FRAME EXTERIOR WALL ASSEMBLY

WESTERN ONE-KOTE STUCCO SYSTEM, ICC-ES ESR-2729, OVER 1" THICK 1.5 P.C.F. DENSITY TYPE 2 T&G E.P. BOARD (ON AIS BOARD AT ATTIC AREAS) OVER 2 LAYERS OF GRADE 'D' BUILDING PAPER OR 1 LAYER TYPE 15 ASPHALT SATURATED ORGANIC FELT OVER 3/8" O.S.B. OVER 2X6'S AT 16" O.C. STAGGER JOINTS LAPPED MINIMUM 6" VERTICAL AND 2" HORIZONTAL WITH BUILDING PAPER OR FELT.

PROVIDE A GALVANIZED CORROSION RESISTANT METAL WEEP SCREED AS MANUFACTURED BY 'FRY REGLET CORPORATION' LOS ANGELES, CA. OF EXTRUDED ALUMINUM .050" THICK WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2 INCHES PLACED A MINIMUM 3/4 INCH BELOW THE FOUNDATION PLATE LINE ON ALL FRAME WALLS AND A MINIMUM 4 INCHES ABOVE ADJACENT FINISH GRADE. INSTALL PER TOWN APPROVED DETAILS.

CORNER REINFORCEMENT - 'K-LATH CORP.' KWIK CORNER FOR EXTERIOR ANGLES (PER MANUFACTURER'S INSTALLATION INSTRUCTIONS).

ONE-COAT STUCCO SYSTEM

ALL ONE-COAT STUCCO SYSTEMS SHALL BE APPLIED BY MANUFACTURER APPROVED INSTALLERS. ALL WEATHER RESISTIVE BARRIERS SHALL BE INSTALLED OVER ALL FRAMING AND WOOD BASED SHEATHING.

THE BUILDING DEVELOPMENT DIVISION WILL REQUIRE THE INSTALLATION CARD FROM THE STUCCO MANUFACTURER'S APPROVED APPLICATOR BE ON THE JOB SITE BEFORE THE APPLICATION OF THE WEATHER-RESISTIVE BARRIER.

A COPY OF THE INSTALLATION CARD MUST BE PRESENTED TO THE BUILDING INSPECTOR AFTER COMPLETION OF THE WORK AND BEFORE FINAL INSPECTION. A COPY OF THE INSTALLATION CARD SHALL BE LEFT AT THE JOB SITE FOR THE PROPERTY OWNER.

MEMBRANE UNDERLAYMENT SPECIFICATION

THE WEATHER RESISTIVE BARRIER SHALL BE A HIGH-TEMPERATURE, SELF-ADHERING RUBBERIZED ASPHALT MEMBRANE UNDERLAYMENT WITH SPLIT-RELEASE FILM SIMILAR TO CARLISLE WIP 300 HT. INSTALL AND OVERLAP JOINTS PER MANUFACTURER'S SPECIFICATIONS.

EXTERIOR FINISH SPECIFICATIONS

METAL:

MTL-1: BRAKE METAL FINISH KG RUSTIC METAL FINISHES "VULCAN STEEL" , SEE DETAILS ## AND ## ON A-#.# FOR ASSEMBLY AND SPACING INFORMATION. 22 GAUGE. SEE MEMBRANE UNDERLAYMENT SPECIFICATION ON THIS SHEET. SEE DETAIL ## ON A-#.# FOR ADDITIONAL ASSEMBLY INFORMATION.

MTL-2: BRAKE METAL FINISH
22 GAUGE MIN. METAL, FINISH TO MATCH MTL. GLAZING SYSTEM ON HOUSE. VERTICAL JOINTS TO USE A GROOVED FLAT LOCK SEAM. HORIZONTAL BUTT-JOINTS W/ A BACK SLICE SEAM AND 1/8" TO 1/4" GAP BETWEEN FOR EXPANSION. SEE DETAIL 1 ON A-8.1 FOR INTENT. ESR-4730

MTL-3: PAINTED METAL
PAINTED FINISH TO MATCH GLAZING SYSTEM. CARDINAL PAINT, COLOR: P000-BK247 (FS 37038 BLACK FLAT), VERIFY COLOR W/ OWNER AND ARCHITECT. SEE STRUCTURAL DRAWINGS FOR BEAM AND COLUMN SIZING. SEE OPENING DETAILS FOR WINDOW AND DOOR CONDITIONS.

MTL-4: METAL SPARK ARRESTOR
3/8" ROUND ON 1/2" STAGGERED CENTERS (51% OPEN AREA) PERFORATED METAL SCREEN COVER. SEE DETAIL # ON A-#.#. FINISH TO GLAZING SYSTEM. (VERIFY COLOR W/ OWNER AND ARCHITECT).

MTL-5: ROOF DRAIN DOWNSPOUT
MAJESTIC WATER SPOUTS "HUGO" 6 INCH ROOF DRAINAGE SCUPPER, STAINLESS STEEL FINISH. SEE DETAIL # ON A-#.#. SEE ROOF AND FLOOR FINISH PLANS FOR DRAIN LOCATIONS AND INFORMATION

MTL-6: BRAKE METAL FINISH
22 GAUGE MIN. METAL, FINISH TO MATCH MTL-1. VERTICAL JOINTS TO USE A GROOVED FLAT LOCK SEAM. HORIZONTAL BUTT-JOINTS W/ A BACK SLICE SEAM AND 1/8" TO 1/4" GAP BETWEEN FOR EXPANSION. SEE DETAILS # & # ON A-#.# FOR INTENT.

MASONRY:
CMU-1: 4x8x16
"BLOCKLITE" COLOR: DOESKIN. FINISH: GROUND. BOND: RUNNING BOND. VERTICAL JOINTS: TOOLED, HORIZONTAL JOINTS: V-JOINT. MORTAR COLOR: COHILLS 1#610. SEE GENERAL NOTES ON SHEET A-0.1 FOR SPECIFICATIONS.

STUCCO:
STC-1: INTEGRAL COLOR SYNTHETIC STUCCO FINISH SYSTEM (WALLS)
SMOOTH SAND FINISH. COLOR: TBD. NOT TO EXCEED LRV.

STC-2: INTEGRAL COLOR SYNTHETIC STUCCO FINISH SYSTEM (SOFFITS)
5/8" EXTERIOR GRADE FIBERGLASS MAT-FACED GYPSUM BOARD W/ MOISTURE & MOLD RESISTANCE SUCH AS DENSGLASS "GOLD" SHEATHING. INTEGRALLY COLORED SYNTHETIC STUCCO W/ FREESTYLE FINISH & COLOR TO MATCH THE INTERIOR CEILING.NOT TO EXCEED LRV

GLAZING/OPENINGS:
1" LOW-E INSULATED DOOR OR WINDOW GLAZING
DARK BRONZE ANODIZED ALUMINUM FRAMES/CLEAR TEMP. GLASS. SATIN ETCH SECOND SURFACE WHERE OCCURS PER WINDOW AND DOOR SCHEDULE.

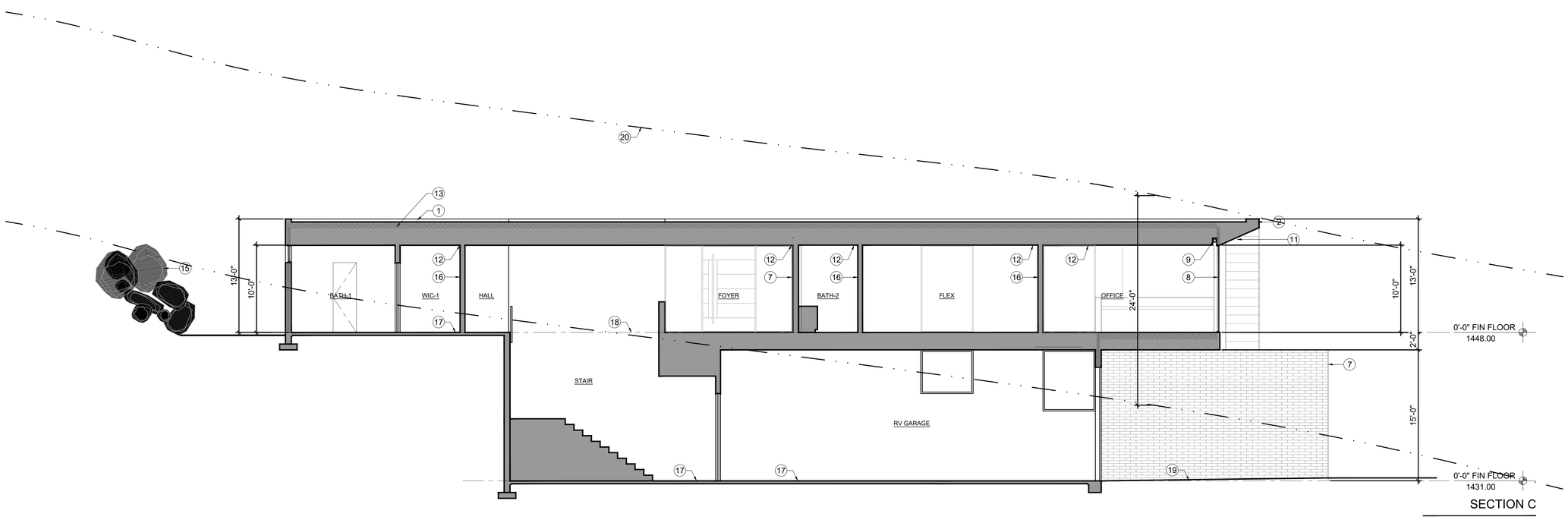
OVERHEAD GARAGE DOOR
FINISH TO MATCH MTL-1. JACKSHAFT OPENER. SATIN ETCH SECOND SURFACE WHERE OCCURS PER WINDOW AND DOOR SCHEDULE.

WOOD:
CLG-1: WOOD CEILING
3/4" T&G CLEAR VERTICAL GRAIN DOUGLASS FIR, STAIN TBD. 5-1/2" T&G PLANKS MILLED TO CREATE 1/8" GAP BETWEEN PLANKS WHEN INSTALLED, SEE DETAIL # ON A-#.#. WOOD GRAIN TO CONTINUE WHEN TURNING A CORNER. SEALER: CLEAR WATER-BASED SEALER W/ UV PROTECTION.

NOTES:
1. VERIFY ALL FINISHES W/ OWNER AND ARCHITECT. CONTRACTOR TO PROVIDE MINIMUM 24"x24" SAMPLE FINISHES ON SITE FOR REVIEW & APPROVAL BY OWNER AND ARCHITECT.
2. ARCHITECT TO REVIEW SHOP DRAWINGS FOR FLASHING CONDITIONS. CONTRACTOR TO PROVIDE MOCK-UP OF FLASHING CONDITIONS FOR ARCHITECT'S REVIEW.

BUILDING SECTION KEYNOTES

1. ROOFING, SEE ROOF PLAN FOR SPEC
2. MTL-1: FLAT METAL FINISH SYSTEM
3. MTL-2: BRAKE METAL FINISH SYSTEM
4. MTL-3 PAINTED METAL
5. MTL-4: METAL SPARK ARRESTOR
6. FIRE FEATURE, SEE FLOOR PLAN FOR SPEC. AND DETAIL INFORMATION
7. CMU-1: 8x8x16
8. 1" LOW-E INSULATED DOOR OR WINDOW GLAZING
9. WINDOW ROLLERSHADE, SEE OPENING DETAILS FOR MORE INFO
10. WD-1: WOOD CEILING
11. EXTERIOR SOFFIT W/ STUCCO FINISH, SEE RCP FOR SPEC.
12. CEILING, SEE RCP FOR SPEC
13. INSULATION, SEE INSULATION SPEC ON THIS SHEET
14. MILLWORK, SEE INTERIOR ELEVS FOR FINISH INFORMATION
15. BOULDER RETAINING WALL. SEE CIVIL DRAWINGS
16. TYP. INT. WALL: 5/8" PAINTED GYP. BOARD (U.N.O. ON INTERIOR ELEVATIONS) OVER 2x6's AT 16" O.C.
17. 4" CONCRETE OVER 4" TERMITE TREATED ABC, SEE FLOOR FINISH PLANS FOR SPEC
18. PRE DISTURBED GRADE
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21. STC-2 STUCCO FINISH SYSTEM



SECTION C

BUILDING SECTIONS

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SHEET TITLE:
BUILDING SECTIONS

A-6.1

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NOTES:

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STATE SOUND ATTENUATION REQUIREMENTS PER ARS 28-8482

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EXTERIOR FINISH SPECIFICATIONS

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MTL-2: BRAKE METAL FINISH
22 GAUGE MIN. METAL, FINISH TO MATCH MTL. GLAZING SYSTEM ON HOUSE. VERTICAL JOINTS TO USE A GROOVED FLAT LOCK SEAM. HORIZONTAL BUTT-JOINTS W/ A BACK SLICE SEAM AND 1/8" TO 1/4" GAP BETWEEN FOR EXPANSION. SEE DETAIL 1 ON A-8.1 FOR INTENT. ESR-4730

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MTL-4: METAL SPARK ARRESTOR
3/8" ROUND ON 1/2" STAGGERED CENTERS (51% OPEN AREA) PERFORATED METAL SCREEN COVER. SEE DETAIL # ON A-#.#. FINISH TO GLAZING SYSTEM. (VERIFY COLOR W/ OWNER AND ARCHITECT).

MTL-5: ROOF DRAIN DOWNSPOUT
MAJESTIC WATER SPOUTS "HUGO" 6 INCH ROOF DRAINAGE SCUPPER, STAINLESS STEEL FINISH. SEE DETAIL # ON A-#.#. SEE ROOF AND FLOOR FINISH PLANS FOR DRAIN LOCATIONS AND INFORMATION

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GLAZING/OPENINGS:
1" LOW-E INSULATED DOOR OR WINDOW GLAZING
DARK BRONZE ANODIZED ALUMINUM FRAMES/CLEAR TEMP. GLASS. SATIN ETCH SECOND SURFACE WHERE OCCURS PER WINDOW AND DOOR SCHEDULE.

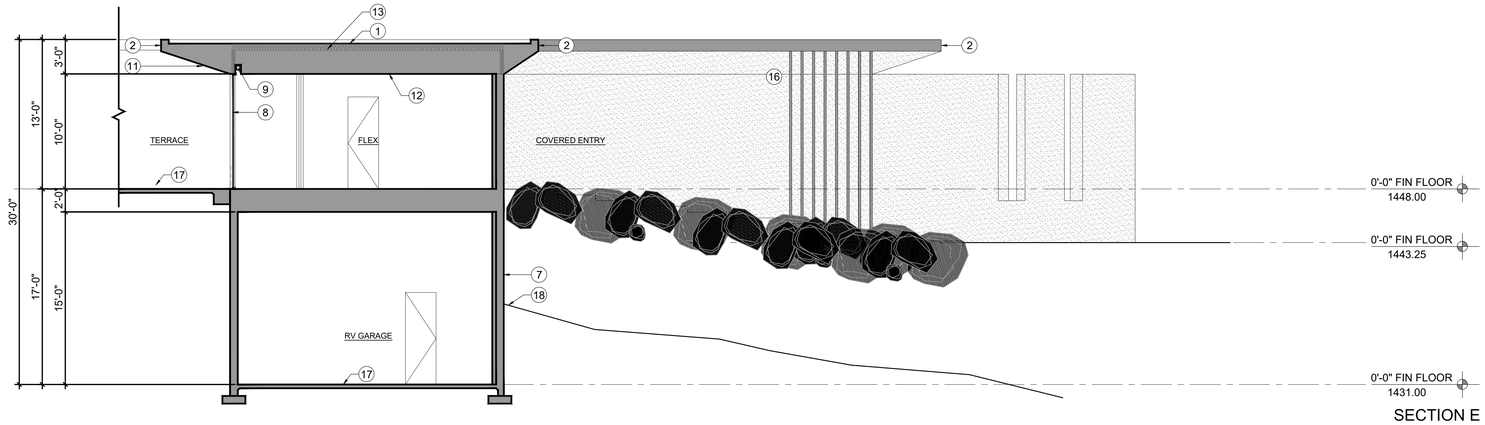
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WOOD:
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NOTES:
1. VERIFY ALL FINISHES W/ OWNER AND ARCHITECT. CONTRACTOR TO PROVIDE MINIMUM 24"x24" SAMPLE FINISHES ON SITE FOR REVIEW & APPROVAL BY OWNER AND ARCHITECT.
2. ARCHITECT TO REVIEW SHOP DRAWINGS FOR FLASHING CONDITIONS. CONTRACTOR TO PROVIDE MOCK-UP OF FLASHING CONDITIONS FOR ARCHITECT'S REVIEW.

BUILDING SECTION KEYNOTES

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2. MTL-1: FLAT METAL FINISH SYSTEM
3. MTL-2: BRAKE METAL FINISH SYSTEM
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21. STC-2 STUCCO FINISH SYSTEM



SECTION E

BUILDING SECTIONS

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SHEET TITLE:
BUILDING SECTIONS

A-6.2

GENERAL NOTES

NOTES:

1. SEE A-4 SHEETS FOR HEAD, JAMB AND SILL DETAILS FOR EACH EXTERIOR OPENING.
4. SEE DETAIL # ON A-#.# FOR TYPICAL STANDING SEAM METAL FINISH PATTERNING AND DETAILING.
5. SEE DETAIL # ON A-#.# FOR TYPICAL EXTERIOR OUTER CORNER DETAIL @ STANDING SEAM METAL FINISH.
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STATE SOUND ATTENUATION REQUIREMENTS PER ARS 28-8482

FRAME EXTERIOR WALL ASSEMBLY

WESTERN ONE-KOTE STUCCO SYSTEM, ICC-ES ESR-2729, OVER 1" THICK 1.5 P.C.F. DENSITY TYPE 2 T&G E.P. BOARD (ON AIS BOARD AT ATTIC AREAS) OVER 2 LAYERS OF GRADE 'D' BUILDING PAPER OR 1 LAYER TYPE 15 ASPHALT SATURATED ORGANIC FELT OVER 3/8" O.S.B. OVER 2X6'S AT 16" O.C. STAGGER JOINTS LAPPED MINIMUM 6" VERTICAL AND 2" HORIZONTAL WITH BUILDING PAPER OR FELT.

PROVIDE A GALVANIZED CORROSION RESISTANT METAL WEEP SCREED AS MANUFACTURED BY 'FRY REGLET CORPORATION' LOS ANGELES, CA. OF EXTRUDED ALUMINUM .050" THICK WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2 INCHES PLACED A MINIMUM 3/4 INCH BELOW THE FOUNDATION PLATE LINE ON ALL FRAME WALLS AND A MINIMUM 4 INCHES ABOVE ADJACENT FINISH GRADE. INSTALL PER TOWN APPROVED DETAILS.

CORNER REINFORCEMENT - 'K-LATH CORP.' KWIK CORNER FOR EXTERIOR ANGLES (PER MANUFACTURER'S INSTALLATION INSTRUCTIONS).

ONE-COAT STUCCO SYSTEM

ALL ONE-COAT STUCCO SYSTEMS SHALL BE APPLIED BY MANUFACTURER APPROVED INSTALLERS. ALL WEATHER RESISTIVE BARRIERS SHALL BE INSTALLED OVER ALL FRAMING AND WOOD BASED SHEATHING.

THE BUILDING DEVELOPMENT DIVISION WILL REQUIRE THE INSTALLATION CARD FROM THE STUCCO MANUFACTURER'S APPROVED APPLICATOR BE ON THE JOB SITE BEFORE THE APPLICATION OF THE WEATHER-RESISTIVE BARRIER.

A COPY OF THE INSTALLATION CARD MUST BE PRESENTED TO THE BUILDING INSPECTOR AFTER COMPLETION OF THE WORK AND BEFORE FINAL INSPECTION. A COPY OF THE INSTALLATION CARD SHALL BE LEFT AT THE JOB SITE FOR THE PROPERTY OWNER.

MEMBRANE UNDERLAYMENT SPECIFICATION

THE WEATHER RESISTIVE BARRIER SHALL BE A HIGH-TEMPERATURE, SELF-ADHERING RUBBERIZED ASPHALT MEMBRANE UNDERLAYMENT WITH SPLIT-RELEASE FILM SIMILAR TO CARLISLE WIP 300 HT. INSTALL AND OVERLAP JOINTS PER MANUFACTURER'S SPECIFICATIONS.

EXTERIOR FINISH SPECIFICATIONS

METAL:

MTL-1: BRAKE METAL FINISH KG RUSTIC METAL FINISHES "VULCAN STEEL" , SEE DETAILS ## AND ## ON A-#.# FOR ASSEMBLY AND SPACING INFORMATION. 22 GAUGE. SEE MEMBRANE UNDERLAYMENT SPECIFICATION ON THIS SHEET. SEE DETAIL ## ON A-#.# FOR ADDITIONAL ASSEMBLY INFORMATION.

MTL-2: BRAKE METAL FINISH
22 GAUGE MIN. METAL, FINISH TO MATCH MTL. GLAZING SYSTEM ON HOUSE. VERTICAL JOINTS TO USE A GROOVED FLAT LOCK SEAM. HORIZONTAL BUTT-JOINTS W/ A BACK SLICE SEAM AND 1/8" TO 1/4" GAP BETWEEN FOR EXPANSION. SEE DETAIL 1 ON A-8.1 FOR INTENT. ESR-4730

MTL-3: PAINTED METAL
PAINTED FINISH TO MATCH GLAZING SYSTEM. CARDINAL PAINT, COLOR: P000-BK247 (FS 37038 BLACK FLAT), VERIFY COLOR W/ OWNER AND ARCHITECT. SEE STRUCTURAL DRAWINGS FOR BEAM AND COLUMN SIZING. SEE OPENING DETAILS FOR WINDOW AND DOOR CONDITIONS.

MTL-4: METAL SPARK ARRESTOR
3/8" ROUND ON 1/2" STAGGERED CENTERS (51% OPEN AREA) PERFORATED METAL SCREEN COVER. SEE DETAIL # ON A-#.#. FINISH TO GLAZING SYSTEM. (VERIFY COLOR W/ OWNER AND ARCHITECT).

MTL-5: ROOF DRAIN DOWNSPOUT
MAJESTIC WATER SPOUTS "HUGO" 6 INCH ROOF DRAINAGE SCUPPER, STAINLESS STEEL FINISH. SEE DETAIL # ON A-#.#. SEE ROOF AND FLOOR FINISH PLANS FOR DRAIN LOCATIONS AND INFORMATION

MTL-6: BRAKE METAL FINISH
22 GAUGE MIN. METAL, FINISH TO MATCH MTL-1, VERTICAL JOINTS TO USE A GROOVED FLAT LOCK SEAM. HORIZONTAL BUTT-JOINTS W/ A BACK SLICE SEAM AND 1/8" TO 1/4" GAP BETWEEN FOR EXPANSION. SEE DETAILS # & # ON A-#.# FOR INTENT.

MASONRY:
CMU-1: 4x8x16
"BLOCKLITE" COLOR: DOESKIN. FINISH: GROUND. BOND: RUNNING BOND. VERTICAL JOINTS: TOOLED, HORIZONTAL JOINTS: V-JOINT. MORTAR COLOR: COHILLS 1#610. SEE GENERAL NOTES ON SHEET A-0.1 FOR SPECIFICATIONS.

STUCCO:
STC-1: INTEGRAL COLOR SYNTHETIC STUCCO FINISH SYSTEM (WALLS)
SMOOTH SAND FINISH. COLOR: TBD. NOT TO EXCEED LRV.

STC-2: INTEGRAL COLOR SYNTHETIC STUCCO FINISH SYSTEM (SOFFITS)
5/8" EXTERIOR GRADE FIBERGLASS MAT-FACED GYPSUM BOARD W/ MOISTURE & MOLD RESISTANCE SUCH AS DENSGLASS "GOLD" SHEATHING. INTEGRALLY COLORED SYNTHETIC STUCCO W/ FREESTYLE FINISH & COLOR TO MATCH THE INTERIOR CEILING.NOT TO EXCEED LRV

GLAZING/OPENINGS:
1" LOW-E INSULATED DOOR OR WINDOW GLAZING
DARK BRONZE ANODIZED ALUMINUM FRAMES/CLEAR TEMP. GLASS. SATIN ETCH SECOND SURFACE WHERE OCCURS PER WINDOW AND DOOR SCHEDULE.

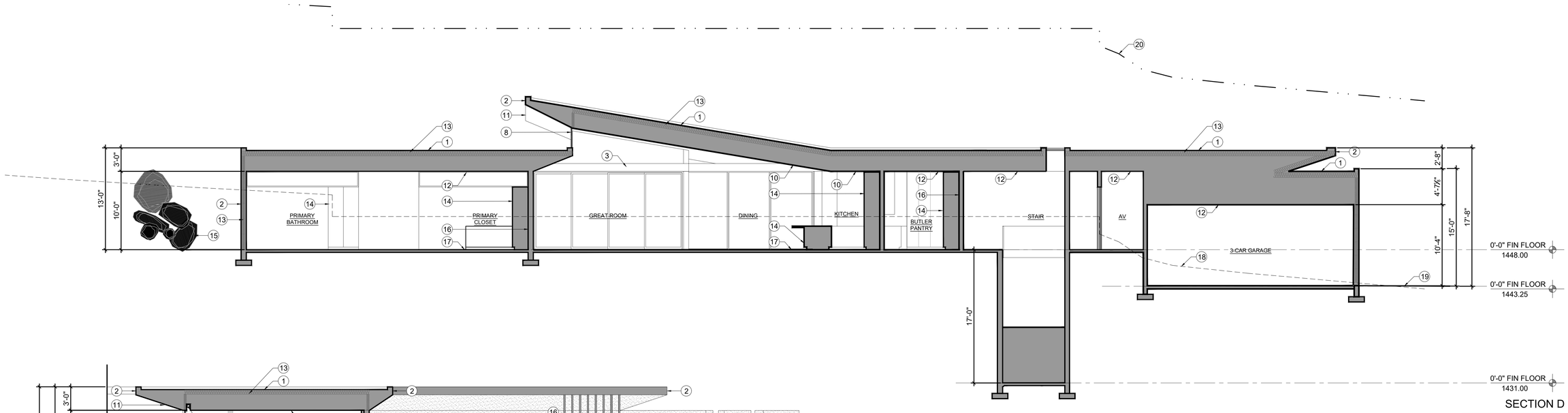
OVERHEAD GARAGE DOOR
FINISH TO MATCH MTL-1. JACKSHAFT OPENER. SATIN ETCH SECOND SURFACE WHERE OCCURS PER WINDOW AND DOOR SCHEDULE.

WOOD:
CLG-1: WOOD CEILING
3/4" T&G CLEAR VERTICAL GRAIN DOUGLASS FIR, STAIN TBD. 5-1/2" T&G PLANKS MILLED TO CREATE 1/8" GAP BETWEEN PLANKS WHEN INSTALLED, SEE DETAIL # ON A-#.#. WOOD GRAIN TO CONTINUE WHEN TURNING A CORNER. SEALER: CLEAR WATER-BASED SEALER W/ UV PROTECTION.

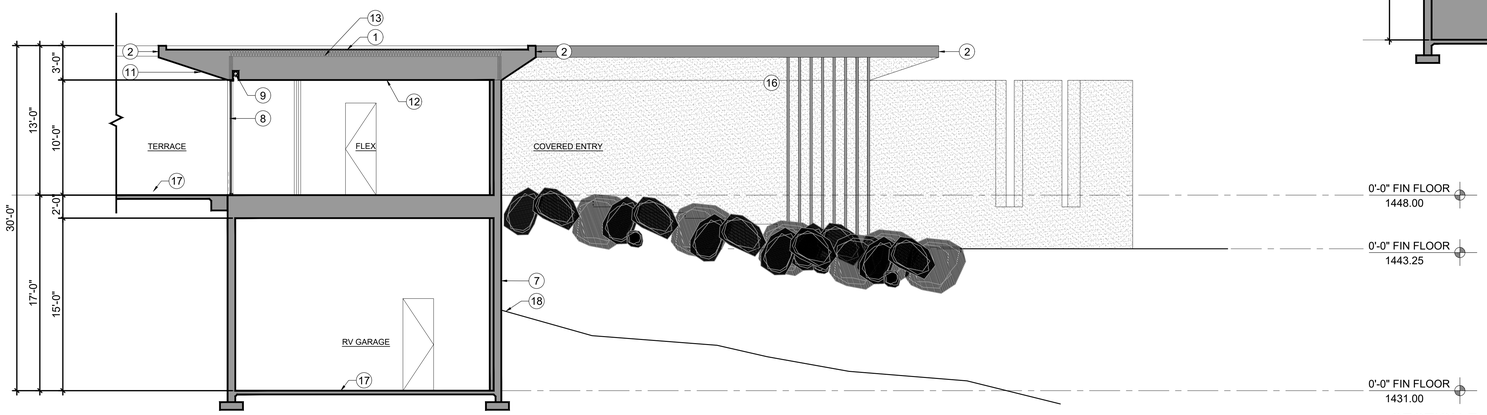
NOTES:
1. VERIFY ALL FINISHES W/ OWNER AND ARCHITECT. CONTRACTOR TO PROVIDE MINIMUM 24"x24" SAMPLE FINISHES ON SITE FOR REVIEW & APPROVAL BY OWNER AND ARCHITECT.
2. ARCHITECT TO REVIEW SHOP DRAWINGS FOR FLASHING CONDITIONS. CONTRACTOR TO PROVIDE MOCK-UP OF FLASHING CONDITIONS FOR ARCHITECT'S REVIEW.

BUILDING SECTION KEYNOTES

1. ROOFING, SEE ROOF PLAN FOR SPEC
2. MTL-1: FLAT METAL FINISH SYSTEM
3. MTL-2: BRAKE METAL FINISH SYSTEM
4. MTL-3 PAINTED METAL
5. MTL-4: METAL SPARK ARRESTOR
6. FIRE FEATURE, SEE FLOOR PLAN FOR SPEC. AND DETAIL INFORMATION
7. CMU-1: 8x8x16
8. 1" LOW-E INSULATED DOOR OR WINDOW GLAZING
9. WINDOW ROLLERSHADE, SEE OPENING DETAILS FOR MORE INFO
10. WD-1: WOOD CEILING
11. EXTERIOR SOFFIT W/ STUCCO FINISH, SEE RCP FOR SPEC.
12. CEILING, SEE RCP FOR SPEC
13. INSULATION, SEE INSULATION SPEC ON THIS SHEET
14. MILLWORK, SEE INTERIOR ELEVS FOR FINISH INFORMATION
15. BOULDER RETAINING WALL. SEE CIVIL DRAWINGS
16. TYP. INT. WALL: 5/8" PAINTED GYP. BOARD (U.N.O. ON INTERIOR ELEVATIONS) OVER 2x6's AT 16" O.C.
17. 4" CONCRETE OVER 4" TERMITE TREATED ABC, SEE FLOOR FINISH PLANS FOR SPEC
18. PRE DISTURBED GRADE
19. PROPOSED TOPOGRAPHY
20. 24' SLOPING HEIGHT LIMITS & 24' MAXIMUM BUILDING HEIGHT ABOVE LOWEST ADJACENT NATURAL GRADE FOR TOWN OF PARADISE VALLEY
21. STC-2 STUCCO FINISH SYSTEM



SECTION D



SECTION E

BUILDING SECTIONS

3/16 5 10 15 20 25 30

KENDLE DESIGN COLLABORATIVE
6115 NORTH CATTLETRACK
SCOTTSDALE, ARIZONA 85250
PH 480.951.8558
BRENT@KENDLEDESIGN.COM
KENDLEDESIGN.COM

Bell Residence
6740 North Silver Mountain Road
Paradise Valley, AZ 85253

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MARK	DATE	DESCRIPTION
5		
4		
3		
2		
1		

ISSUE: 03/13/2026 PV HS CONCEPT

PROJECT NO: -
CAD DWG FILE:
DRAWN BY: RV
CHECKED BY: BK

NOTE
SEE LANDSCAPE DRAWINGS FOR LANDSCAPE SPECIFICATIONS

NOTE
INTERIORS SHOWN FOR DESIGN INTENT ONLY, SEE INTERIOR ELEVATION SHEETS

SHEET TITLE:
BUILDING SECTIONS

A-6.3



VIEW 1



VIEW 2



VIEW 3



VIEW 4



VIEW 5



VIEW 6

KENDLE DESIGN COLLABORATIVE

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-
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CHECKED BY: BK

SHEET TITLE:

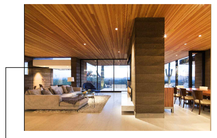
MASSING MODEL

A-7.0

METAL 4
PAINTED FINISH TO MATCH GLAZING SYSTEM. CARDINAL PAINT, COLOR: P000-BK247 FS 37038 BLACK FLAT



WOOD CEILING
3/4" T&G CLEAR VERTICAL GRAIN DOUGLASS FIR W/ CLEAR SEALER
LRV: 32.4



3/8" EXPOSED AGGREGATE COLORED CONCRETE PAVING, COLOR DAVIS:
DUNE
6058. 1/4" RADIUS EDGES, SAW CUT JOINTS.
FINISH ALL SIDES. LRV: 25



POOL
PEBBLE-TEC. PEBBLE-SHEEN.
COLOR: BLACK ONYX
LRV: 6.84.



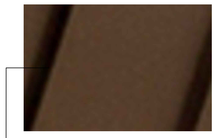
MASONRY
BLOCKLITE. DOE SKIN W/ GROUND FACE, STACKED BOND.
.LRV: 28 (CONFIRMED WITH TOWN)



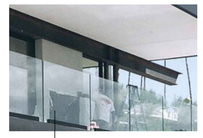
GLAZING
CLEAR, LOW-E INSULATED GLAZING IN DARK BRONZE ANODIZED FRAME



METAL 1
MTL-1: BRAKE METAL FINISH KG RUSTIC METAL FINISHES "VULCAN STEEL" ,
LRV: 7.86



GUARDRAIL
42" STEEL BAR GUARDRAIL PAINTED MATCH MTL-1



STC-1
PTD TO MATCH MATCH MTL-1
LRV: 7.86





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4		
3		
2		
1		

ISSUE: 03/13/2026 PV HS CONCEPT

-
PROJECT NO:
CAD DWG FILE:
DRAWN BY: RV
CHECKED BY: BK

NOTE: THE EXTERIOR MATERIAL PALETTE SHALL BE IN ACCORDANCE WITH SECTION 2207.II.D.

SHEET TITLE:

EXTERIOR MATERIALS

A-8.0

AFFIDAVIT OF MAILING NOTIFICATION

STATE OF ARIZONA)

) ss:

County of Maricopa)

In accordance with the requirements of the Town of Paradise Valley, the undersigned hereby certifies that the mailing list for the proposed project is a complete list of property owners within 1500 feet of the subject property, as obtained from the Maricopa County Assessor's Office on the following date April 16, 2026, and such notification has been mailed on the following date April 21, 2026.

Richard Van Horn

Signature

The foregoing instrument was acknowledged by me this 21st day of April 21, 2026, by Richard Van Horn.

Name

Kristi M Hillebert

NOTARY PUBLIC

My commission expires:

Sept 25, 2026

KRISTI M HILLEBERT
Notary Public - Arizona
Maricopa County
Commission # 635584
My Comm. Exp. September 25, 2026

AFFIDAVIT OF POSTING

STATE OF ARIZONA)

) ss:

County of Maricopa)

I, Richard van Horne, depose and state that the attached notice, of proposed application new residence located at 6740 N Silver Mountain Rd for the (Planning Commission/Town Council/Board of Adjustment/Hillside Committee) meeting date of May 13, 2026 is a true and correct copy of a notice which I cause to be posted by the following day of the week _____, and on the following date April 22nd, 2026 in the following location(s):

All in the Town of Paradise Valley, Arizona and County and State aforesaid, the same being public places in said County and in the following locations:

All to the Town of Paradise Valley, Arizona and County and State aforesaid.

DATED this 21st day of April, 2026

Richard van Horne

Signature

This affidavit was SUBSCRIBED AND SWORN to before me this 21st day of April, 2026

Kristi M Hillebert

NOTARY PUBLIC

KRISTI M HILLEBERT
Notary Public - Arizona
Maricopa County
Commission # 635584
My Comm. Exp. September 25, 2026

My commission expires:

Sept 25, 2026

Action Report

File #: 26-131

AGENDA TITLE:
Solar Combined Review for new rooftop solar panels at 7000 N Mummy Mountain Road - Solar (APN 169-06-007D).

STAFF CONTACT:
Jose Mendez, 480-348-3519

TOWN
Of
PARADISE VALLEY

STAFF REPORT

TO: **Hillside Building Committee**

FROM: **Chad Weaver, Community Development Director**
Shar Johnson, Town Engineer
Paul Michaud, Planning Manager
Jose Mendez, Hillside Development Planner
Juan Gonzalez Jr., Hillside Associate Engineer

DATE: **May 13, 2026**

DEPARTMENT: Community Development Department
Jose Mendez, (480)348-3519

AGENDA TITLE:
Solar Combined Review
New Solar
Sunlink Energy
7000 N Mummy Mountain Rd (APN 169-06-007D)
#HILL-26-14

RECOMMENDATION:
Staff recommends the Hillside Building Committee to review and **approve** Case #HILL-26-14, a request by applicant Sunlink Energy, on behalf of the property owners at 7000 N Mummy Mountain Road, for new solar panels on a flat roof portion of the home hidden from view.

BACKGROUND/DISCUSSION/SUMMARY (PROVIDED BY APPLICANT)
The proposed project will add new solar panels to the existing single-family residence. A total of 142 new solar panels are proposed to be mounted on the roof.

Lot Data	
1. Area of Lot	3.349 ac or 145,911 SF
2. Footprint	Approximately 15,858 SF
3. Floor Area Ratio	10.22%

Single Family Residence
The existing single-family residence is approximately 8,400 square feet (SF) of livable area. The homeowner updated the driveway, added a pool deck and utility room, and made updates to the grading and drainage on site through the Hillside Development Committee on October 14, 2020.

Solar

The proposal is for a solar power installation of approximately 142 solar panels mounted on the flat area of the roof. The solar panels will be flat pitched at a grade of 2% no taller than approximately 6 inches. There are parapets that will help screen the panels at a height of approximately 6-8 inches. The applicant has proposed to refinish the roof with an Amerilast roof coating in tan to be tested by staff for compliance.

Per code solar panels must be hidden from view when viewed from the same elevation or lower. Per *Article XXII of the Hillside Development Regulations*, II. ARCHITECTURAL STANDARDS. E.: *Solar panels may be allowed if they are integrated into the building design and hidden from view when viewed from the same or a lower elevation and approved by the Hillside Building Committee by a Combined Review. Solar panels may be allowed on pitched roofs when screened from the same or a lower elevation by the adjoining hillside or hillside Cut and approved by the Hillside Building Committee by a Combined Review.*

The solar panels will have black frames, and the racking system will be black. The solar utility equipment, inverters and electrical disconnects will be located towards the rear at the north side of the home. All site disturbances will remain the same.

ANALYSIS:

The proposed new roof mounted solar panel arrays on the existing single-family residence meet the requirements of the Town Code and the adopted Zoning Ordinance.

STIPULATIONS:

1. All improvements shall comply with the enclosed Standard Approval Information.
2. Provide a physical sample of the finish/color for the portions of the roof where the panels will be installed. The material or color used shall not have a LRV (Light Reflective Value) greater than 38%.

REQUIRED ACTION:

The Hillside Building Committee must consider the facts and determine if the application complies with Article XXII - Hillside Development Regulations.
The Hillside Building Committee may take the following actions:

1. Approve the application request, subject to the stipulations noted by staff and/or the Hillside Building Committee.
2. Continue the application for further review.
3. Deny the application request if not compliant with Article XXII.

NOTICING:

Public notification was performed in accordance with the public hearing process. Staff received no comments.

NEXT STEPS:

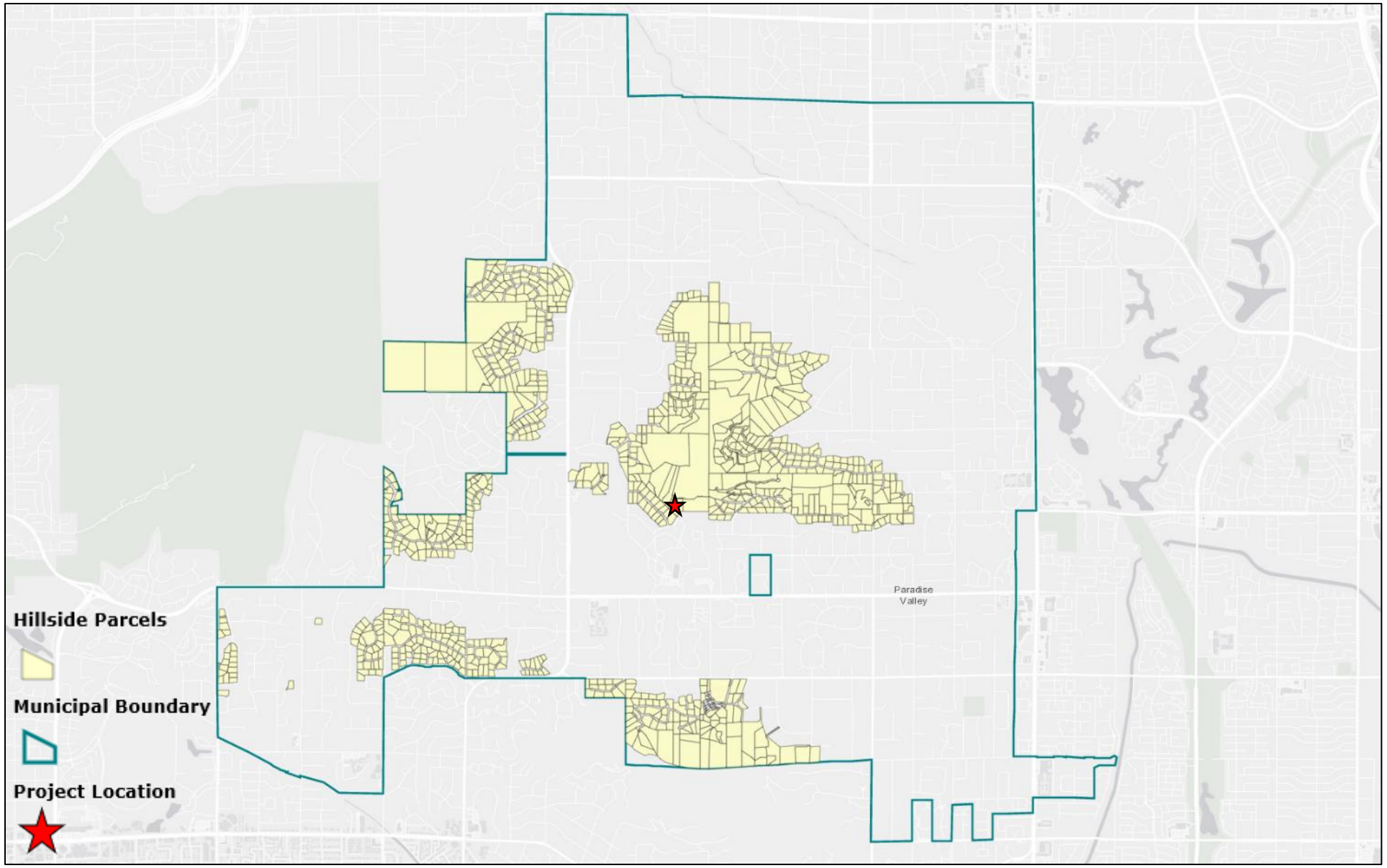
If approved the applicant shall acquire all required permits to complete the proposed scope of work. Plans submitted to the Town for permits shall comply with the plans, stipulations, and approval by the Hillside Building Committee.

ATTACHMENTS:

A. Staff Report
B. Hillside & Vicinity Maps
C. Application
D. Plans
E. Photos
F. Notification Materials
G. Standard Approval Information

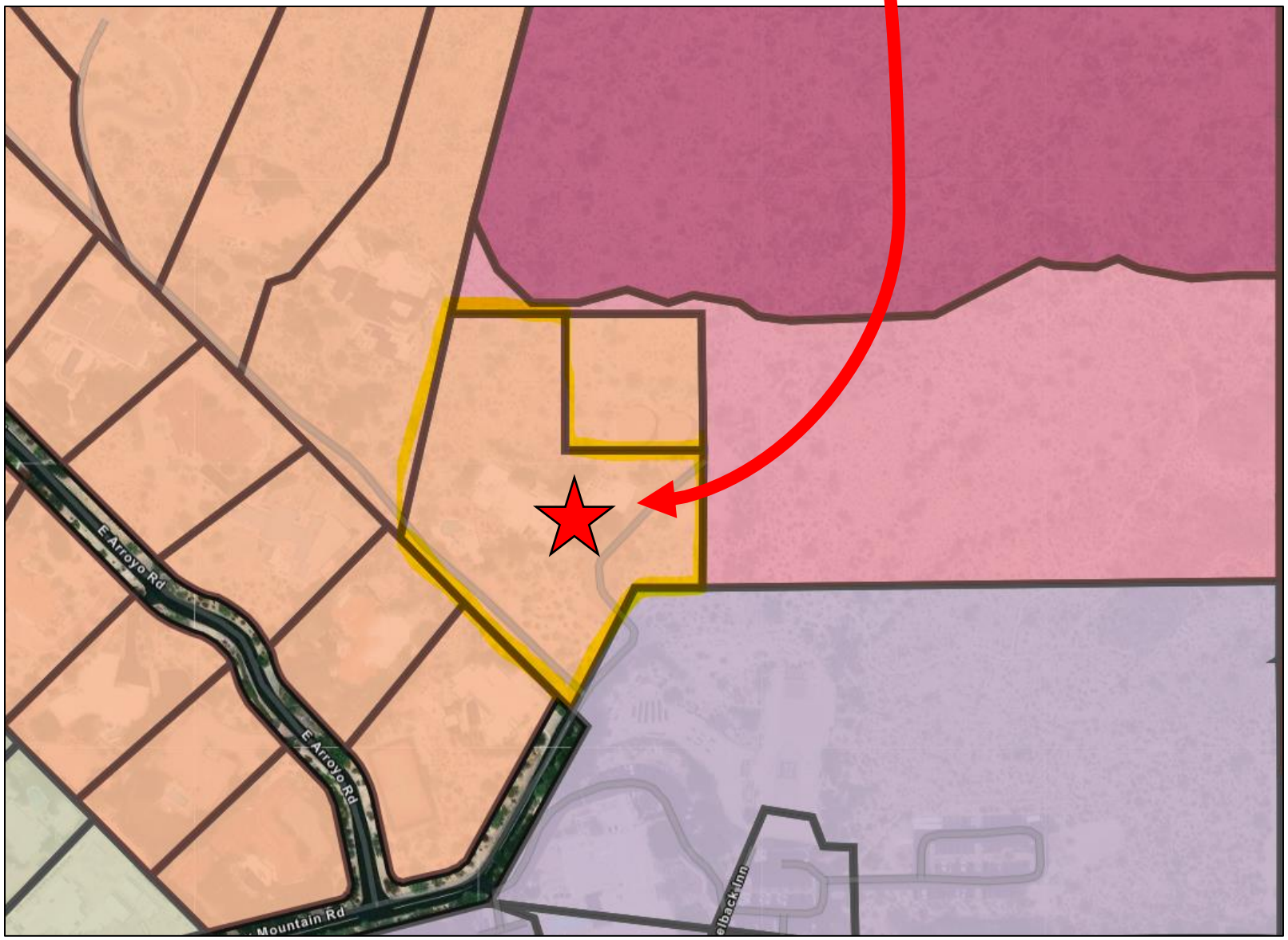
HILLSIDE MAP (OVERVIEW)

7000 N Mummy Mountain Road



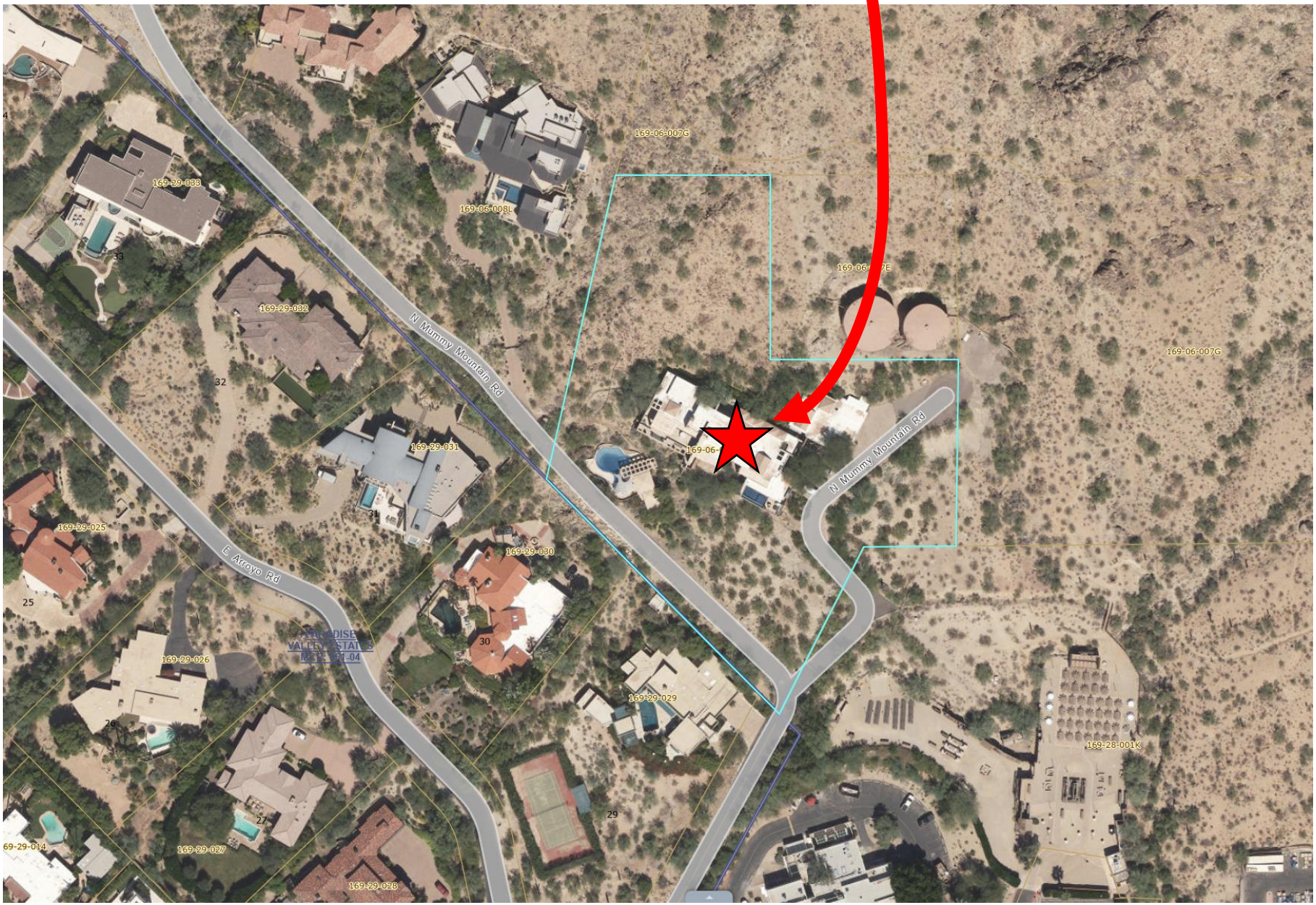
ZONING MAP (ZOOM)

7000 N Mummy Mountain Road



VICINITY MAP (ZOOM)

7000 N Mummy Mountain Road



TOWN
Of
PARADISE VALLEY

Hillside Application
Community Development Department
6401 E Lincoln Drive
Paradise Valley, AZ 85253

(480) 348-3692

HILLSIDE APPLICATION

DATE: 11-26-2025

SUBDIVISION NAME:

PROPERTY ADDRESS: 7000 N MUMMY MOUNTAIN RD PARADISE VALLEY AZ 8525

ASSESSOR'S PARCEL NUMBER: 16906007D

LEGAL: DESCRIPTION Jim Chamberlain
7000 N MUMMY MOUNTAIN RD PARADISE VALLEY AZ 8525

SCOPE OF WORK: installing 62.480 kw with battery system. roof top solar

ARCHITECT:

PRINT NAME	PHONE NUMBER
ADDRESS	

ENGINEER:

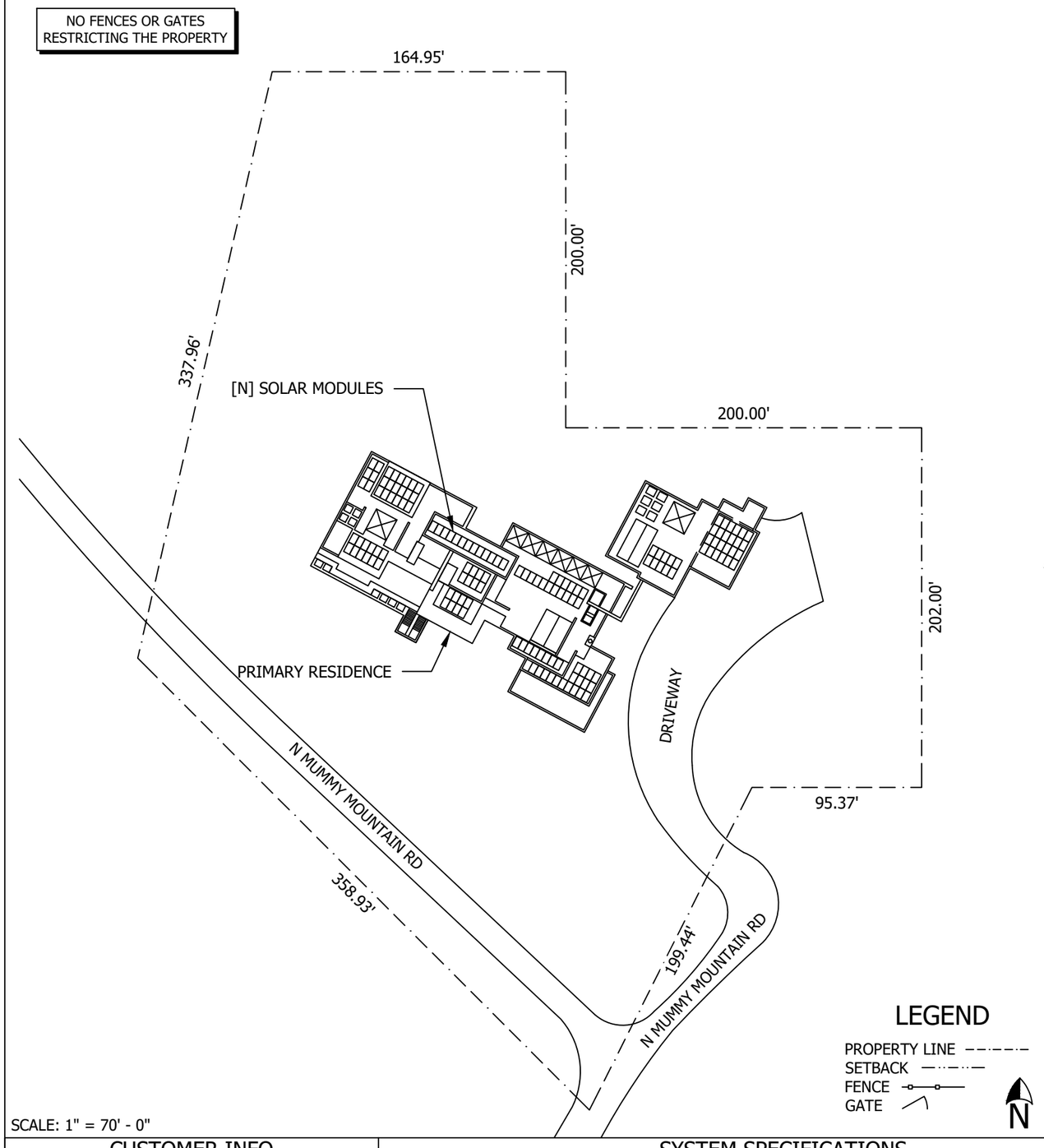
VOLT SOLAR	480-624-8105
PRINT NAME	PHONE NUMBER
1355 NORTH MONDEL DR GILBERT AZ 85233	
ADDRESS	

OWNER:

JIM CHAMBERLAIN	602-690-4030
PRINT NAME	PHONE NUMBER
7000 N MUMMY MOUNTAIN RD PARADISE VALLEY AZ 8525	
ADDRESS	

EDWARD CRAIG	11-26-2025
OWNER OR AUTHORIZED AGENT SIGNATURE	DATE

PROPERTY PLAN



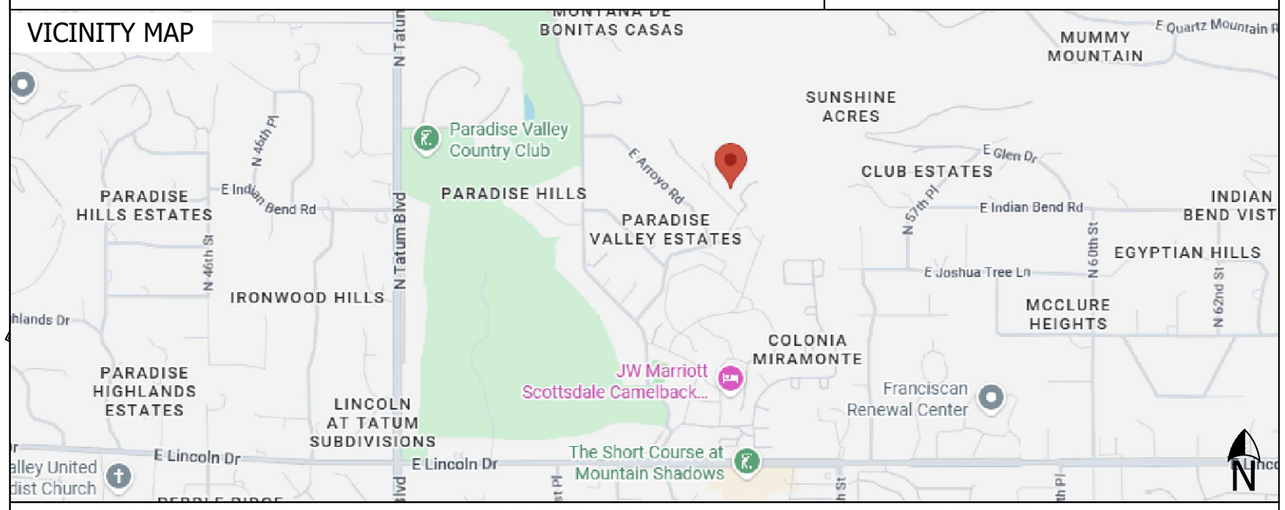
SCALE: 1" = 70' - 0"

SCOPE OF WORK

ROOF MOUNTED EQUIPMENT
[N] (142) Tesla 420 MODULES
GROUND MOUNTED EQUIPMENT NEAR MSP
[N] (4) FUSED UTILITY DISCONNECTS,
[N] (4) METER LINE SIDE DISCONNECTS,
[N] (4) UTILITY METERS,
[N] (4) METER DER SIDE DISCONNECTS
GROUND MOUNTED EQUIPMENT LOCATED IN GARAGE
[N] (4) BATTERY SYSTEM CONTROLLERS,
[N] (4) INVERTER/BATTERY COMBOS,
[N] (4) BATTERY EXPANSION UNITS
INTERCONNECTED UTILIZING
SUM OPTION

OFFICIAL AHJ USE

VICINITY MAP



ABBREVIATIONS

AWG	AMERICAN WIRE GAUGE
SCCR	SHORT CIRCUIT CURRENT RATING
AIC	AMPERES INTERRUPTING CURRENT
CU	COPPER CONDUCTOR
AL	ALUMINUM CONDUCTOR
PSF	POUNDS PER SQUARE FOOT
[E]	EXISTING
[N]	NEW
MSP	MAIN SERVICE PANEL
SES	SERVICE ENTRANCE SECTION
MCB	MAIN CIRCUIT BREAKER
BFB	BACKFEED BREAKER
ISC	SHORT CIRCUIT CURRENT
IMP	CURRENT AT MAXIMUM POWER
VOC	OPEN CIRCUIT VOLTAGE
VMP	VOLTAGE AT MAXIMUM POWER
AFC	AVAILABLE FAULT CURRENT
POA	POINT OF ATTACHMENT
ESS	ENERGY STORAGE SYSTEM

SHEET INDEX

P1	PROPERTY PLAN
P2	SITE PLAN
S1	STRUCTURAL
S2	STRUCTURAL DETAIL
E1	SINGLE LINE DIAGRAM
E2	THREE LINE DIAGRAM
E3	CALCULATIONS AND SCHEDULES
N1	NOTES
L1	LOCATION PLACARD
L2	UTILITY LABELS
L3	NEC LABELS
DS	DATASHEETS

ADOPTED CODES

NEC	2014
IBC	2015
IRC	2015
IMC	2015
IPC	2015
IFGC	2015
IECC	2015
IEBC	
IFC	2015
ADA	2010
IRC WIND SPEED	115 MPH
AHJ CODE	

CUSTOMER INFO

NAME	JIM CHAMBERLAIN
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
APN	169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh
[N] TESLA 1807000-XX-Y QTY:4 54kWh

DRAFTING NOTES

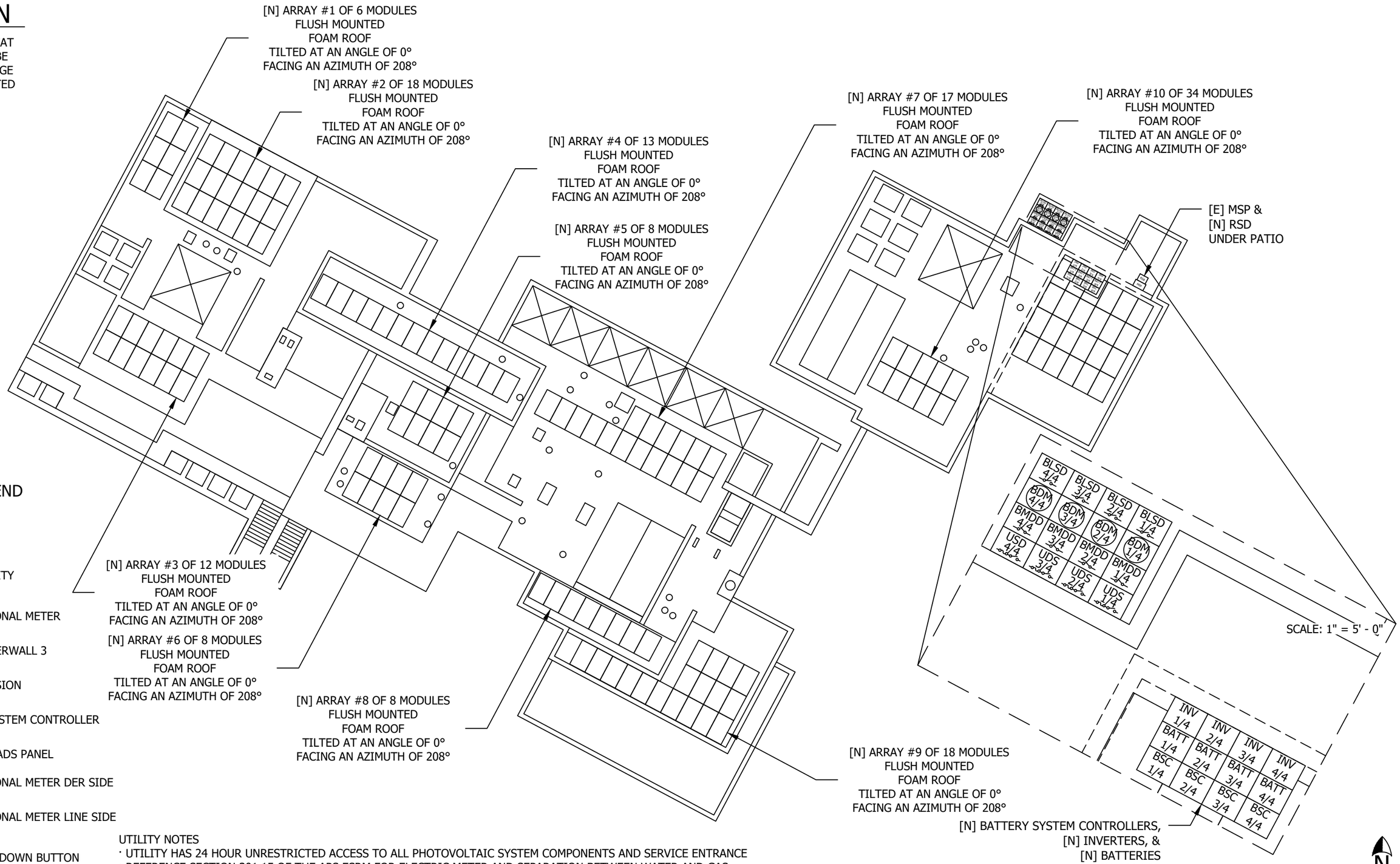
DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
REVISION:	A

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

SHEET # P1 117

SITE PLAN

A LISTED SMOKE/HEAT DETECTOR SHALL BE INSTALLED IN GARAGE AND INTERCONNECTED PER IRC 328.7 & IFC 1206.4.6



SYMBOL LEGEND

MSP	[E] 800A MSP
TAP	[N] TAP BOX
UDS	[N] FUSED UTILITY DISCONNECT
BDM	[N] BI-DIRECTIONAL METER
INV	[N] TESLA POWERWALL 3
BATT	[N] PW3 EXPANSION
BSC	[N] BATTERY SYSTEM CONTROLLER
BLP	[E] BACK-UP LOADS PANEL
BMDD	[N] BI-DIRECTIONAL METER DER SIDE DISCONNECT
BLSD	[N] BI-DIRECTIONAL METER LINE SIDE DISCONNECT
RSB	[N] RAPID SHUTDOWN BUTTON

SCALE: 1" = 20' - 0"

UTILITY NOTES
- UTILITY HAS 24 HOUR UNRESTRICTED ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS AND SERVICE ENTRANCE
- REFERENCE SECTION 301.15 OF THE APS ESRM FOR ELECTRIC METER AND SEPARATION BETWEEN WATER AND GAS
- WORKSPACE IN FRONT OF AC ELECTRICAL SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH APS AND NEC REQUIREMENTS, REFERENCE SECTION 300 OF THE APS ESRM AND SECTION 8.2 OF THE APS INTERCONNECTION REQUIREMENTS

CUSTOMER INFO

NAME	JIM CHAMBERLAIN
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
APN	169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh

DRAFTING NOTES

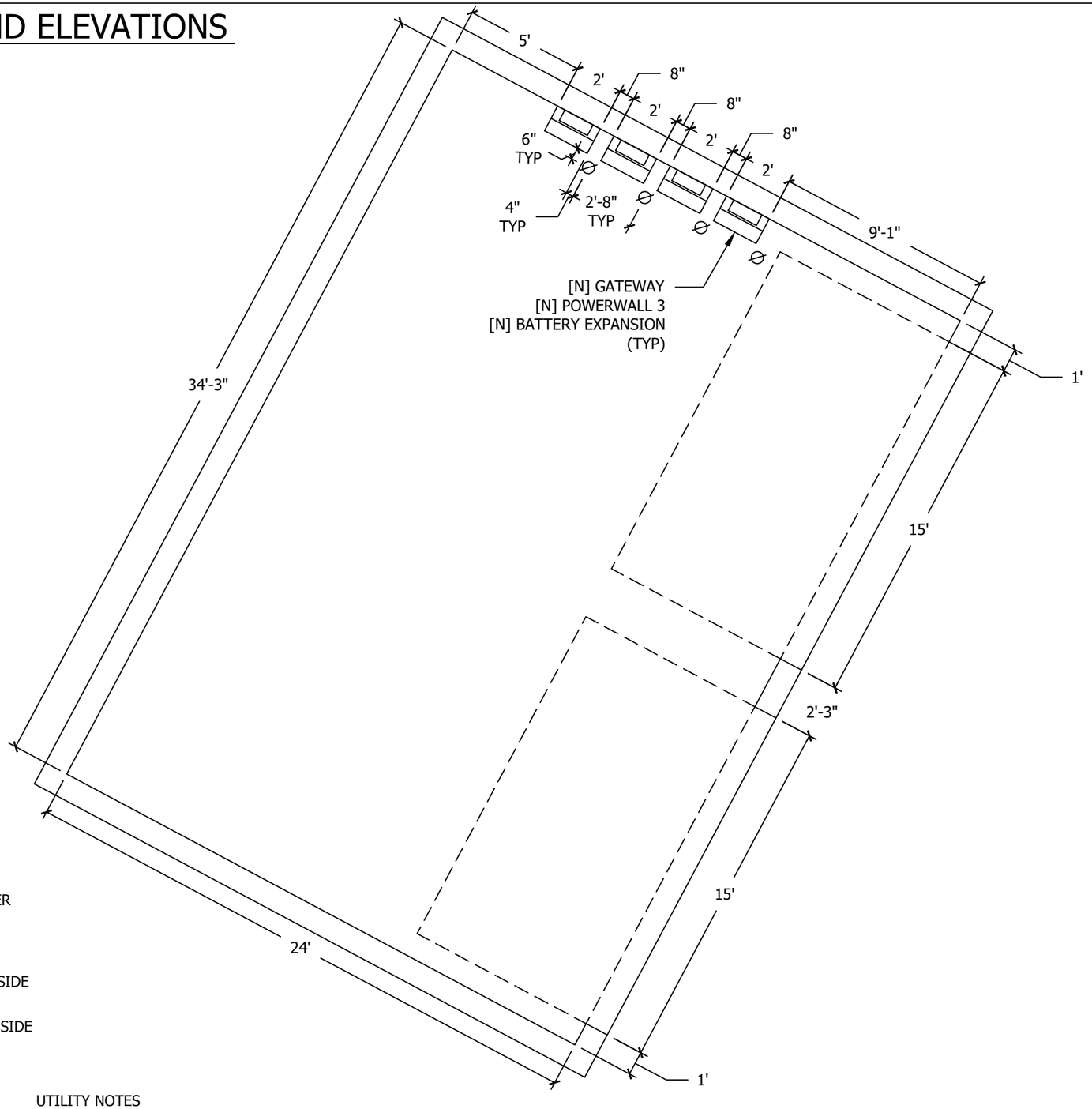
DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
REVISION:	A

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

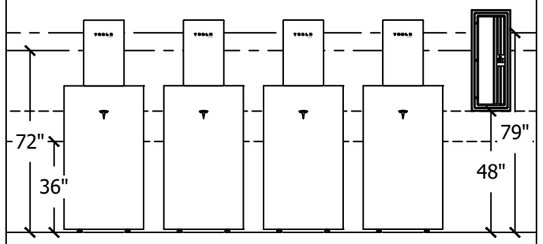
SHEET #
P2
118

GARAGE PLAN AND ELEVATIONS

A LISTED SMOKE/HEAT DETECTOR SHALL BE INSTALLED IN GARAGE AND INTERCONNECTED PER IRC 328.7 & IFC 1206.4.6

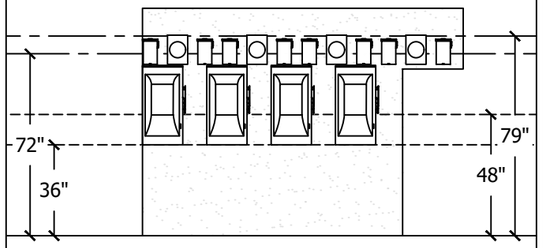


GARAGE ELEVATION



SCALE: 1" = 5' - 0"

EQUIPMENT ELEVATION



SCALE: 1" = 5' - 0"

SYMBOL LEGEND

MSP	[E] 800A MSP
TAP	[N] TAP BOX
UDS	[N] FUSED UTILITY DISCONNECT
BDM	[N] BI-DIRECTIONAL METER
INV	[N] TESLA POWERWALL 3
BATT	[N] PW3 EXPANSION
BSC	[N] BATTERY SYSTEM CONTROLLER
BLP	[E] BACK-UP LOADS PANEL
BMDD	[N] BI-DIRECTIONAL METER DER SIDE DISCONNECT
BLSD	[N] BI-DIRECTIONAL METER LINE SIDE DISCONNECT
RSB	[N] RAPID SHUTDOWN BUTTON
	[N] BOLLARD

SCALE: 1" = 5' - 0"

UTILITY NOTES
- UTILITY HAS 24 HOUR UNRESTRICTED ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS AND SERVICE ENTRANCE
- REFERENCE SECTION 301.15 OF THE APS ESRM FOR ELECTRIC METER AND SEPARATION BETWEEN WATER AND GAS
- WORKSPACE IN FRONT OF AC ELECTRICAL SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH APS AND NEC REQUIREMENTS, REFERENCE SECTION 300 OF THE APS ESRM AND SECTION 8.2 OF THE APS INTERCONNECTION REQUIREMENTS

N

CUSTOMER INFO

NAME	JIM CHAMBERLAIN
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
APN	169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh

DRAFTING NOTES

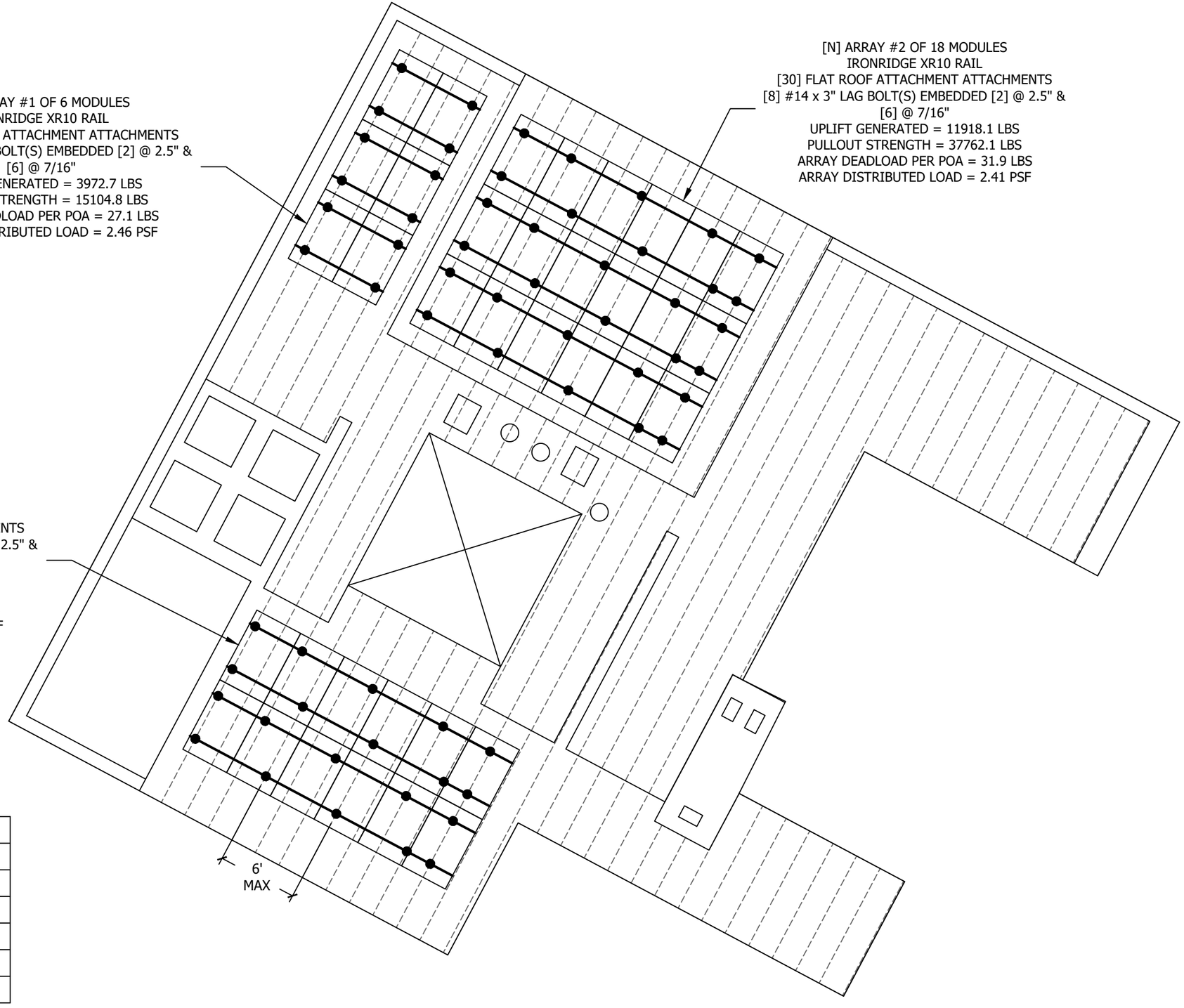
DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
REVISION:	A

SUNLINK ENERGY

1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

SHEET # P3.119

STRUCTURAL



LEGEND

TRUSSES
RAIL
POA
FIRELANE
VENTS

*ASSUMED TRUSS SIZE OF 2"x4" @ 24" OC

MODULE SPECIFICATIONS:
AREA = 22.07 SQFT
WEIGHT = 49.1715 LBS

ROOF SPECIFICATIONS:
ROOF AREA = 15740 SQFT
TOTAL MODULE AREA = 3134 SQFT
ROOF COVERAGE PERCENTAGE = 19.911%

RACKING BOM			
MANUFACTURER	ITEM	SKU	QTY
IRONRIDGE	RAIL	XR-10-168M	94
IRONRIDGE	MID CLAMP	XR-MID-01-B1	234
IRONRIDGE	END CLAMP	UFO-END-01-B1	100
IRONRIDGE	SPLICE PLATE	XR10-BOSS-01-M1	54
ECOFASTEN	MLPE HARDWARE	4011025	0

SCALE: 1" = 8' - 0"

N

CUSTOMER INFO

NAME JIM CHAMBERLAIN
ADDRESS 7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
APN 169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh

DRAFTING NOTES

DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
REVISION:	A

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

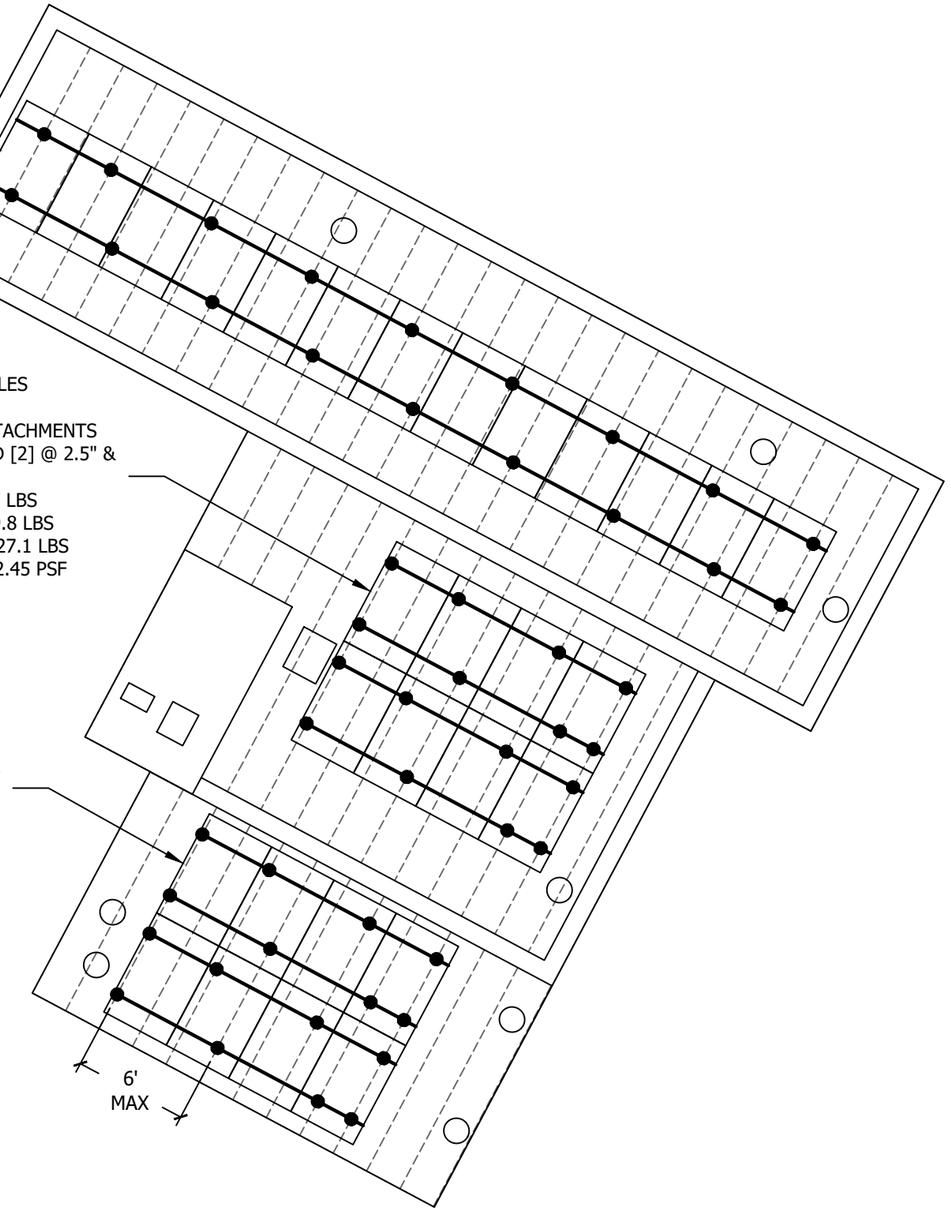
SHEET #
S1
120

STRUCTURAL

[N] ARRAY #4 OF 13 MODULES
IRONRIDGE XR10 RAIL
[18] FLAT ROOF ATTACHMENT ATTACHMENTS
[8] #14 x 3" LAG BOLT(S) EMBEDDED [2] @ 2.5" &
[6] @ 7/16"
UPLIFT GENERATED = 8607.5 LBS
PULLOUT STRENGTH = 22657.3 LBS
ARRAY DEADLOAD PER POA = 38.1 LBS
ARRAY DISTRIBUTED LOAD = 2.39 PSF

[N] ARRAY #5 OF 8 MODULES
IRONRIDGE XR10 RAIL
[16] FLAT ROOF ATTACHMENT ATTACHMENTS
[8] #14 x 3" LAG BOLT(S) EMBEDDED [2] @ 2.5" &
[6] @ 7/16"
UPLIFT GENERATED = 5297 LBS
PULLOUT STRENGTH = 20139.8 LBS
ARRAY DEADLOAD PER POA = 27.1 LBS
ARRAY DISTRIBUTED LOAD = 2.45 PSF

[N] ARRAY #6 OF 8 MODULES
IRONRIDGE XR10 RAIL
[16] FLAT ROOF ATTACHMENT ATTACHMENTS
[8] #14 x 3" LAG BOLT(S) EMBEDDED [2] @ 2.5" &
[6] @ 7/16"
UPLIFT GENERATED = 5297 LBS
PULLOUT STRENGTH = 20139.8 LBS
ARRAY DEADLOAD PER POA = 27.1 LBS
ARRAY DISTRIBUTED LOAD = 2.45 PSF



LEGEND

TRUSSES
RAIL
POA
FIRELANE
VENTS
*ASSUMED TRUSS SIZE OF 2"x4" @ 24" OC

MODULE SPECIFICATIONS:
AREA = 22.07 SQFT
WEIGHT = 49.1715 LBS

ROOF SPECIFICATIONS:
ROOF AREA = 15740 SQFT
TOTAL MODULE AREA = 3134 SQFT
ROOF COVERAGE PERCENTAGE = 19.911%

RACKING BOM			
MANUFACTURER	ITEM	SKU	QTY
IRONRIDGE	RAIL	XR-10-168M	94
IRONRIDGE	MID CLAMP	XR-MID-01-B1	234
IRONRIDGE	END CLAMP	UFO-END-01-B1	100
IRONRIDGE	SPLICE PLATE	XR10-BOSS-01-M1	54
ECOFASTEN	MLPE HARDWARE	4011025	0

SCALE: 1" = 8' - 0"

N

CUSTOMER INFO

NAME JIM CHAMBERLAIN
ADDRESS 7000 NORTH MUMMY MOUNTAIN ROAD
PARADISE VALLEY, AZ 85253
APN 169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh

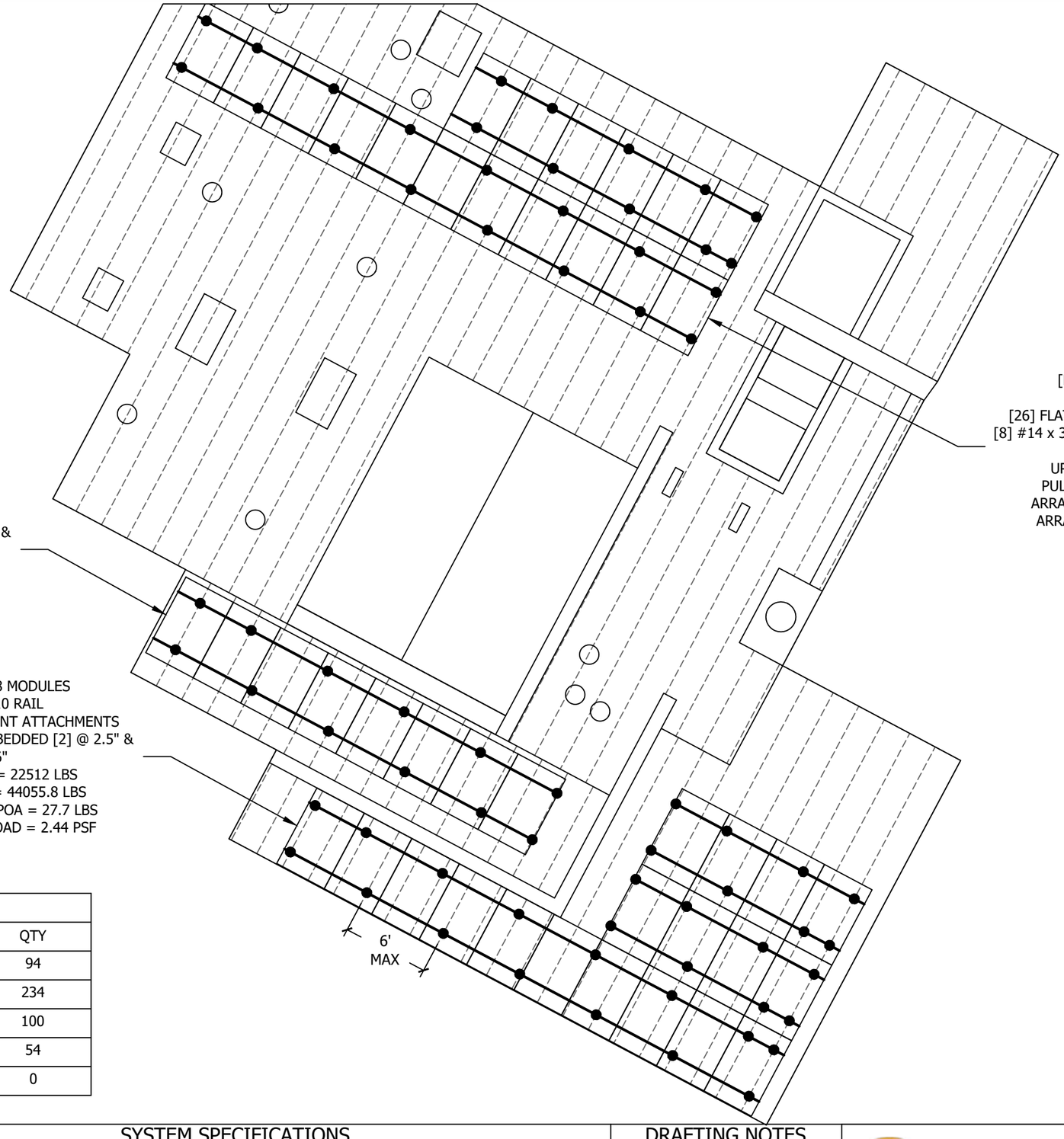
DRAFTING NOTES

DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
REVISION:	A

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

SHEET # S2.121

STRUCTURAL



[N] ARRAY #7 OF 17 MODULES
IRONRIDGE XR10 RAIL
[26] FLAT ROOF ATTACHMENT ATTACHMENTS
[8] #14 x 3" LAG BOLT(S) EMBEDDED [2] @ 2.5" & [6] @ 7/16"
UPLIFT GENERATED = 11256 LBS
PULLOUT STRENGTH = 32727.2 LBS
ARRAY DEADLOAD PER POA = 34.6 LBS
ARRAY DISTRIBUTED LOAD = 2.4 PSF

[N] ARRAY #8 OF 8 MODULES
IRONRIDGE XR10 RAIL
[12] FLAT ROOF ATTACHMENT ATTACHMENTS
[8] #14 x 3" LAG BOLT(S) EMBEDDED [2] @ 2.5" & [6] @ 7/16"
UPLIFT GENERATED = 5297 LBS
PULLOUT STRENGTH = 15104.8 LBS
ARRAY DEADLOAD PER POA = 35.4 LBS
ARRAY DISTRIBUTED LOAD = 2.4 PSF

[N] ARRAY #9 OF 18 MODULES
IRONRIDGE XR10 RAIL
[35] FLAT ROOF ATTACHMENT ATTACHMENTS
[8] #14 x 3" LAG BOLT(S) EMBEDDED [2] @ 2.5" & [6] @ 7/16"
UPLIFT GENERATED = 22512 LBS
PULLOUT STRENGTH = 44055.8 LBS
ARRAY DEADLOAD PER POA = 27.7 LBS
ARRAY DISTRIBUTED LOAD = 2.44 PSF

LEGEND

TRUSSES
RAIL
POA
FIRELANE
VENTS
*ASSUMED TRUSS SIZE OF 2"x4" @ 24" OC

MODULE SPECIFICATIONS:
AREA = 22.07 SQFT
WEIGHT = 49.1715 LBS

ROOF SPECIFICATIONS:
ROOF AREA = 15740 SQFT
TOTAL MODULE AREA = 3134 SQFT
ROOF COVERAGE PERCENTAGE = 19.911%

RACKING BOM			
MANUFACTURER	ITEM	SKU	QTY
IRONRIDGE	RAIL	XR-10-168M	94
IRONRIDGE	MID CLAMP	XR-MID-01-B1	234
IRONRIDGE	END CLAMP	UFO-END-01-B1	100
IRONRIDGE	SPLICE PLATE	XR10-BOSS-01-M1	54
ECOFASTEN	MLPE HARDWARE	4011025	0

SCALE: 1" = 8' - 0"

N

CUSTOMER INFO

NAME JIM CHAMBERLAIN
ADDRESS 7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
APN 169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh

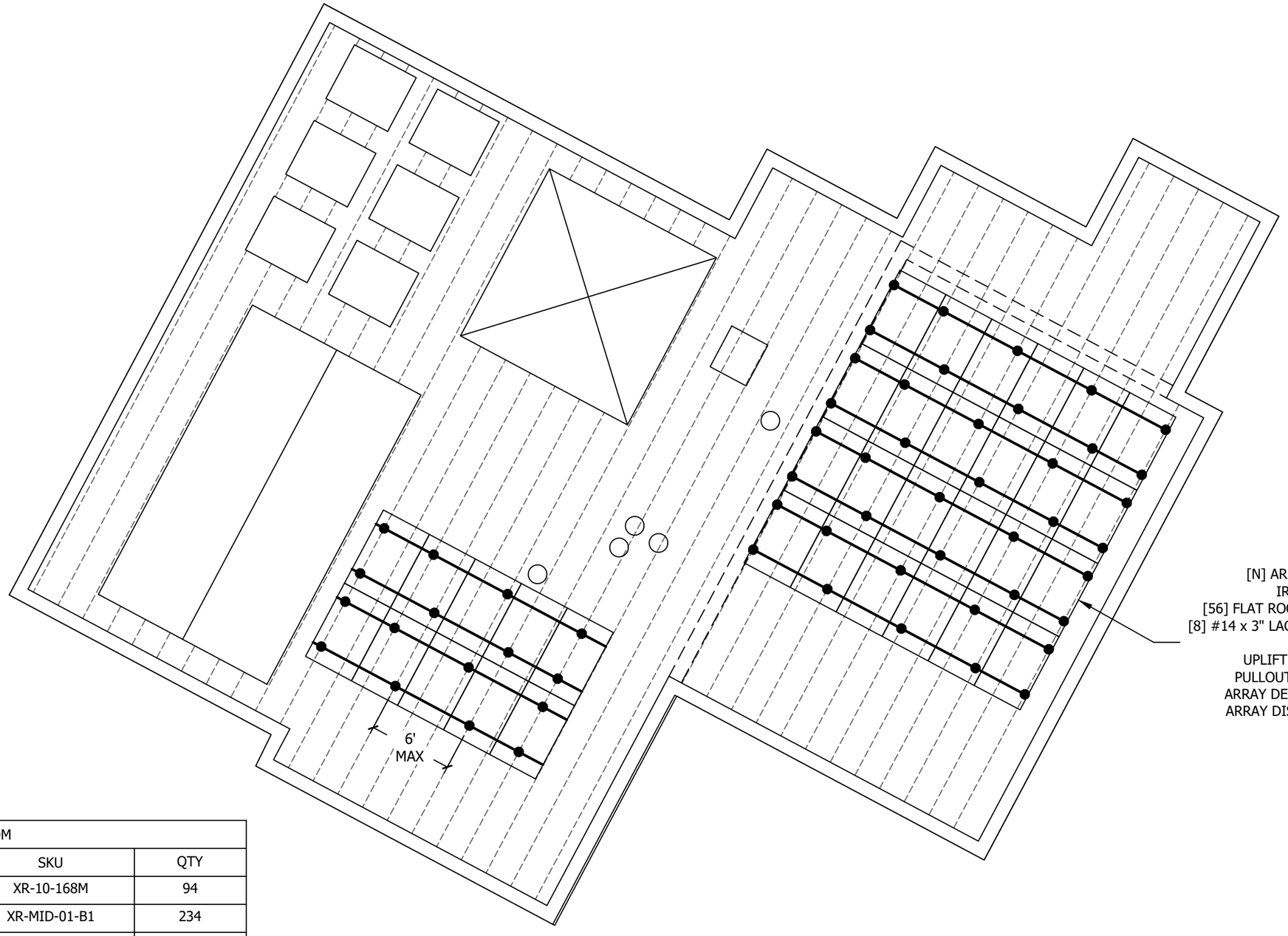
DRAFTING NOTES

DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
REVISION:	A

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

SHEET # S2.122

STRUCTURAL



LEGEND

TRUSSES
RAIL
POA
FIRELANE
VENTS
*ASSUMED TRUSS SIZE OF 2"x4" @ 24" OC

MODULE SPECIFICATIONS:
AREA = 22.07 SQFT
WEIGHT = 49.1715 LBS

ROOF SPECIFICATIONS:
ROOF AREA = 15740 SQFT
TOTAL MODULE AREA = 3134 SQFT
ROOF COVERAGE PERCENTAGE = 19.911%

[N] ARRAY #10 OF 34 MODULES
IRONRIDGE XR10 RAIL
[56] FLAT ROOF ATTACHMENT ATTACHMENTS
[8] #14 x 3" LAG BOLT(S) EMBEDDED [2] @ 2.5" &
[6] @ 7/16"
UPLIFT GENERATED = 22512 LBS
PULLOUT STRENGTH = 70489.3 LBS
ARRAY DEADLOAD PER POA = 32.3 LBS
ARRAY DISTRIBUTED LOAD = 2.41 PSF

N

RACKING BOM

MANUFACTURER	ITEM	SKU	QTY
IRONRIDGE	RAIL	XR-10-168M	94
IRONRIDGE	MID CLAMP	XR-MID-01-B1	234
IRONRIDGE	END CLAMP	UFO-END-01-B1	100
IRONRIDGE	SPLICE PLATE	XR10-BOSS-01-M1	54
ECOFASTEN	MLPE HARDWARE	4011025	0

SCALE: 1" = 8' - 0"

CUSTOMER INFO

NAME JIM CHAMBERLAIN
ADDRESS 7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
APN 169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh

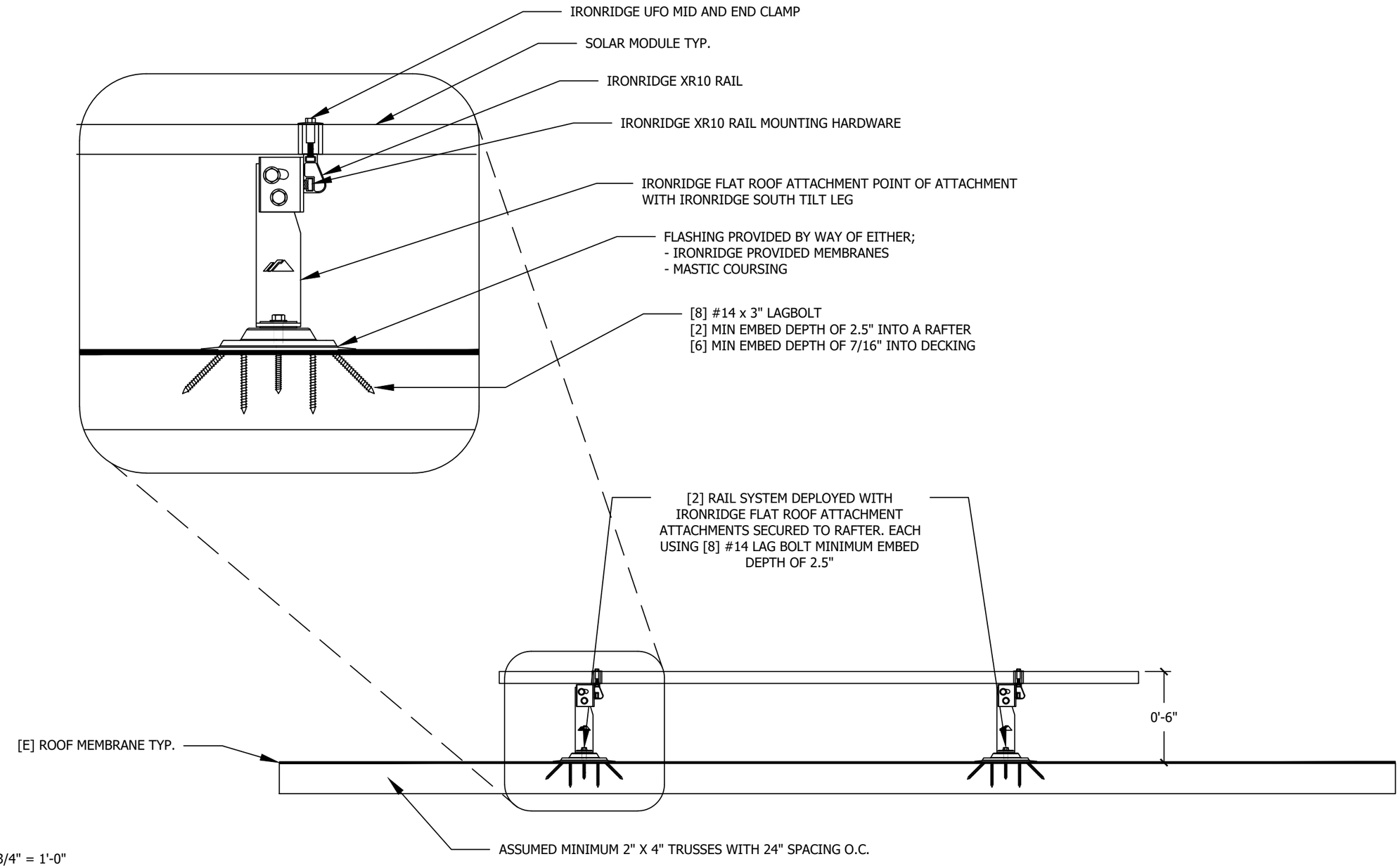
DRAFTING NOTES

DESIGNER CSM
PROJECT # AZ1925
DATE April 7, 2026
REVISION: A

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

SHEET # S4 123

STRUCTURAL DETAIL



SCALE: 3/4" = 1'-0"

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES			SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)			SUNLINK ENERGY 1355 N MONDEL GILBERT, AZ 85233 (480) 624-8105 AZ ROC #326376 CR-11 CGL017824521	S5.124
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	DESIGNER	CSM		
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	PROJECT #	AZ1925		
			DATE	April 7, 2026		
			REVISION:	A		

STRINGING PLAN

A LISTED SMOKE/HEAT DETECTOR SHALL BE INSTALLED IN GARAGE AND INTERCONNECTED PER IRC 328.7 & IFC 1206.4.6

LEGEND

INVERTER #1
- STRING #1
- STRING #2
- STRING #3
- STRING #4
- STRING #5

INVERTER #2
- STRING #1
- STRING #2
- STRING #3
- STRING #4
- STRING #5

INVERTER #3
- STRING #1
- STRING #2
- STRING #3
- STRING #4

INVERTER #4
- STRING #1
- STRING #2
- STRING #3
- STRING #4

MID CIRCUIT INTERRUPTER (MCI)
RAPID SHUTDOWN DEVICE



N

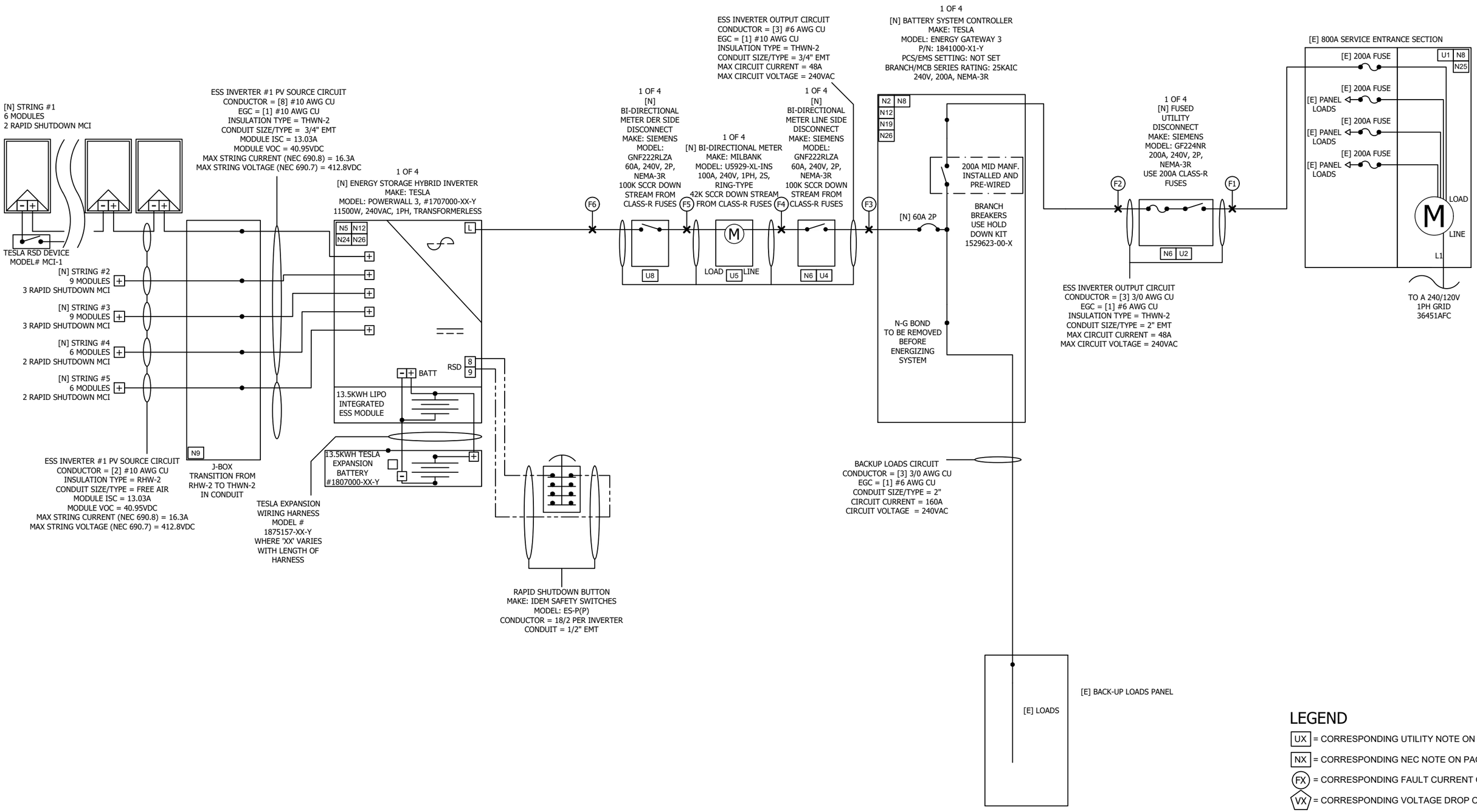
SCALE: 1" = 20' - 0"

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES			SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	SUNLINK ENERGY 1355 N MONDEL GILBERT, AZ 85233 (480) 624-8105 AZ ROC #326376 CR-11 CGL017824521	E0 125
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925		
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026		
			REVISION:	A		

SINGLE LINE DIAGRAM 1 OF 4

ALL EQUIPMENT MUST BE UTILIZED IN ACCORDANCE WITH THE MANUFACTURER'S INTENDED USE AND DESIGN SPECIFICATIONS. DISCONNECT SHALL HAVE APS APPROVED SHARED LOCK SYSTEM THAT ALLOWS APS TO UNLOCK DISCONNECT TO ACCESS FUSES AND VERIFY 'VISUAL OPEN' REQUIREMENTS. REFER TO SECTION 8.2(A) OF APS INTERCONNECTION REQUIREMENTS

DESIGN SPECIFICATIONS HAVE BEEN DETERMINED IN ACCORDANCE WITH THE NEC AND ASHREA DATA
AMPACITY DERATION = 0.82
VOLTAGE CORRECTION = 1.12
INTERCONNECTION METHOD = 2014 NEC ARTICLE 705.12(D)(2)(3)(c) BREAKER-SUM OPTION



LEGEND

- UX = CORRESPONDING UTILITY NOTE ON PAGE N1
- NX = CORRESPONDING NEC NOTE ON PAGE N1
- FX = CORRESPONDING FAULT CURRENT ON PAGE E3
- VX = CORRESPONDING VOLTAGE DROP ON PAGE E3

CUSTOMER INFO

NAME	JIM CHAMBERLAIN
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
APN	169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh
[N] TESLA 1807000-XX-Y QTY:4 54kWh

DRAFTING NOTES

DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
REVISION:	A

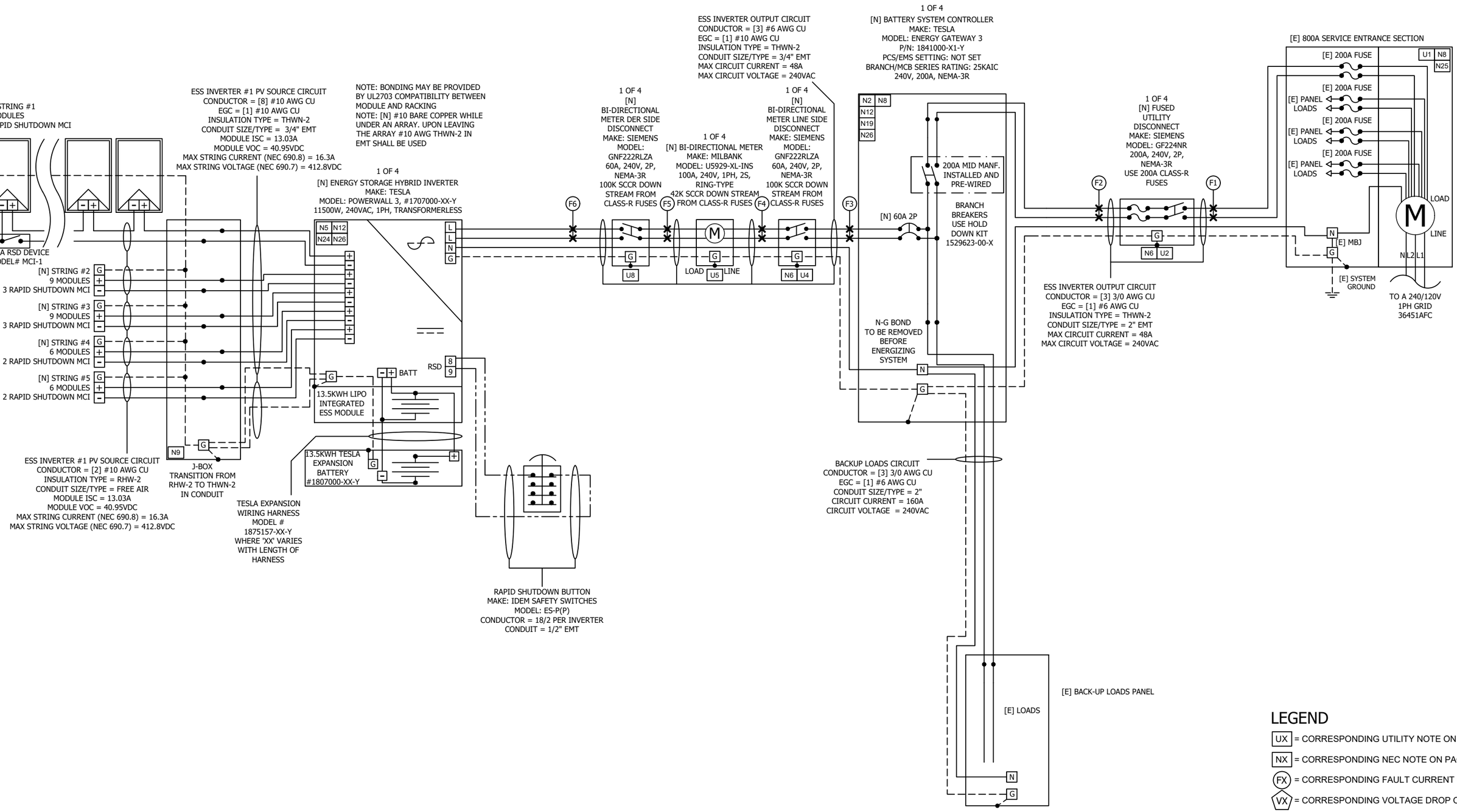
SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

SHEET # E1 126

THREE LINE DIAGRAM 1 OF 4

ALL EQUIPMENT MUST BE UTILIZED IN ACCORDANCE WITH THE MANUFACTURER'S INTENDED USE AND DESIGN SPECIFICATIONS. DISCONNECT SHALL HAVE APS APPROVED SHARED LOCK SYSTEM THAT ALLOWS APS TO UNLOCK DISCONNECT TO ACCESS FUSES AND VERIFY 'VISUAL OPEN' REQUIREMENTS. REFER TO SECTION 8.2(A) OF APS INTERCONNECTION REQUIREMENTS

DESIGN SPECIFICATIONS HAVE BEEN DETERMINED IN ACCORDANCE WITH THE NEC AND ASHREA DATA
AMPACITY DERATION = 0.82
VOLTAGE CORRECTION = 1.12
INTERCONNECTION METHOD = 2014 NEC ARTICLE 705.12(D)(2)(3)(c) BREAKER-SUM OPTION



LEGEND

- UX = CORRESPONDING UTILITY NOTE ON PAGE N1
- NX = CORRESPONDING NEC NOTE ON PAGE N1
- FX = CORRESPONDING FAULT CURRENT ON PAGE E3
- VX = CORRESPONDING VOLTAGE DROP ON PAGE E3

CUSTOMER INFO

NAME	JIM CHAMBERLAIN
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
APN	169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh
[N] TESLA 1807000-XX-Y QTY:4 54kWh

DRAFTING NOTES

DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
REVISION:	A

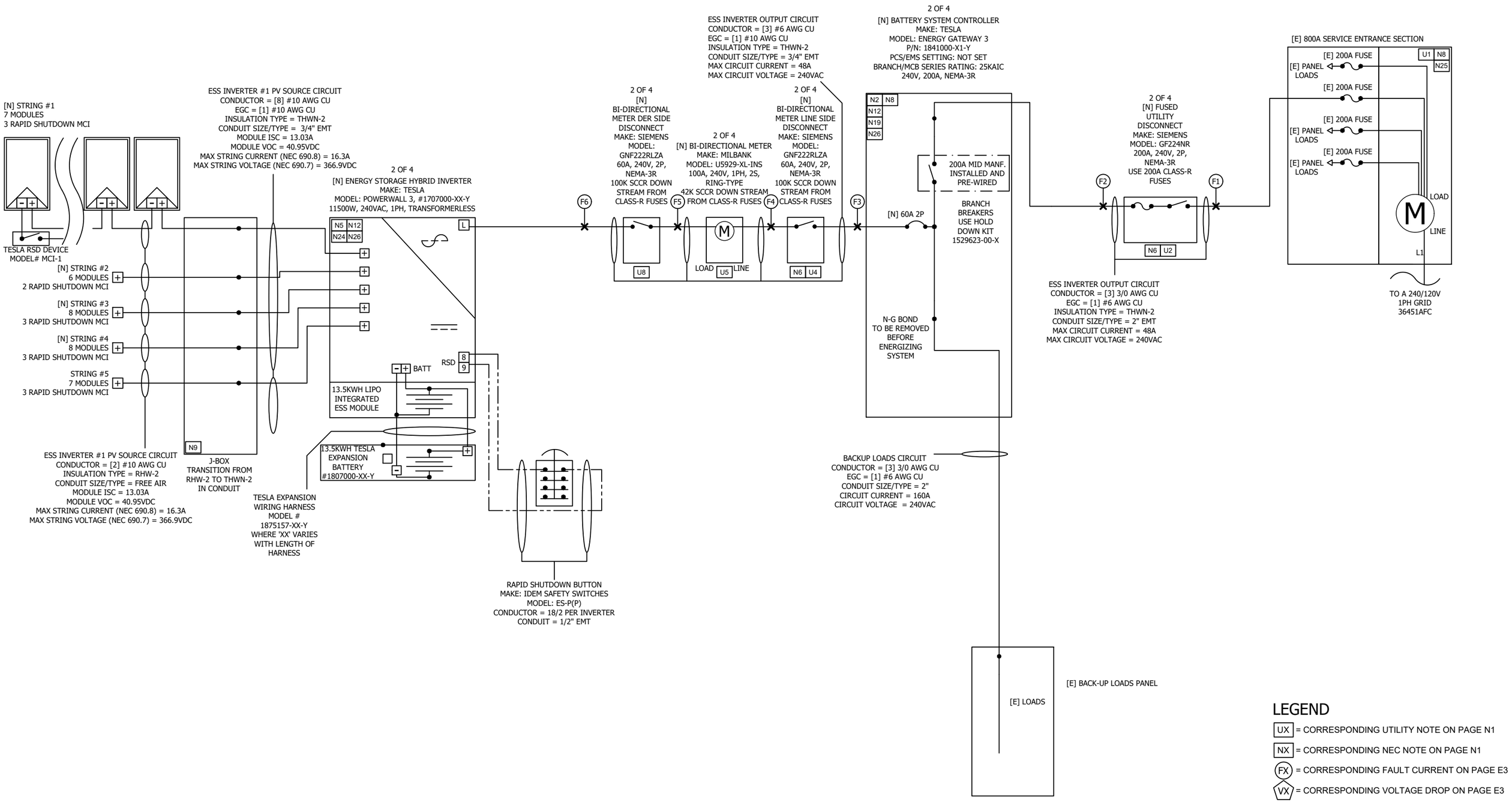
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GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

SHEET # E2.127

SINGLE LINE DIAGRAM 2 OF 4

ALL EQUIPMENT MUST BE UTILIZED IN ACCORDANCE WITH THE MANUFACTURER'S INTENDED USE AND DESIGN SPECIFICATIONS. DISCONNECT SHALL HAVE APS APPROVED SHARED LOCK SYSTEM THAT ALLOWS APS TO UNLOCK DISCONNECT TO ACCESS FUSES AND VERIFY 'VISUAL OPEN' REQUIREMENTS. REFER TO SECTION 8.2(A) OF APS INTERCONNECTION REQUIREMENTS

DESIGN SPECIFICATIONS HAVE BEEN DETERMINED IN ACCORDANCE WITH THE NEC AND ASHREA DATA
AMPACITY DERATION = 0.82
VOLTAGE CORRECTION = 1.12
INTERCONNECTION METHOD = 2014 NEC ARTICLE 705.12(D)(2)(3)(c) BREAKER-SUM OPTION



LEGEND

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- NX = CORRESPONDING NEC NOTE ON PAGE N1
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- VX = CORRESPONDING VOLTAGE DROP ON PAGE E3

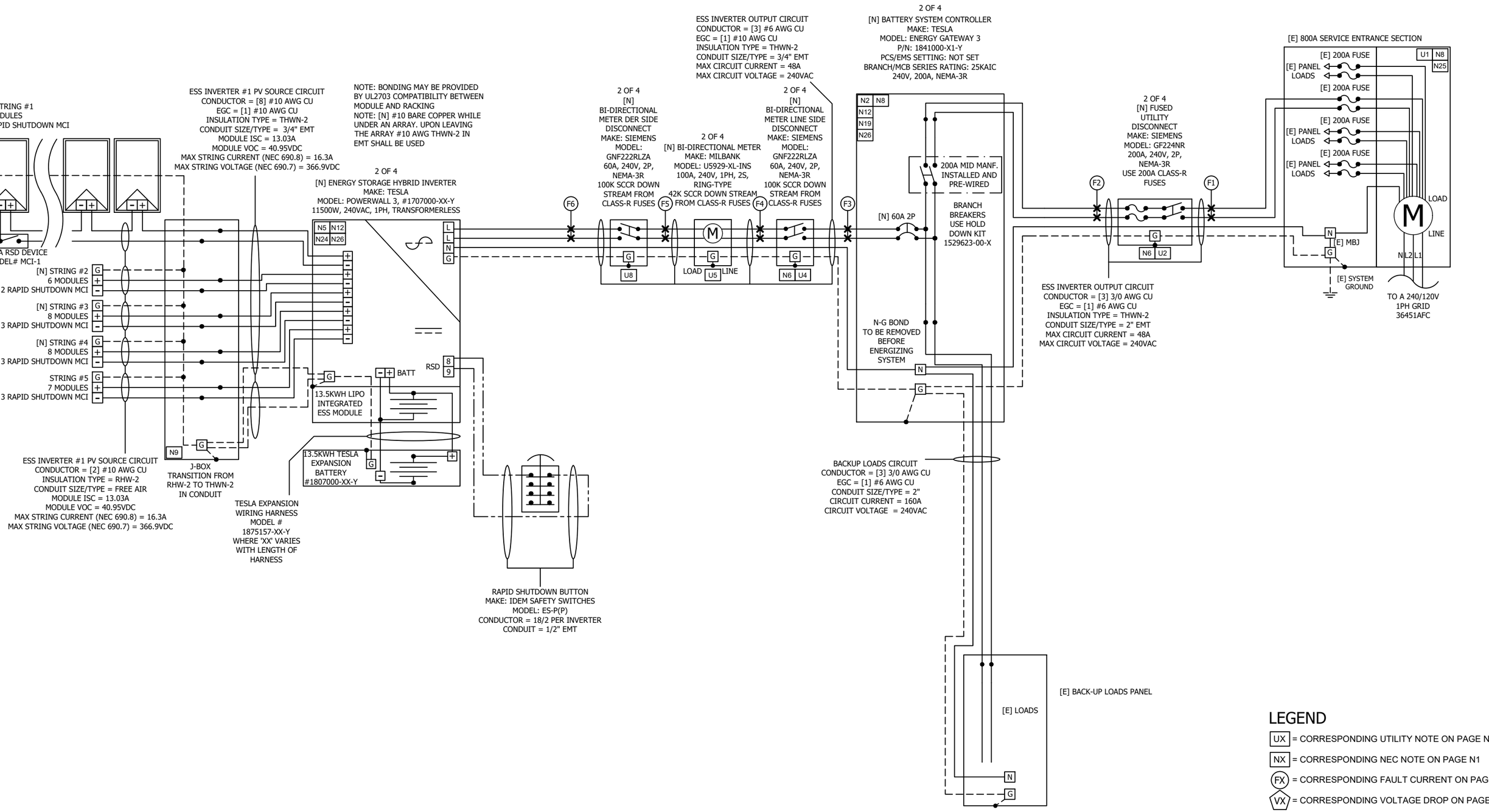
CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC	DESIGNER	CSM	SHEET #
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	[N] Tesla TSP-420 QTY: 142 (420W) INVERTERS: [N] 46000 WATTS AC	PROJECT #	AZ1925	E3.128
APN	169-06-007D	[N] TESLA 1707000-XX-Y QTY: 4 BATTERY: [N] 108000 Wh	DATE	April 7, 2026	
		[N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	REVISION:	A	

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

THREE LINE DIAGRAM 2 OF 4

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APN	169-06-007D

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BATTERY: [N] 108000 Wh
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DRAFTING NOTES

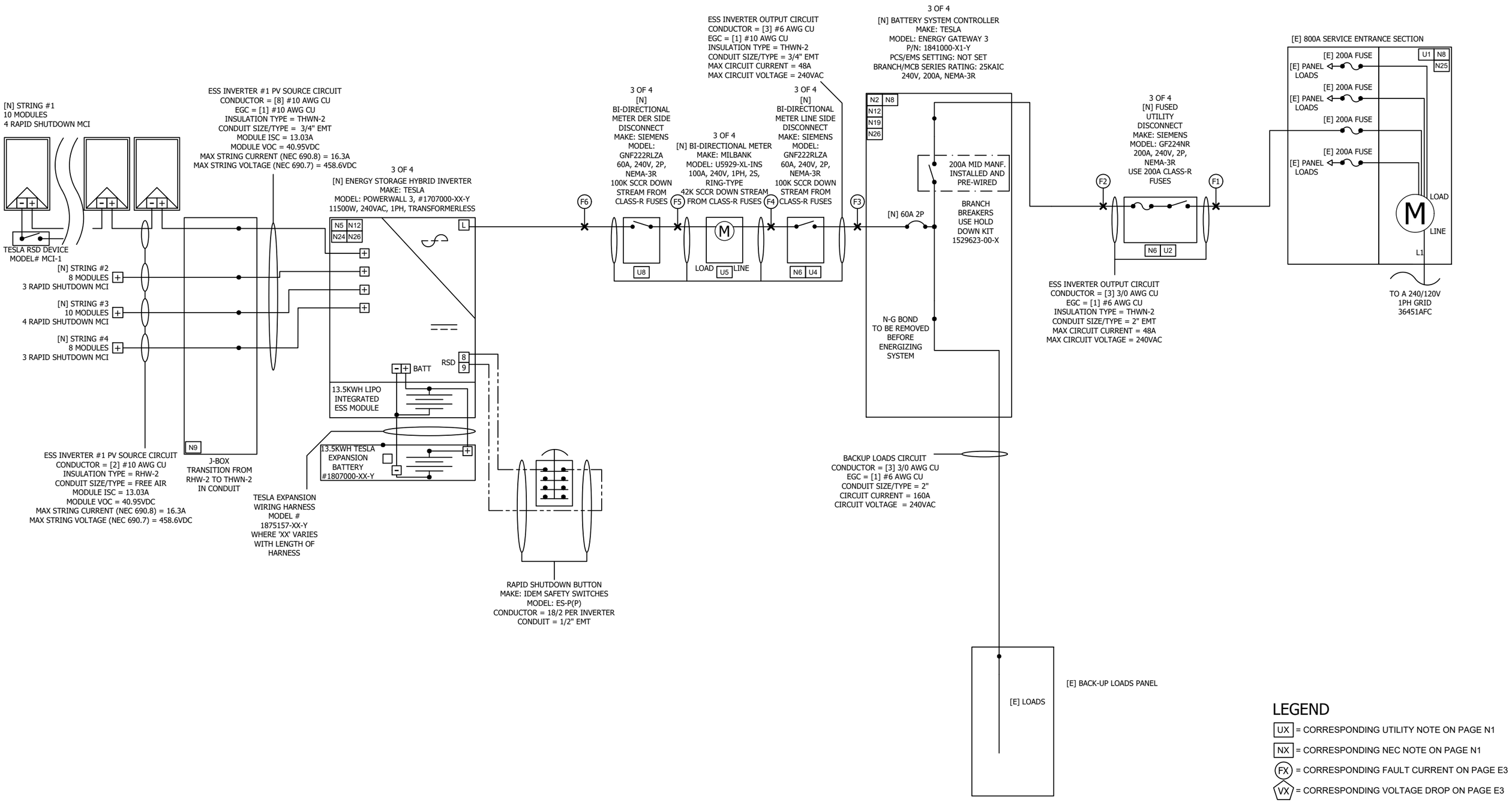
DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
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SINGLE LINE DIAGRAM 3 OF 4

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BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh

DRAFTING NOTES

DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
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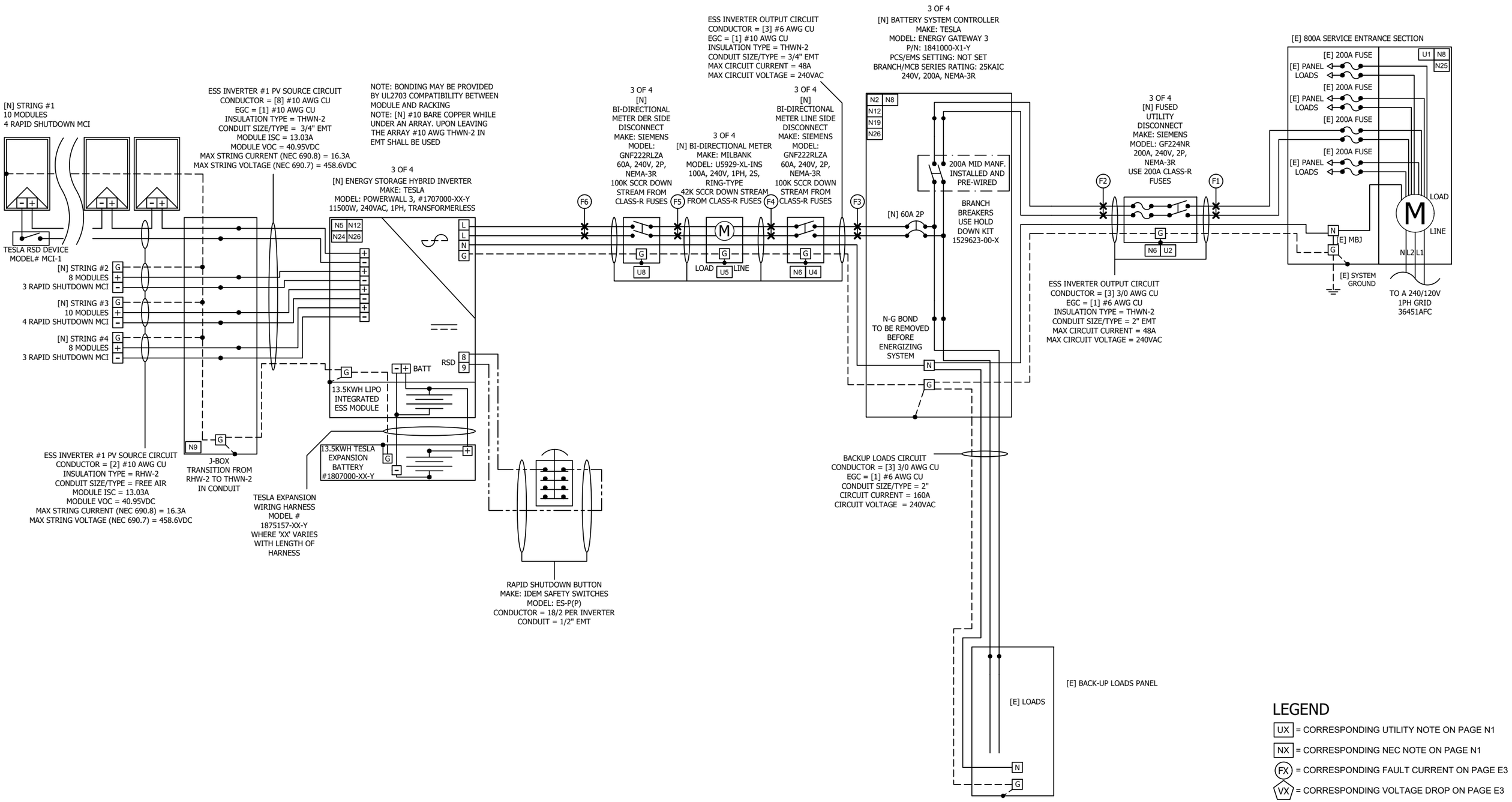
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SHEET # E5.130

THREE LINE DIAGRAM 3 OF 4

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CUSTOMER INFO

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APN	169-06-007D

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DESIGNER	CSM
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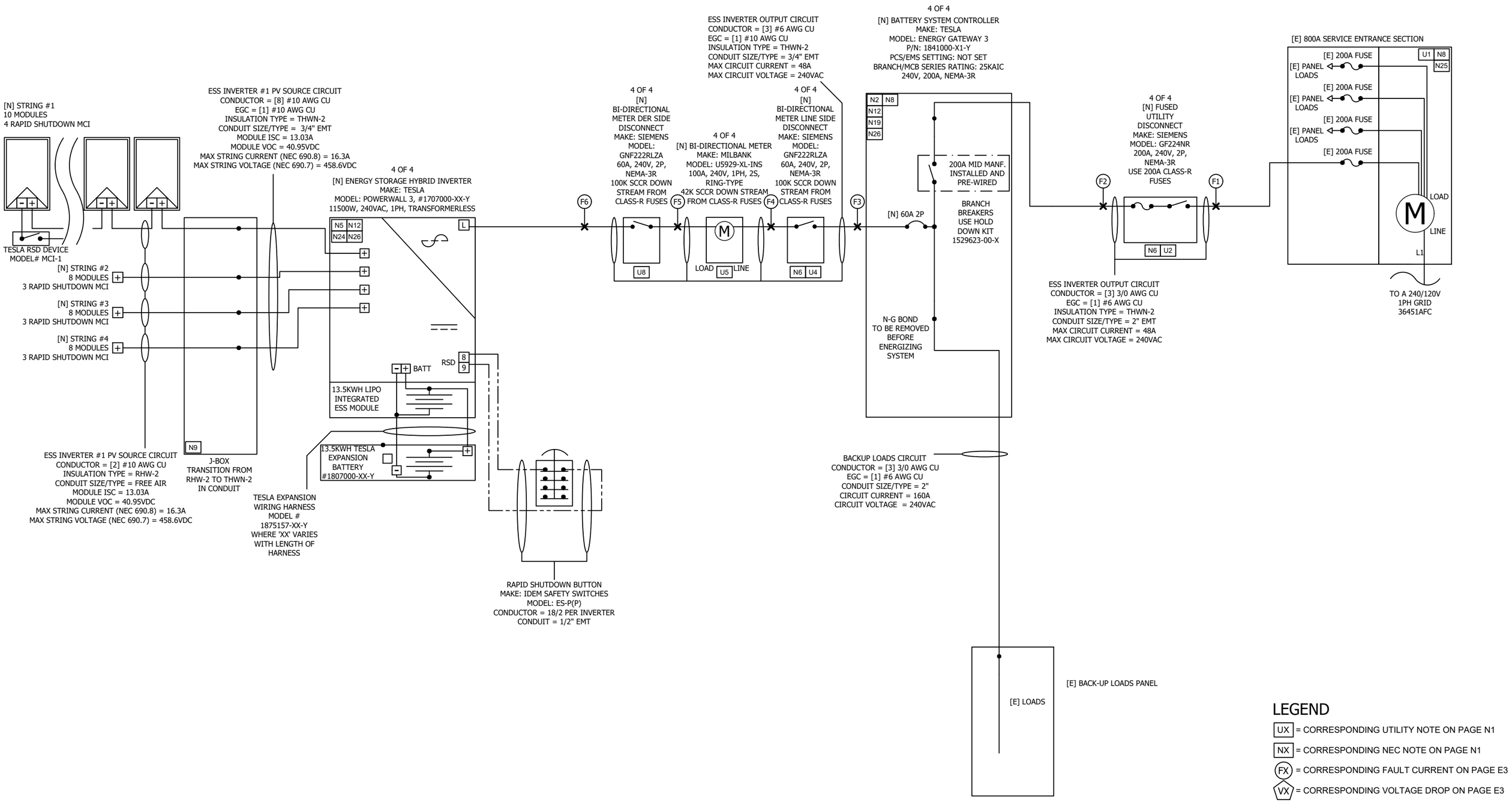
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SHEET # E6 131

SINGLE LINE DIAGRAM 4 OF 4

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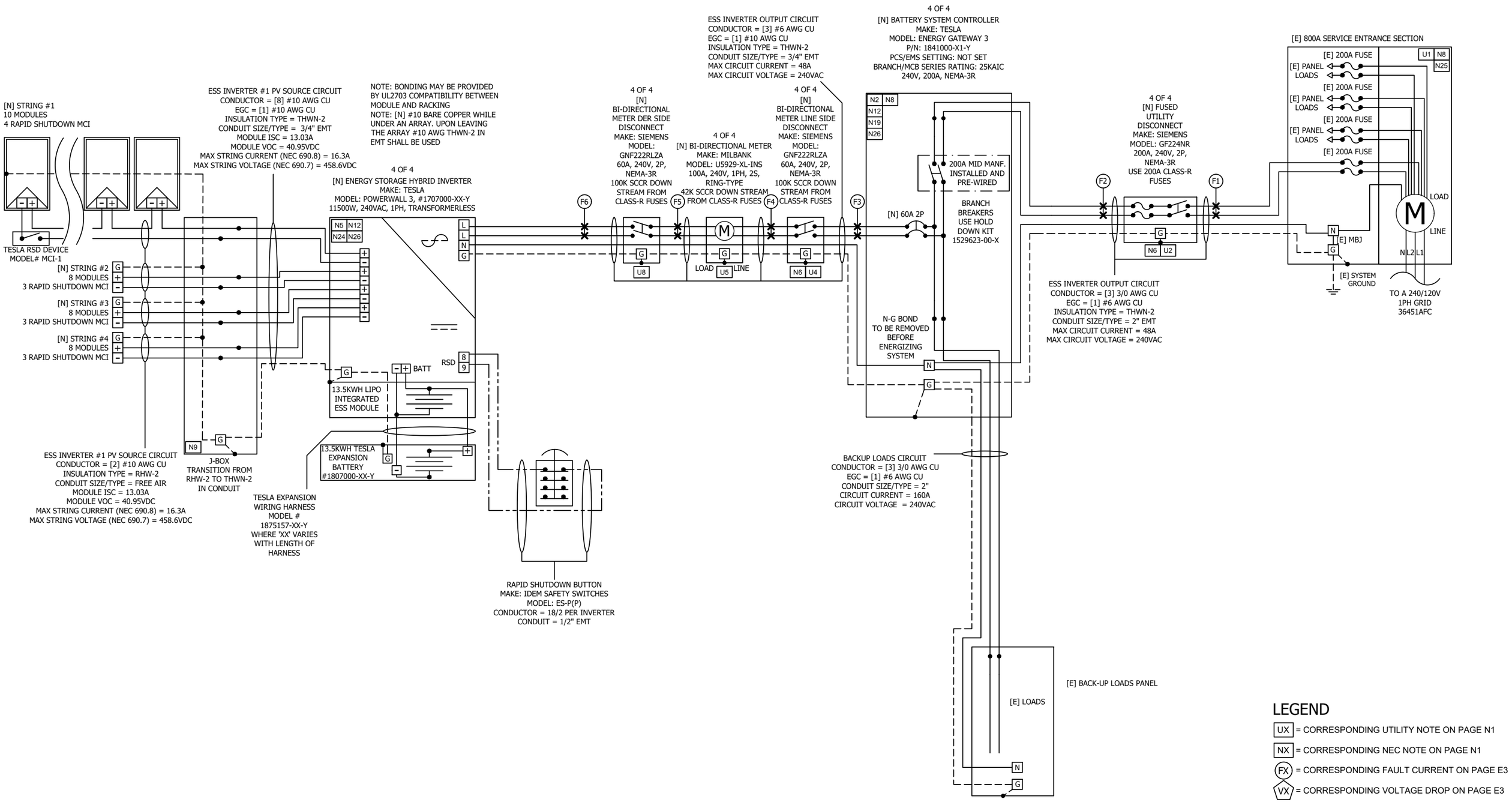
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ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	[N] Tesla TSP-420 QTY: 142 (420W)	PROJECT #	AZ1925	E7 ,132
APN	169-06-007D	INVERTERS: [N] 46000 WATTS AC	DATE	April 7, 2026	
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THREE LINE DIAGRAM 4 OF 4

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DRAFTING NOTES

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SHEET # E8 133

CALCULATIONS & SCHEDULES

POINT TO POINT FAULT CALCULATIONS

	# PER PHASE	SIZE	CU/AL	LENGTH	F	M	NEW AFC	PREV F(X)
F1	1	3/0 AWG	COPPER	50	1.1825	0.4582	16702	SOURCE
F2	1	3/0 AWG	COPPER	2	0.0473	0.9548	15947	F1
F3	1	#6 AWG	COPPER	1	0.1253	0.8887	14172	F2
F4	1	#6 AWG	COPPER	1	0.1253	0.8887	12594	F3
F5	1	#6 AWG	COPPER	1	0.1253	0.8887	11192	F4
F6	1	#6 AWG	COPPER	60	7.5157	0.1174	1314	F5
F7								F6
F8								F7

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DRAFTING NOTES

DESIGNER CSM
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SHEET #
E 1.134

PLAN-SET NOTES

NEC NOTES

N1 ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMAN-LIKE MANNER PER NEC 110.12

N2 EQUIPMENT SHALL BE LABELED, TESTED AND MARKED TO WITHSTAND THE AVAILABLE SHORT CIRCUIT CURRENT PER NEC 110.9, 110.10, & 240.86

N3 EQUIPMENT SHALL BE INSTALLED AND LABELED IN ACCORDANCE WITH THE NEC AND ALL APPLICABLE REQUIREMENTS OF THE SERVING ELECTRIC UTILITY COMPANY AND OF THE LOCAL AUTHORITY HAVING JURISDICTION PER NEC 90.4, 90.7, & 690.4(B)

N4 ALL INTERACTIVE SYSTEM(S) POINTS OF INTERCONNECTION WITH OTHER SOURCES SHALL BE MARKED AT AN ACCESSIBLE LOCATION AT THE DISCONNECTING MEANS AS A POWER SOURCE AND WITH RATES AC OUTPUT CURRENT AND NOMINAL OPERATING AC VOLTAGE PER NEC 690.54

N5 LABEL EACH PV SYSTEM DISCONNECTING MEANS PER NEC 690.13 AND INSTALL A LABEL WITH MAXIMUM POWER POINT CURRENT, MAXIMUM POWER POINT VOLTAGE, MAXIMUM SYSTEM VOLTAGE, AND MAXIMUM SHORT CIRCUIT CURRENT, AND MAXIMUM RATED OUTPUT CURRENT OF CHARGE CONTROLLER WHERE APPLICABLE PER NEC 690.53

N6 LABEL "WARNING - ELECTRIC SHOCK HAZARD - DO NOT TOUCH TERMINALS - TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION" PER NEC 690.17(E)

N7 LABEL "WARNING -- INVERTER OUTPUT CONNECTION -- DO NOT RELOCATE THIS OVERCURRENT DEVICE" AND LOCATE BREAKER AT OPPOSITE END OF BUS FROM MAIN BREAKER LOCATION PER NEC 705.12(B)(2)(3)(b)

N8 LABEL PER NEC 705.10, A PERMANENT PLAQUE OR DIRECTORY DENOTING THE LOCATION OF ALL ELECTRIC POWER SOURCES ON OR IN THE PREMISES SHALL BE INSTALLED AT EACH SERVICE EQUIPMENT LOCATION AND AT LOCATION(S) OF ALL ELECTRIC POWER PRODUCTION SOURCES CAPABLE OF BEING INTERCONNECTED

N9 PER NEC 690.31(G)(3),(4) WIRING METHODS AND ENCLOSURES THAT CONTAIN PHOTOVOLTAIC POWER SOURCE CONDUCTORS SHALL BE MARKED WITH "WARNING: PHOTOVOLTAIC POWER SOURCE". THIS APPLIES TO DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES & JUNCTION BOXES. USE EVERY 10', AT EVERY TURN, ABOVE AND BELOW BUILDING PENETRATIONS, AND AT ALL DC COMBINER JUNCTION BOXES

N10 METALLIC CONDUIT SHALL BE USED WITHIN BUILDING PER NEC 690.31(G)

N11 GEC TO BE INSTALLED AS REQUIRED BY MANUFACTURER INSTRUCTIONS AND NEC 690.47

N12 ANTI-ISLANDING PROTECTION ENSURES THE SYSTEM WILL NOT EXPORT POWER INTO A BALANCED 60HZ RESONANT GRID WHILE THE UTILITY IS DISCONNECTED PER NEC 705.40

N13 PHOTOVOLTAIC CIRCUIT SIZING SHALL COMPLY WITH 690.8(A) - 690.8(D)

N14 OVERCURRENT DEVICES WHERE REQUIRED ARE RATED AT NOT LESS THAN 125% OF THE AMPACITY CALCULATED PER NEC690.8 OR ARE RATED AS AN ASSEMBLY FOR CONTINUOUS DUTY PER NEC 690.9(B)

N15 THE CALCULATED MAXIMUM VOLTAGE SHALL COMPLY TO NEC 690.7(A) - 690.7(E)

N16 WHERE MORE THAN ONE AMPACITY APPLIES FOR A GIVEN CIRCUIT LENGTH, THE LOWEST VALUE SHALL BE USED PER NEC310.15(A)(2)

N17 ALL ROOFTOP CONDUITS SHALL BE MINIMUM 7/8" INCH ABOVE THE ROOFTOP

N18 WHERE PV SOURCE CIRCUITS AND OUTPUT CIRCUITS OPERATING AT MAXIMUM SYSTEM VOLTAGES GREATER THAN 30 VOLTS ARE INSTALLED IN READILY ACCESSIBLE LOCATIONS, CIRCUIT CONDUCTORS SHALL BE GAURDED OR INSTALLED IN A RACEWAY PER NEC 690.31(A)

N19 BACKFEED BREAKER SHALL BE RATED MINIMUM 22KAIC OR SERIES RATED 22/10KAIC WITH THE 200 AMP MAIN BREAKER PER NEC ARTICLE 110.9, ARTICLE 110.22 AND ARTICLE 240.86(B)

N20 FOR SUPPLY SIDE CONNECTIONS A SUPPLY SIDE BONDING JUMPER SHALL BE INSTALLED INSIDE THE OCPD DEVICE AND SIZED PER NEC 250.102(C)(1)

N21 FOR LOAD SIDE TAPS NEC SECTION 705.12(D)(2)(1)(b) AS PERTAINING TO FEEDER TAPS WILL BE OBSERVED

N22 PER NEC 705.12(D)(2)(3)(B): WHERE TWO SOURCES, ONE A UTILITY AND THE OTHER AN INVERTER, ARE LOCATED AT OPPOSITE ENDS OF A BUSBAR THAT CONTAINS LOADS, THE SUM OF 125 PERCENT OF THE INVERTER(S) OUTPUT CIRCUIT CURRENT AND THE RATING OF THE OVERCURRENT DEVICE PROTECTING THE BUSBAR SHALL NOT EXCEED 120 PERCENT OF THE AMPACITY OF THE BUSBAR.

N23 LABEL PER NEC ARTICLE 705.12(D)(2)(3)(C) STATING " WARNING -- THIS EQUIPMENT FED BY MULTIPLE SOURCES. -- TOTAL RATING OF ALL OVERCURRENT DEVICES EXCLUDING THE MAIN SUPPLY OVERCURRENT DEVCE SHALL NOT EXCEED AMPACITY OF BUSBAR"

N24 LABEL "PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN" PER NEC 690.56(C)

UTILITY NOTES / LABEL DESCRIPTIONS

U1 BI-DIRECTIONAL UTILITY BILLING METER TO BE INSTALLED AT SERVING UTILITY'S DISCRETION

U2 INSTALL AS REQUIRED TO LIMIT SHORT CIRCUIT CURRENT OF DOWNSTREAM EQUIPMENT. LABEL "FUSED UTILITY DISCONNECT". SWITCH COVER TO BE LOCKED AT ALL TIMES BY CUSTOMER AND COMPLY WITH NEC 705.22 INSTALL LABEL WITH PHOTOVOLTAIC SYSTEM AC OPERATING CURRENT AND VOLTAGE. USE CLASS "R" FUSES

U3 LABEL "DEDICATED PHOTOVOLTAIC SYSTEM COMBINER PANEL" PER NEC 690.13(B) AND "DO NOT ADD LOADS TO THIS PANEL"

U4 LABEL "UTILITY DISCONNECT SWITCH". SWITCH COVER TO BE LOCKED AT ALL TIMES. SWITCH TO BE VISIBLE AND ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.22.

U5 LABEL "BI-DIRECTIONAL METER"

U6 LABEL "BI-DIRECTIONAL METER LINE SIDE DISCONNECT" SWITCH COVER TO BE LOCKED AT ALL TIMES. SWITCH TO BE VISIBLE AND ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.22.

U8 LABEL "BI-DIRECTIONAL METER DER SIDE DISCONNECT" SWITCH COVER TO BE LOCKED AT ALL TIMES. SWITCH TO BE VISIBLE AND ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.22.

GENERAL / STRUCTURAL NOTES

G1 ALL WORK PERFORMED ON THIS PROJECT INCLUDING SHALL FOLLOW CURRENTLY ADOPTED NFPA 70E AND OSHA REGULATIONS, REQUIREMENTS AND RECOMMENDATIONS

G2 PENETRATIONS OF THE ROOFING SYSTEM SHALL BE SEALED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS USING THE LISTED AND LABELED PRODUCTS FOR SEALANT AND FLASHING.

G3 THERE SHALL NOT BE MORE THAN 6 PENETRATIONS PER TRUSS TO ENSURE NO DEGRADATION OF STRUCTURAL FRAMING MEMBERS

G4 ACCESS PATHWAYS ARE TO BE FOLLOWED ACCORDING TO IFC 605.11.1. WHEREIN DETACHED, NONHABITABLE GROUP U STRUCTURES INCLUDING, BUT NOT LIMITED TO, PARKING SHADE STRUCTURES, CARPORTS, SOLAR TRELLISES, SIMILAR STRUCTRES, AND WHERE THE FIRE CHIEF HAS DETERMINED THAT ROOFTOP OPERATIONS WILL NOT BE EMPLOYED SHALL NOT BE SUBJECT TO THE REQUIREMENTS OF THE AFOREMENTIONED SECTION.

G5 TRUSSES ARE ASSUMED TO BE OF STANDARD CONSTRUCTION, BEARING A MINIMUM OF 2" x 4" CHORDS AT 24" O.C. FIELD VERIFICATION OF TRUSSING SYSTEM TO BE PERFORMED BEFORE CONSTRUCTION IS TO BEGIN.

G6 MODULES ARE BE LISTED AND LABELED FOR SAFETY WITH CURRENTLY ADOPTED UL61730-X. WHERE IN 'X' IS REQUIREMENTS EITHER 1 FOR CONSTRUCTION, OR 2 FOR TESTING. SEE DATASHEET SUPPLIED FOR FURTHER INFORMATION.

G7 INVERTERS ARE TO BE UL LISTED TO THE CURRENT STANDARD UL1741SA

CUSTOMER INFO

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APN	169-06-007D

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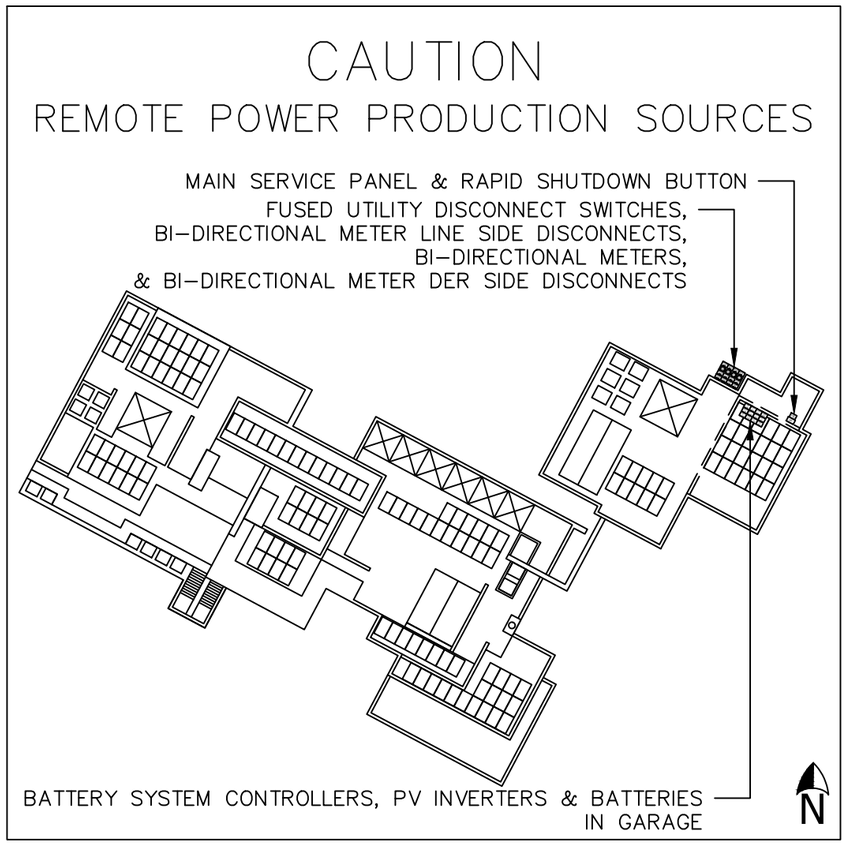
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DESIGNER	CSM
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CR-11 CGL017824521

SHEET #
N 1
135

LOCATION PLACARD



N8 RED BACKGROUND WITH 1/4" WHITE LETTERING
LOCATION: MAIN SERVICE PANEL AND REMOTE POWER PRODUCTION SOURCES
2014 NEC 705.10

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES			SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	SUNLINK ENERGY 1355 N MONDEL GILBERT, AZ 85233 (480) 624-8105 AZ ROC #326376 CR-11 CGL017824521	L 1.136
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925		
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026		
			REVISION:	A		

UTILITY LABELS

3 1/2" × 1"

UTILITY
DISCONNECT

U2 BLACK BACKGROUND WITH 1/4" WHITE LETTERING
LOCATION: UTILITY DISCONNECTING MEANS

3 1/2" × 1"

_ OF 4

BLACK BACKGROUND WITH 1/4" WHITE LETTERING
LOCATION: UTILITY DISCONNECTING MEANS AS REQUIRED

3 1/2" × 1 1/2"

CAUTION
SUPPLY/LINE
SIDE CONNECTION

YELLOW BACKGROUND WITH 1/4" BLACK LETTERING
LOCATION: MAIN SERVICE PANEL

3 1/2" × 1 1/2"

NOTICE
DEDICATED DER SYSTEM COMBINER PANEL DO NOT ADD LOADS TO THIS PANEL

U3 BLUE BACKGROUND WITH 1/4" & 1/8" WHITE LETTERING
LOCATION: PV COMBINER PANEL

3 1/2" × 1"

FUSED UTILITY
DISCONNECT

U2 BLACK BACKGROUND WITH 1/4" WHITE LETTERING
LOCATION: FUSED DISCONNECT

3 1/2" × 1"

MAIN BREAKER HAS BEEN DERATED
PER NEC 705.12(B)(2)
MAIN BREAKER TO BE 175A MAX

BLACK BACKGROUND WITH 1/8" WHITE LETTERING
LOCATION: SERVICE DISCONNECT
2023 NEC 705.12(B)(2)

3 1/2" × 1"

LEASING COMPANY PV
PRODUCTION METER

BLACK BACKGROUND WITH 1/4" WHITE LETTERING
LOCATION: UTILITY DISCONNECTING MEANS AS REQUIRED

3 1/2" × 1 1/2"

CAUTION
POSSIBLE BACKFEED
ENERGY STORAGE SYSTEM
LOAD SIDE BACKFEED

YELLOW BACKGROUND WITH 1/4", 3/16", & 1/8" BLACK LETTERING
LOCATION: BI-DIRECTIONAL METER

3 1/2" × 1"

BI–DIRECTIONAL METER
LINE SIDE DISCONNECT

U6 BLACK BACKGROUND WITH 3/16" WHITE LETTERING
LOCATION: BACKUP LOADS DISCONNECT

3 1/2" × 1"

BI–DIRECTIONAL
METER

U5 BLACK BACKGROUND WITH 1/4" WHITE LETTERING
LOCATION: UTILITY METER

3 1/2" × 1"

BI–DIRECTIONAL METER
DER SIDE DISCONNECT

U8 BLACK BACKGROUND WITH 3/16" WHITE LETTERING
LOCATION: PV METER DISCONNECT

NOTE: NOT ALL LABELS USED ON ALL PROJECTS

UX = CORRESPONDING NOTE ON PAGE N1

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	SHEET #
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925	L2
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026	137
			REVISION:	A	

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

NEC LABELS

3 1/2" × 1 1/2"

WARNING
ELECTRICAL SHOCK HAZARD
DO NOT TOUCH TERMINALS
TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

N6 ORANGE BACKGROUND WITH 1/4" & 1/8" BLACK LETTERING
LOCATION: AC DISCONNECTING MEANS
2014 NEC 690.17(E)

3 1/2" × 1"

PHOTOVOLTAIC POWER SOURCE

MAXIMUM AC CURRENT	48.0 A
SYSTEM AC VOLTAGE	240 V

N4 BLACK BACKGROUND WITH 1/8" WHITE LETTERING
LOCATION: AC DISCONNECTING MEANS
2014 NEC 690.54

INVERTER #1

3 1/2" × 1 1/2"

DC DISCONNECT SWITCH

MAX POWER-POINT CURRENT	12.3 A
MAX POWER-POINT VOLTAGE	308.6 V
MAX SYSTEM VOLTAGE	412.8 V
SHORT CIRCUIT CURRENT	13.0 A
MAX DC-DC CONVERTER	A

N5 BLACK BACKGROUND WITH 1/8" WHITE LETTERING
LOCATION: DC DISCONNECTING MEANS
2014 NEC 690.53

4" × 1 1/2"

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

N24 RED BACKGROUND WITH 3/8" WHITE LETTERING
LOCATION: AT POINT OF INTERCONNECTION
2014 NEC 690.56(C)

3 1/2" × 1 1/2"

WARNING
INVERTER OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE

N7 ORANGE BACKGROUND WITH 3/16" BLACK LETTERING
LOCATION: POINT OF INTERCONNECTION
2014 NEC 705.12(D)(2)(3)(b)

INVERTER #2

3 1/2" × 1 1/2"

DC DISCONNECT SWITCH

MAX POWER-POINT CURRENT	12.3 A
MAX POWER-POINT VOLTAGE	274.3 V
MAX SYSTEM VOLTAGE	366.9 V
SHORT CIRCUIT CURRENT	13.0 A
MAX DC-DC CONVERTER	A

N5 BLACK BACKGROUND WITH 1/8" WHITE LETTERING
LOCATION: DC DISCONNECTING MEANS
2014 NEC 690.53

3 1/2" × 1 1/2"

WARNING
THIS EQUIPMENT FED BY MULTIPLE SOURCES TOTAL RATING OF ALL OVERCURRENT DEVICES EXCLUDING MAIN SUPPLY OVERCURRENT DEVICE SHALL NOT EXCEED AMPACITY OF BUSBAR

N23 ORANGE BACKGROUND WITH 1/4" & 1/8" BLACK LETTERING
LOCATION: POINT OF INTERCONNECTION
2014 NEC 705.12(D)(2)(3)(c)

3 1/2" × 1 1/2"

WARNING
ELECTRICAL SHOCK HAZARD
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED

ORANGE BACKGROUND WITH 1/4" & 1/8" BLACK LETTERING
LOCATION: EACH JUNCTION BOX, COMBINER BOX, & DEVICE
2014 NEC 690.35(F)

INVERTER #3

3 1/2" × 1 1/2"

DC DISCONNECT SWITCH

MAX POWER-POINT CURRENT	12.3 A
MAX POWER-POINT VOLTAGE	342.9 V
MAX SYSTEM VOLTAGE	458.6 V
SHORT CIRCUIT CURRENT	13.0 A
MAX DC-DC CONVERTER	A

N5 BLACK BACKGROUND WITH 1/8" WHITE LETTERING
LOCATION: DC DISCONNECTING MEANS
2014 NEC 690.53

7 1/2" × 3/4"

WARNING: PHOTOVOLTAIC POWER SOURCE

N9 RED BACKGROUND WITH 3/8" WHITE LETTERING
LOCATION: EACH DC JUNCTION BOX, COMBINER BOX, & CONDUIT BODY. NOT FURTHER THAN 10FT APART
2014 NEC 690.31(D)(3)&(4)

INVERTER #4

3 1/2" × 1 1/2"

DC DISCONNECT SWITCH

MAX POWER-POINT CURRENT	12.3 A
MAX POWER-POINT VOLTAGE	342.9 V
MAX SYSTEM VOLTAGE	458.6 V
SHORT CIRCUIT CURRENT	13.0 A
MAX DC-DC CONVERTER	A

N5 BLACK BACKGROUND WITH 1/8" WHITE LETTERING
LOCATION: DC DISCONNECTING MEANS
2014 NEC 690.53

NOTE: NOT ALL LABELS USED ON ALL PROJECTS

NX = CORRESPONDING NOTE ON PAGE N1

SCALE: 1" = 3/4"

CUSTOMER INFO

NAME	JIM CHAMBERLAIN
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253
APN	169-06-007D

SYSTEM SPECIFICATIONS

MODULES: [N] 59640 WATTS DC
[N] Tesla TSP-420 QTY: 142 (420W)
INVERTERS: [N] 46000 WATTS AC
[N] TESLA 1707000-XX-Y QTY: 4
BATTERY: [N] 108000 Wh
[N] TESLA 1707000-XX-Y QTY:4 54kWh
[N] TESLA 1807000-XX-Y QTY:4 54kWh

DRAFTING NOTES

DESIGNER	CSM
PROJECT #	AZ1925
DATE	April 7, 2026
REVISION:	A

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

SHEET #
L3 138

DATASHEET

Tesla Solar Panel

TSP-415 and TSP-420

—

The Tesla Solar Panel blends sleek aesthetics and hidden electrical connections with high-powered engineering, exceeding industry performance and quality standards. Featuring our Tesla frame design, the all-black panel mounts close to your roof for a minimalist aesthetic, with no extra rails and no visible clamps.

Proudly made on Earth by humans and assembled in Buffalo, New York, in the United States of America.



Sleek Design

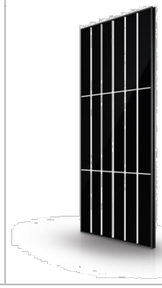
- All-black solar panels and concealed cell connections for a uniform minimalist aesthetic.
- Seamless integration with Tesla Panel Mount – no exposed hardware, low profile, and aesthetic front and side skirts.

Power Zones

- More substrings to mitigate shade and deliver more energy to your home.
- Designed to pair perfectly with the Tesla Solar Inverter and Powerwall 3.
- 3x Power Zones compared to legacy panels for maximized energy yield.

Standard Solar Panel	Tesla Solar Panel
6 Power Zones	18 Power Zones

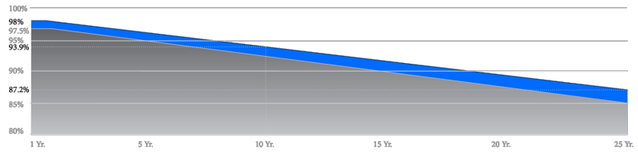




Limited Power Warranty

Product	25 years
Performance	25 years

At least 98% of nominal power during first year. Thereafter max. 0.45% degradation per year. At least 93.9% of nominal power up to 10 years. At least 87.2% of nominal power up to 25 years.



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Solar Panel Specifications

Electrical Characteristics

Model Number	TSP-415	TSP-420
Power Class	415 W	420 W
Test Method	STC	STC
Max Power, P_{max} (W)	415	420
PTC Rating (W)	390.6	395.4
Open Circuit Voltage, V_{oc} (V)	40.92	40.95
Short Circuit Current, I_{sc} (A)	12.93	13.03
Max Power Voltage, V_{mp} (V)	34.24	34.29
Max Power Current, I_{mp} (A)	12.12	12.25
Module Efficiency (%)	≥ 20.3%	≥ 20.5%
STC	1000 W/m², 25°C, AM1.5	

Operation Parameters

Operational Temperature	-40 °C up to +85°C
Power Output Tolerance	415W: +5/-0W 420W: +15/-0W
V_{oc} & I_{sc} Tolerance	+/- 5 %
Max System Voltage	DC 1000V (IEC/UL)
Max Series Fuse Rating	25 A
Safety Class	Class II
Fire Rating	UL 61730 Type 2

Mechanical Loading

Front Side Test Load	4309 Pa | 90 psf
Rear Side Test Load	4309 Pa | 90 psf
Front Side Design Load	2873 Pa | 60 psf
Rear Side Design Load	2873 Pa | 60 psf
Hail Test	35mm at 27.2 m/s

Mechanical Parameters

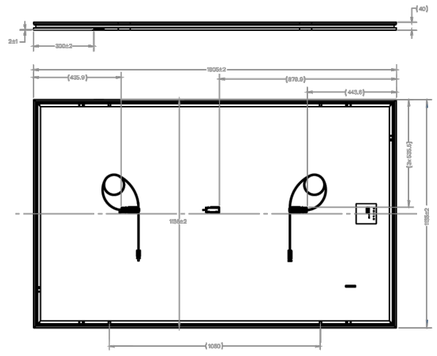
Cell Orientation	360 (6 x 60)
Junction Box	IP68, 3 diodes
Cable	4 mm² | 12 AWG, 1000 mm | 39.4 in. Length
Connector	Staubli MC4
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass
Frame	Black Anodized Aluminum Alloy
Weight	22.3 kg | 49 lb
Dimensions	1805 mm x 1135 mm x 40 mm 71.1 in x 44.7 in x 1.57 in

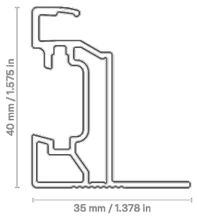
Compliance Information

Certifications	IEC / UL 61730 - 1, IEC / UL 61730 - 2 and IEC 61215

Temperature Rating (STC)

Temperature Coefficient of Isc	+0.04%/ °C
Temperature Coefficient of V_{oc}	-0.27%/ °C
Temperature Coefficient of P_{max} (W)	-0.34%/ °C





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SCALE: NTS

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	SUNLINK ENERGY 1355 N MONDEL GILBERT, AZ 85233 (480) 624-8105 AZ ROC #326376 CR-11 CGL017824521
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925	
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026	
			REVISION:	A	

SHEET # D1 139

DATASHEET

Tech Brief

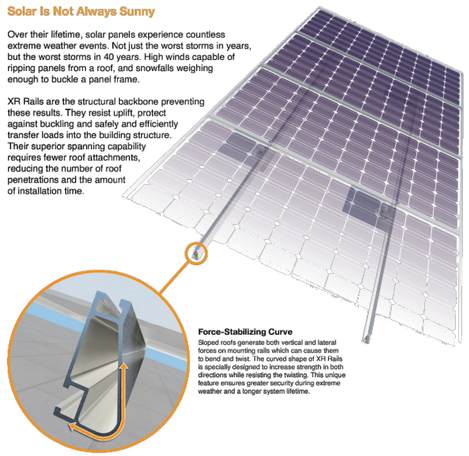
IRONRIDGE

XR Rail Family

Solar Is Not Always Sunny

Over their lifetime, solar panels experience countless extreme weather events. Not just the worst storms in years, but the worst storms in 40 years. High winds capable of ripping panels from a roof, and snowfalls weighing enough to buckle a panel frame.

XR Rails are the structural backbone preventing these results. They resist uplift, protect against buckling and safely and efficiently transfer loads into the building structure. Their superior spanning capability requires fewer roof attachments, reducing the number of roof penetrations and the amount of installation time.



Force-Stabilizing Curve

Sloped roofs generate both vertical and lateral forces on mounting rails which can cause them to bend and twist. The curved shape of XR Rails is specially designed to increase strength in both directions while resisting the twisting. This unique feature ensures greater security during extreme weather and a longer system lifetime.

Compatible with Flat & Pitched Roofs

XR Rails are compatible with FlashFoot and other pitched roof attachments.

IronRidge offers a range of tilt leg options for flat roof mounting applications.

Corrosion-Resistant Materials

All XR Rails are made of 6000-series aluminum alloy, then protected with an anodized finish. Anodizing prevents surface and structural corrosion, while also providing a more attractive appearance.



Tech Brief

XR Rail Family

The XR Rail Family offers the strength of a curved rail in three targeted sizes. Each size supports specific design loads, while minimizing material costs. Depending on your location, there is an XR Rail to match.



XR10

XR10 is a sleek, low-profile mounting rail, designed for regions with light or no snow. It achieves spans up to 6 feet, while remaining light and economical.

- 6' spanning capability
- Moderate load capability
- Clear & black anodized finish
- Internal splices available



XR100

XR100 is the ultimate residential mounting rail. It supports a range of wind and snow conditions, while also maximizing spans up to 10 feet.

- 10' spanning capability
- Heavy load capability
- Clear & black anodized finish
- Internal splices available



XR1000

XR1000 is a heavyweight among solar mounting rails. It's built to handle extreme climates and spans up to 12 feet for commercial applications.

- 12' spanning capability
- Extreme load capability
- Clear anodized finish
- Internal splices available

Rail Selection

The table below was prepared in compliance with applicable engineering codes and standards.* Values are based on the following criteria: ASCE 7-16, Gable Roof Flush Mount, Roof Zones 1 & 2e, Exposure B, Roof Slope of 8 to 20 degrees and Mean Building Height of 30 ft. Visit IronRidge.com for detailed certification letters.

Load		Rail Span					
Snow (PSF)	Wind (MPH)	4'	5' 4"	6'	8'	10'	12'
None	90	XR10		XR100		XR1000	
	120						
	140						
	160						
20	90						
	120						
	140						
	160						
30	90						
	160						
40	90						
	160						
80	160						
120	160						

*Table is meant to be a simplified span chart for conveying general rail capabilities. Use approved certification letters for actual design guidance.

RATINGS

UL 2703 LISTED

#5003807

Intertek

Conforms to UL STD 2703 Standard for Safety First Edition: Mounting Systems, Mounting Devices, Clamping/ Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels

- Scope of Evaluation includes bonding, grounding, mechanical loading, and fire classification
- Max Overcurrent Protective Device (OCPD) Rating: 40A
- Max Module Size: 30.5 ft²
- Module Orientation: Portrait or Landscape
- System Design Load Rating: 10 PSF downward, 5 PSF upward, 5 PSF lateral
- Actual system structural capacity including spans and cantilevers are defined by PE stamped certification letters
- CAMO Specific Design Load rating: 50 PSF downward, 50 PSF upward, 15 PSF lateral

Certified to CSA TIL No. A-40 Photovoltaic Module Racking Systems

- Load Rating: 2400 PA [50 PSF]

CLASS A SYSTEM FIRE RATING PER UL 2703

- Any Roof Slope with Module Types 1, 2, 3, 13, 19, 25 & 29: Allowed with any roof slope. Any module-to-roof gap is permitted, with no perimeter guarding required
- Module Types 4 and 5: Allowed with Steep Slope Roofs (≥ 9.5°). Any module-to-roof gap is permitted, low edge guarding (Trim) required
- Class A rated PV systems can be installed on Class A, B, and C roofs without affecting the roof fire rating

CLASS B SYSTEM FIRE RATING PER UL 2703

- Module Types 4 and 5: Allowed with Steep Slope Roofs (≥ 9.5°). Any module-to-roof gap is permitted, with no perimeter guarding required.

WATER SEAL RATINGS:

- Conforms to UL SUBJECT 2703A - Halo UltraGrip, Steep Slope, Asphalt Shingle Roof
- UL 441 and TAS100(A) (Flashfoot2, L-Mount, Flashvue, All Tile Hook, Knockout Tile, Halo UltraGrip)
- Tested and evaluated without sealant
- Any roofing manufacturer approved sealant is allowed
- Ratings applicable for steep roof slopes between 2:12 and above

STRUCTURAL CERTIFICATION

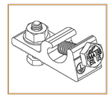
- Designed and Certified for Compliance with the International Building Code & ASCE/SEI-7

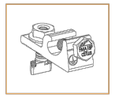
FLORIDA PRODUCT APPROVAL #FL29843

- Approved for installation both inside and outside High Velocity Hurricane Zones (HVHZ)
- Additional details and full list of approved components can be found here

MARKINGS

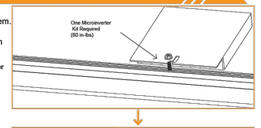
Product markings are located on the Grounding Lug bolt head.

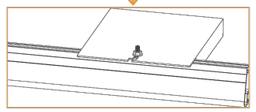




MICROINVERTER KITS

Use IronRidge's Microinverter Kit to bond compatible microinverters and power optimizers to the racking system. Insert Microinverter Kit T-bolt into top rail slot. Place compatible microinverter or power optimizer into position and tighten hex nut to **80 in-lbs**.





- **MLPE devices shall be installed near modules frames whenever possible.**

COMPATIBLE PRODUCTS

Enphase
M250-72, 250-60, M215-60, C250-72, S230, S280, IQ 6, IQ 6+, IQ 7, IQ 7A, IQ 7+, IQ7 PD, IQ 7X, Q Aggregator; IQ8-60, IQ8PLUS-72, IQ8A-72, IQ8H-208-72, IQ8H-240-72, IQ8M-72, may be followed by -2-US

Darfon
MIG240, MIG300, G320, G640

Solar Edge
M1600, P300, P320, P340, P370, P400, P401, P405, P485, P505, P600, P700, P730, P750, P800p, P800s, P801, P850, P860, P950, P960, P1100, P1101, S440, S500, S500B, S650B, S1200, S1201

SMA
RoofCommKit-P2-US, TS4-R Module Retrofit Kits (TS4-R-S, TS4-R-O, TS4-R-F)

Tigo
Tigo Access Point (TAP)
TS4-R-X (where X can be F, M, O, or S)
TS4-R-X-DUO (where X can be M, O, or S)
TS4-A-X (where X can be F, 2P, O, O-DUO, or S)

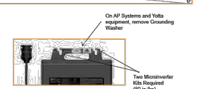
Generac
S2502

AP Systems
DS3, QS1, QT2 and YC600

NEP
BDM-300, BDM-300X2, BDM-550, BDM-650 and BDM-800

Hoymiles
HM-xxxNT
where xxx can be 300, 350, 400, 600, 700 and 800

Yotta
DPI 208/480



- **Remove Grounding Washer on AP Systems QS1, QT2, DS3 and YC600 and Yotta inverters before installing to XR rails.**
- **Remove the Stainless Steel Clip on Tigo-"A" MLPE Devices before attaching to XR rails.**
- **Use the number of IronRidge Microinverter kits allowed by the MLPE mounting flange. Some will require 1 kit and others 2 kits.**

SYSTEMS USING ENPHASE MICROINVERTERS OR SUNPOWER AC MODULES

IronRidge systems using approved Enphase products or SunPower modules eliminate the need for lay-in lugs and field installed equipment grounding conductors (EGC). This solution meets the requirements of UL 2703 for bonding and grounding and is included in this listing.

COMPATIBLE PRODUCTS

Sunpower
Modules with model identifier Ab-xxx-YY and InvisiMount (GS) 46mm frame; where "A" is either E, or X; "b" can be 17, 18, 19, 20, 21, or 22; and "YY" can be C-AC, DJ-AC, BLK-C-AC, or BLK-D-AC.

Enphase
Microinverters M250-72, M250-60, M215-60, C250-72, and Engage cables ETXX-240, ETXX-208, ETXX-277.

- **A minimum of two inverters mounted to the same rail and connected to the same Engage cable are required.**
- **The microinverters or Sunpower AC modules must be used with a maximum 20 A branch rated overcurrent protection device (OCPD).**
- **If an AC module is removed from a circuit for maintenance, you must first disconnect AC power and then install a temporary EGC to bridge the gap by inserting an AC extension cable (or via other NEC-compliant means), in order to maintain effective ground continuity to subsequent modules.**

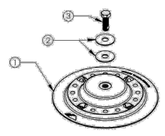
MODULE COMPATIBILITY

Hanwha Q CELLS	Hanwha Q CELLS Modules with 32, 35, 40 mm frames aaYY-ZZ-xxx where "aa" can be Q. or B.; "YY" can be PLUS, PRO, PEAK, LINE PRO, LINE PLUS, PLUS DUO or PEAK DUO; and "ZZ" can be G3, G3.1, G4, G4.1, L-G2, L-G2.3, L-G3, L-G3.1, L-G3y, L-G4, L-G4.2, L-G4y, LG4.2/ TAA, BFR-G3, BLK-G3, BFR-G3.1, BLK-G3.1, BFR-G4, BFR-G4.1, BFR G4.3, BLK-G4.1, G4/SC, G4.1/SC, G4.1/TAA, G4.1/MAX, BFR G4.1/TAA, BFR G4.1/MAX, BLK G4.1/TAA, BLK G4.1/SC, EC-G4.4, G5, 05/ SC, 05/TS, BLK-G5, BLK-G5/SC, BLK-G5/TS, L-G5, L-G5.1, L-G5.2, L-G5.2/H, L-G5.3, 06, 06/SC, 06/TS, G6+/TS, G6+, BLK-G6, L-G6, L-G6.1, L-G6.2, L-G6.3, G7, BLK-G6+, BLK-G6+/AC, BLK-G6+/HL, BLK-G6+/ SC, BLK-G6/TS, BLK-G6+/TS, BLK-G7, G7.2, G8, BLK-G8, G8+, BLK-G8+ L-G7, L-G7.1, L-G7.2, L-G7.3, L-G8, L-G8.1, L-G8.2, L-G8.3, L-G8.3/BFF, L-G8.3/BFG, L-G8.3/BGT, ML-G9, BLK ML-G9, ML-G9+, BLK ML-G9+, BLK-G10+, BLK G10+/AC, ML-G10, BLK ML-G10, ML-G10+, BLK ML-G10+, ML-G10.a, BLK ML-G10.a, ML-G10.a+, BLK ML-G10.a+, BLK ML-G10 +t, BLK ML-G10+/TS, XL-G9, XL-G9.2, XL-G9.3, XL-G9.3/BFG, XL-G10.2, XL-G10.3, XL-G10 c, XL-G10.d, XL-G10.d/BFG, XL-G10.3/BFG, XL-G11.2, XL-G11.3, XL-G11.3/BFG or XL-G11S.3/BFG
REC Solar	REC modules with 30 and 38 mm frames RECxxxYYZZ Where "YY" can be AA, M, NP, NP2, NP3, PE, PE72, TP, TP2, TP2M, TP2SM, TP2S, TP3M or TP4; and "ZZ" can be blank, Black, BLK, BLK2, SLV, 72, Pure or Pure-R
Talesun	Talesun modules with 30, 35 and 40 mm frames TAByZZaa-xxx-b Where "A" can be D or P; "B" can be 6 or 7; "y" can be blank, F, G, H, I or L; "ZZ" can be 54, 60, 66, 72 or 78; "aa" can be M, M(H), or P; and "b" can be blank, B, T, or (H)
Trina	Trina Modules with 30, 35 and 40 mm frames TSM-xxxYYZZ Where "YY" can be DD05, DD06, DD14, DE14, DE15, DE15V, DEG15, DEG15VC, DE18M, DEG18MC, DE09, DE19, DEG19C.20, DE06X, PA05, PC05, PD05, PD06, PA14, PC14, PD14, PE14, PE15 or NEG19RC ; and "ZZ" can be blank, .05, .05(II), .08, .08(II), .10, .18, .08D, .18D, 0.82, .002, .00S, 05S, 08S, .20, .20(II), A, A.05, A.08, A.10, A.18, (II), A(II), A.05(II), A.08(II), A.082(II), A.10(II), A.18(II), C.05, C.07, C.05(II), C.07(II), H, H(II), H.05(II), H.08(II), HC.20(II), HC.20(II), M, M(II), M.05(II), MC.20(II)
Canadian Solar	Canadian Solar modules with 30, 32, 35 and 40 mm frames CSbY-xxxZ Where "b" can be 1, 3, 6 or 7 "Y" can be H, K, L, N, P, R, U, V, W, X or Y; and "Z" can be M, P, MS, PX , M-SD, P-AG, P-SD, MB-AG, PB-AG, MS-AG, MS-HL, or MS-

Cut Sheet

IRONRIDGE

Flat Roof Attachment

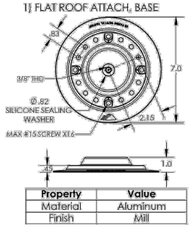


ITEM NO.	DESCRIPTION
1	FLAT ROOF ATTACH, BASE
2	WASHER, FLAT 3/8" X 1.25" OD SS
3	BOLT, 3/8-16 X 1.125" HEX, SS

FLAT ROOF ATTACHMENT (FRA)

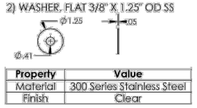
Part Number	Description
FRA-BASE-01-M1	Flat Roof Attachment, Mill

1) FLAT ROOF ATTACH, BASE



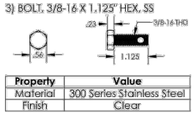
Property	Value
Material	Aluminum
Finish	Mill

2) WASHER, FLAT 3/8" X 1.25" OD SS



Property	Value
Material	300 Series Stainless Steel
Finish	Clear

3) BOLT, 3/8-16 X 1.125" HEX, SS



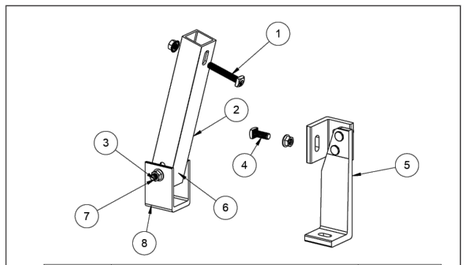
Property	Value
Material	300 Series Stainless Steel
Finish	Clear

v1.1

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IRONRIDGE

Tilt Leg



ITEM NO	DESCRIPTION	QTY IN KIT
1	BOLT, BONDING 3/8-16 SQ HEAD, 2.25"	1
2	NORTH TILT LEG, 1.5" SQ, LENGTH VARIES	1
3	NUT, FLANGE HEX 3/8-16 SS	3
4	BOLT, BONDING 3/8-16 SQ HEAD, 1.0"	1
5	PRE-ASSEMBLED SOUTH TILT LEG	1
6	WASHER, FLAT 3/8 SS	1
7	BOLT, 3/8-16 X 2.5" CS SST	1
8	U-FOOT	1

TILT MOUNT KIT OPTIONS

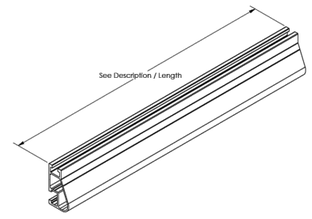
PART NUMBER	DESCRIPTION	NORTH TILT LEG LENGTH
TM-FTL-010	Kit, Fixed Tilt Leg, 10", Mill	10"
TM-FTL-015	Kit, Fixed Tilt Leg, 15", Mill	15"
TM-FTL-020	Kit, Fixed Tilt Leg, 20", Mill	20"
TM-FTL-025	Kit, Fixed Tilt Leg, 25", Mill	25"
TM-FTL-030	Kit, Fixed Tilt Leg, 30", Mill	30"

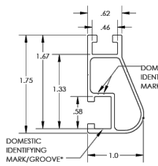
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Cut Sheet

IRONRIDGE

XR10" Rail (US)





RAIL SECTION PROPERTIES	
PROPERTY	VALUE
TOTAL CROSS-SECTIONAL AREA	0.363 in^2
SECTION MODULUS (X-AXIS)	0.136 in^3
MOMENT OF INERTIA (X-AXIS)	0.124 in^4
MOMENT OF INERTIA (Y-AXIS)	0.032 in^4
TORSIONAL CONSTANT	0.076 in^3
POLAR MOMENT OF INERTIA	0.033 in^4

APPROVED MATERIALS:
6005-T6, 6005A-T61, 6105-T5, 6N01-T6
(34,000 PSI YIELD STRENGTH MINIMUM)

*DOMESTIC EQUIVALENT PRESENT IN EITHER LOCATION OF RAIL

PART NUMBER	FINISH	DESCRIPTION / LENGTH	MATERIAL	WEIGHT
XR-10-168M-US	MILL	XR10, Rail 168" (14 Feet) - US	6000 - SERIES ALUMINUM	5.95 lbs.
XR-10-168B-US	BLACK	XR10, Rail 168" (14 Feet) - US		5.95 lbs.

v1.0

SCALE: NTS

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	D2 | 140
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925	
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026	
			REVISION:	A	

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CR-11 CGL017824521

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Powerwall 3 Technical Specifications

System Technical Specifications

Model Number	1707000-xx-y			
Nominal Grid Voltage (Input & Output)	120/240 VAC			
Grid Type	Split phase			
Frequency	60 Hz			
Nominal Battery Energy	13.5 kWh AC[1]			
Nominal Output Power (AC)	5.8 kW	7.6 kW	10 kW	11.5 kW
Maximum Apparent Power	5,800 VA	7,600 VA	10,000 VA	11,500 VA
Maximum Continuous Current	24 A	31.7 A	41.7 A	48 A
Overcurrent Protection Device[2]	30 A	40 A	60 A	60 A
Configurable Maximum Continuous Discharge Power Off-Grid (PV Only, -20°C to 25°C)	15.4 kW[3]			
Maximum Continuous Charge Current / Power (Powerwall 3 only)	20.8 A AC / 5 kW			
Maximum Continuous Charge Current / Power (Powerwall 3 with up to (3) Expansion units)	33.3 A AC / 8 kW			
Output Power Factor Rating	0 - 1 (Grid Code configurable)			
Maximum Output Fault Current (1 s)	160 A			
Maximum Short-Circuit Current Rating	10 kA			
Load Start Capability	185 LRA			
Solar to Battery to Home/Grid Efficiency	89%[1,4]			
Solar to Home/Grid Efficiency	97.5%[5]			
Power Scalability	Up to 4 Powerwall 3 units supported			
Energy Scalability	Up to 3 Expansion units (for a maximum total of 7 units)			
Supported Islanding Devices	Gateway 3, Backup Switch, Backup Gateway 2			
Connectivity	Wi-Fi (2.4 and 5 GHz), Ethernet, Cellular (LTE/4G[6])			
Hardware Interface	Dry contact relay, Rapid Shutdown (RSD) certified switch and 2-pin connector, RS-485 for meters			
AC Metering	Revenue Grade (+/- 0.5%, ANSI C12.20)			
Protections	Integrated arc fault circuit interrupter (AFCI), Isolation Monitor Interrupter (IMI), PV Rapid Shutdown (RSD) using Tesla Mid-Circuit Interrupters			
Customer Interface	Tesla Mobile App			
Warranty	10 years			

[1] Values provided for 25°C (77°F), at beginning of life. 3.3 kW charge/discharge power.

[2] See Powerwall 3 Installation Manual for fuse requirements if using fuse for overcurrent protection.

[3] 15.4kW off-grid maximum continuous discharge power is only available if on-grid rating is 11.5 kW. If enabled, Powerwall 3 must be installed with an 80 A breaker and appropriately sized conductors.

[4] Typical solar shifting use case.

[5] Tested using CEC weighted efficiency methodology.

[6] The customer is expected to provide internet connectivity for Powerwall 3; cellular should not be used as the primary mode of connectivity. Cellular connectivity subject to network operator service coverage and signal strength.

Powerwall 3 Technical Specifications

Solar Technical Specifications

Maximum Solar STC Input	20 kW
Withstand Voltage	600 V DC
PV DC Input Voltage Range	60 — 550 V DC
PV DC MPPT Voltage Range	60 — 480 V DC
MPPTs	6
Maximum Current per MPPT (I_{mp})	15 A[7,8]
Maximum Short Circuit Current per MPPT (I_{sc})	19 A[8]

[7] Only applicable to Powerwall 3 units with 15 A I_{mp} on the product label. Otherwise, Powerwall 3 has an I_{mp} of 13 A.

[8] When PV strings are combined on the roof and the DC input current exceeds the MPPT rating, a jumper can be used to combine two MPPTs into a single input to intake DC current up to 30 A I_{mp} / 38 A I_{sc} (or 26 A I_{mp} / 30 A I_{sc} if Powerwall 3 is labeled with 13 A I_{mp} / 15 A I_{sc}).

Environmental Specifications

Operating Temperature	–20°C to 50°C (–4°F to 122°F)[9]
Operating Humidity (RH)	Up to 100%, condensing
Storage Temperature	–20°C to 30°C (–4°F to 86°F), up to 95% RH, non-condensing, State of Energy (SOE): 25% initial
Maximum Elevation	3000 m (9843 ft)
Environment	Indoor and outdoor rated
Enclosure Rating	NEMA 3R
Ingress Rating	IP67 (Battery & Power Electronics) IP55 (Wiring Compartment)
Pollution Rating	PD3
Operating Noise @ 1 m	< 50 db(A) typical < 62 db(A) maximum

[9] Performance may be de-rated at operating temperatures above 40°C (104°F).

Compliance Information

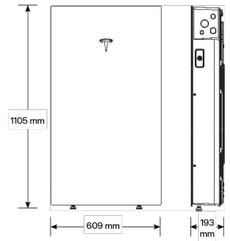
Certifications	UL 1741, UL 9540, UL 9540A, UL 3741, UL 1741 PCS, UL 1741 SA, UL 1741 SB, UL 1973, UL 1699B, UL 1998, CSA C22.2 No. 0.8, CSA C22.2 No. 107.1, CSA C22.2 No. 330, CSA 22.3 No. 9, IEEE 1547, IEEE 1547A, IEEE 1547.1, CA Rule No.21
Grid Connection	United States and Canada
Emissions	FCC Part 15 Class B, ICES 003
Environmental	RoHS Directive 2011/65/EU
Seismic	AC156, IEEE 693-2005 (high)
Fire Testing	Meets the unit level performance criteria of UL 9540A

Powerwall 3 Technical Specifications

Mechanical Specifications

Dimensions	1105 x 609 x 193 mm (43.5 x 24 x 7.6 in)[10]
Total Weight of Installed Unit	132 kg (291.2 lb)
Weight of Powerwall 3	124 kg (272.5 lb)
Weight of Glass Front Cover	6.5 kg (14.5 lb)
Weight of Wall Bracket	1.9 kg (4.2 lb)
Mounting Options	Floor or wall mount

[10] These dimensions include the glass front cover being installed on Powerwall 3.



Solar Shutdown Device Technical Specifications

The Solar Shutdown Device is a Mid-Circuit Interrupter (MCI) and is integral to the rapid shutdown (RSD) function required for rooftop PV systems in accordance with Article 690 of the NEC. When paired with Powerwall 3, solar array shutdown is initiated by an External System Shutdown Switch or the On/Off Enable switch located on Powerwall 3. Systems not subject to rapid shutdown requirements must still install one or more MCIs for functional purposes; see the Powerwall 3 installation manual for details.

Electrical Specifications

Model	**MCI-1**	**MCI-2**	**MCI-2 High Current**
Nominal Input DC Current Rating (I_{MP})	13 A	13 A	15 A
Maximum Input Short Circuit Current (I_{SC})	19 A	17 A	19 A
Maximum System Voltage	600 V DC	1000 V DC[11]	1000 V DC[11]
Maximum Disconnect Voltage[12]	600 V DC	165 V DC	165 V DC

[11] Maximum System Voltage is limited by Powerwall to 600 V DC.

[12] Maximum Disconnect Voltage is the maximum voltage allowed across each MCI in the open position (Rapid Shutdown Initiated). An individual MCI-2 has a voltage rating of 165V but in combination (connected in the same string) their voltage ratings are additive.

RSD Module Performance

Maximum Number of Devices per String	5
Control	Power Line Excitation
Passive State	Normally Open
Maximum Power Consumption	7 W
Warranty	25 years

Environmental Specifications

Operating Temperature	–40°C to 50°C (–40°F to 122°F)	–45°C to 70°C (–49°F to 158°F)
Storage Temperature	–30°C to 70°C (–22°F to 158°F)	–30°C to 70°C (–22°F to 158°F)
Enclosure Rating	NEMA 4X / IP65	

Mechanical Specifications

Electrical Connections	MC4 Connector	
Housing	Plastic	
Dimensions	125 x 150 x 22 mm (5 x 6 x 1 in)	173 x 45 x 22 mm (6.8 x 1.8 x 1 in)
Weight	350 g (0.77 lb)	120 g (0.26 lb)
Mounting Options	ZEP Home Run Clip M4 Screw (#10) M8 Bolt (5/16") Nail / Wood screw	Wire Clip

Compliance Information

Certifications	UL 1741 PVRSE, UL 3741, PVRSA (Photovoltaic Rapid Shutdown Array)
RSD Initiation Method	External System Shutdown Switch or Powerwall 3 Enable Switch

UL 3741 PV Hazard Control (and PVRSA) Compatibility — See UL 3741 Application Addendum

SCALE: NTS

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	SHEET # D3 | 141
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925	
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026	
			REVISION:	A	

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AZ ROC #326376
CR-11 CGL017824521

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Powerwall 3 Expansion Technical Specifications

Battery Technical Specifications

Model Number	1807000-xx-y
Nominal Battery Energy	13.5 kWh
Voltage Range	52 - 92 V DC[11]

[11] Powerwall 3 Expansion units are connected in parallel and are not field serviceable.

Environmental Specifications

Operating Temperature	–20°C to 50°C (–4°F to 122°F)[12]
Operating Humidity (RH)	Up to 100%, condensing
Storage Temperature	–20°C to 30°C (–4°F to 86°F), up to 95% RH, non-condensing, State of Energy (SOE): 25% initial
Maximum Elevation	3000 m (9843 ft)
Environment	Indoor and outdoor rated
Enclosure Rating	NEMA 3R
Ingress Rating	IP67
Pollution Rating	PD3

[12] Performance may be de-rated at operating temperatures above 40°C (104°F).

Compliance Information

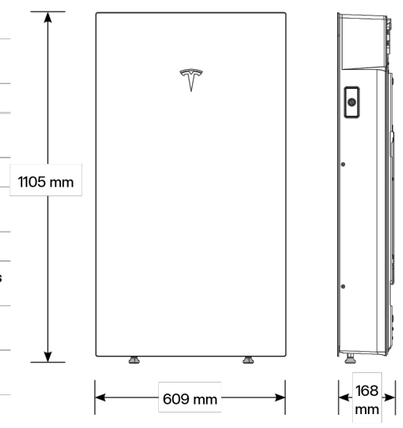
Certifications	UL 1973, UL 9540

Mechanical Specifications

Dimensions	1105 x 609 x 168 mm (43.5 x 24 x 6.6 in)[13]
Total Weight of Wall-Mounted Expansion Unit	118.5 kg (261.2 lb)
Weight of Expansion Unit	110 kg (242.5 lb)
Weight of Glass Front Cover	6.5 kg (14.5 lb)
Weight of Wall Bracket	1.9 kg (4.2 lb)
Weight of Expansion Accessories	0.7 kg (1.5 lb)
Mounting Options	Floor or wall mount
Stacking Capability (Floor Mount Only)	Up to (3) Expansion units behind a Powerwall 3
Compatibility with Other Systems	Only compatible with Powerwall 3
Connection to Powerwall 3 or Expansions	Powerwall 3 Expansion harness[14]

[13] These dimensions include the glass front cover being installed on Powerwall 3 Expansion.

[14] The Powerwall 3 Expansion harness is a listed component of the UL 9540 certification.



SCALE: NTS

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		SUNLINK ENERGY	SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	1355 N MONDEL GILBERT, AZ 85233 (480) 624-8105 AZ ROC #326376 CR-11 CGL017824521	D4 142
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925		
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026		
			REVISION:	A		

DATASHEET

MILBANK
ENERGY AT WORK

U5929-XL-INS



Catalog Number	U5929-XL-INS
Marketing Product Description	4 Terminal Ring Type Small Closing Plate Insulated Barrier
UPC	784572629288
Length (IN)	3.313
Width (IN)	8
Height (IN)	11.5
Brand Name	Milbank
Type	Ring Type Meter Socket
Application	Meter Socket
Standard	UL Listed;Type 3R
Voltage Rating	600 Volts Alternating Current
Amperage Rating	100 Continuous Ampere
Phase	1 Phase
Frequency Rating	60 Hertz
Size	3.313L x 8W x 11.5H
Number Of Cutouts	0
Cutout Size	No Main Breaker
Cable Entry	Overhead or Underground
Terminal	Single Mechanical
Insulation	Glass Polyester
Mounting	Surface Mount
Enclosure	G90 Galvanized Steel with Powder Coat Finish

Jaw Quantity	4 Terminal
Bypass Type	No Bypass
Number of Meter Positions	1 Position
Equipment Ground	Ground Bar
Hub Opening	Small Closing Plate
Line Side Wire Range	12 - 1/0 AWG
Load Side Wire Range	12 - 1/0 AWG
Number Of Receptacles	0

Please consult serving utility for their requirements prior to ordering or installing, as specifications and approvals vary by utility and may require local electrical inspector approval. All installations must be installed by a licensed electrician and must comply with all national and local codes, laws and regulations. Milbank reserves the right to make changes in specifications and features shown without notice or obligation.

SCALE: NTS

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	SHEET #
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925	D5
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026	143
			REVISION:	A	

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GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

DATASHEET

Product Specifications

General Duty 60A, 240V, Type 3R

General Information

Catalog Number	Amps	Volts	Description	Shipping Weight (lbs.) [1]
GNF222RLZA	60	240	2 Pole, Non-Fusible	20

Horsepower Ratings – 240 Volts

Catalog Number	1 Phase, 240V AC	3 Phase, 240V AC	250V DC
GNF222RLZA	10	N/A	10

Mechanical Lug Wire Range[2]

Description	Wire Range with Wire Bending Space per NEC Requirements	Lug Wire Range
Line and Load Terminals	#14-6 AWG	#14-2 AWG

1 Package of 5.
2 See "Wire Torque Information" table for specific wire torque values.
3 Use closure plate screws provided to mount hubs.
4 Use Cu/Al 60°/75° C Wire.

Accessories and Hub Kits

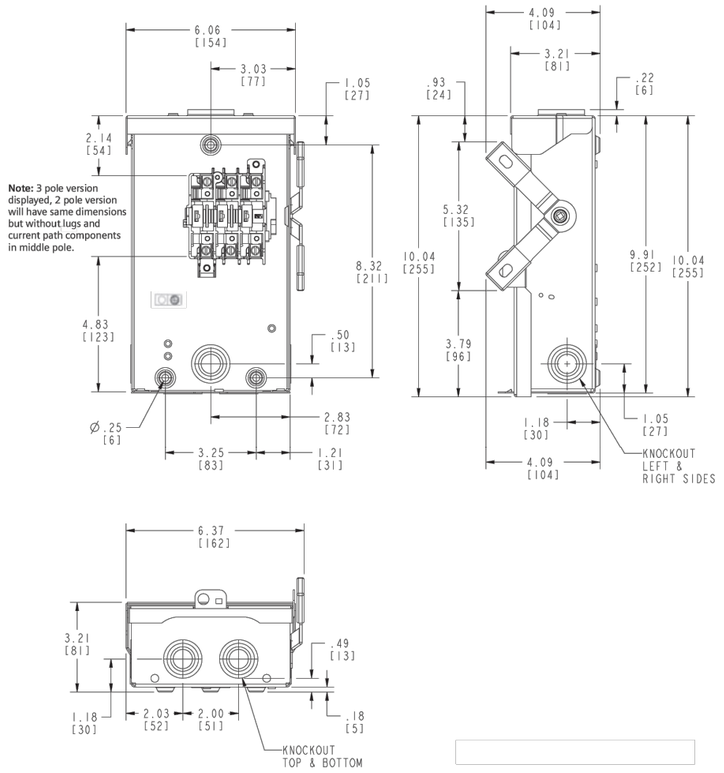
Catalog Number	Description
ECHA075 [3]	0.75" Type "HA" Outdoor Hub
ECHA100 [3]	1.00 " Type "HA" Outdoor Hub
ECHA125 [3]	1.25 " Type "HA" Outdoor Hub

Wire Torque Information

Application	Wire Size	Nominal Torque
Mechanical Lug Wire Connector [4]	14 -10 AWG	35 lb.-in.
	8 AWG	40 lb.-in.
	6 AWG	45 lb.-in.

Dimension Drawings

General Duty 60A, 240V, Type 3R



Note: 3 pole version displayed, 2 pole version will have same dimensions but without lugs and current path components in middle pole.

No knockouts in enclosures.
Dimensions shown in inches and millimeters ( ).
Dimension shown accurate to ± 1/8 inch.

KNOCKOUT CODE	CONDUIT SIZE
A (Concentric)	.50 .75 1.00

LINE SIDE WIRE BEND	LOAD SIDE WIRE BEND
2"	2"

Enclosure: Cold Rolled Steel
0.45 Thick (17 Gauge)
Finish: ANSI #61 Grey Paint

Published by
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Siemens Industry, Inc.
3617 Parkway Ln
Peachtree Corners, GA 30092

For more information, please contact our Customer Support Center.
Phone: 1-800-241-4453
E-mail: info.ipc.us@siemens.com
info.hmi.us@siemens.com

usa.siemens.com/switches

Order No.: SDS-GZ222R-1022
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SCALE: NTS

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES			
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	SUNLINK ENERGY	SHEET #
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925	1355 N MONDEL GILBERT, AZ 85233 (480) 624-8105 AZ ROC #326376 CR-11 CGL017824521	D6
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026		144
			REVISION:	A		

DATASHEET

Gateway 3

—

Tesla Gateway 3 controls connection to the grid in a Powerwall system, automatically detecting outages and providing seamless transition to backup power. It provides energy monitoring that is used by Powerwall for solar self-consumption, time-based control, and backup operation.

Performance Specifications

Model Number	1841000-x1-y
Nominal Grid Voltage	120/240 V AC
Grid Configuration	Split phase
Grid Frequency	60 Hz
Continuous Current Rating	200 A
Maximum Supply Short Circuit Current	22 kA with Square D or Eaton main breaker 25 kA with Eaton main breaker[1]
IEC Protective Class	Class I
Overvoltage Category	Category IV

[1]Only Eaton CSR or BWH main breakers are 25 kA rated

AC Meter	+/- 0.5%
Communication	CAN
User Interface	Tesla App
Backup Transition	Automatic disconnect for seamless backup
Overcurrent Protection Device	100–200 A Service entrance rated Eaton CSR, BWH, or BW, or Square D QOM breakers
Internal Panelboard	200 A 8-space/16 circuit breakers Eaton BR, Siemens QP, or Square D HOM breakers rated to 10–125A
Warranty	10 years

Environmental Specifications

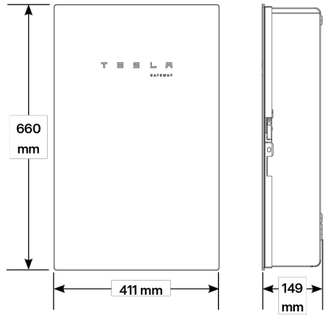
Operating Temperature	–20°C to 50°C (–4°F to 122°F)
Operating Humidity (RH)	Up to 100%, condensing
Maximum Elevation	3000 m (9843 ft)
Environment	Indoor and outdoor rated
Enclosure Type	NEMA 3R

Compliance Information

Certifications	UL 67, UL 869A, UL 916, UL 1741 PCS, CSA 22.2 107.1, CSA 22.2 29
Emmissions	FCC Part 15, Class B, ICES 003

Mechanical Specifications

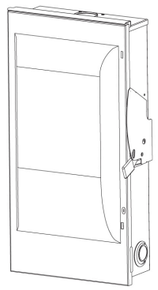
Dimensions	660 x 411 x 149 mm (26 x 16 x 6 in)
Weight	16.3 kg (36 lb)
Mounting options	Wall mount



SCALE: NTS

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES			SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W) INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4 BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DESIGNER	CSM	SUNLINK ENERGY 1355 N MONDEL GILBERT, AZ 85233 (480) 624-8105 AZ ROC #326376 CR-11 CGL017824521	D7 145
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253		PROJECT #	AZ1925		
APN	169-06-007D		DATE	April 7, 2026		
			REVISION:	A		

DATASHEET



General Duty Safety Switch

Type VBII, 200 Amp, 240 Volts, Type 3R (Outdoor)

Standards and Ratings
- UL Listed under file #E4776
- Meets UL98 for switches and UL 50 for enclosures
- Meets NEMA Standard KS-1 for enclosed switches
- Meets NEC wire bending space requirements
- Rated 10,000 AIC with Class H fuses or 100,000 AIC with Class R or T fuses
- Suitable for use as service entrance equipment

Features
- Quick-make and break switching action
- Double break visible blade design
- Highly visible ON/OFF indication
- Rugged installer friendly enclosure design
- Modular design allows quick and easy replacement of parts
- Single cover interlock

General Information

Catalog Number	Description	Shipping Weight (lbs.)
GF224NR [1]	2 Pole, 3 Wire, Fusible	48
GF324NR	3 Pole, 4 Wire, Fusible	50
GNF324R	3 Pole, 3 Wire, Non-Fusible	47

Horsepower Ratings [2]

Catalog Number	1 Phase, 3 Wire, 240V AC		3 Phase, 3 Wire, 240V AC		250V DC
	Std	Max	Std	Max	
GF224NR	15	—	25	60	40
GF324NR	15	—	25	60	40
GNF324R	—	15	—	60	40

Accessories

Catalog Number	Description
HG61234	Equipment Ground Lug Kit
HN64	Neutral Kit
HT24	Class T Fuse Clip Kit (1-Pole per kit) (GF224NR, GF324NR)
HR64	Class R Fuse Clip Kit (3 fuse clips per kit) (GF224NR, GF324NR)
H150	1.50" Type "HS" Outdoor Hub
H200	2.00" Type "HS" Outdoor Hub
H250	2.50" Type "HS" Outdoor Hub

Replacement Parts

Catalog Number	Description
HFB64	Fusible Line Side Replacement Base (GF224NR, GF324NR)
HBB64	Fusible Load Side Replacement Base (GF224NR, GF324NR)
HNB64	Non-Fusible Replacement Base (GNF324R)
GH24	Replacement Handle/Handle Guard
HM64	Replacement Mechanism
HL64	Replacement Lugs (3 lugs per kit)

Mechanical Lug Wire Ranges (60/75°C, Cu/Al)

Description	Wire Range
Line, Load, Neutral	#6 AWG - 300 Kcmil
Neutral Ground	#14-1/0 AWG
Ground Lug Kit	#14-4 AWG

[1] These switches are UL Listed for application on grounded B phase systems.
[2] Dual horsepower ratings: Std - applies when non-time delay fuses are installed. Max - applies when time-delay fuses are installed.

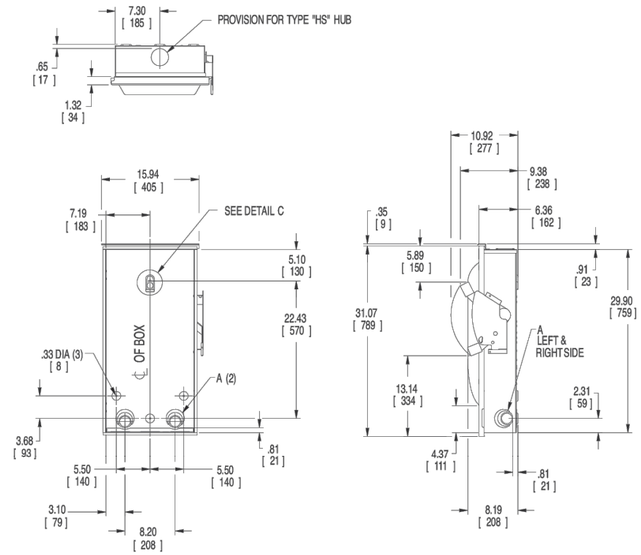
Product Specification Sheet GD200.2

Answers for industry.

SIEMENS

Product Specification Sheet #GD200.2 (page 2 of 2)

Dimension Drawing



Dimensions shown in inches and millimeters ( ).
Dimension shown accurate to ± 1/64 inch.

KNOCKOUT CODE	CONDUIT SIZE			
A (Tangential)	1.25	1.50	2.00	2.50

	LINE SIDE WIRE BEND	LOAD SIDE WIRE BEND
Fused	7.87 (200)	10.34 (263)
Non-Fused	7.87 (200)	15.84 (402)

Enclosure: Galvanized Steel
.054 Thick (17 Gauge)
Finish: ANSI Grey #61 Paint

Siemens Industry, Inc.
Building Technologies Division
5400 Triangle Parkway
Norcross, GA 30092
1-800-964-4114

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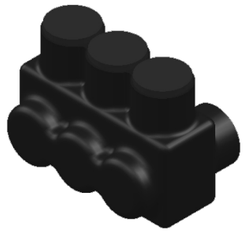
www.usa.siemens.com/switches

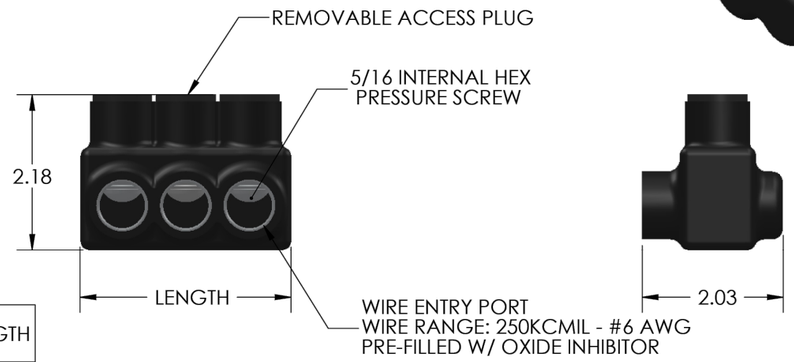
SCALE: NTS

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC			
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	[N] Tesla TSP-420 QTY: 142 (420W) INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	DESIGNER	CSM	D2 146
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	PROJECT #	AZ1925	
			DATE	April 7, 2026	
			REVISION:	A	

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

DATASHEET





IPL250-3 SHOWN

PART NUMBER	NO. OF PORTS	LENGTH
IPL250-3	3	2.93
IPL250-4	4	3.80
IPL250-5	5	4.66
IPL250-6	6	5.22
IPL250-8	8	7.24
IPL250-10	10	8.97

NOTES:
1. CONNECTOR MANUFACTURED FROM 6061-T6 ALUMINUM ALLOY.
2. UL LISTED PER UL486A/B SPECIFICATIONS FOR 600V.
3. DUAL RATED FOR 90°C COPPER AND/OR ALUMINUM CONDUCTOR.
4. COLD TEMPERATURE RATED TO -45°C.
5. HIGH DIELECTRIC STRENGTH INSULATION IS ABRASION, CHEMICAL AND UV RESISTANT.

CONTACT NSi FOR SALES @ 800.321.5847

POLARIS SALES . CO . INC

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NAME / DATE	DWG. NO. IPL250-
DRAWN BY: S.PARRY / 06/2012	
MATERIAL: N/A	SCALE: *N/A* / SHEET: 1 OF 1

POLARIS BLACK SPECIFICATIONS

Wire/Cable Class
Use with Class B and C conductors

Dual Rated
Aluminum, Copper

Maximum Voltage
600V

Location
Dry locations only

Operating Temperature Rating
-45°C to 90°C (-49°F to 194°F)

Temperature Rating
-45°C to 90°C (-49°F to 194°F)

Material
6061-T6 aluminum alloy

Insulated with high dielectric strength plastisol for increased chemical and abrasion protection

WIRE CONNECTOR c UL us LISTED

SINGLE-SIDE ENTRY

CATALOG NUMBER	WIRE RANGE (Kcmil/AWG)	PORTS	LENGTH (IN.)	WIDTH (IN.)	HEIGHT (IN.)	MAX AMP (ALUM-COPP)	HEX KEY (IN.)
IT-4	4 - 14	2	1.21	1.24	1.36	75-95	1/8
IPL4-3		3	1.63	1.24	1.36	75-95	1/8
IPL4-4		4	2.06	1.24	1.36	75-95	1/8
IPL4-5		5	2.48	1.24	1.36	75-95	1/8
IPL4-6		6	2.90	1.24	1.36	75-95	1/8
IPL4-8		8	3.74	1.24	1.36	75-95	1/8
IPL4-10		10	4.59	1.24	1.36	75-95	1/8
IT-2	2 - 14	2	1.32	1.24	1.39	100-130	5/32
IT-1/0	1/0 - 14	2	1.68	1.55	1.74	135-170	3/16
IPL1/0-3		3	2.33	1.55	1.74	135-170	3/16
IPL1/0-4		4	2.98	1.55	1.74	135-170	3/16
IPL1/0-5		5	3.63	1.55	1.74	135-170	3/16
IPL1/0-6		6	4.28	1.55	1.74	135-170	3/16
IPL1/0-8		8	5.58	1.55	1.74	135-170	3/16
IT-2/0	2/0 - 14	2	1.78	1.55	1.77	150-195	3/16
IT-3/0	3/0 - 6	2	1.93	1.60	1.83	175-225	1/4
IPL3/0-3		3	2.71	1.60	1.83	175-225	1/4
IPL3/0-4		4	3.49	1.60	1.83	175-225	1/4
IPL3/0-5		5	4.27	1.60	1.83	175-225	1/4
IPL3/0-6		6	5.05	1.60	1.83	175-225	1/4
IPL250-3	250 - 6	3	3.01	2.01	2.29	230-290	5/16
IPL250-4		4	3.88	2.01	2.29	410-527	5/16
IPL250-5		5	4.74	2.01	2.29	410-527	5/16
IPL250-6		6	5.60	2.01	2.29	615-790	5/16
IPL250-8		8	7.32	2.01	2.29	820-1053	5/16
IPL350-3	350 - 10	3	3.55	2.13	2.68	280-350	5/16
IPL350-4		4	4.60	2.13	2.68	514-657	5/16
IPL350-5		5	5.65	2.13	2.68	514-657	5/16
IPL350-6		6	6.70	2.13	2.68	770-985	5/16
IPL350-8		8	8.80	2.13	2.68	1028-1314	5/16
IPL500-3	500 - 4	3	4.04	2.50	2.95	350-430	5/16
IPL500-4		4	5.19	2.50	2.95	631-806	5/16
IPL500-5		5	6.33	2.50	2.95	631-806	5/16
IPL500-6		6	7.48	2.50	2.95	946-1209	5/16
IPL500-8		8	9.77	2.50	2.95	1262-1612	5/16
IPL600-3	600 - 6	3	4.50	2.83	3.32	385-475	5/16
IPL600-4		4	5.80	2.83	3.32	810-1035	5/16
IPL600-6		6	8.40	2.83	3.32	1215-1554	5/16
IPL750-3*	750 - 1/0	3	4.90	2.75	3.46	385-475	3/8
IPL750-4*		4	6.33	2.75	3.46	930-1178	3/8

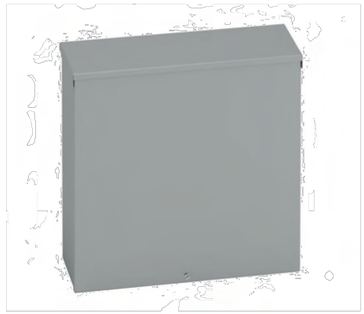
SCALE: NTS

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	SUNLINK ENERGY 1355 N MONDEL GILBERT, AZ 85233 (480) 624-8105 AZ ROC #326376 CR-11 CGL017824521
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925	
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026	
			REVISION:	A	

SHEET # D 147

DATASHEET

Junction Boxes
Type 3R Screw Cover - Painted & Galvanized
Data and Illustration Sheet



Application
- Used as wiring boxes, junction and pull boxes
- Protects against falling rain, sleet and external ice formation

Standards
- UL 50 listed, Type 3R
- CSA C22.2 No. 40 certified, Type 3R
- Conforms to NEMA standard for Type 3R

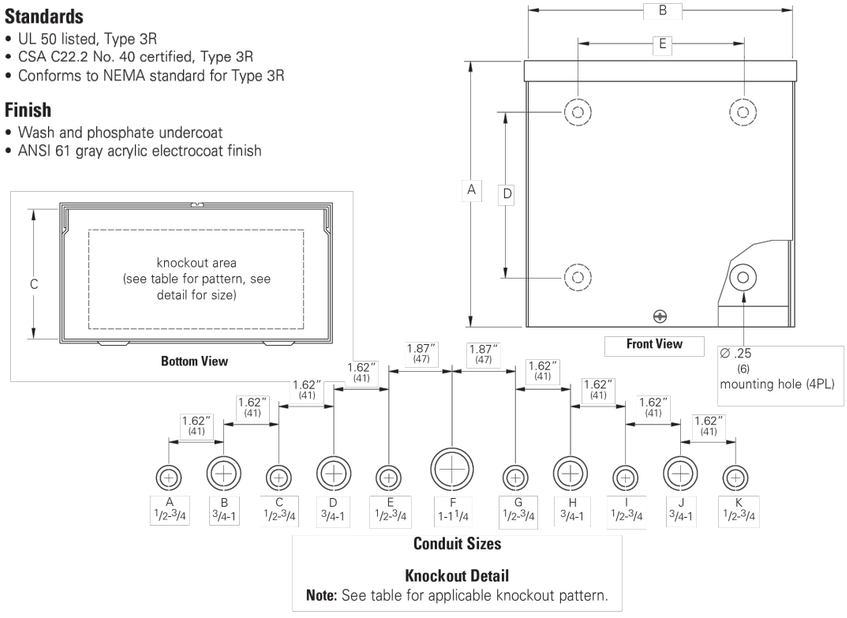
Finish
- Wash and phosphate undercoat
- ANSI 61 gray acrylic electrocoat finish

Accessories
- Touch-up paint
- See Accessories section

Construction
- Enclosure and cover are fabricated from code gauge galvaneal steel for painted or galvanized steel, (see table, page 57)
- Enclosure body has embossed mounting holes on the back
- Available with or without knockouts on the bottom end of enclosures less than 30 inches wide
- Cover is held secure by sliding it under the top end flange and fastening it with plated screws on the bottom end flange, (larger sizes use two studs and wing nuts)

Discount Schedule: A2

Subclass: AS0 & Z60



Conduit Sizes

Knockout Detail

Note: See table for applicable knockout pattern.

Notes: We can provide special sizes, finishes and other modifications. Consult the factory for your special requirements.
Dimensions are in inches. Millimeters shown are for reference only. Data subject to change without notice.

Junction Boxes - Type 3R Screw Cover - Painted & Galvanized
Catalog Number Subclass: AS0 (painted) & Z60 (galvanized)

Enclosure Catalog Number				Enclosure Size Height x Width x Dept A x B x C		D		E			Knockout Pattern
Painted		Galvanized									
KO	No KO	KO	No KO	in.	mm	in.	mm	in.	mm	Gauge	Bottom
444 RTSC	444 RTSC NK	444 RTSCGV	--	4.00 x 4.00 x 4.00	102 x 102 x 102	1.50	38	1.81	46	16	(C)(D)
644 RTSC	644 RTSC NK	--	--	6.00 x 4.00 x 4.00	152 x 102 x 102	3.50	89	1.81	46	16	(C)(D)
664 RTSC	664 RTSC NK	664 RTSCGV	664 RTSCGV NK	6.00 x 6.00 x 4.00	152 x 152 x 102	3.50	89	3.81	97	16	(C)(D)(E)
864 RTSC	864 RTSC NK	--	--	8.00 x 6.00 x 4.00	203 x 152 x 102	5.50	140	3.81	97	16	(C)(D)(E)
884 RTSC	884 RTSC NK	884 RTSCGV	884 RTSCGV NK	8.00 x 8.00 x 4.00	203 x 203 x 102	5.50	140	5.81	148	16	(G)(H)(I)(J)
1084 RTSC	1084 RTSC NK	--	--	10.00 x 8.00 x 4.00	254 x 203 x 102	7.50	191	5.81	148	16	(G)(H)(I)(J)
10104 RTSC	10104 RTSC NK	10104 RTSCGV	10104 RTSCGV NK	10.00 x 10.00 x 4.00	254 x 254 x 102	7.50	191	7.81	198	16	(D)(E)(F)(G)(H)
1284 RTSC	1284 RTSC NK	--	--	12.00 x 8.00 x 4.00	305 x 203 x 102	9.50	241	5.81	148	16	(G)(H)(I)(J)
12104 RTSC	12104 RTSC NK	--	--	12.00 x 10.00 x 4.00	305 x 254 x 102	9.50	241	7.81	198	16	(D)(E)(F)(G)(H)
12124 RTSC	12124 RTSC NK	12124 RTSCGV	12124 RTSCGV NK	12.00 x 12.00 x 4.00	305 x 305 x 102	9.50	241	9.81	249	16	(D)(E)(F)(G)(H)
15124 RTSC	--	--	--	15.00 x 12.00 x 4.00	381 x 305 x 102	12.50	318	9.81	249	16	(D)(E)(F)(G)(H)
16124 RTSC	16124 RTSC NK	--	--	16.00 x 12.00 x 4.00	406 x 305 x 102	13.50	343	9.81	249	16	(D)(E)(F)(G)(H)
16164 RTSC	16164 RTSC NK	--	--	16.00 x 16.00 x 4.00	406 x 406 x 102	13.50	343	13.81	351	16	(C)(D)(E)(F)(G)(H)(I)
18124 RTSC	--	--	--	18.00 x 12.00 x 4.00	457 x 305 x 102	15.50	394	9.81	249	16	(D)(E)(F)(G)(H)
18184 RTSC	18184 RTSC NK	--	--	18.00 x 18.00 x 4.00	457 x 457 x 102	15.50	394	15.81	402	16	(B)(C)(D)(E)(F)(G)(H)(I)(J)
24244 RTSC	24244 RTSC NK	--	--	24.00 x 24.00 x 4.00	610 x 610 x 102	21.50	546	21.56	548	14	(B)(C)(D)(E)(F)(G)(H)(I)(J)
666 RTSC	666 RTSC NK	666 RTSCGV	666 RTSCGV NK	6.00 x 6.00 x 6.00	152 x 152 x 152	3.50	89	3.81	97	16	(C)(D)(E)
866 RTSC	866 RTSC NK	--	--	8.00 x 6.00 x 6.00	203 x 152 x 152	5.50	140	3.81	97	16	(C)(D)(E)
886 RTSC	886 RTSC NK	886 RTSCGV	886 RTSCGV NK	8.00 x 8.00 x 6.00	203 x 203 x 152	5.50	140	5.81	148	16	(G)(H)(I)(J)
1086 RTSC	1086 RTSC NK	--	--	10.00 x 8.00 x 6.00	254 x 203 x 152	7.50	191	5.81	148	16	(G)(H)(I)(J)
10106 RTSC	10106 RTSC NK	10106 RTSCGV	10106 RTSCGV NK	10.00 x 10.00 x 6.00	254 x 254 x 152	7.50	191	7.81	198	16	(D)(E)(F)(G)(H)
1286 RTSC	--	--	--	12.00 x 8.00 x 6.00	305 x 203 x 152	9.50	241	5.81	148	16	(G)(H)(I)(J)
12106 RTSC	12106 RTSC NK	--	--	12.00 x 10.00 x 6.00	305 x 254 x 152	9.50	241	7.81	198	16	(D)(E)(F)(G)(H)
12126 RTSC	12126 RTSC NK	12126 RTSCGV	12126 RTSCGV NK	12.00 x 12.00 x 6.00	305 x 305 x 152	9.50	241	9.81	249	16	(D)(E)(F)(G)(H)
16126 RTSC	16126 RTSC NK	--	--	16.00 x 12.00 x 6.00	406 x 305 x 152	13.50	343	9.81	249	16	(D)(E)(F)(G)(H)
16166 RTSC	16166 RTSC NK	--	--	16.00 x 16.00 x 6.00	406 x 406 x 152	13.50	343	13.81	351	16	(C)(D)(E)(F)(G)(H)(I)
18126 RTSC	18126 RTSC NK	--	18126 RTSCGV NK	18.00 x 12.00 x 6.00	457 x 305 x 152	15.50	394	9.81	249	16	(D)(E)(F)(G)(H)
18186 RTSC	18186 RTSC NK	18186 RTSCGV	18186 RTSCGV NK	18.00 x 18.00 x 6.00	457 x 457 x 152	15.50	394	15.81	402	16	(B)(C)(D)(E)(F)(G)(H)(I)(J)
24126 RTSC	24126 RTSC NK	--	--	24.00 x 12.00 x 6.00	610 x 305 x 152	21.50	546	9.81	249	16	(D)(E)(F)(G)(H)
24186 RTSC	24186 RTSC NK	--	--	24.00 x 18.00 x 6.00	610 x 457 x 152	21.50	546	15.81	402	16	(B)(C)(D)(E)(F)(G)(H)(I)(J)
24246 RTSC	24246 RTSC NK	--	24246 RTSCGV NK	24.00 x 24.00 x 6.00	610 x 610 x 152	21.50	546	21.56	548	14	(B)(C)(D)(E)(F)(G)(H)(I)(J)
--	36366 RTSC NK	--	--	36.00 x 36.00 x 6.00	914 x 914 x 152	33.50	851	33.56	852	12	--
10108 RTSC	10108 RTSC NK	--	10108 RTSCGV NK	10.00 x 10.00 x 8.00	254 x 254 x 203	7.50	191	7.81	198	16	(D)(E)(F)(G)(H)
12128 RTSC	12128 RTSC NK	--	12128 RTSCGV NK	12.00 x 12.00 x 8.00	305 x 305 x 203	9.50	241	9.81	249	16	(D)(E)(F)(G)(H)
18128 RTSC	18128 RTSC NK	--	--	18.00 x 12.00 x 8.00	457 x 305 x 203	15.50	394	9.81	249	16	(D)(E)(F)(G)(H)
18188 RTSC	18188 RTSC NK	--	18188 RTSCGV NK	18.00 x 18.00 x 8.00	457 x 457 x 203	15.50	394	15.81	402	16	(B)(C)(D)(E)(F)(G)(H)(I)(J)
24168 RTSC	24168 RTSC NK	--	--	24.00 x 16.00 x 8.00	610 x 406 x 203	21.50	546	13.81	351	16	(C)(D)(E)(F)(G)(H)(I)
24188 RTSC	24188 RTSC NK	--	--	24.00 x 18.00 x 8.00	610 x 457 x 203	21.50	546	15.81	402	16	(B)(C)(D)(E)(F)(G)(H)(I)(J)
24248 RTSC	24248 RTSC NK	--	24248 RTSCGV NK	24.00 x 24.00 x 8.00	610 x 610 x 203	21.50	546	21.56	548	14	(B)(C)(D)(E)(F)(G)(H)(I)(J)
--	36368 RTSC NK	--	--	36.00 x 36.00 x 8.00	914 x 914 x 203	35.50	851	33.56	852	12	--
121210 RTSC	121210 RTSC NK	--	--	12.00 x 12.00 x 10.00	305 x 305 x 254	9.50	241	9.81	249	16	(D)(E)(F)(G)(H)
181210 RTSC	--	--	--	18.00 x 12.00 x 10.00	457 x 305 x 254	15.50	394	9.81	249	16	(D)(E)(F)(G)(H)
181810 RTSC	181810 RTSC NK	--	--	18.00 x 18.00 x 10.00	457 x 457 x 254	15.50	394	15.81	402	16	(B)(C)(D)(E)(F)(G)(H)(I)(J)
241810 RTSC	241810 RTSC NK	--	--	24.00 x 18.00 x 10.00	610 x 457 x 254	21.50	546	15.81	402	16	(B)(C)(D)(E)(F)(G)(H)(I)(J)
242410 RTSC	242410 RTSC NK	--	242410 RTSCGV NK	24.00 x 24.00 x 10.00	610 x 610 x 254	21.50	546	21.56	548	14	(B)(C)(D)(E)(F)(G)(H)(I)(J)
302410 RTSC	302410 RTSC NK	--	--	30.00 x 24.00 x 10.00	762 x 610 x 254	27.50	699	21.56	548	14	(B)(C)(D)(E)(F)(G)(H)(I)(J)
--	303010 RTSC NK	--	--	30.00 x 30.00 x 10.00	762 x 762 x 254	27.50	699	27.56	700	12	--
242412 RTSC	242412 RTSC NK	--	242412 RTSCGV NK	24.00 x 24.00 x 12.00	610 x 610 x 305	21.50	546	21.56	548	14	(B)(C)(D)(E)(F)(G)(H)(I)(J)
302412 RTSC	302412 RTSC NK	--	--	30.00 x 24.00 x 12.00	762 x 610 x 305	27.50	699	21.56	548	14	(B)(C)(D)(E)(F)(G)(H)(I)(J)
--	303012 RTSC NK	--	--	30.00x x 30.00 x 12.00	762 x 762 x 305	27.50	699	27.56	700	14	--
362412 RTSC	362412 RTSC NK	--	--	36.00 x 24.00 x 12.00	914 x 610 x 305	33.50	851	21.56	548	14	(B)(C)(D)(E)(F)(G)(H)(I)(J)
--	363012 RTSC NK	--	--	36.00 x 30.00 x 12.00	914 x 762 x 305	33.50	851	27.56	700	12	--
--	363612 RTSC NK	--	363612 RTSCGV NK	36.00 x 36.00 x 12.00	914 x 914 x 305	33.50	851	33.56	852	12	--

Notes: Dimensions are in inches. Millimeters shown are for reference only. Data subject to change without notice.

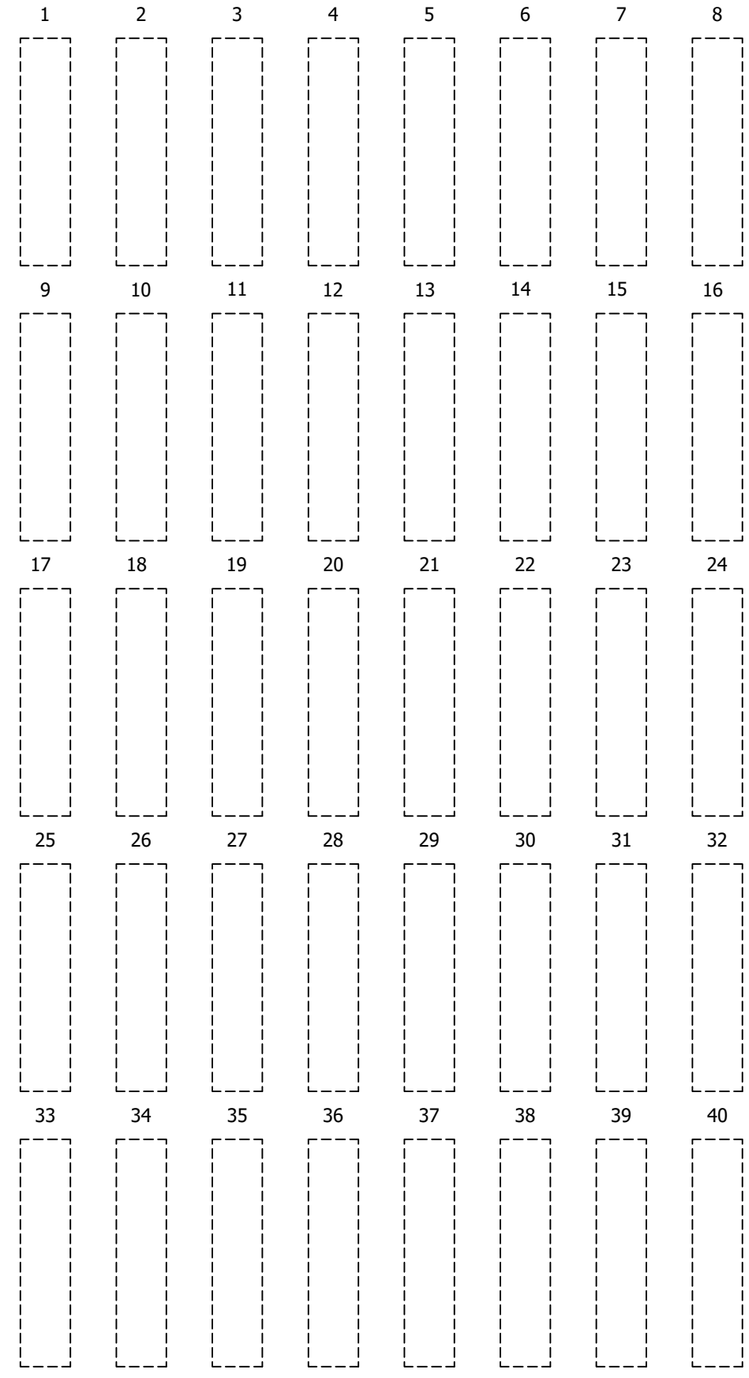
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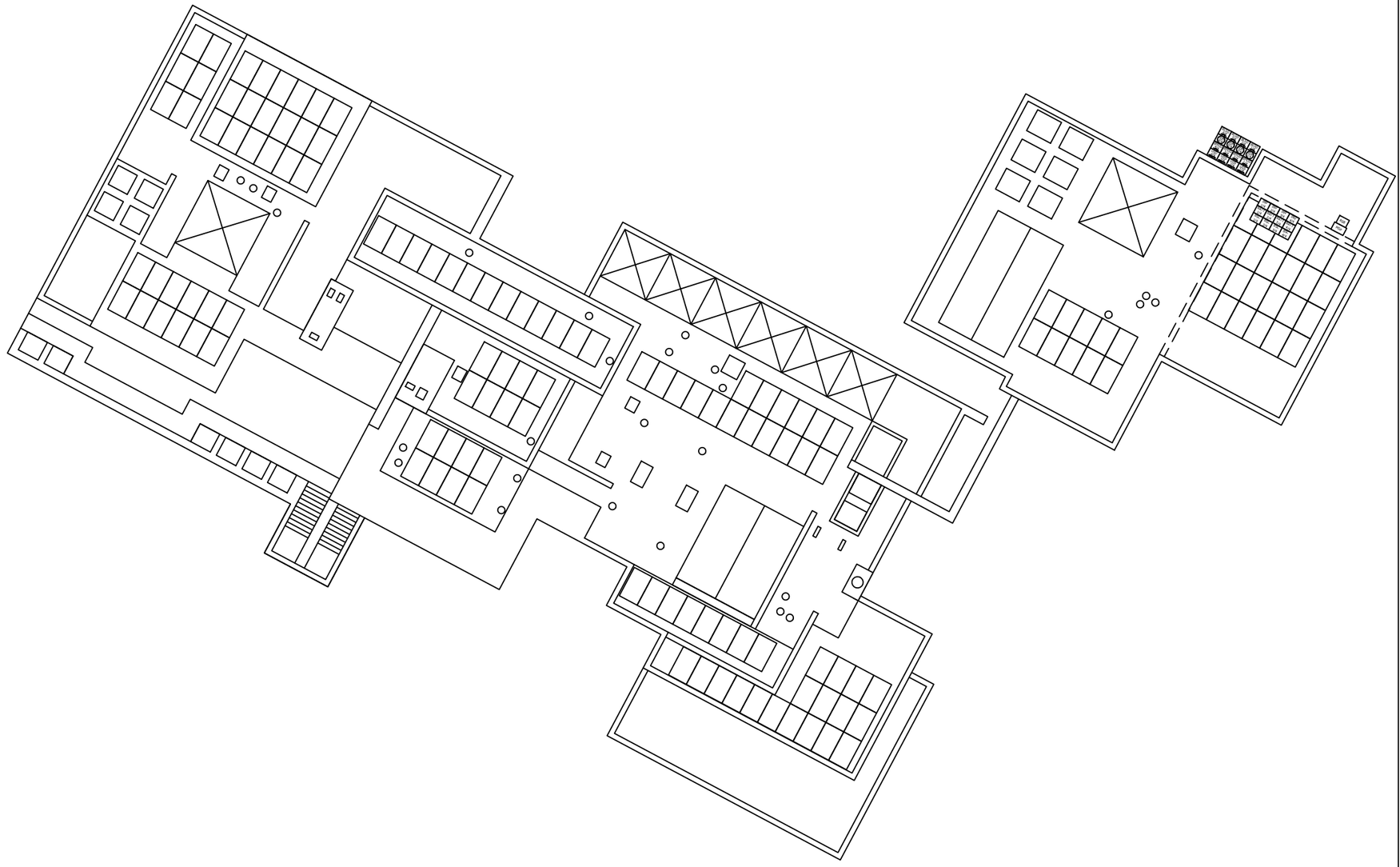
CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC			
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	[N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	
APN	169-06-007D	INVERTERS: [N] 46000 WATTS AC	PROJECT #	AZ1925	
		[N] TESLA 1707000-XX-Y QTY: 4	DATE	April 7, 2026	
		BATTERY: [N] 108000 Wh	REVISION:	A	
		[N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh			

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

SHEET # D10 148

MONITORING LABELS





N

CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES			SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)			1355 N MONDEL GILBERT, AZ 85233 (480) 624-8105 AZ ROC #326376 CR-11 CGL017824521	M 1 149
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	DESIGNER	CSM		
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	PROJECT #	AZ1925		
			DATE	April 7, 2026		
			REVISION:	A		

MONITORING LABELS

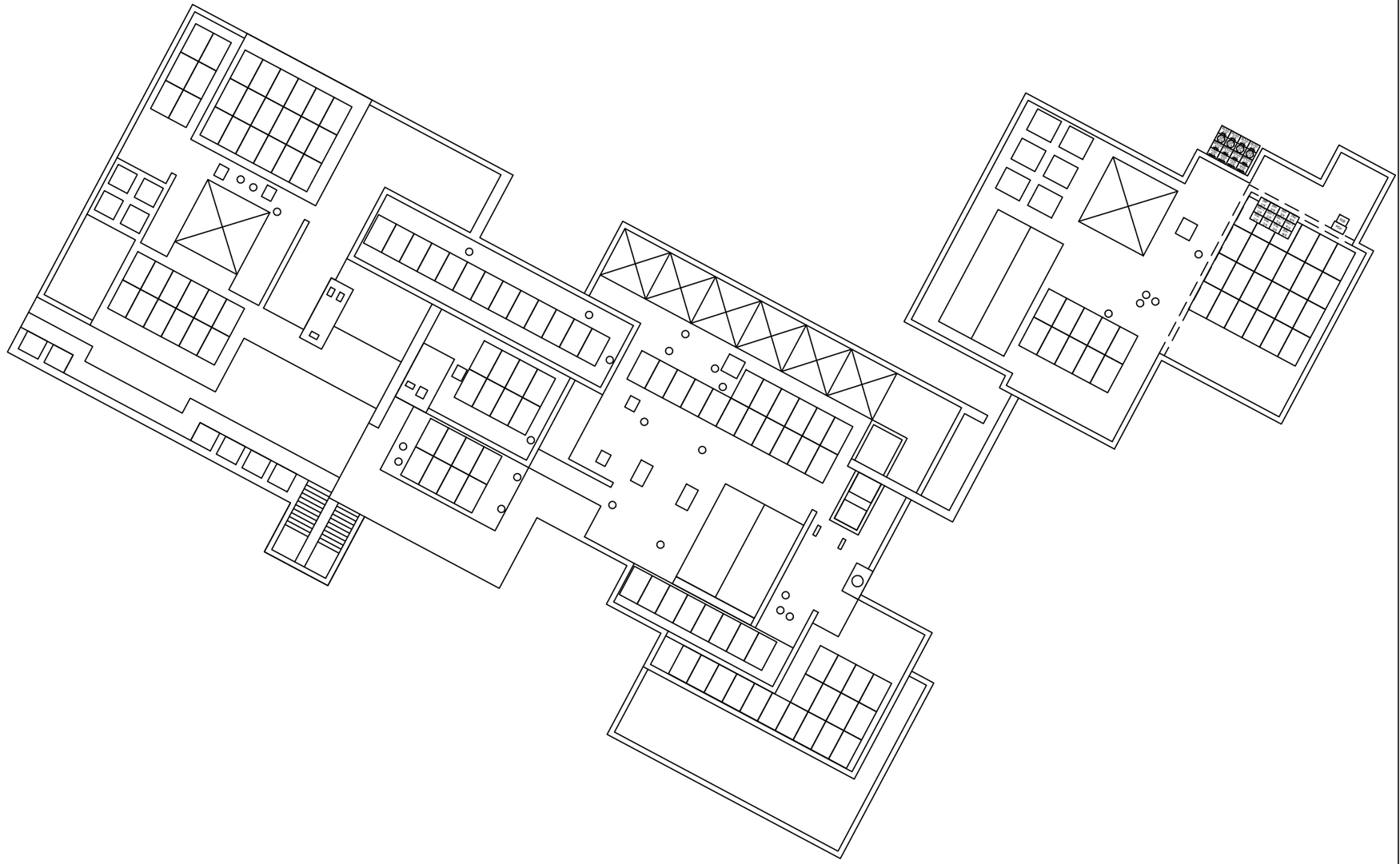
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CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)			
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	DESIGNER	CSM	M2
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	PROJECT #	AZ1925	150
			DATE	April 7, 2026	
			REVISION:	A	

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

MONITORING LABELS

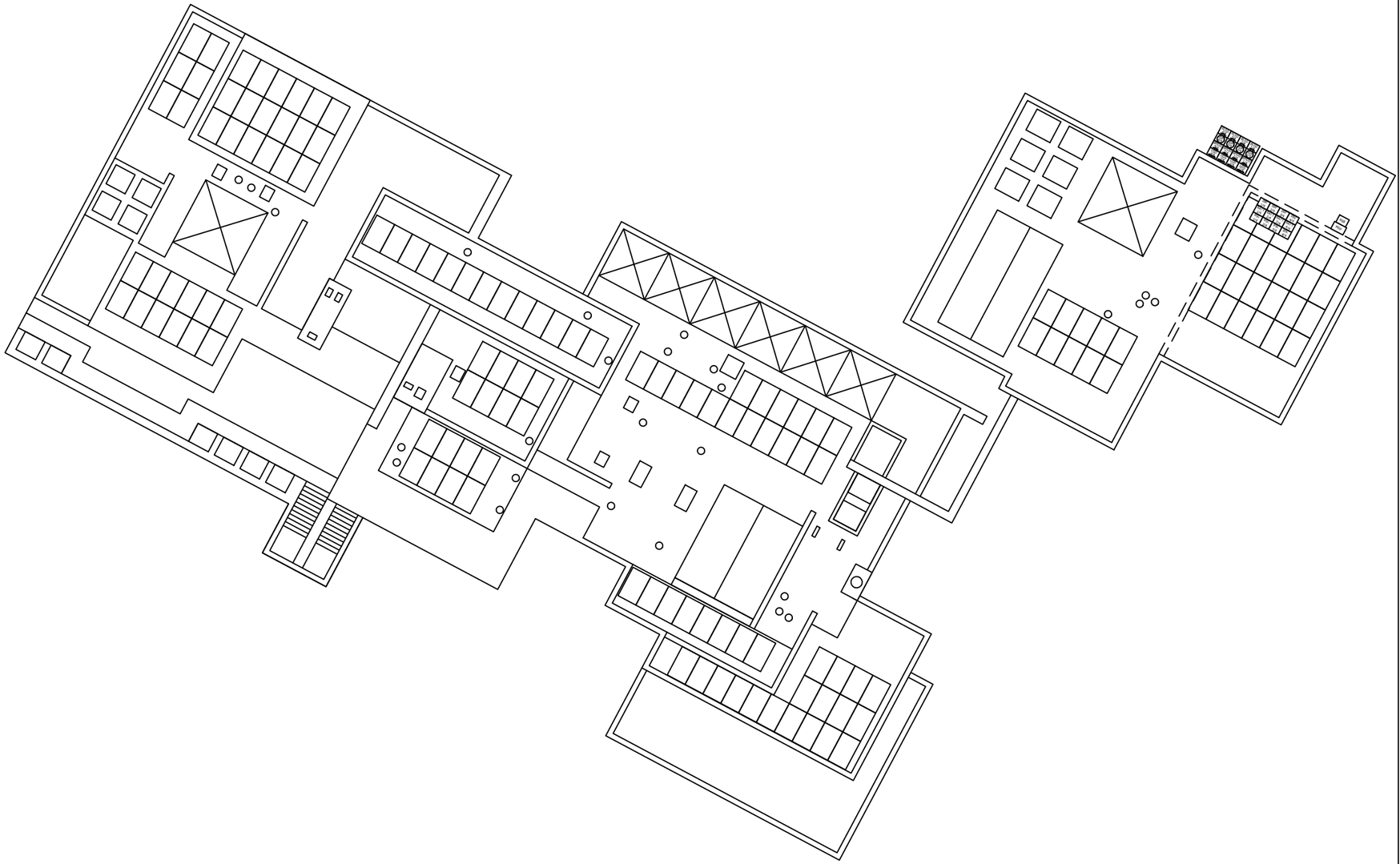
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CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)			
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	DESIGNER	CSM	
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	PROJECT #	AZ1925	M3 151
			DATE	April 7, 2026	
			REVISION:	A	

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521

MONITORING LABELS

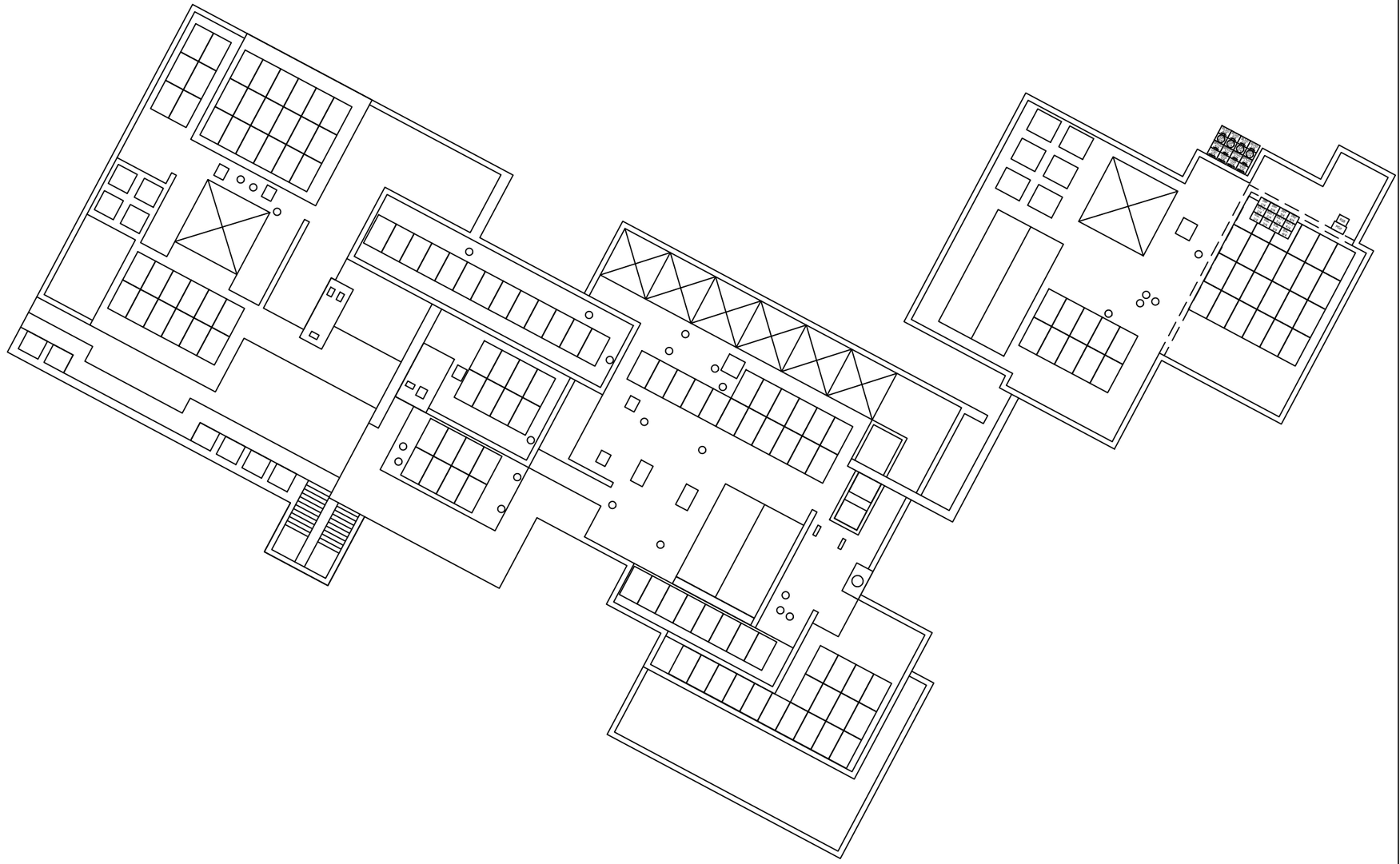
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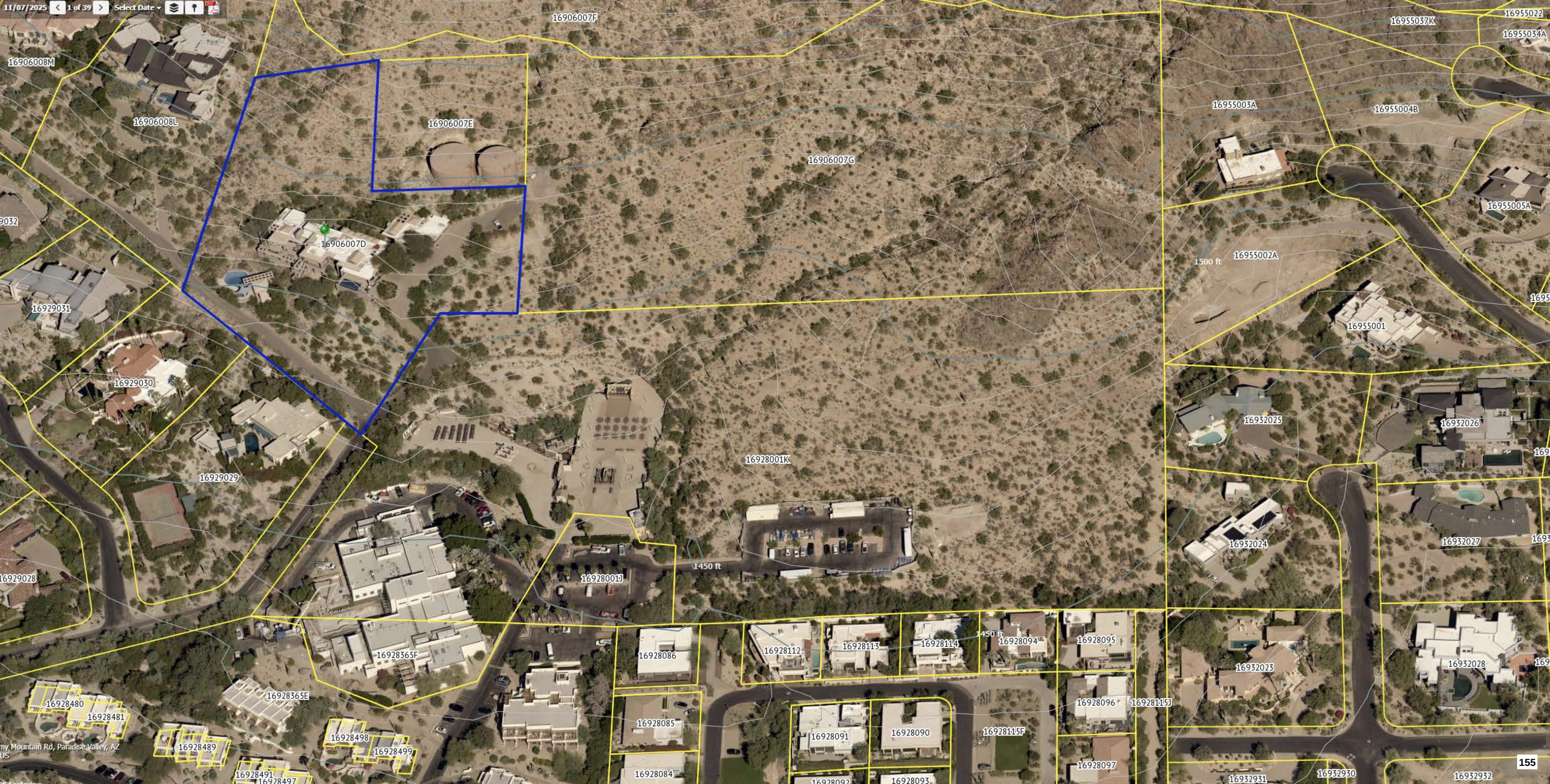
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CUSTOMER INFO		SYSTEM SPECIFICATIONS	DRAFTING NOTES		SHEET #
NAME	JIM CHAMBERLAIN	MODULES: [N] 59640 WATTS DC [N] Tesla TSP-420 QTY: 142 (420W)	DESIGNER	CSM	M4 152
ADDRESS	7000 NORTH MUMMY MOUNTAIN ROAD PARADISE VALLEY, AZ 85253	INVERTERS: [N] 46000 WATTS AC [N] TESLA 1707000-XX-Y QTY: 4	PROJECT #	AZ1925	
APN	169-06-007D	BATTERY: [N] 108000 Wh [N] TESLA 1707000-XX-Y QTY:4 54kWh [N] TESLA 1807000-XX-Y QTY:4 54kWh	DATE	April 7, 2026	
			REVISION:	A	

SUNLINK ENERGY
1355 N MONDEL
GILBERT, AZ 85233
(480) 624-8105
AZ ROC #326376
CR-11 CGL017824521


11/07/2025
1 of 38
Select Date
7000 N Mummy Mountain Rd, Paradise Valley, AZ
85253-3367, US
© 2025 Eagleview


16906008K
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11/07/2025
1 of 39
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PR APPD
PTA-17-459
Milwaukee


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PR APPD
PTA-17-459
Milwaukee









AFFIDAVIT OF MAILING NOTIFICATION

STATE OF ARIZONA)

) ss:

County of Maricopa)

In accordance with the requirements of the Town of Paradise Valley, the undersigned hereby certifies that the mailing list for the proposed project is a complete list of property owners within 1500 feet of the subject property, as obtained from the Maricopa County Assessor's Office on the following date April 23rd, 2026, and such notification has been mailed on the following date May 1st, 2026.

Signature

The foregoing instrument was acknowledged by me this 4th day of May, 2026, by Jim Chamberlain.

Name

NOTARY PUBLIC

My commission expires:

May 16. 2028

Tanya M Swayze
Notary Public
Maricopa County, Arizona
My Comm. Expires 05-16-28
Commission No. 666304

AFFIDAVIT OF POSTING

STATE OF ARIZONA)

) ss:

County of Maricopa)

I, Jim Chamberlain, depose and state that the attached notice, of proposed application PA-26-04 located at 7000 N. Mummy Mtn Rd for the (Planning Commission/Town Council/Board of Adjustment/Hillside Committee) meeting date of May 13th, 2026 is a true and correct copy of a notice which I cause to be posted by the following day of the week Saturday, and on the following date April 25th, 2026 in the following location(s):

7000 N. Mummy Mountain Road, Paradise Valley, AZ 85258

All in the Town of Paradise Valley, Arizona and County and State aforesaid, the same being public places in said County and in the following locations:

All to the Town of Paradise Valley, Arizona and County and State aforesaid.

DATED this 4th day of May, 2026.

Signature

This affidavit was SUBSCRIBED AND SWORN to before me this 4th day of May, 2026

NOTARY PUBLIC

My commission expires:

May 16, 2028

Tanya M Swayze
Notary Public
Maricopa County, Arizona
My Comm. Expires 05-16-28
Commission No. 666304

TOWN
Of
PARADISE VALLEY

Standard Approval Information

1. All construction documents submitted for permit reviews shall include all approved Hillside-approved documents, including but not limited to, approved material references, cross sections, landscape plans, lighting plans, and lighting specifications. Any changes to the Hillside-approved plans may result in delays in permit plan review and inspection processes. Any proposed changes should be reported to the Staff to determine compliance with Hillside Development Regulations. Changes may be subject to a Staff, Chair, or Committee review.

2. The Applicant shall submit a Construction Staging Plan to the Town per the Hillside Safety Improvement Measures and Process Manual for review and approval prior to being issued a building permit.

3. The Applicant shall submit a liability insurance policy for the proposed project in the amount of $2 million per occurrence and $5 million aggregate naming the Town of Paradise Valley as an additional insured prior to being issued a building permit.

4. All construction parking shall be located on the property as much as possible. Any offsite parking shall be confined to the adjacent streets along the immediate property frontage. All offsite parking shall be located on the same side of the street. No construction materials will be allowed to be stored on the Town's right-of-way.

5. No final approval or certificate of occupancy shall be issued until all Hillside stipulations and all Town Code requirements are complied with, including, but not limited to, landscaping, fire flow, fire safety and all onsite and offsite improvements.

6. Noise from construction that can be heard off-site, including, but not limited to, hydraulic ram hammers, equipment used to cut through rock, machinery with audible back-up warning devices, powered machinery, truck delivery and idling, constant and persistent hammering, shall comply with Article 8-10, Nuisance Noise, as set forth in the Town Code. Heavy Equipment and construction-related deliveries are generally limited between the hours of 7:00 a.m. and 5:00 p.m. Monday through Friday; no work on Saturday, Sunday or legal holidays. Exceptions include a one hour early start time in summer, time exceptions granted by the Town Manager, and construction not defined as Heavy Equipment or deliveries that can occur outside the 7:00 a.m. to 5:00 p.m., Monday through Friday, time frame.

Action Report

File #: 26-132

AGENDA TITLE:
Solar Combined Review for new rooftop solar panels at 8201 N 54th Street - Solar (APN 168-75-022).

STAFF CONTACT:
Jose Mendez, 480-348-3519

TOWN
Of
PARADISE VALLEY

STAFF REPORT

TO: **Hillside Building Committee**

FROM: **Chad Weaver, Community Development Director**
Shar Johnson, Town Engineer
Paul Michaud, Planning Manager
Jose Mendez, Hillside Development Planner
Juan Gonzalez Jr., Hillside Associate Engineer

DATE: **May 13, 2026**

DEPARTMENT: Community Development Department
Jose Mendez, (480)348-3519

AGENDA TITLE:
Solar Combined Review
New Solar
Sunlink Energy
8201 N 54th Street (APN 168-75-022)
#HILL-26-10

RECOMMENDATION:
Staff recommends the Hillside Building Committee to review and **approve** Case #HILL-26-10, a request by applicant Sunlink Energy, on behalf of the property owners at 8201 N 54th Street, for new solar panels on a flat roof portion of the home hidden from view.

BACKGROUND/DISCUSSION/SUMMARY (PROVIDED BY APPLICANT)
The proposed project will add new solar panels to the existing single-family residence. A total of 37 new solar panels are proposed to be mounted on the roof.

Lot Data	
1. Area of Lot	.998 ac or 43,499 SF
2. Footprint	Approximately 6,274 SF
3. Floor Area Ratio	14.42%

Single Family Residence
The existing single-family residence is approximately 6,274 SF total. The property got approval from the Hillside Development Committee on June 11, 2025 to remodel the home, enclose patios, and add square footage to the home (HILL-25-104). The panels are in an area that will not be impacted by the remodel and additions.

Solar

The proposal is for a solar power installation of approximately 37 solar panels mounted on the flat area of the roof. The solar panels will be pitched at height no taller than approximately 1 foot 9 inches. There are parapets that will help screen the panels at a height of approximately 2 feet. As part of HILL-25-104, the applicant will refinish the roof in Brown Owl (LRV 33) which will be used to finish this section of the roof with the solar panels prior to installation of the panels.

Per code solar panels must be hidden from view when viewed from the same elevation or lower. Per *Article XXII of the Hillside Development Regulations*, II. ARCHITECTURAL STANDARDS. E.: *Solar panels may be allowed if they are integrated into the building design and hidden from view when viewed from the same or a lower elevation and approved by the Hillside Building Committee by a Combined Review. Solar panels may be allowed on pitched roofs when screened from the same or a lower elevation by the adjoining hillside or hillside Cut and approved by the Hillside Building Committee by a Combined Review.*

The solar panels will have black frames and the racking system will be black. The solar utility equipment, inverters and electrical disconnects will be located towards the rear of the home generally facing south. All site disturbances will remain the same.

ANALYSIS:

The proposed new roof mounted solar panel arrays on the existing single-family residence meet the requirements of the Town Code and the adopted Zoning Ordinance.

STIPULATIONS:

1. All improvements shall comply with the enclosed Standard Approval Information.
2. Provide a physical sample of the finish/color for the portions of the roof where the panels will be installed. The material or color used shall not have a LRV (Light Reflective Value) greater than 38%.

REQUIRED ACTION:

The Hillside Building Committee must consider the facts and determine if the application complies with Article XXII - Hillside Development Regulations.
The Hillside Building Committee may take the following actions:

1. Approve the application request, subject to the stipulations noted by staff and/or the Hillside Building Committee.
2. Continue the application for further review.
3. Deny the application request if not compliant with Article XXII.

NOTICING:

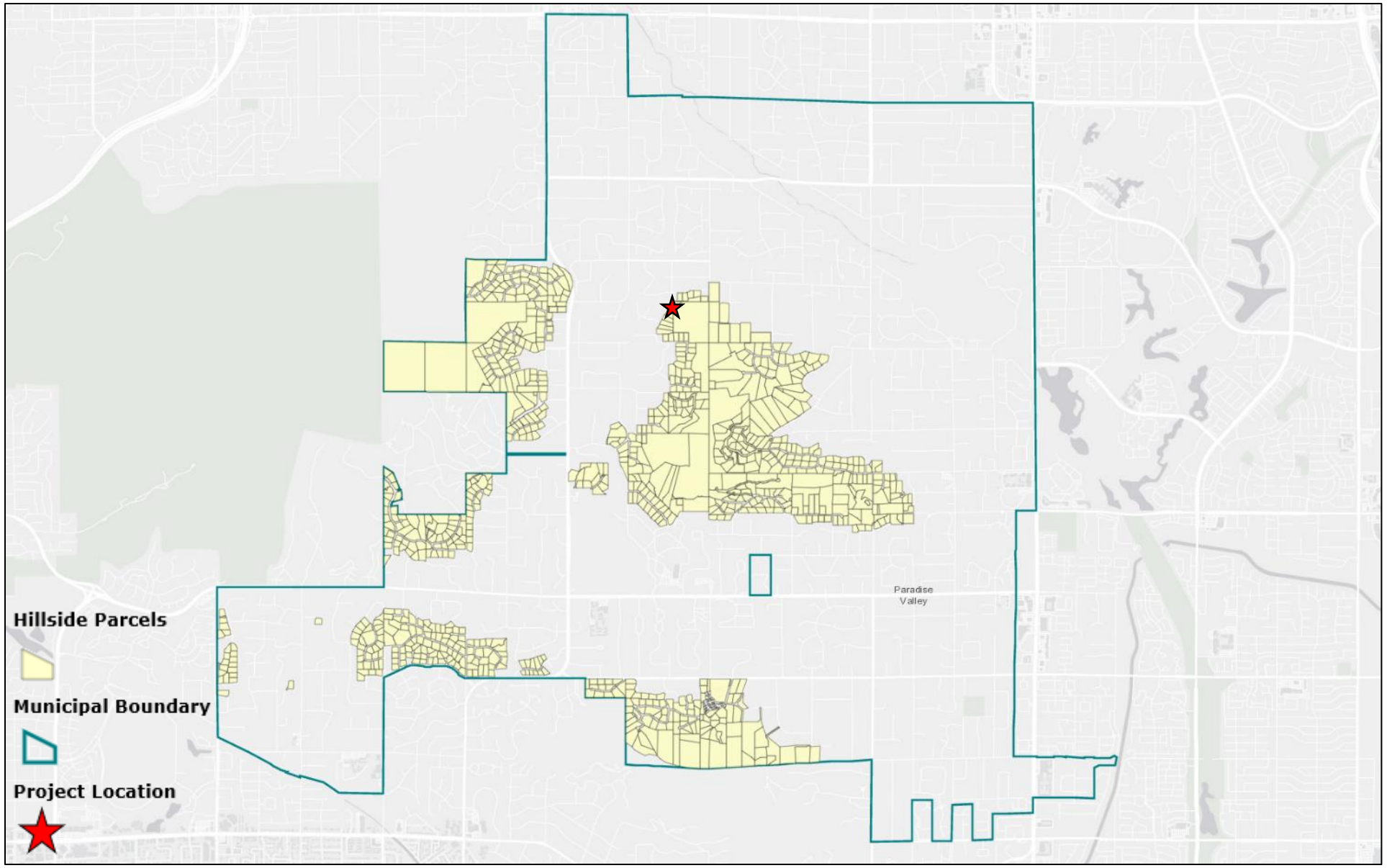
Public notification was performed in accordance with the public hearing process. Staff received no comments.

NEXT STEPS:
If approved the applicant shall acquire all required permits to complete the proposed scope of work. Plans submitted to the Town for permits shall comply with the plans, stipulations, and approval by the Hillside Building Committee.

ATTACHMENTS:
A. Staff Report
B. Hillside & Vicinity Maps
C. Plans
D. Notification Materials
E. Standard Approval Information

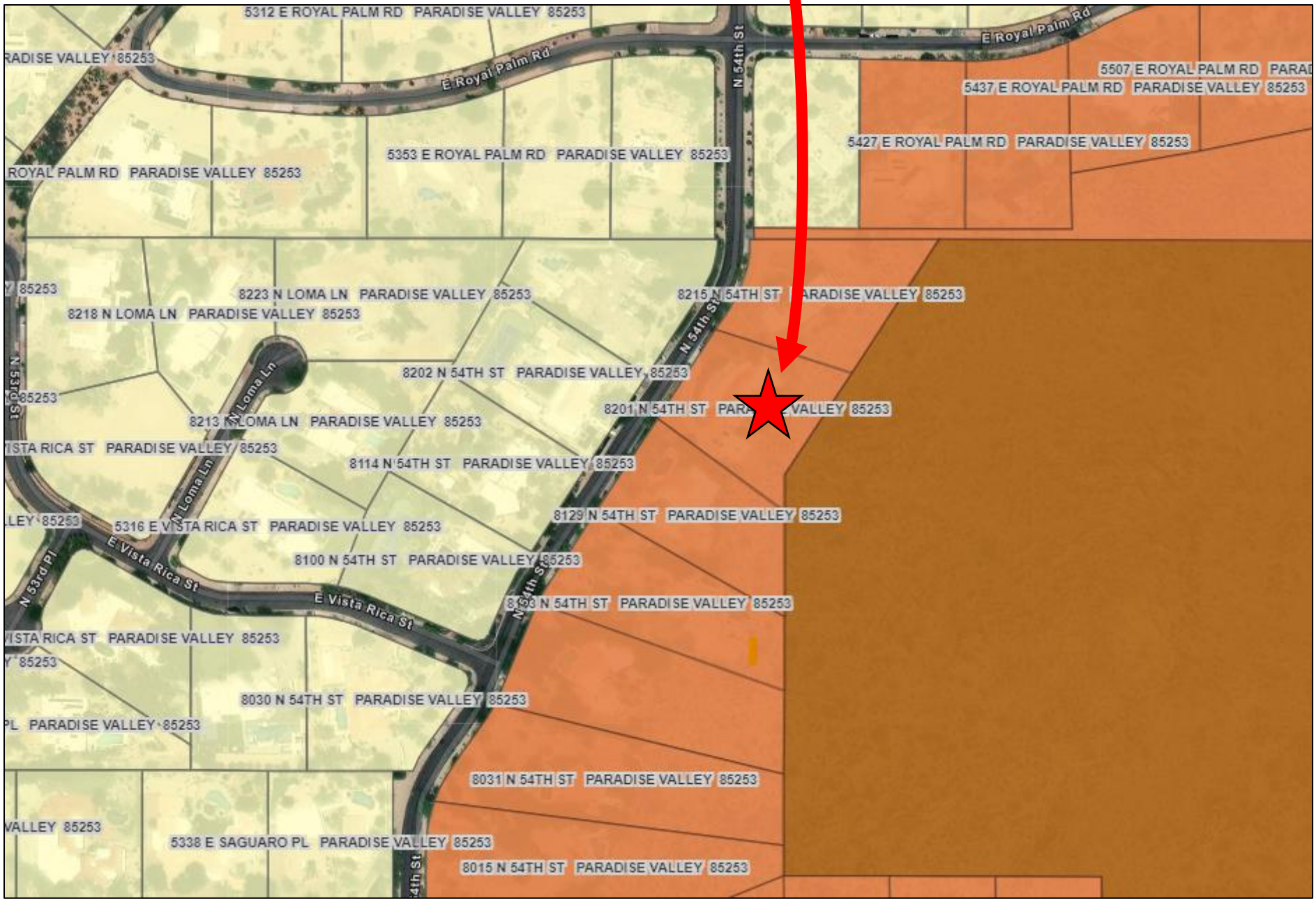
HILLSIDE MAP (OVERVIEW)

8201 N 54th Street



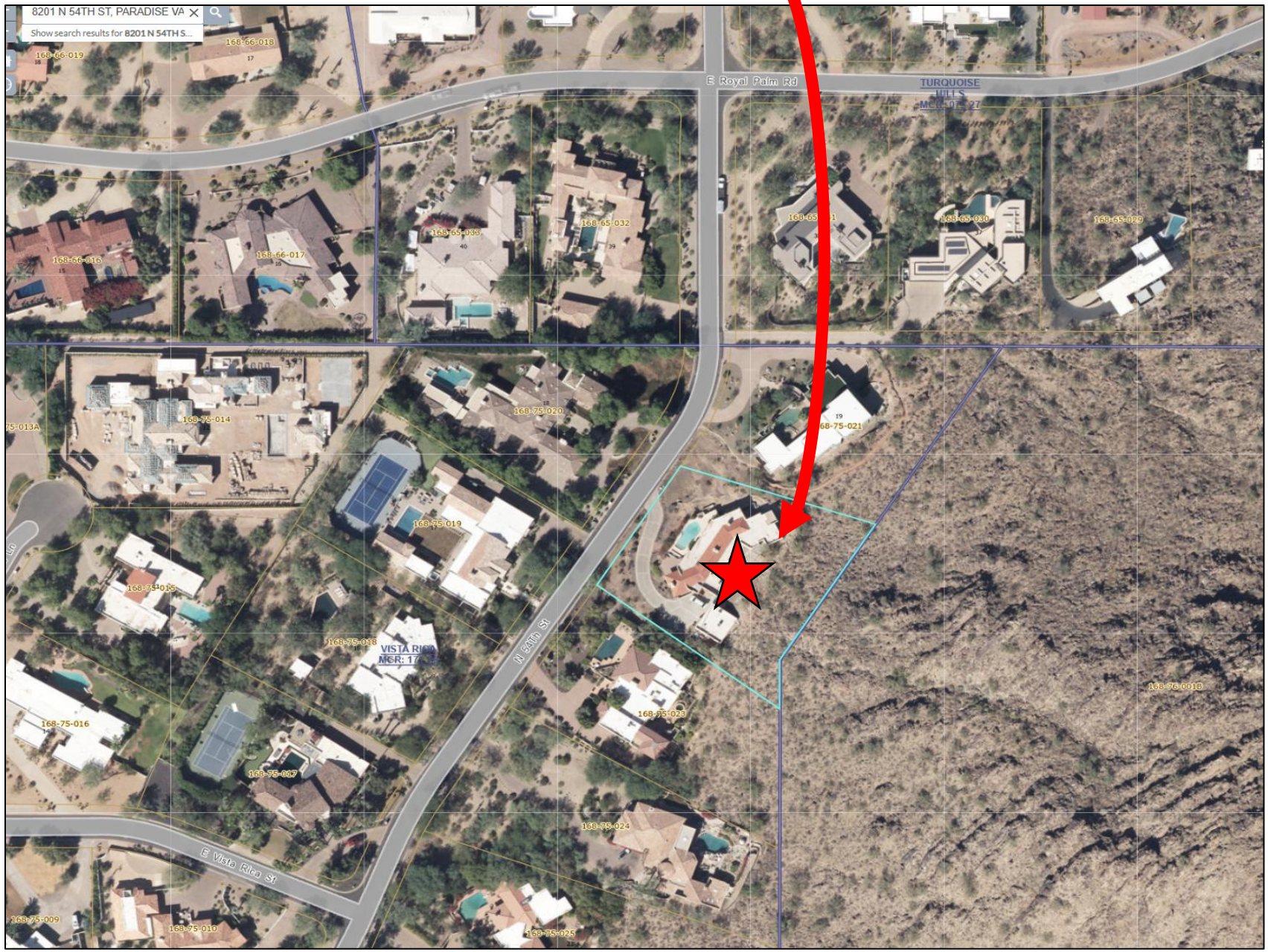
HILLSIDE MAP (ZOOM)

8201 N 54th Street



VICINITY MAP (ZOOM)

8201 N 54th Street



PHOTOVOLTAIC ROOF MOUNT SYSTEM

11.5 KW (AC), 16.28 (DC) KW, 8201 N 54th St, Paradise Valley, AZ 85253

AHJ: PARADISE VALLEY
UTILITY: APS

SYSTEM SPECIFICATIONS

SYSTEM SIZE: 16.28 kW DC
11.5 kW AC
MODULE TYPE: (N) 37 - SEG-440-BTD-BG

INVERTER TYPE: (N) 1 - TESLA INC. POWERWALL 3 INVERTER

RSD DEVICE: (N) 15 - TESLA MCI-2 High Current
ESS TYPE: (N) 1 - TESLA INC. POWERWALL 3
BATTERY STORAGE - 1707000-XX-Y

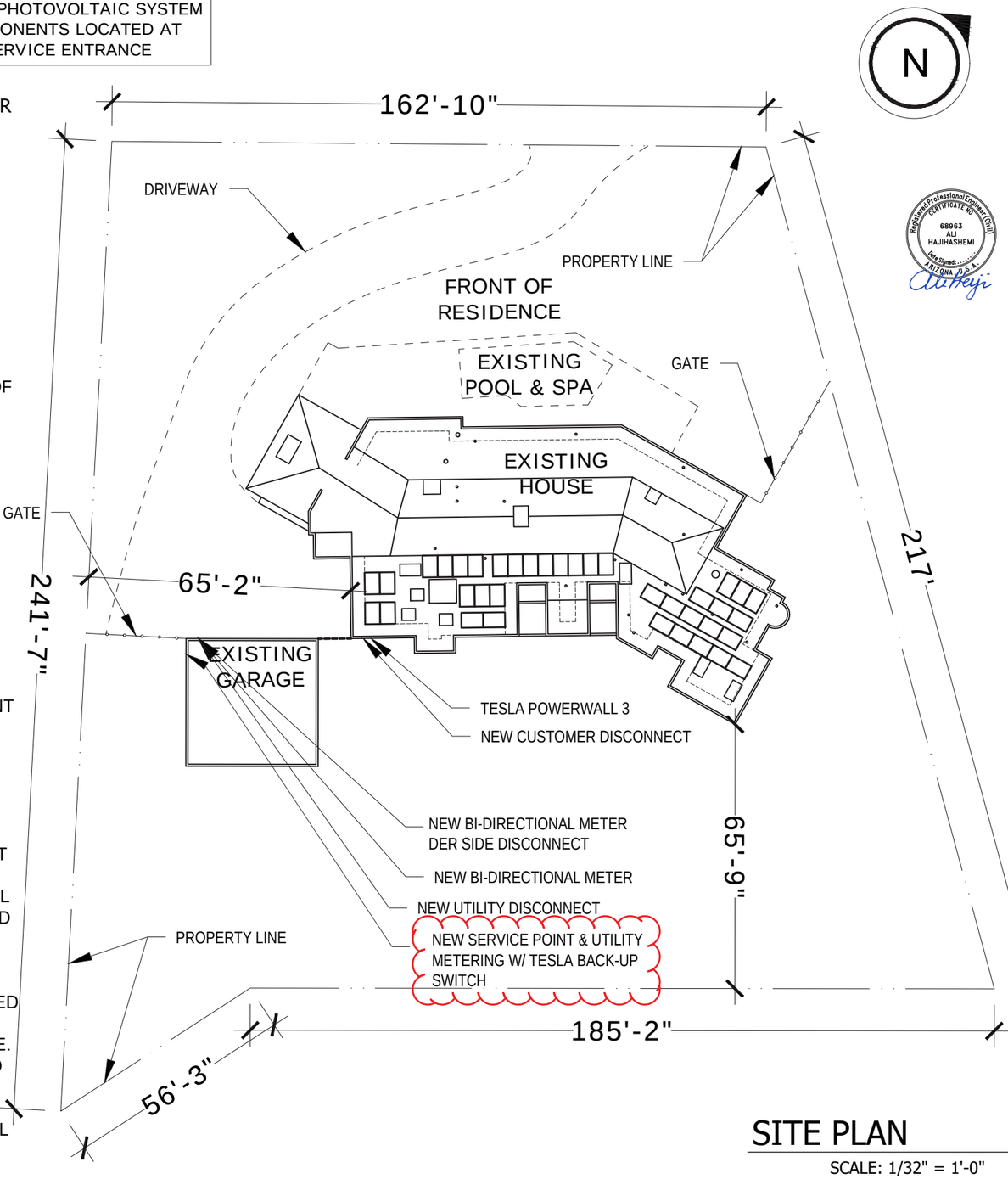
UTILITY HAS 24-HOUR ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS LOCATED AT SERVICE ENTRANCE

NOTES

1. UTILITY HAS 24 HR. UNRESTRICTED ACCESS TO ALL PV SYSTEM COMPONENTS: LOCATED AT SERVICE ENTRANCE
2. WORKSPACE IN FRONT OF AC ELECTRICAL SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH APS AND NEC
3. REQUIREMENTS: FOR APS REQUIREMENTS, REF. SECTION 300 OF THE APS ESRM AND SECTION 8.2 OF THE APS INTERCONNECTION REQUIREMENTS.
4. REFERENCE SECTION 301.15 OF THE APS ESRM FOR ELECTRICAL METER SEPARATION BETWEEN WATER AND GAS.
5. ALL CONSTRUCTION / INSTALLATION IS TO COMPLY WITH THE FOLLOWING: ALL DIMENSIONS ARE APPROXIMATE
6. ROOF VENTS, SKYLIGHTS, WILL NOT BE COVERED UPON PV INSTALLATION
7. METER LOCATED ON ACCESSIBLE EXTERIOR WALL WITHIN 5 FEET OF UTILITY METER
8. NO LOCKED GATES, DOGS, ETC SHALL IMPEDE ACCESS TO THE SERVICE EQUIPMENT.

GENERAL NOTES

1. ALL PANELS, SWITCHES, ETC. SHALL HAVE SUFFICIENT GUTTER SPACE AND LUGS IN COMPLIANCE WITH UL REQUIREMENTS TO ACCOMMODATE CONDUCTORS SHOWN.
2. THIS SYSTEM WILL NOT BE INTERCONNECTED UNTIL APPROVAL FROM THE LOCAL JURISDICTION AND UTILITY IS OBTAINED.
3. ALL EXTERIOR ELECTRICAL DEVICES AND EQUIPMENT INCLUDING THOSE THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WEATHERPROOF AND SHALL BE LISTED BY 'UL' FOR THE TYPE OF APPLICATION AND 'UL' LABEL SHALL APPEAR ON ALL ELECTRICAL EQUIPMENT.
4. WIRING METHOD SHALL BE EMT ABOVE GROUND MOUNTED IN CONCEALED SPACES (UNLESS APPROVED OTHERWISE) AND SCHEDULE-40 PVC FOR BELOW GROUND INSTALLATIONS UNLESS NOTED OTHERWISE.
5. AN OSHA APPROVED LADDER PROVIDING ACCESS TO ALL PORTIONS OF THE ARRAY SHALL BE SECURED IN PRIOR TO REQUESTING INSPECTION.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A SUPPLEMENTAL GROUNDING ELECTRODE CONDUCTOR IF NECESSARY.



SITE PLAN

SCALE: 1/32" = 1'-0"

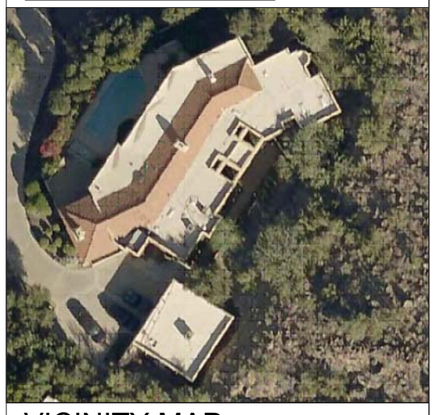
SHEET INDEX:

PV 1.0: COVER SHEET
PV 2.0: ROOF PLAN
S 1.0: ATTACHMENT DETAILS
E 1.1: 3-LINE DIAGRAM
E 1.2: 1-LINE DIAGRAM
E 1.3: NOTES
E 1.4: WARNING LABELS
E 1.5: EQUIPMENT PHOTO
E 1.6: EQUIPMENT ELEVATION
MANUFACTURER DATA SHEETS ATTACHED AT THE END OF PLAN SET

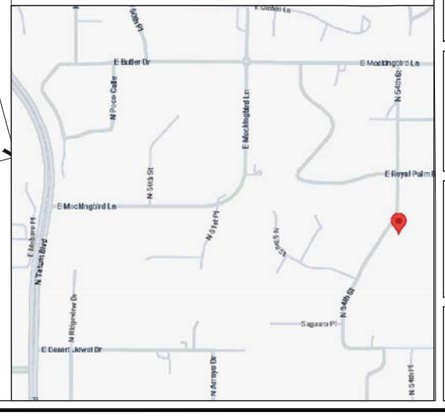
GOVERNING CODES

- ELECTRIC CODE: NEC 2017
- FIRE CODE: IFC 2018
- BUILDING CODE: IBC 2018
- RESIDENTIAL CODE: IRC 2018

SATELLITE VIEW:



VICINITY MAP:



SUNLINK ENERGY

CONTRACTOR:
SUNLINK ENERGY LLC
ADDRESS: 1355 NORTH MONDEL DR,
GILBERT, AZ 85233 USA
PHONE: (480) 624-8105
LICENSE #: ROC 326376
CR-11 CGL017824521

SIGNATURE WITH SEAL

Registered Professional Engineer (Civil) CERTIFICATE NO. 68963 ALI HAJIHASHEMI Date Signed: ARIZONA, U.S.A.

Matthew W Bailey
Digitally signed by Matthew W Bailey
Date: 2026.01.20 10:06:42 -07'00'

Registered Professional Engineer (Electrical) CERTIFICATE NO. 51214 MATTHEW W. BAILEY Expires: 9-30-28 ARIZONA U.S.A.

PROJECT NAME & ADDRESS

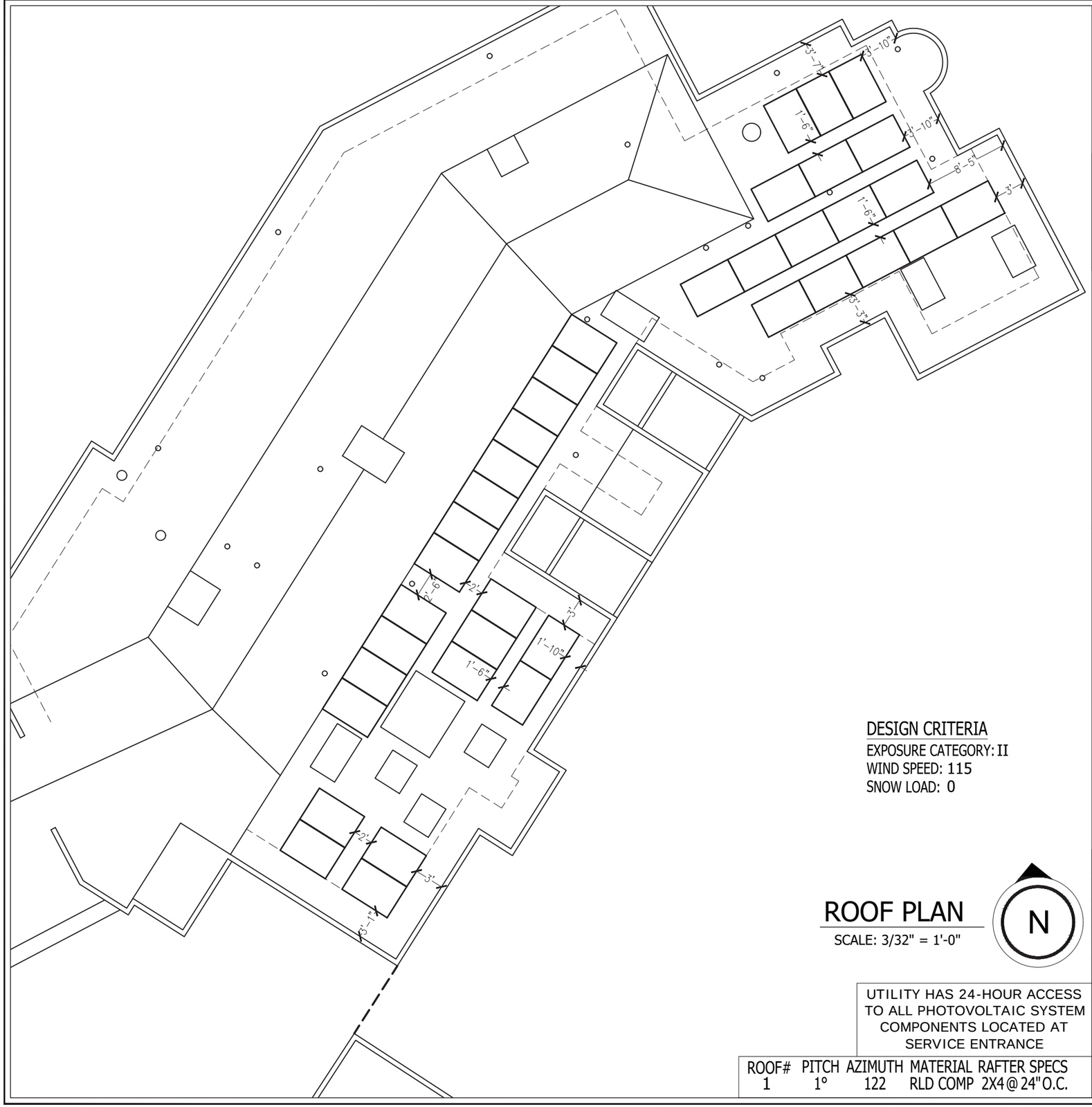
PROPOSED SOLAR PHOTOVOLTAIC SYSTEM FOR:
Farid Ghebleh
Parcel number: 16875022
602-909-0909
8201 N 54th St,
Paradise Valley, AZ 85253

SHEET NAME
COVER SHEET

SHEET SIZE
ANSI B
11" X 17"

DRAWN BY:	SE
DATE:	12/26/25
(DC) kW:	16.28
(AC) kW:	11.5
PROJECT #:	AZ1885-VE25-FaGhebleh

SHEET NUMBER:
PV 1.0



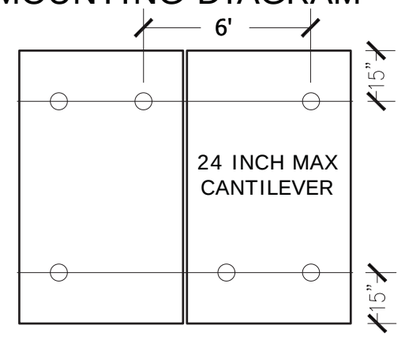
ROOF ACCESS POINT

SHALL BE LOCATED IN AREAS THAT DO NOT REQUIRE THE PLACEMENT OF GROUND LADDERS OVER OPENINGS SUCH AS WINDOWS OR DOORS, AND LOCATED AT STRONG POINTS OF BUILDING CONSTRUCTION IN LOCATIONS WHERETHE ACCESS POINT DOES NOT CONFLICT WITH OVERHEAD OBSTRUCTIONS SUCH AS TREE LIMBS, WIRES OR SIGNS.

ARRAY AREA & ROOF AREA CALC'S

ROOF AREA (Sq. Ft.)	ARRAY AREA (SQ. FT.)	ROOF AREA COVERED BY ARRAY (%)
6161	777	13%

MOUNTING DIAGRAM



Registered Professional Engineer (Civil)
CERTIFICATE NO.
68963
ALI
HAJIHASHEMI
Date Signed:
ARIZONA U.S.A.

NOTE:

1. PV WIRING – EXPOSED CONDUIT RUN ON EXTERIOR OR ROMEX RUN INSIDE ATTIC.
2. ALL CONDUCTORS UNDER ARRAY TO BE A MINIMUM OF 7/8" ABOVE ROOF WITH PROPER J-BOXES AT EACH END PER 690.31A
3. THE VISIBLE, LOCKABLE, LABELED DISCONNECT (VLLD) IS LOCATED ON AN ACCESSIBLE EXTERIOR WALL WITHIN 10FT OF THE UTILITY METER.

STRING MAP:

- STRING #1
- STRING #2
- STRING #3
- STRING #4
- STRING #5
- STRING #6
- STRING #7

DESIGN CRITERIA

EXPOSURE CATEGORY: II
WIND SPEED: 115
SNOW LOAD: 0

ROOF PLAN

SCALE: 3/32" = 1'-0"

N

UTILITY HAS 24-HOUR ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS LOCATED AT SERVICE ENTRANCE

ROOF#	PITCH	AZIMUTH	MATERIAL	RAFTER SPECS
1	1°	122	RLD COMP	2X4@24"O.C.

DEAD LOAD CALCULATIONS

BOM	QUANTITY	LBS/UNIT	TOTAL WEIGHT (LBS)
MODULES	37	44.09	1631.33
MID-CLAMP	54	0.05	2.7
END-CLAMP	40	0.05	2
RAIL LENGTH (in inches)	3164.24	0.0354	112.014096
SPLICE BAR (sets)	6	0.36	2.16
IRONRIDGE STANDOFF	62	1.95	120.9
RSD	15	0.26	3.9
TOTAL WEIGHT OF THE SYSTEM (LBS)			1875.004096
TOTAL ARRAY AREA ON THE ROOF (SQ. FT.)			784.4
WEIGHT PER SQ. FT.(LBS)			2.390367282
WEIGHT PER PENETRATION (LBS)			30.24200155

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CR-11 CGL017824521

SIGNATURE WITH SEAL

Registered Professional Engineer (Electrical)
CERTIFICATE NO.
51214
MATTHEW W. BAILEY
Expires: 9-30-25
ARIZONA U.S.A.

PROJECT NAME & ADDRESS

Farid Ghebleh
Parcel number: 168750225
602-909-0909
8201 N 54th St,
Paradise Valley, AZ 85253

SHEET NAME

ROOF PLAN

SHEET SIZE

ANSI B
11" X 17"

DRAWN BY:	SE
DATE:	12/26/25
(DC) kW:	16.28
(AC) kW:	11.5
PROJECT #:	AZ1885-VE25-FaGhebleh

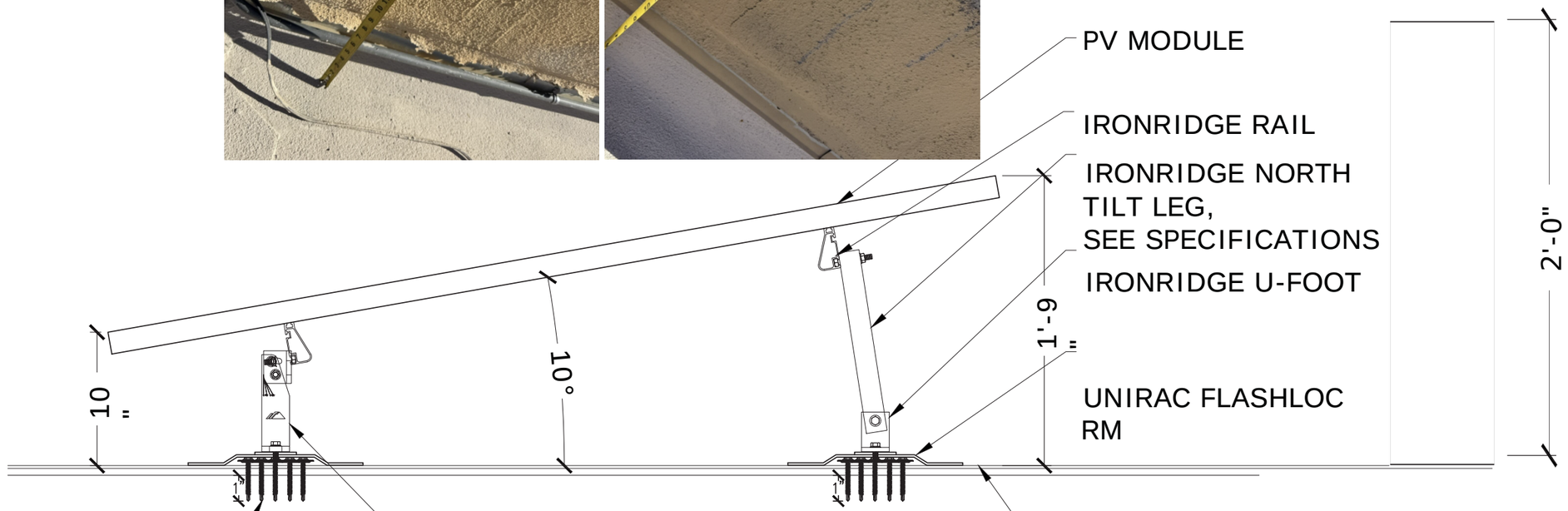
SHEET NUMBER:

PV 2.0

NOTES:
1. ARRAY DIMENSIONS WILL VARY BASED ON MODULE WIDTH, LENGTH AND RETURN FLANGE.







STANDOFF DETAIL

SCALE: 1 1/2" = 1'-0"

COATED ROOF AREAS TO BE BROWN OWL COLOR WITH LRV OF 33



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PROJECT NAME & ADDRESS

Farid Ghebleh
Parcel number: 168750220
602-909-0909
8201 N 54th St,
Paradise Valley, AZ 85253

SHEET NAME
ATTACHMENT DETAILS

SHEET SIZE
ANSI B
11" X 17"

DRAWN BY:	SE
DATE:	12/26/25
(DC) kW:	16.28
(AC) kW:	11.5
PROJECT #:	AZ1885-VE25-FaGhebleh

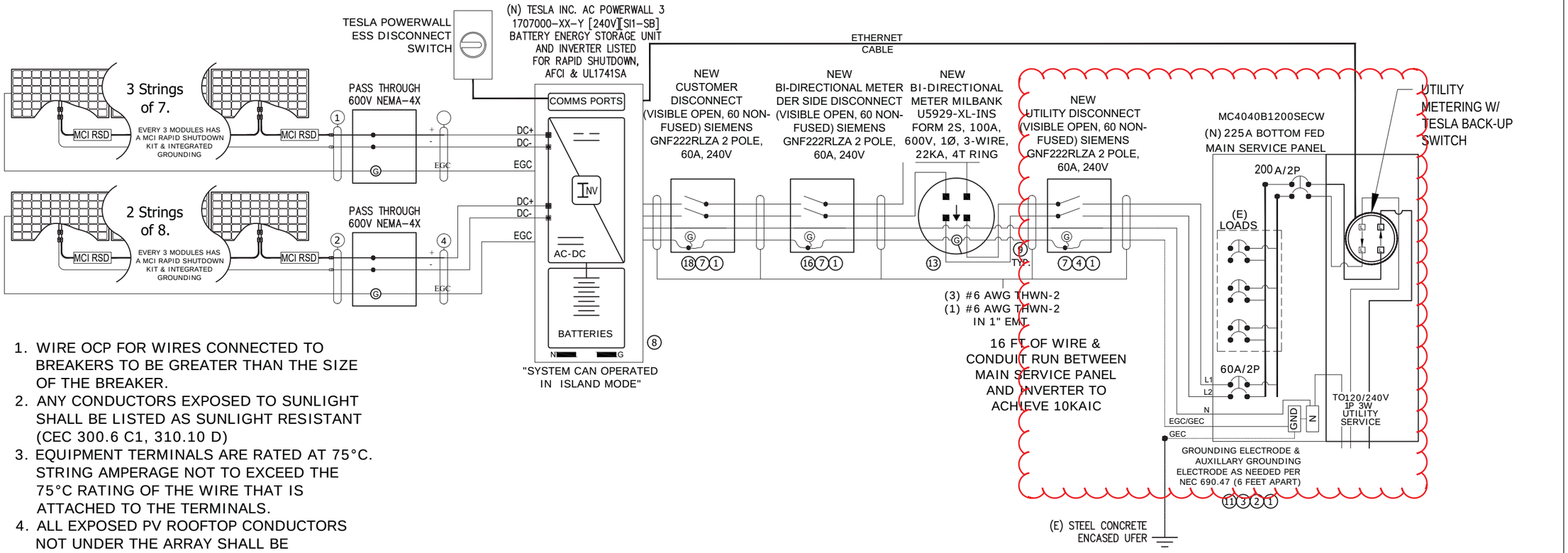
SHEET NUMBER:
S 1.0

MULTI LINES

THE VISIBLE, LOCKABLE, LABELED DISCONNECT (VLLD) IS LOCATED ON AN ACCESSIBLE EXTERIOR WALL WITHIN 10FT OF THE UTILITY METER.

NOTE TO CONTRACTOR: LABEL: "METER SOCKET ADAPTER DISCONNECT - NOT SERVICE EQUIPMENT".

UTILITY HAS 24-HOUR ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS LOCATED AT SERVICE ENTRANCE



1. WIRE OCP FOR WIRES CONNECTED TO BREAKERS TO BE GREATER THAN THE SIZE OF THE BREAKER.
2. ANY CONDUCTORS EXPOSED TO SUNLIGHT SHALL BE LISTED AS SUNLIGHT RESISTANT (CEC 300.6 C1, 310.10 D)
3. EQUIPMENT TERMINALS ARE RATED AT 75°C. STRING AMPERAGE NOT TO EXCEED THE 75°C RATING OF THE WIRE THAT IS ATTACHED TO THE TERMINALS.
4. ALL EXPOSED PV ROOFTOP CONDUCTORS NOT UNDER THE ARRAY SHALL BE PROTECTED BY A RACEWAY WITH A LISTED JUNCTION BOX AT BOTH ENDS. 2017 NEC ARTICLE 690.31(A).
5. ROOFTOP CONDUITS SHALL BE A MINIMUM 7/8INCH ABOVE THE ROOFTOP, 2017 NEC ARTICLE 310.15(B)(3)(C).
6. ALL EQUIPMENT MUST BE UTILIZED IN ACCORDANCE WITH THE MANUFACTURER'S INTENDED USE AND DESIGN SPECIFICATIONS.

WARNING:
THIS EQUIPMENT FED BY MULTIPLE SOURCES. TOTAL RATING OF ALL OVERCURRENT DEVICES, EXCLUDING MAIN SUPPLY OVERCURRENT DEVICE, SHALL NOT EXCEED AMPACITY OF BUSBAR.

PCS CONTROLLED CURRENT SETTING: 200A

THE MAXIMUM OUTPUT CURRENT FROM THIS SYSTEM TOWARDS THE MAIN PANEL IS CONTROLLED ELECTRONICALLY. REFER TO MANUFACTURER'S INSTRUCTIONS FOR MORE INFORMATION

INVERTER	
TESLA INC. POWERWALL 3 INVERTER W/ BUILT-IN BATTERY STORAGE - 1707000-XX-Y [240V, 11.5KW]	
NOM OUTPUT VOLTAGE	240V
MAX OUTPUT CURRENT	48A

SERVICE INFO		
UTILITY COMPANY: APS	MSP VOLTAGE: 120/240	
MSP LOC: RIGHT	SERV. TYPE: UG	MSP GROUND: (E) UFER

ASHRAE AMBIENT TEMPERATURE SPECS		
High Temp	DISTANCE ABOVE ROOF	EXTREME
2% Avg.	1"	MIN
43° C	NO TEMP ADDER PER 310.15(B)(3)(C)	1° C

MODULE SPECS			
MODULE TYPE:	QTY:	WATTAGE:	FRAME COLOR:
SEG-440-BTD-BG	37	440	BLACK
Voc: 39.30	Isc: 14.15	Imp: 13.46	Vpmax: 32.70

WIRE TAG #	CONDUIT	WIRE QTY	WIRE GAUGE:	WIRE TYPE	TEMP RATING:	WIRE AMP	TEMP DE-RATE:	CONDUIT FILL:	WIRE OCP:	TERMINAL 75°C RATING:	DC CALCS (VOLTS X MODULES IN STRING) (AMPS X STRINGS) Voc	Vmp	Isc	Imp	AC CALCS SERVICE VOLTAGE	TOTAL INVERTER AMPS	INVERTER AMPS OR VOC STRING AMPS	NEC:	MAX AMPS	GRND SIZE	GRND WIRE TYPE
1	AIR	2	10	PV WIRE	90C	40 x	.87 x	1 =	34.8A	35 A	275.10	228.90	14.15	13.46		A	14.15 x	1.56 =	22.07 A	#6	SBC
2	AIR	2	10	PV WIRE	90C	40 x	.87 x	1 =	34.8A	35 A	314.40	261.60	14.15	13.46		A	14.15 x	1.56 =	22.07 A	#6	SBC
3	3/4" EMT	6	10	THWN-2	90C	40 x	.87 x	.8 =	27.84A	35 A	275.10	228.90	14.15	13.46		A	14.15 x	1.56 =	22.07 A	#8	THWN-2
4	3/4" EMT	4	10	THWN-2	90C	40 x	.87 x	.8 =	27.84A	35 A	314.40	261.60	14.15	13.46		A	14.15 x	1.56 =	22.07 A	#8	THWN-2

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CR-11 CGL017824521

SIGNATURE WITH SEAL

Registered Professional Engineer (Electrical) CERTIFICATE NO. 51214 MATTHEW W. BAILEY Expires: 9-30-26 ARIZONA U.S.A.

PROJECT NAME & ADDRESS

Farid Ghebleh
Parcel number: 16875022
602-909-0909
8201 N 54th St,
Paradise Valley, AZ 85253

SHEET NAME
3-LINE DIAGRAM

SHEET SIZE
ANSI B
11" X 17"

DRAWN BY:	SE
DATE:	12/26/25
(DC) kW:	16.28
(AC) kW:	11.5
PROJECT #:	AZ1885-VE25-FaGhebleh

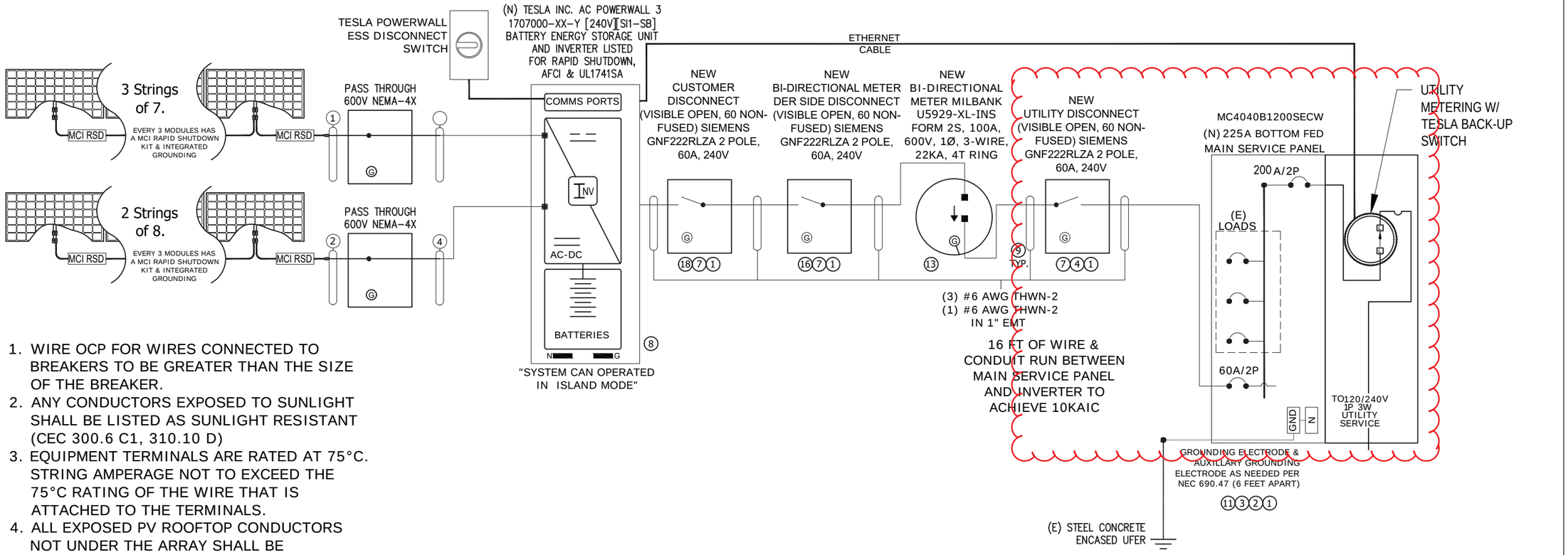
SHEET NUMBER:
E 1.1

SINGLE LINES

THE VISIBLE, LOCKABLE, LABELED DISCONNECT (VLLD) IS LOCATED ON AN ACCESSIBLE EXTERIOR WALL WITHIN 10FT OF THE UTILITY METER.

NOTE TO CONTRACTOR: LABEL: "METER SOCKET ADAPTER DISCONNECT - NOT SERVICE EQUIPMENT".

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1. WIRE OCP FOR WIRES CONNECTED TO BREAKERS TO BE GREATER THAN THE SIZE OF THE BREAKER.
2. ANY CONDUCTORS EXPOSED TO SUNLIGHT SHALL BE LISTED AS SUNLIGHT RESISTANT (CEC 300.6 C1, 310.10 D)
3. EQUIPMENT TERMINALS ARE RATED AT 75°C. STRING AMPERAGE NOT TO EXCEED THE 75°C RATING OF THE WIRE THAT IS ATTACHED TO THE TERMINALS.
4. ALL EXPOSED PV ROOFTOP CONDUCTORS NOT UNDER THE ARRAY SHALL BE PROTECTED BY A RACEWAY WITH A LISTED JUNCTION BOX AT BOTH ENDS. 2017 NEC ARTICLE 690.31(A).
5. ROOFTOP CONDUITS SHALL BE A MINIMUM 7/8INCH ABOVE THE ROOFTOP, 2017 NEC ARTICLE 310.15(B)(3)(C).
6. ALL EQUIPMENT MUST BE UTILIZED IN ACCORDANCE WITH THE MANUFACTURER'S INTENDED USE AND DESIGN SPECIFICATIONS.

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PCS CONTROLLED CURRENT SETTING: 200A

THE MAXIMUM OUTPUT CURRENT FROM THIS SYSTEM TOWARDS THE MAIN PANEL IS CONTROLLED ELECTRONICALLY. REFER TO MANUFACTURER'S INSTRUCTIONS FOR MORE INFORMATION

INVERTER	
TESLA INC. POWERWALL 3 INVERTER W/ BUILT-IN BATTERY STORAGE - 1707000-XX-Y [240V, 11.5KW]	
NOM OUTPUT VOLTAGE	240V
MAX OUTPUT CURRENT	48A

SERVICE INFO		
UTILITY COMPANY: APS	MSP VOLTAGE: 120/240	
MSP LOC: RIGHT	SERV. TYPE: UG	MSP GROUND: (E) UFER

ASHRAE AMBIENT TEMPERATURE SPECS		
High Temp	DISTANCE ABOVE ROOF	EXTREME
2% Avg.	1"	MIN
43° C	NO TEMP ADDER PER 310.15(B)(3)(C)	1° C

MODULE SPECS			
MODULE TYPE:	QTY:	WATTAGE:	FRAME COLOR:
SEG-440-BTD-BG	37	440	BLACK
Voc: 39.30	Isc: 14.15	Imp: 13.46	Vpmax: 32.70

WIRE TAG #	CONDUIT	WIRE QTY	WIRE GAUGE:	WIRE TYPE	TEMP RATING:	WIRE AMP	TEMP DE-RATE:	CONDUIT FILL:	WIRE OCP:	TERMINAL 75°C RATING:	DC CALCS (VOLTS X MODULES IN STRING) (AMPS X STRINGS) Voc	Vmp	Isc	Imp	AC CALCS SERVICE VOLTAGE	TOTAL INVERTER AMPS	INVERTER AMPS OR VOC STRING AMPS	NEC:	MAX AMPS	GRND SIZE	GRND WIRE TYPE
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SIGNATURE WITH SEAL

Registered Professional Engineer (Electrical) CERTIFICATE NO. 51214 MATTHEW W. BAILEY Expires: 9-30-25 ARIZONA U.S.A.

PROJECT NAME & ADDRESS

Farid Ghebleh
Parcel number: 16875022
602-909-0909
8201 N 54th St,
Paradise Valley, AZ 85253

SHEET NAME
1-LINE DIAGRAM

SHEET SIZE
ANSI B
11" X 17"

DRAWN BY:	SE
DATE:	12/26/25
(DC) kW:	16.28
(AC) kW:	11.5
PROJECT #:	AZ1885-VE25-FaGhebleh

SHEET NUMBER:
E 1.2

1.CONDUCTORS EXPOSED TO SUNLIGHT SHALL BE LISTED AS SUNLIGHT RESISTANT PER NEC 310.10(D).
2.CONDUCTORS EXPOSED TO WET LOCATIONS SHALL BE SUITABLE FOR USE IN WET LOCATIONS PER NEC 310.10(C).
3.MAXIMUM DC/AC VOLTAGE DROP SHALL BE NO MORE THAN 2%.
4.ALL CONDUCTORS SHALL BE IN CONDUIT UNLESS OTHERWISE NOTED.
5.BREAKER/FUSE SIZES CONFORMS TO NEC 240.6 CODE SECTION.
6.AC GROUNDING ELECTRODE CONDUCTOR SIZED PER NEC 250.66.
7.AMBIENT TEMPERATURE CORRECTION FACTOR IS BASED ON NEC 690.31(C).
8.AMBIENT TEMPERATURE ADJUSTMENT FACTOR IS BASED ON NEC 310.15(B)(2).
9.MAX. SYSTEM VOLTAGE CORRECTION IS PER NEC 690.7.
10.CONDUCTORS ARE SIZED PER WIRE AMPACITY TABLE NEC 310.15(B)(16).

NOTE:
1. ALL TERMINALS SHALL BE MINIMUM 75 DEG RATED.
2. ROOF TOP CONDUIT SHALL BE MINIMUM 7/8" ABOVE ROOF SURFACE.

AC WIRE SIZING CALCULATIONS

REQUIRED CONDUCTOR AMPACITY:

INVERTER OUTPUT CURRENT X #OF INVERTERS X MAX CURRENT PER 690.8(A)(3)X125% PER 690.8(B)(2)(A)

CORRECTED AMPACITY CALCULATIONS: AMPACITY X TEMPERATURE DERATE FACTOR X CONDUIT FILL DERATE = DERATED CONDUCTOR AMPACITY

DERATED CONDUCTOR AMPACITY CHECK: MAX CURRENT PER 690.8(B)(2)(2) < DERATED CONDUCTOR AMPACITY

KEYED NOTES:

1. LABEL: "CAUTION – MULTI SOURCES OF POWER" ON PLACARD/DIRECTORY PER NEC 705.10.
2. BI–DIRECTIONAL UTILITY METER TO BE INSTALLED BY UTILITY COMPANY.
3. LABEL BREAKER "PHOTOVOLTAIC ELECTRIC POWER SOURCE" "BREAKERS ARE BACKFED". LABEL WITH THE RATED AC OUTPUT CURRENT AND THE NOMINAL OPERATING VOLTAGE PER NEC 690.54.
4. LABEL "UTILITY DISCONNECT". SWITCH COVER TO BE LOCKED PER NEC 690.13(B) AT ALL TIMES BY UTILITY. SWITCH TO BE VISIBLE OPEN AND ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.20.
5. LABEL "PHOTOVOLTAIC ARRAY DC DISCONNECT" PER NEC 690.13(B).
   LABEL WITH MAXIMUM DC VOLTAGE, CURRENT PER NEC 690.53.
   SWITCH COVER TO BE LOCKED PER NEC 690.13(A).
6. LABEL "WARNING: THIS SUB–PANEL FED FROM MULTI–POWER PRODUCTION SOURCES".
7. PROVIDE WARNING SIGN PER NEC 690.13(B) AND 706.15(C) READING "WARNING–ELECTRIC SHOCK HAZARD–TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION.
8. INVERTER TO BE LISTED TO UL 1741SA AND SB.
9. METALLIC CONDUIT SHALL BE USED WITHIN BUILDING AND LABELED PER NEC 690.31 (D).
10. GROUND FAULT PROTECTION PER NEC 690.41(B) PROVIDED IN DC/AC INVERTER.
11. GEC TO BE INSTALLED AS REQUIRED PER MANUFACTURER INSTRUCTIONS AND NEC 690.47.
12. CUSTOMER WILL INSTALL RING–TYPE METER SOCKET WITH NON–DETENTED FORM 2S. APS WILL INSTALL THE PRODUCTION METERS. LABEL METER SOCKET UNII–DIRECTIONAL METER".
13. CUSTOMER WILL INSTALL RING–TYPE METER SOCKET WITH NON–DETENTED FORM 2S. APS WILL INSTALL THE PRODUCTION METERS. LABEL METER SOCKET "BI–DIRECTIONAL METER".
14. LABEL: "UNI–DIRECTIONAL METER LINE SIDE DISCONNECT". SWITCH COVER TO BE LOCKED PER NEC 690.13(B) AT ALL TIMES BY UTILITY. SWITCH TO BE VISIBLE OPEN & ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.20.
15. LABEL: "BI–DIRECTIONAL METER LINE SIDE DISCONNECT". SWITCH COVER TO BE LOCKED PER NEC 690.13(B) AT ALL TIMES BY UTILITY. SWITCH TO BE VISIBLE OPEN & ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.20.
16. LABEL: "BI–DIRECTIONAL METER DER SIDE DISCONNECT". SWITCH COVER TO BE LOCKED PER NEC 690.13(B) AT ALL TIMES BY UTILITY. SWITCH TO BE VISIBLE OPEN & ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.20.
17. SYSTEM COMPLIES WITH RAPID SHUTDOWN PER NEC 690.56.
18. LABEL "CUSTOMER FUSED DISCONNECT". SWITCH COVER TO BE LOCKED PER NEC 690.13(8) AT ALL TIMES BY CUSTOMER. SWITCH TO BE VISIBLE OPEN AND ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.20.

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PROJECT NAME & ADDRESS

Farid Ghebleh
Parcel number: 168750220
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8201 N 54th St,
Paradise Valley, AZ 85253

SHEET NAME
NOTES

SHEET SIZE
ANSI B
11" X 17"

DRAWN BY:	SE
DATE:	12/26/25
(DC) kW:	16.28
(AC) kW:	11.5
PROJECT #:	AZ1885-VE25-FaGhebleh

SHEET NUMBER:
E 1.3

⚠CAUTION
PHOTOVOLTAIC SYSTEM CIRCUIT IS BACKFEED

LABEL LOCATION: BACKFED BREAKER
CODE REF: NEC 705.12(4)

⚠WARNING
INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

LABEL LOCATION: BACKFED BREAKER
CODE REF: 2017 NEC 705.12(2)(3)(b)

WARNING
A GENERATION SOURCE IS CONNECTED TO THE SUPPLY (UTILITY) SIDE OF THE MAIN SERVICE DISCONNECT. FOLLOW THE PEOPLE LOCK-OUT/ TAG OUT PROCEDURES TO ENSURE THE PHOTOVOLTAIC SYSTEM UTILITY DISCONNECT SWITCH IS OPENED PRIOR TO PERFORMING WORK ON THIS DEVICE

LABEL LOCATION: (IF APPLICABLE)
SUPPLY SIDE TAP LOAD PANEL
CODE REF: UTILITY

PHOTOVOLTAIC AC DISCONNECT

NOMINAL OPERATING AC VOLATGE	240
RATED AC OUTPUT CURRENT	48

LABEL LOCATION: MAIN SERVICE
DISCONNECT(S)
CODE REF: NEC 690.54

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

LABEL LOCATION: MAIN PANEL (EXTERIOR)
PV BREAKER (INTERIOR)
CODE REF: NEC 690.56(C)(3)

⚠WARNING
ELECTRICAL SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL LOCATION: COMBINER PANEL, AC
DISCONNECT, JUNCTION BOX, INVERTER(S)
CODE REF: NEC 690.31(B)

PHOTOVOLTAIC
SYSTEM METER

LABEL LOCATION: DEDICATED KWH METER
CODE REF: NEC 690.4(B) UTILITY

⚠WARNING
PHOTOVOLTAIC SYSTEM
COMBINER PANEL DO
NOT ADD LOADS

LABEL LOCATION: AC COMBINER PANEL
CODE REF: NEC 690.13(B)

MAXIMUM VOLTAGE
MAXIMUM CIRCUIT CURRENT
MAXIMUM RATED OUTPUT CURRENT OF THE CHARGE CONTROLLER OR DC-TO-DC CONVERTER (IF INSTALLED)

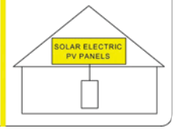
LABEL LOCATION: DC DISCONNECT
INVERTER
CODE REF: UTILITY

⚠WARNING
ELECTRICAL SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION
DC VOLTAGE IS ALWAYS PRESENT WHEN SOLAR MODULES ARE EXPOSED TO SUNLIGHT

LABEL LOCATION: DC DISCONNECT
COMBINER BOX
CODE REF: NEC 690.13(B)

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY



LABEL LOCATION: MAIN SERVICE
(OUTSIDE COVER)
CODE REF: NEC 690.12, NEC 690.56(C)(1)(a)

WARNING: PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION: DC CONDUIT, JUNCTION BOX, NOT MORE THAN 10FT
CODE REF: NEC 690.31(G) 3,
REFLECTIVE AND WEATHER RESISTANT LABEL REQUIRES CAPITALIZED LETTERS WITH A MINIMUM HEIGHT OF 3/8 NICHE, WHITE LETTERS ON RED BACKGROUND LABELS SHALL BE PLACED OF INTERIOR AND EXTERIOR DC CONDUIT, RACEWAYS, ENCLOSURES, AND CABLES ASSEMBLIES EVERY 10 FEET, WITHIN 1 FOOT OF TURNS OR BENDS AND WITHIN 1 FOOT ABOVE AND BELOW PENETRATIONS OF ROOF/CEILING ASSEMBLIES, WALLS OR BARRIERS.

⚠WARNING
DUAL POWER SOURCE
SECOND SOURCE IS
PHOTOVOLTAIC

LABEL LOCATION: SERVICE METER MAIN PANEL
CODE REF: UTILITY

⚠WARNING
INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

LABEL LOCATION: (IF APPLICABLE)
SERVICE PANEL
CODE REF: NEC 705.12(7)

PHOTOVOLTAIC SYSTEM UTILITY DISCONNECT SYSTEM

LABEL LOCATION: AC DISCONNECT
CODE REF: UTILITY

PV SOLAR BREAKER
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

LABEL LOCATION: MAIN PANEL (EXTERIOR)
PV BREAKER (INTERIOR)
CODE REF: NEC 705.12(B)(2)(3)(B)

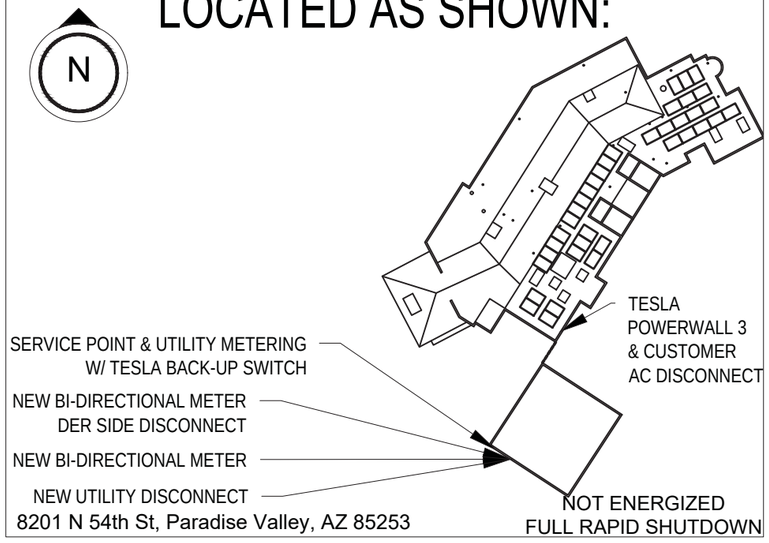
CUSTOMER DISCONNECT

SERVICE/UTILITY DISCONNECT

BI-DIRECTIONAL METER

CAUTION

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS LOCATED AS SHOWN:



PLACARD EPOXIED TO THE MAIN SERVICE PANEL

NOTE:
1. NOT EVERY LABEL PERTAINS TO EVERY JOB
2. WE WILL USE THE LABELS PERTAINING TO THIS DESIGN PACKET.

SUNLINK ENERGY

CONTRACTOR:
SUNLINK ENERGY LLC
ADDRESS: 1355 NORTH MONDEL DR,
GILBERT, AZ 85233 USA
PHONE: (480) 624-8105
LICENSE #: ROC 326376
CR-11 CGL017824521

SIGNATURE WITH SEAL



PROJECT NAME & ADDRESS

Farid Ghebleh
Parcel number: 16875022
602-909-0909
8201 N 54th St,
Paradise Valley, AZ 85253

SHEET NAME
WARNING LABELS

SHEET SIZE
ANSI B
11" X 17"

DRAWN BY:	SE
DATE:	12/26/25
(DC) kW:	16.28
(AC) kW:	11.5
PROJECT #:	AZ1885-VE25-FaGhebleh

SHEET NUMBER:
E 1.4





EQUIPMENT PHOTOS

SCALE: N.T.S.

SUNLINK ENERGY

CONTRACTOR:
SUNLINK ENERGY LLC
ADDRESS: 1355 NORTH MONDEL DR,
GILBERT, AZ 85233 USA
PHONE: (480) 624-8105
LICENSE #: ROC 326376
CR-11 CGL017824521

SIGNATURE WITH SEAL

PROJECT NAME & ADDRESS

Farid Ghebleh
Parcel number: 16875022
602-909-0909
8201 N 54th St,
Paradise Valley, AZ 85253

SHEET NAME

EQUIPMENT PHOTO

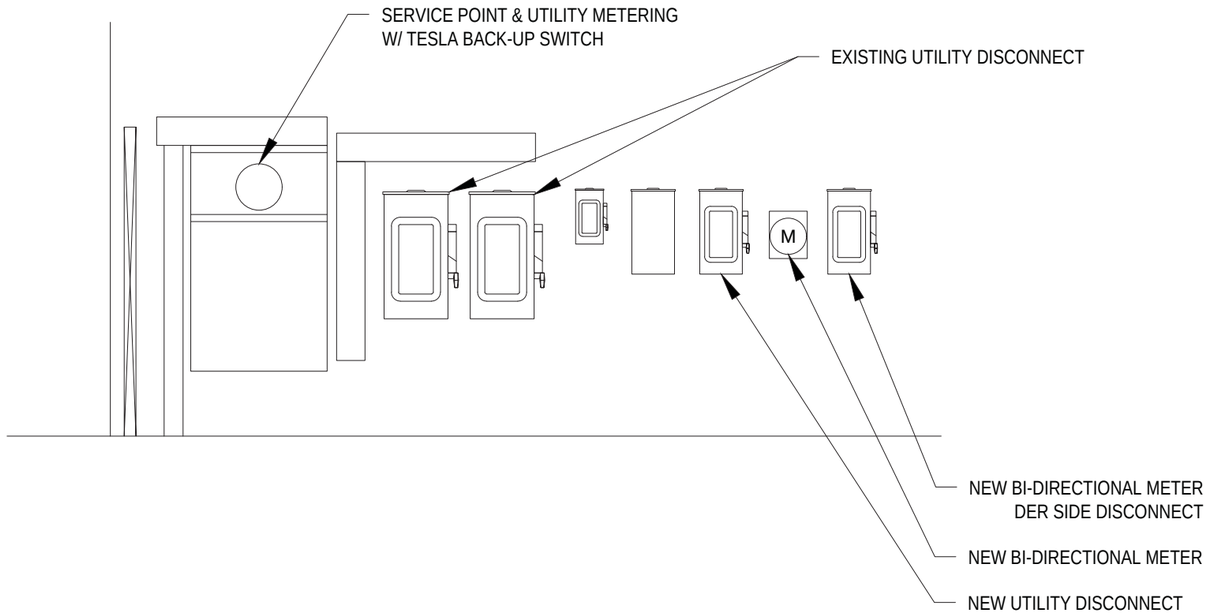
SHEET SIZE

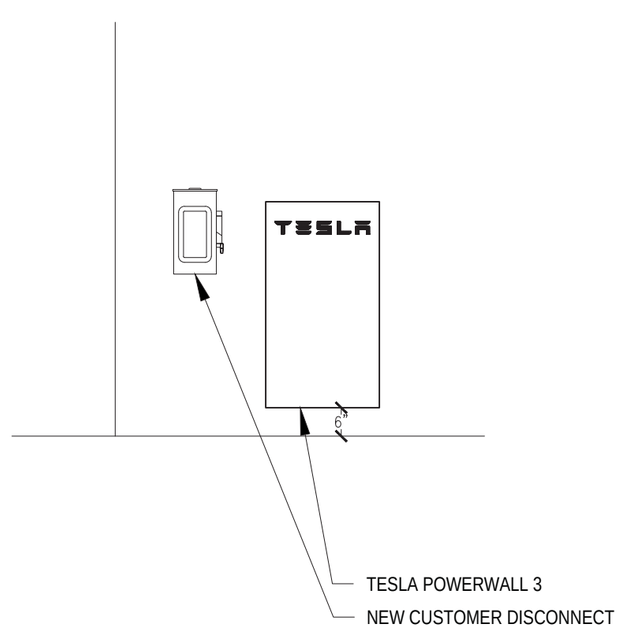
ANSI B
11" X 17"

DRAWN BY:	SE
DATE:	12/26/25
(DC) kW:	16.28
(AC) kW:	11.5
PROJECT #:	AZ1885-VE25-FaGhebleh

SHEET NUMBER:

E 1.5





EQUIPMENT ELEVATION

SCALE: N.T.S.

Registered Professional Engineer (Civil)
CERTIFICATE NO.
68963
ALI
HAJIHASHEMI
Date Signed:
ARIZONA, U.S.A.

SUNLINK ENERGY

CONTRACTOR:
SUNLINK ENERGY LLC
ADDRESS: 1355 NORTH MONDEL DR,
GILBERT, AZ 85233 USA
PHONE: (480) 624-8105
LICENSE #: ROC 326376
CR-11 CGL017824521

SIGNATURE WITH SEAL

Registered Professional Engineer (Electrical)
CERTIFICATE NO.
51214
MATTHEW W. BAILEY
Expires: 9-30-28
ARIZONA U.S.A.

PROJECT NAME & ADDRESS

Farid Ghebleh
Parcel number: 168750220
602-909-0909
8201 N 54th St,
Paradise Valley, AZ 85253

SHEET NAME

EQUIPMENT ELEVATION

SHEET SIZE

ANSI B
11" X 17"

DRAWN BY:	SE
DATE:	12/26/25
(DC) kW:	16.28
(AC) kW:	11.5
PROJECT #:	AZ1885-VE25-FaGhebleh

SHEET NUMBER:

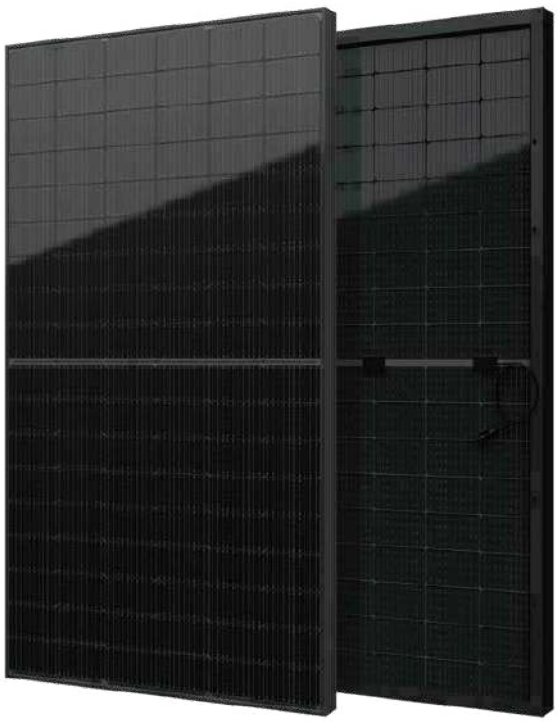
E 1.6



YUKON N Series

Half-Cell N-Type Bifacial Module

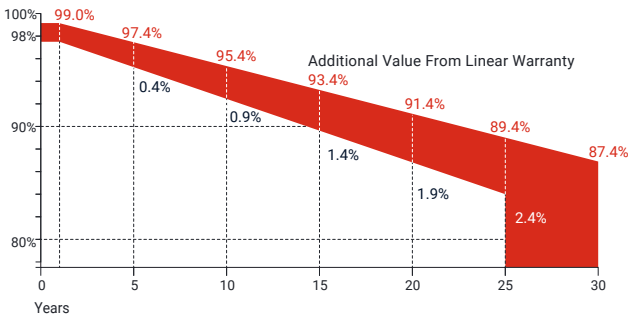
430-445Wp Module Power Output | **22.79%** Max Efficiency



Key Features

- High module conversion efficiency
- Better temperature coefficient
- Super multi busbar technology
- Low attenuation long warranty
- Superior load capacity
- Higher bifaciality
- USA based liability insurance
- Houston, Texas based company

Warranty



30 Years Guarantee on product material and workmanship

30 Years Linear power output warranty

Product Certification

IEC61215; IEC61730; UL61215; UL61730	
IEC62804	PID
IEC61701	Salt Mist
IEC62716	Ammonia Resistance
IEC60068	Dust and Sand
IEC61215	Hailstone
Fire Type (UL61730): Type 29	
ISO14001:2015; ISO9001:2015; ISO45001:2018	

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About SEG Solar

Founded in 2016, SEG is a leading vertically integrated PV manufacturer headquartered in Houston, Texas, U.S., and is dedicated to delivering reliable and cost-effective solar modules to the utility, commercial, and residential markets. By the end of 2024, SEG had shipped over 6 GW of solar modules worldwide and have achieved a module production capacity of 6 GW.

Download Datashe

Electrical Characteristics

Module Type	SEG-430-BTD-BG			SEG-435-BTD-BG			SEG-440-BTD-BG			SEG-445-BTD-BG		
	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC
Maximum Power -Pmp(Wp)*	430	324	344	435	328	348	440	332	352	445	336	356
Open Circuit Voltage -Voc(V)	38.90	36.96	38.88	39.10	37.19	39.08	39.30	37.41	39.28	39.50	37.63	39.48
Short Circuit Current -Isc(A)	13.99	11.19	11.19	14.07	11.26	11.26	14.15	11.33	11.33	14.24	11.40	11.40
Maximum Power Voltage -Vmp(V)	32.30	30.41	32.28	32.50	30.63	32.48	32.70	30.83	32.68	32.90	31.02	32.88
Maximum Power Current -Imp(A)	13.32	10.66	10.66	13.39	10.71	10.71	13.46	10.77	10.77	13.53	10.83	10.83
Module Efficiency(%)		22.02			22.28			22.53			22.79	
Power Tolerance(W)	(0, +4.99)											
Maximum System Voltage	1500V DC											
Maximum Series Fuse Rating	30 A											
Bifaciality	80±10%											

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5 NOCT: Irradiance 800W/m² ambient temperature 20°C module temperature 45°C wind speed: 1m/s

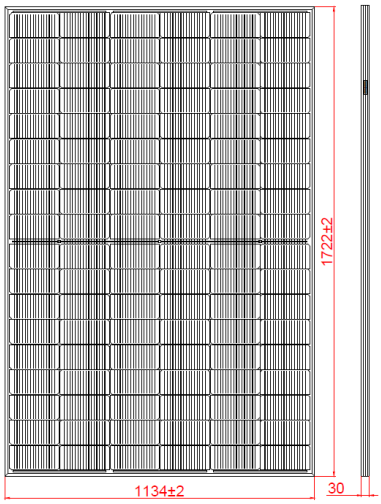
*Measuring tolerance: ±3%

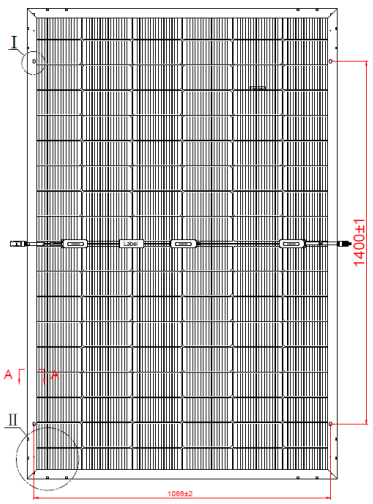
Mechanical Specifications

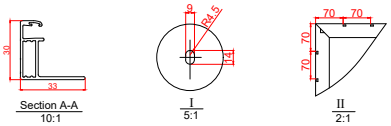
External Dimension	1722 x 1134 x 30 mm
Weight	24.0 kg
Solar Cells	N-Type Mono 108 pcs(54 x 2)
Front Glass	2.0 mm AR coating semi-tempered glass
Back Glass	2.0 mm Semi-tempered glass
Frame	Black anodized aluminium alloy
Junction Box	IP68 / 3 diodes
Connector Type	MC4
Cable Type Cable Length	12 AWG PV Wire(UL) Portrait: 400 mm(+) / 200 mm(-) Landscape: 1200 mm(+) / 1200 mm(-) or customized length
Mechanical Load(Front)	5400 Pa / 113 psf*
Mechanical Load(Rear)	2400 Pa / 50 psf*

*Refer to SEG installation manual for details

Technical Drawing







*Refer to SEG installation manual for details

Temperature Characteristics

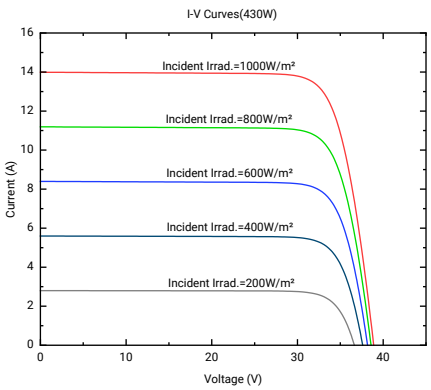
Pmax Temperature Coefficient	-0.30 %/°C
Voc Temperature Coefficient	-0.25 %/°C
Isc Temperature Coefficient	+0.046 %/°C
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

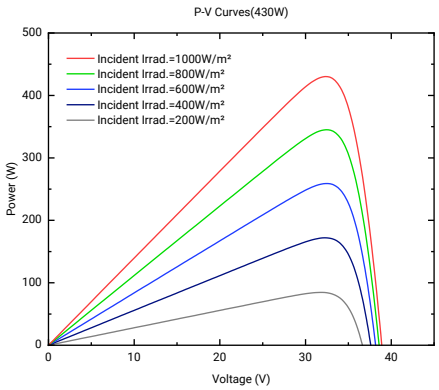
Packing Configuration

Container*	20'GP	40'HQ
Pieces per Pallet	36	36
Pallets per Container	6	24
Pieces per Container	216	864

*Refer to the SEG container technical documentation for 53' box trailer or other trucks loading quantity

Curves of PV Module





 © Copyright 2025 SEG Sola

Powerwall 3

Power Everything

—

Powerwall 3 is a fully integrated solar and battery system, designed to accelerate the transition to sustainable energy. Customers can receive whole home backup, cost savings, and energy independence by producing and consuming their own energy while participating in grid services. Once installed, customers can manage their system using the Tesla App to customize system behavior to meet their energy goals.

Powerwall 3 achieves this by supporting up to 20 kW DC of solar and providing 11.5 kW AC of continuous power per unit. It has the ability to start heavy loads up to 185 A LRA, meaning a single unit can support the power needs of most homes. Powerwall 3 is designed for mass production, fast and efficient installations, easy system expansion, and simple connection to any electrical service.



2024

Powerwall 3 Technical Specifications

System Technical Specifications

Model Number	1707000-xx-y
Nominal Grid Voltage (Input & Output)	120/240 VAC
Grid Type	Split phase
Frequency	60 Hz
Overcurrent Protection Device	Configurable up to 60 A
Solar to Battery to Home/Grid Efficiency	89% [1,2]
Solar to Home/Grid Efficiency	97.5% [3]
Supported Islanding Devices	Backup Gateway 2, Backup Switch
Connectivity	Wi-Fi (2.4 and 5 GHz), Dual-port switched Ethernet, Cellular (LTE/4G [4])
Hardware Interface	Dry contact relay, Rapid Shutdown (RSD) certified switch and 2-pin connector, RS-485 for meters
AC Metering	Revenue Grade (+/- 0.5%)
Protections	Integrated arc fault circuit interrupter (AFCI), Isolation Monitor Interrupter (IMI), PV Rapid Shutdown (RSD) using Tesla Mid-Circuit Interrupters
Customer Interface	Tesla Mobile App
Warranty	10 years

Solar Technical Specifications

Maximum Solar STC Input	20 kW
Withstand Voltage	600 V DC
PV DC Input Voltage Range	60 — 550 V DC
PV DC MPPT Voltage Range	150 — 480 V DC
MPPTs	6
Maximum Current per MPPT (I_{mp})	13 A [5]
Maximum Short Circuit Current per MPPT (I_{sc})	15 A [5]

Battery Technical Specifications

Nominal Battery Energy	13.5 kWh AC [2]
Maximum Continuous Discharge Power	11.5 kW AC
Maximum Continuous Charge Power	5 kW AC
Output Power Factor Rating	0 - 1 (Grid Code configurable)
Maximum Continuous Current	48 A
Maximum Output Fault Current	10 kA
Load Start Capability (1 s)	185 A LRA
Power Scalability	Up to 4 Powerwall 3 units supported

[1] Typical solar shifting use case.

[2] Values provided for 25°C (77°F), at beginning of life. 3.3 kW charge/discharge power.

[3] Tested using CEC weighted efficiency methodology.

[4] Cellular connectivity subject to network service coverage and signal strength.

[5] Where the DC input current exceeds the MPPT rating, a jumper can be used to combine two MPPTs into a single input to intake DC current up to 26 A I_{MP} / 30 A I_{SC}.

Powerwall 3 Technical Specifications

Environmental Specifications

Operating Temperature	–20°C to 50°C (–4°F to 122°F) [6]
Operating Humidity (RH)	Up to 100%, condensing
Storage Temperature	–20°C to 30°C (–4°F to 86°F), up to 95% RH, non-condensing, State of Energy (SOE): 25% initial
Maximum Elevation	3000 m (9843 ft)
Environment	Indoor and outdoor rated
Enclosure Rating	NEMA 3R
Ingress Rating	IPX7 (Battery & Power Electronics) IPX5 (Wiring Compartment)
Pollution Rating	PD3
Operating Noise @ 1 m	<50 db(A) typical <62 db(A) maximum

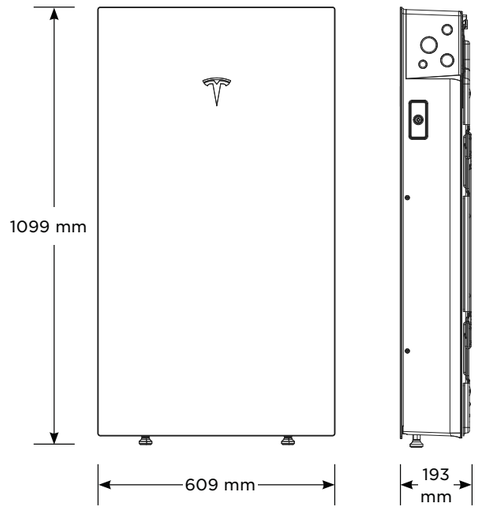
[6] Performance may be de-rated at operating temperatures above 40°C (104°F).

Compliance Information

Certifications	UL 1642, UL 1699B, UL 1741, UL 1741 SA, UL 1741 SB, UL 3741, UL 1973, UL 1998, UL 9540, IEEE 1547-2018, IEEE 1547.1, UN 38.3
Grid Connection	United States
Emissions	FCC Part 15 Class B
Environmental	RoHS Directive 2011/65/EU
Seismic	AC156, IEEE 693-2005 (high)
Fire Testing	Meets the unit level performance criteria of UL 9540A

Mechanical Specifications

Dimensions	1099 x 609 x 193 mm (43.25 x 24 x 7.6 in)
Weight	130 kg (287 lb)
Mounting Options	Floor or wall mount



Solar Shutdown Device Technical Specifications

—

The Solar Shutdown Device is a Mid-Circuit Interrupter (MCI) and is part of the PV system rapid shutdown (RSD) function in accordance with Article 690 of the applicable NEC. When paired with Powerwall 3, solar array shutdown is initiated by any loss of AC power.

Electrical Specifications

Model	**MCI-1**	**MCI-2**
Nominal Input DC Current Rating (I_{MP})	12 A	13 A
Maximum Input Short Circuit Current (I_{SC})	19 A	17 A
Maximum System Voltage (PVHCS)	600 V DC	1000 V DC [7]

[7] Maximum System Voltage is limited by Powerwall to 600 V DC.

RSD Module Performance

Maximum Number of Devices per String	5	5
Control	Power Line Excitation	Power Line Excitation
Passive State	Normally Open	Normally Open
Maximum Power Consumption	7 W	7 W
Warranty	25 years	25 years

Environmental Specifications

Operating Temperature	-40°C to 50°C (-40°F to 122°F)	-45°C to 70°C (-49°F to 158°F)
Storage Temperature	–30°C to 70°C (–22°F to 158°F)	–30°C to 70°C (–22°F to 158°F)
Enclosure Rating	NEMA 4X / IP65	NEMA 4X / IP65

Mechanical Specifications

Electrical Connections	MC4 Connector	MC4 Connector
Housing	Plastic	Plastic
Dimensions	125 x 150 x 22 mm (5 x 6 x 1 in)	173 x 45 x 22 mm (6.8 x 1.8 x 1 in)
Weight	350 g (0.77 lb)	120 g (0.26 lb)
Mounting Options	ZEP Home Run Clip M4 Screw (#10) M8 Bolt (5/16") Nail / Wood screw	Wire Clip

Compliance Information

Certifications	UL 1741 PVRSE, UL 3741, PVRSA (Photovoltaic Rapid Shutdown Array)
RSD Initiation Method	External System Shutdown Switch or Powerwall 3 Enable Switch

UL 3741 PV Hazard Control (and PVRSA) Compatibility

The following categories of solar module meet the UL 3741 PVHCS listing when installed with Powerwall 3 and Solar Shutdown Devices.

Tesla Solar Roof	PV Hazard Control System: BIPV compliance document
Tesla or Hanwha (Q.Peak Duo BLK or BLK-G6+) Modules certified for use with ZEP racking	PV Hazard Control System: ZS PVHCS compliance document
Other module and racking combinations	PV Hazard Control System: Generic PV Array compliance document

Backup Switch

The Tesla Backup Switch controls connection to the grid in a Powerwall system, and can be easily installed behind the utility meter or in a standalone meter panel downstream of the utility meter.

The Backup Switch automatically detects grid outages, providing a seamless transition to backup power. It communicates directly with Powerwall, allowing home energy usage monitoring from any mobile device with the Tesla app.

Performance Specifications

Model Number	1624171-xx-y
Continuous Load Rating	200 A, 120/240 V split phase
Maximum Supply Short Circuit Current	22 kA with breaker [10]
Communication	CAN
AC Meter	Revenue accurate (+/- 0.5%)
Expected Service Life	21 years
Warranty	10 years

[8] Breaker maximum supply short circuit current rating must be equal to or greater than the available fault current.

Environmental Specifications

Operating Temperature	–40°C to 50°C (–40°F to 122°F)
Storage Temperature	–40°C to 85°C (–40°F to 185°F)
Enclosure Rating	NEMA 3R
Pollution Rating	PD3

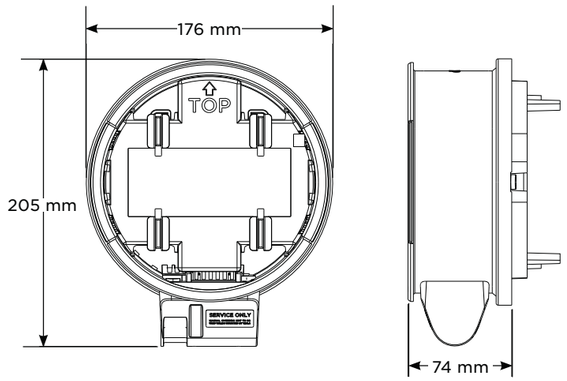
Compliance Information

Safety Standards	USA: UL 414, UL 2735, UL 916, CA Prop 65
Emissions	FCC, ICES

Mechanical Specifications

Dimensions	176 x 205 x 74 mm (6.9 x 8.1 x 2.9 in)
Weight	2.8 lb
Meter and Socket Compatibility	ANSI Type 2S, ringless or ring type
External Service Interface	Contactor manual override [11]
	Reset button
Conduit Compatibility	1/2-inch NPT

[9] Manually overrides the contactor position during a service event.



Backup Gateway 2

Backup Gateway 2 controls connection to the grid when paired with Powerwall 3, automatically detecting outages and providing seamless transition to backup power. Backup Gateway 2 also provides energy metering for solar self-consumption, time-based control, and backup operation.

In this system configuration, Powerwall 3 acts as the Site Controller, with the Backup Gateway 2 Site Controller disabled.

Performance Specifications

Model Number	1232100-xx-y
AC Voltage (Nominal)	120/240 V
Feed-in Type	Split phase
Grid Frequency	60 Hz
Current Rating	200 A
Maximum Supply Short Circuit Current	10 kA [8]
Overcurrent Protection Device	100 - 200 A, Service entrance rated [9]
Overvoltage Category	Category IV
Internal Primary AC Meter	Revenue accurate (+/- 0.2%)
Internal Auxiliary AC Meter	Revenue accurate (+/- 2%)
Primary Connectivity	Ethernet, Wi-Fi
Secondary Connectivity	Cellular (3G, LTE/4G) [10]
User Interface	Tesla App
Operating Modes	Support for solar self-consumption, time-based control, and backup
Backup Transition	Automatic disconnect for seamless backup
Modularity	Supports up to 10 AC-coupled Powerwalls
Optional Internal Panelboard	200 A 6-space / 12 circuit breakers Siemens QP or Square D HOM breakers rated 10 - 80A or Eaton BR breakers rated 10 - 125A
Warranty	10 years

[10] When protected by Class J fuses, Backup Gateway 2 is suitable for use in circuits capable of delivering not more than 22kA symmetrical amperes.

[11] The customer is expected to provide internet connectivity for Backup Gateway 2; cellular should not be used as the primary mode of connectivity. Cellular connectivity subject to network operator service coverage and signal strength.

Environmental Specifications

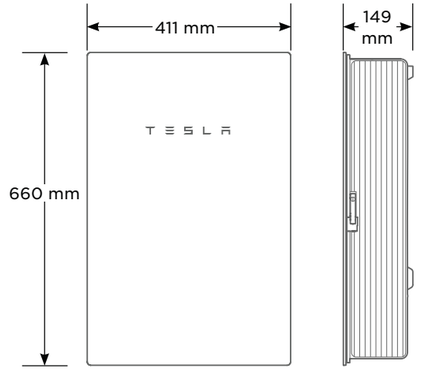
Operating Temperature	–20°C to 50°C (–4°F to 122°F)
Operating Humidity (RH)	Up to 100%, condensing
Maximum Elevation	3000 m (9843 ft)
Environment	Indoor and outdoor rated
Enclosure Type	NEMA 3R

Compliance Information

Certifications	UL 67, UL 869A, UL 916, UL 1741 PCS, CSA 22.2 0.19, CSA 22.2 205
Emissions	FCC Part 15, ICES 003

Mechanical Specifications

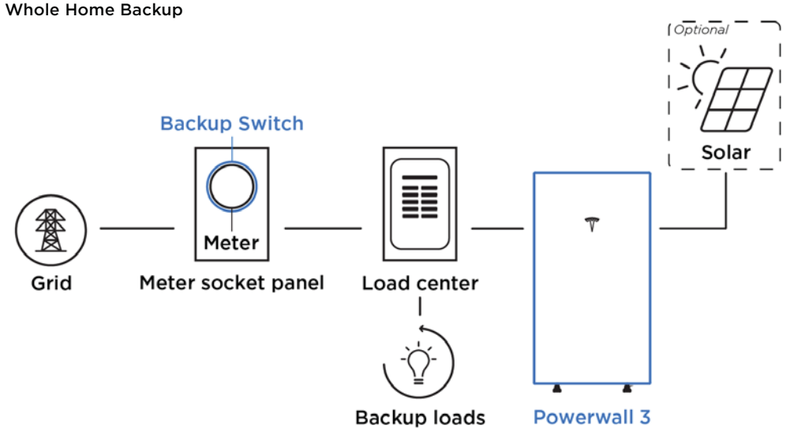
Dimensions	660 x 411 x 149 mm (26 x 16 x 6 in)
Weight	20.4 kg (45 lb)
Mounting options	Wall mount, Semi-flush mount



Powerwall 3 Example System Configurations

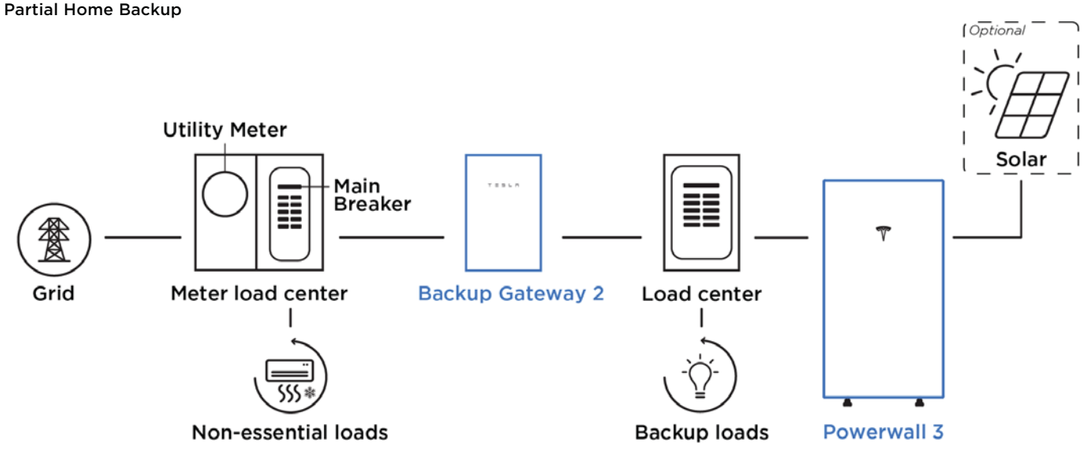
Powerwall 3 with Backup Switch

Whole Home Backup



Powerwall 3 with Backup Gateway 2

Partial Home Backup



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August 18, 2023

Tesla Powerwall 3 Hardware Compliance Letter

Written Permission Statement: This document has been released for all licensed contractors working with the purchaser of the Tesla Powerwall equipment for permitting and installation use.

CA

Applicable Codes:

- 2021, 2018, and 2015 International Building Code® (IBC)
- 2021, 2018, and 2015 International Residential Code® (IRC)
- American Society of Civil Engineers® (ASCE) 7-16 and 7-10
- 2022, 2019, and 2016 California Building Code® (CBC)
- 2022, 2019, and 2016 California Residential Code® (CRC)

To whom it may concern:

The Tesla Powerwall 3 energy storage system, which from this point on will be referred to as Powerwall, has been designed by Tesla for common applications. The design of the mounting system including hardware has been reviewed and it was determined, for the configurations and criteria contained within this document, to be compliant with the structural requirements of the applicable codes listed above.

All wall framing referenced in the details must be part of the home's main permitted bearing wall and or lateral resisting system. The contractor and their licensed design professional are responsible for ensuring the walls, and their load transfer connections, are structurally sound to support all code-specified vertical and lateral loading imposed by the equipment.

This report is not site-specific and therefore is intended for attachments in regions where the design criteria outlined is not exceeded. Only the hardware attachment of the Powerwall mounting bracket to various structure types is considered in this document.

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DIGITALLY SIGNED

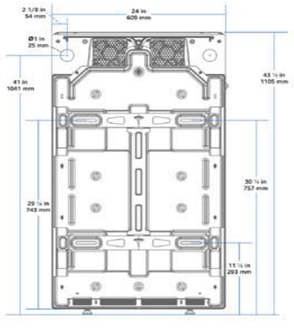
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GLOBAL DESIGN CRITERIA

PowerWall Unit and Bracket Design Specifications

Unit Height	=	43.50	in.
Unit Width	=	24.00	in.
Unit Depth	=	7.60	in.
Vertical Dist. btw Fasteners, Y_f	=	19.00	in.
Unit Weight, W_p	=	300	lbs
Ecc From Powerwall, e	=	5.80	in.



Applicable Site Loads and Coefficients

Wind Speed, V	=	165	mph
Risk Category	=	II	
Exposure Category	=	C	
Velocity Pressure Coefficient, K_z	=	0.85	
Topographic Factor, K_{zt}	=	1.00	
Wind Directionality Factor, K_d	=	0.85	
External Pressure Coefficient, GC_p	=	1.40	
Internal Pressure Coefficient, Gc_{pi}	=	0	(Ignored for fastener Calc)
Snow Load Density	=	60	pcf
Seismic Design Category	=	E	
Seismic SRA at Short Period, S_s	=	3.3	
Site Class	=	D	
Short Period Site coefficient, F_a	=	1.2	
Long Period Site Coefficient, F_v	=	1.50	
Short Period Spectral Acceleration, S_{DS}	=	2.64	[11.4-3]

GRAVITY LOAD CALCULATIONS

Snow Load

Snow Accumulation on Unit = Snow Density x Unit Depth x Unit Width x Unit Depth / 2

= 24.1 lbs

Wind Pressure

Velocity Pressure, q_z = $.00256 * K_z * K_{zt} * K_d * V^2$ [26.10-1]

= 50.4 psf

Design Wind Pressure, p = $q_z * [GC_p + Gc_{pi}]$ [30.3-1]

= 70.5 psf

Seismic Forces

Horizontal Seismic Force, F_p = $\dfrac{0.4 * a_p * S_{DS} * W_p * [1 + (2 * z / h)]}{(R_p / I_p)}$ [13.3-1]

$(z/h)_{wall}$	=	1.0	(need not exceed 1.0)
Component Amplification Factor, a_p	=	1.0	(batteries - Table 13.6-1)
Component Importance Factor, I_p	=	1.0	(hazardous material - 13.1.3)
Response Modification Factor, R_p	=	2.5	(batteries - Table 13.6-1)
$F_{p,wall}$	=	1.27 * W_p	

$F_{p,min}$ = $0.3 * S_{DS} * I_p * W_p$ $F_{p,max}$ = $1.6 * S_{DS} * I_p * W_p$

[13.3-3] = $0.79 * W_p$ [13.3-2] = $4.22 * W_p$

Weight of 1 Powerwall + Bracket, W_p = 300 lbs

$F_{p,final}$ = 1.27 * W_p

= 380.2 lbs

Vertical Seismic Force, $F_{p,vert}$ = $0.2 * S_{DS} * W_p$ [13.3-3]

= 0.53 * W_p

= 158.4 lbs

LOAD APPLICATIONS

Dead Load

Shear Load

Unit Load = 300 lbs (distributed over # fasteners)

Withdrawal Load

Withdrawal Force = Ecc moment / Y_f

Ecc Moment = 1740.0 in-lbs

Withdrawal Force = 91.6 lbs (distributed @ Top Bracket)

Snow Load

Shear Load

Shear Force, $S_{parallel}$ = 24.1 lbs (distrbuted over # fasteners)

Withdrawal Load

Withdrawal Force = Ecc moment / Y_f

Ecc Moment = 139.6 in-lbs

Withdrawal Force = 7.3 lbs (distributed @ Top Bracket)

Wind Load

Shear Load

Wind Load, $W_{parallel}$ = p * Side Surface Area of Unit

= 161.9 lbs (distributed over # fasteners)

Withdrawal Load (Suction)

Withdrawal Load on Fastener =

from Wind Load, W_{perp} = p * Front Surface Area of Unit

= 511.1 lbs (distributed over # fasteners)

Seismic Load

Shear Load

Vertical Seismic Force, $F_{p,vert}$ = 158.4 lbs

Vertical Effect, E_v = 158.4 lbs [12.4-4]

Withdrawal Load (accounts for horizontal components of $F_{p,vert}$ and F_p)

Horizontal Seismic Force, F_p = 380.2 lbs

Horizontal Effect, E_h = 380.2 lbs [12.4-3]

	Vertical		Horizontal
Seismic Load, E =	158.4 / # Top Fasteners	+	380.2 / # Total Fasteners

Note: All withdrawal loads account for eccentricity, e, of the unit/bracket/wall system

ATTACHMENTS USING WOOD STUDS

Greatest Withdrawal Load from [D+.7E] Load Combination

Greaest Shear load from [D + .7E] Load Combination

Greatest Combined Loads from [D+.7E] Load Combination

Wood Stud (With & Without Blocking) — Reference Appendix A: Wood Studs

# of 1/4" Wood Screws	=	4		
Thread Length, p	=	2.5	in	
Withdrawal per Fastener, T	=	129.2	lbs	
SPF Lumber Specific Gravity, G	=	0.42		[NDS Table 12.2B]
Withdrawal Design, W	=	121	lbs/in	[NDS 12.2.2.1 (SPF)]
Load Duration Factor, C_D	=	1.6		
W'	=	484	lbs	
484	>	129.2		Therefore: ok
Shear Load per Fastener, V	=	102.7	lbs	
Shear Design, Z	=	139	lbs/in	[NDS Table 12M (SPF)]
Load Duration Factor, C_D	=	1.6		
Z'	=	222.4	lbs	
222.4	>	102.7		Therefore: ok
α	=	52	deg	

Combined Shear and Withdrawal Analyzed per NDS Sec. 12.4 and Eq. 12.4-1

DCR = R/Z' α = 0.50 < 1.05 Therefore: ok

Wood Stud with Channel Strut — Reference Appendix A: Wood Studs

Minimum # of 1/4" Wood Screws	=	4		
Thread Length, p	=	2.5	in	
Eccentricity with Channel Strut, e	=	7.43		
Withdrawal per Fastener, T	=	134.0	lbs	
SPF Lumber Specific Gravity, G	=	0.42		[NDS Table 12.2B]
Withdrawal Design, W	=	121	lbs/in	[NDS 12.2.2.1 (SPF)]
Load Duration Factor, C_D	=	1.6		
W'	=	484	lbs	
484	>	134.0		Therefore: ok
Shear Load per Fastener, V	=	102.7	lbs	
Shear Design, Z	=	139	lbs/in	[NDS Table 12M (SPF)]
Load Duration Factor, C_D	=	1.6		
Z'	=	222.4	lbs	
222.4	>	102.7		Therefore: ok
α	=	53	deg	

Combined Shear and Withdrawal Analyzed per NDS Sec. 12.4 and Eq. 12.4-1

DCR = R/Z' α = 0.50 < 1.05 Therefore: ok

ATTACHMENTS USING METAL STUDS

Greatest Withdrawal Load from [D+.7E] Load Combination
Greaest Shear load from [D + .7E] Load Combination
Greatest Combined Loads from [D+.7E] Load Combination

Metal Stud (With & Without Backing)					Reference Appendix A: Metal Studs
# of 1/4" Sheet Metal Screws	=	4			
Minimum Penetration	=	3	threads		
Withdrawal per Fastener, T	=	129.2	lbs		
Reference SSMA Light Gauge Metal Stud Catalog				(43mils, 18 Gauge Min.)	
Withdrawal Strength of Connection, P_{not}	=	144	lbs		
144	>	129.2		Therefore: ok	
Shear Load per Fastener, Q	=	102.7			
Shear Strength of Connection, P_{ns}	=	302	lbs		
302	>	102.7		Therefore: ok	
Combined Shear and Withdrawal Analyzed per AISI-S100 Sec. E4.5.1-1					
DCR = 0.98	<	1.1		Therefore: ok	

Metal Stud with Channel Strut					Reference Appendix A: Metal Studs
# of 1/4" Sheet Metal Screws	=	4			
Minimum Penetration	=	3	threads		
Eccentricity with Channel Strut, e	=	7.4	in		
Withdrawal per Fastener, T	=	134.0	lbs		
Reference SSMA Light Gauge Metal Stud Catalog				(43mils, 18 Gauge Min.)	
Withdrawal Strength of Connection, P_{not}	=	144	lbs		
144	>	134.0		Therefore: ok	
Shear Load per Fastener, Q	=	102.7	lbs		
Shear Strength of Connection, P_{ns}	=	302	lbs		
302	>	102.7		Therefore: ok	
Combined Shear and Withdrawal Analyzed per AISI-S100 Sec. E4.5.1-1					
DCR = 1.00	<	1.1		Therefore: ok	

Channel Strut Loading Check					Reference Appendix A: Channel Strut
Greatest Withdrawal and Shear loads calculated in metal and wood stud sections.					
Maximum allowable uniform load based on 1-5/8" x 7/8" Unistrut P4100 and Eaton B54.					
Reference Unistrut and Eaton Channel Strut Catalogs					
Maximum Channel Strut Span	=	24	in		
Allowable Uniform Load	=	450	lbs		
Loading Condition Factor	=	0.67			
Allowable Load at Center of Both Spans	=	301.5	lbs		
Withdrawal per Fastener, T	=	134.0	lbs		
Shear Load per Fastener, Q	=	102.7	lbs		
Resultant Force from Shear and Withdrawal	=	168.8	lbs		
301.5	>	168.8		Therefore: ok	

ATTACHMENTS USING CONCRETE/CMU

Fastener schedules for Concrete/CMU are available in the installation manual.
Greatest Withdrawal Load from [D+.7E] Load Combination
Greaest Shear load from [D + .7E] Load Combination
Greatest Combined Loads from [D+.7E] Load Combination

Concrete/CMU ESR Fasteners Only					Reference Appendix A: Concrete or Masonry
Special reinforced concrete shear walls required in Seismic Design Category D,E per ASCE table 12.14-1.					
Worst-case values taken from ESR-1056 Fully Grouted CMU					

Tension (lb)	Shear (lb)	Diameter	Embedment
425	570	0.375	2.75

Fasteners	=	4			
Overstrength Factor, Ωo	=	2			[Table 13.6-1]
Withdrawal Load per Fastener, P_s	=	195.8	lbs		
Allowable Service Withdrawal Load, P_t	=	425	lbs		
425	>	195.8			Therefore: ok
Shear Load per Fastener, V_s	=	102.7	lbs		
Allowable Service Shear Load, V_t	=	570	lbs		
570	>	102.7			Therefore: ok
Combined Shear and Withdrawal Analyzed per ACI 530 Eq. 8-14					
DCR = 0.64	<=	1.00			Therefore: ok

ATTACHMENTS USING HOLLOW CMU

Greatest Withdrawal Load from [D+.6W] Load Combination
Greaest Shear load from [D + .6W] Load Combination
Greatest Combined Loads from [D+.6W] Load Combination

Hollow CMU ESR Fasteners Only					Reference Appendix A: Concrete or Masonry
Hollow CMU only allowed where special reinforced concrete shear walls are not required per ASCE table 12.14-1.					
Wind load combinations will govern in Seismic Design Category A,B,C regions with hollow CMU.					
Worst-case values taken from ESR-1056 for Hollow Masonry					

Tension (lb)	Shear (lb)	Diameter	Embedment
185	450	0.375	2.5

Fasteners	=	4			
Overstrength Factor, Ωo	=	2			
Withdrawal Load per Fastener, P_s	=	122.5	lbs		
Allowable Service Withdrawal Load, P_t	=	185	lbs		
185	>	122.5			Therefore: ok
Shear Load per Fastener, V_s	=	99.3	lbs		
Allowable Service Shear Load, V_t	=	450	lbs		
450	>	99.3			Therefore: ok
Combined Shear and Withdrawal Analyzed per ACI 530 Eq. 8-14					
DCR = 0.88	<=	1.00			Therefore: ok

Anchoring Details for Ground- or Wall-mounting Powerwall 3 with Wall Bracket on Existing Approved Foundation

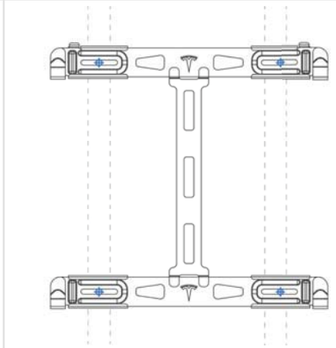
A6

Reference these anchoring details when mounting Powerwall 3 to the provided mounting bracket.

Wood Studs (spaced at 12 to 17 inches)

If anchoring directly into wood studs, use at least four (one in each corner) ¼ inch wood screws with washers, of sufficient length for at least 2-½ inch embedment into the studs.

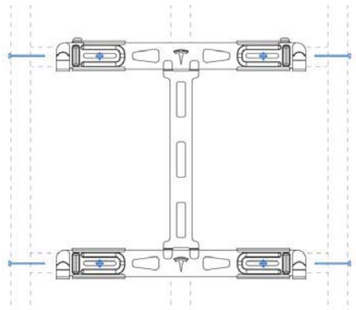
NOTE: See *Channel Strut (Unistrut) on page A8* for stud spacing greater than 17 inches, up to 24 inches.



Wood Studs (spaced at 12 to 17 inches)

If anchoring to blocking between wood studs, use minimum 2 x 4 inch blocks, end-nailed into studs with two 16d nails or toe-nailed into studs with four 8d nails. Use at least four (one in each corner) ¼ inch wood screws with washers, of sufficient length for at least 2-½ inch embedment into the blocking.

NOTE: See *Channel Strut (Unistrut) on page A8* for stud spacing greater than 17 inches, up to 24 inches.

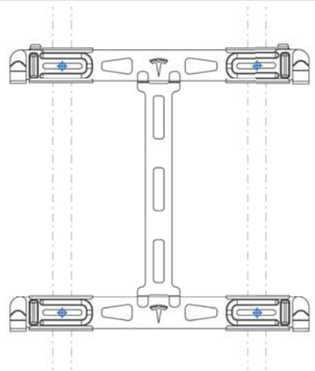


Metal Studs (spaced at 12 to 17 inches)

If anchoring directly to metal studs, studs must be minimum 18 gauge. Use at least four (one in each corner) #14 (¼ inch) sheet metal screws with washers, of sufficient length to penetrate at least 3 threads beyond the stud.

If backing is needed between the studs, the backing must be minimum 18 gauge. Attach backing to metal studs with 12 gauge 3x3 inch angle clip or Simpson SFC2.25 clips with two #10 sheet metal screws in each leg.

NOTE: See *Channel Strut (Unistrut) on page A8* for stud spacing greater than 17 inches, up to 24 inches.



APPENDIX A: POWERWALL 3 ANCHORING DETAILS

A7 - Anchoring Details for Ground- or Wall-mounting Powerwall 3 with Wall Bracket on Existing Approved Foundation

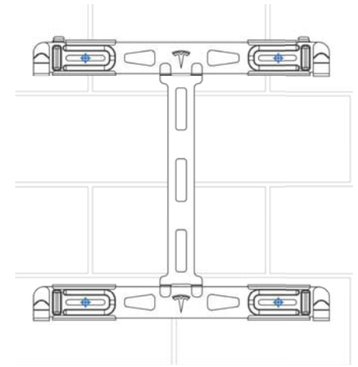
Concrete Masonry Unit Wall

Minimum strength must be 2000 PSI.

Use at least four (one in each corner, in any available anchor slot) 3/8 inch concrete anchors of sufficient length for the embedment listed below.

- *ESR 1056 for Simpson Titen HD 3/8-inch concrete anchor*. Minimum 2-¾ inch (70 mm) embedment required
- *ESR 3056 for Hilti KH-EZ 3/8-inch concrete anchor*. Minimum 1-5/8 inch (41.3 mm) embedment requiredin fully grouted CMU cells only

Anchors shall not be installed within 12 inches (305 mm) of wall edges or 1-½ inches (38 mm) of masonry block edges.

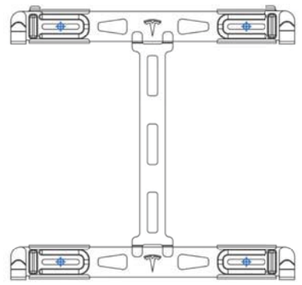


Solid Concrete Wall

Minimum strength must be 2500 PSI.

Use at least four (one in each corner, in any available anchor slot) 3/8 inch concrete anchors of sufficient length for at least 2-½ inch (63.5 mm) embedment into the wall.

- *ESR 2713 for Simpson Titen HD 3/8-inch concrete anchor*
- *ESR 3027 for Hilti KH-EZ 3/8-inch concrete anchor*



A8 - Anchoring Details for Ground- or Wall-mounting Powerwall 3 with Wall Bracket on Existing Approved Foundation

Brick Wall

(Double and Single Layer of Brick Masonry)

Minimum strength must be 2500 PSI.

Use at least four (one in each corner, in any available anchor slot) ¼ inch masonry anchors of sufficient length for the embedment listed below.

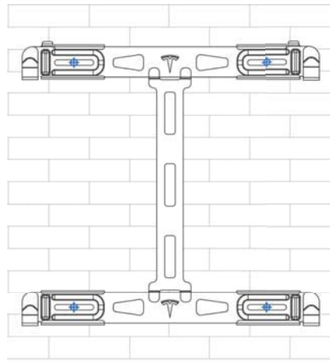
- Kwik Conn 2 (No ESR). Minimum 1-¾ inch (44.5 mm) embedment required

Brick installation is only permitted in seismic design category A or B, and where ESR anchors are not required. Ground mount only.

Maximum Wind Speed	Mounting Location
145 mph	Within 10 ft (3048 mm) of wall edge
165 mph	Not within 10 ft (3048 mm) of wall edge

NOTE: Faux brick veneer is not a supported wall type for Powerwall installations.

NOTE: Fasteners shall not be installed in mortar joints.



Channel Strut (Unistrut)

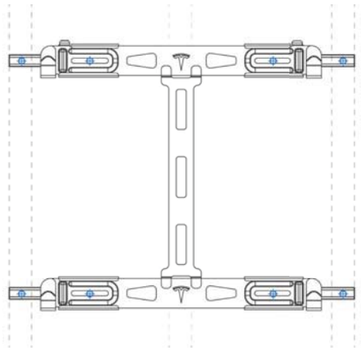
Struts must be minimum 12 gauge, and either 1-5/8 inch or 7/8 inch.

If mounting on wood studs, attach each strut to at least two studs, using at least one ¼ inch wood screw with washer per stud, of sufficient length for at least 2-½ inch embedment into the studs.

If mounting on metal studs, attach each strut to at least three studs, using at least one #14 (¼ inch) sheet metal screws with washers per stud, of sufficient length to penetrate at least 3 threads beyond the studs.

To attach the bracket to the struts, use at least four (one in each corner) 3/8 inch hex head screws with washers and strut nuts.

Channel strut shall have a maximum unsupported span of 24 inches (610 mm) and shall not be cantilevered.



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02/01/2024

Tesla Backup Switch

The Backup Switch greatly simplifies installation of residential energy storage systems by augmenting the homeowner's standard form 2S meter socket panel, enabling a plug and play installation of grid connection control at the ideal location for whole home back up – directly behind the utility meter. Key product features and operational information are included below.

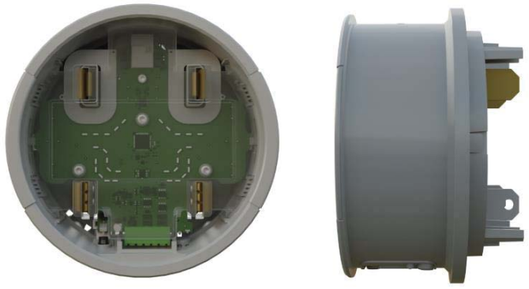


Figure 1: Tesla Backup Switch

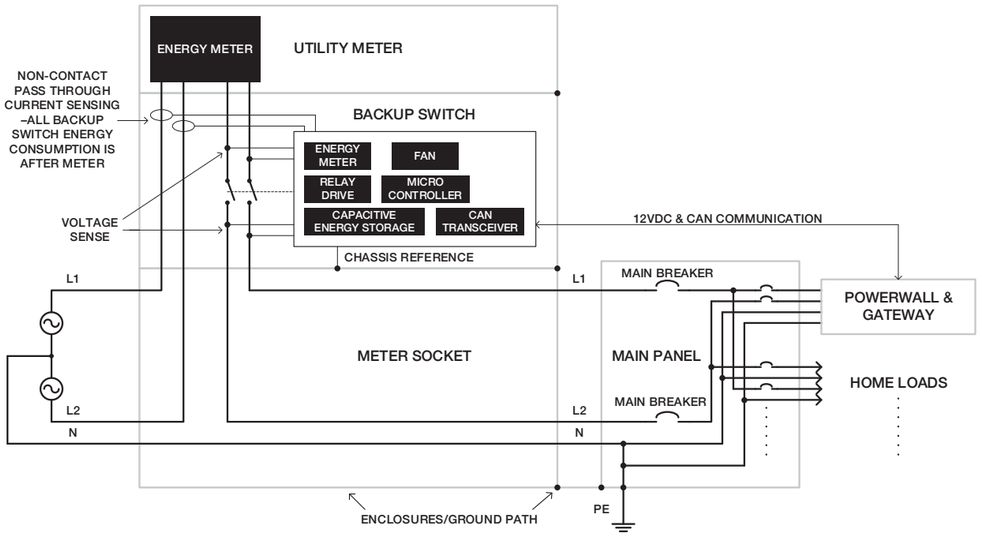


Figure 2: Typical Installation Simplified Schematic

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Unintentional Backfeed Prevention

Safety is of paramount importance. The Backup Switch is part of the Tesla energy storage system which is designed to provide backup to the home while preventing unintentional backfeed on the distribution grid.

Backup power will only be provided if the system can confirm the Backup Switch relay is open. The system requires confirmation that the relay is in an open state, which is verified through redundant checks including feedback values on either side of the relay to confirm the situation. Without confirmation of a safe condition, the system will not enter backup mode.

The Tesla energy storage system complies with IEEE 1547 intentional and unintentional islanding, and UL 1741 Power Control Systems (PCS) requirements.

Safe and Compliant Interface for the Utility Meter

The Backup Switch is certified to safety standard UL 414, which is the same standard used to certify utility meter sockets and which has special considerations for meter socket adapters. Tesla has certified the Backup Switch for use with any meter socket at the full rated capacity of 200A.Through this process, the Backup Switch has been proven to meet regulatory construction and performance criteria, ensuring safe operation throughout its performance and environmental specifications.

Reliability

The Backup Switch is designed for a 20+ year service life after installation. Tesla understands that reliable operation of this device is critical to customer experience and to the availability of electrical service .We have leveraged learnings from years of operation from over one hundred thousand deployed systems operating the same way as a Powerwall installed with the Backup Switch.

Power Consumption and Meter Tampering

The Backup Switch does not consume any energy drawn before the utility meter. Aside from pass-through bus bars, the Backup Switch does not touch any conductors on the line side of the utility meter. Voltage sensing is done on the load side of the utility meter and power for the device is provided by an external power supply through the attached power and communication cable. The Backup Switch locks to the meter socket and the utility meter the same way the utility meter locks to the meter socket, preserving the same level of physical security.

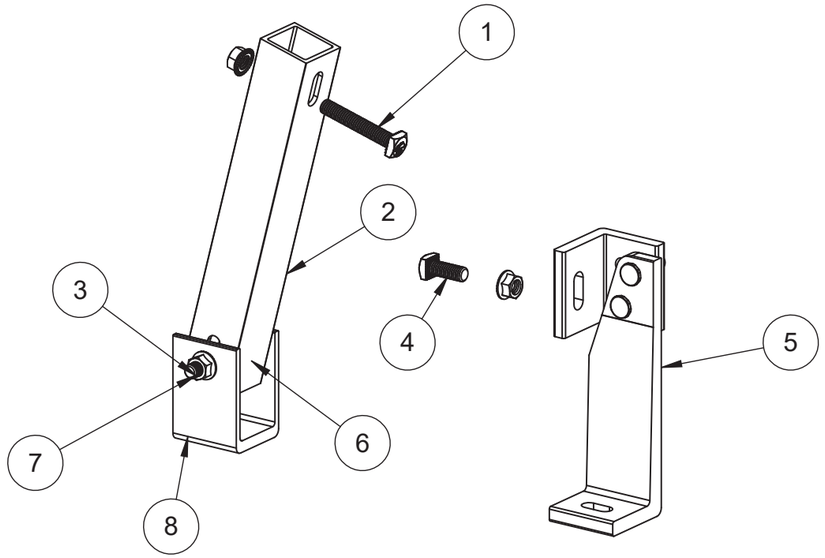
Utilities That Have Approved Backup Switch

See the complete list at https://www.tesla.com/support/energy/powerwall/learn/tesla-backup-switch.

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IRONRIDGE

Tilt Leg



ITEM NO	DESCRIPTION	QTY IN KIT
1	BOLT, BONDING 3/8-16 SQ HEAD, 2.25"	1
2	NORTH TILT LEG, 1.5" SQ, LENGTH VARIES	1
3	NUT, FLANGE HEX 3/8-16 SS	3
4	BOLT, BONDING 3/8-16 SQ HEAD, 1.0"	1
5	PRE-ASSEMBLED SOUTH TILT LEG	1
6	WASHER, FLAT 3/8 SS	1
7	BOLT, 3/8-16 X 2.5" CS SST	1
8	U-FOOT	1

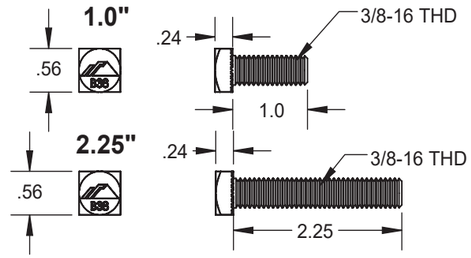
TILT MOUNT KIT OPTIONS

PART NUMBER	DESCRIPTION	NORTH TILT LEG LENGTH
TM-FTL-010	Kit, Fixed Tilt Leg, 10", Mill	10"
TM-FTL-015	Kit, Fixed Tilt Leg, 15", Mill	15"
TM-FTL-020	Kit, Fixed Tilt Leg, 20", Mill	20"
TM-FTL-025	Kit, Fixed Tilt Leg, 25", Mill	25"
TM-FTL-030	Kit, Fixed Tilt Leg, 30", Mill	30"

v1.1

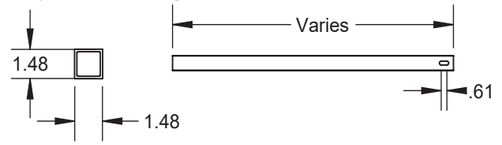
Cut Sheet

1,4) Bolt, Bonding 3/8-16 Sq Head



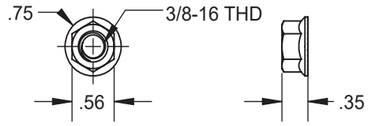
Property	Value
Material	Stainless Steel
Finish	Clear

2)North Tilt Leg



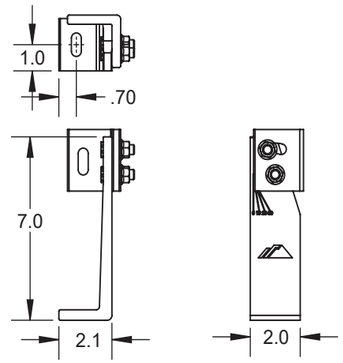
Property	Value
Material	Aluminum
Finish	Mill

3) Nut, Flange Hex 3/8-16 SS



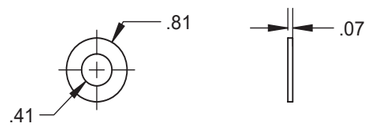
Property	Value
Material	Stainless Steel
Finish	Clear

5)Pre-assembled South Tilt Leg



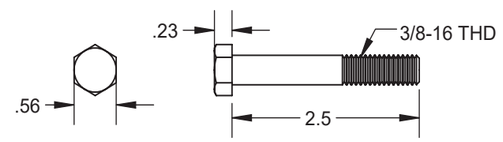
Property	Value
Material	Aluminum
Finish	Mill

6) Washer, Flat 3/8 SS



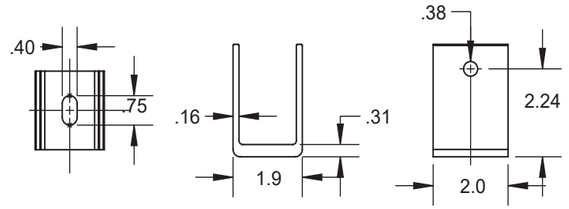
Property	Value
Material	Stainless Steel
Finish	Clear

7) Bolt, 3/8-16 X 2.5" CS SS



Property	Value
Material	Stainless Steel
Finish	Clear

8) U-Foot



Property	Value
Material	Aluminum
Finish	Mill

v1.1

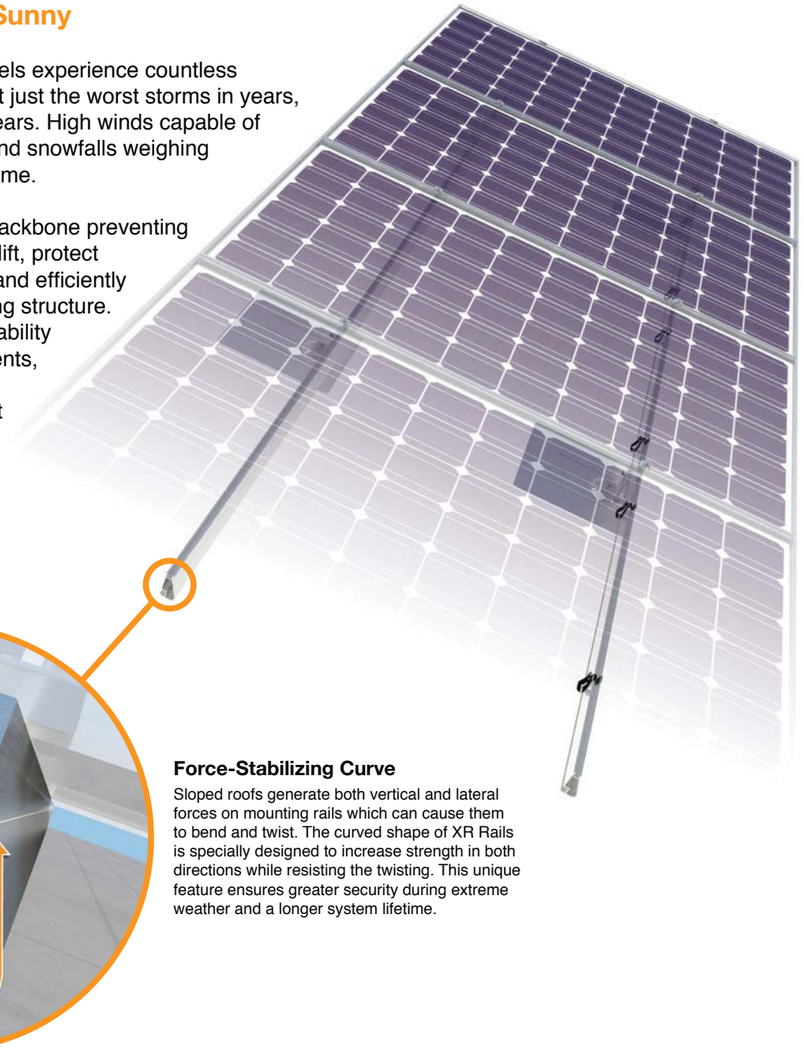
IRONRIDGE

XR Rail Family

Solar Is Not Always Sunny

Over their lifetime, solar panels experience countless extreme weather events. Not just the worst storms in years, but the worst storms in 40 years. High winds capable of ripping panels from a roof, and snowfalls weighing enough to buckle a panel frame.

XR Rails are the structural backbone preventing these results. They resist uplift, protect against buckling and safely and efficiently transfer loads into the building structure. Their superior spanning capability requires fewer roof attachments, reducing the number of roof penetrations and the amount of installation time.



Force-Stabilizing Curve

Sloped roofs generate both vertical and lateral forces on mounting rails which can cause them to bend and twist. The curved shape of XR Rails is specially designed to increase strength in both directions while resisting the twisting. This unique feature ensures greater security during extreme weather and a longer system lifetime.

Compatible with Flat & Pitched Roofs

XR Rails are compatible with FlashFoot and other pitched roof attachments.

IronRidge offers a range of tilt leg options for flat roof mounting applications.

Corrosion-Resistant Materials

All XR Rails are made of marine-grade aluminum alloy, then protected with an anodized finish. Anodizing prevents surface and structural corrosion, while also providing a more attractive appearance.



Tech Brief

XR Rail Family

The XR Rail Family offers the strength of a curved rail in three targeted sizes. Each size supports specific design loads, while minimizing material costs. Depending on your location, there is an XR Rail to match.



XR10

XR10 is a sleek, low-profile mounting rail, designed for regions with light or no snow. It achieves 6 foot spans, while remaining light and economical.

- 6’ spanning capability
- Moderate load capability
- Clear anodized finish
- Internal splices available



XR100

XR100 is the ultimate residential mounting rail. It supports a range of wind and snow conditions, while also maximizing spans up to 8 feet.

- 8’ spanning capability
- Heavy load capability
- Clear & black anodized finish
- Internal splices available



XR1000

XR1000 is a heavyweight among solar mounting rails. It’s built to handle extreme climates and spans 12 feet or more for commercial applications.

- 12’ spanning capability
- Extreme load capability
- Clear anodized finish
- Internal splices available

Rail Selection

The following table was prepared in compliance with applicable engineering codes and standards. Values are based on the following criteria: ASCE 7-10, Roof Zone 1, Exposure B, Roof Slope of 7 to 27 degrees and Mean Building Height of 30 ft. Visit IronRidge.com for detailed span tables and certifications.

Load		Rail Span					
Snow (PSF)	Wind (MPH)	4’	5’ 4”	6’	8’	10’	12’
None	100	XR10		XR100		XR1000	
	120						
	140						
	160						
10-20	100						
	120						
	140						
	160						
30	100						
	160						
40	100						
	160						
50-70	160						
80-90	160						

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EXPANSION JOINTS

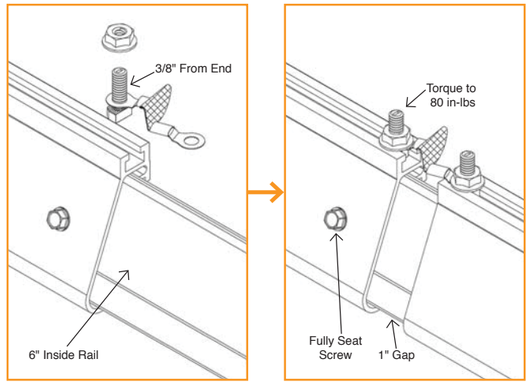
GROUNDING STRAP EXPANSION JOINT

Grounding Strap Expansion Joints are required for thermal expansion of rows exceeding 100 feet of rail.

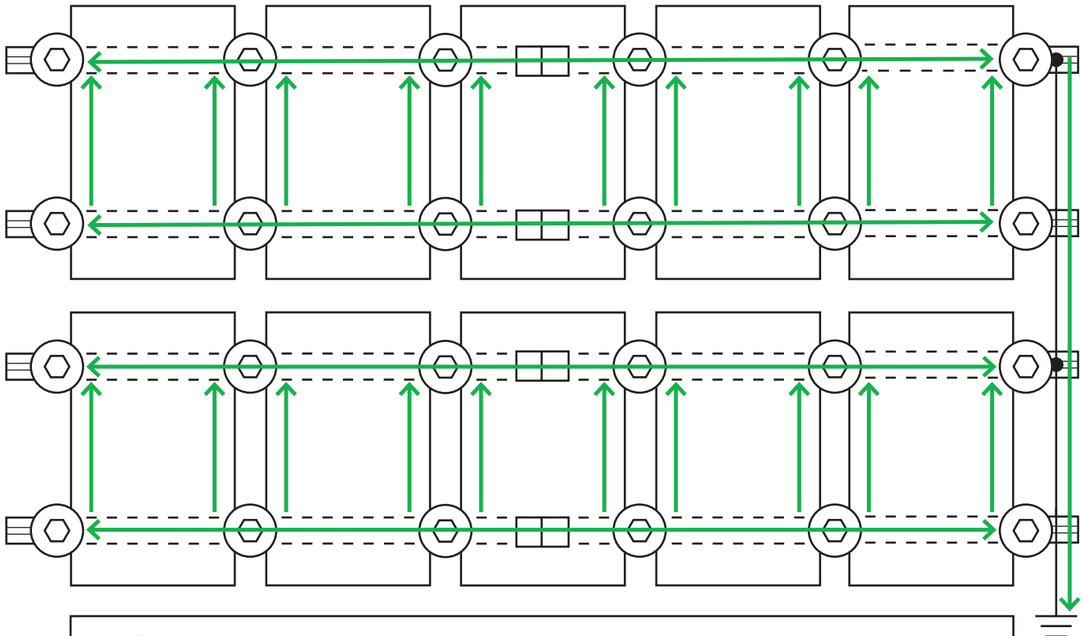
Insert Internal Splice into first rail and secure with screw. Assemble and secure Grounding Strap 3/8" from rail end. Slide second rail over Internal Splice leaving 1" gap between rails. Attach other end of Grounding Strap with hardware, and torque hex nuts to **80 in-lbs**.

Second Bonded Splice screw is not used with Expansion Joints.

Do not install module over top of expansion joint location.



ELECTRICAL DIAGRAM



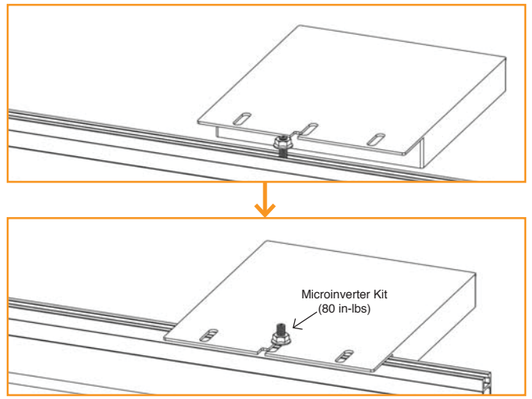
*Grounding Lugs and wire are not required in systems using certain Enphase microinverters or certain Sunpower modules. Equipment grounding is achieved with the Engage cable for Enphase or the AC module cable system for Sunpower via their integrated EGC.

MICROINVERTER KITS

Use IronRidge's Microinverter Kit to bond compatible microinverters and power optimizers to the racking system.

Insert Microinverter Kit T-bolt into top rail slot. Place compatible microinverter or power optimizer into position and tighten hex nut to **80 in-lbs**.

If installing in areas with ground snow loads greater than 40 psf, install MLPE devices directly next to module frame edge.



COMPATIBLE PRODUCTS

Enphase
M250-72, 250-60, M215-60, C250-72, S230, S280, IQ 6, IQ 6+, IQ 7, IQ 7+, IQ 7X, Q Aggregator

Darfon
MIG240, MIG300, G320, G640

Solar Edge
P300, P320, P370, P400, P405, P505, P600, P700, P730, P800p, P800s, P850

SYSTEMS USING ENPHASE MICROINVERTERS OR SUNPOWER AC MODULES

IronRidge systems using approved Enphase products or SunPower modules eliminate the need for lay-in lugs and field installed equipment grounding conductors (EGC). This solution meets the requirements of UL 2703 for bonding and grounding and is included in this listing.

The following Sunpower modules are included in this listing: Modules with model identifier Ab-xxx-YY and InvisiMount (G5) 46mm frame; where "A" is either E, or X; “b” can be 17, 18, 19, 20, 21, or 22; and “YY” can be C-AC, D-AC, BLK-C-AC, or BLK-D-AC.

The following Enphase products are included in this listing: Microinverters M250-72, M250-60, M215-60, C250-72, and Engage cables ETXX-240, ETXX-208, ETXX-277.

A minimum of two inverters mounted to the same rail and connected to the same Engage cable are required.

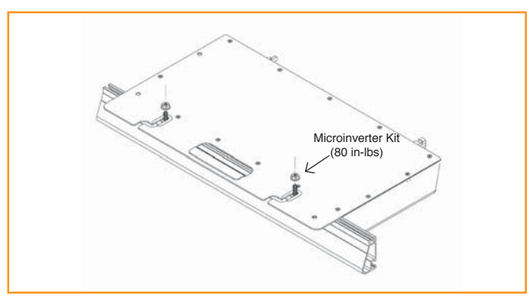
The microinverters or Sunpower AC modules must be used with a maximum 20 A branch rated overcurrent protection device (OCPD).

If an AC module is removed from a circuit for maintenance, you must first disconnect AC power and then install a temporary EGC to bridge the gap by inserting an AC extension cable (or via other NEC-compliant means), in order to maintain effective ground continuity to subsequent modules.

SYSTEMS USING PHAZR MICROSTORAGE PRODUCTS

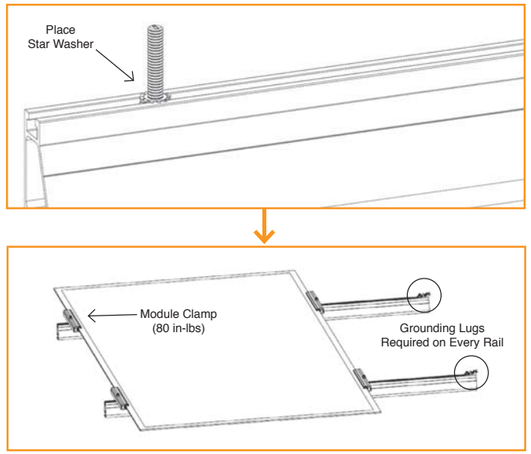
Bonding and grounding is achieved via the IronRidge system when using the Microinverter Kit. Running a separate equipment grounding conductor to the PHAZRs is not required.

If installing in areas with ground snow loads greater than 40 psf and underneath a module, install PHAZR devices as close as possible to module frame edge.



FRAMELESS MODULE KITS

Insert Frameless Kit T-bolt in top rail slot. Place star washer over T-bolt, allowing it to rest on top of rail. Secure module clamps with a hex nut and torque to **80 in-lbs**.



- **Tested or evaluated module clamps:**
  - **Sunforson silver or black SFS-UTMC-200(B) mid and SFS-UTEC-200(B) end clamps.**
  - **Sunpreme silver or black mid and end clamps with part numbers 7500105X where "X" is 1, 5, 6 or 7.**
  - **IronRidge silver or black mid and end clamps with part numbers FMLS-XC-001-Y where "X" is E or M and "Y" is B or blank.**
- **Follow module manufacturer's installation instructions to install the module clamps.**
- **Frameless modules require using a Grounding Lug on every rail.**
- **For Sunpreme Modules Only: If required to use slide prevention hardware, see Module Slide Prevention Addendum (Version 1.10).**

MODULE COMPATIBILITY

The Flush Mount System may be used to ground and/or mount a PV module complying with UL 1703 only when the specific module has been evaluated for grounding and/or mounting in compliance with the included instructions. Unless otherwise noted, “xxx” refers to the module power rating and both black and silver frames are included in the certification.

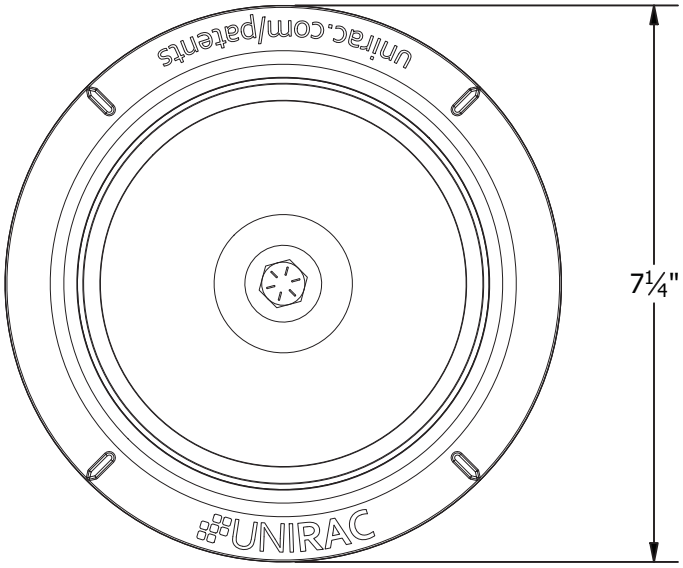
MAKE	MODELS
Amerisolar	Modules with 35, 40 and 50mm frames and model identifier ASbYxxxZ; where "b" can be 5 or 6; "Y" can be M, P, M27, P27, M30, or P30; and "Z" can be blank, W or WB.
Astronergy Solar	Modules with 35, 40, or 45mm frames and model identifier aaSM66yyPzz-xxx; where “aa” is CH or A; “yy” is either 10 or 12; and “zz” is blank or (BL). Frameless modules with model identifier CHSM6610P(DG)-xxx.
Auxin	Modules with 40mm frames and model identifier AXN6y6zAxxx; where "y" can be M or P; "z" can be 08, 09, 10, 11, or 12; and "A" can be F or T.
Axitec	Modules with 35 or 40mm frames and model identifier AC-xxxY/aa-ZZ; where “Y” is M or P; “aa” is 125 or 156; and “ZZ” is 54S, 60S or 72S.
Boviet	Modules with 40mm frames and model identifier BVM66aaYY-xxx; where "aa" can be 9, 10 or 12; and "YY" is M or P.
BYD	Modules with 35mm frames and model identifier BYDxxxAY-ZZ; where "A" can be M6, P6, or PH; "Y" can be C or K; and "ZZ" can be 30 or 36.
Canadian Solar	Modules with 35 and 40mm frames and model identifier CSbY-xxxZ; where "b" can be 1, 3 or 6; "Y" can be H, K, P, U, V, or X; and "Z" can be M, P, MS, PX , M-SD, P-AG, P-SD, MB-AG, PB-AG, MS-AG, or MS-SD. Frameless modules with model identifier CSbY-xxx-Z; where "b" can be 3 or 6; "Y" is K, P, U, or X; and "Z" can be M-FG, MS-FG, P-FG, MB-FG, or PB-FG.
CertainTeed	Modules with 35 and 40mm frames and model identifier CTxxxYZZ-AA; where "Y" can be M or P; "ZZ" can be 00,01, 10, or 11; and "AA" can be 01, 02 or 03.
CSUN	Modules with 35 and 40mm frames and model identifier YYxxx-zzAbb; where "YY" is CSUN or SST; "zz" is blank, 60, or 72; "A" is blank, P or M; and "bb" is blank, BB, BW, or ROOF.
Ecosolargy	Modules with 35, 40, and 50mm frames and model identifier ECOxxxYzzA-bbD; where "Y" can be A, H, S, or T; "zz" can be 125 or 156; "A" can be M or P; "bb" can be 60 or 72; and "D" can be blank or B.

MODULE COMPATIBILITY

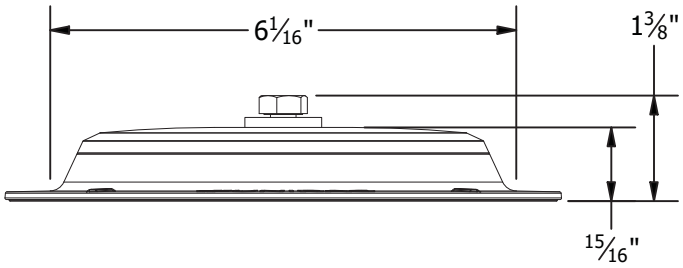
MAKE	MODELS
ET Solar	Modules with 35, 40, or 50mm frames and model identifier ET-Y6ZZxxxAA; where "Y" is P, L, or M; "ZZ" is 60 or 72; and "AA" is WB, WW, BB, WBG, WWG, WBAC, WBCO, WWCO, WWBCO or BBAC.
Flex	Modules with 35, 40, or 50mm frames and model identifier FXS-xxxYY-ZZ; where "xxx" is the module power rating; "YY" is BB or BC; and "ZZ" is MAA1B, MAA1W, MAB1W, SAA1B, SAA1W, SAC1B, SAC1W, SAD1W, SBA1B, SBA1W, SBC1B, or SBC1W.
GCL	Modules with 35 and 40mm frames and and model identifier GCL-a6/YY xxx; where "a" can be M or P; and "YY" can be 60, 72, or 72H.
GigaWatt Solar	Modules with 40mm frames and model identifier GWxxxYY; where “YY” is either PB or MB.
Hansol	Modules with 35 and 40mm frames and model identifier HSxxxYY-zz; where "YY" can be TB, TD, UB or UD; and "zz" can be AN1, AN3, AN4.
Hanwha Solar	Modules with 40, 45, or 50mm frames and model identifier HSLaaP6-YY-1-xxxZ; where "aa" is either 60 or 72; "YY" is PA or PB; and "Z" is blank or B.
Hanwha Q CELLS	Modules with 32, 35, 40, and 42mm frames and model identifier aaYY-ZZ-xxx; where "aa" can be Q. or B.; "YY" can be PLUS, PRO, PEAK, LINE PRO, LINE PLUS, or PEAK DUO; and "ZZ" can be G3, G3.1, G4, G4.1, L-G2, L-G2.3, L-G3, L-G3.1, L-G3y, L-G4, L-G4.2, L-G4y, LG4.2/TAA, BFR-G3, BLK-G3, BFR-G3.1, BLK-G3.1, BFR-G4, BFR-G4.1, BFR G4.3, BLK-G4.1, G4/SC, G4.1/SC, G4.1/TAA, G4.1/MAX, BFR G4.1/TAA, BFR G4.1/MAX, BLK G4.1/TAA, BLK G4.1/SC, EC-G4.4, G5, BLK-G5, L-G5.2, or L-G5.2/H.
Heliene	Modules with 40mm frames and model identifier YYZZxxx; where "YY" is 36, 60, 72, or 96; and "ZZ" is M, P, or MBLK.
Hyundai	Modules with 35, 40 and 50mm frames and model identifier HiS-YxxxZZ; where "Y" can be M or S; and "ZZ" can be MI, MF, MG, SG, RI, RG(BF), RG(BK), TI, or TG.
Itek	Modules with 40 or 50mm frames and model identifier IT-xxx-YY; where "YY" is blank, HE, or SE, or SE72.
JA Solar	Modules with 35, 40 and 45mm frames and model identifier JAyyzz-bb-xxx/aa; where “yy” can be M, P, M6 or P6; “zz” can be blank, (K), (L), (R), (V), (BK), (FA), (TG), (FA)(R), (L)(BK), (L)(TG), (R)(BK), (R)(TG), (V)(BK), (BK)(TG), or (L)(BK)(TG); “bb” can be 48, 60, 72, 60S01 or 72S01; and “aa” can be MP, SI, SC, PR, RE, 3BB, 4BB, 4BB/RE, 5BB.
Jinko	Modules with 35 and 40mm frames and model identifier JKMYxxxZZ-aa; where "Y" can either be blank or S; "ZZ" can be P, PP, M; and "aa" can be blank, 60, 60B, 60H, 60-J4, 60B-J4, 60B-EP, 60(Plus), 60-V, 60-MX, 72, 72-V, 72H-V, 72L-V, 72-MX. Frameless modules with model identifier JKMxxxPP-DV.
Kyocera	Modules with 46mm frames and model identifier KYxxxZZ-AA; where “Y” is D or U; “ZZ” is blank, GX, or SX; and “AA” is LPU, LFU, UPU, LPS, LPB, LFB, LFBS, LFB2, LPB2, 3AC, 3BC, 3FC, 4AC, 4BC, 4FC, 4UC, 5AC, 5BC, 5FC, 5UC, 6BC, 6FC, 8BC, 6MCA, or 6MPA.
LG	Modules with 35, 40, and 46mm frames and model identifier LGxxxYaZ-bb; where "Y" is A, E, N, Q, S; "a" is 1 or 2; "Z" is C, K, T, or W; and "bb" is A3, A5, B3, G3, G4, or K4.
Longi	Modules with 40mm frames and model identifier LR6-YYZZ-xxxM; where "YY" can be 60 or 72; and "ZZ" can be BK, BP, HV, PB, PE, or PH.
Mission Solar	Modules with 40mm frames and model identifier MSExxxZZaa; where "ZZ" can be MM, SE, SO or SQ; and "aa" can be 1J, 4J, 4S, 5K, 5T, 6J, 6S, or 6W.
Mitsubishi	Modules with 46mm frames and model identifier PV-MYYxxxZZ; where "YY" is LE or JE; and "ZZ" is either HD, HD2, or FB.
Motech	IM and XS series modules with 40, 45, or 50mm frames.
Neo Solar Power	Modules with 35mm frames and model identifier D6YxxxZZaa; where "Y" can be M or P; "ZZ" can be B3A, B4A, E3A, E4A, H3A, H4A; and "aa" can be blank, (TF), ME or ME (TF).
Panasonic	Modules with 35 and 40mm frames and model identifier VBHNxxxYYzzA; where “YY” can be either SA or KA; “zz” can be either 01, 02, 03, 04, 06, 06B, 11, 11B, 15, 15B, 16, 16B, 17, or 18; and “A” can be blank, E or G.
Peimar	Modules with 40mm frames and model identifier SGxxxYzz; where "Y" can be M or P; and "zz" can be blank, (BF), or (FB).

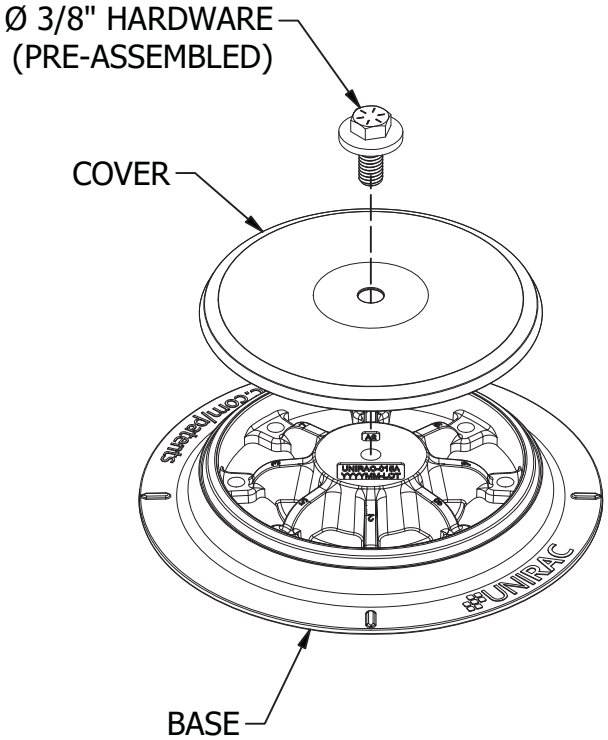
NOTES:

1. ATTACHMENT CAN ACCOMMODATE ROOFING SCREW SIZES #12 - #15. FASTENER SIZE, LENGTH, AND QUANTITY TO BE SELECTED BY STRUCTURAL ENGINEER OF RECORD WHEN DESIGNING FOR THE SPECIFIC PROJECT CONSTRUCTION AND CAPACITY.
2. REFER TO THE UNIRAC INSTALLATION GUIDE FOR PROPER USE OF CHEM LINK M1 AND ONE-PART SEALANTS FOR WATER TIGHT INSTALLATION.



TOP VIEW





PART # TABLE	
P/N	DESCRIPTION
310999	FLASHLOC RM KIT

ULTIMATE TEST LOAD (WITH 8 ROOF FASTENERS)

UPLIFT ULTIMATE CAPACITY	6,670 lbs.
SHEAR ULTIMATE CAPACITY	5,760 lbs.

UNIRAC
1411 BROADWAY BLVD. NE
ALBUQUERQUE, NM 87102 USA
PHONE: 505.242.6411
WWW.UNIRAC.COM

PRODUCT LINE:	RM
DRAWING TYPE:	ASSEMBLY DETAIL
DESCRIPTION:	FLASHLOC RM KIT
REVISION DATE:	6/26/2020

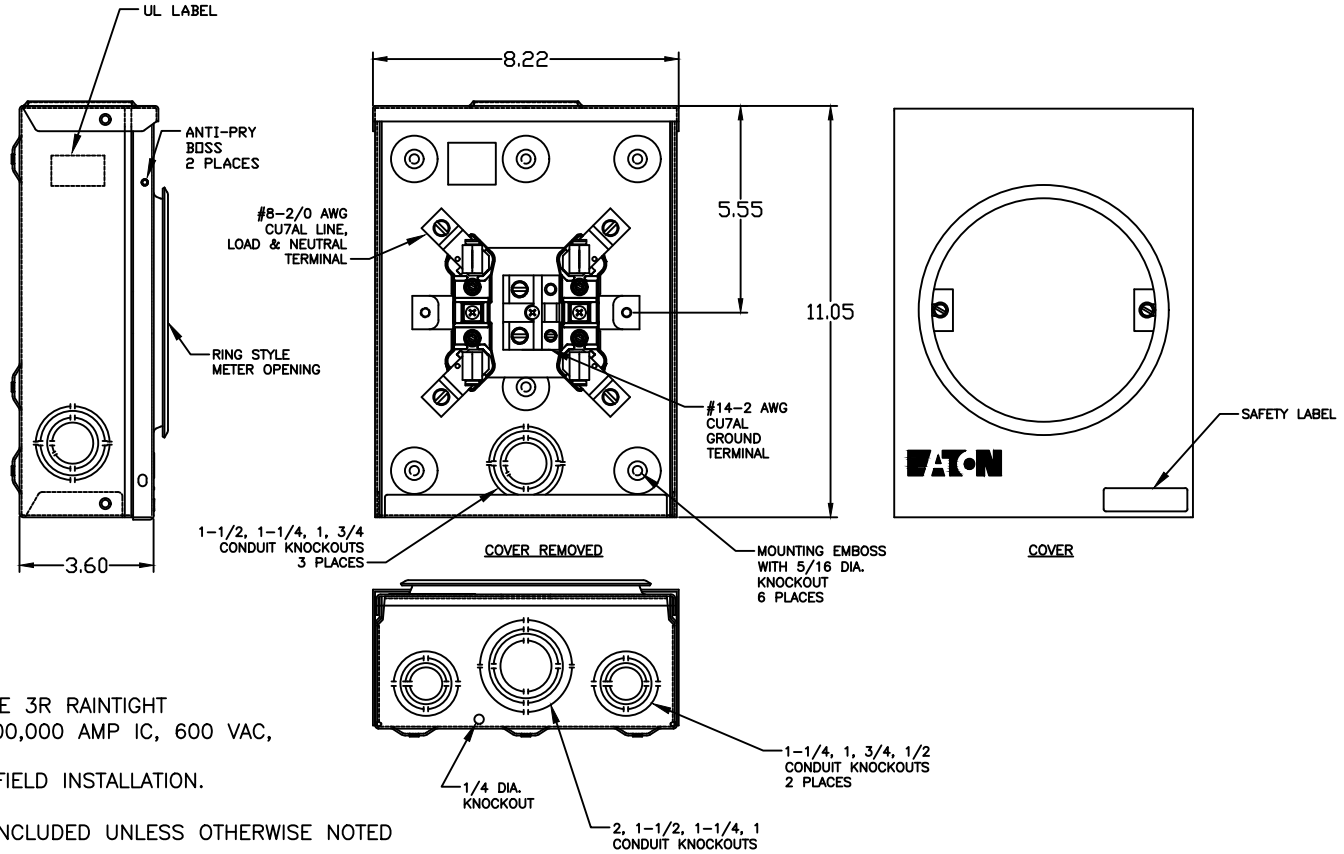
DRAWING NOT TO SCALE
ALL DIMENSIONS ARE NOMINAL

PRODUCT PROTECTED BY ONE OR MORE US PATENTS

LEGAL NOTICE

RMF-A01

SHEET



NOTES:
1) FINISH: ANSI 61 GRAY
2) CABINET: 16 GA GALV. STEEL, TYPE 3R RAINTIGHT
3) 125 AMP CONTINUOUS, 10,000–200,000 AMP IC, 600 VAC, 1 PHASE, 3 WIRE
4) USE MSR5TK FOR 5TH TERMINAL FIELD INSTALLATION.
5) ALL DIMENSIONS ARE IN INCHES
6) STANDARD SNAP RETAINING RING INCLUDED UNLESS OTHERWISE NOTED
7) UL 414 LISTED

B–LINE PART #	CONFIGURATION
011	STANDARD
011 MS18	WITH LEXAN COVER
011 MS73	WITH SCREW TYPE RING

METER SOCKETS
011
125AMP, 1ø OH/UG
RINGTYPE STYLE
SEE TABLE FOR CONFIGURATION

TITLE DESCRIPTION: 125A B-LINE SINGLE METER SOCKETS		DRAFTSMAN/DESIGNER: M. BOHN	DATE (YYYY/MM/DD): 2020/03/12
THE INFORMATION ON THIS DRAWING IS DISCLOSED IN CONFIDENCE AND IS NOT TO BE REPRODUCED, USED OR DISCLOSED, EXCEPT FOR THE PURPOSE WHICH FURNISHED.	Powering Business Worldwide. ©2019 Eaton Corporation, All Rights Reserved	SIZE: D	DRAWING NUMBER: 98-1247	REVISION: 02
		UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES	SCALE: N/A	SHEET: 1 OF 1
				DSD_DFM_ACAD_WEB.DWG

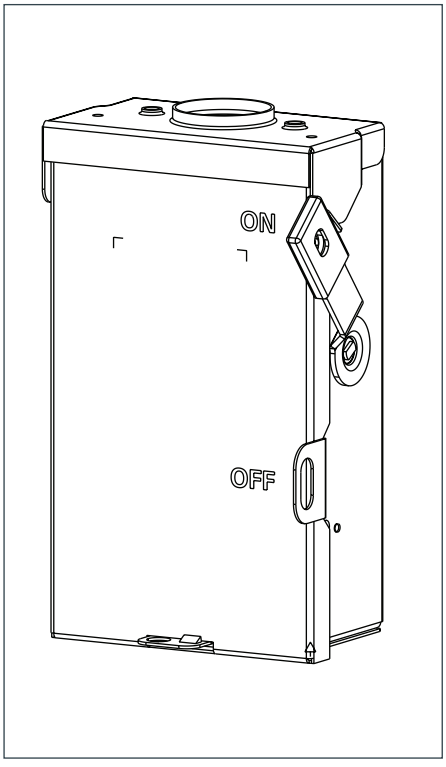
SIEMENS

Data Sheet

VBII General Duty Safety Switch

60A 240V, Type 3R, Non-Fusible

usa.siemens.com/switches



Note: Image is representative only, refer to dimensional drawing for details.

Standards and Ratings

- UL Listed under file #E4776
- Meets UL98 for switches and UL50 for enclosures
- Meets NEMA Standard KS-1 for enclosed switches
- Meets NEC wire bending space requirements

Features

- Rated 10,000 AIC when protected by Class K fuses or H fuses or rated 100,000 AIC when protected by Class R fuses
- Quick-make and break switching action
- Double break visible blade design
- Easy to wire lay-in ground lug included (factory installed)
- Oversized lugs

Product Specifications

General Duty 60A, 240V, Type 3R

General Information

Catalog Number	Amps	Volts	Description	Shipping Weight (lbs.) [1]
GNF222RLZA	60	240	2 Pole, Non-Fusible	20

Horsepower Ratings – 240 Volts

Catalog Number	1 Phase, 240V AC	3 Phase, 240V AC	250V DC
GNF222RLZA	10	N/A	10

Mechanical Lug Wire Range[2]

Description	Wire Range with Wire Bending Space per NEC Requirements	Lug Wire Range
Line and Load Terminals	#14-6 AWG	#14-2 AWG

1 Package of 5.
2 See "Wire Torque Information" table for specific wire torque values.
3 Use closure plate screws provided to mount hubs.
4 Use Cu/Al 60°/75° C Wire.

Accessories and Hub Kits

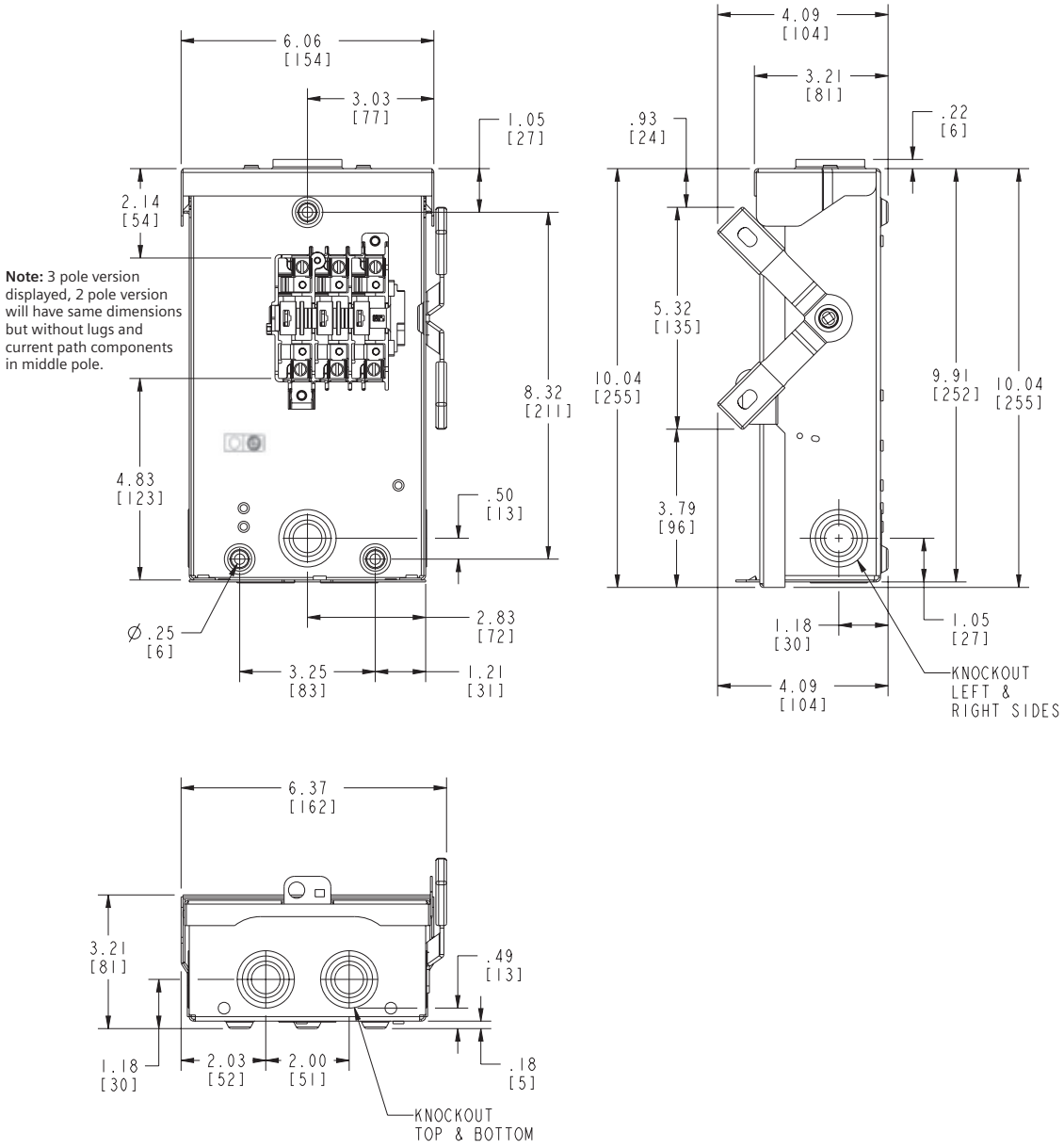
Catalog Number	Description
ECHA075 [3]	0.75" Type "HA" Outdoor Hub
ECHA100 [3]	1.00 " Type "HA" Outdoor Hub
ECHA125 [3]	1.25 " Type "HA" Outdoor Hub

Wire Torque Information

Application	Wire Size	Nominal Torque
Mechanical Lug Wire Connector [4]	14 -10 AWG	35 lb.-in.
	8 AWG	40 lb.-in.
	6 AWG	45 lb.-in.

Dimension Drawings

General Duty 60A, 240V, Type 3R



No knockouts in enclosures.
Dimensions shown in inches and millimeters ( ).
Dimension shown accurate to ± ⅛ inch.

KNOCKOUT CODE	CONDUIT SIZE
A (Concentric)	.50 .75 1.00

LINE SIDE WIRE BEND	LOAD SIDE WIRE BEND
2"	2"

Enclosure: Cold Rolled Steel
0.45 Thick (17 Gauge)
Finish: ANSI #61 Grey Paint

Published by
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Siemens Industry, Inc.
3617 Parkway Ln
Peachtree Corners, GA 30092

For more information, please contact our Customer Support Center.
Phone: 1-800-241-4453
E-mail: info.ipc.us@siemens.com
info.hmi.us@siemens.com

usa.siemens.com/switches

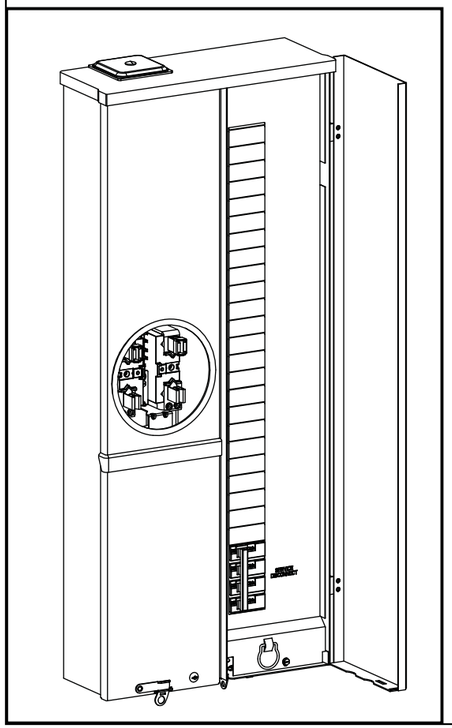
Order No.: SDS-GZ222R-1022
Printed in U.S.A.
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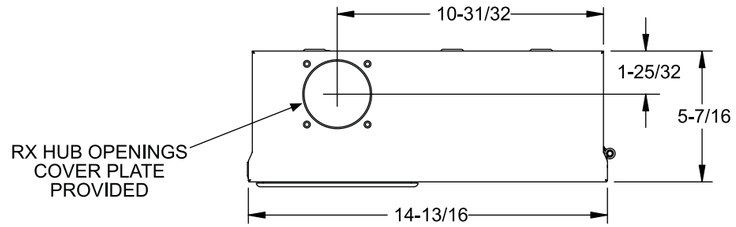
The technical data presented in this document is based on an actual case or on as-designed parameters, and therefore should not be relied upon for any specific application and does not constitute a performance guarantee for any projects. Actual results are dependent on variable conditions. Accordingly, Siemens does not make representations, warranties, or assurances as to the accuracy, currency or completeness of the content contained herein. If requested, we will provide specific technical data or specifications with respect to any customer's particular applications. Our company is constantly involved in engineering and development. For that reason, we reserve the right to modify, at any time, the technology and product specifications contained herein.

Catalog Number: MC2442B1225ESC

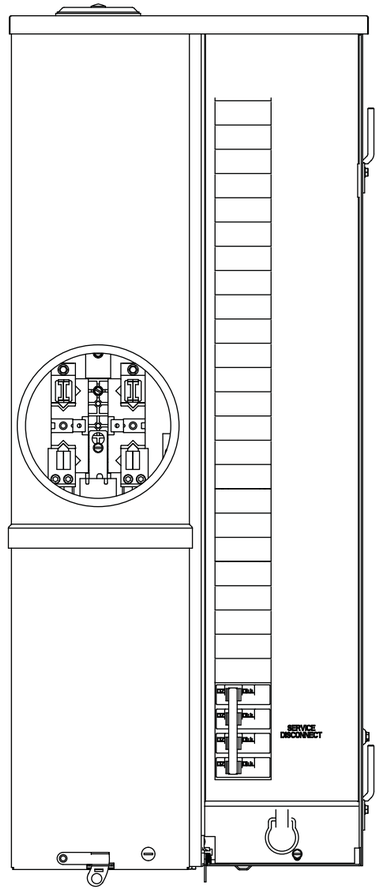
Features and Ratings

- Outdoor Enclosure (NEMA Type 3R)
- Ring Type Meter Cover
- Meter Socket Rating: 200A Continuous
- Panelboard Rating: 225A Max; Bus rating: 225 Amps Max.
- 1 Phase, 3 Wire, 120/240V~, 120/208V~
- 225A Breaker Factory Installed
- 22,000 AIC Max. Rated (See Wiring Diagram for Details)
- (24) 1" Spaces, (42) Circuits Max.
- Copper Bus Bars
- Overhead or Underground Service Entrance
- Surface Mounting
- Complies with EUSERC Dwg. No. 301

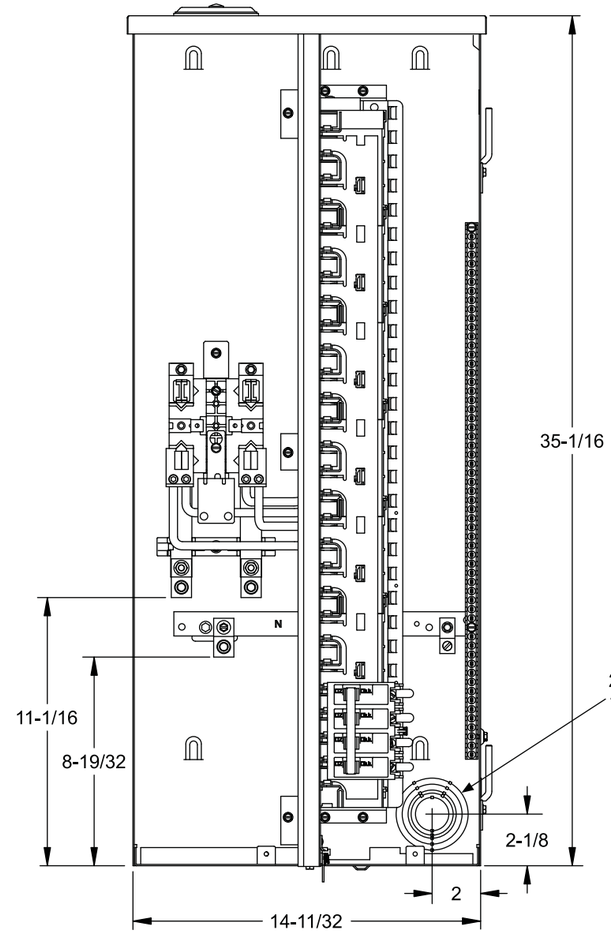


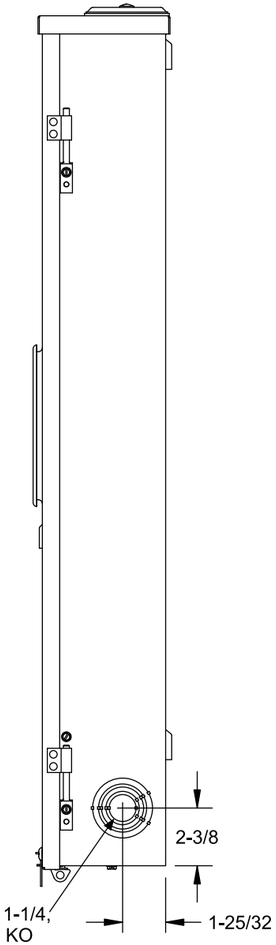


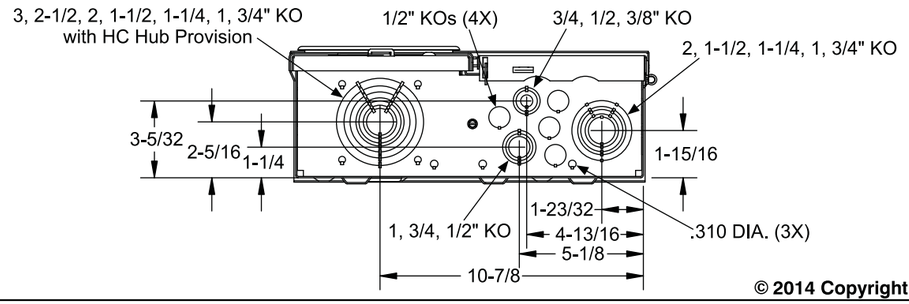
View Shown Without Door



View Shown Without Covers, Door, Deadfront







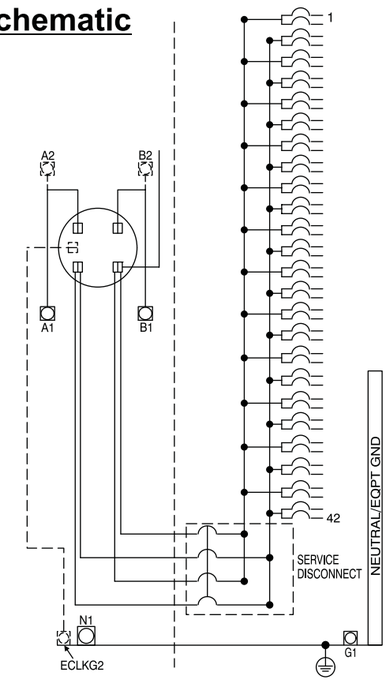
Accessories, Torques & Wire Sizes

Trade size (in)	Catalog number
RX Type Hub (top endwall)	
1 ¼"	EC38597
1 ½"	EC38598
2"	EC38599
2 ½"	EC38600
RX Cover Plate	EC38595
HC Type Hub (bottom endwall)	
2"	ECHC200
2 ½"	ECHC250
3"	ECHC300

Accessories	Cat. No.
Filler Plate	ECQF3
5th Jaw Assembly	EMC5J
Mechanical Interlock	ECQML12
Meter Socket Jumper	ECJS
Interlock Kit	ECSBPK02

Lug Kit	Wire Range	Torque
ECLKG2	2/0 - #14	50 lb in

Schematic



Any 80-100 Amp circuit breaker must be installed in the lowest position in the branch panel. All other positions are limited to 70 Amp maximum circuit breakers.

Terminal	Wire Size	Torque
A1, B1, A2, B2	250kcmil - #4	250 lb-in
N1	250kcmil - #4	250 lb-in
G1	2/0 - #14	50 lb-in
Branch Breaker Terminals	See Markings on Breaker	
Neutral/ Equipment Ground	#10 - #14 CU #10 - #12 AL #8 #6 - #4	20 lb-in 20 lb-in 25 lb-in 35 lb-in
Ground Conductors Only	(2) or (3) #14 AWG	20 lb-in
	(2) #12-#10 AWG	20 lb-in

Line terminals A1 and B1 are installed for underground service entry as shown in the wiring diagram. For overhead entry, service bus may be repositioned.

SIEMENS
Siemens Industry, Inc.

Meter Load Center Combination

Description:
225A, 24 Sp/42 Ckt, OH/UG, Surf Mount

KAM 1/27/14	Fam G	DO NOT SCALE DRAWING	Dwg. No.	MC2442B1225ES 203

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FamG T-24

AFFIDAVIT OF MAILING NOTIFICATION

STATE OF ARIZONA)

) ss:

County of Maricopa)

In accordance with the requirements of the Town of Paradise Valley, the undersigned hereby certifies that the mailing list for the proposed project is a complete list of property owners within _____ feet of the subject property, as obtained from the Maricopa County Assessor's Office on the following date May 4, 2026, and such notification has been mailed on the following date May 4, 2026.

Signature

The foregoing instrument was acknowledged by me this 4th day of May, 2026, by Natalia Connally.
Name

NOTARY PUBLIC

My commission expires:
1/5/2030

DUNCAN MILLER
Notary Public, State of Arizona
Maricopa County
Commission # 690798
My Commission Expires
January 05, 2030

AFFIDAVIT OF POSTING

STATE OF ARIZONA)

) ss:

County of Maricopa)

I, Natalia Connally, depose and state that the attached notice, of proposed application Solar located at 8201 N 54th Street for the (Planning Commission/Town Council/Board of Adjustment/Hillside Committee) meeting date of May 13, 2026 is a true and correct copy of a notice which I cause to be posted by the following day of the week _____, and on the following date May 5, 2026 in the following location(s):

All in the Town of Paradise Valley, Arizona and County and State aforesaid, the same being public places in said County and in the following locations:

All to the Town of Paradise Valley, Arizona and County and State aforesaid.

DATED this 4 day of May, 2026

Signature

This affidavit was SUBSCRIBED AND SWORN to before me this 4 day of May, 2026

NOTARY PUBLIC

My commission expires:

1/5/2030

DUNCAN MILLER
Notary Public, State of Arizona
Maricopa County
Commission # 690798
My Commission Expires
January 05, 2030

TOWN
Of
PARADISE VALLEY

Standard Approval Information

1. All construction documents submitted for permit reviews shall include all approved Hillside-approved documents, including but not limited to, approved material references, cross sections, landscape plans, lighting plans, and lighting specifications. Any changes to the Hillside-approved plans may result in delays in permit plan review and inspection processes. Any proposed changes should be reported to the Staff to determine compliance with Hillside Development Regulations. Changes may be subject to a Staff, Chair, or Committee review.

2. The Applicant shall submit a Construction Staging Plan to the Town per the Hillside Safety Improvement Measures and Process Manual for review and approval prior to being issued a building permit.

3. The Applicant shall submit a liability insurance policy for the proposed project in the amount of $2 million per occurrence and $5 million aggregate naming the Town of Paradise Valley as an additional insured prior to being issued a building permit.

4. All construction parking shall be located on the property as much as possible. Any offsite parking shall be confined to the adjacent streets along the immediate property frontage. All offsite parking shall be located on the same side of the street. No construction materials will be allowed to be stored on the Town's right-of-way.

5. No final approval or certificate of occupancy shall be issued until all Hillside stipulations and all Town Code requirements are complied with, including, but not limited to, landscaping, fire flow, fire safety and all onsite and offsite improvements.

6. Noise from construction that can be heard off-site, including, but not limited to, hydraulic ram hammers, equipment used to cut through rock, machinery with audible back-up warning devices, powered machinery, truck delivery and idling, constant and persistent hammering, shall comply with Article 8-10, Nuisance Noise, as set forth in the Town Code. Heavy Equipment and construction-related deliveries are generally limited between the hours of 7:00 a.m. and 5:00 p.m. Monday through Friday; no work on Saturday, Sunday or legal holidays. Exceptions include a one hour early start time in summer, time exceptions granted by the Town Manager, and construction not defined as Heavy Equipment or deliveries that can occur outside the 7:00 a.m. to 5:00 p.m., Monday through Friday, time frame.