

GENERAL NOTES

TOWN OF PARADISE VALLEY
GOVERNING BUILDING 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 CODE COUNCIL ELECTRICAL
2015 INTERNATIONAL MECHANICAL CODE
2015 INTERNATIONAL PLUMBING CODE
2015 INTERNATIONAL PROP. MAINTENANCE CODE
2015 INTERNATIONAL FUEL GAS CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE
2014 NATIONAL ELECTRICAL CODE
2015 INTERNATIONAL FIRE CODE

ALL PRODUCTS LISTED BY I.C.C./N.E.R. NUMBER(S) SHALL BE INSTALLED PER THE REPORT AND MANUFACTURER'S WRITTEN INSTRUCTIONS. PRODUCT SUBSTITUTION(S) FOR PRODUCT(S) LISTED SHALL ALSO HAVE APPROVED EVALUATION (I.C.C. REPORT(S) OR BE APPROVED AND LISTED BY OTHER NATIONALLY RECOGNIZED TESTING AGENCIES.

MISCELLANEOUS SITE STRUCTURES, SWIMMING POOLS, SPAS, FENCES, SITE WALLS (INCLUDING RETAINING WALLS) AND GAS STORAGE TANKS REQUIRE SEPARATE PERMITS.

FOUNDATIONS SUPPORTING WOOD SHALL EXTEND AT LEAST 6" ABOVE ADJACENT FINISH GRADE.

FINISHED GRADE SHALL SLOPE 5% FOR A DISTANCE OF 10' TO AN APPROVED WATER DISPOSAL AREA.

PRETREAT FOR TERMITE PROTECTION BENEATH THE CONCRETE SLAB PRIOR TO PLACEMENT OF CONCRETE. MINIMUM THREE (3) YEAR WARRANTY.

CONCRETE SLABS AT DOOR LOCATIONS SHALL HAVE A MAXIMUM SLOPE OF 1/4" PER FOOT.

SEAL ALL VOIDS AROUND PENETRATIONS THROUGH FLOOR SLABS.

MINIMUM INSULATION REQUIREMENTS: FRAME WALLS - R-19; MASONRY WALLS - R-7; ROOF - R-38. SEE SPECIFICATIONS.

WALLS HAVING PARALLEL OR STAGGERED STUDS FOR SOUND CONTROL SHALL HAVE FIRE BLOCKS OF MINERAL FIBER, GLASS FIBER, OR OTHER APPROVED NON-RIGID MATERIAL.

WINDOW AREAS SHALL EQUAL A MINIMUM OF 1/10 OF FLOOR AREA.

ALL SLEEPING AREAS SHALL BE PROVIDED WITH AN OPERABLE WINDOW OR DOOR WITH A MINIMUM AREA OF 5.7 SQ. FT. OPENING DIRECTLY TO THE OUTSIDE. THE MINIMUM NET HEIGHT SHALL NOT BE LESS THAN 20" AND THE MINIMUM NET HEIGHT SHALL NOT BE LESS THAN 24". MAXIMUM SILL HEIGHT SHALL NOT BE MORE THAN 44".

ALL GLASS IN HAZARDOUS AREAS AND ALL GLASS WITHIN 18" OF FLOOR (EXCEPT SINGLE PANES WITH 9 SQ. FT. OR LESS AREA) SHALL BE SAFETY GLASS. (R 308.4)

ATTIC ACCESS REQUIRED WHERE APPLICABLE

PROVIDE 22" X 30" WEATHER STRIPPED AND INSULATED ATTIC ACCESS TO ALL AREAS GREATER THAN OR EQUAL TO 10' SQ. FT. WHICH HAVE A 30" OR MORE VERTICAL CLEAR HEIGHT.

PROVIDE 30" CLEAR HEAD ROOM ABOVE THE ATTIC ACCESS. (R 307.1). SEE PLAN FOR LOCATION. DOORS LEADING INTO THE HOUSE FROM THE GARAGE SHALL BE SELF-CLOSING AND TIGHT-FITTING WITH GASKETS AND SEALS. (R 302.1)

OPENINGS FROM THE GARAGE INTO SLEEPING ROOM(S) SHALL NOT BE PERMITTED. (R 302.1)

SHOWER ENCLOSURE SHALL BE SHOWER RODS, TEMPERED GLASS, OR APPROVED EQUAL. (R 308.4)

CENTER OF WATER CLOSETS SHALL BE A MINIMUM OF 15" CLEAR FROM ITS CENTER TO ANY FINISHED SIDE WALL OR OBSTRUCTION. (R 307.1)

FIRE WARNING SYSTEMS (R 313.1)

SMOKE DETECTORS SHALL BE INSTALLED AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA AND SHALL BE A MINIMUM OF 3'-0" FROM DUCT OPENINGS.

SMOKE DETECTORS SHALL BE PERMANENTLY WIRED, INTERCONNECTED, AND HAVE BATTERY POWERED BACK-UP.

PROVIDE SMOKE DETECTORS ON EACH FLOOR LEVEL.

WHERE THE HIGHEST POINT OF A CEILING IN A ROOM THAT OPENS TO THE HALLWAY SERVING THE BEDROOMS EXCEEDS THAT OF THE OPENING INTO THE HALLWAY BY 24 INCHES OR MORE, SMOKE DETECTORS SHALL BE INSTALLED IN THE HALLWAY AND IN THE ADJACENT ROOM. PROVIDE ADDITIONAL SMOKE DETECTORS AS APPLICABLE.

HARDWARE:
ALL EXITS TO BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR SPECIAL KNOWLEDGE.

MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS AND SURFACE BOLTS ARE PROHIBITED AT A DOOR OR THE ACTIVE LEAF OF A PAIR OF DOORS.

FIREPLACES:
SEE FIREPLACE DETAILS FOR INFORMATION REGARDING CONSTRUCTION AND ANCHORAGE TO STRUCTURE.

PLUMBING:
SOLDERS AND FLUX HAVING A LEAD CONTENT IN EXCESS OF TWO-TENTHS OF ONE PERCENT SHALL NOT BE USED IN THE INSTALLATION OR REPAIR OF ANY PLUMBING IN RESIDENTIAL OR NONRESIDENTIAL FACILITIES PROVIDING WATER FOR HUMAN CONSUMPTION WHICH ARE CONNECTED TO PUBLIC WATER SYSTEMS. (A.R.S. SECTION 49-383)

PROVIDE SHOWER HOT WATER CONTROL VALVE AS EITHER PRESSURE BALANCED, OR THERMOSTATIC MIXING TYPE, IN ACCORDANCE W/ ASSE 1016 AS PER P2102.3
PLUMBING FIXTURES SHALL BE AS FOLLOWS (2006 IPC TABLE 604.4):

GENERAL NOTES

WATER CLOSETS:
GRAVITY: 1.6 GALLONS PER FLUSH (MAXIMUM)
FLUSH VALVE: 3.5 GALLONS PER FLUSH (MAXIMUM)
SHOWER HEADS: 2.5 GALLONS PER MINUTE (MAXIMUM)
LAVATORY SINK FAUCETS: 2.2 GALLONS PER MINUTE (MAXIMUM); PROVIDE AERATOR
WATER TREATMENT SYSTEMS SHALL EQUIP W/ AUTOMATIC SHUTOFF TO PREVENT CONTINUOUS FLOW WHEN NOT IN USE.

EYAP COOLERS:
MUST HAVE RECIRCULATING PUMPS
HOT WATER SHALL BE THE LEFT FITTING AT ALL FAUCETS (P 2122.2)

GAS LINES: (A) NOT PERMITTED UNDER STRUCTURE(S); (B) NOT PERMITTED UNDER SLAB(S)

PROVIDE ONE-LINE ISOMETRIC DIAGRAM FOR GAS LINE PIPING PER 2015 IFSC 912E LINE 9. SHOW DISTANCES TOTAL DEVELOPED LENGTH, BTU'S AND AFFLIANCES

EXPANSION TANKS ARE REQUIRED ON ALL HOT WATER PIPING.

SEISMIC ZONE (SEC. 1621 AS AMD.)
DESIGN AND CONSTRUCT TO MEET REQUIREMENTS OF ZONE 2B (SEC. 16212 AS AMD.)
ZONE FACTOR Z = 0.215 (SEC. 16212 AS AMD.)

EXTERIOR WALL PENETRATIONS BY PIPES, DUCTS, OR CONDUITS SHALL BE CAULKED

*NOT REQUIRED AT THIS SUBMITTAL
*BARRIERS FOR SWIMMING POOLS, SPAS, AND HOT TUBS
(SEE APPENDIX G 200623)
NO POOL, NO POOL NOTES

FLOOR PLAN NOTES

NOTE: SEE SHEET A2 FOR FLOOR PLAN
FINISH GRADE SHALL BE A MINIMUM OF 6" BELOW WOOD FRAMING AT BUILDING EXTERIOR. SLOPE FINISH GRADE FOR AN ADDITIONAL 6" AWAY FROM BUILDING FOR A 10'-0" HORIZONTAL DISTANCE.

FINISH FLOOR ELEVATION INDICATES TOP OF ALL FLOOR FINISHES. INSTALL FLOOR SLAB TO ACCOMMODATE ALL FINISHES.

TYPICAL WOOD FRAME WALLS: 2X6 STUDS AT 16" O.C. AT ALL EXTERIOR WALLS, WALLS CONTAINING JIC PLUMBING, AND WALLS WITH EXPOSED ENDS OR HAVING DOOR JAMBS. OTHER WALLS MAY BE 2X4 STUDS AT 16" O.C. UNO.

SOUND WALLS: 2X6 STUDS AT 16" O.C. WITH 2X6 PLATES. BATT INSULATION, 5/8" GYPSUM BOARD EACH SIDE WITH RESILIENT CHANNELS ONE SIDE. LOCATE WALLS AS SHOWN ON DRAWINGS OR AS NOTED BELOW.

BETWEEN BATH/TOILET ROOMS/POUNDER ROOMS, AND OTHER INTERIOR ROOMS.

BETWEEN BEDROOMS AND OTHER INTERIOR ROOMS.

BETWEEN LAUNDRY AND BEDROOMS.

BETWEEN GARAGE AND INTERIOR ROOMS.

SOUND WALL INDICATION: XXXXXX

PROVIDE BACKING (WOOD BLOCKING OR SOLID GROUT CMU, AS APPLIES) AT ALL HOSE BIBBS, HOSE RACKS, TOWEL BARS, CURTAIN RODS, T.P. HOLDERS, CABINETS, OR ANY ITEMS REQUIRING SOLID BACKING.

FOR BUILDING LAYOUT: ALL ANGLES 45 DEGREES UNLESS NOTED OTHERWISE.

TYPICAL DOORS: LOCATE IN CENTER OF WALL OR FRAME JAMB 5/12" FROM INTERSECTING WALL, UNLESS NOTED OTHERWISE.

TUB AND SHOWER AREAS TO RECEIVE MOISTURE-RESISTANT GYPSUM BOARD BASE AT WALLS AND CEILING. INSTALL CERAMIC TILE OR OTHER APPROPRIATE FINISH AS SCHEDULED TO 10" MINIMUM ABOVE DRAIN, UNLESS NOTE OTHERWISE.

PROVIDE INTERIOR GYPSUM WALL BOARD (GREEN BOARD) WITH WATER-RESISTANT FACE PAPER (I.C.C. # ESR 1338 OR EQUAL).

SLOPE ALL SOAP NICHES IN TUB AND SHOWER AREAS TO DRAIN. SLOPE CEILING IN ENCLOSED SHOWER (APPROXIMATELY 1/8" PER FOOT). CONFIRM DIRECTION OF SLOPE.

SLOPE ALL SILLS TO DRAIN AWAY FROM WINDOWS AND SLOPE EXPOSED TOP OF PARAPETS AND WALLS TO DRAIN WATER. WATERPROOF ALL SILLS AND PARAPETS. AT CMU, USE WATERPROOF COATING PRIOR TO INSTALLING FINISH. AT METAL FRAMING, COVER WITH 30# FELT PRIOR TO INSTALLING FINISH (DO NOT PENETRATE THE TOP SURFACE, ATTACH AT SIDES).

PROVIDE FLAT STONE SPLASH BLOCKS (OR EQUAL) AT GRADE BELOW ALL SQUIPPERS AND ROOF DRAIN OUT FLOWS. ARRANGE STONES TO DIVERT WATER TO DESIRED DRAINAGE AND PREVENT EROSION.

FIREPLACE HEARTH EXTENSIONS SHALL EXTEND AT LEAST 20" IN FRONT OF FIREPLACE OPENING AND 12" BEYOND THE SIDES WHEN THE FIREPLACE OPENING IS 6' SQ. FT. OR LARGER (IF LESS THAN 6' SQ. FT. PROVIDE AT LEAST 18" AT SIDES AND 18" AT FRONT). REQUIRED HEARTH SIDE EXTENSIONS SHALL BE THE FULL REQUIRED FRONT EXTENSION DEPTH. REQUIRED FIREPLACE HEARTH EXTENSIONS SHALL BE OF NON-COMBUSTIBLE MATERIAL.

DRYER VENT TO HAVE DAMPER COVER. ALL OTHER VENTS, PIPES, DUCTS, FIREPIES, OR OTHER MISCELLANEOUS OPENINGS OPEN TO THE OUTSIDE TO HAVE GALVANIZED METAL INSECT SCREEN TO PREVENT MIGRATION OF RODENTS AND INSECTS.

GENERAL NOTES

PROVIDE TYPE 30# FELT BUILDING PAPER AS FLASHING AT ALL HEADS, JAMBS, AND SILLS OF WINDOW AND DOOR OPENINGS.

FLASH HORIZONTAL AND/OR SLOPED AREAS AND 6" MINIMUM OF VERTICAL WALL SURFACE AROUND OPENINGS.

PROVIDE CONTINUOUS SEALANT BEAD WHERE STUCCO ABUTS WINDOW AND DOOR FRAMES TO PROVIDE WEATHER-RESISTIVE BARRIER.

REGISTERS, DIFFUSERS AND GRILLES SHALL BE MECHANICALLY FASTENED TO RIGID SUPPORTS OR STRUCTURAL MEMBERS ON AT LEAST TWO OPPOSITE SIDES IN ADDITION TO BEING CONNECTED TO THE DUCTWORK THEY SERVE.

AT EXTERIOR GYPSUM BOARD SOFFITS, PROVIDE EXTERIOR GYPSUM CEILING SOFFIT BOARD (GRAY BOARD) WITH WATER-RESISTANT FACE PAPER (I.C.C. # ESR 1338 OR EQUAL).

PROVIDE 5/8" TYPE 'X' GYPSUM BOARD AT WALLS AND CEILING IN GARAGE, STORAGE AND MECHANICAL ROOMS.

GYPSUM BOARD APPLIED TO CEILING SHALL BE 1/2" WHEN FRAMING MEMBERS ARE 16" O.C. OR 5/8" WHEN FRAMING MEMBERS ARE 24" O.C. OR USE 1/2" GAG RESISTANT GYPSUM CEILING BOARD, TABLE R1023.3 (D).

PROVIDE 18" HIGH PLATFORM UNDER ALL AFFLIANCES INSTALLED IN (OR ACCESSIBLE FROM INSIDE) GARAGES.

ALL EXITS TO BE OPERABLE FROM THE INSIDE WITHOUT A KEY OR SPECIAL KNOWLEDGE.

MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS AND SURFACE BOLTS ARE PROHIBITED AT DOOR OR THE ACTIVE LEAF OF A PAIR OF DOORS.

ALL STAIRS TO CONFORM TO IRC SECTION R311.5.

HANDRAILS:

R 311.5.6
INSTALL HANDRAILS AT ALL STAIRS HAVING MORE THAN 3 RISERS, UNLESS SHOWN OTHERWISE.

THE TOP OF HANDRAILS AND HANDRAIL EXTENSION SHALL BE PLACED NOT LESS THAN 34" NOR MORE THAN 38" ABOVE NOSING OF TREADS AND LANDINGS, AND DESIGNED SUCH THAT A 4" SPHERE CANNOT PASS THROUGH. HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS. ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEEL POSTS OR SAFETY TERMINALS.

THE HAND GRIP PORTION OF HANDRAILS SHALL NOT BE LESS THAN 1-1/4" NOR MORE THAN 2 INCHES IN CROSS-SECTIONAL DIMENSION, OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE. THE HAND GRIP PORTION OF HANDRAILS SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS.

HANDRAILS PROJECTING FROM A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1-1/2" INCHES BETWEEN THE WALL AND THE HANDRAIL.

GUARDRAILS:

R 312
UNENCLOSED FLOOR AND ROOF OPENINGS, OPEN AND GLAZED SIDES OF STAIRWAYS, LANDINGS AND RAFFS, BALCONIES OR PORCHES WHICH ARE MORE THAN 30 INCHES ABOVE GRADE OR FLOOR BELOW, AND ROOFS USED FOR OTHER THAN SERVICE OF THE BUILDING SHALL BE PROTECTED BY A GUARDRAIL.

OPEN GUARDRAILS SHALL HAVE INTERMEDIATE RAILS OR AN ORNAMENTAL PATTERN SUCH THAT A SPHERE 4" IN DIAMETER CANNOT PASS THROUGH.

THE TRIANGULAR OPENING FORMED BY THE RISER, TREAD, AND BOTTOM ELEMENT OF A GUARDRAIL AT THE OPEN SIDE OF A STAIRWAY MAY BE OF SUCH SIZE THAT A SPHERE 6" IN DIAMETER CANNOT PASS THROUGH.

GUARDRAIL HEIGHT TO BE 36" ABOVE FINISHED FLOOR.
EMERGENCY ESCAPE ROUTE SHALL LEAD TO A PUBLIC WAY.

GAS LOG LIGHTERS SHALL BE MANUFACTURED BY ROBERT H. PETERSON CO. AND 21, 50 OR EQUAL. OTHER MANUFACTURERS SHALL PROVIDE AN ACTIVE I.C.C./N.E.R. EVALUATION REPORT BEFORE ACCEPTABILITY WILL BE CONSIDERED. GAS LOG LIGHTERS OR SETS ARE TO BE PERMANENTLY INSTALLED 4 DAMPERS SHALL BE WELDED OPEN 1" OR PROVIDED WITH A 3" DIAMETER VENT.

FIRE BLOCKING NOTES

AT CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS, AND AT 18" FT. INTERVALS BOTH VERTICAL AND HORIZONTAL.

AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS SOFFITS, DROPPED CEILINGS, AND COVE CEILINGS.

IN CONCEALED SPACES BETWEEN STAIR STRINGERS, AT THE TOP AND BOTTOM OF THE RUN AND BETWEEN STUDS ALONG AND IN LINE WITH THE RUN OF STAIRS, IF THE WALLS UNDER THE STAIRS ARE UNFINISHED.

IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES, AND SIMILAR OPENINGS WHICH AFFORD A PASSAGE FOR FIRE AT CEILING AND FLOOR LEVELS, USE NON-COMBUSTIBLE MATERIALS.

AT OPENINGS BETWEEN ATTIC SPACES AND CHIMNEY CHASES FOR FACTORY-BUILT CHIMNEYS.

WALLS HAVING PARALLEL OR STAGGERED STUDS FOR SOUND CONTROL SHALL HAVE FIRE BLOCKS OF MINERAL FIBER OR GLASS FIBER OR OTHER APPROVED NON RIGID MATERIAL.

THE INTEGRITY OF ALL FIRE BLOCKING AND DRAFT STOPS SHALL BE MAINTAINED.

NOTE: COMPLIANCE WITH CHAPTER 11 OF THE 2015 INTERNATIONAL RESIDENTIAL CODE OR CHAPTER 4 OF THE 2015 INTERNATIONAL ENERGY CODE IS REQUIRED (ZONE 2). A PERMANENT ENERGY CERTIFICATE WILL BE REQUIRED AT TIME OF FINAL TO BE POSTED IN THE ELECTRICAL DISTRIBUTION PANEL. (R U 4 94GC VALUES AND EQUIPMENT)

MAX. GLAZING AREA	
CLIMATE ZONE 2	MAIN R-VALUE
CEILING	R-38
WOOD WALL	R-9
FLOOR/SLAB	R-5
WALL INSULATION # 2X6 WALL	R-13
MASS WALL VALUE	R-4

MAX. SHGC	MAX. U-FACTOR
0.25	0.40

EFFICIENCY RATING REQUIRED	
2 SEER MIN.	
6.8 HSPF MIN.	
18% AFUE MIN.	

SHEET INDEX

T1	TITLE SHEET
C1	CIVIL PLAN
C2	CIVIL GRADING AND DRAINAGE PLAN
A1	ARCHITECTURAL SITE PLAN
A2	FLOOR PLAN - MAIN AND UPPER, ELEC.
A3	EXTERIOR ELEVATIONS, SECTION
A4	DETAILS
A5	3D PICTURES
S1	PARTIAL FOUNDATION PLAN
SNI	STRUCTURAL NOTES

CONSULTANTS

CIVIL ENGINEER
LAND DEVELOPMENT GROUP
NICK PRODRANOY, P.E., PMP
8022 N 5th STREET
PHOENIX, AZ 85020

STRUCTURAL ENGINEER
JKU ENGINEERING, PLLC
JAMES JONES
2111 E. BASELINE ROAD, #6
TEMPE, AZ 85283
(480) 734-9362

BUILDING DATA

PROJECT ADDRESS:
4237 E. HIGHLANDS DRIVE
PARADISE VALLEY, AZ 85253

OWNER:
AARON AND JAMIE LIEBERMAN
4237 E. HIGHLAND DRIVE
PARADISE VALLEY, AZ 85253

APN:
169-53-025

LEGAL DESCRIPTION
LOT 5, PARADISE HIGHLANDS

BUILDING AREA:	EXIST.	(REMODEL.)	NEW	TOTAL
MAIN LIVABLE	1671 SF.			1671 SF.
LOUER LEVEL LIVABLE	1436 SF.	(660 SF.)		1436 SF.
TOTAL LIVABLE - EXIST. MAIN, UPPER LEVEL				3107 SF.
DETACHED GARPORT, STORAGE	168 SF.			168 SF.
STORAGE/MECH.	56 SF.			56 SF.
COVERED AREA, LANDING	325 SF.			325 SF.
EXTERIOR STAIR	10 SF.			10 SF.
EXIST. MAIN LEVEL DECK	160 SF.			160 SF.
NEW MAIN LEVEL DECK/ PORCH			22 SF.	22 SF.
TOTAL:				4704 SF.

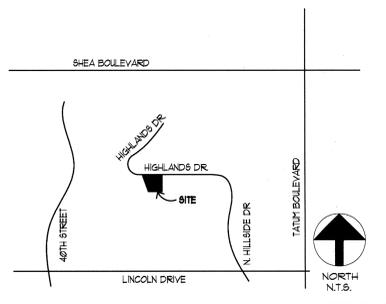
ZONING:
R-43 (PARADISE VALLEY)

NET LOT AREA: 44,022 SF. (SURVEY)

LOT COVERAGE ALLOWED: 25% = 11,005 SF. (44,022 SF x 0.25)
LOT COVERAGE PROPOSED: 10.6% = 4,704 SF. FLOOR AREA / 44,022 SF.

DESCRIPTION OF WORK:
REMODEL EXIST. RESIDENCE W. BATH AT LOUER LEVEL. ADD DECK/ PORCH ON MAIN LEVEL. NO CHANGE IN DISTURBED AREA. NO NATIVE PLANTS DISTURBED AT THIS REMODEL 4 DECK ADDITION.

LOCATION MAP



TOWN OF PARADISE VALLEY NOTES

- GRADING SHALL BE IN CONFORMANCE WITH 2012 IBC.
- 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.
- WHERE EXCAVATION IS TO OCCUR THE TOP 4" OF EXCAVATED NATIVE SOIL SHALL REMAIN ON THE SITE AND SHALL BE REUSED IN A MANNER THAT TAKES ADVANTAGE OF THE NATURAL SOIL SEED BANK IT CONTAINS.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) SPECIFICATIONS AND STANDARD DETAILS.
- 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.
- A DUST CONTROL PLAN MEETING THE REQUIREMENTS OF RULE 310 OF THE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED.
- A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
- AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- EAVE PROJECTIONS INTO REQUIRED SETBACKS ARE LIMITED TO A MAXIMUM OF 24" PURSUANT TO SECTION 1008 OF THE TOWN OF PARADISE VALLEY ZONING ORDINANCES.
- ALL STRUCTURES AND LANDSCAPING WITHIN THE SIGHT VISIBILITY TRIANGLE SHALL HAVE A 2 FOOT MAXIMUM HEIGHT.
- ALL NEW AND EXISTING ELECTRICAL SERVICE TO BE BURIED UNDERGROUND PER THE TOWN OF PARADISE VALLEY STANDARDS.
- POOL, SPA, BARBECUE AND ANY PROPOSED STRUCTURES OVER 8 INCHES ABOVE GRADE REQUIRE SEPARATE PERMIT APPLICATIONS.
- POOLS SHALL BE CONSTRUCTED BY SEPARATE PERMIT AND SECURED FROM UNWANTED ACCESS PER SECTION 5-2-2 OF THE TOWN OF PARADISE VALLEY ORDINANCES.
- A SETBACK CERTIFICATION IS REQUIRED AND MUST BE GIVEN TO TOWN INSPECTOR AT STEM WALL INSPECTION.
- 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.
- 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.
- ALL MATERIAL TO BE UNDER SLABS AND WALKS SHALL BE COMPACTED TO NOT LESS THAN 95% PER ASTM D698.
- 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.
- TRENCH BED SHALL BE FREE OF ROCKS AND DEBRIS.
- REGULATION II RULE 20-3 OF THE MARICOPA COUNTY HEALTH DEPARTMENT, BUREAU OF AIR POLLUTION CONTROL SHALL BE OBSERVED AND ENFORCED.
- 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.
- THE CONTRACTOR IS TO COMPLY WITH ALL LOCAL STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION COVERED BY THIS PLAN.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
- ALL 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.
- 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.
- 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.
- 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.
- 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 "GOLDEN RULE" IF NECESSARY.
- 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.
- 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, A PERMIT FOR THIS GRADING MUST BE SECURED FROM THE TOWN FOR A FEE ESTABLISHED BY THE UNIFORM BUILDING CODE.
- 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.
- 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 UNSUAL ACTIVITIES THAT MAY CAUSE DISRUPTION OF THE NORMAL COURSE OF TRAFFIC DURING CONSTRUCTION.
- 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.
- 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 TO FEET FROM ALL RIGHTS-OF-WAY AND HAVE A 50-FOOT STREET CORNER SITE TRIANGLE WHERE APPLICABLE.
- 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.
- 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 ARE PROHIBITED IN THE TOWN RIGHT-OF-WAY OR NEAR ADJACENT PROPERTIES.
- 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.
- THE USE AND OPERAION OF FUEL-FIRED GENERATORS ON ANY CONSTRUCTION SITE, NEW, EXISTING OR REMODELING, IS PROHIBITED UNLESS DUE TO A HARSHIP TOWN APPROVAL IS OBTAINED.
- 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 THE PARTIES INVOLVED TO REMEDY ANY VIOLATION WITHIN A REASONABLE TIME PERIOD, AND UNTIL ALL REQUIRED FEES ARE PAID IN FULL.
- THE NATURAL FLOW OF RAINWATER AND OTHER SURFACE DRAINAGE FROM THE PROPERTY MAY NOT BE ALTERED IN ANY WAY.
- 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.
- ALL EQUIPMENT OF ALL TRADES 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.
- 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.
- AN INSPECTION FEE WILL BE CHARGED IF THE INSPECTION IS REQUIRED AS A RESULT OF A CODE VIOLATION.
- 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.

GRADING & DRAINAGE PLAN

LIEBERMAN RESIDENCE

LOT 5 - PARADISE HIGHLANDS

A SUBDIVISION PLAT RECORDED IN BOOK 84 OF MAPS, PAGE 36, MCR.,
 LOCATED IN A PORTION OF THE NE 1/4 OF THE SE 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

ENGINEERS NOTES

- 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.
- 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.
- GRADING SHALL BE IN CONFORMANCE WITH 2012 IBC SEC. 1803 AND APPENDIX J.
- 5% MINIMUM SLOPE AWAY FROM BUILDING FOR A MINIMUM 10', U.N.O.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) SPECIFICATIONS AND STANDARD DETAILS.
- A DUST CONTROL PLAN MEETING THE REQUIREMENTS OF RULE 310 OF THE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED.
- A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
- AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- 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.
- ALL STRUCTURES AND LANDSCAPING WITHIN THE SIGHT VISIBILITY TRIANGLE SHALL HAVE A 2 FOOT MAXIMUM HEIGHT.
- 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" FINISHED FLOOR UNLESS SPECIFIED OTHERWISE.
- ALL MATERIAL TO BE UNDER SLABS AND WALKS SHALL BE COMPACTED TO NOT LESS THAN 95% PER ASTM D698.
- 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.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
- 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.
- 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.
- 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.
- 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.
- ALL ON-SITE UTILITIES PER OTHERS.
- 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.
- 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.
- ALL DISTURBED AREAS ARE TO BE ROPED AND ROPING MUST MATCH PLAN.
- VEGETATION OUTSIDE OF CONSTRUCTION AREA TO REMAIN.
- 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.
- MECHANICAL EQUIPMENT SHALL BE SCREENED TO A MINIMUM OF ONE FOOT ABOVE TOP OF EQUIPMENT.
- ANY FUTURE IMPROVEMENTS SHOWN HEREON SHALL REQUIRE A SEPARATE PERMIT.
- ANY POINTS OF DRAINAGE CONCENTRATION SHOULD BE PROTECTED AGAINST EROSION WITH NATIVE STONE.
- 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.
- ALL DRAINAGE FACILITIES TO BE MAINTAINED BY HOMEOWNER.
- 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).
- REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING LAYOUT, DIMENSIONS AND ELEVATIONS.
- REFER TO ARCHITECTURAL DRAWINGS, DIMENSIONS AND CALCULATIONS FOR ALL PROPOSED RETAINING WALLS.
- FOR CHANGE IN ELEVATION THAT ARE GREATER THAN 30", PROVIDE 36" HIGH GUARDRAILS FOR TOTAL OF 42" FALL PROTECTION BARRIER U.N.O.
- CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURE - 5% MIN SLOPE FOR FIRST 10 FEET, U.N.O.
- ALL WATER AND SEWER LINES AND CONNECTIONS MUST BE INSTALLED PER IPC 2012, MAG AND TOWN OF PARADISE VALLEY SUPPLEMENT TO MAG.
- WATERPROOF ALL EXTERIOR WALLS 18" ABOVE FINISH GRADE--(BITUTHENE® 3000 HC MEMBRANE W/ GRAPE PROTECTION 03 OR APPROVED EQUAL).
- ALL PIPES AND FITTINGS SHALL BE INSTALLED PER MANUFACTURE'S SPECIFICATIONS AND DETAILS.
- 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.
- COORDINATE RIPRAP COLOR WITH LANDSCAPE PLANS AND DETAILS.
- VERIFY AND COORDINATE WITH LANDSCAPE PLANS FINAL LOCATION AND GRATE TYPE OF SPECIFIED AREA DRAINS AND TRENCH DRAINS.
- VERIFY AND COORDINATE WITH ARCHITECTURAL AND LANDSCAPE PLANS LOCATION AND HEIGHT OF ALL SITE WALLS.
- DISTURBED AREA: TOTAL ACRES = 0.163 < 1 ACRE; NPDES PERMIT IS NOT REQUIRED.
- REFER TO ARCHITECTURAL PLANS AND DETAILS FOR DEMOLITION AND REMOVAL OF ANY EXISTING BUILDING STRUCTURES, SITE WALLS, POOL AND PAVEMENT ETC.
- THE SCOPE OF THIS GRADING AND DRAINAGE PLAN COVERS THE PROPOSED MISC. SITE IMPROVEMENTS AROUND THE EXISTING HOME AND NEW RETAINING WALLS. LAND DEVELOPMENT GROUP (LDG) ASSUMES NO RESPONSIBILITY FOR DRAINAGE ISSUES BEYOND THE LIMITS OF THE CONSTRUCTION WORK PROPOSED HEREIN.

LEGEND

- SECTION CORNER
- 1/4 QUARTER
- SCRIBED "X" IN CONCRETE
- BRASS CAP IN HANDHOLE
- BRASS CAP FLUSH
- FOUND 1" IRON PIPE
- SET 1/2" REBAR & TAG OR AS NOTED
- CALCULATED POINT
- PROPERTY LINE
- EASEMENT LINE
- MONUMENT LINE
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- IRRIGATION CONTROL BOX
- ELECTRIC METER
- A/C UNIT
- GAS METER
- TELEPHONE PEDESTAL
- SEWER CLEANOUT
- LIGHT POLE
- HOSE BIB
- MAILBOX
- CABLE TV RISER
- POWER POLE
- CATV, PHONE
- SEWER LINE
- WATER LINE
- ELECTRIC LINE
- FENCE
- EXISTING CONTOUR
- EXIST. DRAINAGE FLOW
- EXIST. SPOT ELEVATION
- SAGUARO CACTUS
- PALO VERDE
- PALM TREE
- CITRUS TREE
- TREE
- EXISTING DISTURBED AREA
- PROPOSED DISTURBED AREA
- FLOW LINE
- DRAINAGE FLOW ARROW
- PROPOSED SPOT ELEVATION
- PROPOSED CONTOUR
- TOP OF GUARDRAIL/NON-RET. WALL
- TOP OF RETAINING WALL
- FINISH GRADE
- TOP OF FOOTING
- BOTTOM OF WALL
- CATCH BASIN
- STORM DRAIN PIPE
- RETAINING WALL

DISTURBED AREA CALCULATIONS

AREA OF LOT:	44,012 S.F. (1,010 AC.)
TOTAL FLOOR AREA:	4,492 S.F.
FLOOR AREA RATIO:	10.2% < 25%
(TOTAL FLOOR AREA/AREA OF LOT)	
BUILDING PAD SLOPE:	14.7%
VERTICAL:	32' FT
HORIZONTAL:	217 FT
ALLOWABLE NET DISTURBED AREA:	15,536 S.F. (35.34%)
EXISTING GROSS DISTURBED AREA:	28,694 S.F.
LESS EXISTING BUILDING FOOTPRINT:	2,840 S.F.
EXISTING NET DISTURBED AREA:	25,854 S.F.* (58.74%)

ALLOWED SLOPES STEEPER THAN NATURAL GRADE (5% MAX.):	2,200 S.F. (5%)
PROPOSED SLOPES STEEPER THAN NATURAL GRADE (AREA):	0 S.F. (5%)
VOLUME OF CUT:	8 C.Y.
VOLUME OF FILL:	318 C.Y.
TOTAL CUT/FILL:	326 C.Y.
HILLSIDE ASSURANCE @ \$25/CUBIC	
YARD OF CUT-FILL:	\$8,150

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.

*NO ADDITIONAL DISTURBANCE IS PROPOSED ON THIS SITE. 7,090 S.F. IS LIMITS OF CONSTRUCTION AREA PER THIS PLAN, THIS LIES WITHIN THE EXISTING DISTURBED AREA.

EARTHWORK QUANTITIES

CUT: 8 C.Y.
 FILL: 318 C.Y.
 NET FILL: 310 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 ESTIMATES.

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.

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 I.F.C. SECT. 1003.2.1 AMD.

FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #	SUFFIX	BASED FLOOD ELEVATION
040049	1765 OF 4425	L	
MAP #	PANEL DATE	ZONE	
04013C	10/16/2013	X*	

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

RETAINING WALLS

ID NUMBER	MAX. HEIGHT		LENGTH
	FT	FT	
1	2.5	82.00	
2	8	105.00	
3	3.5	41.00	
4*	6	77.00	
5*	6	67.00	
6*	6	80.00	
7	3	59.00	
8	3	59.00	
9	5	94.00	
10*	10	93.00	
11*	3	63.00	
TOTAL		820.00	

*EXIST. WALLS
 SEE SHEET C-2 FOR LOCATIONS IDENTIFIED WITH KEYNOTE
 MAXIMUM LENGTH OF RETAINING WALLS VISIBLE FROM ANY POINT ON THE PROPERTY LINE = 236' < 300'.
 ALL WALL LENGTHS LISTED ABOVE ARE FOR PERMITTING PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ACCURACY OF WALL QUANTITIES AS SHOWN. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS AND DETAILS FOR WALL CONSTRUCTION, HEIGHT AND FINISH.

ABBREVIATIONS

- BC BACK OF CURB
- BSL BUILDING SETBACK LINE
- C11 CURVE LABEL
- C CONCRETE, CALCULATED
- CL CENTERLINE
- TPV TOWN OF PARADISE VALLEY
- DE DRAINAGE EASEMENT
- ESMT EASEMENT
- EX EXISTING
- EXIST. EXISTING
- EG EXISTING GRADE
- FG FINISH GRADE
- FFE FINISH FLOOR ELEVATION
- FL FLOW LINE
- FND G. FINDER
- FGV FOUNT, GAS
- INV INVERT
- L11 LINE LABEL
- MAG MARICOPA ASSOCIATION OF GOVERNMENTS
- (M) MEASURED
- MCR MARICOPA COUNTY RECORDER
- P PAVEMENT
- PUE PUBLIC UTILITY EASEMENT
- (R) RECORDED
- R RADIUS
- R/W RIGHT OF WAY
- T TANGENT, TELEPHONE
- W WEST, WATERLINE
- TG TOP OF GRADE
- WM WATER METER

AS-BUILT CERTIFICATION

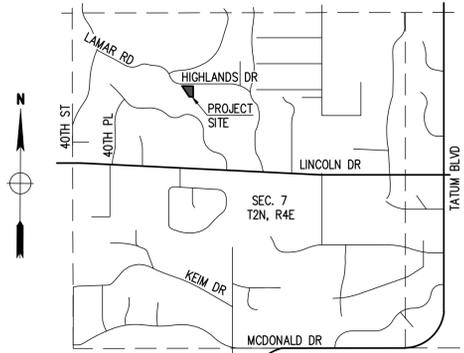
I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER/ LAND SURVEYOR _____ DATE _____

REGISTRATION NUMBER _____

APPROVAL

TOWN ENGINEER _____ DATE _____
 TOWN OF PARADISE VALLEY



VICINITY MAP

N.T.S.

LEGAL DESCRIPTION

LOT 5, PARADISE HIGHLANDS ACCORDING TO BOOK 84, PAGE 36, RECORDS OF MARICOPA COUNTY, ARIZONA.

CONTAINING 44,012 S.F (1,010 AC.); MORE OR LESS.

BASIS OF BEARINGS

THE MONUMENT LINE OF HIGHLANDS DRIVE, THE BEARING OF WHICH IS N8815°52'W.

BENCHMARK

BRASS CAP IN HAND HOLE AT THE INTERSECTION OF 56TH STREET AND LINCOLN HAVING AN ELEVATION OF 1363.426 TPV (NAVD 88) DATUM, GDACS# 24534-1.

PROJECT BENCHMARK

NORTHEAST CORNER OF PARCEL 169-53-005, BEING A 1" IRON PIPE WITH ATTACHED CAP RLS# 35694, HAVING AN ELEVATION OF 1447.22 TPV (NAVD 88 DATUM).

DRAINAGE STATEMENT

- ULTIMATE STORM OUTFALL IS LOCATED AT THE SOUTHEAST PROPERTY CORNER AT ELEVATION OF 1418.25.
- A MAJOR REMODEL TO AN EXISTING SINGLE FAMILY RESIDENCE AND NEW RETAINING WALLS ARE PROPOSED FOR THIS PROJECT.
- PROPOSED DEVELOPMENT DOES NOT IMPACT DRAINAGE CONDITIONS OF ADJOINING LOTS.
- HISTORIC DRAINAGE PATTERNS ARE PRESERVED.
- THE MINIMUM FINISH FLOOR ELEVATIONS SHOWN ARE SAFE FROM INUNDATION DURING A 100-YEAR PEAK RUN-OFF EVENT IF CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS.

GRADING SPECIFICATIONS

- EXCAVATION AND GRADING OF THIS SITE IS CLASSIFIED AS "ENGINEERED GRADING" PER 2012 I.B.C. AND WILL BE PERFORMED ACCORDINGLY.
- THE CONTRACTOR WILL RETAIN A SOILS ENGINEER DURING CONSTRUCTION TO INSPECT PROGRESS OF CONSTRUCTION, CONCERNING PREPARATION OF GROUND TO RECEIVE FILLS, TESTING AND REQUIRED COMPACTION STABILITY OF ALL FINISH SLOPES INCLUDING CUT SLOPES.
- COMPACTION SHALL COMPLY WITH M.A.G. SECTION 601 AND PROVISIONS AS SET FORTH IN THE APPROVED GEOTECHNICAL REPORTS.
- CUT AND FILL SLOPES SHALL BE PER THE APPROVED GEOTECHNICAL REPORTS.
- ANY RETAINING WALLS ADJACENT TO THE PROPERTY LINES WILL BE UNDER THE SCOPE OF SPECIAL INSPECTION BY THE SOILS ENGINEER. THE DEVELOPER SHALL NOTIFY THE ADJOINING PROPERTY OWNERS IN WRITING, TEN DAYS PRIOR TO START OF CONSTRUCTION ON THESE WALLS PER SECTION 2903-B OF U.B.C. THE DEVELOPER WILL HAVE TO PROVIDE MEANS OF PROTECTION OF ADJACENT PROPERTY WHILE THIS WORK IS UNDER CONSTRUCTION.
- THE USE OF HYDRAULIC RAM HAMMERS AND HEAVY EQUIPMENT SHALL BE LIMITED TO USE BETWEEN THE HOURS OF 7:00AM AND 6:00PM MONDAY THROUGH SATURDAY WITH NO WORK ON SUNDAY.

DATE: 09/06/16
 JOB: 15100104
 VERSION: 2.3
 PLOT DATE: 09/06/16

SCALE: N.T.S.
 DESIGNED BY: NP
 DRAWN BY: DW
 CHECKED BY: JJ

REVISIONS:

GRADING & DRAINAGE PLAN COVER SHEET

LIEBERMAN RESIDENCE 4237 E HIGHLANDS DR PARADISE VALLEY, AZ 85253

P. 602 889 1984 | F. 602 445 9492
 8808 N CENTRAL AVE., SUITE 288
 PHOENIX, AZ 85020
 phone@ldg.com

land DEVELOPMENT GROUP

REGISTERED ENGINEER/ LAND SURVEYOR
 REGISTRATION NUMBER

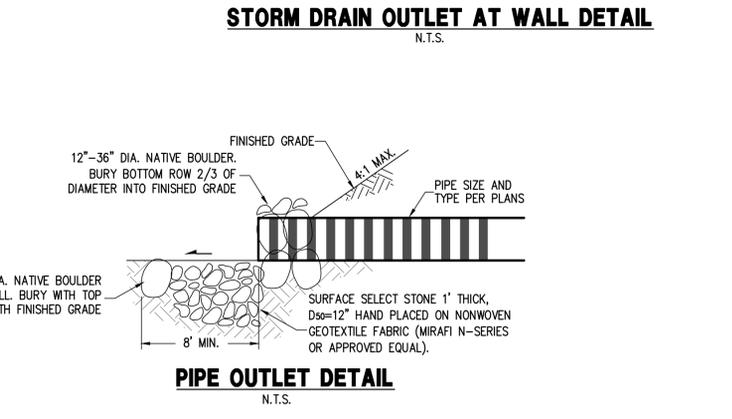
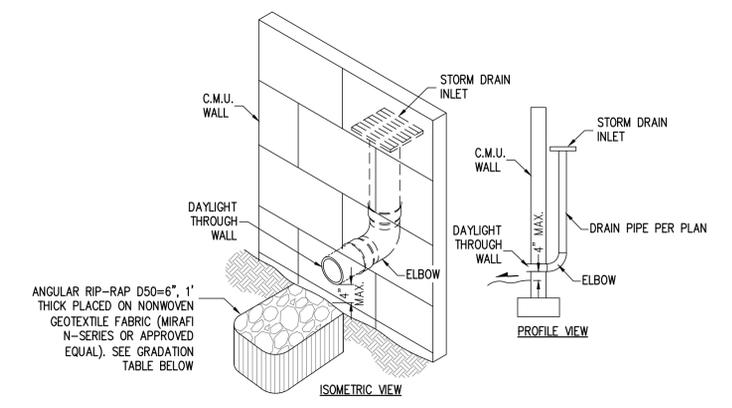
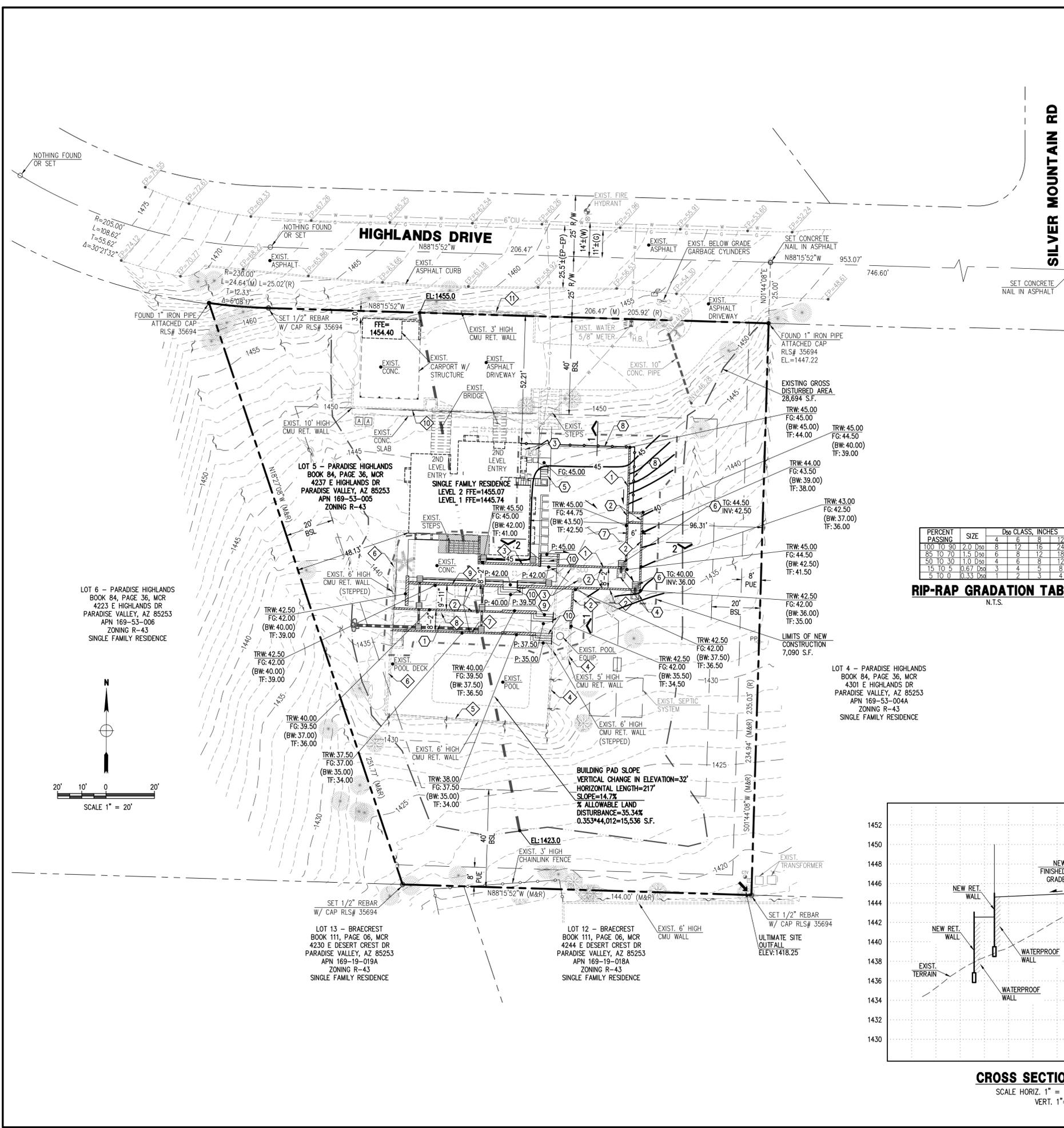
AS-BUILT CERTIFICATION
 I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER/ LAND SURVEYOR _____ DATE _____
 REGISTRATION NUMBER _____

APPROVAL
 TOWN ENGINEER _____ DATE _____
 TOWN OF PARADISE VALLEY

CALL THE WORKING DAYS BEFORE YOUR PROJECT.
 (602) 263 1100
 BLUE STAKE CENTER

1 OF 2

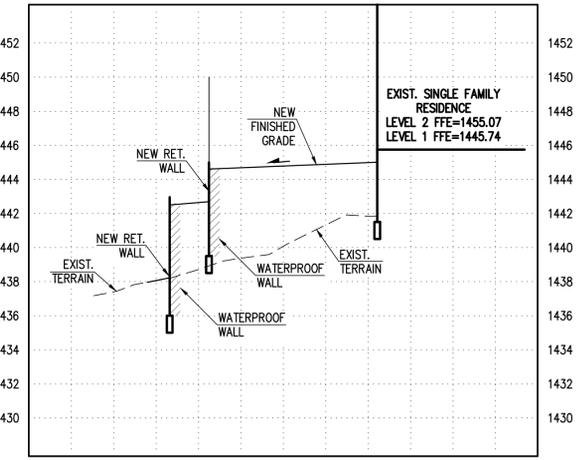
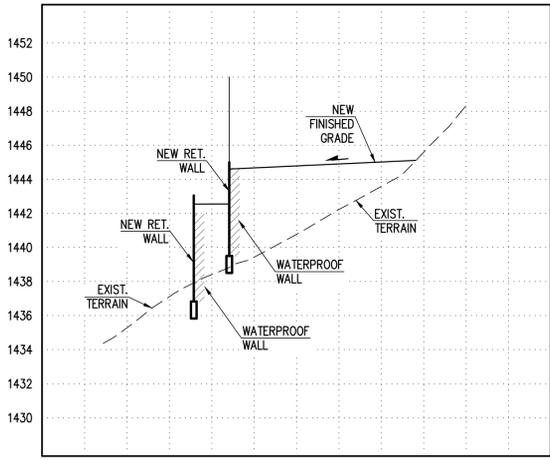


RIP-RAP GRADATION TABLE
N.T.S.

PERCENT PASSING	SIZE	D ₅₀ CLASS, INCHES
100	10	2.0
85	10	2.0
50	10	2.0
15	10	2.0
5	10	2.0

GRADING & DRAINAGE KEY-NOTES

- DEMOLITION OF EXISTING WALLS & SITE IMPROVEMENTS PER ARCHITECTURAL PLANS.
- NEW RETAINING WALL PER ARCHITECTURAL AND STRUCTURAL PLANS AND DETAILS. WATERPROOF WALL 1.5" MIN. ABOVE FINISH GRADE. (BITUTHENE 3000 HC MEMBRANE W/ GRACE PROTECTION 03 OR APPROVED EQUAL). REFER TO STRUCTURAL FOR FOOTING DRAIN SYSTEM.
- PROTECT IN PLACE.
- INSTALL ANGULAR RIP-RAP D50=6", 1" THICK PLACED ON NONWOVEN GEOTEXTILE FABRIC (MIRAFI N-SERIES OR APPROVED EQUAL). SEE GRADATION TABLE ON SHIT. C-3.
- NEW STAIRS & CONC. LANDING PER ARCHITECTURAL PLANS AND DETAILS.
- INSTALL 6" PVC SCH. 40 STORM DRAIN PIPE THROUGH WALL TO DAYLIGHT WITH VERTICAL RISER WITH 12" X 12" ADS 1299CGP GRATE WITH WATERTIGHT CONNECTIONS, INCLUDING ALL ADAPTERS & FITTINGS PER MANUFACTURER'S SPECIFICATIONS, DETAILS AND INSTALLATION INSTRUCTIONS, OR APPROVED EQUAL. SEE DET. ON THIS SHEET.
- 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.
- NEW 5' HIGH IRON FENCE FOR POOL FENCE PER ARCHITECTURAL PLANS AND DETAILS.
- ADJUST SEWER CLEANOUT TO NEW FINISHED GRADE.
- NEW STEPS PER ARCHITECTURAL PLANS AND DETAILS.



DATE: 09/06/16
 JOB: 15100104
 VERSION: 2.3
 PLOT DATE: 09/06/16

SCALE: 1"=20'
 DESIGNED BY: NP
 DRAWN BY: DW
 CHECKED BY: JJ

REVISIONS:

**GRADING & DRAINAGE PLAN
 IMPROVEMENT PLAN
 DETAILS & CROSS SECTIONS**

**LIEBERMAN RESIDENCE
 4237 E HIGHLANDS DR
 PARADISE VALLEY, AZ 85253**

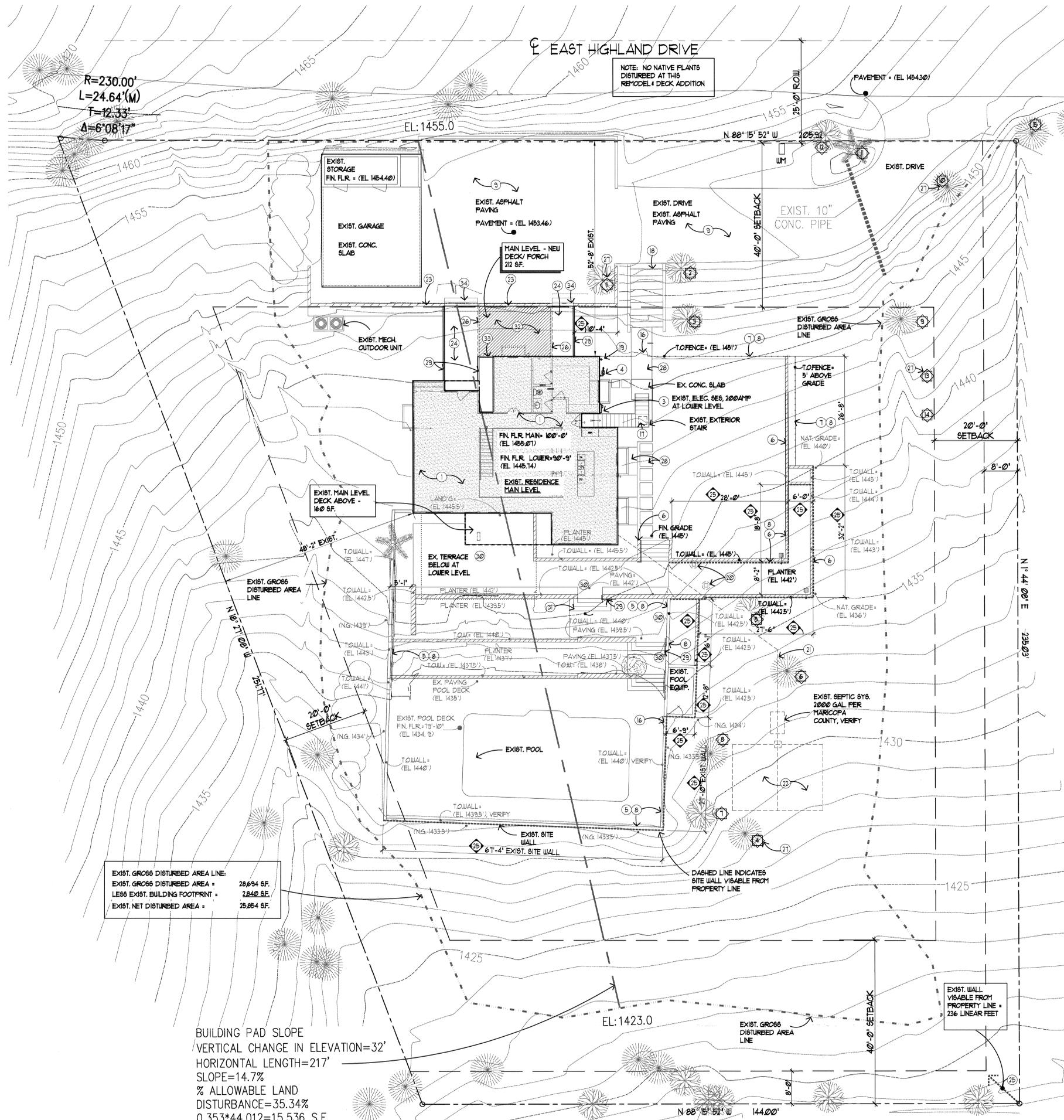
P. 602.889.1984 | F. 602.445.9482
 8808 N CENTRAL AVE., SUITE 288
 PHOENIX, AZ 85020
 phoenix@gdg.com

land
 DEVELOPMENT GROUP

REGISTERED PROFESSIONAL ENGINEER
 41005 NICKOLA
 J. PRODANOV
 P.E. State #19108
 ARIZONA, U.S.A.
 Expires 08/30/2019

CALL TWO WORKING DAYS BEFORE YOU DIG
 (602) 263.1100
 BLUE STAKE CENTER

C-2
 2 OF 2



SITE PLAN KEY NOTES:

- EXISTING RESIDENCE TO REMAIN
- EXISTING PROTECT DURING CONSTRUCTION
- EXISTING 400MM² SES AT LOWER LEVEL
- EXISTING GAS METER AT LOWER LEVEL
- EXISTING MASONRY SITE WALL W/ STUCCO, BOTH SIDES
- EXIST. MASONRY SITE WALL DECORATIVE 8x8 MASONRY WALL WITH RAKED JOINTS MATCH EXISTING COURSE. PROVIDE JEEP HOLES FOR PROPER DRAINAGE
- EXIST. DECORATIVE WROUGHT IRON SITE FENCE WITH MIN. OPENESS OF 80%
- POOL ENCLOSURE AS REQUIRED
- EXISTING DRIVEWAY, PROTECT DURING CONSTRUCTION
- PLANTER/ LANDSCAPE AREA
- RAISED PLANTER
- AREA DRAIN TO DAYLIGHT, COORDINATE W/ CIVIL
- POT DRAIN, VERIFY LOCATION W/ OWNER
- PLANTER DRAIN TO DAYLIGHT
- EXIST. MECHANICAL UNIT ON 4" CONCRETE PAD
- EXIST. SITE POOL GATE AT POOL ENCLOSURE, SELF-CLOSING SELF-LATCHING
- EXTERIOR STAIRS, UNDER SEPARATE PERMIT
- EXIST. LANDSCAPE STAIRS
- EXIST. HOSE BIBB WITH WATER SUPPLY AT LOWER LEVEL
- EXIST. CLEANOUT, COORDINATE AND ADJUST CLEANOUT TO NEW FINISHED GRADE
- EXIST. WASTE LINE TO EXISTING SEPTIC SYSTEM, VERIFY
- EXIST. LEACH FIELD, VERIFY
- EXIST. RETAINING WALL
- EXIST. CONNECTING BRIDGE
- WALL LENGTH VISIBLE PER HILLSIDE REGULATIONS- NO MORE THAN 300 TOTAL LINEAR FEET OF WALL. SHALL BE VISIBLE FROM ANY POINT ON THE PROP. LINE. SEE SITE WALL DATA BELOW
- REMOVE EXIST. GUARDRAIL. AT NEW DECK ADDITION NATIVE PLANT SURVEY NUMBER, SEE NPI FOR NATIVE PLANT INFO
- EXIST. EXPOSED AGGREGATE FORMED 4" CONC. SLAB ON 4" A.B.C. PAVING ON TERRITE TREATED SOIL
- REMOVE EXIST. GUARDRAIL AND PROVIDE NEW GUARDRAIL DESIGN PER BUILDING CODE
- EXIST. EXPOSED AGGREGATE PATIO PAVING - 4" CONC. SLAB OVER 4" A.B.C. ON TERRITE TREATED SOIL
- EXIST. EXPOSED AGGREGATE CONC. STEPS
- NEW DECK TO CONNECT TO EXISTING CONNECTING BRIDGE ON EACH SIDE. ALIGN ADJACENT FINISHES
- NEW GUARDRAIL AT NEW DECK
- REWORK EXISTING STEPS AS REQUIRED. ALIGN WITH EXISTING DECK BRIDGE

BUILDING DATA

PROJECT ADDRESS:			
4231 E. HIGHLANDS DRIVE PARADISE VALLEY, AZ 85253			
OWNER:			
AARON & JAMIE LIEBERMAN 4231 E. HIGHLAND DRIVE PARADISE VALLEY, AZ 85253			
APN:			
169-53-005			
LEGAL DESCRIPTION:			
LOT 5, PARADISE HIGHLANDS			
BUILDING AREA:	EXIST.	(REMODEL)	NEW TOTAL
MAIN LIVABLE	1671 SF.		1671 SF.
LOWER LEVEL LIVABLE	1436 SF.	(60 SF.)	1436 SF.
TOTAL LIVABLE- EXIST. MAIN, UPPER LEVEL			3107 SF.
DETACHED GARPORT, STORAGE,	168 SF.		168 SF.
STORAGE/ MECH.	56 SF.		56 SF.
COVERED AREA, LANDING	329 SF.		329 SF.
EXTERIOR STAIR	19 SF.		19 SF.
EXIST. MAIN LEVEL DECK	160 SF.		160 SF.
NEW MAIN LEVEL DECK/ PORCH		22 SF.	22 SF.
TOTAL:			4124 SF.
ZONING:			
R-43 (PARADISE VALLEY)			
NET LOT AREA: 44,012 SF. (SURVEY)			
LOT COVERAGE ALLOWED: 25% = 11,003 SF. (44012 SF. x 0.25)			
LOT COVERAGE PROPOSED: 10.6% = 4,124 SF. FLOOR AREA / 44,012 SF.			
DESCRIPTION OF WORK:			
REMODEL EXIST. RESIDENCE M. BATH AT LOWER LEVEL. ADD DECK/ PORCH ON MAIN LEVEL. NO CHANGE IN DISTURBED AREA. NO NATIVE PLANTS DISTURBED AT THIS REMODEL & DECK ADDITION.			

DISTURBED AREA CALCULATIONS:

LOT AREA:	44,012 SF.
BUILDING PAD SLOPE:	14.7%
VERTICAL:	32 FT.
HORIZONTAL:	217 FT.
ALLOWABLE DISTURBED AREA:	15,536 SF. (35.34%)
EXISTING GROSS DISTURBED AREA:	28,634 SF.
LESS EXIST. BUILDING FOOTPRINT:	(2,842 SF.)
EXIST. NET DISTURBED AREA:	25,854 SF. (58.74%)
ALLOWED SLOPED STEEPER THAN NATURAL GRADE (5% MAX):	22,000 SF. (5%)

SITE WALL DATA - SITE WALL VISIBILITY FROM PROP. LINE:

----- DASHED LINE INDICATES SITE WALL VISIBLE FROM PROP. LINE

②⑤ INDICATES EXIST. SITE WALL VISIBLE LENGTH (SEE KEYNOTE 25) 236 FT.

RETAINING SITE WALL DATA -

EXIST. RETAINING WALL LENGTH: 435 FT.

NATIVE PLANT INVENTORY -

① SEE SHEET NPI FOR NATIVE PLANT INFO


DAVID DICK, ARCHITECT
 7400 E. McDONALD DR., SUITE 102
 SCOTTSDALE, ARIZONA 85250
 (480) 942-9888 OFFICE
 (480) 942-8888 FAX

EXPIRES: 3/31/2021
 PRINT DATE: 10-31-2018
 DATE: 10-31-2018
 SCALE: AS NOTED
 REVISION:

ARCHITECTURAL SITE PLAN

A CUSTOM RENOVATION FOR:
AARON & JAMIE LIEBERMAN
 4237 EAST HIGHLAND DRIVE
 PARADISE VALLEY, AZ 85253

SHEET NUMBER
A1
 DECK



DAVID DICK, ARCHITECT
 7400 E. MC DONALD DR. SUITE 102
 SCOTTSDALE, ARIZONA 85250
 (480) 945-9888 OFFICE
 (480) 945-8888 FAX

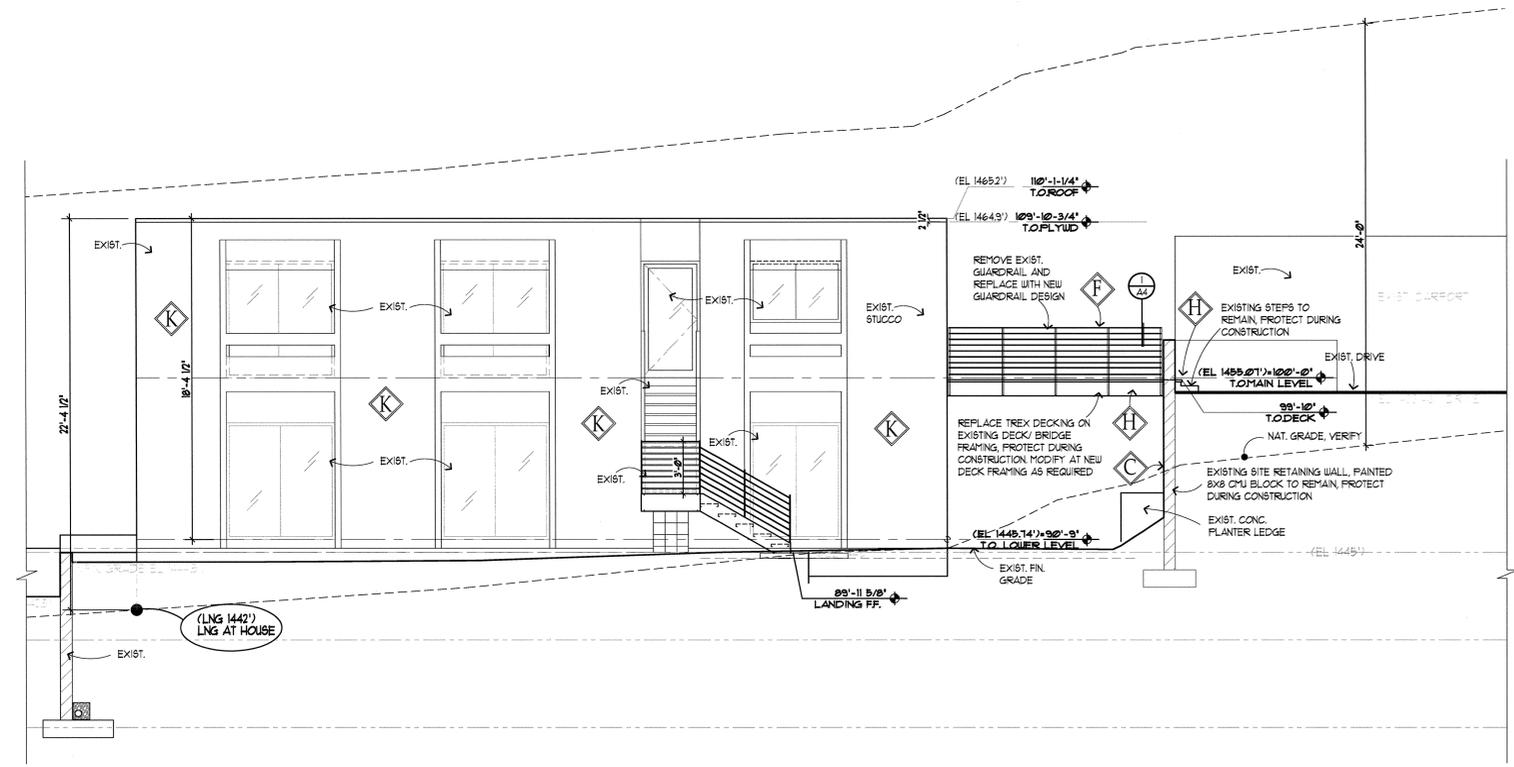
EXTERIOR ELEVATIONS & DETAILS

DATE: 12.27.2018
 SCALE: AS NOTED
 REVISION:

A CUSTOM RENOVATION FOR:
AARON & JAMIE LIEBERMAN
 4237 EAST HIGHLAND DRIVE
 PARADISE VALLEY, AZ 85253

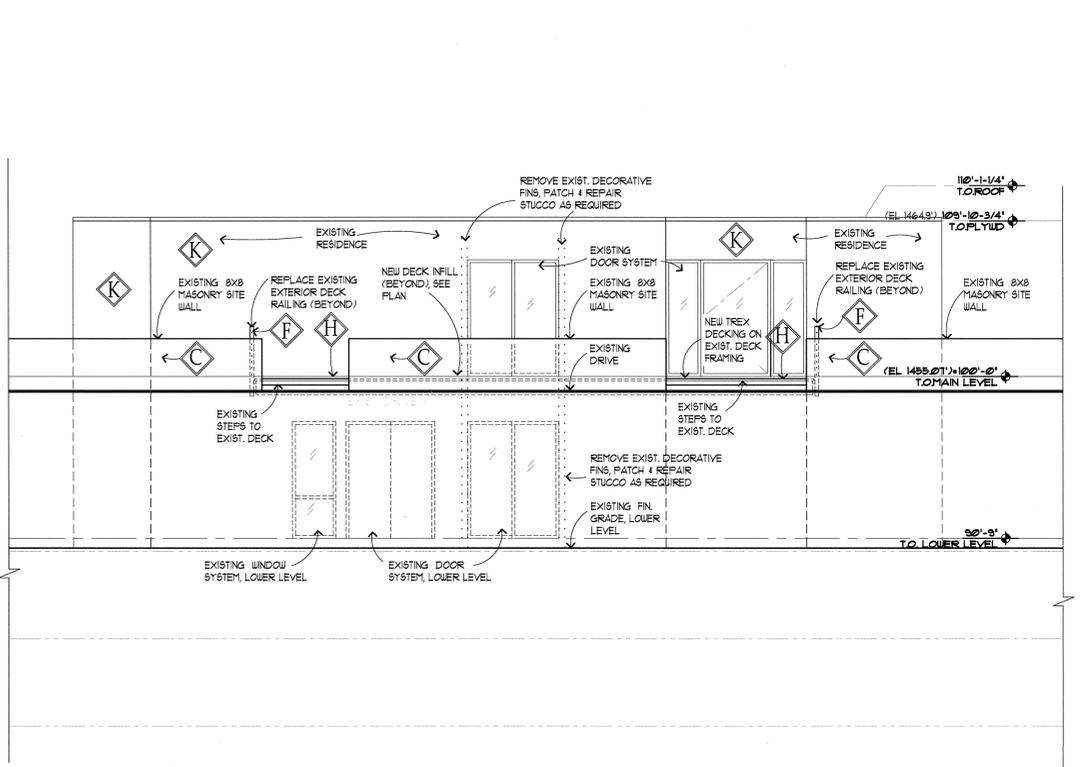
SHEET NUMBER

A3
 DECK



EAST SIDE ELEVATION

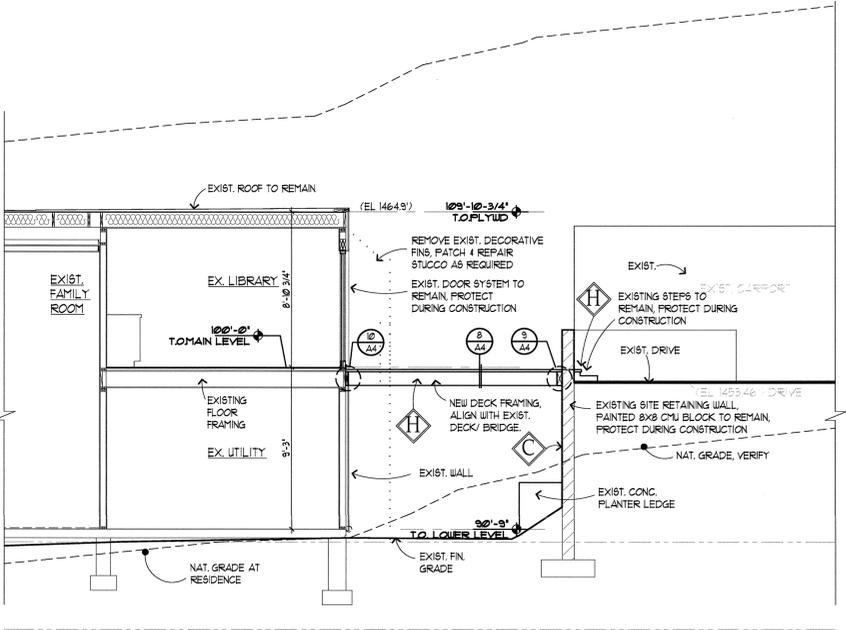
SCALE: 1/4" = 1'-0"



NORTH FRONT ELEVATION

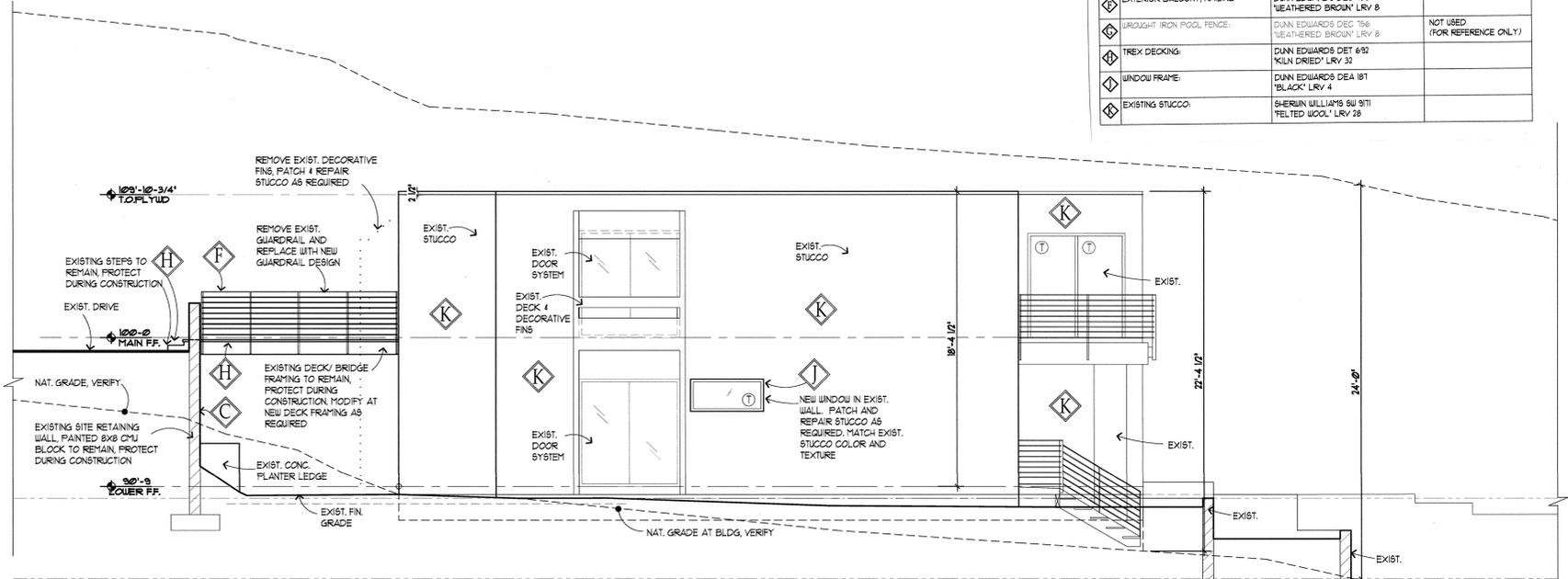
SCALE: 1/4" = 1'-0"

MATERIAL	COLOR	COMMENTS
EXISTING 8X8 MASONRY SANDBLASTED	DUNN EDWARDS DE 6389 'TALLEN ROCK' LRV 23	NOT USED (FOR REFERENCE ONLY)
NEW DECORATIVE 8X8 MASONRY COL. WITH RAKED JOINTS	DUNN EDWARDS DE 6391 'HICKORY CLIFF' LRV 16	NOT USED (FOR REFERENCE ONLY)
EXIST. DECORATIVE 8X8 MASONRY WITH RAKED JOINTS	DUNN EDWARDS DE 6391 'HICKORY CLIFF' LRV 16	
ALUMINUM DOOR / WINDOW	CLEAR ANODIZED FINISH	NOT USED (FOR REFERENCE ONLY)
EXTERIOR METAL STAIRS	DUNN EDWARDS DEC 156 'WEATHERED BROWN' LRV 8	NOT USED (FOR REFERENCE ONLY)
EXTERIOR BALCONY RAILING	DUNN EDWARDS DEC 156 'WEATHERED BROWN' LRV 8	
BROUGHT IRON POOL FENCE	DUNN EDWARDS DEC 156 'WEATHERED BROWN' LRV 8	NOT USED (FOR REFERENCE ONLY)
TREX DECKING	DUNN EDWARDS DET 692 'KILN DRIED' LRV 32	
WINDOW FRAME	DUNN EDWARDS DEA 181 'BLACK' LRV 4	
EXISTING STUCCO	SHERWIN WILLIAMS SW 971 'VELVET WOOL' LRV 28	



SECTION AT DECK A-A

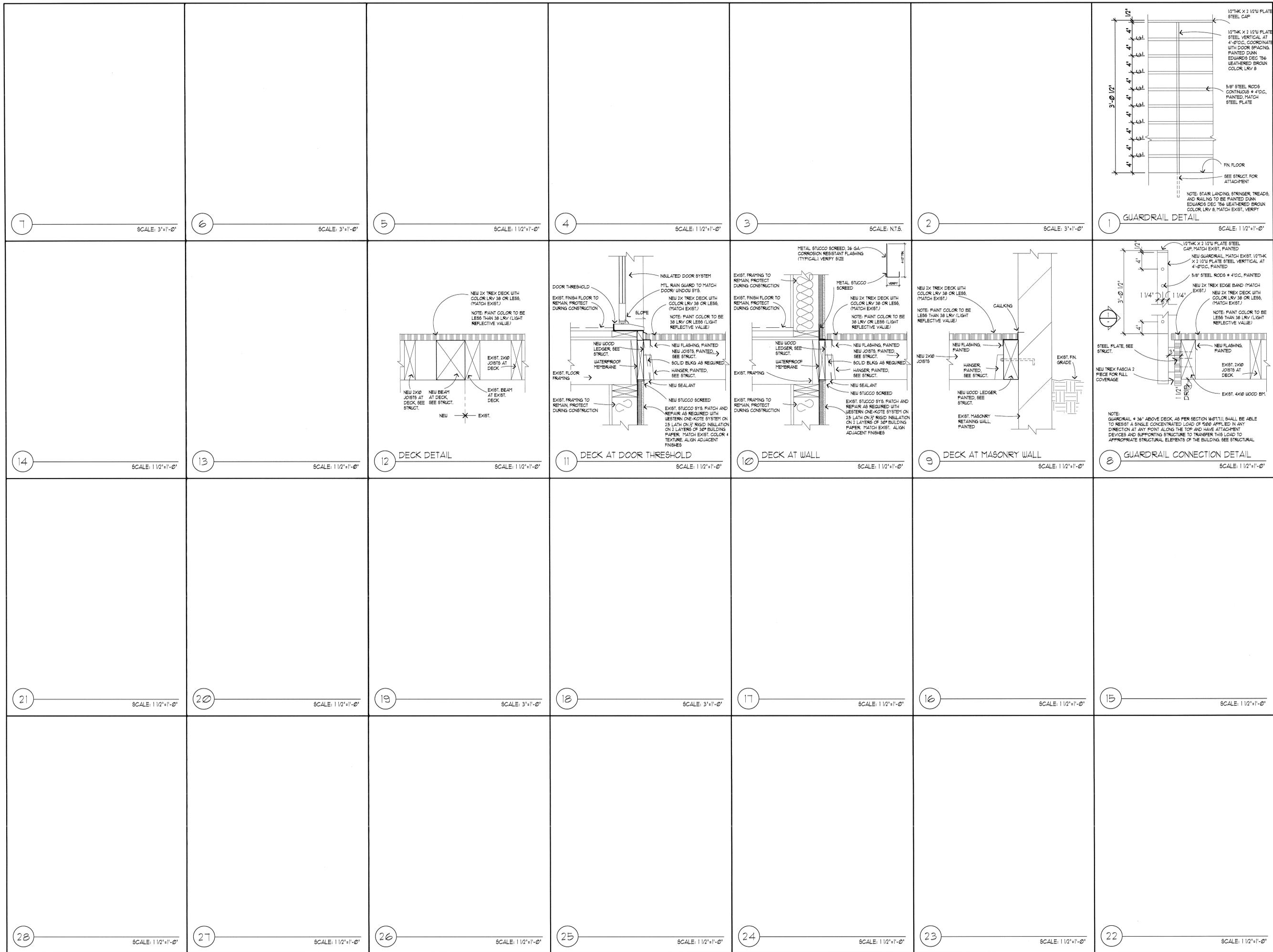
SCALE: 1/4" = 1'-0"



WEST SIDE ELEVATION

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

PRINT DATE: 12.27.2018



DAVID DICK, ARCHITECT
 7400 E. MCGONNALL DR., SUITE 402
 SCOTTSDALE, ARIZONA 85250
 (480) 945-8888 OFFICE
 (480) 945-8888 FAX

EXPIRES: 3/31/2021

ARCHITECTURAL DETAILS

DATE: 10.31.2018
 SCALE: AS NOTED
 REVISION:

A CUSTOM RENOVATION FOR:
AARON & JAMIE LIEBERMAN
 4237 EAST HIGHLAND DRIVE
 PARADISE VALLEY, AZ 85253

PRINT DATE: 10.31.2018
 SHEET NUMBER
A4
 DECK

FRAMING NOTES:

- ① EXISTING 2x10 DECK JOISTS
- ② EXISTING BEAM/HEADER
- ③ CONTINUE LEDGER ACROSS OPENING
- ④ NEW 2x10 DECK JOISTS @ 16" O.C.
- ⑤ 2x10 LEDGER W/ (3) 1/4"x3-1/2" SIMPSON SDS WOOD SCREWS @ 16" O.C.
- ⑥ 3x10 LEDGER W/ 1/2" SIMPSON TITEN HD SCREW ANCHORS W/ 3-1/2" EMBEDMENT INTO EXISTING SOLID GROUT CMU @ 16" O.C.
- ⑦ EXISTING 2x12 JOISTS @ 16" O.C.

DAVID DICK, ARCHITECT
7400 E. McDONALD DR., SUITE 92
SCOTTSDALE, ARIZONA 85250
(480) 945-1898 OFFICE
(480) 945-0305 FAX

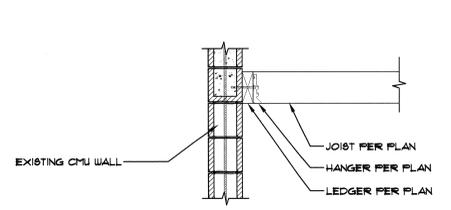
FRAMING PLAN & STRUCTURAL DETAILS

DATE: 10/19/18
SCALE: AS NOTED
REVISION:

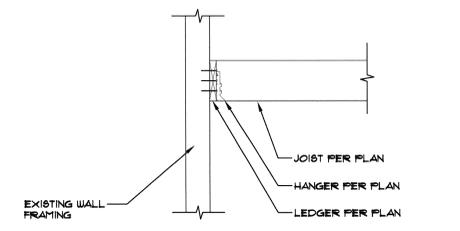
A CUSTOM RENOVATION FOR:
AARON & JAMIE LIEBERMAN
4237 EAST HIGHLAND DRIVE
PARADISE VALLEY, AZ 85253

SHEET NUMBER

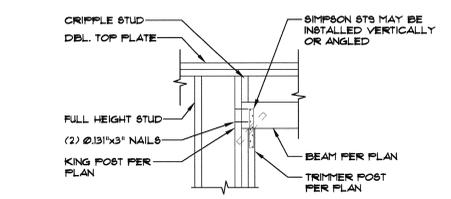
S-1



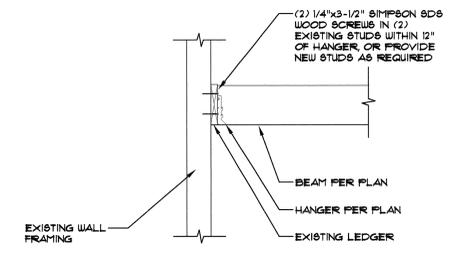
2 JOIST BEARING DETAIL
SCALE: 3/4" = 1'-0"



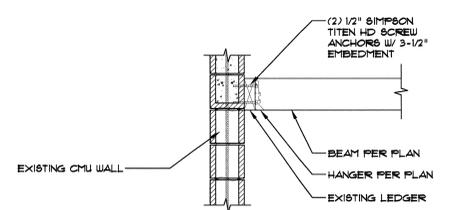
3 JOIST BEARING DETAIL
SCALE: 3/4" = 1'-0"



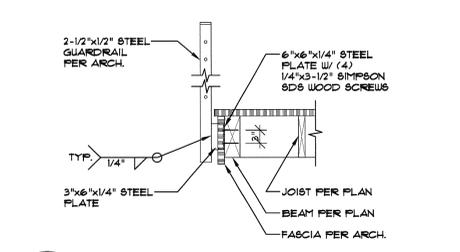
4 DROPPED BEAM TO POST
SCALE: 3/4" = 1'-0"



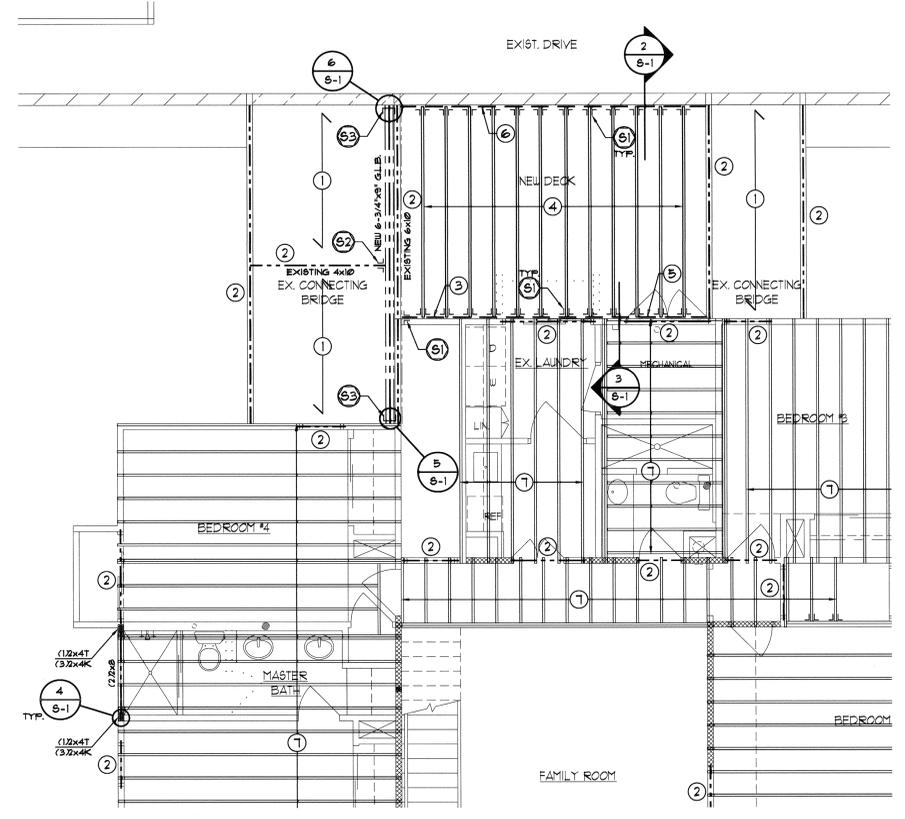
5 BEAM TO LEDGER DETAIL
SCALE: 3/4" = 1'-0"



6 BEAM TO CMU DETAIL
SCALE: 3/4" = 1'-0"



7 GUARDRAIL DETAIL
SCALE: 3/4" = 1'-0"



1 FRAMING PLAN
SCALE: 1/4" = 1'-0"

NOTE:
ALL EXISTING CONDITIONS
TO BE VERIFIED IN FIELD

SIMPSON HANGER SCHEDULE

⑤1	LU628
⑤2	LU648
⑤3	HUC310-2

LEGEND

T	TRIMMER STUDS
K	KING STUDS

NOTE:
ALL OPENING TO BE FRAMED W/ (1) TRIMMER STUD & (1) KING STUD, UNO. ON PLAN.



JRJ ENGINEERING, PLLC
2111 E. BASELINE RD.
SUITE F6
TEMPE, AZ 85283
(480) 734-9262
JRJENGINEERING.COM





EXPIRES: 3/31/2021
DAVID DICK, ARCHITECT
7400 E. MCGONWALD DR., SUITE 102
SCOTTSDALE, ARIZONA 85250
(480) 846-1888 OFFICE
(480) 846-8888 FAX

IMAGES



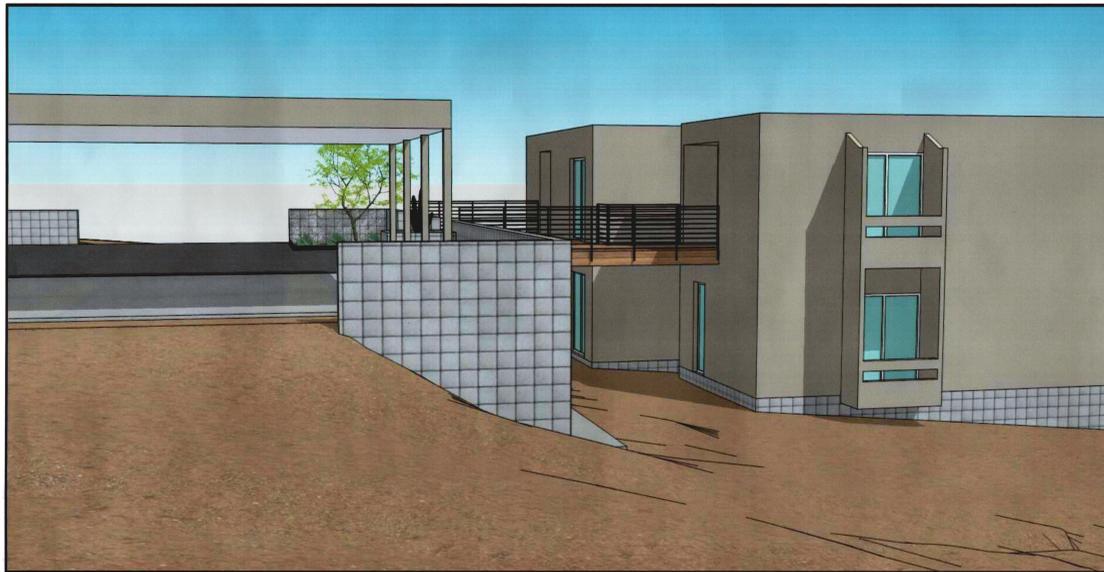
VIEW TWO

SCALE: N.T.S.



VIEW ONE

SCALE: N.T.S.



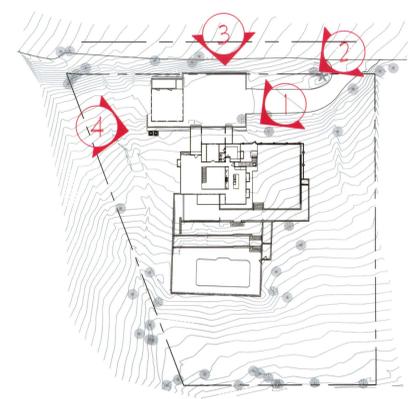
VIEW FOUR

SCALE: N.T.S.



VIEW THREE

SCALE: N.T.S.



PICTURE KEY

DATE: 12.27.2018
SCALE: AS NOTED
REVISION:

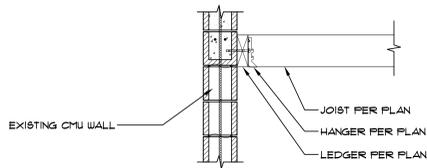
PRINT DATE: 12.27.2018

A CUSTOM RENOVATION FOR:
AARON & JAMIE LIEBERMAN
4237 EAST HIGHLAND DRIVE
PARADISE VALLEY, AZ 85253

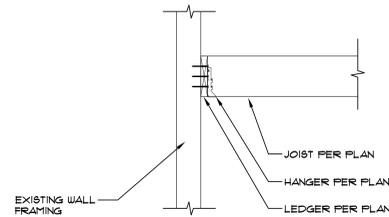
SHEET NUMBER

A5

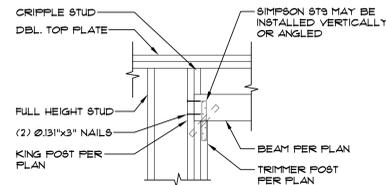
DECK



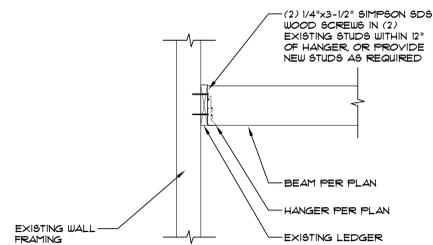
2 JOIST BEARING DETAIL
SCALE: 3/4" = 1'-0"



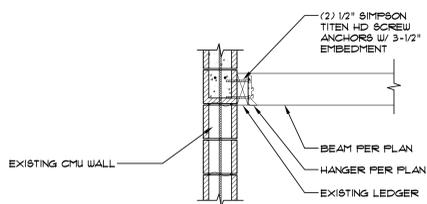
3 JOIST BEARING DETAIL
SCALE: 3/4" = 1'-0"



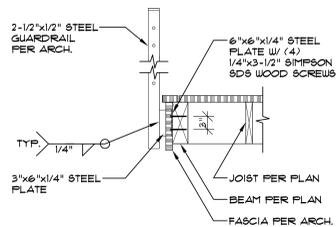
4 DROPPED BEAM TO POST
SCALE: 3/4" = 1'-0"



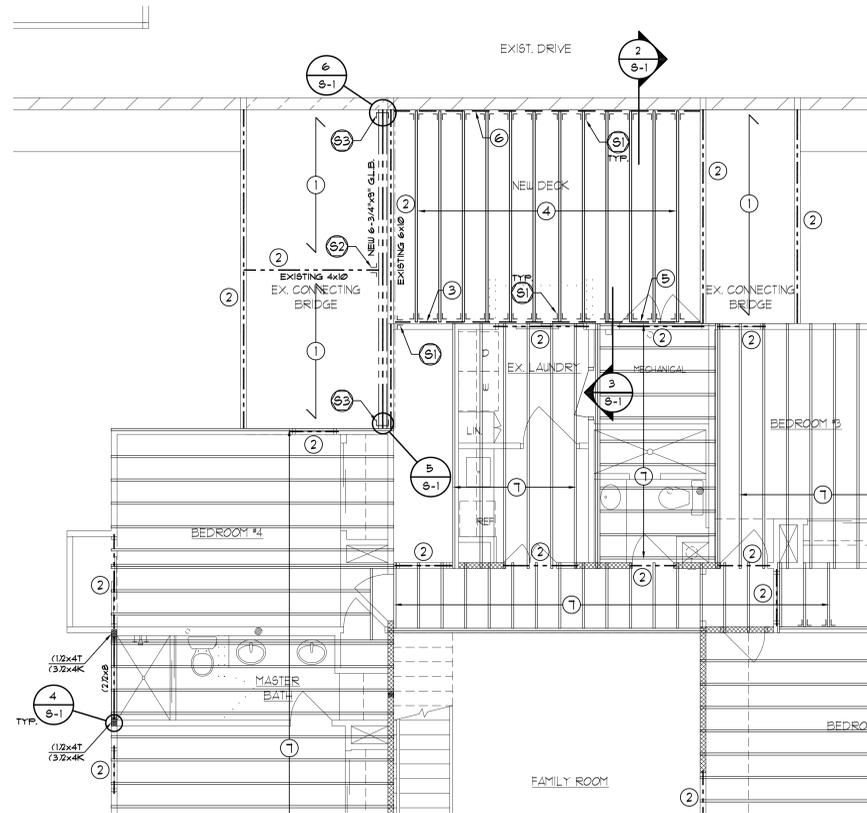
5 BEAM TO LEDGER DETAIL
SCALE: 3/4" = 1'-0"



6 BEAM TO CMU DETAIL
SCALE: 3/4" = 1'-0"



7 GUARDRAIL DETAIL
SCALE: 3/4" = 1'-0"



1 FRAMING PLAN
SCALE: 1/4" = 1'-0"

NOTE:
ALL EXISTING CONDITIONS
TO BE VERIFIED IN FIELD

FRAMING NOTES:

- 1 EXISTING 2x10 DECK JOISTS
- 2 EXISTING BEAM/HEADER
- 3 CONTINUE LEDGER ACROSS OPENING
- 4 NEW 2x10 DECK JOISTS @ 16" O.C.
- 5 2x10 LEDGER W/ (3) 1/4"x3-1/2" SIMPSON SD6 WOOD SCREWS @ 16" O.C.
- 6 3x10 LEDGER W/ 1/2" SIMPSON TITEN HD SCREW ANCHORS W/ 3-1/2" EMBEDMENT INTO EXISTING SOLID GROUT CMU @ 16" O.C.
- 7 EXISTING 2x12 JOISTS @ 16" O.C.

SIMPSON HANGER SCHEDULE

(S1)	LUS28
(S2)	LUS48
(S3)	HJC310-2

LEGEND

- T = TRIMMER STUDS
K = KING STUDS

NOTE:
ALL OPENING TO BE FRAMED W/ (1) TRIMMER STUD & (1) KING STUD, UNO. ON PLAN.

DAVID DICK, ARCHITECT
7400 E. MCDONALD DR., SUITE 102
SCOTTSDALE, ARIZONA 85250
(480) 945-1888 OFFICE
(480) 945-8855 FAX

FRAMING PLAN &
STRUCTURAL DETAILS

DATE: 10/19/18
SCALE: AS NOTED
REVISION:

A CUSTOM RENOVATION FOR:
AARON & JAMIE LIEBERMAN
4237 EAST HIGHLAND DRIVE
PARADISE VALLEY, AZ 85253

SHEET NUMBER



JRJ ENGINEERING, PLLC
2111 E. BASELINE RD.
SUITE F6
TEMPE, AZ 85283
(480) 734-9262
JRJENGINEERING.COM



S-1

GENERAL

- THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, CONSTRUCTION LOADS OF MATERIALS, ETC. CONTRACTOR AT HIS OWN EXPENSE SHALL ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE FIELD LAYOUT OF THE BUILDING AND ITS ELEMENTS. SHORING SHALL BE CERTIFIED BY A LICENSED CIVIL OR STRUCTURAL ENGINEER.
- OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE OBSERVATION OF SAFETY METHODS OR BRACING OR SHORING.
- DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS. DO NOT SCALE DETAILS.
- NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND STANDARD DETAILS.
- ALL WORK NOT DETAILED OR NOTED SHALL BE CONSTRUCTED THE SAME AS OTHER SIMILAR WORK SHOWN IN THE DETAILS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO STARTING WORK. NOTIFY JRJ ENGINEERING, PLLC OF DISCREPANCIES OR INCONSISTENCIES. AFTER RECEIPT OF SUCH NOTIFICATION, JRJ ENGINEER, PLLC SHALL BE RESPONSIBLE FOR THE CLARIFICATION OF THE DISCREPANCIES OR INCONSISTENCIES IN THE STRUCTURAL PLANS AND SPECIFICATIONS BUT SHALL NOT BE RESPONSIBLE FOR CLAIMS OR BACKCHARGES.
- CONTRACTOR SHALL VISIT SITE TO GET ACQUAINTED WITH SITE CONDITIONS, EXISTING IMPROVEMENTS (COVERINGS, FINISHES, EQUIPMENT, OBSTACLES) ETC. THAT ARE TO BE TEMPORARILY REMOVED AND LATER RESTORED.
- FRAMING ANCHORS, HANGERS, STRAPS, COLUMN CAPS, BASES AND HOLDING SHOWN ARE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, BREA, CA, OR AN APPROVED ALTERNATE. DESIGNATIONS SHOWN ON THE DRAWINGS ARE FROM CURRENT SIMPSON CATALOGUE.

FOUNDATIONS

- FOUNDATION HAS BEEN DESIGNED IN ACCORDANCE W/ THE SOIL REPORT PREPARED BY VANN ENGINEERING INC, PROJECT NUMBER 21609, DATED JULY 15, 2012. BOTTOMS OF ALL FOOTINGS SHALL BE LOCATED A MINIMUM OF 18" BELOW LOWEST ADJACENT GRADE WITHIN 3'-0" OF PROPOSED EXTERIOR WALLS AND BEAR ON NATIVE UNDISTURBED SOIL. SOIL BEARING PRESSURE = 1500 PSF.
- ALL EARTHWORK AND SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH GEOTECHNICAL REPORT AND UNDER THE DIRECT FIELD SUPERVISION OF THE SOILS ENGINEER. THE SOILS ENGINEER SHALL CERTIFY TO THE OWNER, THE ENGINEER AND THE BUILDING DEPARTMENT THAT THE EARTHWORK IS IN CONFORMANCE WITH THE REPORT AND THE SOIL IS ADEQUATE FOR THE SAFE BEARING VALUES SPECIFIED.
- SOILS ENGINEER SHALL INSPECT EXCAVATIONS AND SUBMIT PRIOR TO REQUESTING FOUNDATION INSPECTION APPROVAL BEFORE ANY CONCRETE FOOTINGS ARE PLACED.
- DURING SITE CLEARING AND SITE EARTHWORK OPERATIONS, CONTRACTOR SHALL DETERMINE IF ANY FILL, EXCAVATION OR BURIED FOUNDATIONS, DEBRIS OR STRUCTURES ARE ON SITE. IF ANY SUCH ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- ALL EMBEDDED ITEMS SHALL BE IN PLACE BEFORE FOUNDATION INSPECTION.

CONCRETE BLOCK MASONRY

- CONCRETE BLOCK - ASTM C-90, GRADE 'N' UNITS, NORMAL WEIGHT (PROVIDE DEEP CUT BOND BEAM UNITS AT ALL HORIZONTAL REINFORCING) AND CONFORM TO THE REQUIREMENTS OF THE QUALITY CONTROL STANDARDS OF THE CONCRETE MASONRY ASSOCIATION.
- HOLLOW CONCRETE LOAD BEARING UNITS $f_m = 1500$ P.S.I.
- 3 GAUGE TRUSS TYPE HORIZONTAL JOINT REINFORCING @ 16" O.C. UNO.
- ALL VERTICAL STEEL SHALL BE CENTERED ON THE WALL UNLESS SPECIFICALLY DETAILED OTHERWISE. VERTICAL REINFORCEMENT SHALL BE DOUBLED TO THE SUPPORTING MEMBERS WITH SAME SIZE AND SPACING REINFORCEMENT AS CALLED IN THE DRAWINGS OR THE STANDARD NOTES.
- ALL REINFORCED CELLS SHALL BE FILLED SOLIDLY WITH GROUT. UNO.
- MORTAR: TYPE S' IN COMPLIANCE WITH ASTM C270.
- GROUT: COMPRESSIVE STRENGTH OF 2000 psi MIN. COMPLIANT WITH ASTM C416 WITH FINE AGGREGATE PER ASTM 404. SLUMP SHALL BE BETWEEN 8" AND 11".
- GROUT SHALL BE FLOURED IN LIFTS OF 5 FEET MAX. HEIGHT. ALL GROUT SHALL BE CONSOLIDATED AT THE TIME OF POURING BY VIBRATING AND THEN RECONSOLIDATED BY AGAIN VIBRATING LATER BEFORE PLASTICITY IS LOST. AT GROUT LIFTS IN EXCESS OF 5'-0" IN HEIGHT PROVIDE INSPECTION AND CLEAN OUT HOLES AT BASE. LIFTS SHALL NOT EXCEED 5'-0" IN HEIGHT.
- ALL MASONRY RETAINING EARTH OR MASONRY BELOW GRADE SHALL HAVE ALL CELLS FILLED WITH GROUT.
- WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE GROUT FOUR 1/2" BELOW TOP OF THE UPPERMOST UNIT.
- ALL GROUTED MASONRY TO BE CONSOLIDATED W/ MECHANICAL VIBRATION.
- REINFORCE EACH END ALL CORNERS, JAMBS, EACH SIDE OF EXPANSION JOINTS, UNO.
- ALL CHU TO BE GROUTED W/ 4'S @ 48" O.C. UNO. USE (2) 4'S HORIZ. @ TOP OF FOUNDATION & ROOF LINE IN MINIMUM BOND BEAM.
- USE CORNER REBAR 24"x24" TO MATCH HORIZ. STL. AS THEY OCCUR.
- USE 3'S REBAR BELOW EACH BEAM BEARING (1 PER CELL) (3) VERTICAL CELLS TO FOUNDATION.
- USE (2) 4"x48" HORIZONTAL BARS BELOW ALL BEAM SEATS.
- PROVIDE VERTICAL CONTROL JOINTS SPACED (3) TIMES HEIGHT OF WALL. FULL LENGTH OF WALL WITH REINFORCED CORE BOTH SIDES OF CONTROL JOINT.
- NOTE: (1) #4 BELOW WALL OPENINGS EXTENDING 24" MIN. INTO JAMBS. SEE LINTEL SCHEDULE FOR REINFORCING ABOVE WINDOWS.
- PROVIDE ADEQUATE DRAINAGE BEHIND ALL RETAINING WALLS.
- PROVIDE ADEQUATE BRACING FOR ALL WALLS DURING BACKFILL OPERATIONS. BACKFILL BEHIND RETAINING WALLS WITH GRANULAR FILL. BRACING SHALL REMAIN IN PLACE UNTIL WALLS HAVE CURED 14 DAYS MINIMUM.
- SPECIAL INSPECTION OF ALL MASONRY SHALL BE IN ACCORDANCE WITH IBC 2015 SECTION 1705.4

CONCRETE

- ALL FLOURED IN PLACE CONCRETE SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:
FOOTINGS: 2500 psi
SLAB ON GRADE: 2500 psi
- CEMENT SHALL BE TYPE I OR TYPE II FROM TESTED STOCK AND CONFORMING TO ASTM C-150.
- CONCRETE FORM TOLERANCE, CONCRETE PLACEMENT, AND QUALITY SHALL BE WITHIN THE SET STANDARDS OF THE AMERICAN CONCRETE INSTITUTE.
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOUELS, AND OTHER INSERTS SHALL BE SECURED IN POSITION AND INSPECTED BY THE LOCAL BUILDING DEPARTMENT INSPECTOR PRIOR TO THE POURING OF ANY CONCRETE.
- NO PIPES OR DUCTS SHALL BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED.
- ALL CONDUITS IN CONCRETE WALLS TO BE SECURED IN POSITION.
- LOCATION OF ANY CONSTRUCTION JOINTS NOT SPECIFICALLY SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACING REINFORCING STEEL. ALL JOINTS SHALL HAVE AN INTENTIONALLY ROUGHENED SURFACE.
- CONCRETE FLOOR SLABS VARIATION FROM LEVEL TO BE NOT MORE THAN 1/8" IN TEN FEET.
- ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 3/4" UNO.

STRUCTURAL LUMBER

- ALL STRUCTURAL LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION GRADING AGENCY. ALL LUMBER SHALL BEAR AN APPROVED GRADING STAMP.
- SOLE PLATES IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED. ATTACH EXTERIOR SOLE PLATES WITH 1/2" DIAMETER ANCHOR BOLTS WITH 1 1/2" DIAMETER WASHERS WITH A MINIMUM EMBEDMENT OF 1". ANCHORS SHALL BE SPACED AT A MAXIMUM OF 6'-0" O.C. WITH ONE BOLT NOT MORE THAN 12" OR LESS THAN (1) BOLT DIAMETERS FROM EACH END. (2) BOLTS MINIMUM PER PLATE. AT SHEAR WALL LOCATIONS FOUNDATION ANCHOR BOLTS SHALL HAVE A STEEL PLATE WASHER UNDER EACH NUT NOT LESS THAN 2229"x3"x3" IN SIZE. THE HOLE IN THE PLATE WASHER SHALL BE PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/8" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDES) WITH SHEATHING OR OTHER MATERIAL WITH A NOMINAL UNIT SHEAR CAPACITY GREATER THAN 400 PLF FOR WIND OR SEISMIC.
- APA RATED SHEATHING SHALL CONFORM TO THE STANDARDS NER-108. ALL PANELS TO BE IDENTIFIED WITH A GRADE MARK OF AN APPROVED TESTING AND GRADING AGENCY. SPAN INDEX RATIO UNO. (3/8" x 24/0, 19/32" x 4 5/8" x 32/16, 23/32" x 48/24). ALL PLYWOOD SHALL BE C-D INTERIOR SHEATHING WITH EXTERIOR GLUE. INSTALL SHEATHING WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. NAILING OF PLYWOOD SHALL BE APPROVED PRIOR TO COVERING PLYWOOD.
- ANY STUD IN AN EXTERIOR WALL OR BEARING/SHEAR WALL MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25% OF ITS WIDTH. STUDS IN NON-BEARING/NON-SHEAR WALLS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED 40% OF ITS WIDTH.
- ANY STUD MAY BE BORED OR DRILLED PROVIDED THAT THE DIAMETER OF THE HOLE IS NO MORE THAN 60% OF THE WIDTH OF THE EDGE OF THE HOLE IS NO MORE THAN 5/8" TO THE EDGE OF THE STUD, AND THE HOLE IS NOT LOCATED IN THE SAME SECTION AS A CUT OR NOTCH. STUDS LOCATED IN EXTERIOR WALLS OR BEARING/SHEAR WALLS DRILLED OVER 40% AND UP TO 60% SHALL ALSO BE DOUBLED WITH NO MORE THAN TWO SUCCESSIVE DOUBLED STUDS BORED.
- PROVIDE 1/8 GAUGE GALVANIZED METAL TIE, 1 1/2" WIDE AT TOP PLATES CUT, NOTCHED, OR DRILLED BY MORE THAN 50% OF ITS WIDTH. ATTACH METAL TIE WITH (8) 16d NAILS AT EACH SIDE OF THE OPENING. METAL TIE NOT REQUIRED WHEN ENTIRE SIDE OF WALL WITH THE NOTCH OR CUT IS COVERED BY WOOD STRUCTURAL PANEL SHEATHING.
- DOUBLE TOP PLATES AT ALL EXTERIOR WALLS AND ALL BEARING/SHEAR WALLS SHALL LAP 4'-0" MINIMUM AT SPLICES AND SHALL HAVE (12) 0.131"x3" NAILS MINIMUM THROUGH EACH SIDE OF SPLICE IN PLATES. FACE NAIL DOUBLE TOP PLATES WITH 0.131"x3" NAILS @ 12" O.C. OVERLAP TOP PLATES AT ALL CORNER CONDITIONS.
- ROOF SHEATHING SHALL BE 15/32" APA RATED PLYWOOD/OSB WITH 0.131"x2 1/2" NAILS @ 6" O.C. AT ALL EDGES & 0.131"x2 1/2" NAILS @ 12" O.C. INTERIOR SUPPORTS UNO. ON FLAN. MAXIMUM SPAN WITHOUT EDGE SUPPORT SHALL BE 20'. MAXIMUM SPAN WITH EDGE SUPPORT (TONGUE-AND-GROOVE EDGES, PANEL EDGE CLIPS, OR LUMBER BLOCKING) SHALL BE 32'.
- FLOOR SHEATHING SHALL BE APA RATED PLYWOOD OR OSB WITH TONGUE-AND-GROOVE JOINTS AND SHALL BE GLUED AND ATTACHED WITH #8x2 1/2" SCREWS @ 6" O.C. AT ALL EDGES & #8x2 1/2" SCREWS @ 12" O.C. INTERIOR SUPPORTS. 6 SCREWS SHALL BE FROM AN APPROVED MANUFACTURER. SEE PLAN FOR FLOOR SHEATHING THICKNESS.
- WALL SHEATHING SHALL BE 3/8" APA RATED PLYWOOD OR OSB WITH 0.131"x2 1/2" NAILS @ 6" O.C. AT ALL EDGES & 0.131"x2 1/2" NAILS @ 12" O.C. INTERIOR SUPPORTS. UNO.
- FRAME ALL OPENINGS WITH (1) TRIMMER AND (1) KING STUD, UNO. ON FLAN.
- ALL LUMBER SHALL BEAR AN APPROVED GRADING STAMP.
- EXPOSED EXTERIOR NAILS AND HARDWARE SHALL BE GALVANIZED.
- BOLTS IN WOOD SHALL NOT BE LESS THAN (1) BOLT DIAMETERS FROM ENDS NOR (4) BOLT DIAMETERS FROM EDGES UNLESS NOTED. BOLT HOLES SHALL BE 1/32" LARGER IN DIAMETER THAN THE BOLT SIZE.
- LAG BOLTS SHALL HAVE LEAD HOLES BORED. HOLE DIAMETER TO BE:
A. SHANK PORTION: SAME DIAMETER AND LENGTH AS SHANK.
B. THREADED PORTION: 0.6 TO 0.75 TIMES DIAMETER OF THREAD.

GLULAM BEAMS

- MATERIALS, MANUFACTURE, AND QUALITY CONTROL SHALL BE IN CONFORMANCE WITH LATEST A.P.A. OR A.I.T.C. AND W.C.L.A. STANDARDS.
- ALL MEMBERS SHALL HAVE STRESS CHARACTERISTICS OF 24F-V4 FOR SIMPLE SPANS AND 24F-V8 AT CANTILEVER SPANS, UNO. (FD-2402psi, FV-265 psi, FC-L=650 psi)
- ALL MEMBERS SHALL BE MARKED WITH A.P.A. OR A.I.T.C. STAMP AND CERTIFICATE AND GRADE STAMP.
- ALL MEMBERS SHALL HAVE STANDARD CAMBER (3000 FT. RADIUS) UNO.

WOOD TRUSSES

- TRUSSES SHALL BE PROVIDED BY AN APPROVED FABRICATOR.
- THE DESIGN AND MANUFACTURE OF TRUSSES SHALL COMPLY WITH ANSI/TPI 1.
- TRUSSES SHALL BE DESIGNED TO SUPPORT ALL DEAD, LIVE, AND LATERAL LOADS THAT ARE TO BE SUPPORTED BY THE TRUSSES.
- TEMPORARY TRUSS BRACING SHALL BE PROVIDED BY THE CONTRACTOR AND TRUSS MANUFACTURER.

REINFORCING STEEL

- ASTM #19 (FY = 60,000 P.S.I.) DEFORMED BARS FOR ALL BARS. LATEST ACI CODE AND DETAILING MANUAL APPLY. CLEAR CONCRETE COVERAGES AS FOLLOWS:
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH - 3" EXPOSED TO EARTH OR WEATHER (5" AND SMALLER) - 1 1/2" INTERIOR SLABS - 3/4"
ALL OTHER PER LATEST EDITION OF ACI 318
- ASTM A307 ALL ANCHOR BOLTS WITH 1" MINIMUM EMBEDMENT IN GROUT OR CONCRETE WITH HOOK LENGTHS AS FOLLOWS:
1/2" DIAMETER = 1 1/2"
5/8" DIAMETER = 1 7/8"
7/8" DIAMETER = 2 5/8"
- REINFORCEMENT SPLICE: LAP 40 BAR DIAMETERS OR 1'-8", WHICHEVER IS GREATER FOR ALL GR 40 REBAR; 48 BAR DIAMETERS FOR ALL GR 60 REBAR.

STRUCTURAL STEEL

- DESIGN OF STRUCTURAL STEEL IN ACCORDANCE W/ 2015 IBC, ASCE 7-10, & AISC 13TH EDITION.
- ALL WIDE FLANGE STEEL BEAMS SHALL MEET THE FOLLOWING SPECIFICATIONS:
F_y: STEEL YIELD = 50 KSI
E: MODULUS = 29,000 KSI
- ALL W88 STEEL COLLUMS AND BEAMS SHALL BE A500, GRADE B, F_y = 36 KSI, E: MODULUS = 29,000 KSI
- ALL STEEL ANGLES SHALL BE F_y: STEEL YIELD = 36 KSI
- STEEL BASE PLATES SHALL BE F_y: STEEL YIELD = 36 KSI

SPECIAL INSPECTIONS

- PROVIDE SPECIAL INSPECTION OF THE FOLLOWING ITEMS IN ACCORDANCE WITH SECTION 1704 OF THE IBC:
- NONE

BUILDING CODE

THESE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2015 IRC/IBC. THE PLANS SHALL COMPLY WITH OR EXCEED THE REQUIREMENTS OF THIS CODE AND IT'S AMENDMENTS.

DESIGN CRITERIA

GROUND SNOW LOAD = 0
INTERNAL COEFFICIENT, GC_{pi} = ±.55
SITE CLASS = D
SEISMIC DESIGN CATEGORY = C
S_s = 0.16 S₁ = 0.06
WIND LOAD = 115 MPH BASIC WIND SPEED
WIND EXPOSURE = C
FLOOR LIVE LOAD = 40 PSF
ROOF LIVE LOAD = 20 PSF
ROOF DEAD LOAD (SHINGLE OR BUILT-UP) = 15 PSF
ROOF DEAD LOAD (TILE) = 20 PSF

FASTENING SCHEDULE - 2015 IBC TABLE 2304.10.1		
ROOF		
DESCRIPTION OF BUILDING ELEMENTS	NO. & TYPE OF FASTENER	LOCATION
1. BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	(3) 0.131"x3" NAIL@	TOENAIL EA. END
BLOCKING BETWEEN RAFTERS OR TRUSS NOT @ THE WALL TOP PLATE, TO RAFTER OR TRUSS	(2) 0.131"x3" NAIL@ (3) 0.131"x3" NAIL@	TOENAIL EA. END END NAIL
FLAT BLOCKING TO TRUSS & WEB FILLER	(3) 0.131"x3" NAIL@	FACE NAIL
2. CEILING JOISTS TO TOP PLATE	(3) 0.131"x3" NAIL@	TOENAIL
3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAF@ OVER PARTITIONS	(4) 0.131"x3" NAIL@	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	PER TABLE 2308.13.1	FACE NAIL
5. COLLAR TIE TO RAFTER	(4) 0.131"x3" NAIL@	FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE	(4) 0.131"x3" NAIL@	TOENAIL
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS, OR ROOF RAFTER TO 2" RIDGE BEAM	(3) 0.131"x3" NAIL@ (4) 0.131"x3" NAIL@	END NAIL TOE NAIL
WALL		
8. STUD TO STUD (NOT @ BRACED WALL PANELS)	0.162"x3-1/2" NAIL@ 0.131"x3" NAIL@	24" O.C. FACE NAIL 16" O.C. FACE NAIL
9. STUD TO STUD @ ABUTTING STUDS @ INTERSECTING WALL CORNERS (@ BRACED WALL PANELS)	0.162"x3-1/2" NAIL@ 0.131"x3" NAIL@	16" O.C. FACE NAIL 12" O.C. FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HEADER)	0.162"x3-1/2" NAIL@	16" O.C. EA. EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	0.135"x3-1/2" NAIL@ 0.131"x3" NAIL@	12" O.C. EA. EDGE, FACE NAIL TOENAIL
12. TOP PLATE TO TOP PLATE	0.162"x3-1/2" NAIL@ 0.131"x3" NAIL@	16" O.C. FACE NAIL 12" O.C. FACE NAIL
13. TOP PLATE TO TOP PLATE, @ END JOINTS	(12) 0.131"x3" NAIL@	EA. SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EA. SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT @ BRACED WALL PANELS)	0.162"x3-1/2" NAIL@ 0.131"x3" NAIL@	16" O.C. FACE NAIL 12" O.C. FACE NAIL
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING @ BRACED WALL PANELS	(4) 0.131"x3" NAIL@	16" O.C. FACE NAIL
16. STUD TO TOP OR BOTTOM PLATE	(4) 0.131"x3" NAIL@ (3) 0.131"x3" NAIL@	TOENAIL END NAIL
17. TOP OR BOTTOM PLATE TO STUD	(3) 0.131"x3" NAIL@	END NAIL
18. TOP PLATES, LAPS @ CORNERS @ INTERSECTIONS	(3) 0.131"x3" NAIL@	FACE NAIL
19. 1" BRACE TO EA. STUD & PLATE	(2) 0.131"x3" NAIL@	FACE NAIL
20. 1"x6" SHEATHING TO EA. BEARING	(2) 0.131"x2-1/2" NAIL@	FACE NAIL
21. 1"x6" & WIDER SHEATHING TO EA. BEARING	(3) 0.131"x2-1/2" NAIL@	FACE NAIL
FLOOR		
22. JOIST TO GILL, TOP PLATE, OR GIRDER	(3) 0.131"x3" NAIL@	TOENAIL
23. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, GILL OR OTHER FRAMING BELOW	(3) 0.131"x3" NAIL@	6" O.C. TOENAIL
24. 1"x6" SUBFLOOR OR LESS TO EA. JOIST	(2) 0.131"x2-1/2" NAIL@	FACE NAIL
25. 2" SUBFLOOR TO JOIST OR GIRDER	(2) 0.162"x3-1/2" NAIL@	FACE NAIL
26. 2" FLANKS (FLANK & BEAM - FLOOR & ROOF)	(2) 0.162"x3-1/2" NAIL@	EA. BEARING, FACE NAIL
27. BUILT-UP GIRDERS & BEAMS, 2" LUMBER LAYERS	0.131"x3" NAIL@ AND: (3) 0.131"x3" NAIL@	24" O.C. FACE NAIL @ TOP & BOTTOM STAGGERED ON OPPOSITE SIDES ENDS @ EA. SPLICE, FACE NAIL
28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	(4) 0.131"x3" NAIL@	EA. JOIST OR RAFTER, FACE NAIL
29. JOIST TO BAND JOIST OR RIM JOIST	(4) 0.131"x3" NAIL@	END NAIL
30. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	(2) 0.131"x3" NAIL@	EA. END, TOENAIL

MATERIAL SPECIFICATIONS, UNO.		
LUMBER USAGE	E (MODULES OF ELASTICITY) PSI (POUNDS/SQUARE INCH)	SPECIES & GRADE OR COMBINATION SYMBOL
2x4 STUDS ≤ 12' PLATE	12x10 ⁶ P.S.I. (MIN.)	HEM-FIR, SPF, OR DOUG-FIR STUD GRADE
2x6 STUDS ≤ 14' PLATE	12x10 ⁶ P.S.I. (MIN.)	HEM-FIR, SPF, OR DOUG-FIR STUD GRADE
2x6 STUDS > 14' PLATE	13x10 ⁶ P.S.I. (MIN.)	HEM-FIR, SPF, OR DOUG-FIR NO. 2
2x4 TOP PLATES	12x10 ⁶ P.S.I.	HEM-FIR, SPF, OR DOUG-FIR STD.
2x6 TOP PLATES	13x10 ⁶ P.S.I.	HEM-FIR, SPF, OR DOUG-FIR NO. 2
2x4, 2x6 SOLE PLATES	11x10 ⁶ P.S.I.	HEM-FIR, SPF, OR DOUG-FIR UTILITY (P.T.)
2x6 THRU 2x4 JOISTS	16x10 ⁶ P.S.I.	DFL. #2
2x RAFTERS	16x10 ⁶ P.S.I.	DFL. #2
2x LEDGERS	16x10 ⁶ P.S.I.	DFL. #2
(22x) BEAMS	16x10 ⁶ P.S.I.	DFL. #2
4x BEAM@	16x10 ⁶ P.S.I.	DFL. #2
6x BEAM@	16x10 ⁶ P.S.I.	DFL. #1
4x POST@	16x10 ⁶ P.S.I.	DFL. #2
6x POST@	16x10 ⁶ P.S.I.	DFL. #1
TIMBERS (VEGA@)	15x10 ⁶ P.S.I.	DFL. #1
DECKING	15x10 ⁶ P.S.I.	DFL. #1
GLULAM BEAM@ (SIMPLE)	18x10 ⁶ P.S.I.	DF/DF 24F-V4
GLULAM BEAM@ (CANTILEVERED OR CONTINUOUS)	18x10 ⁶ P.S.I.	DF/DF 24F-V8



JRJ ENGINEERING, PLLC
2111 E. BASELINE RD.
SUITE F
TEMPE, AZ 85283
(480) 734-9262
JRJENGINEERING.COM



DAVID DICK, ARCHITECT
7400 E. MCCONNARD DR., SUITE 122
SCOTTSDALE, ARIZONA 85260
PH: 480.998.0574 FAX: 480.998.0575

STRUCTURAL NOTES

DATE: 10/19/18
SCALE: AS NOTED
REVISION:

A CUSTOM RENOVATION FOR:
AARON & JAMIE LIEBERMAN
4237 EAST HIGHLAND DRIVE
PARADISE VALLEY, AZ 85263

SHEET NUMBER

SN1