GENERAL NOTES:

1. PROJECT TO CONFORM WITH 2019 CALIFORNIA BUILDING, RESIDENTIAL, ELECTRICAL, GREEN, MECHANICAL & PLUMBING, & ENERGY CODE, AS ADOPTED BY THE CITY & ALL APPLICABLE STATE AND LOCAL CODES.

2. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. SIMILAR CONDITIONS SHALL BE BUILT IN ACCORDANCE WITH THE INFORMATION SHOWN. SUBJECT TO THE ARCHITECT'S APPROVAL THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL CONFLICTING OR MISSING INFORMATION PRIOR TO COMMENCING WORK.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LOCATIONS OF EMBEDDED ITEMS, ETC. PRIOR TO COMMENCING WORK. SHOULD ANY CONDITIONS EXIST OR RESULT DURING CONSTRUCTION WHICH DIFFER FROM THOSE DETAILED ON THE ARCHITECTURAL DRAWINGS, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.

4. DIMENSIONS AS INDICATED ARE DIMENSIONS TO BE USED. DO NOT SCALE THE DRAWING.

5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE DETERMINATION AND EXECUTION OF THE METHODS OF CONSTRUCTION. INCLUDING ALL TEMPORARY CONDITIONS AND SUPPORTS. SITE VISIT THE ARCHITECT WILL NOT INCLUDE INSPECTION OF METHODS OF CONSTRUCTION OR SAFETY MEASURES.

6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES, STRUCTURES, STREETS, AND UTILITIES.

7. STRUCTURAL OBSERVATION SHALL BE REQUIRED BY THE PROJECT ENGINEER FOR CONFORMANCE TO THE APPROVED PLANS.

   THE CONTRACTOR SHALL GIVE THE ARCHITECT & ENGINEERS SUFFICIENT NOTICE (48 HOURS MIN.) FOR ON-SITE CONSTRUCTION REVIEW OF AT LEAST THE FOLLOWING:

   A. FOUNDATION EXCAVATION AND GRADING.
   B. REINFORCING CONCRETE PRIOR TO PLACEMENT OF CONCRETE.
   C. STRUCTURAL FRAMING, ROUGH-IN ELECTRICAL, PLUMBING AND MECHANICAL.
   D. SHEET ROCK NAILING.
   E. INSPECTION OF FINISHES.

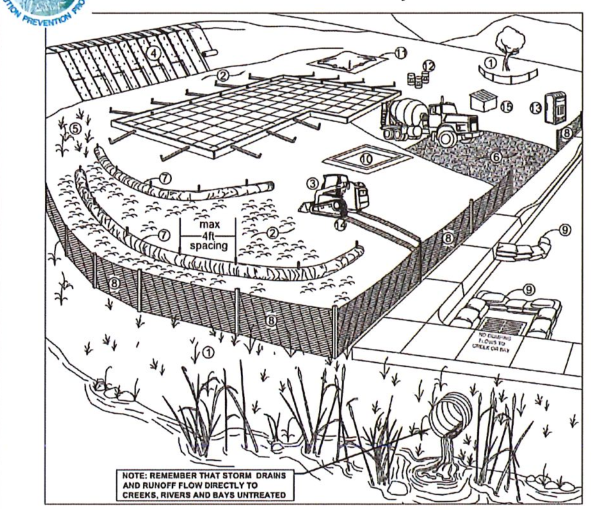
THESE PLANS ARE THE PROPERTY OF ONJU UPDEGRAVE, ARCHITECT AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY WORK OTHER THAN THE LOCATION SHOWN HERE ON.

ABBREVIATION INDEX

A.P.N.	Assessor's Parcel Number	LAU.	Laundry
APPROX.	Approximate	MEMB	Membrane
A.B.	Anchor Bolt	MAX.	Maximum
ABV	Above	MIN.	Minimum
A.D.	Area Drain	M.B.	Machine Bolt
BD	Board	MECH.	Mechanical
BLK'G	Blocking	MISC.	Miscellaneous
BLDG.	Building	M.O.	Masonry Opening
BM	Beam	(N)	New
BOT.	Bottom	NFVA	Net Free Vent Area
BT	Between	N.I.C.	Not In Contract
C.B.	Catch Basin	N.T.S.	Not To Scale
CLG.	Ceiling	O.C.	On Center
CLO.	Closet	O /	Over
CLR.	Clear	O.D.	Outside Diameter
CMU	Concrete Masonary Unit	P.E.N.	Plywood Edge Nail
COL	Column	PL.	Plate
CONC.	Concrete	PLYWD.	Plywood
CONT.	Continuous	PT.	Point
DF	Douglas Fir	PTDF	Pressure Treated Douglas Fir
D.F.	Drinking Fountain	R	Riser
DBL.	Double	R.D.	Roof Drain
DIA	Diameter	REF.	Reference
DN.	Down	REFR.	Refrigerator
DR.	Door	REQ.	Required
DS.	Downspout	REINF.	Reinforced
(E)	Existing	RWD.	Redwood
EA.	Each	RM.	Room
EL.	Elevator	RWL	Rain Water Leader
ELEC	Electrical	S.C.	Solid Core
ELEV	Elevation	SHT'G	Sheathing
E.P.	Electrical Panel	SLD	Sliding
EQ.	Equal	STD	Standard
EXT.	Exterior	SIM.	Similar
E.W.	Each Way	SPEC.	Specification
FD	Floor Drain	S.ST.	Stainless Steel
F.E.	Fire Extinguisher	STL.	Steel
F.F.	Finish Floor	STOR.	Storage
FIN.	Finish	STRUC.	Structure
FL.	Floor	T	Tread
FLASH	Flashing	T.B.	Towel Bar
FND	Foundation	T & B	Top And Bottom
F.O.	Finish Opening	T.C.	Top Of Curb
F.O.H.C.	Free Of Heart Center	TEL.	Telephone
F.O.F.	Face OF Finish	T.O.	Top of
F.O.S.	Face Of Stud	T.O.P.	Top of Plate
FTG.	Footing	T.O.W.	Top of Wall
GAL	Gallon	T & G	Tongue And Groove
G.S.M.	Galvanized Sheet Metal	TYP.	Typical
GYP.	Gypsum	U.O.N.	Unless Otherwise Noted
H.B.	Hose Bib	V.I.F.	Verify in Field
HDWD.	Hardwood	W/	With
HDWE.	Hardware	W.C.	Watercloset
INSUL	Insulation	W/O	Without
K.D.	Kiln Dried	W.P.	Waterproofing
		WUI	Wildland Urban Interface

Marin County Stormwater Pollution Prevention Program

Minimum Control Measures For Small Construction Projects

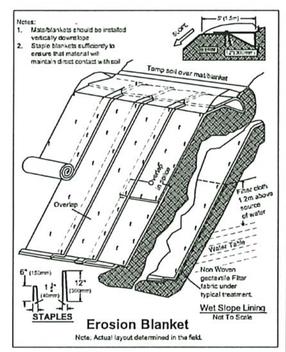


Erosion Controls	Sediment Controls	Good Housekeeping
NS Scheduling	6. Tracking Controls	10. Concrete Washout
1. Preserve Vegetation & Creek Set Backs	7. Fiber Rolls	11. Stockpile Management
2. Soil Cover	8. Silt Fence	12. Hazardous Material Management
3. Soil Preparation/ Roughening	9. Drain Inlet Protection	13. Sanitary Waste Management
4. Erosion Control Blankets	NS Trench Dewatering	14. Equipment and Vehicle Maintenance
5. Revegetation		15. Litter and Waste Management

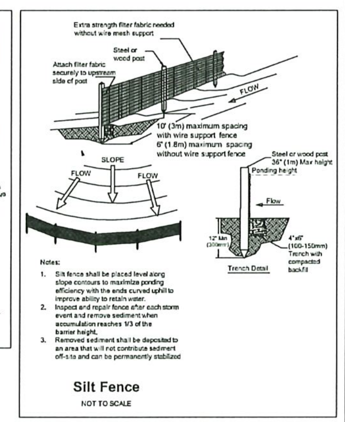
NS=not shown on graphic

Note: Select an effective combination of control measures from each category, Erosion Control, Sediment Control, and Good Housekeeping. Control measures shall be continually implemented and maintained throughout the project until activities are complete, disturbed areas are stabilized with permanent erosion controls, and the local agency has signed off on permits that may have been required for the project. Inspect and maintain the control measures before and after rain events, and as required by the local agency or state permit.
More detailed information on the BMPs can be found in the related California Stormwater Quality Association (CASQA) and California Department of Transportation (Caltrans) BMP Factsheets. CASQA factsheets are available by subscription in the *California Best Management Practices Handbook Portal: Construction* at http://www.casqa.org. Caltrans factsheets are available in the *Construction Site BMP Manual March 2003* at http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm.
Visit www.mcstoppp.org for more information on construction site management and Erosion and Sediment Control Plans.

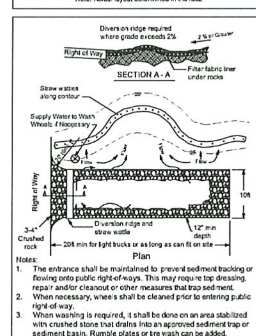
	Control Measure	General Description
Erosion Control Best Management Practices		
N/A	Scheduling	Plan the project and develop a schedule showing each phase of construction. Schedule construction activities to reduce erosion potential, such as scheduling ground disturbing activities during the summer and phasing projects to minimize the amount of area disturbed. *For more info see the following factsheets: CASQA: EC-1; or Caltrans: SS-1.*
1	Preserve Existing Vegetation and Creek Setbacks	Preserve existing vegetation to the extent possible, especially along creek buffers. Show creek buffers on maps and identify areas to be preserved in the field with temporary fencing. Check with the local Planning and Public Works Departments for specific creek set back requirements. *For more info see the following factsheets: CASQA: EC-2, or Caltrans: SS-2.*
2	Soil Cover	Cover exposed soil with straw mulch and tackifier (or equivalent). *For more info see the following factsheets: CASQA: EC-3, EC-5, EC-6, EC-7, EC-8, EC-14, EC-16, or Caltrans: SS-2, SS-4, SS-5, SS-6, SS-7, SS-8.*
3	Soil Preparation/ Roughening	Soil preparation is essential to vegetation establishment and BMP installation. It includes soil testing and amendments to promote vegetation growth as well as roughening surface soils by mechanical methods (decompacting, scarifying, stair stepping, etc.). *For more info see the following factsheets: CASQA: EC-15.*
4	Erosion Control Blankets	Install erosion control blankets (or equivalent) on disturbed sites with 3:1 slopes or steeper. Use wildlife-friendly blankets made of biodegradable natural materials. Avoid using blankets made with plastic netting or fixed aperture netting. See: http://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf. *For more info see the following factsheets: CASQA: EC-7; or Caltrans: SS-7.*
5	Revegetation	Re-vegetate areas of disturbed soil or vegetation as soon as practical. *For more info see the following factsheets: CASQA: EC-4; or Caltrans: SS-4.*
Sediment Control Best Management Practices		
6	Tracking Controls	Stabilize site entrance to prevent tracking soil offsite. Inspect streets daily and sweep street as needed. Require vehicles and workers to use stabilized entrance. Place crushed rock 12-inches deep over a geotextile, using angular rock between 4 and 6-in. Make the entrance as long as can be accommodated on the site, ideally long enough for 2 revolutions of the maximum tire size (16-20 feet long for most light trucks). Make the entrance wide enough to accommodate the largest vehicle that will access the site, ideally 10 feet wide with sufficient radii for turning in and out of the site. Rumble pads or rumble racks can be used in lieu of or in conjunction with rock entrances. Wheel washes may be needed where space is limited or where the site entrance and sweeping is not effective. *For more info see the following factsheets: CASQA: TC-1; TC-3, or Caltrans: TC-1; TC-3.*
7	Fiber Rolls	Use fiber rolls as a perimeter control measure, along contours of slopes, and around soil stockpiles. On slopes space rolls 10 to 20 feet apart (using closer spacing on steeper slopes). Install parallel to contour. If more than one roll is used in a row overlap roll do not abut. J-hook end of roll upslope. Install rolls per either Type 1 (stake rolls into shallow trenches) or Type 2 (stake in front and behind roll and lash with rope). Use wildlife-friendly fiber rolls made of biodegradable natural materials. Avoid using fiber rolls made with plastic netting or fixed aperture netting. See: http://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf. Manufactured linear sediment control or compost socks can be used in lieu of fiber rolls. *For more info see the following factsheets: CASQA: SE-5 (Type 1); SE-12, SE-13, or Caltrans: SC-5 (Type 1 and Type 2).*
8	Silt Fence	Use silt fence as a perimeter control measure, and around soil stockpiles. Install silt fence along contours. Key silt fence into the soil and stake. Do not use silt fence for concentrated water flows. Install fence at least 3 feet back from the slope to allow for sediment storage. Wire backed fence can be used for extra strength. Avoid installing silt fence on slopes because they are hard to maintain. Manufactured linear sediment control can be used in lieu of silt fences. *For more info see the following factsheets: CASQA: SE-1; SE-12; or Caltrans: SC-1.*
9	Drain Inlet Protection	Use gravel bags, (or similar product) around drain inlets located both onsite and in gutter as a last line of defense. Bags should be made of a woven fabric resistant to photo-degradation filled with 0.5-1-in washed crushed rock. Do not use sand bags or silt fence fabric for drain inlet protection. *For more info see the following factsheets: CASQA: SE-10, or. Caltrans: SC-10.*
N/A	Trench Dewatering	Follow MCSTOPPP BMPs for trench dewatering. http://www.marincounty.org/depts/pw/divisions/mcstoppp/development/~/media/Files/Departments/PW/mcstoppp/development/TrenchingSWReqMCSTOPPPFinal6_09.pdf. *For more info see the following factsheets: CASQA: NS-2; or Caltrans: NS-2.*
Good Housekeeping Best Management Practices		
10	Concrete Washout	Construct a lined concrete washout site away from storm drains, waterbodies, or other drainages. Ideally, place adjacent to stabilized entrance. Clean as needed and remove at end of project. *For more info see the following factsheets: CASQA: WM-8; or .Caltrans: WM-8.*
11	Stockpile Management	Cover all stockpiles and landscape material and berm properly with fiber rolls or sand bags. Keep behind the site perimeter control and away from waterbodies. *For more info see the following factsheets: CASQA: WM-3 or Caltrans: WM-3.*
12	Hazardous Material Management	Hazardous materials must be kept in closed containers that are covered and within secondary containment; do not place containers directly on soil. *For more info see the following factsheets: CASQA: WM-6, or Caltrans: WM-6.*
13	Sanitary Waste Management	Place portable toilets near stabilized site entrance, behind the curb and away from gutters, storm drain inlets, and waterbodies. Tie or stake portable toilets to prevent tipping and equip units with overflow pan/tray (most vendors provide these). *For more info see the following factsheets: CASQA: WM-9, or Caltrans: WM-9.*
14	Equipment and Vehicle Maintenance	Prevent equipment fluid leaks onto ground by placing drip pans or plastic tarps under equipment. Immediately clean up any spills or drips. *For more info see the following factsheets: CASQA: NS-8, NS-9, and NS-10, or Caltrans: NS-8, NS-9, and NS-10.*
15	Litter and Waste Management	Designate waste collection areas on site. Use watertight dumpsters and trash cans; inspect for leaks. Cover at the end of each work day and when it is raining or windy. Arrange for regular waste collection. Pick up site litter daily. *For more info see the following factsheets: CASQA: WM-5, or Caltrans: WM-5.*



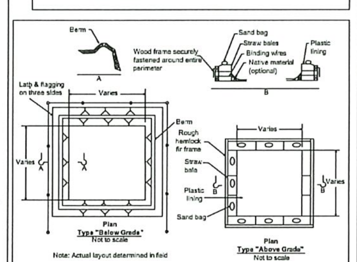
Erosion Blanket
Note: Actual layout determined in the field.



Silt Fence
NOT TO SCALE



Site Entrance



Concrete Washout

Catch Basins with Gravel Bags
(Do not use sand bags near inlets)

PROJECT CONSULTANTS

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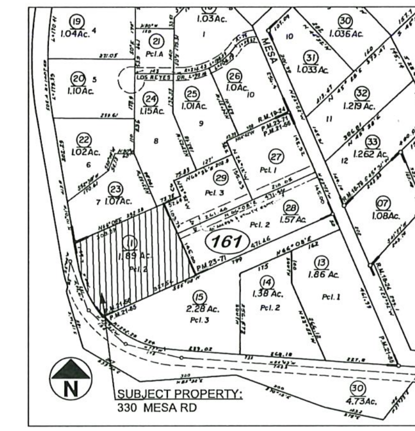
SURVEYOR	1031 SURVEY INC. 1857 RANIER CIRCLE PETALUMA, CA 94954 PHONE: 415- 827- 6370 EMAIL : gj@1031survey.com



1 VICINITY & PARCEL MAP

PROPERTY SUMMARY - 330 Mesa Rd, Pt Reyes Station			
APN	119-161-11		
Zoning	C-ARP-1		
LOT AREA	1.89 Acres		
	EXISTING	ADDITION	TOTAL
BUILDING AREA			
Existing Residence Area	2233		2233
New ADU Area		1192	1192
Total Residence Area	**2233**	**1192**	**3425**
Shed & Storage	308	0	308
TOTAL Building Area	**2541**	**1192**	**3733**
DECK AREA- ADU		**465**	**465**
Proposed ADU Building Height	15' Max		

PROJECT SCOPE SUMMARY:
1. Build new 1,192 SF two bedroom Accessory Dwelling.

2. Replace existing septic system with new 5 bedroom septic system.

DRAWING INDEX

A0	TITLE SHEET, GENERAL NOTES
1	PARTIAL TOPOGRAPHIC MAP
A1	SITE PLAN
A3.1	PROPOSED PLANS
A4.1	PROPOSED ELEVATIONS & SECTION
1 of 3	WASTEWATER SYSTEM PLAN - SITE PLAN
2 of 3	WASTEWATER - CONSTRUCTION DETAILS
3 of 3	WASTEWATER - CONSTRUCTION DETAILS

DZA - ATTACHMENT #2

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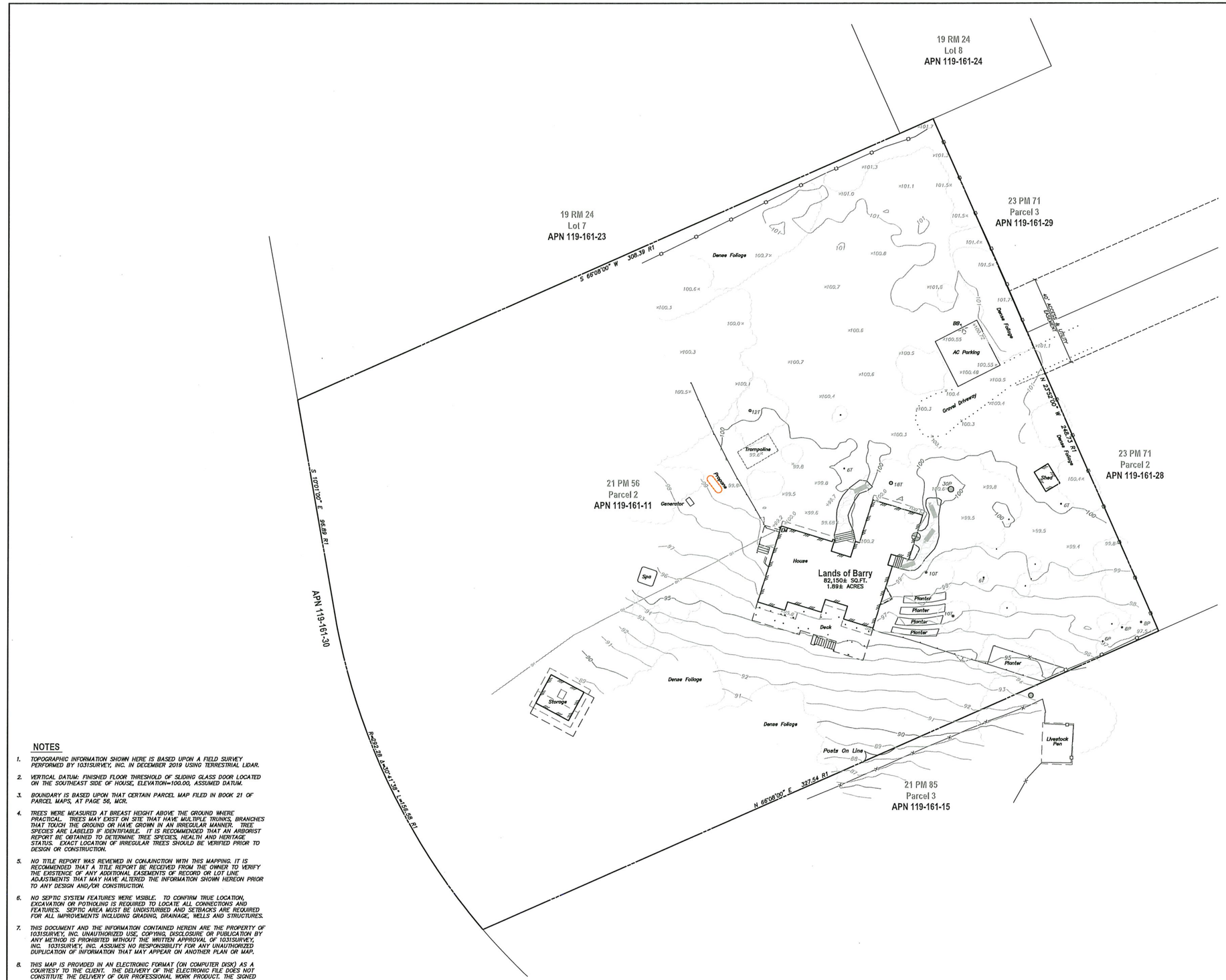
COVER SHEET, NOTES

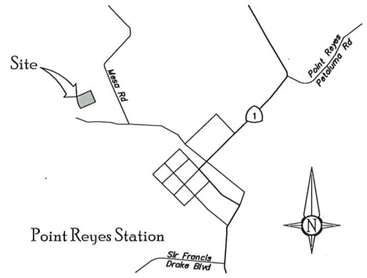
BARRY RESIDENCE
ACCESSORY DWELLING UNIT
330 MESA RD, PT REYES STATION, CA
APN: 119-161-11

REVISIONS	BY

DATE 4-17-20 DES REV
SCALE AS NOTED
DRAWN
SHEET

A0





VICINITY MAP
NTS

LEGEND

- BUILDING
- FENCE, POST AND WIRE
- FENCE, WOOD
- OVERHEAD UTILITIES
- EDGE OF GRAVEL DRIVE
- ELECTRIC MAIN
- TEMPORARY BENCHMARK
- TREE, TO SCALE, WITH DRIPLINE, DIAMETER & TYPE

ABBREVIATIONS

AC	ASPHALTIC CONCRETE
APN	ASSESSORS PARCEL NUMBER
BB	BASKETBALL HOOP ABOVE
EM	ELECTRIC MAIN
FFT	FINISHED FLOOR, THRESHOLD
MCR	MARIN COUNTY RECORDS
OH	OVERHEAD UTILITY LINES
NTS	NOT TO SCALE
P	PINE
T	TREE
TBM	TEMPORARY BENCHMARK
W	WATER

NOTES

1. TOPOGRAPHIC INFORMATION SHOWN HERE IS BASED UPON A FIELD SURVEY PERFORMED BY 1031SURVEY, INC. IN DECEMBER 2019 USING TERRESTRIAL LIDAR.
2. VERTICAL DATUM: FINISHED FLOOR THRESHOLD OF SLIDING GLASS DOOR LOCATED ON THE SOUTHEAST SIDE OF HOUSE, ELEVATION=100.00, ASSUMED DATUM.
3. BOUNDARY IS BASED UPON THAT CERTAIN PARCEL MAP FILED IN BOOK 21 OF PARCEL MAPS, AT PAGE 56, MCR.
4. TREES WERE MEASURED AT BREAST HEIGHT ABOVE THE GROUND WHERE PRACTICAL. TREES MAY EXIST ON SITE THAT HAVE MULTIPLE TRUNKS, BRANCHES THAT TOUCH THE GROUND OR HAVE GROWN IN AN IRREGULAR MANNER. TREE SPECIES ARE LABELED IF IDENTIFIABLE. IT IS RECOMMENDED THAT AN ARBORIST REPORT BE OBTAINED TO DETERMINE TREE SPECIES, HEALTH AND HERITAGE STATUS. EXACT LOCATION OF IRREGULAR TREES SHOULD BE VERIFIED PRIOR TO DESIGN OR CONSTRUCTION.
5. NO TITLE REPORT WAS REVIEWED IN CONJUNCTION WITH THIS MAPPING. IT IS RECOMMENDED THAT A TITLE REPORT BE RECEIVED FROM THE OWNER TO VERIFY THE EXISTENCE OF ANY ADDITIONAL EASEMENTS OF RECORD OR LOT LINE ADJUSTMENTS THAT MAY HAVE ALTERED THE INFORMATION SHOWN HEREON PRIOR TO ANY DESIGN AND/OR CONSTRUCTION.
6. NO SEPTIC SYSTEM FEATURES WERE VISIBLE. TO CONFIRM TRUE LOCATION, EXCAVATION OR POTHOLING IS REQUIRED TO LOCATE ALL CONNECTIONS AND FEATURES. SEPTIC AREA MUST BE UNDISTURBED AND SETBACKS ARE REQUIRED FOR ALL IMPROVEMENTS INCLUDING GRADING, DRAINAGE, WELLS AND STRUCTURES.
7. THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF 1031SURVEY, INC. UNAUTHORIZED USE, COPYING, DISCLOSURE OR PUBLICATION BY ANY METHOD IS PROHIBITED WITHOUT THE WRITTEN APPROVAL OF 1031SURVEY, INC. 1031SURVEY, INC. ASSUMES NO RESPONSIBILITY FOR ANY UNAUTHORIZED DUPLICATION OF INFORMATION THAT MAY APPEAR ON ANOTHER PLAN OR MAP.
8. THIS MAP IS PROVIDED IN AN ELECTRONIC FORMAT (ON COMPUTER DISK) AS A COURTESY TO THE CLIENT. THE DELIVERY OF THE ELECTRONIC FILE DOES NOT CONSTITUTE THE DELIVERY OF OUR PROFESSIONAL WORK PRODUCT. THE SIGNED PRINT DELIVERED WITH THIS ELECTRONIC FILE CONSTITUTES OUR PROFESSIONAL WORK PRODUCT, AND IN THE EVENT THE ELECTRONIC FILE IS ALTERED, THE PRINT MUST BE REFERRED TO FOR THE ORIGINAL AND CORRECT SURVEY INFORMATION. WE SHALL NOT BE RESPONSIBLE FOR ANY MODIFICATIONS MADE TO THE ELECTRONIC FILE, OR FOR ANY PRODUCTS DERIVED FROM THE ELECTRONIC FILE WHICH ARE NOT REVIEWED, SIGNED AND SEALED BY US.

LANDS OF BARRY
330 MESA ROAD
APN 119-161-11
POINT REYES STATION, MARIN COUNTY, CALIFORNIA

Partial Topographic Map

1031Survey, Inc.
HIGH DEFINITION SURVEYING
1857 Rainier Circle, Petaluma, California 94954
415-827-6370 www.1031survey.com

DATE: 2020.04.13 SURVEY DATE: DEC2019
SCALE: 1" = 20' SHEET: 1 OF 1
FILE: 19192Topo

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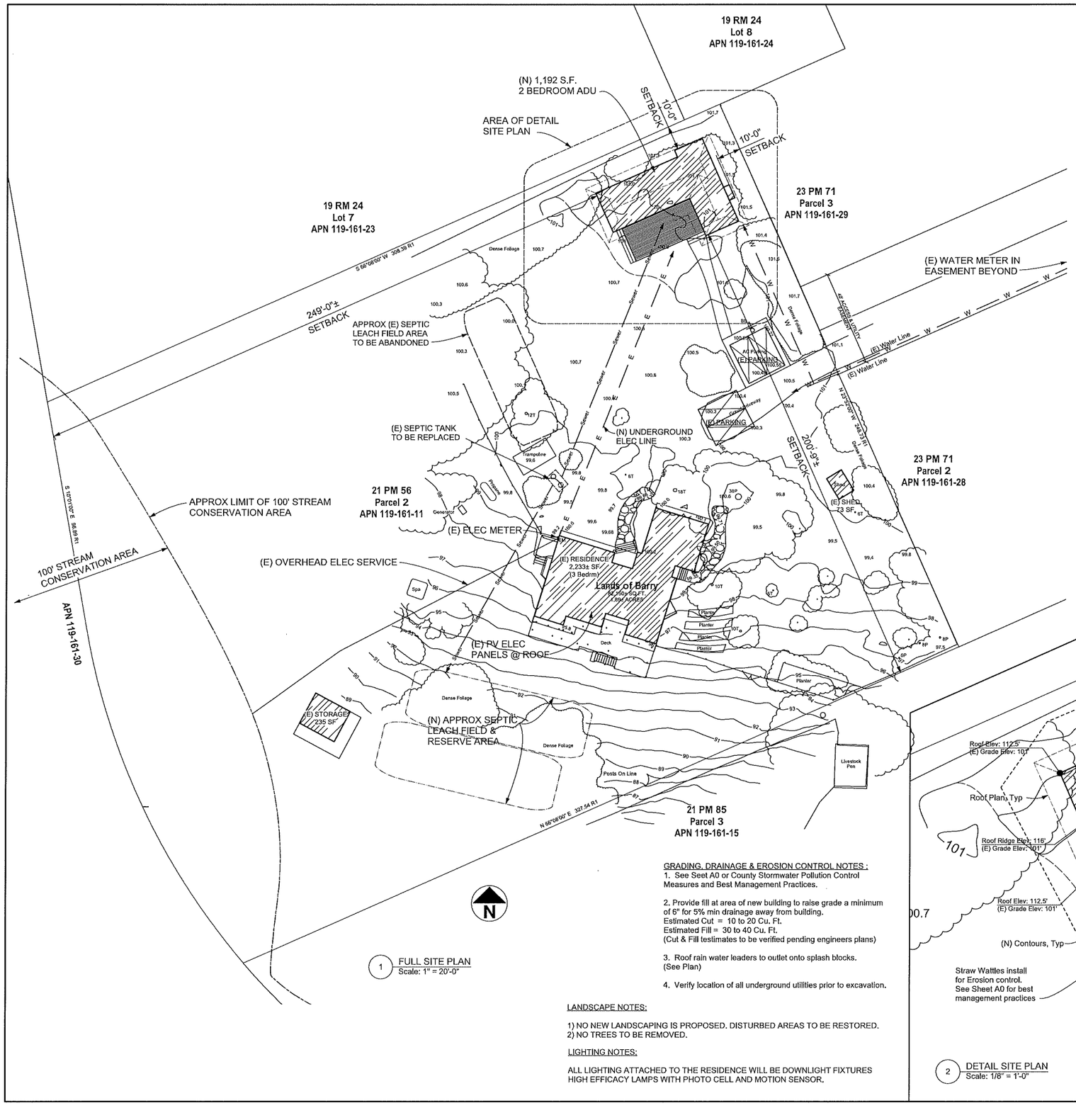

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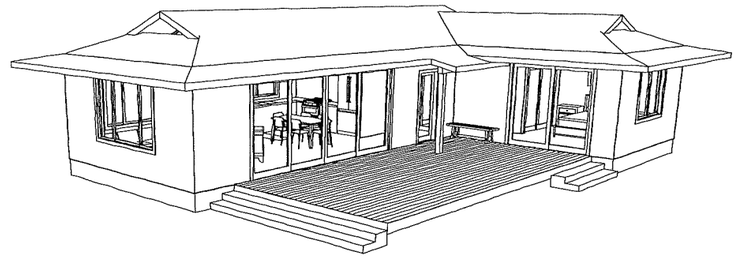
SITE PLAN

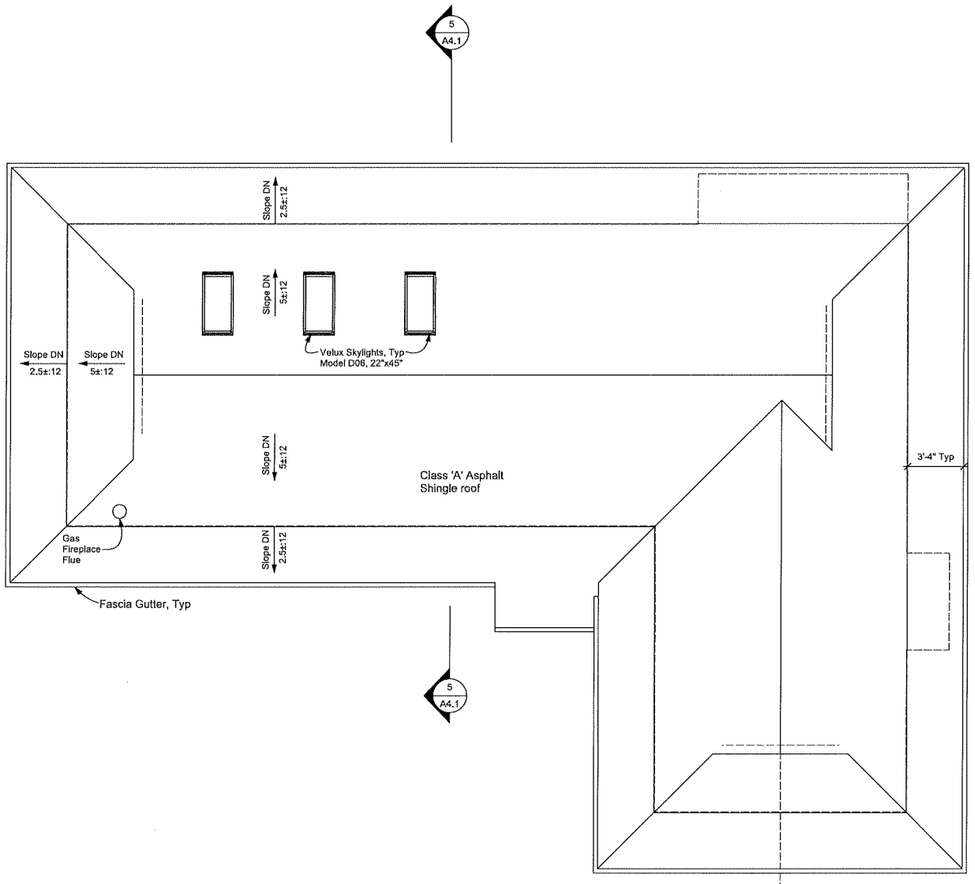
BARRY RESIDENCE
ACCESSORY DWELLING UNIT
330 MESA RD, PT REYES STATION, CA
APN: 119-161-11

REVISIONS	BY

DATE 4-17-20 DES REV
SCALE AS NOTED
DRAWN
SHEET A1.1



VIEW FROM MAIN HOUSE



2 PROPOSED ROOF PLAN
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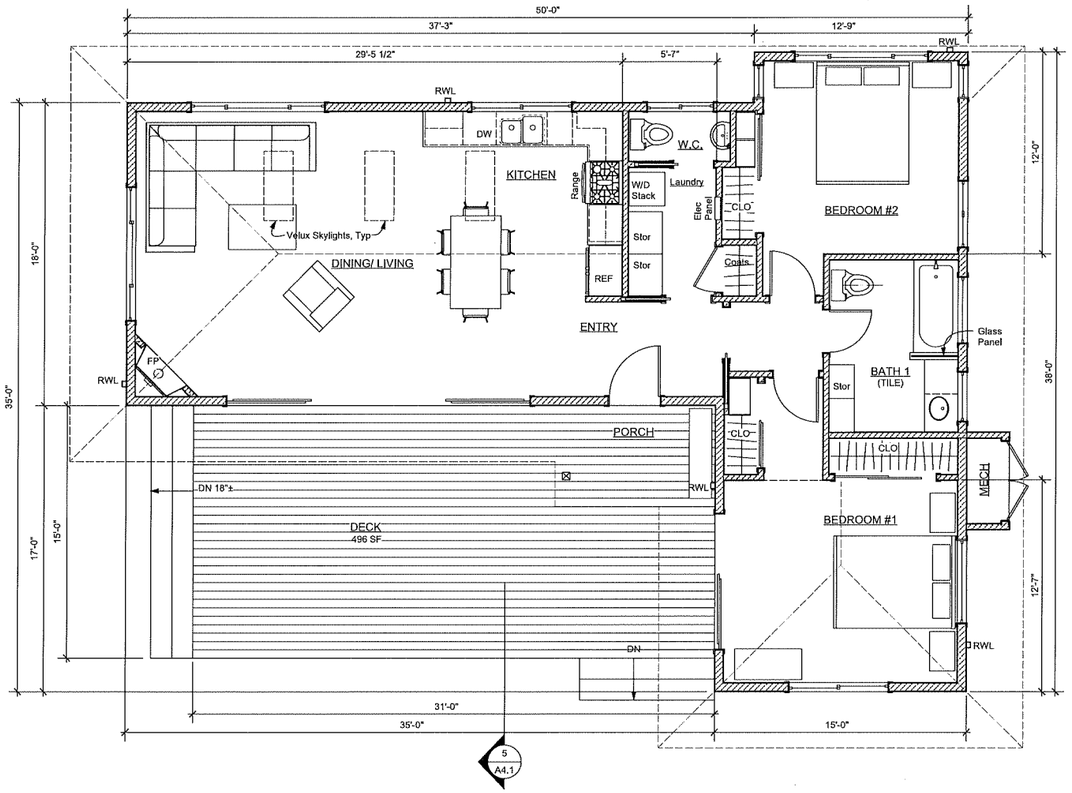

1 PROPOSED PLAN - 1192 SQ FT
Scale: 1/4" = 1'-0"

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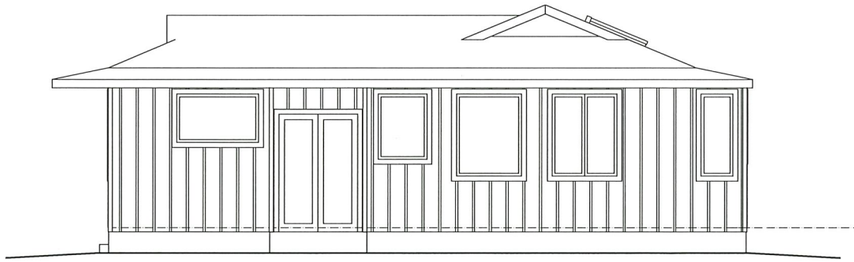
PLANS

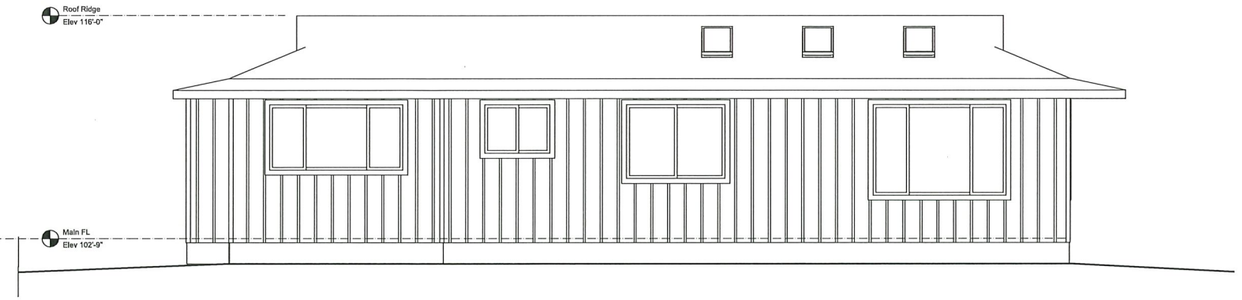
BARRY RESIDENCE
ACCESSORY DWELLING UNIT
330 MESA RD, PT REYES STATION, CA
APN: 119-161-11

REVISIONS	BY

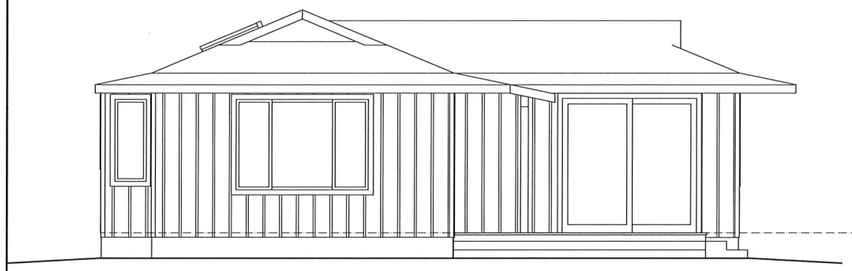
DATE: 4-17-20 DES REV
SCALE: AS NOTED
DRAWN:
SHEET: A3.1



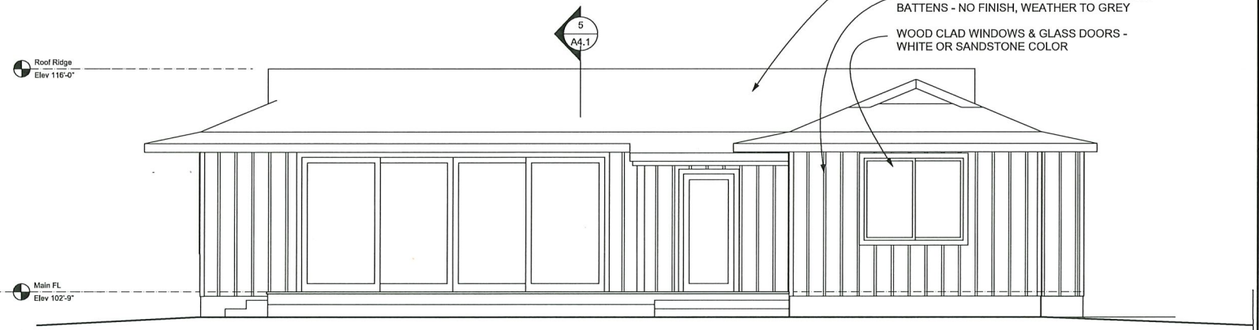
1 PROPOSED EAST ELEVATION
Scale: 1/4" = 1'-0"



2 NORTH ELEVATION
Scale: 1/4" = 1'-0"



3 WEST ELEVATION
Scale: 1/4" = 1'-0"



4 SOUTH ELEVATION
Scale: 1/4" = 1'-0"

TYPICAL EXTERIOR FINISHES:

CLASS 'A' ASPHALT SHINGLE ROOF-
GREY COLOR TO MATCH RESIDENCE

RE-SAWN CEDAR PLYWOOD SIDING W/ CEDAR
BATTENS - NO FINISH, WEATHER TO GREY

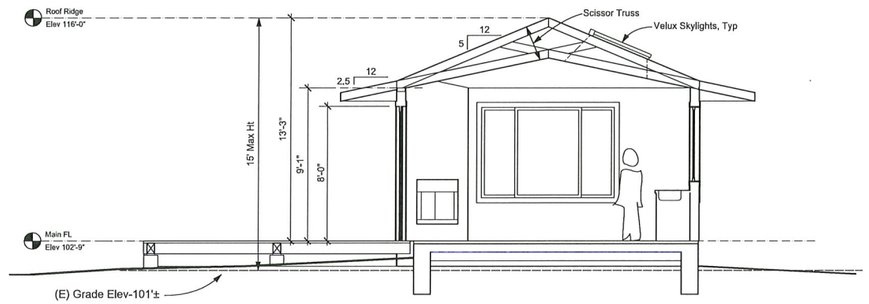
WOOD CLAD WINDOWS & GLASS DOORS -
WHITE OR SANDSTONE COLOR

EXISTING RESIDENCE: T1-11 Grey Painted Plywood Siding. Gray Asphalt Shingle Roof
PROPOSED ADU: Re-sawn Cedar Plywood with battens. Unfinished for natural gray with age.

WINDOW DOOR CLAD COLOR:
Off White/ Sandstone or simillar

EXISTING SHED & STORAGE BUILDINGS: Unfinished natural gray simillar to proposed ADU exterior finish.

FINISH COLORS/ MATERIALS
BARRY RESIDENCE
330 MESA RD, PT REYES STATION, CA
DATE: 17 APR 2020



5 SECTION
Scale: 1/4" = 1'-0"

Onju
ONJU UPDEGRAVE
ARCHITECT
990 A STREET, SUITE 202
SAN RAFAEL , CA 94901
PHONE: 415 . 457 . 7788
FAX: 415 . 457 . 7747
Email: onju@onju.net

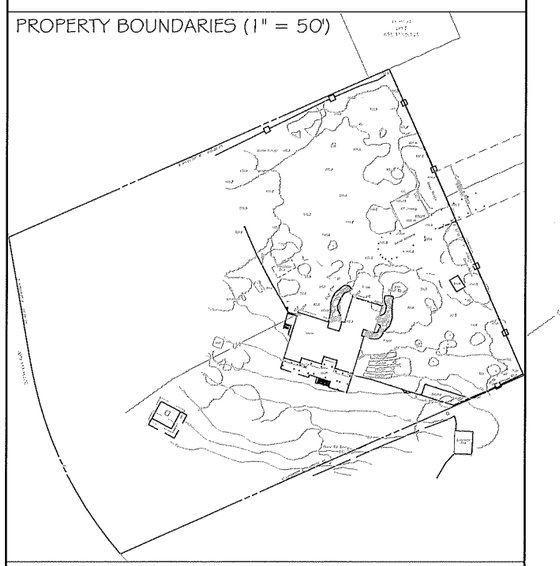
ELEVATIONS, SECTION, FINISH MATERIALS

BARRY RESIDENCE
ACCESSORY DWELLING UNIT
330 MESA RD, PT REYES STATION, CA
APN: 119-161-11

REVISIONS	BY

DATE 4-17-20 DES REV
SCALE AS NOTED
DRAWN
SHEET A4.1

PROPERTY BOUNDARIES (1" = 50')

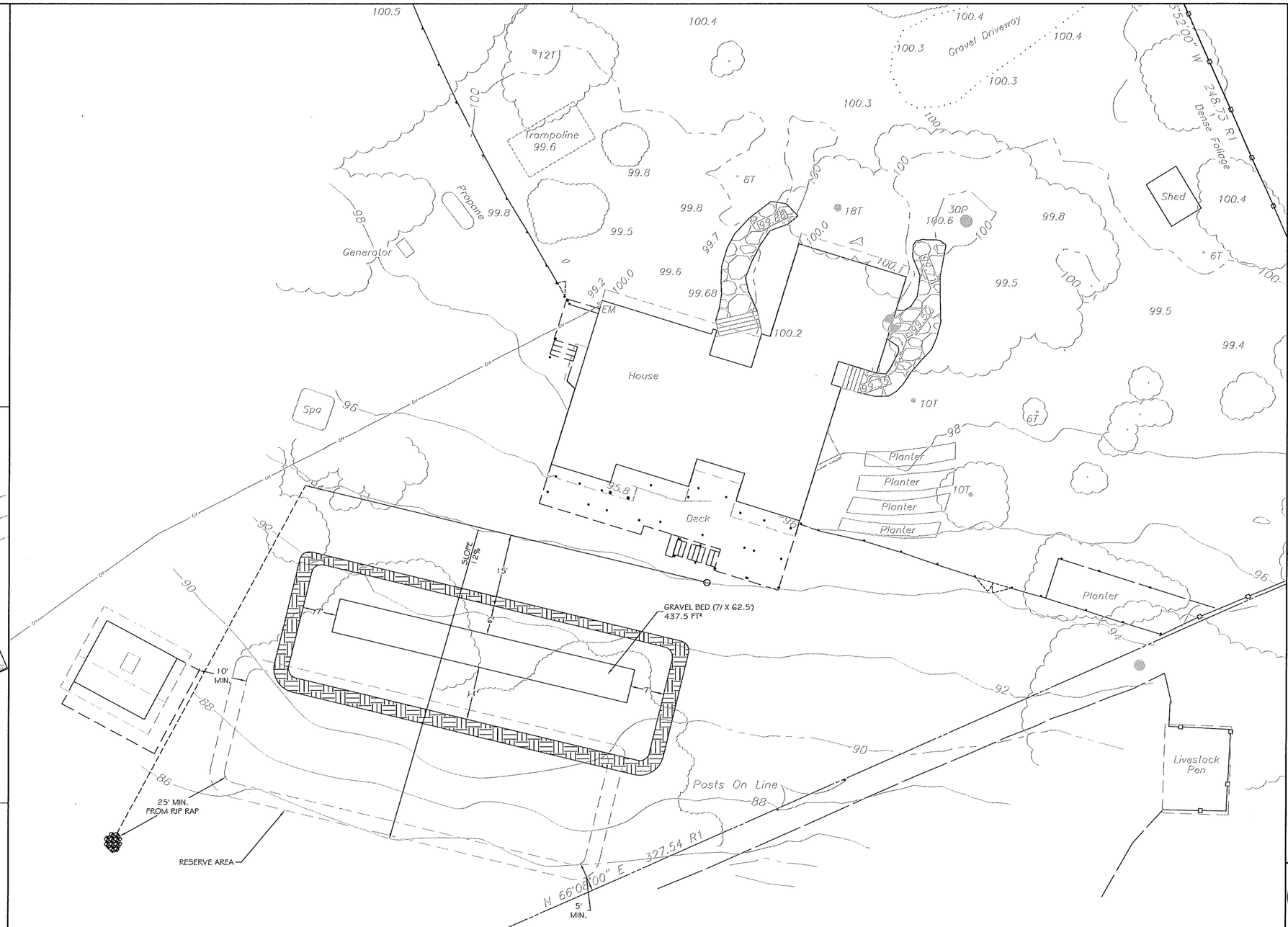


LEGEND

- Soil Profile Trench
- Percolation Test
- Contour Line
- Gravity Line
- Monitoring Well
- Clean Out
- Check Valve

NOTES

* Survey provided by 1031Survey, Inc. EED, Inc. assumes no responsibility.
* 2' Contours
* 525 GPD System



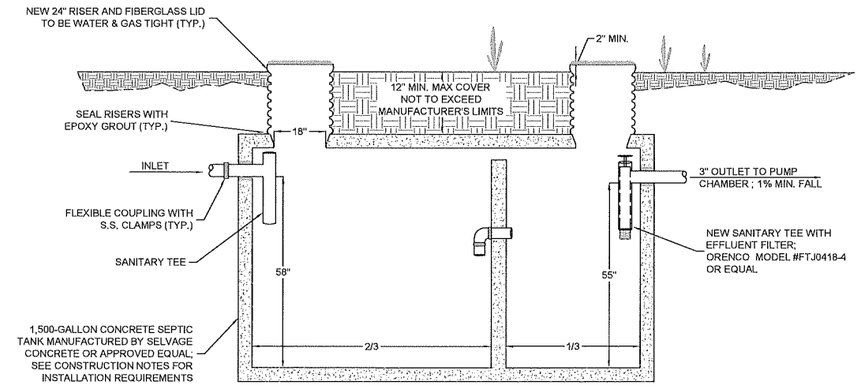
APN	119-161-11
DATE / REV.	03-15-2020 / A
SCALE/SIZE	1" = 10' / ARCHD
SHEET	1 OF 3

CLASS I FIVE-BEDROOM ON-SITE WASTEWATER SYSTEM PLAN
SITE PLAN

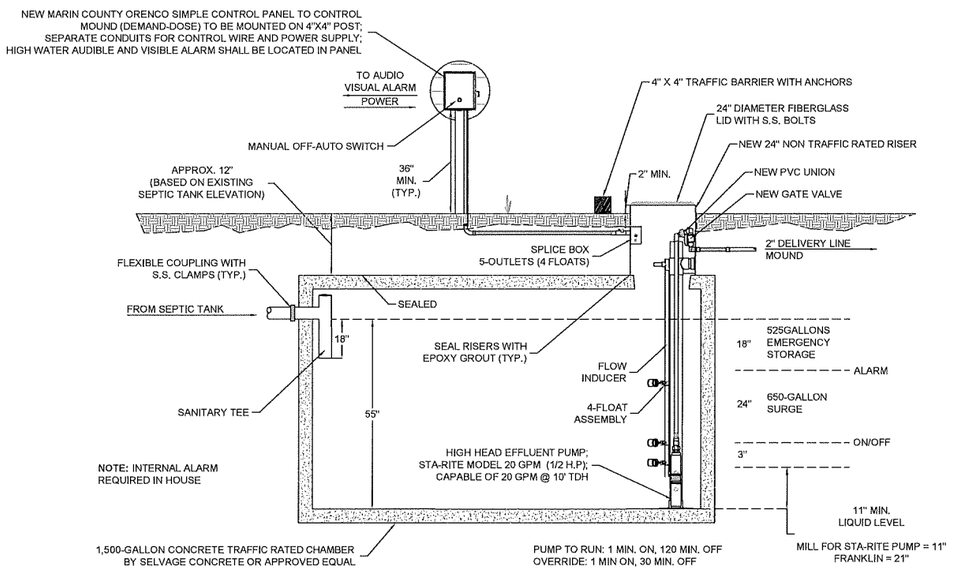
BARRY RESIDENCE
330 MESA ROAD
POINT REYES STATION, CALIFORNIA

REGISTERED ENVIRONMENTAL HEALTH SPECIALIST — ROADIAH S. ECKMAN — No. 7466 — CERTIFIED PROFESSIONAL ENGINEER

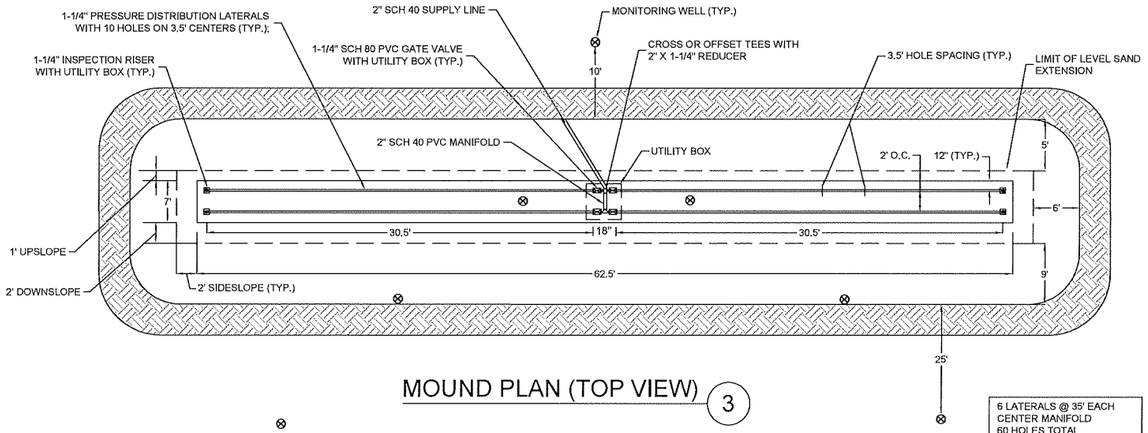
eckman environmental designs, inc
1000 4th Street
Suite 600
San Rafael, CA 94901
510.390.3992



1,500-GALLON SEPTIC TANK 1

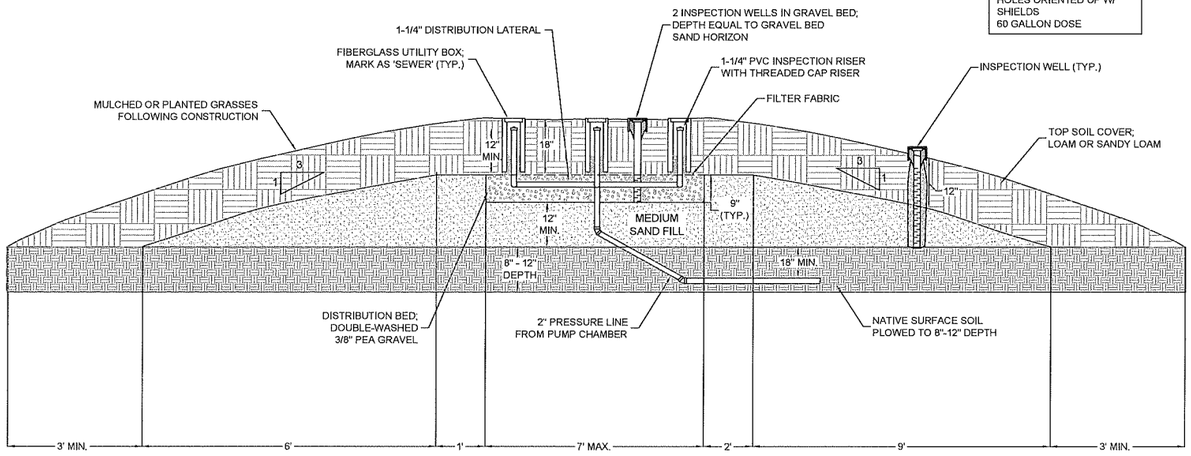


1,500-GALLON CONCRETE PUMP CHAMBER WITH EFFLUENT PUMPING SYSTEM 2

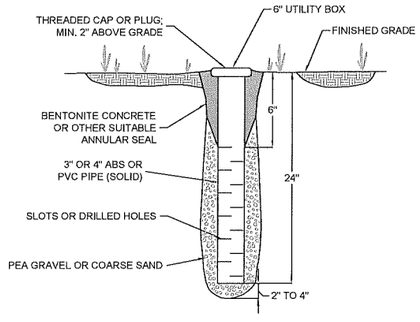


MOUND PLAN (TOP VIEW) 3

6 LATERALS @ 35' EACH
CENTER MANIFOLD
60 HOLES TOTAL
1.25' LATERAL, 3/16" HOLES
3.5' SPACING
HOLES ORIENTED UP W/ SHIELDS
60 GALLON DOSE



MOUND PLAN (CROSS VIEW) 5



MONITORING WELL 6

APN	119-161-11
DATE / REV.	03-15-2020 / A
SCALE/SIZE	NONE / ARCHD
SHEET	2 OF 3

ON-SITE WASTEWATER SYSTEM PLAN
CONSTRUCTION DETAILS

BARRY RESIDENCE
330 MESA ROAD
POINT REYES STATION, CALIFORNIA

REGISTERED GEOLOGIST — JOAQUIAH S. ECKMAN — No. 7486 — CERTIFIED ENGINEERING GEOLOGIST

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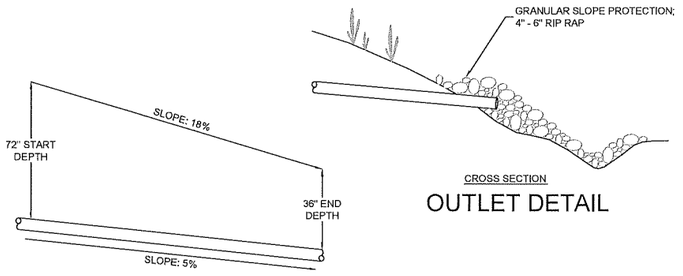
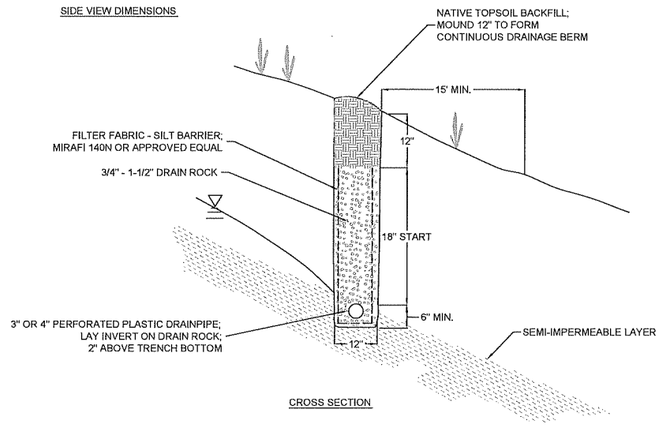


OUTLET DETAIL



INTERCEPT DRAIN 6

CONSTRUCTION SPECIFICATIONS

GENERAL

1. Plan Changes. Changes in plans or specifications shall be made only after consultation with and approval of the Designer.

2. Property Lines. Property lines shown on drawing are approximate. The owner has had the property boundaries marked by a licensed surveyor.

3. Mound Construction. Mound shall be created with a crawler tractor; no rubber-tired vehicles shall be permitted in mound area.

4. Construction Inspection. Construction inspection by the Designer shall be required at checkpoints as outlined in the attached Construction Inspection Schedule. It shall be the responsibility of the contractor to call for the required inspections, and to provide at least 48-hours advance notification of the Designer and Marin County Environmental Health Department.

MATERIALS

5. General. All construction materials shall be approved by the designer prior to their placement. Marin County electrical permit is required.

6. Sand Fill. Sand fill for the mound shall be a medium to coarse textured sand conforming to the following specifications:

Sieve Size	Percent Passing
3/8	100
#4	90 - 100
#10	62 - 100
#16	45 - 82
#30	25 - 55
#50	5 - 20
#60	0 - 10
#100	0 - 4

7. Pea Gravel. Shall be cleaned and nominally 3/8"-size.

8. Distribution Piping. All piping for the delivery and pressure distribution network shall be Schedule 40 PVC and have a minimum pressure rating of 150 psi unless otherwise specified. All joints shall be solvent-cement socket type conforming to ASTM D-2672.

   Perforations for the pressure distribution network shall be drilled in a straight line along the invert of the pipe according to the hole diameter and spacing as shown on the plans or as modified by the designer. Clean all drilling burrs from the inside and outside of the pipe prior to installation.

9. Filter Fabric. Filter fabric shall be Mirafi 140N or approved equal. Filter fabric shall be handled and installed in accordance with manufacturer's recommendations. Borders of fabric shall be overlapped 12 to 18 inches. Any torn or damaged sections of fabric shall be covered with additional pieces of filter fabric sufficient to meet the above overlapping requirement.

10. Effluent Filter. Contractor shall use Zoeller Pump Company Effluent Screen, Model #170-0078, or approved equal.

11. Septic Tank. A 1,500-gallon concrete septic tank as manufactured by Jensen Precast Concrete Products, 478 Roseville Road, Roseville, CA 95678, (916) 783-0800, or equal, shall be used for septic tank shown on the plans. Septic tanks shall be water tight construction and certified as such. Field testing of septic tank integrity shall be required.

12. Pump Chamber. A 1,500-gallon concrete pump chamber as manufactured by Jensen Precast Concrete Products, 478 Roseville Road, Roseville, CA 95678, (916) 783-0800, or equal, shall be used for pump chamber shown on the plans. The pump chamber shall be of watertight construction and certified as such. Field-testing of the chamber shall be required.

13. Pumps. The pumps are to be Orenco Pump Company, #152 . 1/2 HP or equal for the mound capable of 43 gpm and 21' TDH.

14. Control Panel. Contractor shall use Orenco control panel simplex, or equal, to control the mound pump. The 3-float configuration on the plans supports demand-dose (Mound). Distributed by Pace Supply, Santa Rosa, CA, 707-545-7101.

15. Access Risers. Watertight and gas tight access risers shall be installed over the inlet and outlet openings of both the septic tank and the pump chamber. Access risers shall be installed from the top of the tanks to about ½-inch above ground surface at all tank openings. The riser must be watertight at all points and have a watertight seal at the top of the tank.

CONSTRUCTION

17. Installation. All installation work shall be in accordance with applicable Marin County Regulations.

18. Mound Area Compaction. Vehicle traffic shall not be permitted within an area of ten feet downslope of the mound and five feet of the sideslope.

19. Location of Mound. Location shown for the mound is approximate, subject to adjustment in the field by the Contractor according to building constraints and noted setback requirements.

20. Septic Tank and Pump Chamber Location. Location for the septic tank and pump chamber is approximate, subject to adjustment in the field by the contractor according to building constraints and noted setback requirements. They shall be located and installed to be free from vehicle traffic and protected against entry of surface runoff. Install clean-outs every 100 feet and on turns to septic tank.

21. Septic Tank/Pump Chamber Leak Test. The new septic tank and new pump chamber shall be required to be certified as watertight. Field testing of tanks shall be required and conducted as follows:

    Designer to visually inspect tank prior to conducting leak test. Fill tank and pump chamber so water level is 2 inches ± above tank/access riser joints. Note depth of water and re-measure not less than one hour later. A water level drop of 0.25 inches or greater shall be considered to be an indicator of a leaking tank; a tank shall be repaired or replaced to the satisfaction of the engineer. Note: The septic tank and pump chamber excavation are not to be backfilled until the leak test is completed.

22. Electrical.

- High water audio and visual alarm shall be located within the house.
- All electrical work shall conform to procedures and codes of Marin County Building Department.

23. Pressure Pipe Network.

- All pressure pipe shall be Schedule 40 PVC or approved equal.
- All joints shall be glued with solvent cement.
- Distribution pipe shall be laid level with a maximum permissible slope of three (3) inches in 100 feet.
- Hydraulic testing shall be conducted in the presence of the Designer to determine any leaks in the system and to check the discharge head and pump operation.
- A concrete thrust block shall be installed at all pipe bends of 45° or greater in the 2-inch pressure line from the pump to the sand filter and mound.

24. Erosion Protection. Re-seed mound area for erosion protection following final cover placement. Divert existing garage roof drainage away from mound area.

25. Clearing and Grubbing Limits. All disposal sites will be cleared and grubbed. These areas will be cleared and grubbed only after the Designer has observed and approved the Contractors staking of the clearing limits, to ensure that no more clearing and grubbing is done than necessary.

Mound Construction

Mound construction shall be in accordance with the following guidelines, or as may be modified in consultation with the Design Engineer:

a) Pump Chambers and Pumps

All electrical, mechanical, and plumbing work, and the methods of construction shall meet Uniform Plumbing Code and National Electrical Code, and shall conform to all local, state, federal and other laws pertaining to this work.

b) Disposal Site Preparation

Rope off the site of the mound including the area extending five feet beyond the mound on all sides to prevent damage to the area during other construction activity on the lot. Vehicular traffic over the area shall be prohibited to avoid soil compaction.

Stake out the mound perimeter and beds in the proper orientation. Reference stakes set some distance from the mound perimeter are also required in case the corner stakes are disturbed.

Cut and remove vegetation.

Install the delivery pipe from the sump to the mound. Lay the pipe at a depth of 24 inches and slope it uniformly back to the pump chamber. Backfill and compact the soil around the pipe.

Plow the area within the mound perimeter. Use a two bottom or larger moldboard plow or chisel plow, plowing 8-12 inches deep, parallel to the slope contour. Plowing should be done when the soil is dry. The Designer shall be consulted to determine if proper soil moisture conditions exist.

c) Fill Placement

Place the fill materials on the edges of the plowed area, keeping trucks off the plowed area.

Move the medium sand fill material into place using a track type tractor with a blade. Maintain a minimum of 6 inches of material beneath the tracks of the tractor to minimize compaction of the natural soil. The fill material should be worked in this manner until the height of the fill reaches the elevation of the top of the absorption bed.

With the blade of the tractor or by hand, form the absorption bed. Hand level the bottom of the bed, checking for the proper elevation. Shape the sides to the desired slope.

d) Distribution Network Placement

Carefully place the pea gravel in the bed, taking care not to create ruts in the bottom of the bed. Level the pea gravel to a minimum depth of 6 inches.

Assemble the distribution network on the pea gravel, laying the lateral level. Perform hydraulic test of distribution system in the presence of the Design Engineer.

Place additional pea gravel to a depth of at least 2 inches over the crown of the pipe.

Place filter fabric over the pea gravel to form silt barrier; filter fabric shall be Mirafi 140N for approved equal.

e) Mound Covering

Place good quality topsoil over the entire mound surface. Topsoil depth should be roughly 18 inches over the center and 12 inches minimum over the side slopes. The soil cover of the mound should be compacted with a small track machine or by hand.

Plant grass over the entire mound using grasses adapted to the area that shall aid in protecting the mound from erosion. Shrubs can be planted around the base and up the side slopes. Shrubs should be somewhat moisture tolerant since the downslope perimeter may become moist during early spring and late fall. Plants placed on top of the mound should be drought tolerant.

Inspection of the system shall be performed by the Designer at various stages of construction to verify adherence to design specifications. Inspections are recommended as indicated in the attached schedule.

RECOMMENDED CONSTRUCTION INSPECTION SCHEDULE

In accordance with requirements of Marin County Environmental Health Department, the following construction activities will be inspected by the Designer.

INSPECTION #1

On-site preconstruction conference to discuss project with contractor;

Staking of septic tank and pump chamber;

Staking and layout of mound disposal area; and

Review/approval of material.

INSPECTION #2

Placement of 4-inch tight line;

Septic tank and pump chamber installation;

Leak testing of septic tank and pump chamber;

Clearing of mound site;

Plowing of surface soils; and,

Placement of sand fill.

INSPECTION #3

Placement of mound pea gravel in distribution bed;

Assembly and layout of mound distribution pipe network;

Placement of 2-inch pressure line;

INSPECTION #4

Testing of pumps and distribution systems.

Installation of monitoring wells; and,

Final fastening of pipe connections.

INSPECTION #5

Placement of filter fabric;

Placement of topsoil cover;

Final shaping of mound;

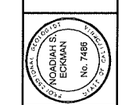
Seeding of mound; and,

Pump alarm: Confirm low flow fixtures

APN	119-161-11
DATE / REV.	03-15-2020 / A
SCALE/SIZE	NONE / ARCHD
SHEET	3 OF 3

ON-SITE WASTEWATER SYSTEM PLAN
CONSTRUCTION DETAILS

BARRY RESIDENCE
330 MESA ROAD
POINT REYES STATION, CALIFORNIA



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