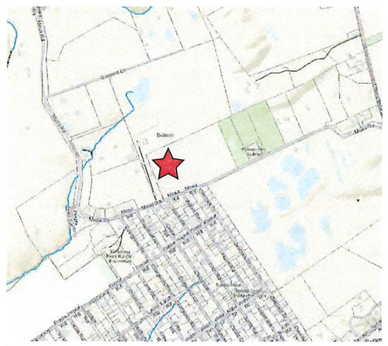
AGRICULTURE WORKFORCE HOUSING
MOBILE / TRAILER UNITS
MESA ROAD
BOLINAS CA, 94924
APN: 193-020-38

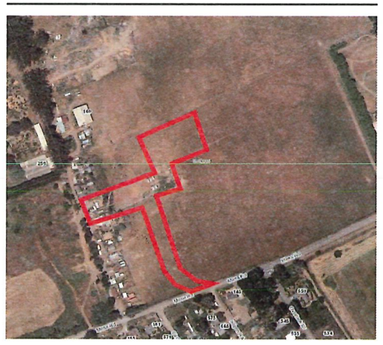
ABBREVIATIONS

ADJ	ADJACENT OR ADJUSTABLE	FD	FLOOR DRAIN	PSI	POUNDS PER SQUARE INCH
A/C	AIR CONDITIONING	FT	FOOT OR FEET	PT	PRESSURE TREATED
AC	ASPHALT CONCRETE	FTG	FOOTING	PTDF	PRESSURE TREATED DOUGLAS FIR
ALT	ALTERNATE	FAU	FORCED AIR UNIT	PL	PROPERTY LINE
AB	ANCHOR BOLT	FDN	FOUNDATION	RAD	RADIUS
AFF	ABOVE FINISH FLOOR	GA	GAUGE	REF	REFERENCE OR REFRIGERATOR
AGG	AGGREGATE	GI	GALVANIZED IRON	RESIL	RESILIENT
BSMT	BASEMENT	GAL	GALVANIZED	RA	RETURN AIR
BRG	BEARING	GFI	GROUND FAULT CIRCUIT INTERRUPTER	REV	REVISION
BM	BENCH MARK			RH	RIGHT HAND
BET	BETWEEN	GL	GLASS OR GLAZING	RD	ROOF DRAIN
BLK	BLOCK	GB	GRAB BAR	RFG	ROOFING
BLW	BELOW	HDW	HARDWARE	RM	ROOM
BLKG	BLOCKING	HDR	HEADER	RO	ROUGH OPENING
BD	BOARD	HTG	HEATING	SC	SOLID CORE
BW	BOTH WAYS	HVAC	HEATING/ VENTING/ AIR CONDITIONING	SCH	SCHEDULE
BOT	BOTTOM			SCR	SCREEN
BRNZ	BRONZE	HT	HEIGHT	SHT	SHEET
CL	CENTERLINE	HC	HOLLOW CORE	SH	SHELF OR SHELVING
COMB	COMBINATION OR COMBUSTION	HOR	HORIZONTAL	SIM	SIMILAR
CO	CLEANOUT	HB	HOSE BIB	S and P	SHELF AND POLE
COMP	COMPOSITION	ID	INSIDE DIAMETER	SPKR	SPEAKER
CONC	CONCRETE	INT	INTERIOR	SPEC	SPECIFICATIONS
CMU	CONCRETE MASONRY UNIT	JNT	JOINT	SQ	SQUARE
CONST	CONSTRUCTION	KIT	KITCHEN	STD	STANDARD
CONT	CONTINUOUS	KO	KNOCK-OUT	STSTL	STAINLESS STEEL
CNTR	COUNTER	LB	LAG BOLT	ST	STEEL
CS	COUNTERSINK	LAM	LAMINATE	STRUC	STRUCTURAL
CF	CUBIC FOOT	LAV	LAVATORY	SA	SUPPLY AIR
CU	CUBIC	LH	LEFT HAND	SUS	SUSPENDED
DTL	DETAIL	L	LENGTH	SYS	SYSTEM
DIAG	DIAGONAL	LT	LIGHT	TEL	TELEPHONE
DIA	DIAMETER	LTWT	LIGHTWEIGHT	TV	TELEVISION
DIM	DIMENSION	MB	MACHINE BOLT	THK	THICK OR THICKNESS
DW	DISHWASHER	MFR	MANUFACTURER	THR	THRESHOLD
DIV	DIVISION	MAS	MASONRY	T and G	TONGUE AND GROOVE
DR	DOOR	MAX	MAXIMUM	TOC	TOP OF CONCRETE
DS	DOWNSPOUT	MECH	MECHANICAL	TP	TOP OF PAVING
DWR	DRAWER	MC	MEDICINE CABINET	TW	TOP OF WALL
DRN	DRAIN	MET	METAL	TB	TOWEL BAR
DWG	DRAWING	MIN	MINIMUM	TH	TOILET PAPER HOLDER
ELEC	ELECTRICAL	MISC	MISCELLANEOUS	TS	TUBE STEEL
EL	ELEVATION	MT	MOUNT	TYP	TYPICAL
EMER	EMERGENCY	NAT	NATURAL	UON	UNLESS OTHERWISE NOTED
EXH	EXHAUST	NIC	NOT IN CONTRACT	VCT	VINYL COMPOSITION TILE
(E)	EXISTING	NTS	NOT TO SCALE	VERT	VERTICAL
EB	EXPANSION BOLT	OBS	OBSOLETE	VIF	VERIFY IN FIELD
EXP	EXPOSED	OC	ON CENTER	WSCT	WAINSCOT
EXT	EXTERIOR	OPG	OPENING	WC	WATER CLOSET
FOC	FACE OF CONCRETE	OPP	OPPOSITE	WIN	WINDOW
FOF	FACE OF FINISH	OH	OVERHEAD	WP	WEATHER OR WATER PROOF
FOS	FACE OF STUD	PK	PARKING	WH	WATER HEATER
FIN	FINISH	PTN	PARTITION	WTR	WATER
FFL	FINISH FLOOR LINE	PVMT	PAVEMENT	WT	WEIGHT
FE	FIRE EXTINGUISHER	PLAS	PLASTIC OR PLASTER	W/	WITH
FP	FIREPROOF	PLYWD	PLYWOOD	W/O	WITHOUT
FLR	FLOOR	PVC	POLYVINYL CHLORIDE		
		PSF	POUNDS PER SQUARE FOOT		

VICINITY MAP



PROJECT MAP



ZONING PARAMETERS

	EXISTING	PROPOSED	REQUIREMENT
ZONING	C-ARP-10	C-ARP-10	
LOT AREA	877,254 SF	877,254 SF	
TOTAL FLOOR AREA	N/A	N/A	
MAXIMUM HEIGHT	25' / 15'	11' 4"	
LOT COVERAGE	N/A		N/A
PARKING	N/A	14	N/A
FRONT SETBACK	N/A	445' / 680'	N/A
REAR SETBACK	N/A	170' / 30'	N/A
LEFT SIDE YARD	N/A	30' / 405'	N/A
RIGHT SIDE YARD	N/A	830' / 550'	N/A

OCCUPANCY GROUP:

CONSTRUCTION TYPE:

2019 CALIFORNIA BUILDING CODE

DRAWING INDEX

PROJECT DIRECTORY

OWNER/APPLICANT
BCLT
6 Wharf Road, #8
Bolinas, CA 94924

BIOLOGIST
Julia King
14015 Murphy Avenue
San Martin, CA 95046
408-591-6465

CIVIL ENGINEER
MUNSELLE ENGINEERING
513 C S
H , CA 544
0 3 5 0

SEPTIC ENGINEER
ECKMAN ENVIRONMENTAL
100 Shoreline Highway, Bldg B
Mill Valley, CA 94941
415-895-0364

PROJECT SCOPE

- TRAILER WORKFORCE HOUSING
- ONSITE WASTEWATER SYSTEM
- UTILIT IN RASTRUCTURE

DZA - Attachment #11

BCLT

Revisions
- △ SEPT 14, 2023
- △
- △
- △

Issue
- △
- △
- △
- △

APN: 193-020-38
BCLT - MESA ROAD
BOLINAS, CA 94924

Title: TITLE SHEET
Scale:
Date: June 5, 2023
Sheet: T.0
of

TACHERRA RANCH

wastewater dispersal study area

existing agriculture access road

BCPUD

existing "distrubed" livestock pen to be used for mobile trailers
(approximately 100' w x 315' l)

existing agriculture access road to be used for trailer access/maintenance
14' wide gravel roadbed

MESA ROAD

ASPEN ROAD

OVERLOOK ROAD

BCPUD

N 1" = 50'

CONSTRAINTS MAP

- Property Boundary
- Project / Study Area
- Corps wetland (three parameters)
- CCC wetland (one parameter)
- 50' buffer to CCC wetland area

BCLT

Revisions

Issue

APN: 193-020-38
BCLT - MESA ROAD
BOLINAS, CA 94924

Title	CONSTRAINTS MAP
Scale	
Date	June 5, 2023
Sheet	CM
of	

TACHERRA RANCH

wastewater dispersal study area

50' wetland setback

CCC wetland area

corps wetland area

170'

300'

100'

830'

existing agriculture access road

BCPUD

CCC wetland area

corps wetland area

30'

existing "disturbed" livestock pen to be used for mobile trailers
(approximately 100' w x 315' l)

50' wetland setback

445'

existing agriculture access road to be used for trailer access/maintenance
14' wide gravel roadbed

CCC wetland area

MESA ROAD

BCPUD

ASPEN ROAD

OVERLOOK ROAD

N 1" = 50'

BCLT

Revisions

Issue

APN: 193-020-38
BCLT - MESA ROAD
BOLINAS, CA 94924

Title EXISTING SITE PLAN

Scale

Date June 5, 2023

Sheet S.0

of

GRADING AND DRAINAGE NOTES

1. PERFORM GRADING AND DRAINAGE IMPROVEMENTS IN ACCORDANCE WITH CURRENT EDITION OF THE CALIFORNIA BUILDING CODE (CBC), APPENDIX J AND APPLICABLE COUNTY OF MARIN CODE AND REGULATIONS.
2. ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD UPON DISCOVERING DISCREPANCIES, ERRORS, OR OMISSIONS IN THE PLANS. PRIOR TO PROCEEDING, THE OWNER SHALL HAVE THE PLANS REVISED TO CLARIFY IDENTIFIED DISCREPANCIES, ERRORS, OR OMISSIONS. THE APPROVED PLANS AND SPECIFICATIONS SHALL NOT BE CHANGED WITHOUT THE WRITTEN APPROVAL OF THE MARIN COUNTY BUILDING DEPARTMENT. PROPOSED MODIFICATIONS TO THE APPROVED PLANS AND SPECIFICATIONS SHALL BE SUBMITTED TO THE PERMIT AUTHORITY IN WRITING, TOGETHER WITH ALL NECESSARY TECHNICAL INFORMATION AND DESIGN DETAILS.
3. THE GRADING/DRAINAGE PERMIT AND AN APPROVED COPY OF THE GRADING/DRAINAGE PLANS SHALL BE MAINTAINED ON THE PROJECT SITE THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
4. MARIN COUNTY BUILDING DEPARTMENT MAY ORDER THAT ANY WORK STOP IMMEDIATELY IF IT IS PERFORMED CONTRARY TO CBC APPENDIX J, MILL VALLEY CODE AND REGULATIONS, THE APPROVED PLANS AND SPECIFICATIONS, PERMIT CONDITIONS, OR ANY WORK THAT HAS BECOME HAZARDOUS TO PROPERTY OR THE PUBLIC.
5. ISSUANCE OF A GRADING/DRAINAGE PERMIT BY COUNTY OF MARIN DOES NOT ELIMINATE THE RESPONSIBILITY OF THE OWNER TO SECURE PERMITS FROM OTHER AGENCIES WITH REGULATORY RESPONSIBILITIES FOR THE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE WORK ON THESE PLANS. FAILURE TO OBTAIN ALL REQUIRED PERMITS MAY RESULT IN FINES FROM THE RESPECTIVE AGENCY.
7. EXISTING DRAINAGE COURSES RECEIVING WATERS FROM THIS SITE AND LOCATED THROUGHOUT THIS SITE SHALL REMAIN OPEN AND CLEAR OF DEBRIS TO PROPERLY CONVEY STORM WATER. IF EXISTING DRAINAGE COURSES RECEIVING WATERS FROM THIS SITE ARE LOCATED IN CITY RIGHT-OF-WAY AND NEED MAINTENANCE, CONTACT MARIN COUNTY DEPARTMENT OF PUBLIC WORKS AT (415) 473-6528 FOR FURTHER ASSISTANCE. IN ANY EVENT, THE OWNER AND/OR CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UNDERGROUND SERVICE ALERT (U.S.A.), TOLL FREE AT 1-800-642-2444, AT LEAST TWO WORKING DAYS BUT NOT MORE THAN 14 CALENDAR DAYS PRIOR TO EXCAVATION . THE CONTRACTOR SHALL UNCOVER RELEVANT UTILITIES TO VERIFY THEIR LOCATION AND ELEVATION. IF UNEXPECTED OR CONFLICTING UTILITIES ARE ENCOUNTERED DURING EXCAVATION, NOTIFY U.S.A, THE UTILITY OWNER, AND/OR THE ENGINEER OF RECORD IMMEDIATELY. UTILITIES INCLUDE BUT ARE NOT LIMITED TO WATER, SEWER, ELECTRICAL, GAS, TELEPHONE, AND CABLE/TV. IF PRACTICAL, THE EXCAVATOR SHALL DELINEATE WITH WHITE PAINT OR OTHER SUITABLE MARKINGS THE AREA TO BE EXCAVATED.
9. IN THE EVENT CULTURAL RESOURCES (I.E., HISTORICAL, ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES, AND HUMAN REMAINS) ARE DISCOVERED DURING GRADING OR OTHER CONSTRUCTION ACTIVITIES, WORK SHALL IMMEDIATELY BE HALTED WITHIN THE VICINITY OF THE FIND. THE NORTHWEST INFORMATION CENTER SHALL BE NOTIFIED AT (707) 664-0880. A QUALIFIED ARCHEOLOGIST SHALL BE CONSULTED FOR AN ON-SITE EVALUATION. ADDITIONAL MITIGATION MAY BE REQUIRED BY THE CITY OF MILL VALLEY PER THE ARCHEOLOGIST'S RECOMMENDATIONS. IF HUMAN BURIALS OR HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL ALSO NOTIFY THE COUNTY CORONER AT (415) 499-6043.
10. SHOULD GRADING OPERATIONS ENCOUNTER HAZARDOUS MATERIALS, OR WHAT APPEAR TO BE HAZARDOUS MATERIALS, STOP WORK IMMEDIATELY IN THE AFFECTED AREA AND CONTACT 911 OR THE APPROPRIATE AGENCY FOR FURTHER INSTRUCTION.
11. RETAINING WALLS, UNLESS EXEMPTED, ARE NOT APPROVED UNDER A GRADING PERMIT. A SEPARATE BUILDING PERMIT IS REQUIRED.
12. EQUIPMENT SHALL NOT CROSS OR DISTURB CHANNELS OF ACTIVELY FLOWING STREAMS WITHOUT MARIN COUNTY APPROVED PERMIT AND BEST MANAGEMENT PRACTICES.
13. GRADING AND DRAINAGE IMPROVEMENTS SHALL BE SET BACK FROM STREAMS, LAKES, PONDS, AND WETLANDS IN COMPLIANCE WITH CITY REQUIREMENTS EXISTING VEGETATION SHALL BE RETAINED IN STREAM SETBACK AREAS TO FILTER SOIL AND OTHER POLLUTANTS CARRIED IN STORMWATER.
14. EXCESS SOIL SHALL BE REMOVED FROM THE SITE UNLESS DEPICTED TO REMAIN ON SITE PER THE APPROVED PLAN. THE SITE RECEIVING SOIL MAY REQUIRE A GRADING PERMIT UNLESS EXEMPTED.
15. CONTOURS, ELEVATIONS, AND SHAPES OF FINISHED SURFACES SHALL BE BLENDED WITH ADJACENT NATURAL TERRAIN TO ACHIEVE A CONSISTENT GRADE AND NATURAL APPEARANCE. THE TOP OF CUT SLOPES SHALL BE ROUNDED OFF TO BLEND WITH THE NATURAL TERRAIN. BORDERS OF CUT SLOPES AND FILLS SHALL BE ROUNDED OFF TO A MINIMUM RADIUS OF 5-FEET TO BLEND WITH THE NATURAL TERRAIN.
16. FILL MATERIAL SHALL NOT INCLUDE ORGANIC, FROZEN, OR OTHER DELETERIOUS MATERIALS. NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL GREATER THAN 6 INCHES IN ANY DIMENSION SHALL BE INCLUDED IN FILLS EXCEPT WHERE APPROVED BY THE SOILS ENGINEER. FILLS SHALL BE CONSTRUCTED IN LIFTS NOT EXCEEDING 8 INCHES IN DEPTH. COMPLETED FILLS SHALL BE STABLE, WELL-INTEGRATED, AND BONDED TO ADJACENT MATERIALS AND THE MATERIALS ON WHICH THEY REST. FILLS SHALL BE COMPETENT TO SUPPORT ANTICIPATED LOADS AND BE STABLE AT THE DESIGN SLOPES SHOWN ON THE APPROVED PLANS AND SPECIFICATIONS OR AS DIRECTED BY THE SOILS ENGINEER.
17. GROUND SURFACES SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, TOPSOIL, AND OTHER UNSUITABLE MATERIALS, AND SCARIFYING THE GROUND TO PROVIDE A BOND WITH THE FILL MATERIAL.
18. FILL SHALL NOT BE PLACED ON NATURAL SLOPES STEEPER THAN 2H(<50%).
19. FILLS INTENDED TO SUPPORT STRUCTURES OR SURCHARGES SHALL BE COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DRY DENSITY, AS DETERMINED BY ASTM D 1557, MODIFIED PROCTOR. A HIGHER COMPACTION PERCENTAGE MAY BE REQUIRED BY THE SOILS ENGINEER.
20. FILLS NOT INTENDED TO SUPPORT STRUCTURES OR SURCHARGES SHALL BE COMPACTED AS FOLLOWS: (1) FILL GREATER THAN 3 FEET IN DEPTH SHALL BE COMPACTED TO THE DENSITY SPECIFIED BY THE SOILS ENGINEER. (2) FILLS NO GREATER THAN 3 FEET IN DEPTH SHALL BE COMPACTED TO THE DENSITY NECESSARY FOR THE INTENDED USE OR AS DIRECTED BY THE SOILS ENGINEER.
21. ANY DISCREPANCY DISCOVERED BY CONTRACTOR IN THESE PLANS OR ANY FIELD CONDITIONS DISCOVERED BY CONTRACTOR THAT MAY DELAY OR OBSTRUCT THE PROPER COMPLETION OF THE WORK PER THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER AND OWNER IMMEDIATELY UPON DISCOVERY. NOTIFICATION SHALL BE IN WRITING.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

1. PERFORM EROSION PREVENTION AND SEDIMENT CONTROL IN ACCORDANCE WITH COUNTY OF MARIN REGULATIONS, WHICH FOLLOWS BEST MANAGEMENT PRACTICES (BMPs) AS SPECIFIED IN THE CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) MANUAL.
2. EROSION/SEDIMENT CONTROL MEASURES MUST BE INSTALLED AS THE FIRST ORDER OF WORK.
3. THE APPROVED PLANS SHALL CONFORM WITH MARIN COUNTY EROSION CONTROL REQUIREMENTS.
4. THE OWNER IS RESPONSIBLE FOR PREVENTING STORM WATER POLLUTION GENERATED FROM THE CONSTRUCTION SITE YEAR ROUND. WORK SITES WITH INADEQUATE EROSION AND SEDIMENT CONTROL MAY BE SUBJECT TO A STOP WORK ORDER.
5. IF DISCREPANCIES OCCUR BETWEEN THESE NOTES, MATERIAL REFERENCED HEREIN OR MANUFACTURER'S RECOMMENDATIONS, THEN THE MOST PROTECTIVE SHALL APPLY.

RAINY SEASON OPERATIONS

1. THE OWNER MUST IMPLEMENT AN EFFECTIVE COMBINATION OF EROSION PREVENTION AND SEDIMENT CONTROL ON ALL DISTURBED AREAS DURING THE RAINY SEASON (OCTOBER 15 - APRIL 15). CONSTRUCTION GRADING AND DRAINAGE IMPROVEMENT SHALL BE PERMITTED DURING THE RAINY SEASON ONLY WHEN ON-SITE SOIL CONDITIONS PERMIT THE WORK TO BE PERFORMED IN COMPLIANCE WITH MARIN COUNTY STANDARD SPECIFICATIONS. STORM WATER BMPS REFERENCED OR DETAILED IN THE PERMIT AUTHORITY'S BEST MANAGEMENT PRACTICES GUIDE SHALL BE IMPLEMENTED AND FUNCTIONAL ON THE SITE AT ALL TIMES
2. THE AREA OF ERODIBLE LAND EXPOSED AT ANY ONE TIME DURING THE WORK SHALL NOT EXCEED 1 ACRE OR 20% OF THE PERMITTED WORK AREA, WHICHEVER IS GREATER, AND THE TIME OF EXPOSURE SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE.

YEAR ROUND REQUIREMENTS

1. DURING THE NON-RAINY SEASON, ON ANY DAY WHEN THE NATIONAL WEATHER SERVICE FORECAST IS A CHANCE OF RAIN OF 30% OR GREATER WITHIN THE NEXT 24 HOURS, STORM WATER BMPS REFERENCED OR DETAILED IN BASMAA MANUAL OR WITHIN PLANS BEST MANAGEMENT PRACTICES GUIDE SHALL BE IMPLEMENTED, INSTALLED, AND FUNCTIONAL ON THE SITE TO PREVENT SOIL AND OTHER POLLUTANT DISCHARGES. AT ALL OTHER TIMES, BMPS SHOULD BE STORED ON SITE IN PREPARATION FOR INSTALLATION PRIOR TO RAIN EVENTS.
2. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BY THE OWNER BEFORE FORECASTED STORM EVENTS AND AFTER STORM EVENTS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES THAT HAVE FAILED OR ARE NO LONGER EFFECTIVE SHALL BE PROMPTLY REPLACED. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
3. THE LIMITS OF GRADING SHALL BE DEFINED AND MARKED ON SITE TO PREVENT DAMAGE TO SURROUNDING VEGETATION. PRESERVATION OF EXISTING VEGETATION SHALL OCCUR TO THE MAXIMUM EXTENT PRACTICABLE. ANY EXISTING VEGETATION WITHIN THE LIMITS OF GRADING THAT IS TO REMAIN UNDISTURBED BY THE WORK SHALL BE IDENTIFIED AND PROTECTED FROM DAMAGE BY MARKING, FENCING, OR OTHER MEASURES.
4. CHANGES TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN MAY BE MADE TO RESPOND TO FIELD CONDITIONS AND SHALL BE NOTED ON THE PLAN.
5. DISCHARGES OF POTENTIAL POLLUTANTS FROM CONSTRUCTION SITES SHALL BE PREVENTED USING SOURCE CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT, TRASH, NUTRIENTS, PATHOGENS, PETROLEUM HYDROCARBONS, METALS, CONCRETE, CEMENT, ASPHALT, LIME, PAINT, STAINS, GLUES, WOOD PRODUCTS, PESTICIDES, HERBICIDES, CHEMICALS, HAZARDOUS WASTE, SANITARY WASTE, VEHICLE OR EQUIPMENT WASH WATER, AND CHLORINATED WATER.
6. ENTRANCE(S) TO THE CONSTRUCTION SITE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF POTENTIAL POLLUTANTS OFFSITE. POTENTIAL POLLUTANTS DEPOSITED ON PAVED AREAS WITHIN THE COUNTY RIGHT-OF-WAY, SUCH AS ROADWAYS AND SIDEWALKS, SHALL BE PROPERLY DISPOSED OF AT THE END OF EACH WORKING DAY OR MORE FREQUENTLY AS NECESSARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING CONSTRUCTION VEHICLES LEAVING THE SITE ON A DAILY BASIS TO PREVENT DUST, SILT, AND DIRT FROM BEING RELEASED OR TRACKED OFFSITE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AT THE END OF EACH WORKING DAY OR MORE OFTEN AS NECESSARY.
7. ALL DISTURBED AREAS SHALL BE PROTECTED BY USING EROSION PREVENTION MEASURES TO THE MAXIMUM EXTENT PRACTICABLE, SUCH AS ESTABLISHING VEGETATION COVERAGE, HYDROSEEDING, STRAW MULCH, GEOTEXTILES, PLASTIC COVERS, BLANKETS OR MATS. TEMPORARY OR PERMANENT REVEGETATION SHALL BE INSTALLED AS SOON AS PRACTICAL AFTER VEGETATION REMOVAL BUT IN ALL CASES PRIOR TO OCTOBER 15. PRIOR TO FINAL INSPECTION, ALL DISTURBED AREAS SHALL BE REVEGETATED OR LANDSCAPING SHALL BE INSTALLED.
8. WHENEVER IT IS NOT POSSIBLE TO USE EROSION PREVENTION MEASURES ON EXPOSED SLOPES, SEDIMENT CONTROL DEVICES SUCH AS FIBER ROLLS AND SILT FENCES SHALL BE INSTALLED TO PREVENT SEDIMENT MIGRATION. FIBER ROLLS AND SILT FENCES SHALL BE TRENCHED AND KEYED INTO THE SOIL AND INSTALLED ON CONTOUR. SILT FENCES SHALL BE INSTALLED APPROXIMATELY 2 TO 5 FEET FROM TOE OF SLOPE.
9. HYDROSEEDING SHALL BE CONDUCTED IN A THREE STEP PROCESS. FIRST, EVENLY APPLY SEED MIX AND FERTILIZER TO THE EXPOSED SLOPE. SECOND, EVENLY APPLY MULCH OVER THE SEED AND FERTILIZER. THIRD, STABILIZE THE MULCH IN PLACE. AN EQUIVALENT SINGLE STEP PROCESS, WITH SEED, FERTILIZER, WATER, AND BONDED FIBERS IS ACCEPTABLE.

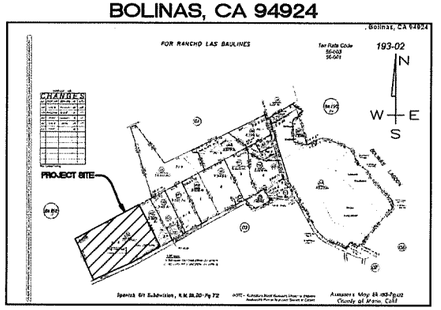
   APPLICATIONS SHALL BE BROADCASTED MECHANICALLY OR MANUALLY AT THE RATES SPECIFIED BELOW. SEED MIX AND FERTILIZER SHALL BE WORKED INTO THE SOIL BY ROLLING OR TAMPING. IF STRAW IS USED AS MULCH, STRAW SHALL BE DERIVED FROM WHEAT, RICE, OR BARLEY AND BE APPROXIMATELY 6 TO 8 INCHES IN LENGTH. STABILIZATION OF MULCH SHALL BE DONE HYDRAULICALLY BY APPLYING AN EMULSION OR MECHANICALLY BY CRIMPING OR PUNCHING THE MULCH INTO THE SOIL. EQUIVALENT METHODS AND MATERIALS MAY BE USED ONLY IF THEY ADEQUATELY PROMOTE VEGETATION GROWTH AND PROTECT EXPOSED SLOPES.

MATERIALS	APPLICATION RATE (POUNDS PER ACRE)
SEED MIX	
Bromus nollis (BLANDO BROME)	40
Trifolium hirtum (HYKON ROSE CLOVER)	20
FERTILIZER	
16-20-0 & 15% SULPHUR	500
MULCH	
STRAW	4000
HYDRAULIC STABILIZING*	
M-BINDER OR SENTINEL EQUIVALENT MATERIAL	75-100 PER MANUFACTURER

*NON-ASPHALTIC, DERIVED FROM PLANTS

10. DUST CONTROL SHALL BE PROVIDED BY CONTRACTOR DURING ALL PHASES OF CONSTRUCTION.
11. STORM DRAIN INLETS SHALL BE PROTECTED FROM POTENTIAL POLLUTANTS UNTIL DRAINAGE CONVEYANCE SYSTEMS ARE FUNCTIONAL AND CONSTRUCTION HAS BEEN COMPLETED.
12. ENERGY DISSIPATERS SHALL BE INSTALLED AT STORM DRAIN OUTLETS WHICH MAY CONVEY EROSIVE STORM WATER FLOW.
13. SOIL, MATERIAL STOCKPILES, AND FERTILIZING MATERIAL SHALL BE PROPERLY PROTECTED TO MINIMIZE SEDIMENT AND POLLUTANT TRANSPORT FROM THE CONSTRUCTION SITE.
14. SOLID WASTE, SUCH AS TRASH, DISCARDED BUILDING MATERIALS AND DEBRIS, SHALL BE PLACED IN DESIGNATED COLLECTION AREAS OR CONTAINERS. THE CONSTRUCTION SITE SHALL BE CLEARED OF SOLID WASTE DAILY OR AS NECESSARY. REGULAR REMOVAL AND PROPER DISPOSAL SHALL BE COORDINATED BY THE CONTRACTOR.
15. A CONCRETE WASHOUT AREA, SUCH AS A TEMPORARY PIT, SHALL BE DESIGNATED TO CLEAN CONCRETE TRUCKS AND TOOLS. AT NO TIME SHALL CONCRETE PRODUCTS AND WASTE BE ALLOWED TO ENTER COUNTY WATERWAYS SUCH AS CREEKS OR STORM DRAINS. NO WASHOUT OF CONCRETE, MORTAR MIXERS, OR TRUCKS SHALL BE ALLOWED ON SOIL.
16. PROPER APPLICATION, CLEANING, AND STORAGE OF POTENTIALLY HAZARDOUS MATERIALS, SUCH AS PAINTS AND CHEMICALS, SHALL BE CONDUCTED TO PREVENT THE DISCHARGE OF POLLUTANTS.
17. TEMPORARY RESTROOMS AND SANITARY FACILITIES SHALL BE LOCATED AND MAINTAINED DURING CONSTRUCTION ACTIVITIES TO PREVENT THE DISCHARGE OF POLLUTANTS.
18. APPROPRIATE VEHICLE STORAGE, FUELING, MAINTENANCE, AND CLEANING AREAS SHALL BE DESIGNATED AND MAINTAINED TO PREVENT DISCHARGE OF POLLUTANTS.

GRADING AND DRAINAGE PLAN
FOR
BOLINAS RV
APN 193-020-38
200 MESA ROAD
BOLINAS, CA 94924



AP MAP
NO SCALE

OWNER
BOLINAS COMMUNITY LAND TRUST
ARIANNE DAR, DIRECTOR
200 MESA ROAD
BOLINAS, CA 94924
(415) 868-9468

CONTACT
DVC GROUP, INC.
513 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0968

PROJECT DESCRIPTION
GRADING AND DRAINAGE PLANS FOR A NEW GRAVEL PARKING SPACES FOR 27 RV TRAILERS ALONG WITH ASSOCIATES UTILITIES, ALL AS PART OF A CONDITIONAL USE PERMIT TO CONSTRUCT A TEMPORARY CAMPGROUND.

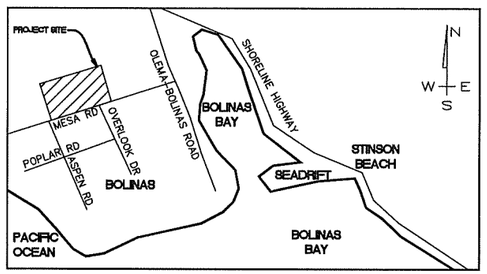
SURVEY NOTES
TOPOGRAPHIC INFORMATION SHOWN HEREON IS FROM A TOPOGRAPHICAL SURVEY BY CAPSTONE LAND SURVEYING, LLP DATED MAY 9, 2023.

1. THE LOCATION OF UNDERGROUND STRUCTURES AND UTILITIES SHOWN HEREON HAS BEEN DETERMINED FROM SURFACE EVIDENCE OF THEIR EXISTENCE AND/OR FROM INFORMATION OBTAINED FROM PUBLIC AND/OR UTILITY AGENCIES. THE SURVEYOR ACCEPTS NO LIABILITY FOR THE LOCATION, EXISTENCE OR NON-EXISTENCE OF THOSE UNDERGROUND STRUCTURES, UTILITY LINES AND RELATED APPURTENANCES, ANY INDIVIDUAL, COMPANY OR AGENCY USING THIS MAP MUST CONFIRM THE LOCATION OF ALL UNDERGROUND LINES OR STRUCTURES PRIOR TO COMMENCING ANY EXCAVATION.
2. THE CONTENT OF THIS MAP WAS DEFINED BY CONTRACT AT THE SPECIFIC REQUEST OF THE CLIENT(S) AND/OR THEIR CONSULTANT(S). THE SURVEYOR ACCEPTS NO LIABILITY FOR USE OF THIS MAP BY ANY ONE OTHER THAN THE CLIENT(S) AND/OR CONSULTANTS FOR WHOM IT WAS PREPARED.
3. BOUNDARY INFORMATION SHOWN HEREON IS BASED ON A RECORD OF SURVEY (2021 RS 124) AND IS NOT PURPORTED TO BE A TRUE BOUNDARY SURVEY.
4. THE ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERITCAL DATUM OF 1988 (NAVD88) VIA CRTN.
5. BASIS OF BEARINGS: RECORD OF SURVEY (2021 RD 124)

ABBREVIATIONS/LEGEND

AB	AGGREGATE BASE	PDE	PRIVATE STORM DRAIN EASEMENT
AC	ASPHALT CONCRETE	PIV	POST INDICATOR VALVE
ANG	ANGLE	POC	POINT OF CONNECTION
BC	BEGIN CURVE	PSE	PRIVATE SEWER EASEMENT
BO	BLOW-OFF	PT	POINT OF TANGENCY
BSL	BUILDING SETBACK LINE	PUE	PUBLIC UTILITY EASEMENT
BSW	BACK OF SIDEWALK	PVC	POLYVINYLCHLORIDE PIPE
BVC	BEGIN VERTICAL CURVE	PVT	PRIVATE
BW	BOTTOM OF RETAINING WALL	R=	RADIUS
CB	CATCH BASIN	R/W	RIGHT OF WAY
CONC	CONCRETE	RCP	REINFORCED CONCRETE PIPE
CPP	CORRUGATED PLASTIC PIPE	RET	RETAINING RETAINING WALL
CR	CURB RETURN	RPBP	REDUCED PRESSURE BACK FLOW PREVENTER
DI	DROP INLET		
DIP	DUCTILE IRON PIPE	S.A.D.	SEE ARCHITECTURAL DESIGN
DWY	DRIVEWAY	S=	SLOPE
EC	END CURVE	SD	STORM DRAIN
EG	EXISTING GROUND	SDCO	STORM DRAIN CLEANOUT
ELEV	ELEVATION	SDDI	STORM DRAIN DROP INLET
EP	EDGE OF PAVEMENT	SDE	PUBLIC STORM DRAIN EASEMENT
ESMT	EASEMENT	SDMH	STORM DRAIN MANHOLE
EVC	END VERTICAL CURVE	S.L.D.	SEE LANDSCAPE DESIGN
(E).EX.	EXISTING	S.S.D.	SEE STRUCTURAL DESIGN
FC	FACE OF CURB	SS	SANITARY SEWER
FG	FINISH GRADE	SSCO	SANITARY SEWER CLEANOUT
FS	FINISH SURFACE	SSMH	SANITARY SEWER MANHOLE
GB	GRADE BREAK	STA	STATION
HDPE	HIGH DENSITY POLYETHYLENE	STD	STANDARD
HT	HEIGHT	SW	SIDEWALK
MDN	MARIN CO. SEWER DISTRICT	SWE	SIDEWALK EASEMENT
MMWD	MARIN MUNICIPAL WATER DISTRICT	TC	TOP OF CURB
		TG	TOP OF GRATE
PAE	STANDARD CITY MONUMENT PRIVATE ACCESS, MAINTENANCE, DRAINAGE, SIDEWALK, AND UTILITY EASEMENT	TW	TOP OF RETAINING WALL
		TYP	TYPICAL
		UNO	UNLESS NOTED OTHERWISE
		W	WATER
		WL	WATER LINE
PC	POINT OF CURVATURE	WM	WATER METER
PCC	PORTLAND CEMENT CONCRETE	WS	WATER SERVICE
		VC	VERTICAL CURVE

RECORD BOUNDARY LINE
NEIGHBORING PROPERTY LINE
STRAW WATTLE
EXISTING FENCE LINE (TYPE VARIES)
6' CLASS II AB 95% RC
12' CLASS II AB 95% RC



LOCATION MAP
NO SCALE

PROJECT SPECIFIC NOTES
1. ALL IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE UNIFORM CONSTRUCTION STANDARDS OF ALL CITIES AND COUNTY OF MARIN UNLESS NOTED OTHERWISE.
2. ALL CRACKED, BROKEN OR UPLIFTED SIDEWALK AND/OR CURB/GUTTER FRONTING THE PROPERTY SHALL BE REPLACED. APPLICANT SHALL COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS PRIOR TO START OF THE PROJECT IMPROVEMENTS TO IDENTIFY THE EXTENTS AND LIMITS OF SIDEWALK REPLACEMENT. CONTACT DPW AT (415) 388-4033 FOR FURTHER INFORMATION.
3. SHOULD CURB/GUTTER REQUIRE REPLACEMENT, CURB/GUTTER SHALL BE REPLACED WITH NEW CONCRETE CURB, GUTTER AND/OR DRIVEWAY APRON TO ENSURE PROPER DRAINAGE IS MAINTAINED. NEW CONCRETE GUTTER TO MATCH EXISTING CONCRETE GUTTER AND MAY REQUIRE ADDITIONAL ASPHALT TO MATCH EXISTING FLOW LINE. DRIVEWAY, CURB AND GUTTER ARE TO BE COORDINATED WITH DEPARTMENT OF PUBLIC WORKS PRIOR TO START OF CONSTRUCTION. CONTACT DPW AT (415) 388-4033.
4. AN ENCROACHMENT PERMIT (REVOCABLE) IS REQUIRED FROM THE PUBLIC WORKS DEPARTMENT FOR ALL WORK WITHIN THE RIGHT-OF-WAY. SHOULD A REVOCABLE ENCROACHMENT PERMIT BE REQUIRED, IT SHALL BE RECORDED AT THE MARIN COUNTY RECORDER'S OFFICE PRIOR TO ANY CONSTRUCTION IN THE RIGHT-OF-WAY.
5. AN ENCROACHMENT SECURITY IN THE FORM OF A CERTIFICATE OF DEPOSIT (CD) OR CASH IN THE AMOUNT OF WORK TO BE CONSTRUCTED IN THE RIGHT-OF-WAY SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT WITH THE ENCROACHMENT PERMIT.
6. APPLICANT IS RESPONSIBLE FOR USING BEST MANAGEMENT PRACTICES FOR THE CONSTRUCTION INDUSTRY ("GENERAL CONSTRUCTION AND SITE SUPERVISION" BROCHURE AVAILABLE AT THE DEPARTMENT OF PUBLIC WORKS) TO PREVENT STORM WATER POLLUTION. APPLICANT SHALL BE RESPONSIBLE FOR ALL ENVIRONMENTAL DAMAGE RESULTING FROM THE CONSTRUCTION OF THIS PROJECT.
7. ALL CONSTRUCTION MATERIAL, DEBRIS AND EQUIPMENT SHALL BE STORED ON SITE. IF THAT IS NOT PHYSICALLY POSSIBLE, AN ENCROACHMENT PERMIT SHALL BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO PLACING ANY CONSTRUCTION MATERIALS, DEBRIS, DEBRIS BOXES OR UNLICENSED EQUIPMENT IN THE RIGHT-OF-WAY. THE FEE FOR USING THE RIGHT-OF-WAY FOR STORAGE OF CONSTRUCTION MATERIALS OR EQUIPMENT IS $10.00 PER DAY IN RESIDENTIAL AREAS, AND $20.00 PER DAY IN COMMERCIAL AREAS. A MINIMUM OF 12' PASSABLE AUTO TRAFFIC CLEARANCE (PAVED TRAVEL WAY) SHALL BE MAINTAINED AT ALL TIMES ALONG THE ROADWAY. THE PLACING OF PORTABLE REST ROOM FACILITIES IN THE CITY RIGHT-OF-WAY WILL NOT BE PERMITTED.
8. ALL SITE DRAINAGE SHALL BE DISSIPATED IN A MANNER THAT PREVENTS EROSION AND CONFORMS TO CURRENT STORM WATER PRACTICES IN MARIN COUNTY. THE APPLICANT IS RESPONSIBLE FOR ENSURING STORM WATER RUNOFF IS MAINTAINED IN ITS NATURAL PATH.
9. TREES AND VEGETATION SHALL BE TRIMMED ACCORDING TO SECTION 11.24.090 OF THE MILL VALLEY MUNICIPAL CODE. TREES AND SHRUBS SHALL BE KEPT TRIMMED SO THAT THE LOWEST BRANCHES PROJECTING OVER PUBLIC PROPERTIES PROVIDE A CLEARANCE OF NOT LESS THAN EIGHT (8) FEET. BUSHES AND OTHER VEGETATION SHALL BE TRIMMED SO NO PORTION HANGS OVER THE SIDEWALK, OR THE ROAD IF NO SIDEWALK IS PRESENT.
10. ALL VEHICLES MUST STAY OFF OF PROPOSED SEPTIC MOUND LOCATION.
11. OBTAIN ENCROACHMENT PERMIT PRIOR TO CONSTRUCTION WITHIN THE MESA ROAD COUNTY RIGHT OF WAY.
12. PROJECT PARCEL HAS NO MAIL DELIVERY SERVICE BECAUSE BOLINAS HAS NO MAIL DELIVERY SERVICE AND INSTEAD RECEIVES MAIL THROUGH THE POST OFFICE AT STINSON BEACH.
13. PROPOSED FIRE HYDRANT IS TO BE INSTALL PER MARIN COUNTY STANDARDS, TESTED AND OPERATION PRIOR TO COMPLETION.

EARTHWORK:

AREA	CUT	FILL	NET
TOTAL	1,000 CY	1,000 CY	0 CY (BALANCED)

NOTES:
1. THE QUANTITIES LISTED ARE THE ENGINEER'S ESTIMATE OF SURFACE GRADING ONLY. ADDITIONAL SUBSURFACE GRADING WILL BE REQUIRED FOR BENCHING, KEYWAYS, ETC.
2. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN EARTHWORK QUANTITIES.
3. NO EXPANSION/CONTRACTION FACTORS HAVE BEEN APPLIED. EXPANSION AND/OR CONTRACTION MAY BE EXPERIENCED DUE TO ACTUAL FIELD CONDITIONS.
4. ANY EXCESS MATERIAL SHALL BE DISPOSED OF ONSITE UNDER THE DIRECTION OF THE PROJECT SOILS ENGINEER AND COORDINATED WITH THE PROJECT CIVIL ENGINEER.
5. APPROX. DISTURBED AREA OF SITE 1.12 AC. (48,772 SF±)

INDEX OF DRAWINGS

REVISION	DESCRIPTION	BY	DATE

MUNSELLE CIVIL ENGINEERING
◆ CIVIL ENGINEERING ◆ SURVEYING ◆
◆ PLANNING ◆ CONST. MANAGEMENT ◆
513 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0968

PROFESSIONAL ENGINEER * JOHN HUGHES * No. 60225 * REGISTERED * CIVIL * STATE OF CALIF.

DANIEL JOHN HUGHES RCE 60225 DATE

BOLINAS RV
COVER SHEET
APN 193-020-38
200 MESA ROAD
BOLINAS, CA 94924

SEPTEMBER 1, 2023

JOB NO.
124-23

SHEET NO.
C1
OF 7 SHEETS

P:\MCE JOBS\2023\124-23 BOLINAS RV\DWGS\124-23 BOLINAS RV.DWG 9/1/2023 3:38 PM SK

DRIVEWAY TRANSITIONS FROM 16' TO 20' IN WIDTH AND CURVE

PROPOSED 20' ACCESS AND UTILITY EASEMENT TO BE PREPARED, PROVIDED TO COUNTY FOR REVIEW AND RECORDED PRIOR TO OCCUPANCY

EXISTING 618 LF OF ROAD TO BE UPGRADED TO A 16–20' PRIMARY ACCESS ROAD TO PROPOSED RV GRAVEL PAD, MATCH EXISTING GRADES (TYP)

APN 188-170-11

R=30.00'

78.67'

457.22'

EXISTING CULVERT CONDITION TO BE INSPECTED ONSITE AND CULVERT IS TO BE REPLACED IF NECESSARY

ADDITIONAL EXISTING GRAVEL DRIVEWAY ENTRANCE FROM MESA ROAD FOR PROJECT USE

RECORD BOUNDARY LINE

16.0'

R=20.00'

INSTALL 628 LF OF PROPOSED 6" C900 WATER PIPE FROM MESA ROAD IN TRENCH PER DETAIL ON SHEET C7

EXISTING CULVERT TO BE REMOVED

EXISTING LOW POINT TO BE FILLED IN

EXISTING BUILDINGS TO BE DEMOLISHED UNDER A SEPARATE PERMIT

PROPOSED 20' ACCESS AND UTILITY EASEMENT TO BE PREPARED, PROVIDED TO COUNTY FOR REVIEW AND RECORDED PRIOR TO OCCUPANCY

EXISTING TRASH CONTAINER LOCATION TO BE UTILIZED BY NEW RV DEVELOPMENT AND INCLUDED IN THE ACCESS AND UTILITY EASEMENT

EXISTING BUILDINGS TO BE DEMOLISHED UNDER A SEPARATE PERMIT

EXISTING BUILDINGS TO BE DEMOLISHED UNDER A SEPARATE PERMIT

EXISTING 18" CULVERT TO REMAIN IN PLACE WITH A MIN. OF 1' OF COVER

EXISTING 18" CULVERT TO REMAIN IN PLACE WITH A MIN. OF 1' OF COVER

EXISTING DRIVEWAY ENTRANCE ENCROACHING ON MESA ROAD AT A 90 DEGREE ANGLE TO BE UPGRADED PER MARIN COUNTY STANDARD 135

APPROXIMATE LOCATION OF EXISTING 10" WATER MAIN POTHOLE AND VERIFY LOCATION PRIOR TO CONSTRUCTION

PROPOSED 6" HOT TAP WATER CONNECTION TO EXISTING 10" MAIN WITHIN MESA RD

MESA ROAD

RECORD BOUNDARY LINE

INSTALL 2" WATER METER PER MARIN COUNTY STANDARD SD00037

APPROXIMATE CORPS VETLAND LIMITS

APPROXIMATE CCC VETLAND LIMITS

APPROXIMATE 50' SETBACK TO VETLAND

INSTALL 402 LF OF 2" DOMESTIC WATER PER DOMESTIC WATER TRENCH DETAIL ON SHEET C7 (TYP)

PROPOSED PRIMARY MOUNDS UNDER SEPARATE PERMIT

PROPOSED SEWER/SEPTIC, WATER AND JOINT TRENCH PER UTILITY PLAN ON SHEET C5

2" SADDLE CONNECTION PER MARIN COUNTY STANDARDS

INSTALL FIRE HYDRANT PER COUNTY OF MARIN STANDARD SD0003 WITH 4.5" AND 2.5" OUTLETS

PROPOSED GRAVEL PAD FOR 22' RV/TRAILER LOTS PER GRADING PLAN ON SHEET C3

APN 193-020-38

EXISTING BUILDINGS TO BE DEMOLISHED UNDER A SEPARATE PERMIT

OVERALL SITE PLAN

SCALE: 1" = 40'

0 40 80 120

(GRAPHIC SCALE IN FEET)

N W E S

REVISION	DESCRIPTION	BY	DATE

MUNSELLE CIVIL ENGINEERING
◆ CIVIL ENGINEERING ◆ SURVEYING ◆
◆ PLANNING ◆ CONST. MANAGEMENT ◆
618 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0966

PROFESSIONAL ENGINEER • REGISTERED • STATE OF CALIFORNIA
DANIEL JOHN HUGHES
No. 60225
CIVIL

DANIEL JOHN HUGHES DATE
RCE 60225

BOLINAS RV
OVERALL SITE PLAN

APN 193-020-38
200 MESA ROAD
BOLINAS, CA 94924

SEPTEMBER 1, 2023

JOB NO. 124–23

SHEET NO. C2

OF 7 SHEETS

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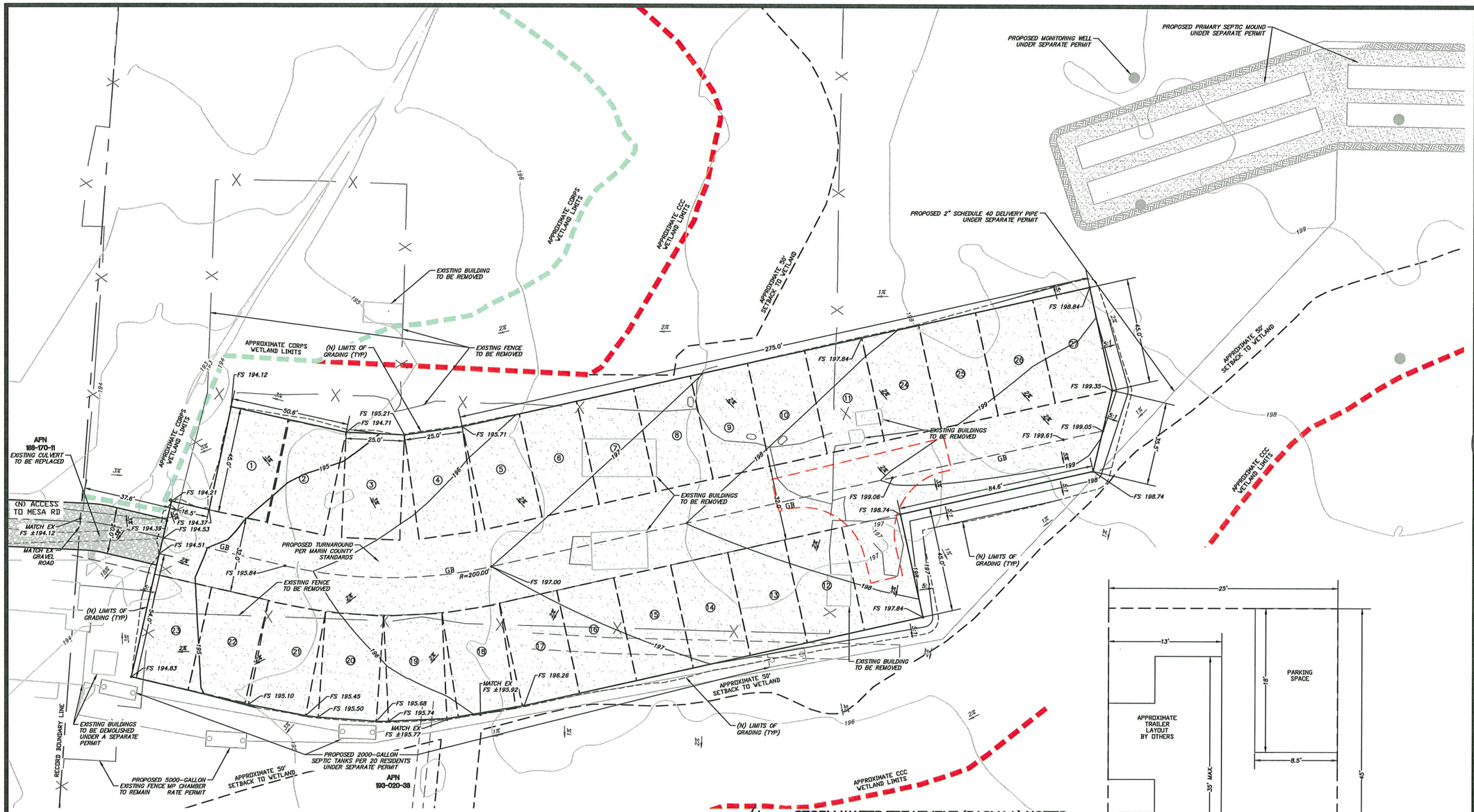

LEGEND

- 6" CLASS II AB 95% RC
- 12" CLASS II AB 95% RC
- (#) PROPOSED RV SPACE NUMBER (27 TOTAL) PER DETAIL ON THIS SHEET

GRADING AND DRAINAGE NOTES

1. ALL PAVED AND UNPAVED FINISHED SURFACES SHALL HAVE POSITIVE DRAINAGE.
2. ALL WORK SHALL COMPLY WITH BEST MANAGEMENT PRACTICES TO PREVENT STORM WATER CONTAMINATION.

GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'

0 20 40 60

(GRAPHIC SCALE IN FEET)

STORM WATER TREATMENT (BASMAA) NOTES:

1. PER COUNTY OF MARIN REQUIREMENTS, THE PROJECT IS REQUIRED TO COMPLY WITH THE BASMAA POST-CONSTRUCTION MANUAL. THE MANUAL DOES NOT REQUIRE ANY SPECIAL MEASURES OR THE INSTALLATION OF ANY STORM WATER TREATMENT FACILITIES (SUCH AS BIORETENTION) BECAUSE THE AMOUNT OF IMPERVIOUS AREA BEING INSTALL IS LESS THAN 2,500 SF.
2. ALTHOUGH NOT SPECIFICALLY REQUIRED BY BASMAA, THE PROJECT DESIGN DOES INCORPORATE THE FOLLOWING BASMAA MEASURES:
   - MINIMIZE IMPERVIOUS SURFACES (PERVIOUS LANDSCAPE MATERIALS INSTEAD OF IMPERVIOUS HARDSCAPE)
   - REDUCE RUNOFF (DRY WELL)
   - CONSERVE NATURAL AREAS OF THE SITE (GRADING LIMITS LIMITED TO BUILDING ENVELOPE)
   - PROTECT SLOPES AGAINST EROSION (EROSION CONTROL AND DRY WELL)

PROPOSED PERVIOUS/IMPERVIOUS AREAS		
	100% IMPERV. (SF)	100% PERV. (SF)
ROOF/CONC/STONE (PROPOSED)	0 SF	
ROOF/CONC/STONE (EX. TO REMAIN)	0 SF	
GROUND/LAWN/PERM. PAVERS		47,479 SF
PROPOSED NEW/REPLACED IMPERVIOUS AREA = 0 SF		
TOTAL PROPOSED IMPERVIOUS AREA = 0 SF		

TYPICAL RV LOT LAYOUT

NO SCALE

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REVISION	DESCRIPTION	BY	DATE

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◆ CIVIL ENGINEERING ◆ SURVEYING ◆
◆ PLANNING ◆ CONST. MANAGEMENT ◆
513 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0868

PROFESSIONAL ENGINEER ✦ VINSNU ✦ CIVIL ✦ STATE OF CALIFORNIA ✦ REGISTERED ✦ JOHN HUGHES No. 60225

DANIEL JOHN HUGHES DATE
RCE 60225

BOLINAS RV
GRADING AND DRAINAGE PLAN

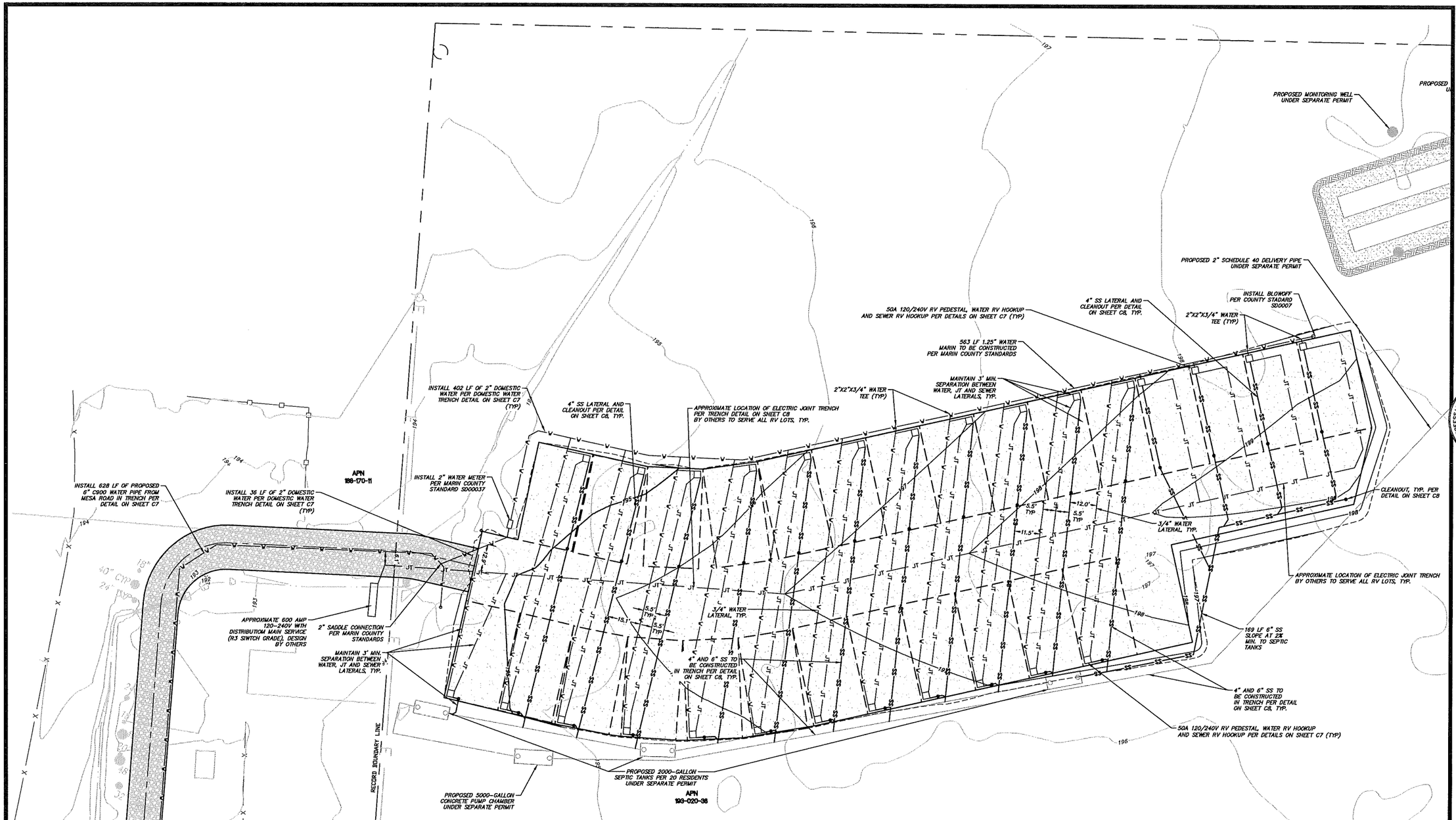
APN 193-020-38
200 MESA ROAD
BOLINAS, CA 94924

SEPTEMBER 1, 2023

JOB NO. 124-23

SHEET NO. C3

OF 7 SHEETS



UTILITY PLAN

SCALE: 1" = 20'

0 20 40 60

(GRAPHIC SCALE IN FEET)

REVISION	DESCRIPTION	BY	DATE

MUNSELLE CIVIL ENGINEERING
CIVIL ENGINEERING ◆ SURVEYING ◆
PLANNING ◆ CONST. MANAGEMENT
513 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0456

REGISTERED PROFESSIONAL ENGINEER DANIEL JOHN HUGHES No. 60225 CIVIL STATE OF CALIFORNIA

DANIEL JOHN HUGHES DATE
RCE 60225

BOLINAS RV
UTILITY PLAN
APN 193-020-36
200 MESA ROAD
BOLINAS, CA 94924

SEPTEMBER 1, 2023

JOB NO.
124-23

SHEET NO.
C4
OF 7 SHEETS

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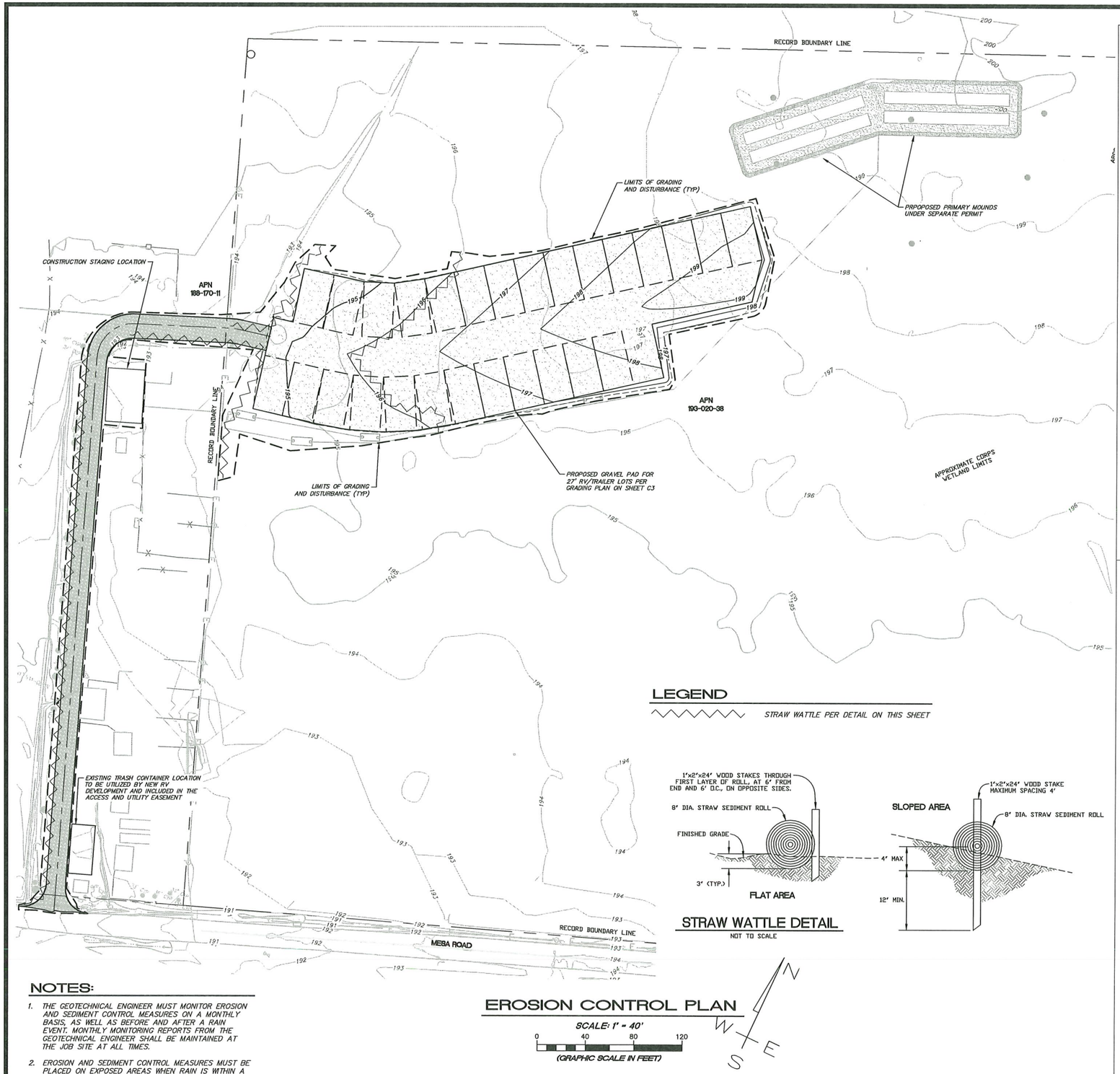


LEGEND

STRAW WATTLE PER DETAIL ON THIS SHEET

STRAW WATTLE DETAIL

NOT TO SCALE

NOTES:

1. THE GEOTECHNICAL ENGINEER MUST MONITOR EROSION AND SEDIMENT CONTROL MEASURES ON A MONTHLY BASIS, AS WELL AS BEFORE AND AFTER A RAIN EVENT. MONTHLY MONITORING REPORTS FROM THE GEOTECHNICAL ENGINEER SHALL BE MAINTAINED AT THE JOB SITE AT ALL TIMES.
2. EROSION AND SEDIMENT CONTROL MEASURES MUST BE PLACED ON EXPOSED AREAS WHEN RAIN IS WITHIN A 5 DAY FORECAST.

EROSION CONTROL PLAN

SCALE: 1" = 40'

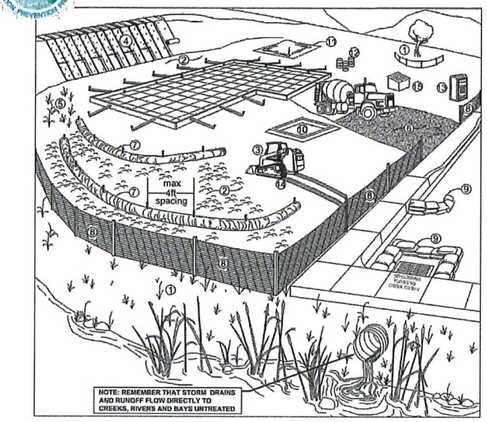
0 40 80 120

(GRAPHIC SCALE IN FEET)

N W E S

Marin County Stormwater Pollution Prevention Program

Minimum Control Measures For Small Construction Projects

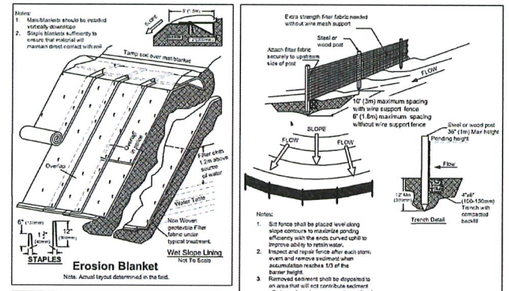


Erosion Controls	Sediment Controls	Good Housekeeping
NS Scheduling	6. Tracking Controls	10. Concrete Washout
1. Preserve Vegetation & Creek Set Backs	7. Fiber Rolls	11. Stockpile Management
2. Soil Cover	8. Silt Fence	12. Hazardous Material Management
3. Soil Preparation/ Roughening	9. Drain Inlet Protection	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.

If you require materials in alternative formats, please contact:
415-473-4381 voice/TTY or disabilityaccess@co.marin.ca.us



MUNSELLE CIVIL ENGINEERING
CIVIL ENGINEERING ◆ SURVEYING ◆
PLANNING ◆ CONST. MANAGEMENT ◆
513 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0365

REVISION	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER DANIEL JOHN HUGHES No. 60225 CIVIL STATE OF CALIFORNIA

DANIEL JOHN HUGHES DATE
RCE 60225

BOLINAS RV
EROSION CONTROL PLAN AND DETAILS

APN 193-020-38
200 MESA ROAD
BOLINAS, CA 94924

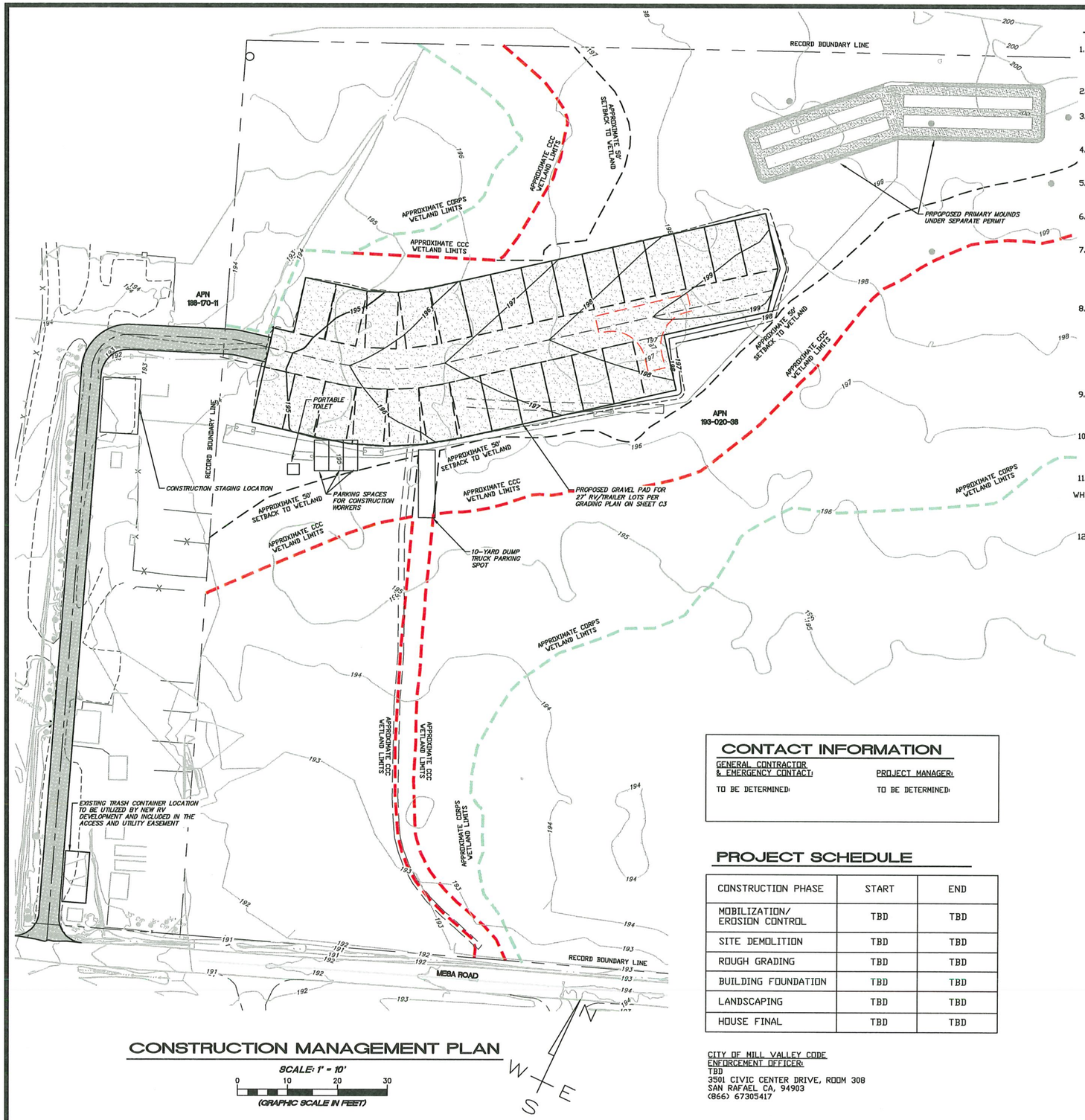
SEPTEMBER 1, 2023

JOB NO. 124-23

SHEET NO. C5

OF 7 SHEETS

P:\MCE JOBS\2023\124-23 BOLINAS RV\DWGS\124-23 IP.DWG 9/1/2023 3:29 PM SA



CONSTRUCTION MANAGEMENT PLAN

SCALE: 1" = 10'

0 10 20 30

(GRAPHIC SCALE IN FEET)

CONSTRUCTION MANAGEMENT NOTES

1. SEQUENCING PLAN STRATEGY HAS BEEN DEVELOPED IN AN ATTEMPT TO MINIMIZE UTILIZATION OF PUBLIC RIGHT OF WAY (MESA ROAD). EQUIPMENT AND MAJORITY OF OPERATION WILL BE CONTAINED WITHIN THE PROJECT SITE. THERE WILL BE EVENTS (SUCH AS DELIVERIES OF EQUIPMENT AND MATERIALS, SHORT TASK SPECIFIC WORK AND ACCESS FOR WORK IMMEDIATELY ADJACENT TO THE RIGHT OF WAY.
2. GRADING OPERATIONS SHALL BE DONE UNDER THE DIRECT SUPERVISION OF THE PROJECT GEOTECHNICAL ENGINEER.
3. THIS PLAN SHALL BE A BINDING DOCUMENT; FAILURE TO ADHERE TO THE PLAN MAY RESULT IN A 'STOP WORK NOTICE' BEING PLACED ON THE PROJECT. THIS PLAN SHALL BE UPDATED AS PROJECT CONDITIONS CHANGE. UPDATES TO PLAN SHALL BE PROVIDED TO THE DEPARTMENT OF PUBLIC WORKS FOR REVIEW AND APPROVAL.
4. CONTRACTOR MUST CONTACT THE DEPARTMENT OF PUBLIC WORKS TO OBTAIN A LANE CLOSURE, ROAD CLOSURE AND/OR A TRANSPORTATION PERMIT IF CONSTRUCTION VEHICLES EXCEEDING 26 FEET IN LENGTH ARE REQUIRED AT ANY TIME DURING THE CONSTRUCTION PERIOD.
5. CONSTRUCTION HOURS:
   8 AM TO 5 PM MONDAY THROUGH FRIDAY. POWER TOOLS AND EQUIPMENT USE IS LIMITED FROM 8 AM TO 5 PM MONDAY THROUGH FRIDAY. CONSTRUCTION WORK IS NOT ALLOWED ON WEEKENDS AND HOLIDAYS.
6. TRUCK ROUTE:
   USE THE COUNTY'S DESIGNATED TRUCK ROUTE - FROM HIGHWAY 101 EXIT WEST ON HIGHWAY 1, LEFT ON OLEMA BOLINAS ROAD, RIGHT ON MESA ROAD.
7. DELIVERIES / OFF-HAUL:
   DELIVERY AND OFF-HAUL (INCLUDING EQUIPMENT, MATERIALS, REMOVAL OF SOIL, REFUSE, OR DEMOLITION DEBRIS) HOURS ARE LIMITED TO BETWEEN 9:30 AM AND 2:30 PM FOR SCHOOL ZONES, AND LIMITED TO BETWEEN 9:30 AM AND 3:00 PM ON WEEKDAYS FOR SITES IN IMPACTED NEIGHBORHOODS. FOR TRUCKS EXCEEDING 26 FEET IN LENGTH, A TRANSPORTATION PERMIT MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS A MINIMUM OF 72 HOURS IN ADVANCE.
8. ROAD / LANE CLOSURES:
   ROAD CLOSURES WILL ONLY BE PERMITTED WITH PRIOR AUTHORIZATION OF THE DEPARTMENT OF PUBLIC WORKS CONSISTENT WITH THE CITY'S ROAD CLOSURE POLICY. PERSONS WANTING TO CLOSE THE ROAD ARE REQUIRED TO PROVIDE WRITTEN NOTIFICATION TO AFFECTED PROPERTY OWNERS AND NEIGHBORS. SIGNS CONTAINING DETAILS OF THE PROPOSED CLOSURE MUST BE POSTED 48 HOURS IN ADVANCE. COORDINATE TRAFFIC CONTROL AND ALL TEMPORARY ROAD CLOSURES WITH THE MILL VALLEY DEPARTMENT OF PUBLIC WORKS. CONTACT THE DEPARTMENT OF PUBLIC WORKS AT 388-4033 TO OBTAIN A ROAD CLOSURE PERMIT. A TRAFFIC DETOUR PLAN WILL BE REQUIRED FOR ANY ROAD CLOSURES. THE DETOUR PLAN SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS FOR REVIEW AND APPROVAL.
9. PARKING:
   ALL WORKER VEHICLES SHOULD PARK AT THE JOB SITE OR CARPOOL. VEHICLE PARKING IN THE PUBLIC RIGHT OF WAY AT OR NEAR THE JOB SITE WILL REQUIRE A PARKING PLACARD FROM THE MILL VALLEY POLICE DEPARTMENT.
10. ENFORCEMENT:
    1ST VIOLATION OF ANY PORTION OF THE APPROVED CONSTRUCTION MANAGEMENT PLAN OR APPLICABLE CONSTRUCTION MANAGEMENT REQUIREMENTS WILL BE ADDRESSED BY A WRITTEN WARNING FROM THE CITY. ANY FURTHER OR SUBSEQUENT VIOLATIONS WILL BE ADDRESSED BY A 'STOP WORK ORDER'.
11. CONSTRUCTION TRAFFIC AT SITE:
    CONSTRUCTION TRAFFIC AND/OR STAGING ON CORTE MADERA AVENUE IS PROHIBITED EXCEPT IN LIMITED CASES WHERE
    ABSOLUTELY NECESSARY FOR CONSTRUCTION. SHOULD CORTE MADERA AVENUE ACCESS TO THE SITE BE REQUIRED FOR MORE THAN A 30 MINUTE PERIOD PROJECT MANAGER MUST NOTIFY NEIGHBORS 48 HOURS IN ADVANCE.
12. STOCKPILE AND STAGING OF MATERIALS:
    STOCKPILING AND STAGING WILL BE RELOCATED AS NECESSARY DURING DIFFERENT PHASES OF THE PROJECT. ANTICIPATED LOCATIONS ARE SHOWN ON THE PLAN AND DESCRIBED AS BELOW. CONTRACTOR IS ALLOWED FLEXIBILITY IN LOCATIONS AND TIMING TO FACILITATE CONSTRUCTION.

CONTACT INFORMATION

GENERAL CONTRACTOR & EMERGENCY CONTACT:
TO BE DETERMINED:

PROJECT MANAGER:
TO BE DETERMINED:

PROJECT SCHEDULE

CONSTRUCTION PHASE	START	END
MOBILIZATION/ EROSION CONTROL	TBD	TBD
SITE DEMOLITION	TBD	TBD
ROUGH GRADING	TBD	TBD
BUILDING FOUNDATION	TBD	TBD
LANDSCAPING	TBD	TBD
HOUSE FINAL	TBD	TBD

CITY OF MILL VALLEY CODE ENFORCEMENT OFFICER:
TBD
3501 CIVIC CENTER DRIVE, ROOM 308
SAN RAFAEL CA, 94903
(866) 67305417

CARPOOL PARKING

CONSTRUCTION ACCESS ROUTE

CONSTRUCTION TRAFFIC AND TRUCK ROUTE

NO SCALE

REVISION	DESCRIPTION	BY	DATE

MUNSELLE CIVIL ENGINEERING
CIVIL ENGINEERING ◆ SURVEYING ◆ PLANNING ◆ CONST. MANAGEMENT
513 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0956

REGISTERED PROFESSIONAL ENGINEER ◆ DANIEL JOHN HUGHES ◆ No. 60225 ◆ CIVIL ◆ STATE OF CALIFORNIA

DANIEL JOHN HUGHES DATE
RCE 60225

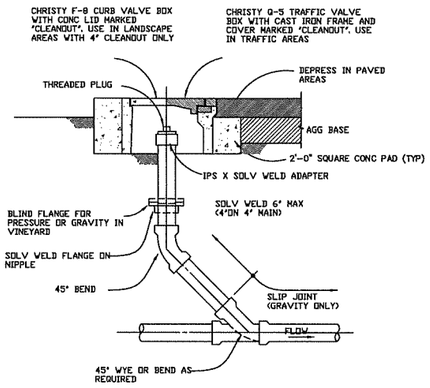
BOLINAS RV
CONSTRUCTION MANAGEMENT PLAN
APN 193-020-38
200 MESA ROAD
BOLINAS, CA 94924

SEPTEMBER 1, 2023

JOB NO.
124-23

SHEET NO.
C6
OF 7 SHEETS

P:\MCE JOBS\2023\124-23 BOLINAS RV\DWGS\124-23 IP.DWG 9/1/2023 3:29 PM SA



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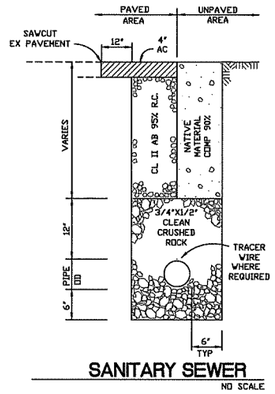

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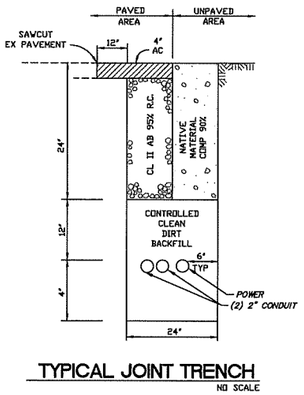

TYPICAL JOINT TRENCH
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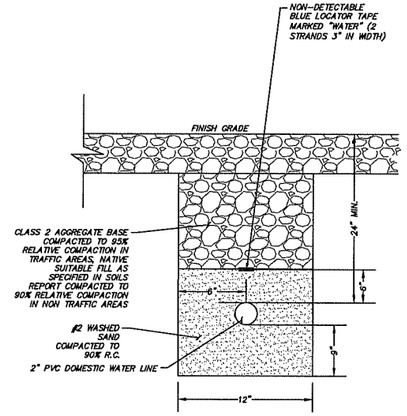

DOMESTIC WATER TRENCH
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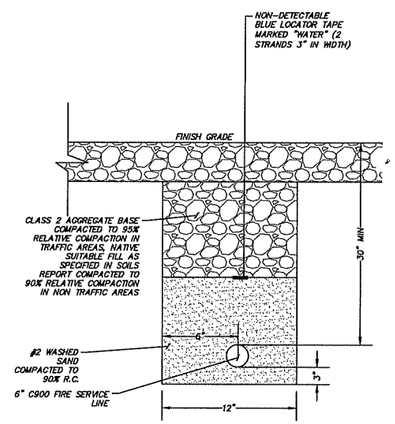

FIRE WATER TRENCH
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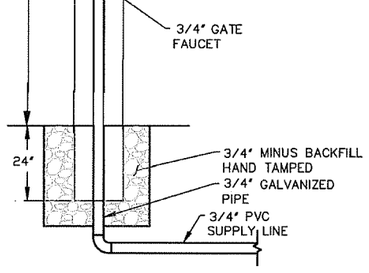

RV WATER SERVICE CONNECTION
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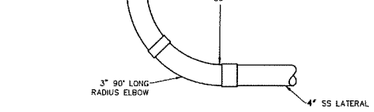


NOTES:

1. THE LOT DRAIN SHALL BE LOCATED WITHIN FOUR (4) FEET OF THE OUTSIDE OF THE UNIT OR UNDER THE UNIT WITHIN 18" OF THE EXTERIOR WALL OF THE UNIT.

2. WHEN A UNIT IS CONNECTED, INSTALLED, PROPOSED TO BE INSTALLED AND IT'S PLUMBING FIXTURES ARE NOT PROTECTED BY APPROVED TRAPS & VENTS, A LOT DRAIN INLET SHALL BE PROVIDED WITH AN APPROVED TRAP

RV SEPTIC DRAIN INLET CONNECTION
NO SCALE

MUNSELLE CIVIL ENGINEERING
CIVIL ENGINEERING ◆ SURVEYING ◆
PLANNING ◆ CONST. MANAGEMENT
513 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0456

REVISION	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER DANIEL JOHN HUGHES No. 60225 CIVIL STATE OF CALIFORNIA

DANIEL JOHN HUGHES DATE
RCE 60225

BOLINAS RV DETAILS
APN 193-020-08
2001 MESA ROAD
BOLINAS, CA 94924

SEPTEMBER 1, 2023

JOB NO.
124-23

SHEET NO.
C7
OF 7 SHEETS

P:\WCE JOBS\2023\124-23 BOLINAS RV\DWGS\124-23 IP.DWG 9/1/2023 3:29 PM SA

ELECTRICAL SPECIFICATIONS

1. THIS CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, SUPPLIES, SERVICES, AND SHALL PERFORM ALL OPERATIONS INCLUDING SETTING OF SLEEVES, CUTTING, AND CHANNELING NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL WORK ON THIS PROJECT, COMPLETE IN STRICT ACCORDANCE WITH THIS SPECIFICATION AND APPLICABLE DRAWINGS, AND READY FOR USE. THIS WORK INCLUDES ALL ELECTRICAL WORK FROM THE POINT OF SERVICE CONNECTION OR CONNECTIONS TO AND INCLUDING OUTLETS, WIRING DEVICES, LIGHTING FIXTURES, ETC.
2. THE ELECTRICAL CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED FOR THE PROSECUTION OF ELECTRICAL WORK. ALL PERMITS AND CERTIFICATES OF INSPECTION AND APPROVAL SIGNED BY THE CONTROLLING BUILDING DEPARTMENT SHALL BECOME PROPERTY OF THE OWNER.
3. ALL WIRING SHALL BE IN COMPLIANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE, APPLICABLE STATE AND CITY REGULATIONS, AND OSHA. IN CASES OF CONFLICT BETWEEN CODE AND SPECIFICATIONS, THE MORE RESTRICTIVE REQUIREMENTS SHALL GOVERN.
4. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE FOR A PERIOD OF ONE YEAR (FROM THE DATE OF OWNER ACCEPTANCE) THAT ALL WORK AND EQUIPMENT WILL REMAIN FREE FROM ALL DEFECTS IN WORKMANSHIP AND MATERIALS, AND THAT IT WILL COMPLY WITH ALL THE SPECIFIC REQUIREMENTS OF THE SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS GOVERNING THE WORK.
5. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING ALL HOLES REQUIRED FOR INSTALLATION OF ELECTRICAL WORK. HOLES SHALL BE CUT IN A NEAT MANNER SATISFACTORY TO THE ENGINEER.
6. ALL HOLES OR DAMAGE CAUSED BY THE REMOVAL OF EXISTING WORK OR THE INSTALLATION OF NEW WORK SHALL BE PROPERLY PATCHED BY THIS CONTRACTOR. HOLES SHALL BE NEATLY PATCHED WITH SUITABLE MATERIAL TO MATCH EXISTING SURFACES. HOLES THROUGH FLOORS OR FIRE WALLS SHALL BE SEALED WITH THE APPROPRIATE INTUMESCENT CAULK, PUTTY, STRIP, BLOCK, SPONGE, OR SHEET TYPE FIRE BARRIER PRODUCT; HILTI "FS-ONE", NELSON "FLAMESEAL", SPECIFIED TECHNOLOGIES INC. "SPEC SEAL", INTERNATIONAL PROTECTIVE COATINGS "FLAMESAFE", CSD SEALING SYSTEMS, OR APPROVED EQUAL AS MANUFACTURED BY 3M.
7. ALL PAINTING REQUIRED BY ELECTRICAL DEMOLITION OR BY THE INSTALLATION OF NEW ELECTRICAL CONDUIT SHALL BE COMPLETED BY THE GENERAL CONTRACTOR.
8. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC, INDICATING GENERAL ARRANGEMENT, APPROXIMATE SIZES, GENERAL LOCATIONS OF EQUIPMENT AND OUTLETS. VERIFY DIMENSIONS IN FIELD; ADJUST TO MANUFACTURER'S SHOP DRAWINGS. DO NOT SCALE DRAWINGS.
9. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER BY FIRST-CLASS MECHANICS. THE CONTRACTOR SHALL PROVIDE ADEQUATE AND COMPETENT SUPERVISION THROUGHOUT CONSTRUCTION.
10. REMOVE ALL EXISTING WIRING AND ELECTRICAL DEVICES THAT INTERFERE WITH NEW CONSTRUCTION AND ARE NOT NECESSARY TO MAINTAIN SERVICE TO LOADS THAT ARE TO REMAIN. RELOCATE, AND/OR EXTEND AS REQUIRED, WIRING THAT INTERFERES WITH NEW CONSTRUCTION AND IS ESSENTIAL TO MAINTAIN SERVICE TO LOADS THAT ARE TO REMAIN.
11. IN THOSE CASES WHERE DEVICES ARE REMOVED, THE ASSOCIATED WIRING THAT WILL NO LONGER BE ACTIVE SHALL BE REMOVED FULL LENGTH BACK TO THE SOURCE OR FIRST ACTIVE JUNCTION POINT.
12. THIS CONTRACTOR SHALL PROVIDE THE FOLLOWING SUBMITTALS (PDF FORMART) FOR ENGINEER REVIEW: POWER DISTRIBUTION EQUIPMENT SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, WIRING DEVICES, ETC., LIGHT FIXTURES, LIGHTING CONTROLS, GENERATORS, AND AUTOMATIC TRANSFER SWITCHES.
13. AS WORK PROGRESSES, RECORD ON A SET OF RED-LINED "AS-BUILT" PRINTS ANY DEVIATIONS FROM DESIGN DRAWINGS. DELIVER TO THE OWNER BEFORE SUBMITTING THE REQUEST FOR FINAL PAYMENT.
14. FURNISH AND INSTALL CONDUIT, SUPPORTS, BOXES, WIRE, AND NECESSARY FITTINGS AND ACCESSORIES AS REQUIRED TO MAKE A COMPLETE INSTALLATION OF THE WIRING SYSTEM INDICATED ON THE DRAWINGS.
15. ALL WIRING SHALL BE INSTALLED IN CONDUIT, FLEXIBLE METALLIC CONDUIT, OR LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT AS INDICATED ON PLANS. CONDUITS SHALL BE ELECTRICAL METALLIC TUBING GALVANIZED INSIDE AND OUT WITH AN OVERALL COAT OF CLEAR LACQUER.
    a. CONDUITS SHALL BE OF THE SIZE INDICATED OR REQUIRED BY THE NATIONAL ELECTRIC CODE FOR THE NUMBER AND SIZE CONDUCTORS INVOLVED. JOINTS SHALL BE CUT SQUARE, REAMED SMOOTH AND PULLED UP TIGHT. CONDUIT FITTINGS SHALL BE SET SCREW TYPE GALVANIZED STEEL, CONCRETE TIGHT. DIE CAST TYPE INDENTOR FITTINGS ARE NOT ACCEPTABLE.
    b. RACEWAYS IN GENERAL SHALL BE INSTALLED CONCEALED ABOVE FINISHED CEILINGS, IN WALLS, AND EXPOSED ELSEWHERE AS SHOWN ON PLANS. ALL EXPOSED CONDUITS SHALL BE RUN IN A NEAT MANNER, PARALLEL WITH OR AT RIGHT ANGLES TO BUILDING LINES. EXPOSED CONDUITS SHALL BE ADEQUATELY SUPPORTED WITH BEAM CLAMPS, ONE HOLE STRAPS, ETC.
16. ALL ELECTRICAL SYSTEMS, RACEWAYS, JUNCTION BOXES, CABLES, AND ALL FLEXIBLE WIRING SYSTEMS SHALL BE SUPPORTED INDEPENDENT OF THE SUSPENDED TEE-BAR CEILING SYSTEM AND INDEPENDENT OF HANGER WIRES ASSOCIATED WITH THE CEILING SYSTEM, IN FULL COMPLIANCE WITH THE NEC AND LOCAL CODES.
17. BRANCH CIRCUIT CONDUCTORS SHALL BE STRANDED COPPER WITH NOT LESS THAN 98% CONDUCTIVITY AND 600 VOLT TYPE THWN OR XHHW INSULATION. CONDUCTORS SHALL BE #12 AWG UNLESS INDICATED OTHERWISE ON PLANS. BRANCH CIRCUIT CONDUCTORS SHALL BE COLOR CODED. COLOR CODING SHALL MATCH INDUSTRY STANDARDS.
18. SPLICES IN BRANCH CIRCUIT WIRES SHALL BE MADE ONLY IN READILY ACCESSIBLE JUNCTION BOXES.
19. WIRING DEVICES SHALL BE FURNISHED AS DESCRIBED IN THE SYMBOL SCHEDULE AND INSTALLED AT LOCATIONS SHOWN ON THE DRAWINGS. WIRING DEVICES TO BE COOPER "INDUSTRIAL SPEC GRADE", HUBBELL "HBL" SERIES, LEVITON "LEV-SPEC", PASS & SEYMOUR "INDUSTRIAL SPEC GRADE" OR EQUIVALENT.
20. FURNISH AND INSTALL LIGHTING FIXTURES AND CONTROLS AS INDICATED ON THE DRAWINGS. FURNISH AND INSTALL ALL REQUIRED HANGING ACCESSORIES AND FITTINGS TO ENSURE PROPER INSTALLATION AND CONFORMANCE WITH THE CODE.

ABBREVIATIONS

A / AMP	AMPERE
AC	ALTERNATING CURRENT
AIC	AMPERE INTERRUPTING CURRENT
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILLARY
AUTO	AUTOMATIC
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BKR	BREAKER
C	CONDUIT
CEC	CALIFORNIA ELECTRIC CODE
CO	CONDUIT ONLY
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
DC	DIRECT CURRENT
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DIV	DIVISION
DN	DOWN
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DWG	DRAWING
(E)	EXISTING
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
EM	EMERGENCY
EQPT	EQUIPMENT
EV	ELECTRIC VEHICLE
(F)	FUTURE
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FU	FUSE/FUSIBLE
G / GND	GROUND
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTING
HP	HORSE POWER
HV	HIGH VOLTAGE
IG	ISOLATED GROUND
JB	JUNCTION BOX
kVA	KILOVOLT-AMPERES
kW	KILOWATTS
LED	LIGHT-EMITTING DIODE
MECH	MECHANICAL
MIN	MINIMUM SIZE OR RATING
MLO	MAIN LUGS ONLY
MTS	MANUAL TRANSFER SWITCH
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELEC. MANUFACT. ASSOC.
NIC	NOT IN CONTRACT/SCOPE
NTS	NOT TO SCALE
PNL	PANEL
RECEP	RECEPTACLE
RCPT	RECEPTACLE
SMD	SEE MECHANICAL DRAWINGS
SPD	SURGE PROTECTION DEVICE
SWBD	SWITCHBOARD
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT-AMPERE
W	WATT
WP	WEATHER PROOF
XFMR	TRANSFORMER

GENERAL

- KEYNOTE, REFER TO KEYNOTE LEGEND ON DRAWING
- DETAIL REFERENCE DETAIL " #1 " ON DRAWING " E6.1 "
- SECTION OR ELEVATION REFERENCE
- FIRE TREATED PLYWOOD BACKBOARD 3/4" X 96"H X TOTAL WIDTH AS SHOWN ON PLANS (STANDARD IS 48"W)

SINGLE LINE DIAGRAM

- CIRCUIT BREAKER
- NON-FUSIBLE SWITCH
- FUSIBLE SWITCH
- FUSE
- CURRENT TRANSFORMER
- SPLICE / TAP
- GROUND CONNECTION
- NEUTRAL " N " , GROUND " G " BUS CONNECTIONS
- METER
- SURGE PROTECTION DEVICE
- GROUND FAULT
- PROVIDE WITH ARC FAULT REDUCTION / MAINTENANCE MODE SETTING
- SHUNT TRIP
- UNDERVOLTAGE TRIP
- CIRCUIT BREAKER WITH ADJUSTABLE LONG TIME, SHORT TIME, AND INSTANTANEOUS TRIP SETTINGS. IF "G" IS INCLUDED PROVIDE WITH GROUND FAULT TRIP SETTINGS.
- KIRK KEY INTERLOCK BETWEEN DEVICES. SOLID STRIP IN CIRCLE INDICATES KEY NORMALLY CAPTIVE.

POWER & WIRING

- EQUIPMENT TAG FOR EQUIPMENT SPECIFIED BY OTHERS (MECHANICAL, PLUMBING, KITCHEN, WINERY, ETC.)
- FEEDER TAG, SEE FEEDER SCHEDULE FOR ADDITIONAL INFORMATION
- SWITCHBOARD, DISTRIBUTION PANEL, ETC.
- SURFACE MOUNTED PANELBOARD
- FLUSH MOUNTED PANELBOARD
- ELECTRICAL OR LOW VOLTAGE UTILITY POLE
- POLE MOUNTED TRANSFORMER
- PAD OR FLOOR MOUNTED TRANSFORMER
- UNDERGROUND PULLBOX OR HANDHOLE
  - P = POWER
  - EP = DEDICATED FOR EMERGENCY POWER SYSTEMS
  - T = TELEPHONE / DATA / LOW VOLTAGE
  - FA = DEDICATED FOR FIRE ALARM
- AUTOMATIC DOOR OPERATOR. FURNISHED AND INSTALLED BY HARDWARE SUPPLIER. WIRED BY THE EC INCLUDING MISCELLANEOUS CONTROLS AND INTERLOCKS AS REQUIRED.
- AUTOMATIC DOOR OPERATOR PADDLE. FURNISHED BY HARDWARE SUPPLIER, INSTALLED AND WIRED BY THE EC. MOUNT AT 48" AFF. (EXACT LOCATION SHALL BE COORDINATED WITH OWNER AND ARCHITECT).
- LINE VOLTAGE THERMOSTAT FURNISHED BY THE MECHANICAL CONTRACTOR. SET AND WIRED BY THE ELECTRICAL CONTRACTOR. MOUNT OVER SURFACE BOX AT 52" AFF.
- MOTOR FURNISHED AND SET BY OTHERS. LINE CONNECTIONS BY THE EC.
- HEAVY DUTY NON-FUSED DISCONNECT FURNISHED AND INSTALLED BY THE EC. NEMA TYPE 1 INDOORS, NEMA TYPE 3R OUTDOORS. AMPERAGE AND NUMBER OF POLES TO MATCH FEEDER BREAKER SIZE. ALL SWITCHES TO CONTAIN GROUND LUG. FURNISH AND INSTALL NAMEPLATE ON FRONT TRIM TO IDENTIFY LOAD.
- SIMILAR TO " " EXCEPT FUSED
- ENCLOSED CIRCUIT BREAKER. REFER TO SINGLE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- MOTOR RATED TOGGLE SWITCH WITH TOGGLE LOCK ATTACHMENT. AMPERAGE AND NUMBER OF POLES TO MATCH FEEDER BREAKER SIZE.
- 3/4" X 10'-0" COPPER CLAD GROUND ROD FURNISHED AND INSTALLED BY THE EC. LOCATE ROD TO MISS BUILDING FOOTERS, CONDUITS AND MECHANICAL PIPING. DRIVE TOP OF ROD TO 6" BELOW FINISHED GRADE. ALL CONNECTIONS TO ROD SHALL BE CADWELD.
- TERMINAL CONNECTION ON EQUIPMENT FURNISHED AND SET BY OTHERS, LINE CONNECTIONS BY THE EC
- EXISTING JUNCTION BOX TO REMAIN AND BE MAINTAINED
- JUNCTION BOX WITH BLANK SCREW COVER CONCEALED ABOVE CEILING. SIZE AS REQUIRED BY CEC.
- JUNCTION BOX INSTALLED IN CONJUNCTION WITH SURFACE CONDUIT. SIZE AS REQUIRED BY CEC.
- CONDUIT INSTALLED CONCEALED ABOVE CEILINGS AND IN WALLS BY THE EC. QUANTITY OF #12 THWN CONDUCTORS INDICATED UNLESS NOTED OTHERWISE ON PLANS. SHORT HASH MARK INDICATES GREEN, INSULATED COPPER GROUND CONDUCTOR SIZED IN ACCORDANCE WITH CEC TABLE 250-122.
- SIMILAR TO " " EXCEPT INSTALLED EXPOSED AT CEILING STRUCTURE AND ON WALLS
- UNDERGROUND / UNDER FLOOR CONDUIT
- EXISTING CONDUIT TO REMAIN
- EXISTING CONDUIT TO BE REMOVED
- ELECTRICAL FEEDER. REFER TO FEEDER SCHEDULE.
- CONDUIT HOMERUN TO PANEL OR EQUIPMENT AS NOTED
- CONDUIT STUB AND CAP

RECEPTACLES & MISC.

RECEPTACLE TAG / PRESENTATION DESCRIPTIONS

- GFI — GFCI TYPE RECEPTACLE
- GFB — RECEPTACLE PROTECTED BY GFCI TYPE CIRCUIT BREAKER (WHERE APPLICABLE PROVIDE AFCI/GFCI BREAKER). DO NOT INSTALL GFCI TYPE RECEPTACLE
- USB — RECEPTACLE WITH USB CHARGING PORTS. COORDINATE WITH OWNER EXACT TYPE OF USB PORTS TO PROVIDE.
- WP — WEATHER RESISTANT TYPE RECEPTACLE WITH WEATHERPROOF IN-USE COVER
- TV — RECEPTACLE FOR WALL MOUNTED DISPLAY, COORDINATE EXACT LOCATION WITH DISPLAY MOUNTING BRACKET AND ARCHITECT
- EM — RECEPTACLE CIRCUITED TO EMERGENCY / STANDBY POWER
- C — RECEPTACLE MOUNTED FLUSH IN CEILING (NOT ABOVE CEILING)
- SOLID CENTER IDENTIFIES RECEPTACLE CONNECTED TO DEDICATED CIRCUIT
- 20A, 120V, HEAVY DUTY SPECIFICATION GRADE DUPLEX GROUNDING RECEPTACLE. MOUNT FLUSH IN WALL AT 18" AFF UNLESS NOTED OTHERWISE.
- SIMILAR TO " " EXCEPT TWO DEVICES MOUNTED IN COMMON BACKBOX.
- 20A, 120V, HEAVY DUTY SPECIFICATION GRADE DUPLEX GROUNDING RECEPTACLE. MOUNT FLUSH IN WALL ABOVE COUNTERTOP OR +42" AFF WHERE NO COUNTERTOP. UNLESS NOTED OTHERWISE.
- SIMILAR TO " " EXCEPT TWO DEVICES MOUNTED IN COMMON BACKBOX.
- 20A, 120V, SINGLE SIMPLEX RECEPTACLE. MOUNT FLUSH IN WALL AT 18" AFF UNLESS NOTED OTHERWISE.
- RECEPTACLE WITH NEMA CONFIGURATION AS NOTED ON PLANS. MOUNT FLUSH IN WALL AT 18" AFF UNLESS NOTED OTHERWISE.
- (RV) — RECREATION VEHICLE POWER PEDESTAL. SEE PLANS FOR ADDITIONAL INFORMATION AND SPECIFICATION.

DRAWING LIST

SoCo ENGINEERING CONTACT INFO
NICHOLAS PETERS, P.E.
NICHOLAS@SOCOENGINEERING.COM
707-828-0571

CODE REQUIREMENTS

2022 CALIFORNIA BUILDING CODE VOL. #1 & #2
2022 CALIFORNIA ELECTRIC CODE
SPECIFICALLY - 2022 CEC ARTICLE 551
2022 CALIFORNIA ENERGY CODE
2022 CALIFORNIA FIRE CODE
2022 CAL GREEN BUILDING STANDARDS
2022 CALIFORNIA MECHANICAL CODE
2022 CALIFORNIA PLUMBING CODE
CURRENT APPLICABLE NFPA CODES
CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN

ELECTRICAL DEVICE MOUNTING HEIGHTS

NOTES:
1. ALL DIMENSIONS ARE CONSIDERED FROM FINISHED FLOOR AND, UON, SHALL NOT VARY. RAISED FLOORS ARE CONSIDERED FINISHED FLOOR.
2. ALL DIMENSIONS SHALL BE COORDINATED WITH ARCHITECTURAL DETAILS AND MAY BE ADJUSTED TO CONFORM WITH ARCHITECTURAL REQUIREMENTS AS LONG AS NO CODE RESTRICTION IS VIOLATED.
3. OUTLETS INSTALLED LOWER THEN 15" AFF (FORWARD REACH) ARE IN VIOLATION OF ADA.

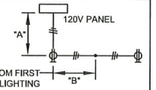
LIGHT SWITCHES	48" TO CENTERLINE OF BOX. EXCEPTION: 44" MAX TO TOP ABOVE COUNTERS WHICH ARE 20"-25" DEEP.
DISCONNECT SWITCHES, MOTOR STARTERS	60" TO CENTERLINE
WALL MOUNTED EXIT SIGNS	90" TO CENTERLINE OF SIGN WHERE MOUNTED ADJACENT TO EGRESS OPENING. WHEN MOUNTED ABOVE EGRESS OPENING, LOCATE SIGN CENTERED IN WALL AREA BETWEEN TOP OF DOOR AND CEILING WHERE TOP OF OPENING AND CEILING IS LESS THEN 48". WHEN GREATER THEN 48", LOCATE BOTTOM OF SIGN 12" ABOVE EGRESS OPENING. NFPA 101 SECTION 7.10.1.9 STATES MAX SIGN LOCATION ABOVE EGRESS OPENING IS 6'-8" ABOVE EGRESS OPENING.
RECEPTACLES OR SPECIAL OUTLETS	16" TO BOTTOM OF BOX, UON ON PLANS. ABOVE COUNTER TOPS: 44" MAXIMUM TO TOP ABOVE COUNTERS WHICH ARE 20" - 25"D.
TELE/DATA OUTLETS	16" TO BOTTOM OF BOX, UON ON PLANS. ABOVE COUNTER TOPS: 44" MAXIMUM TO TOP ABOVE COUNTERS WHICH ARE 20" - 25"D.

WIRE SIZING TABLE - BRANCH CIRCUITS

TABLES BASED ON EVENLY DISTRIBUTED LOAD, YIELDING 3% V DROP AT LAST DEVICE

FOR 120V , 20A BRANCH CIRCUITS ONLY (UNO)

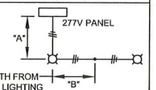
IF DISTANCE A+B IS:	BASED ON COPPER WIRE IN EMT, AWG SIZE AS FOLLOWS ON ENTIRE CIRCUIT
0 - 100 FT	#12 AWG (MIN)
100 - 175 FT	#10 AWG
175 - 300 FT	#8 AWG
300 - 450 FT	#6 AWG



1/2 WIRE LENGTH FROM FIRST TO LAST DEVICE OR LIGHTING FIXTURE ON CIRCUIT.

FOR 277V , 20A BRANCH CIRCUITS ONLY (UNO)

IF DISTANCE A+B IS:	BASED ON COPPER WIRE IN EMT, AWG SIZE AS FOLLOWS ON ENTIRE CIRCUIT
0 - 250 FT	#12 AWG (MIN)
250 - 400 FT	#10 AWG
400 - 700 FT	#8 AWG
700 - 999 FT	#6 AWG



1/2 WIRE LENGTH FROM FIRST TO LAST LIGHTING FIXTURE ON CIRCUIT.

SoCo ENGINEERING
445 CENTER STREET, STE 219
HEALDSBURG, CA 95448
PHONE: 707-828-0571
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REGISTERED PROFESSIONAL ENGINEER — NICHOLAS JAMES PETERS — E 22092 exp. 12/2023 — ELECTRICAL — STATE OF CALIFORNIA

09/01/23 PERMIT SET

REV	DATE	ISSUANCE

ISSUANCE LIST:

CLIENT:
BOLINAS COMMUNITY LAND TRUST

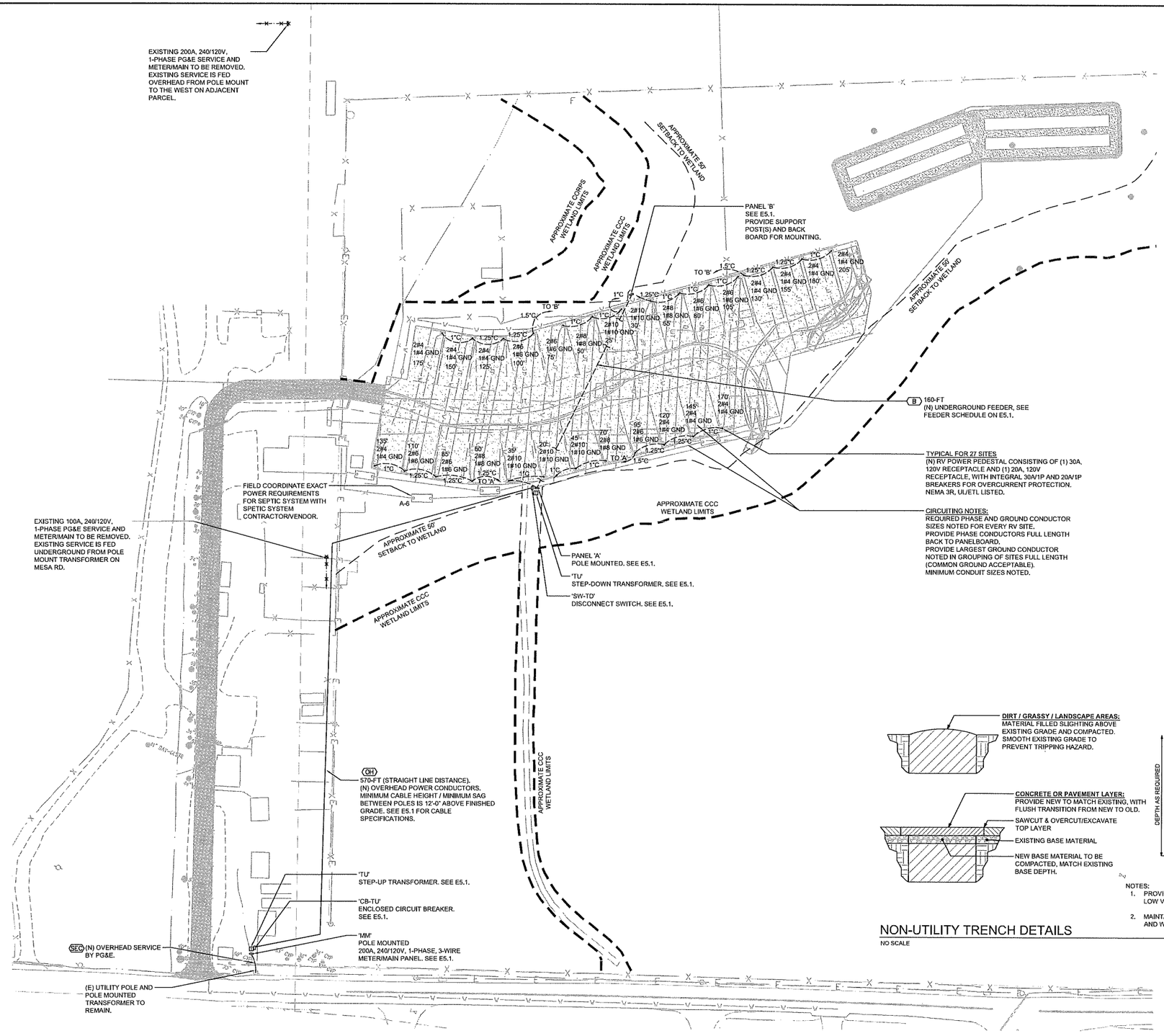
PROJECT:
BOLINAS RV

200 MESA ROAD
BOLINAS, CA 94924

SOCO PROJECT # 23010
DRAWN BY: NJP
CHECKED BY: NJP
SCALE: AS NOTED

SHEET TITLE:
COVER SHEET & SYMBOLS

E0.1



ELECTRICAL SITE PLAN

NOTES:
1. PROVIDE 12" CLEAR BETWEEN LINE VOLTAGE POWER CONDUITS AND LOW VOLTAGE TELEPHONE, SIGNAL, CABLE, AND CONTROL CONDUITS.
2. MAINTAIN 36" HORIZONTAL SEPARATION BETWEEN ELECTRIC FACILITIES AND WET UTILITIES WITH A MINIMUM OF 12" UNDISTURBED EARTH.

NON-UTILITY TRENCH DETAILS

NO SCALE

GENERAL NOTES

1. CALL UNDERGROUND SERVICE ALERT (USA) BY DIALING 811, TWO WORKING DAYS MINIMUM PRIOR TO TRENCHING AND EXCAVATION.
2. REFER TO DWG E0.1 FOR STANDARD 120V AND 277V BRANCH CIRCUIT CONDUCTOR WIRING SIZING TABLE.
3. PROVIDE DEDICATED NEUTRAL FOR EACH POWER AND/OR LIGHTING BRANCH CIRCUIT.
4. ALL ELECTRICAL INSTALLATION ON THE EXTERIOR SHALL BE UL LABELED AND LISTED FOR OUTDOOR INSTALLATION INCLUDING HARDWARE AND MOUNTING ACCESSORIES.
5. THE EC SHALL COORDINATE ALL SERVICE INSTALLATION AND/OR DEMOLITION WITH THE ELECTRIC UTILITY COMPANY. COORDINATE WITH UTILITY COMPANY ON INSTALLATION REQUIREMENTS AND STANDARDS, OBTAIN THEIR ENGINEERED DRAWINGS AND PROVIDE ALL REQUIRED LABOR AND MATERIALS FOR A COMPLETE INSTALLATION.
6. CONDUIT ROUTING AND PULL BOX LOCATIONS SHOWN ON PLANS IS DIAGRAMMATIC. THE EC SHALL BE RESPONSIBLE TO COORDINATE AND VERIFY ALL TRENCH LOCATIONS, DEPTHS AND ROUTING WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION. INSTALL PULL BOXES MINIMUM 36" FROM STORM DRAIN INLETS AND SIMILAR UTILITIES.
7. PROVIDE SEPARATE PULL BOXES FOR POWER, LIGHTING AND LOW VOLTAGE / SIGNAL CONDUITS. LABEL BOXES "POWER", "LIGHTING" AND "SIGNAL" RESPECTIVELY. CONTRACTOR SHALL SIZE ALL IN GRADE PULL BOXES PER APPLICABLE CODE OR STANDARD, OR FOR THEIR CONVENIENCE FOR PULLING WIRE, WHICHEVER IS LARGER. ALL SIZES NOTED ON PLANS ARE BASED ON CODE MINIMUM AND INDUSTRY STANDARD BOX SIZES, AND ARE RECOMMENDATIONS FOR BIDDING PURPOSES ONLY.
8. THE EC SHALL NOTE THAT NOT ALL PULL BOXES ARE SHOWN ON THE DRAWINGS, I.E. BOXES FOR SITE LIGHTING, IT IS THE EC'S RESPONSIBILITY TO PROVIDE ALL REQUIRED PULL BOXES.
9. MINIMUM SIZE OF SITE CONDUITS IS 1"C.

SoCo ENGINEERING
445 CENTER STREET, STE 219
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SCALE: AS NOTED

SHEET TITLE:
ELECTRICAL SITE PLAN

E1.1

GROUNDING ELECTRODE SYSTEM

250.50 GROUNDING ELECTRODE SYSTEM:
ALL GROUNDING ELECTRODES AS DESCRIBED IN 250.52(A)(1) THROUGH (A)(7) THAT ARE PRESENT AT EACH BUILDING OR STRUCTURE SERVED SHALL BE BONDED TOGETHER TO FORM THE GROUNDING ELECTRODE SYSTEM. WHERE NONE OF THESE GROUNDING ELECTRODES EXIST, ONE OR MORE OF THE GROUNDING ELECTRODES SPECIFIED IN 250.52(A)(4) THROUGH (A)(8) SHALL BE INSTALLED AND USED.

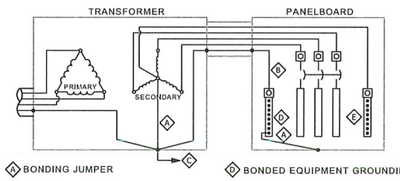
E1	250.52(A)(1) METAL UNDERGROUND WATER PIPE: A METAL UNDERGROUND WATER PIPE IN DIRECT CONTACT WITH THE EARTH FOR 10FT OR MORE AND ELECTRICALLY CONTINUOUS TO THE POINTS OF CONNECTION OF THE GROUNDING ELECTRODE CONDUCTOR AND THE BODING CONDUCTOR(S) OR JUMPER(S), IF INSTALLED.	SIZED PER TABLE 250.66
E2	250.52(A)(2) METAL IN-GROUND SUPPORT STRUCTURE(S): ONE OR MORE METAL IN-GROUND SUPPORT STRUCTURE(S) IN DIRECT CONTACT WITH THE EARTH VERTICALLY FOR 10FT OR MORE, WITH OR WITHOUT CONCRETE ENCASEMENT. IF MULTIPLE METAL IN-GROUND SUPPORT STRUCTURES ARE PRESENT AT A BUILDING OR STRUCTURE, IT SHALL BE PERMISSIBLE TO BOND ONLY ONE INTO THE GROUNDING ELECTRODE SYSTEM. INFO NOTE: METAL IN-GROUND SUPPORT STRUCTURES INCLUDE, BUT ARE NOT LIMITED TO, PILINGS, CASTINGS, AND OTHER STRUCTURAL METAL.	SIZED PER TABLE 250.66
E3	250.52(A)(3) CONCRETE-ENCASED ELECTRODE: A CONCRETE-ENCASED ELECTRODE SHALL CONSIST OF AT LEAST 20FT OF EITHER (1) BASE OR ZINC BARS/RODS PER 250.52(A)(3) OR (2) BARE COPPER CONDUCTOR NOT SMALLER THEN 4 AWG. METALLIC COMPONENTS SHALL BE ENCASED BY AT LEAST 2" OF CONCRETE AND SHALL BE LOCATED HORIZONTALLY WITHIN THAT PORTION OF A CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH OR WITHIN VERTICAL FOUNDATIONS OR STRUCTURAL COMPONENTS OR MEMBERS THAT ARE DIRECT CONTACT WITH THE EARTH. IF MULTIPLE CONCRETE-ENCASED ELECTRODES ARE PRESENT AT A BUILDING OR STRUCTURE, IT SHALL BE PERMISSIBLE TO BOND ONLY ONE INTO THE GROUNDING ELECTRODE SYSTEM. INFO NOTE: CONCRETE INSTALLED WITHIN INSULATION, VAPOR BARRIERS, FILMS OR SIMILAR ITEMS SEPARATING THE CONCRETE FROM THE EARTH IS NOT CONSIDERED TO BE IN "DIRECT CONTACT" WITH THE EARTH.	SIZED PER TABLE 250.66, (MAXIMUM #4 CU PER CODE)
E4	250.52(A)(4) GROUND RING: A GROUND RING ENCIRCLING THE BUILDING OR STRUCTURE, IN DIRECT CONTACT WITH THE EARTH, CONSISTING OF AT LEAST 20FT OF BARE COPPER CONDUCTOR NOT SMALLER THEN #2 AWG.	SAME SIZE AS GROUND RING, NOT LESS THEN #2 CU.
E5	250.52(A)(5) ROD AND PIPE ELECTRODES: ROD AND PIPE ELECTRODES SHALL NOT BE LESS THAN 8FT IN LENGTH (IN CONTACT WITH EARTH) AND SHALL CONSIST OF THE FOLLOWING MATERIALS: (a) PIPE OR CONDUIT SEE CODE FOR DESCRIPTION, OR (b) ROD-TYPE GROUNDING ELECTRODES OF STAINLESS STEEL AND COPPER OR ZINC COATED STEEL SHALL BE AT LEAST 5/8" IN DIAMETER, UNLESS LISTED.	SIZED PER TABLE 250.66, MAXIMUM #6 CU OR MAXIMUM #4 AL
E6	250.52(A)(6) OTHER LISTED ELECTRODES: OTHER LISTED GROUNDING ELECTRODES SHALL BE PERMITTED.	SIZED PER TABLE 250.66
E7	250.52(A)(7) PLATE ELECTRODES: EACH PLATE ELECTRODE SHALL EXPOSE NOT LESS THAN 2FT^2 OF SURFACE TO EXTERIOR SOIL. ELECTRODES OF BARE OR ELECTRICALLY CONDUCTIVE COATED IRON OR STEEL PLATES SHALL BE AT LEAST 1/4" IN THICKNESS. SOLID, UNCOATED ELECTRODES OF NONFERROUS METAL SHALL BE AT LEAST 0.06" IN THICKNESS.	SIZED PER TABLE 250.66, MAXIMUM #6 CU OR MAXIMUM #4 AL
E8	250.52(A)(8) OTHER LOCAL METAL UNDERGROUND SYSTEMS OR STRUCTURES: OTHER LOCAL METAL UNDERGROUND SYSTEMS OR STRUCTURES SUCH AS PIPING SYSTEMS, UNDERGROUND TANKS, AND UNDERGROUND METAL WELL CASINGS THAT ARE NOT BONDED TO A METAL WATER PIPE.	SIZED PER TABLE 250.66

250.52(B) NOT PERMITTED FOR USE AS GROUNDING ELECTRODES:
(1) METAL UNDERGROUND GAS PIPING SYSTEMS
(2) ALUMINUM
(3) THE STRUCTURES AND STRUCTURAL REINFORCING STEEL DESCRIBED IN 680.26(B)(1) AND (B)(2).

CEC TABLE 250.66

GROUND ELECTRODE CONDUCTOR FOR AC SYSTEMS

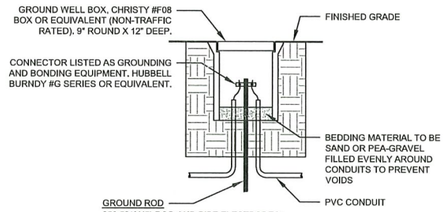
	SIZE OF LARGEST UNGROUNDED CONDUCTOR OR EQUIVALENT AREA FOR PARALLEL CONDUCTORS		SIZE OF GROUNDING ELECTRODE CONDUCTOR	
	COPPER	ALUMINUM OR COPPER-CLAD ALUMINUM	COPPER	ALUMINUM OR COPPER-CLAD ALUMINUM
A	2 OR SMALLER	1/0 OR SMALLER	8	6
B	1 OR 1/0	2/0 OR 3/0	6	4
C	2/0 OR 3/0	4/0 OR 250	4	2
D	OVER 3/0 THROUGH 350	OVER 250 THROUGH 500	2	1/0
E	OVER 350 THROUGH 600	OVER 500 THROUGH 900	1/0	3/0
F	OVER 600 THROUGH 1100	OVER 900 THROUGH 1750	2/0	4/0
G	OVER 1100	OVER 1750	3/0	250



A BONDING JUMPER
B EQUIPMENT GROUNDING CONDUCTOR
C TO BUILDING STEEL
D BONDED EQUIPMENT GROUNDING BAR
E NEUTRAL BAR (NOT BONDED)

TYPICAL STEPDOWN TRANSFORMER WIRING DETAIL

NO SCALE



250.52(A)(5) ROD AND PIPE ELECTRODES:
ROD ELECTRODES SHALL NOT BE LESS THAN 8FT IN LENGTH (IN CONTACT WITH EARTH) AND SHALL CONSIST OF THE FOLLOWING MATERIALS: ROD-TYPE GROUNDING ELECTRODES OF STAINLESS STEEL AND COPPER OR ZINC COATED STEEL AND SHALL BE AT LEAST 5/8" IN DIAMETER, UNLESS LISTED. SEE CEC SECTION 250 FOR ADDITIONAL REQUIREMENTS.

GROUND ROD DETAIL

NO SCALE

ELECTRIC SERVICE CALCULATION
Bolinas RV

				WATTS (VA)
MISCELLANEOUS LOADS - NONCOINCIDENT LOADS				
CEC 551.73				
30 amp RV site	27	at	3600 VA	97,200
CEC 551.73 DEMAND FACTOR: 42%			CONNECTED:	97,200
			DEMAND:	40,824
HVAC & PLUMBING LOADS				
CEC 220.60: DEMAND FACTOR AS DETEREMINED BY ENGINEER				
SEPTIC PUMP (1/2 HP)	2	at	1100 VA	2,200
DEMAND FACTOR: 100%			CONNECTED:	2,200
			DEMAND:	2,200
			TOTAL CONNECTED:	99 KVA
VOLTAGE: 240 / 120V, 1-PHASE, 3-WIRE			TOTAL CONNECTED:	414 AMPS
			TOTAL DEMAND:	43 KVA
			TOTAL DEMAND:	179 AMPS

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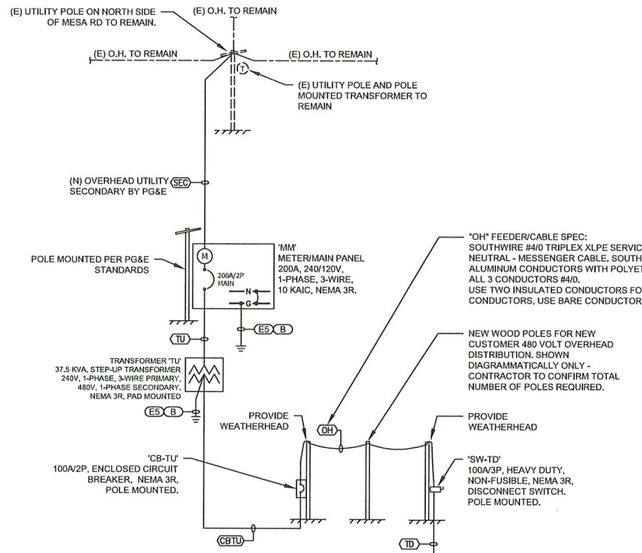

LINE TYPE LEGEND

- DASHED = EXISTING TO REMAIN AND BE MAINTAINED
- CONDUIT/WIRE, EQUIPMENT AND DEVICES
- DASHED WITH WITH " X " = DEMO / EXISTING TO REMOVED CONDUIT/WIRE, EQUIPMENT AND DEVICES
- SOLID = NEW CONDUIT/WIRE, EQUIPMENT AND DEVICES

SINGLE LINE DIAGRAM

SERVICE AVAILABLE FAULT CURRENT

SERVICE VOLTAGE AND AMPERAGE:
240/120V 1PH 3W VOLTS **200** **AMPS**
AVAILABLE CURRENT ON UTILITY PRIMARY:
ASSUMED INFINITE BUS
ASSUMED MAXIMUM UTILITY TRANSFORMER SIZE:
50 kVA **1.50** **% Z**
ASSUMED MAXIMUM UTILITY SECONDARY CONDUCTORS:
4/0 AL PER PHASE **50** **FEET**
ASSUMED MAXIMUM MOTOR CONTRIBUTION:
160 AMPS
CALCULATED MAXIMUM FAULT CURRENT AVAILABLE:
9,310 AMPS (MAX 1PH L-L OR L-N)
DATE OF CALCULATION:
Sep 1, 2023
THIS CALCULATION MUST BE REVIEWED IF THE SERVICE IS ALTERED

FEEDER SCHEDULE

FEEDER ID	CONDUIT AND CONDUCTORS	TO	FROM	LENGTH (FT)	DESIGN LOAD (AMPS)	FEEDER AMPACITY (AMPS)	OCPD SIZE (AMPS)	VOLTAGE	VOLTAGE DROP %	CONDUIT FILL %	SHORT CIRCUIT AMPS	COMMENTS (IF REQUIRED)
A	2"C - 3#3/0, 1#2 GRD	XFMR 'TD'	PANEL 'A'	10	156	200	200	240	0.1%	28%	710 A	
B	3"C - 3#500 KCMIL AL, 1#2/0 GRD	PANEL 'A'	PANEL 'B'	185	94	310	125	240	0.6%	29%	680 A	UPSIZED FOR VOLTAGE DROP
CBTU	1 1/4"C - 2#2, 1#8 GRD	XFMR 'TU'	BKR 'CB-TU'	10	75	115	100	480	0.1%	21%	1220 A	
OH	SEE 1-LINE DIAGRAM FOR SPEC	XFMR 'TU' / 'CB-TU'	'SW-TD' / XFMR 'TD'	460	90	192	-	480	2.3%	-	900 A	SEE 1-LINE DIAGRAM FOR SPEC
SEC	OVERHEAD CONDUCTORS BY PG&E	SEE SITE PLAN	METER/MAIN 'MM'	80	-	-	-	240	-	-	-	NEW O.H. SERVICE DROP BY PG&E
TD	2"C - 2#3/0, 1#6 GRD	DISC. 'SW-TD'	XFMR 'TD'	10	150	200	200	480	0.0%	18%	900 A	
TU	2"C - 3#3/0, 1#6 GRD	METER/MAIN 'MM'	XFMR 'TU'	10	150	200	200	240	0.1%	26%	8880 A	

NOTES: 1. ESTIMATED FEEDER LENGTHS NOTES ARE FOR CALCULATION PURPOSES ONLY, NOT FOR CONTRACTOR BIDDING.
2. ALL CONDUCTORS SHALL BE COPPER UNLESS NOTED AS "AL" ALUMINUM.

PANEL: B
LOCATION: ELEC RM
VOLTAGE: 240 / 120V, 1-PHASE, 3-WIRE
BUS (A): 125
MAIN (A): 125 MAIN LUGS ONLY
KAIC (MINIMUM): 10
MOUNTING: SURFACE
ENCLOSURE: NEMA 3R

CKT	TRIP	POLE	LOAD	CODE	DESCRIPTION	A		B	CKT	TRIP	POLE	LOAD	CODE	DESCRIPTION
1	30	1	1512	N	RV 30A PEDESTAL	3024			2	30	1	1512	N	RV 30A PEDESTAL
3	30	1	1512	N	RV 30A PEDESTAL			3024	4	30	1	1512	N	RV 30A PEDESTAL
5	30	1	1512	N	RV 30A PEDESTAL	3024			6	30	1	1512	N	RV 30A PEDESTAL
7	30	1	1512	N	RV 30A PEDESTAL			1512	8	20	1			SPARE
9	30	1	1512	N	RV 30A PEDESTAL	1512			10	20	1			SPARE
11	30	1	1512	N	RV 30A PEDESTAL			1512	12	20	1			SPARE
13	30	1	1512	N	RV 30A PEDESTAL	1512			14	20	1			SPARE
15	30	1	1512	N	RV 30A PEDESTAL			1512	16	-	1			SPACE
17	30	1	1512	N	RV 30A PEDESTAL	1512			18	-	1			SPACE
19	30	1	1512	N	RV 30A PEDESTAL			1512	20	-	1			SPACE
21	30	1	1512	N	RV 30A PEDESTAL	1512			22	-	1			SPACE
23	30	1	1512	N	RV 30A PEDESTAL			1512	24	-	1			SPACE
						VA:	12096	10584						
						AMPS:	101	88						

LOAD SUMMARY

CODE	LOAD TYPE & CODE REFERENCE	PANEL ID & LOAD (kVA) B	-	-	-	CONN. TOTAL	DEM. TOTAL
C	CONTINUOUS (CEC 220.12(B))	0.0				0.0	0.0
N	NON-CONTINUOUS	22.7				22.7	22.7
R	RECEPTACLE (CEC 220.44)	0.0				0.0	0.0
M	MOTORS (CEC 430.24)	0.0				0.0	0.0
	LARGEST MOTOR kVA	0.0				0.0	
K	KITCHEN (CEC 220.56)	0.0				0.0	0.0
	# OF KITCHEN EQUIP.	0.0				0.0	

PANEL NOTES:

TOTAL CONNECTED: 22.7 kVA
TOTAL DEMAND: 22.7 kVA
DEMAND: 95 AMPS

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PANEL: A
LOCATION: ELEC RM
VOLTAGE: 240 / 120V, 1-PHASE, 3-WIRE
BUS (A): 200
MAIN (A): 200 MAIN BREAKER
KAIC (MINIMUM): 10
MOUNTING: SURFACE
ENCLOSURE: NEMA 3R
PROVIDE PANEL WITH INTEGRAL SURGE PROTECTION DEVICE

CKT	TRIP	POLE	LOAD	CODE	DESCRIPTION	A		B	CKT	TRIP	POLE	LOAD	CODE	DESCRIPTION
1	30	1	1512	N	RV 30A PEDESTAL	13608			2	125	2	12096		PANEL "B"
3	30	1	1512	N	RV 30A PEDESTAL			12096	4	-	-	10584		"
5	30	1	1512	N	RV 30A PEDESTAL	1512			6	20	1			SEPTIC SYSTEM (NOTE #2)
7	30	1	1512	N	RV 30A PEDESTAL			1512	8	20	1			SPARE
9	30	1	1512	N	RV 30A PEDESTAL	1512			10	20	1			SPARE
11	30	1	1512	N	RV 30A PEDESTAL			1512	12	20	1			SPARE
13	30	1	1512	N	RV 30A PEDESTAL	1512			14	20	1			SPARE
15	30	1	1512	N	RV 30A PEDESTAL			1512	16	-	1			SPACE
17	30	1	1512	N	RV 30A PEDESTAL	1512			18	-	1			SPACE
19	30	1	1512	N	RV 30A PEDESTAL			1512	20	-	1			SPACE
21	30	1	1512	N	RV 30A PEDESTAL	1512			22	-	1			SPACE
23	30	1	1512	N	RV 30A PEDESTAL			1512	24	-	1			SPACE
						VA:	21168	19656						
						AMPS:	176	164						

LOAD SUMMARY

CODE	LOAD TYPE & CODE REFERENCE	PANEL ID & LOAD (kVA) A	B	-	-	CONN. TOTAL	DEM. TOTAL
C	CONTINUOUS (CEC 220.12(B))	0.0	0.0			0.0	0.0
N	NON-CONTINUOUS	18.1	22.7			40.8	40.8
R	RECEPTACLE (CEC 220.44)	0.0	0.0			0.0	0.0
M	MOTORS (CEC 430.24)	0.0	0.0			0.0	0.0
	LARGEST MOTOR kVA	0.0	0.0			0.0	
K	KITCHEN (CEC 220.56)	0.0	0.0			0.0	0.0
	# OF KITCHEN EQUIP.	0.0	0.0			0.0	

PANEL NOTES:
1. PROVIDE PANEL WITH INTEGRAL SURGE PROTECTION DEVICE
2. FIELD VERIFY WITH SEPTIC SYSTEM CONTRACTOR/DESIGNER ON EXACT POWER REQUIREMENTS FOR SEPTIC SYSTEM PUMPS.

TOTAL CONNECTED: 40.8 kVA
TOTAL DEMAND: 40.8 kVA
DEMAND: 170 AMPS

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SoCo ENGINEERING
445 CENTER STREET, STE 219
HEALDSBURG, CA 95448
PHONE: 707-828-0571
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BOLINAS, CA 94924

SOCO PROJECT # 23010
DRAWN BY: NJP
CHECKED BY: NJP
SCALE: AS NOTED

SHEET TITLE:
SINGLE LINE DIAGRAM & SCHEDULES

E5.1

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
Project Name: Bolinas RV	**Report Page:**	(Page 2 of 4)
	Date Prepared:	8/22/2023

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through J. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

01		02		03		04	05	06
Service Electrical Metering 130.5(a)/ 160.6(a) (See Table F)	AND	Separation for Monitoring 130.5(b)/ 160.6(b) (See Table G)	AND	Voltage Drop 130.5(c)/ 160.6(c) (See Table H)	AND	Controlled Receptacles 130.5(d)/ 160.6(d) (See Table I)	Electric Ready 160.9 (See Table J)	**Compliance Results**
Yes	AND		AND	Yes	AND			COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. SERVICE ELECTRICAL METERING

This table includes new or replacement electrical service systems OR equipment to demonstrate compliance with 130.5(a) / 160.6(a). For multifamily occupancies, submetered systems that provide power to common use areas must meet the following metering requirements. Submetered systems providing power to dwelling units do not.

01	02	03				04	05	
		Required Metering Capabilities per Table 130.5-A					Field Inspector	
Electrical Service Designation/ Description	Rating[1] (kVA)	Instantaneous Demand (kW)	Historical Peak Demand (kW)	Tracking kWh for user-defined period	kWh per rate period	Location of Requirements in Construction Documents	Pass	Fail
Main	50	☒	☐	☒	☐		☐	☐

[1] FOOTNOTES: If common use areas in a multifamily are submetered, rating is for submeter size serving common use areas.

H. VOLTAGE DRAP

This table includes entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with 130.5(c)/ 160.6(c). For alterations, only the altered circuits must demonstrate compliance per 141.0(b)2Pii/ 180.2(b)4Bvii.c.

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
Project Name: Bolinas RV	**Report Page:**	(Page 4 of 4)
Project Address: 200 Mesa Road	**Date Prepared:**	8/22/2023

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Nicholas Peters	Documentation Author Signature:
Company: SoCo Engineering	Signature Date: 8-22-2023
Address: 445 Center Street, Suite 219	CEA/ HERS Certification Identification (if applicable): Electrical E22092
City/State/Zip: Healdsburg CA 95448	Phone: 707-828-0571

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Responsible Designer Signature:
Company: SoCo Engineering, Inc.	Date Signed: 2023-08-22
Address: 445 Center Street, Suite 219	License: E22092
City/State/Zip: Healdsburg CA 95448	Phone: 707-828-0571

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
This document is used to demonstrate compliance with mandatory requirements in 130.5, for electrical systems in newly constructed nonresidential and hotel/motel occupancies and 160.6 and 160.9 for electrical systems in newly constructed multifamily occupancies. Additions and alterations to electrical service systems in nonresidential and hotel/motel occupancies will also use this document to demonstrate compliance per 141.0(a) or 141.0(b)2P for alterations. For multifamily addition or alterations compliance will be documented per 180.1(a) or 180.2 (b)4Bvii		
Project Name: Bolinas RV	**Report Page:**	(Page 1 of 4)
Project Address: 200 Mesa Road	**Date Prepared:**	8/22/2023

A. GENERAL INFORMATION

01	Project Location (city)	Bolinas	02	Climate Zone	1
			03	Occupancy Types Within Project:	

B. PROJECT SCOPE

This table includes electrical systems that are within the scope of the permit application.

01	02	03	04	05	06	07
Electrical Service Designation/ Description	Scope of Work[1]	Rating[2] (kVA)	Utility Provided Metering System Exception to 130.5(a)/ 160.6(a)[3]	System subject to CA Elec Code Article 517 Exception to 130.5(a)and (b)	Demand Response Controls	Provides power to dwelling units/common living areas only in multifamily occupancy
Main	New electrical service equipment and meter	50	☑	☐	Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections 120.2/ 160.3, 130.1/ 160.5, and 130.3/ 160.5, and mechanical, indoor lighting, and sign lighting Certificate of Compliance documents will indicate when demand response controls are required.	☐

[1] FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c)/160.6(c), no other requirements from 130.5/160.6 are required.
[2] If common use areas in a multifamily are submetered, rating is for submeter size serving common use areas.
[3] Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
Project Name: Bolinas RV	**Report Page:**	(Page 3 of 4)
	Date Prepared:	8/22/2023

H. VOLTAGE DROP

01	02			03	04	05	
Electrical Service Designation/Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method			Location of Voltage Drop Calculations[1]	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector	
						Pass	Fail
Main	☒ Voltage drop less than 5%	☐	Permitted by CA Elec Code (Exception to 130.5(c))*	Attached	See Dwg E5.1 Feeder Schedule	☐	☐

** NOTES: If "Permitted by CA Elec Code *" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.*

[1] FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".

J. ELECTRIC READY BUILDINGS

This section does not apply to this project.

K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-ELC-E - Must be submitted for all buildings

SoCo ENGINEERING
445 CENTER STREET, STE 219
HEALDSBURG, CA 95448
PHONE: 707-828-0571
WWW.SOCOENGINEERING.COM

REGISTERED PROFESSIONAL ENGINEER
NICHOLAS JAMES PETERS
E 22092
exp. 12/2023
ELECTRICAL
STATE OF CALIFORNIA

09/01/23 PERMIT SET

REV DATE ISSUANCE

ISSUANCE LIST:

CLIENT:
BOLINAS COMMUNITY LAND TRUST

PROJECT:
BOLINAS RV
200 MESA ROAD
BOLINAS, CA 94924

SOCO PROJECT # 23010
DRAWN BY: NJP
CHECKED BY: NJP
SCALE: AS NOTED

SHEET TITLE:
TITLE 24 COMPLIANCE FORMS

ET24

PROPOSED SEPTIC MOUND

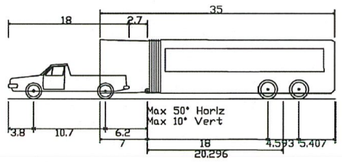
LOT 27

RECORD BOUNDARY LINE

APN
188-170-11

PROPOSED 16' PRIMARY ACCESS ROAD

APN
193-020-38



Bolinas Truck Trailer

Overall Length	48.700ft
Overall Width	8.000ft
Overall Body Height	8.761ft
Min Body Ground Clearance	0.844ft
Max Track Width	8.000ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	40.00°

TRUCK AND TRAILER PROFILE

NO SCALE

TURNING TEMPLATE

SCALE: 1" = 20'

0 20 40 60

(GRAPHIC SCALE IN FEET)

N W E S

REVISION	DESCRIPTION	BY	DATE

MUNSELLE CIVIL ENGINEERING
◆ CIVIL ENGINEERING ◆ SURVEYING ◆
◆ PLANNING ◆ CONST. MANAGEMENT ◆
513 CENTER STREET
HEALDSBURG, CA 95448
(707) 395-0956

REGISTERED PROFESSIONAL ENGINEER * DANIEL JOHN HUGHES * No. 60225 * CIVIL * STATE OF CALIFORNIA

DANIEL JOHN HUGHES DATE
RCE 60225

BOLINAS RV
TURNING TEMPLATE

APN 193-020-38
200 MESA ROAD
BOLINAS, CA 94924

AUGUST 1, 2023

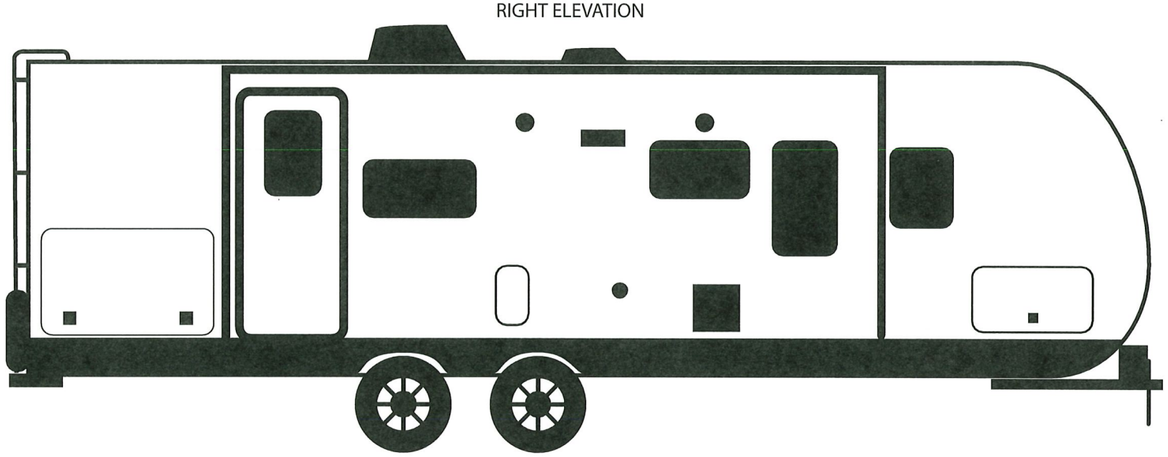
JOB NO.
124-23

SHEET NO.
T.1
OF 1 SHEET

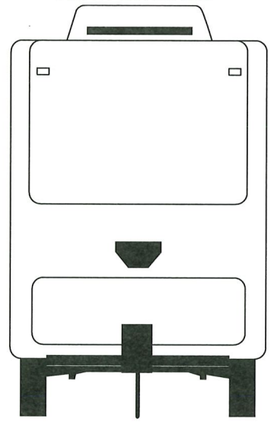
P:\MCE JOBS\2023\124-23 BOLINAS RV\DWGS\124-23 IP.DWG 8/1/2023 8:54 AM SA

TYPICAL ELEVATIONS - MAX SIZED RV (SLEEPS 6-10)

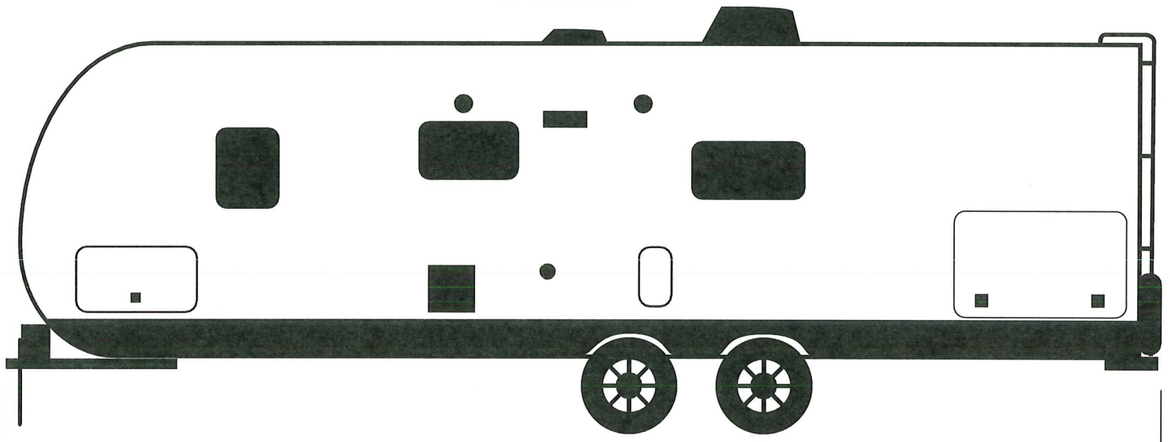
RIGHT ELEVATION



FRONT ELEVATION



LEFT ELEVATION

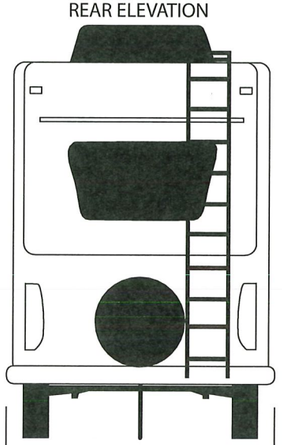


34′ 9-1/2″ MAX

11′ 4″ TYP

1″ = 2′

REAR ELEVATION



8′ 1/2″

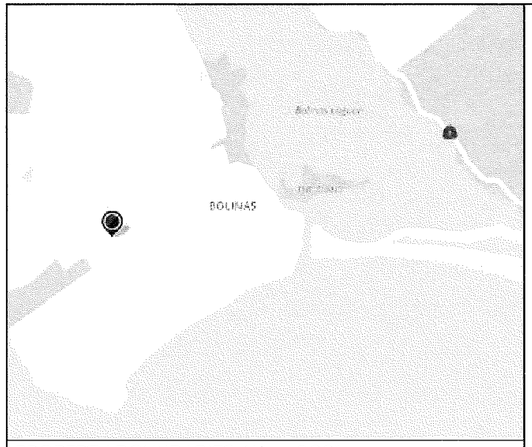
BCLT

Revisions

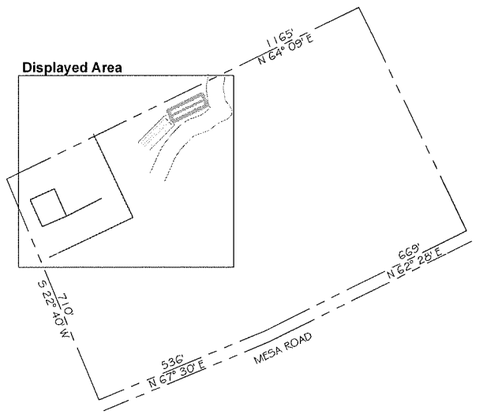
Issue

APN: 193-020-38
BCLT - MESA ROAD
BOLINAS, CA 94924

Title	ELEVATIONS
Scale	
Date	June 5, 2023
Sheet	E.0
of	



PROPERTY BOUNDARIES (1" = 200')

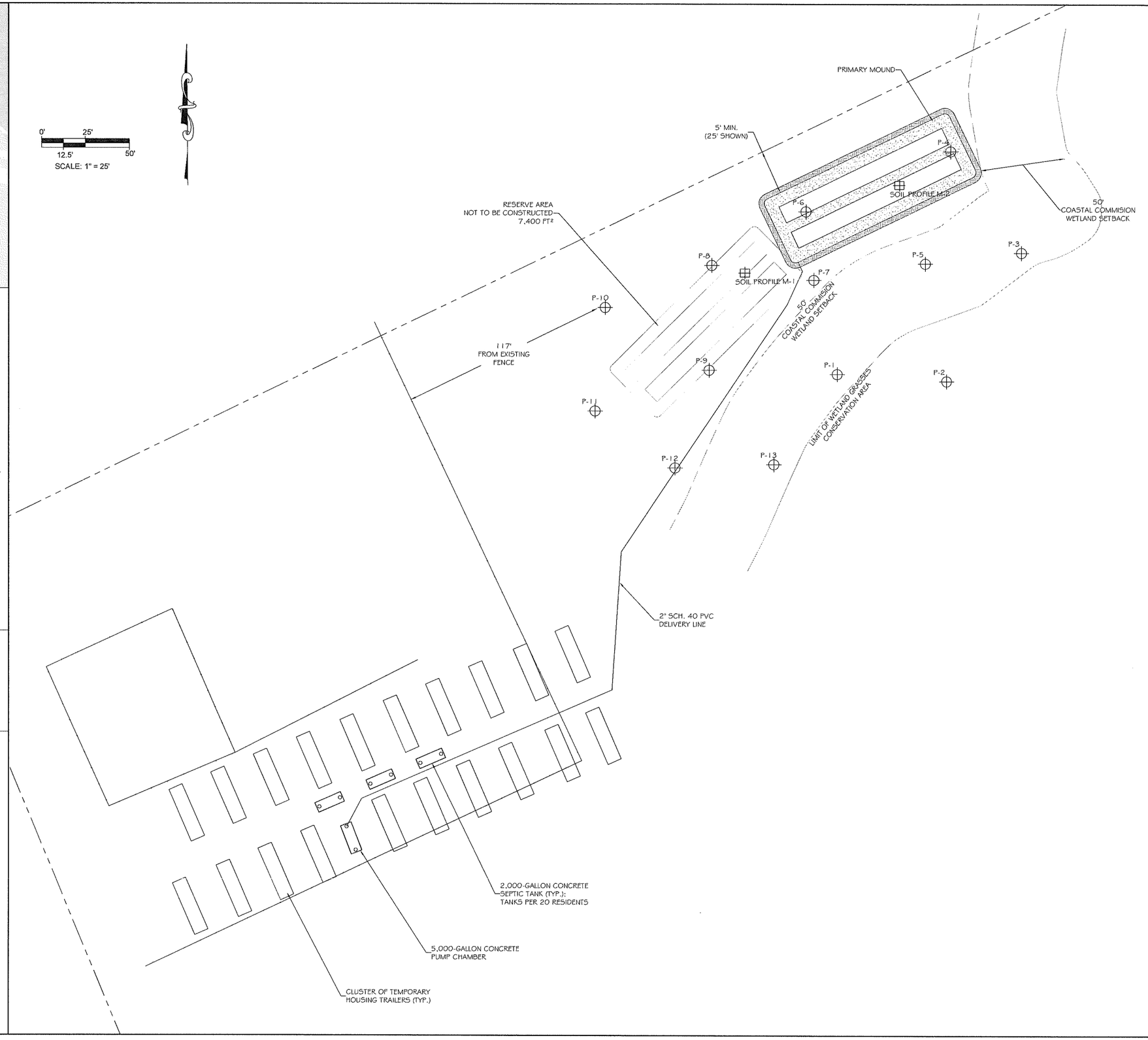


LEGEND

- Soil Profile Trench
- Percolation Test

NOTES

* Survey provided by Bolinas Land Trust. EED, Inc. assumes no responsibility.
* 2,065 GPD System
* Contours less than 2%



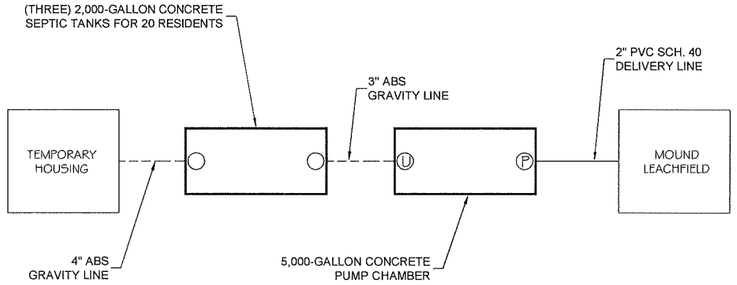
APN	193-020-38
DATE / REV.	03-27-2023 / B
SCALE/SIZE	1" = 25' / ARCHD
SHEET	1 OF 4

ON-SITE WASTEWATER SYSTEM PLAN
SITE PLAN

TACHERRA RANCH AFFORDABLE HOUSING PROJECT
130 MESA ROAD
BOLINAS, CALIFORNIA

NOADIAH S. ECKMAN No. 7486 REGISTERED ENVIRONMENTAL HEALTH SPECIALIST

eckman environmental designs, inc
100 Shoreline Highway
Bldg. B, Suite 100
Mill Valley, CA 94941
415.895.0364

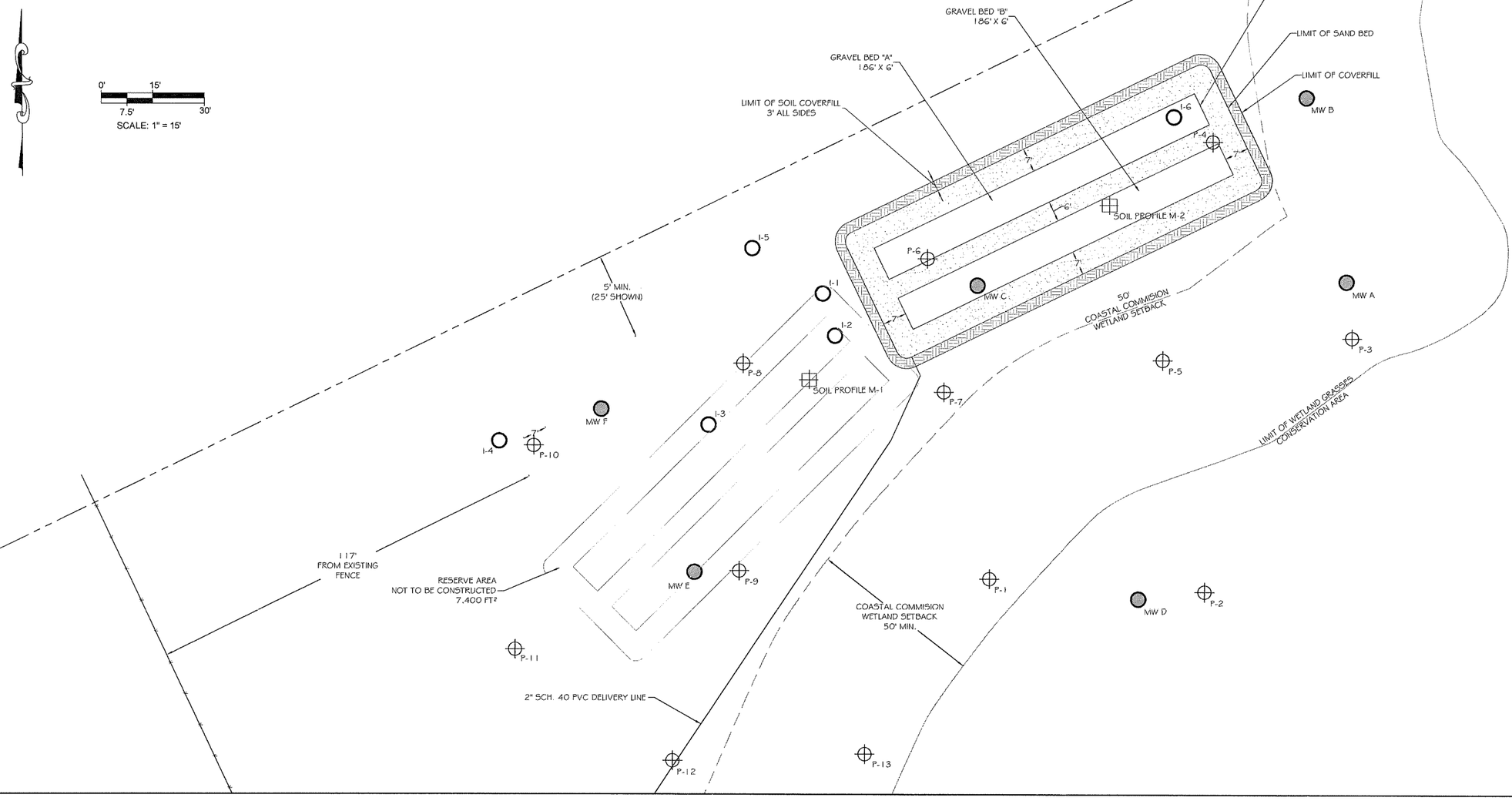


LEGEND

- Soil Profile Trench (M-1 / M-2)
- Percolation Test
- GW Monitoring Well
- Inspection Well

NOTES

* Survey provided by Bolinas Land Trust. EED, Inc. assumes no responsibility.
* 2,065 GPD System
* Contours less than 2%



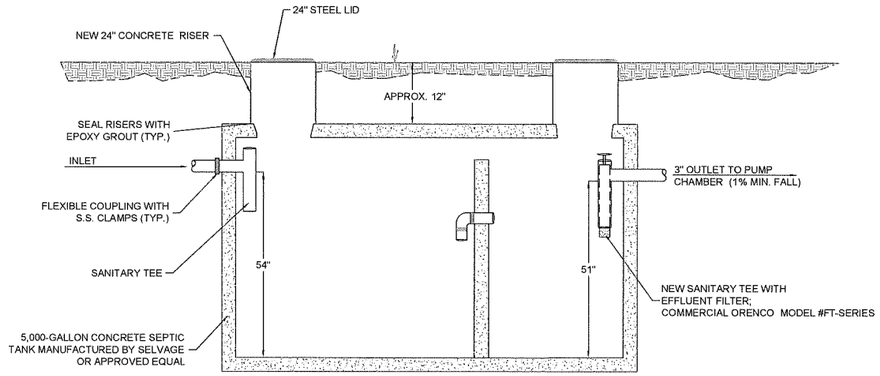
APN	193-020-38
DATE / REV.	03-27-2023 / B
SCALE/SIZE	1" = 15' / ARCHD
SHEET	2 OF 4

ON-SITE WASTEWATER SYSTEM PLAN
SITE PLAN

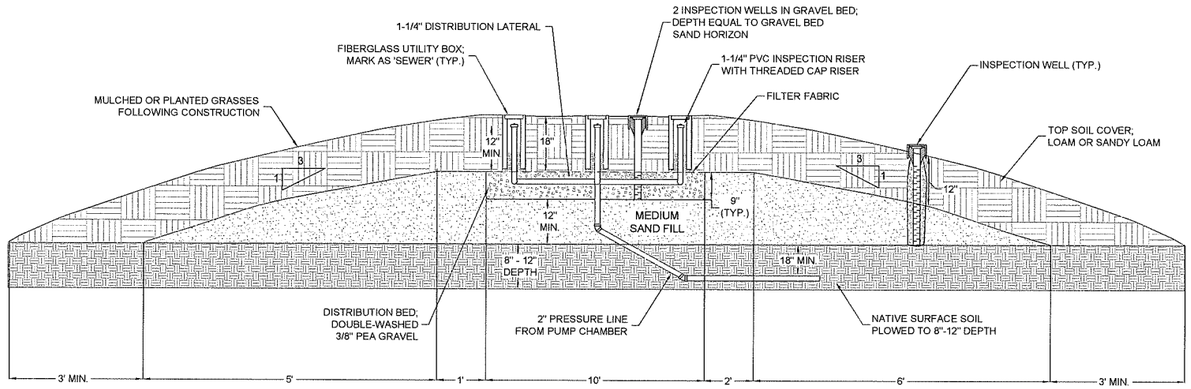
TACHERRA RANCH AFFORDABLE HOUSING PROJECT
130 MESA ROAD
BOLINAS, CALIFORNIA

NOADIAH S. ECKMAN No. 7486

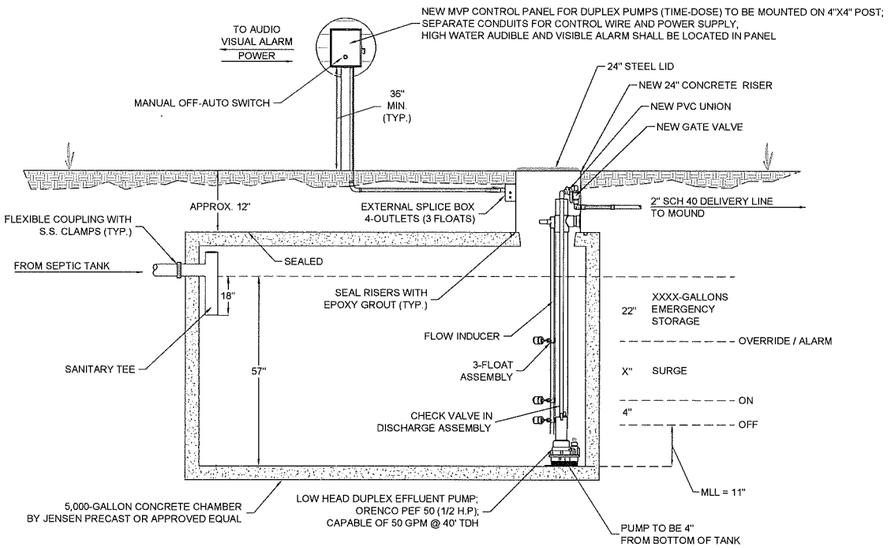
eckman environmental designs, inc
106 Shoreline Highway
Bldg. B, Suite 100
Mill Valley, CA 94941
415.895.0364



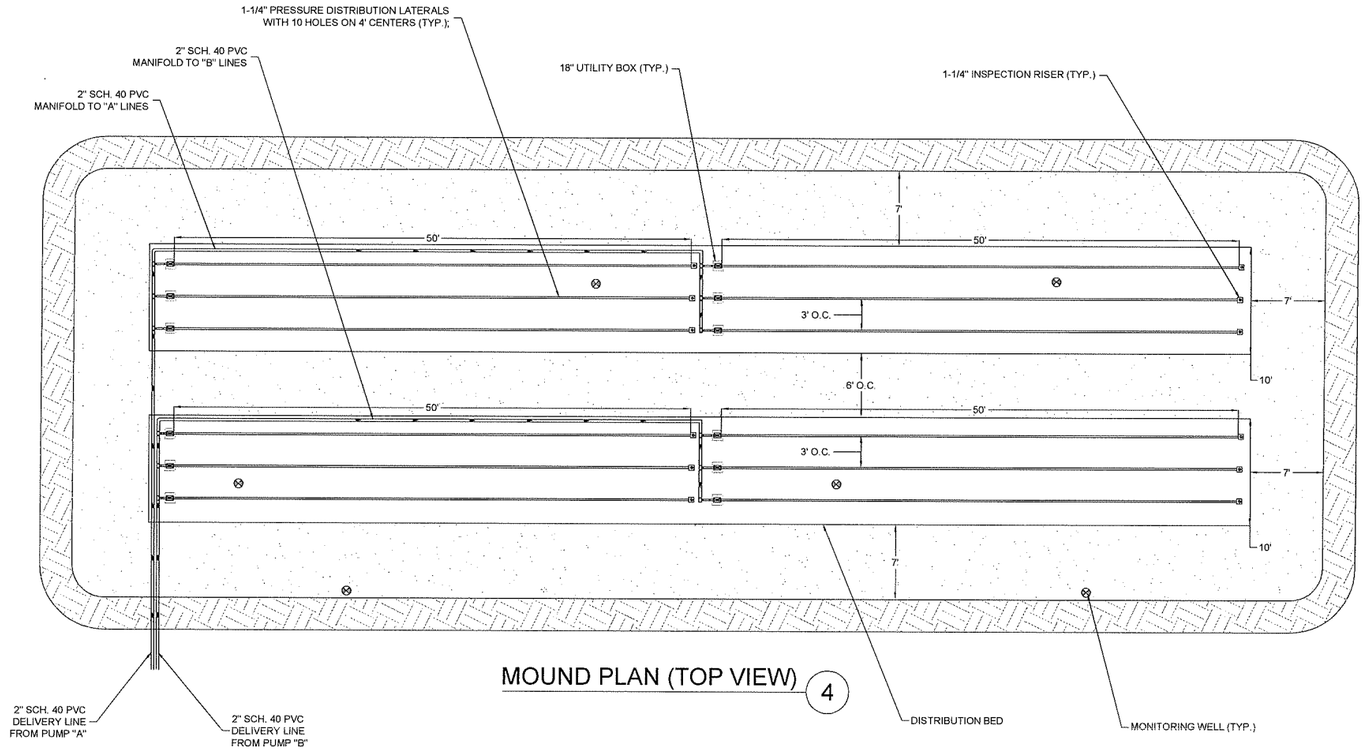
5,000-GALLON TRAFFIC-RATED CONCRETE SEPTIC TANK (1)



MOUND PLAN (CROSS VIEW) (3)



5,000-GALLON TRAFFIC-RATED CONCRETE PUMP CHAMBER (2)



MOUND PLAN (TOP VIEW) (4)

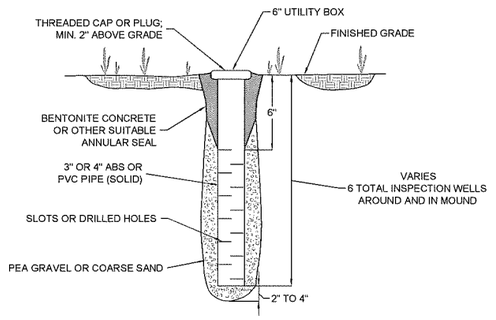
APN	193-020-38
DATE / REV.	03-27-2023 / B
SCALE/SIZE	NONE / ARCHD
SHEET	3 OF 4

ON-SITE WASTEWATER SYSTEM PLAN CONSTRUCTION DETAILS

TACHERRA RANCH AFFORDABLE HOUSING PROJECT
130 MESA ROAD
BOLINAS, CALIFORNIA

ROADIAH S. ECKMAN No. 7486 — REGISTERED ENVIRONMENTAL HEALTH SPECIALIST — STATE OF CALIFORNIA

eckman environmental designs, inc
100 Shoreline Highway
Bldg. B, Suite 100
Mill Valley, CA 94941
415.895.0364



MONITORING WELL 5

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 Orenco commercialized filter.

11. Septic Tank. (Three) 5,000-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 2,000-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, #PEF 50 , 1/2 HP or equal for the mound capable of 42 gpm and 26' TDH.

14. Control Panel. Contractor shall use Orenco control panel MVP, or equal, to control the mound pump. The 3-float configuration on the plans supports time-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.

    Effluent Pump: The pump shall be of the size and type to accommodate the intended use and shall include the following:

    a. A "Hand-off-auto" (HOA) switch.

    b. An audio and visible alarm and necessary sump water sensing device to indicate a"high water" condition.

    c. Float switches shall be anchored to a suitable float tree for controlling the starting and stopping of pump operation.

    d. The pump intake shall be set a minimum of 4 inches above the sump bottom.

    Sump:

    a. Access shall be provided by a minimum 24-inch diameter opening;

    b. All pipes and/or electrical conduits through the sump shall be either precast into the sump or sealed with gas-tight compression connectors.

    Electrical Features: The following electrical features shall be provided:

    a. An outdoor-type control box containing fused disconnect and motor protection switch.

    b. The control box may be mounted on the building served if located within 30 feet and within direct view of the sump, otherwise the control box shall be mounted on a pipe stand or wooden post.

    c. Electrical conduit shall be PVC. Separate conduits shall be provided for control wire and power supply. Separate circuits with individual breakers at the main panel shall be provided for the control panel/alarm and pump.

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 tanks and pump chamber;

Staking and layout of mound disposal area, and

Review/approval of material.

INSPECTION #2/3

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 #4

Placement of mound pea gravel in distribution bed;

Assembly and layout of mound distribution pipe network;

Placement of 2-inch pressure line;

INSPECTION #5/6

Testing of pumps and distribution systems.

Installation of monitoring wells; and,

Final fastening of pipe connections.

INSPECTION #7

Placement of filter fabric;

Placement of topsoil cover;

Final shaping of mound;

Seeding of mound; and,

Pump alarm; Confirm low flow fixtures

APN 193-020-38
DATE / REV. 03-27-2023 / B
SCALE/SIZE NONE / ARCHD
SHEET 4 OF 4

ON-SITE WASTEWATER SYSTEM PLAN
CONSTRUCTION DETAILS

TACHERRA RANCH AFFORDABLE HOUSING PROJECT
130 MESA ROAD
BOLINAS, CALIFORNIA

NOAH A. S. ECKMAN No. 7486 REGISTERED ENVIRONMENTAL HEALTH SPECIALIST STATE OF CALIFORNIA

100 Shoreline Highway
Bldg B, Suite 100
Mill Valley, CA 94941
415.895.0364
eckman environmental designs, inc