2. Pavement subgrade, the Class II Aggregate Base, shall have a relative compaction of at least 95%.

3. Where paving subgrade is in existing fills or stockpiled material, all fills should be excavated to firm native soils, replaced as engineered fill and compacted to at least 95 percent relative compaction. The upper 12 inches of roadway subgrade should be compacted to 95 percent relative compaction per ASTM Test Designation D1557-91, to create a firm, smooth and essentially unyielding surface.

4. Where fills are placed to develop paving subgrade, any loose surface soils present at existing grade shall be scarified and compacted for their full depth prior to placement of additional fill.

5. All excess soil material, stumps, and boulders shall be removed and disposed of in accordance with County grading ordinance as they may

6. All grading shall be performed in accordance with 2013 CBC, Appendix J.

7. The owner shall have the Geotechnical Engineer of record observing all

compaction and embankment work, including off-site construction. 8. Strippings to be used on the project as directed by the Geotechnical

Engineer and the Landscape Architect. 9. All pads must be built to a tolerance of plus or minus 0.1 feet from

planned pad elevation. 10. After the grading operation is well underway and it is apparent that strict conformance with the grading plan will not result in an earthwork balance, (import/export) the information for pad adjustment shall be taken into

consideration after consulting with Adobe Associates, Inc. The contractor shall not deviate from the design elevations (with tolerance) without the approval of Adobe Associates, Inc. If import material is needed, it shall meet the requirements of the geotechnical report. 11. The Contractor shall perform earthwork calculations which account for his/her proposed methods of grading and trenching as he/she deems

necessary for bidding and construction purposes. It shall be the sole responsibility of the contractor to balance the earthwork of this project and to account for the cost of any necessary importing or exporting of earth in his/her bid. No additional compensation will be allowed for this item of work unless the owner requests additional work be performed.

12. Any off-haul shall be disposed of in a legal manner.

13. Construction materials, equipment, vehicles, and debris boxes shall be placed to minimize obstruction of roads and gutters, shall be maintained in a clean and safe condition, and shall not be maintained in a manner that becomes a nuisance to the neighborhood. Debris Boxes in the County right-of-way will require an Encroachment Permit from the Department of

14. Dumping of residues from washing of painting tools, concrete trucks and pumps, rock, sand, dirt, agricultural waste, or any other materials discharged into the City storm drain system that is not composed entirely of storm water is prohibited. Liability for any such discharge shall be the responsibility of person(s) causing or responsible for the discharge.

#### **CONSTRUCTION NOTES:**

1. All materials, workmanship and construction shall conform to the County of Marin Uniform Construction Standards, most recent edition.

2. The location of existing underground utilities as shown on these plans, are based on the best information available; however, the County of Marin and Adobe Associates, Inc. assume no responsibility for the accuracy of the information shown, or for the inadvertent omission of any such information. The contractor shall cooperate with all utility companies and other contractors working within the limits of this project.

3. The contractor shall secure all Encroachment Permits from the County of Marin, and any other applicable agencies.

4. The contractor shall secure a Trench Permit from the California Division of Industrial Safety prior to excavation of any trench over five (5) feet in

5. UNDERGROUND SERVICE ALERT (USA) call toll free 800-642-2444 at least 48 hours prior to any excavation.

6. Contractor shall coordinate undergrounding of all utilities such as cable TV,

telephone, and electricity with the appropriate utility company.

7. All underground improvements shall be installed and approved prior to

8. All grading shall be performed in accordance with Appendix J, CBC Latest Edition, and as required by the Project Soils Report.

9. Only County of Marin Utility personnel shall operate valves on existing water mains and water services. 10. There shall be no unmetered connections to the Public water system, including connections bypassing meter for testing onsite plumbing or for

obtaining construction water. Such connections shall be severed by the

Water Utility and will result in penalties including payment of fines and 11. Service laterals other than those shown or noted on the plans shall not

be installed prior to obtaining County approval.

12. Horizontal and Vertical reference points should be established by the contractor and checked frequently until the project is completed.

13. No mass grading is permitted from October 15 through April 15 without the approval of the County Engineer.

14. Acceptance of Responsibility: It is understood and agreed that the Owner and the Contractor jointly accept the responsibility for all work and conditions relating to this grading permit.

#### CONST. NOTES CONT'D:

15. No Precedent Established This permit is granted with the understanding that this action is not to be considered as establishing any precedent based on this permit with reference to any other future permit.

16. Keep Permit Onsite: This permit shall be kept at the site of the work and must be shown to any representative of the Department of Public Works or any law

17. The permittees shall, whenever the same is required by any law, secure an encroachment permit, use permit or any other permit required by a public board having jurisdiction, and this permit shall not be considered in operation unless and until such permit is obtained.

18. The Contractor shall notify the County of Marin Department of Public Works 24 hours in advance of any site work to be done under this

19. Fill areas shall be stripped and benched to receive fill.

20. Cut slopes shall be no steeper than 2:1 unless otherwise specified.

21. All slopes are to be protected from erosion. 22. Cut slopes shall be rounded at their intersection with existing ground in order to provide a curved transition.

23. Immediately following grading operations all newly formed slopes shall be seeded as directed by the Department of Public Works.

24. All newly formed slopes shall be landscaped in accordance with landscaping plans as approved by the planning department.

25. Where necessary, check dam, temporary siltation basin, or other devices or methods shall be employed to control erosion and provide safety. These devices shall be designed, installed and made functional, prior to

26. Fill material may consist of soil and rocks of 6" maximum dimension. No trash, brush, garbage, logs, stumps, metal or other deleterious material

27. The finished grading shall be such that no water or erodible material is diverted into private or public property causing a nuisance or damage.

28. If the work herein contemplated shall interfere with the established drainage, ample provision shall be made by the Contractor to provide for it as may be directed by the Department of Public Works.

29. Prior to any grading or work over or near underground public facilities (storm drains, sewers, conduits, structure, etc.) the location of such facilities must be established in the field by the Contractor. Approval of such grading, work and methods must be obtained from the Las Gallinas Valley Sanitary District for all work related to sewers and the Department of Public Works for all other public facilities. The Contractor shall exercise reasonable care when working over or near such public facilities and in the event of any damage to these facilities shall immediately contact the Department of Public Works, Telephone: 415-473-6530 or the Las Gallinas Valley Sanitary District for all sewer related issues at: 415-472-1734.

30. The County of Marin assumes no responsibility for any grading done outside the limits of work as shown on the site plan or grading plan.

31. Trucks used in this grading operation shall be limited to the 3 axle type, unless otherwise specified.

32. The Contractor shall repair any damage to any County streets from the grading done outside the limits of work as shown on the site plan or grading plan.

33. During periods of rain, grading operations shall be so conducted as to keep a minimum of disturbed area open at any time: check dams, diversion ditches, flumes energy dissipaters or other devices shall be constructed and maintained as necessary and required by the Department

34. The Contractor shall be responsible for the immediate cleanup of any material which spills on County streets as a result of the grading and hauling operation.

35. There shall be no disruption to local traffic movements as a result of the grading or hauling operation and necessary facilities for traffic safety must be provided by the Contractor where necessary, and as required by the Department of Public Works.

36. Flag persons must be provided by the Contractor at such locations and times as necessary and as required by the Department of Public Works.

37. The Contractor must provide water facilities and employ all measures necessary and as required by the Department of Public Works to keep the dust nuisance to a minimum.

38. The work authorized by this permit shall be completed before the date specified. Failure to complete within the specified time shall be cause for forfeiture of the bond unless extension has been approved prior to the

39. The Permittees are responsible for all liability for personal injury or property damage which may arise out of work herein permitted, or which may arise out of failure on the Permittees' part to perform their obligations under this permit in respect to maintenance. In the event any claim of such liability is made against the County of Marin or any department officer or employee thereof, Permittees shall defend, indemnify and hold harmless from such claim.

40. The Contractor shall obtain permission to enter from all private property owners prior to entry thereon.

41. The Department of Public Works reserves the right to amend, change, or remove said conditions of permit as issued during the life of said permit due to unforeseen or overlooked conditions, said amended conditions to have the same force and effect as the original conditions.

42. A Civil engineer, soil engineer, and/or engineering geologist will be employed to give technical supervision, make inspections of the work, and provide complete reports.

43. Noncompliance as to written certification from the Soils Engineer, Civil Engineer, and Engineering Geologist, shall be cause to suspend, hold or not issue Building Permits on property involved under this Grading Permit until such certification is received by the Department of Public Works.

44. Failure to comply with all the aforementioned conditions will be cause for the cancellation of this grading permit and forfeiture of the bond.

46. All trucks entering or leaving the site with materials shall be loaded in a

Spillage resulting from hauling operations along or across any public

manner which will prevent dropping of materials or debris on the streets.

45. All construction staging shall occur on—site or another site with appropriate approvals from property owner. No staging shall occur on County right-of-way without review and approval of the Public Works

traveled way shall be cleaned immediately.

entrance.

CONST. NOTES CONT'D:

47. If archaeological, historic, or prehistoric resources are discovered during construction, construction activities shall cease, and the Community Development Agency staff shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may occur in compliance with State and Federal law. A registered archeologist, chosen by the County and paid for by the applicant, shall assess the site and shall submit a written report to the Community Development Agency staff advancing appropriate mitigations to protect the resources discovered. No work at the site may recommence without approval of the Community Development Agency staff. All future development of the site must be consistent with findings and recommendations of the archaeological report as approved by the Community Development staff. If the report identifies significant resources, amendment of the permit may be required to implement mitigations to protect resources. Additionally, the identification and subsequent disturbance of an Indian midden requires the issuance of an excavation permit by the Department of Public Works in compliance with Chapter 5.32 (Excavating Indian Middens) of the County Code.

48. All construction activities shall comply with the following standards:

a. Construction activity is only permitted between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. and 5:00 p.m. on Saturday. No construction shall be permitted on Sundays and the following holiday (New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day). Loud noise—generating construction—related equipment (e.g., backhoes, generators, jackhammers) can be maintained, operated, or serviced at the construction site from 8:00 a.m. to 5:00 p.m Monday through Friday only. Minor jobs (e.g., painting, hand sanding, sweeping) with minimal or no noise impacts on the surrounding properties are exempted from the limitations on construction activity. At the applicant's request, the Community Development Agency staff may administratively authorize minor modifications to these hours of construction.

b. It shall be the responsibility of the applicant to ensure that all construction materials and equipment are stored on—site (or secured at an approved off—site location) and that all contractor vehicles are parked in such a manner as to permit safe passage for vehicular, pedestrian, and bicycle traffic at all

49. The applicant/owner hereby agrees to defend, indemnify, and hold harmless the County of Marin and its agents, officers, attorneys, or employees, to attack, set aside, void, or annul an approval of this application, for which action is brought within the applicable statute of limitations.

50. Any changes or additions to the project shall be submitted to the Community Development Agency in writing for review and approval before the contemplated modifications may be initiated. Construction involving modifications that do not substantially comply with approval, as determined by the Community Development Agency staff, may be required to be halted until proper authorization for the modifications are obtained by the

51. Per MCC 24.04.016, if construction activity, equipment, vehicles and/or material delivery and storage cause damage to any existing facility (e.g., pavement, curb, gutter, sidewalk, landscaping) beyond normal wear and tear, as determined by the agency, then the permittee shall be responsible for the repair of same.

52. Per MCC 23.18.093 any construction contractor performing work in the county shall implement appropriate BMPs to prevent the discharge of construction wastes or contaminants from construction materials, tools and equipment from entering a county storm drain system. In addition: all construction plans submitted to the county pursuant to any permit application shall consider the potential for erosion and sedimentation at the construction site and shall comply with county code Sections 24.04.625 and 24.04.627.

53. Erosion control measures shall be installed prior to site disturbing activities, and shall be maintained or modified to remain effective for the duration of the work.

54. Before issuance of a building permit, provide a complete drainage and grading plan, including both existing and proposed drainage features and improvements. The plan shall be prepared by a licensed professional engineer or by a registered architect, and shall bear the preparer's signature and stamp. The plan shall incorporate recommendations from the Geotechnical Engineer. The plan shall also indicate to where all of the retaining wall backdrains will discharge and shall show the configuration of piping, pipe size, location and type of dissipater for these drains. The proposed trench drain shall indicate and label the limit of disturbance, provide the square footage of the area to be disturbed and the

volumes of cut and fill for the proposed work. 55. Before issuance of a building permit for work to be performed between October 15 and April 15, submit Erosion and Siltation Control plans or indicate erosion control and debris barrier measures on site plan. You may refer to the Marin Stormwater Pollution Prevention Program's website, for suggested methods and measures under Resources for: Construction. The plan shall also indicate construction staging area, means of access to areas of new excavation and construction, and a stabilized construction

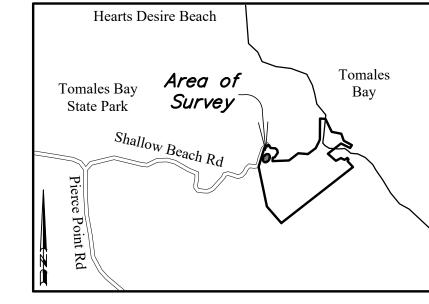
56. Adobe Associates, Inc shall certify to the County in writing upon the completion of work that all grading and drainage improvements were installed in accordance with the approved plans and field direction. Written certification of retaining wall construction shall be provided by <u>C. Utzman</u>, <u>P.E.</u>. Be aware that a DPW/Engineer shall inspect and accept work after receipt of certification letter. Certification letters shall reference building permit number or numbers for specific work being certified, the address of the property and the Assessor's Parcel Number (APN), shall be signed and stamped by the certifying professional.

> Contractor shall use Adobe Associates. Inc. construction staking services to maintain quality assurance for the project improvements included within these plans. Contractor shall submit request for construction staking services to Adobe Associates, Inc. 48 hours in advance.

# SHALLOW BEACH WATER STORAGE TANKS

Shallow Beach, California

APN 109-410-11



**VICINITY MAP** 

NOT TO SCALE

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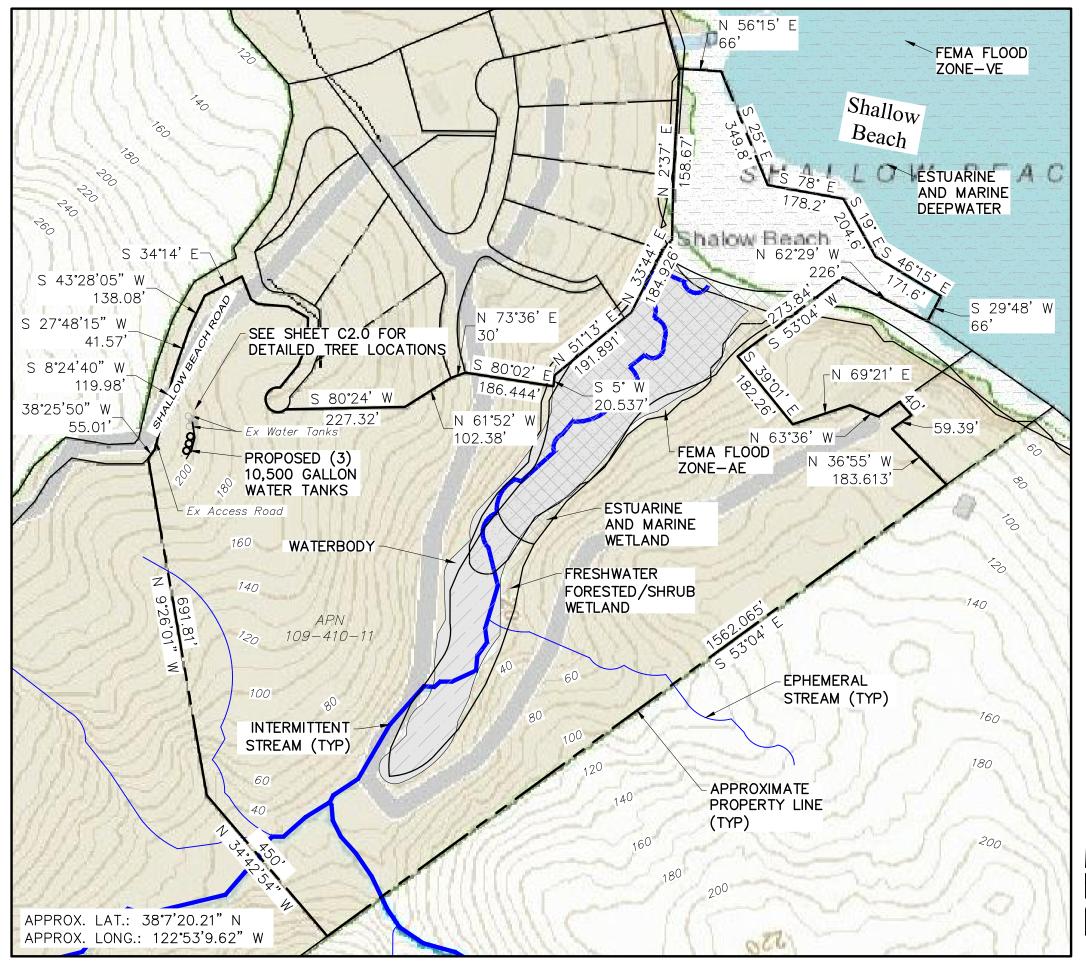
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**B** 



**OVERALL SITE PLAN** SCALE: 1" = 200'

### **LEGEND**

PROPOSED EXISTING DESCRIPTION DRAINAGE SWALE DAYLIGHT LINE \_\_\_\_\_\_200\_\_\_\_ - - 200 - - INDEX CONTOUR \_\_\_\_\_ 201 \_\_\_\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ 201 \_ \_ \_ \_ INTERMEDIATE CONTOUR GRADE BREAK W/

SLOPE SYMBOL

**OWNER INFO** 

BEN CAMPANILE 1290 BODEGA AVE. PETALUMA, CA 94952 (707)-762-1473

### **DESIGNER INFO**

ADOBE ASSOCIATE, INC 1220 N. DUTTON AVE SANTA ROSA, CA 95401 (707)-541-2301

#### **PURPOSE STATEMENT:**

THIS PROJECT PROPOSES THE CONSTRUCTION OF THREE 10,500 GALLON WATER TANKS.

## SHEET INDEX

C1.0 TITLE SHEET C2.0 GRADING & DRAINAGE PLAN C3.0 CONSTRUCTION DETAILS C4.0 BUILDING ELEVATIONS S1 STRUCTURAL NOTES S2 FOUNDATION PLAN

#### **TOPOGRAPHIC DATA:**

CONTOUR INTERVAL: 2 FEET

VERTICAL DATUM: ASSUMED

BENCHMARK: CONTROL POINT #2: SET 1/2" REBAR WITH RED CAP. THIS ELEVATION IS ON NAVD 1988 DATUM OBSERVED WITH STATIC GPS OBSERVATIONS AND OPUS CORRECTION.

THE FIELDWORK FOR THIS TOPOGRAPHIC MAP WAS CONDUCTED BY ADOBE ASSOCIATES, INC. ON JULY 31, 2023. THE TOPOGRAPHIC ELEMENTS SHOWN HEREON REFLECT THE SITE CONDITIONS EXISTING AT THAT TIME. (FOR DETAILED INFORMATION SEE SURVEYORS PLANS).

#### **ABBREVIATIONS**

AAI ADOBE ASSOCIATES, INC. INVERT GRADE AC ASPHALT CONCRETE LINEAR FEET AD ARFA DRAIN MAX MAXIMUM BLDG BUILDING ME MATCH EXISTING MH MANHOLE BM BENCH MARK BW BACK OF WALL MIN MINIMUM CD CHANNEL DRAIN NTS NOT TO SCALE CLASS NO NUMBER PROPERTY LINE CENTERLINE POWER POLE CMP CORRUGATED METAL PIPE PUE PUBLIC UTILITY EASEMENT CO CLEANOUT RCE REGISTERED CIVIL ENGINEER CONC CONCRETE DI DROP INLET RCP REINFORCED CONCRETE PIPE DWG DRAWING R/W RIGHT OF WAY DWY DRIVEWAY SLOPE, SOUTH EXISTING GROUND SAD SEE ARCHITECTURAL EDGE OF PAVEMENT DRAWINGS ELEVATION SCH SCHEDULE EXISTING STORM DRAIN SQUARE FEET FLOWLINE FINISH GRADE SANITARY SEWER FIRE HYDRANT STD STANDARD FINISHED SURFACE TOP OF CURB

TYPICAL

WATER. WEST

#### GRADING QUANTITIES:

GB GRADE BREAK

No account has been taken for strippings, expansion or contraction. Volumes should be verified and determined independently by the contractor. <u>CUT</u> <u>FILL</u> 92 CY O CY 92 CY [CUT] Excess material to be off-hauled to an approved location

Site Grading is based upon subgrade to existing grade.

or placed onsite under the direction of the project

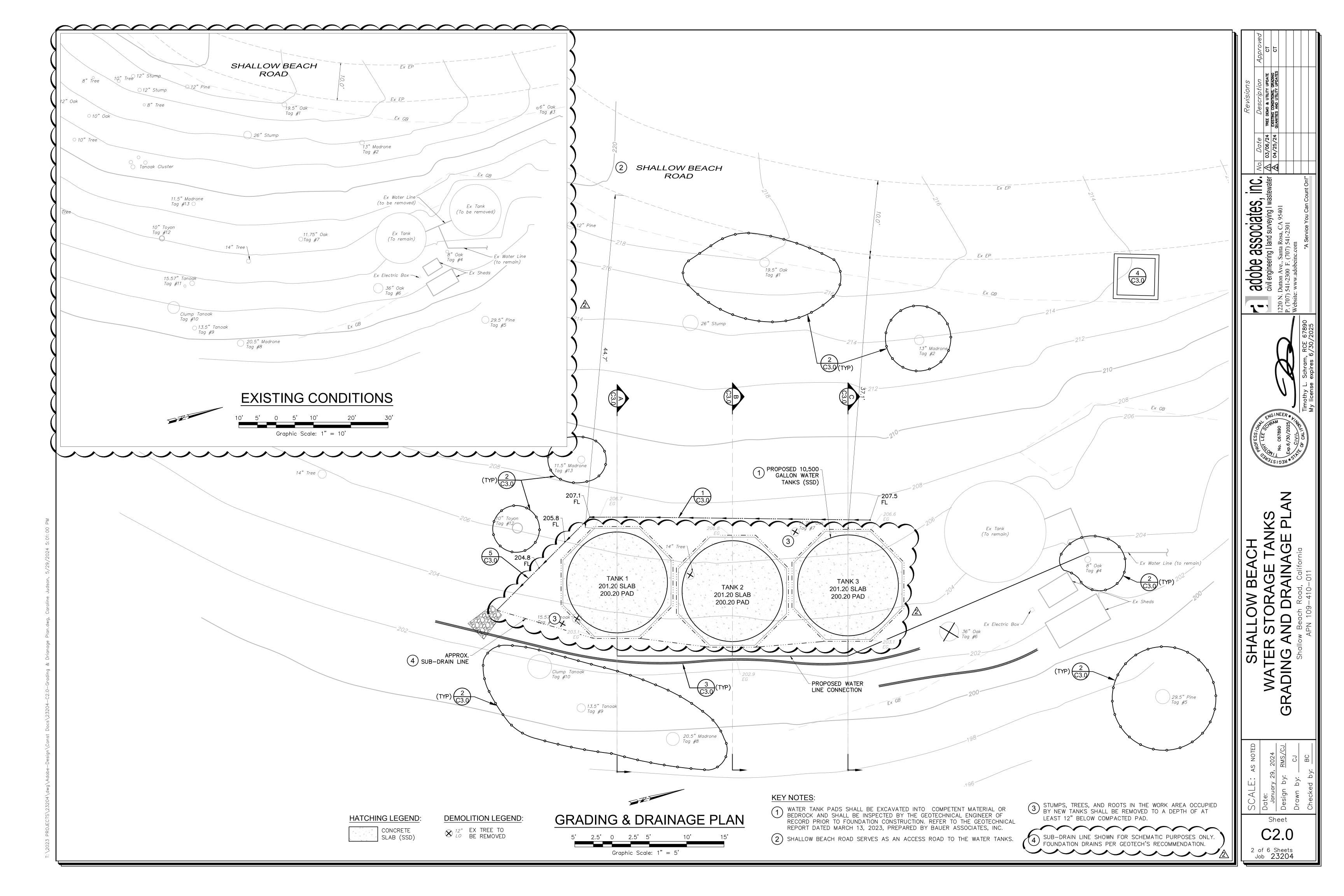
Soils Engineer. Earth materials placed onsite not shown on these plans may require revisions(s) to the grading permit. Area of Disturbance = 0.03 Acres

Existing Lot Area = 31.80 Acres

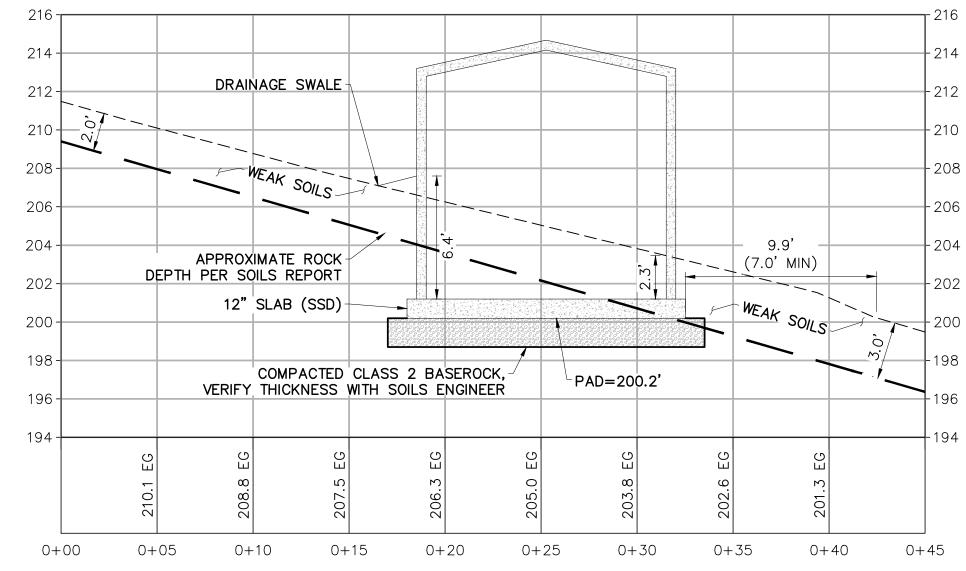
Existing Lot Coverage - Impervious = 338.24 SF Proposed Lot Coverage - Impervious = 618.08 SF

Sheet

of 6 Sheets Job 23204



214 -DRAINAGE SWALE - 210 208 -10.7 204 -APPROXIMATE ROCK-(7.0' MIN)DEPTH PER SOILS REPORT 202 -WEAK SOILS 12" SLAB (SSD)-198-COMPACTED CLASS 2 BASEROCK, <sup>∟</sup>PAD=200.2' VERIFY THICKNESS WITH SOILS ENGINEER 194 -0 + 250 + 300+000+050+100+15 0 + 200 + 350 + 400 + 45Section B



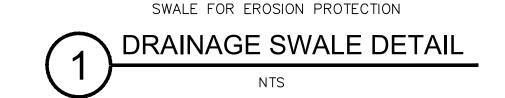
LEGEND: 2.5' 0 2.5' 5' —— FINISHED GRADE Graphic Scale: 1" = 5' ---- EXISTING GRADE

Section C 2.5' 0 2.5' 5' Graphic Scale: 1" = 5'

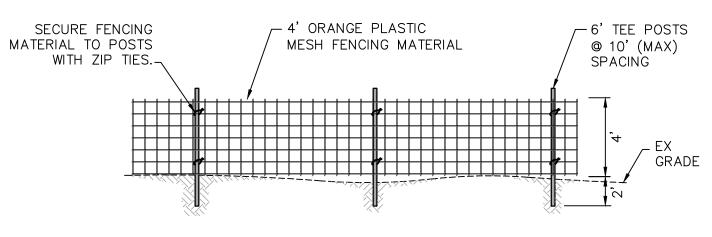
- FINISHED GRADE

LEGEND:

---- EXISTING GRADE

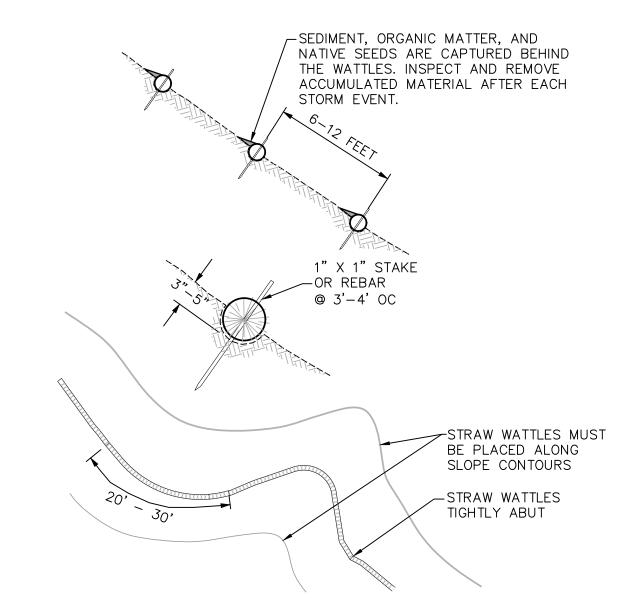


NOTE: PLACE GRASS MAT ON



TREE PROTECTION FENCING





2.5' 0 2.5' 5'

Graphic Scale: 1" = 5'

- 1. STRAW WATTLES ARE TUBES MADE FROM STRAW AND BOUND W/ BIO-DEGRADABLE WRAPPED NETTING. THEY ARE APPROXIMATELY 8" DIA AND 20 - 30 FT LONG.
- 2. STRAW WATTLES TRAP SEDIMENT AND REDUCE SHEET & RILL EROSION BY REDUCING SLOPE GRADIENT, INCREASING INFILTRATION RATES AND BY PRODUCING A FAVORABLE ENVIRONMENT FOR PLANT ESTABLISHMENT.
- 3. STRAW WATTLE INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE WATTLE IN A TRENCH, 3" - 5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND WATTLE.

#### STRAW WATTLES (CONSTRUCTION SPECIFICATIONS)

— FINISHED GRADE

---- EXISTING GRADE

PREPARE SLOPE BEFORE THE WATTLING PROCEDURE IS STARTED. SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.

DIG SMALL TRENCHES ACROSS SLOPE ON CONTOUR, TO PLACE WATTLES IN. THE TRENCH SHOULD BE DEEP ENOUGH TO ACCOMMODATE HALF THE THICKNESS OF THE WATTLE. WHEN THE SOIL IS LOOSE AND UNCOMPACTED, THE TRENCH SHOULD BE DEEP ENOUGH TO BURY THE WATTLE 2/3 OF ITS THICKNESS BECAUSE THE GROUND WILL SETTLE. IT IS CRITICAL THAT WATTLES ARE INSTALLED PERPENDICULAR TO WATER MOVEMENT, PARALLEL TO THE SLOPE CONTOUR.

START BUILDING TRENCHES AND INSTALL WATTLES FROM THE BOTTOM OF THE SLOPE AND WORK UP.

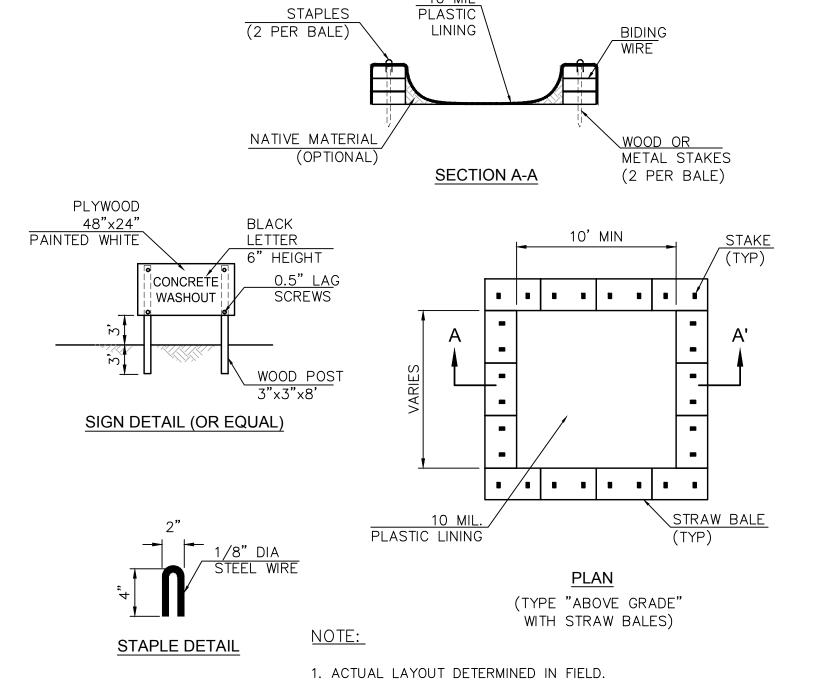
CONSTRUCT TRENCHES AT CONTOUR INTERVALS OF THREE TO EIGHT FEET APART DEPENDING ON STEEPNESS OF SLOPE. THE STEEPER THE SLOPE, THE CLOSER TOGETHER THE TRENCHES.

LAY THE WATTLE ALONG THE TRENCHES FITTING IT SNUGLY AGAINST THE SOIL. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE STRAW WATTLE.

USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE WATTLE AND INTO THE SOIL FOR THE WOODEN STAKES.

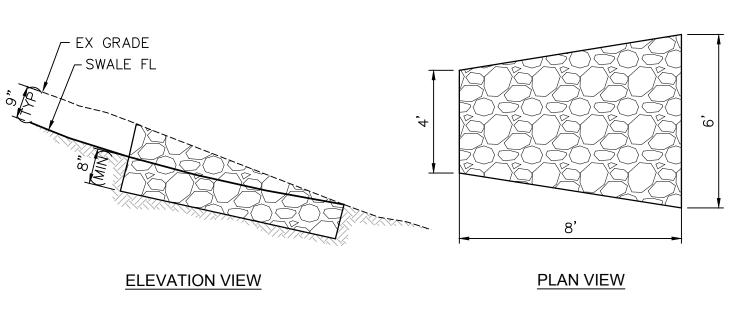
DRIVE THE STAKE THROUGH THE PREPARED HOLE INTO THE SOIL. LEAVE ONLY ONE OR TWO INCHES OF STAKE EXPOSED ABOVE WATTLE.

INSTALL STAKES AT LEAST EVERY FOUR FEET APART THROUGH WATTLE. ADDITIONAL STAKES MAY BE DRIVEN ON THE DOWNSLOPE SIDE OF THE TRENCHES ON HIGHLY EROSIVE OR VERY STEEP SLOPES.



2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY





PLACE ROCK PER CALTRANS SECTION 72 METHOD B, (CLASS NO 3)

**ROCK RIP-RAP** SWALE OUTFALL PROTECTION DETAIL NTS

STRAW WATTLE

Sheet

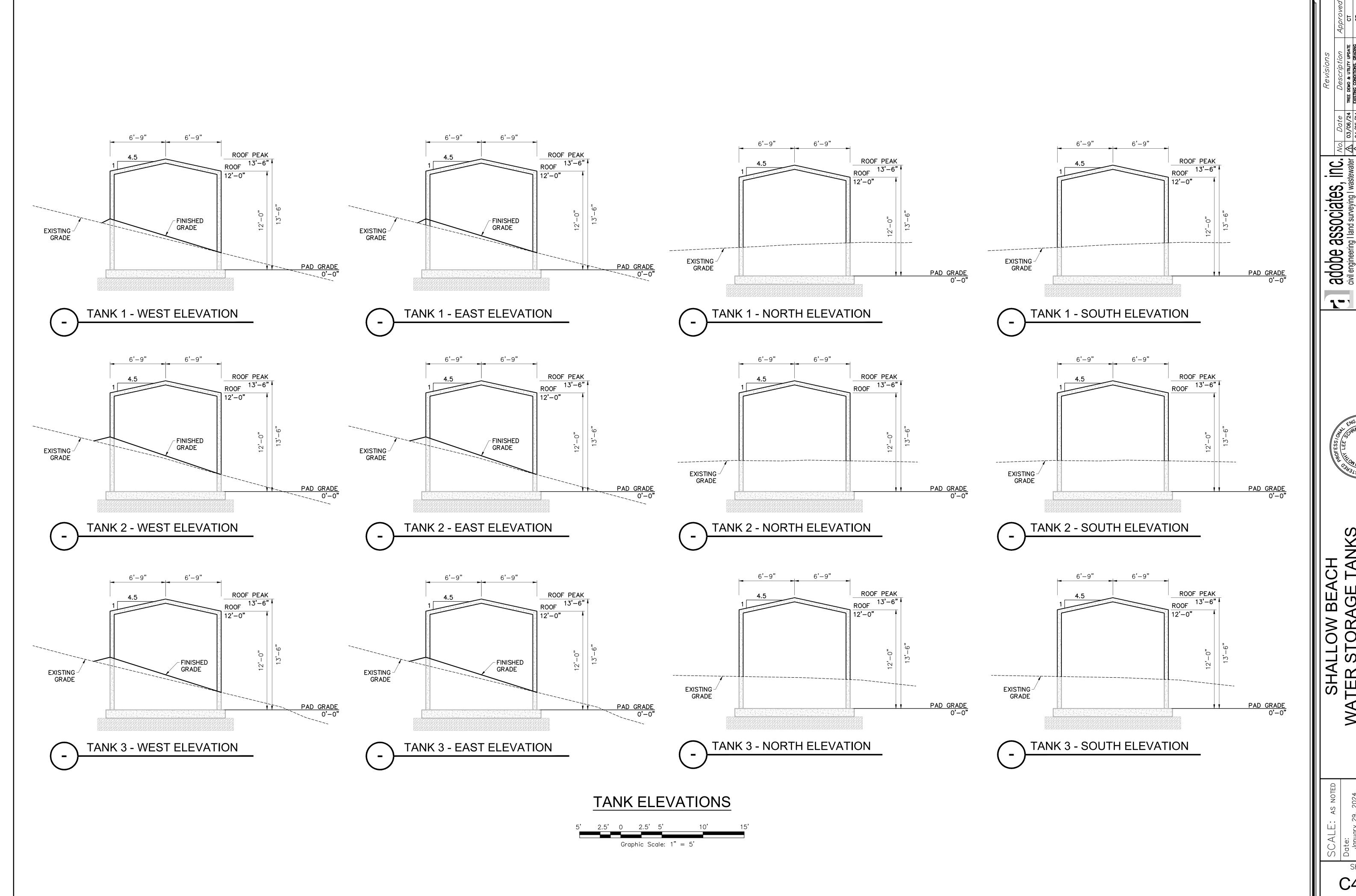
3 of 6 Sheets Job 23204

TANK ETAILS

<u>2</u>

associates, ring I land surveying I wast

adobe civil engineerin Dutton Ave., Sa 541-2300 r



No. Date

03/06/24

04/25/24

Sheet

4 of 6 Sheets Job 23204

#### **GENERAL NOTES:**

- 1. SITE CONDITIONS REQUIRING DIFFERENT CRITERIA SHALL BE REVIEWED AND APPROVED BY GEOTECHNICAL ENGINEER BASED UPON SPECIFIC SITE TOPOGRAPHY AND SOILS CONDITIONS.
- TANK DESIGN FOR NORTHERN CALIFORNIA, INCLUDING SONOMA, MARIN, LAKE, SOLANO, NAPA & MENDOCINO COUNTIES USES THE FOLLOWING SEISMIC VALUES (SEE ATTACHED GEOTECHNICAL REPORT & REVIEW LETTER BY BAUER ASSOCIATES, INC. DATED MAY 13, 2023 AND OCTOBER 25, 2023):
  - 2.1.  $S_S = 2.47$  (MAX) USED FOR DESIGN (ACTUAL VALUE = 2.411)
  - 2.2. S1 = 1.04 (MAX) USED FOR DESIGN (ACTUAL VALUE = 1.011)
  - 2.3. SITE CLASSIFICATION B
  - 2.4. SITE SOILS SHALL BE CLASS 1, 2, 3, OR 4 OF 2022 CBC TABLE 1806.2. SUBJECT TO GEOTECHNICAL REVIEW.
  - 2.5. ROOF LIVE LOAD = 20 PSF
  - 2.6. RESPONSE COEFFICIENT (SDS) = 1.647G
  - 2.7. RESPONSE COEFFICIENT (SD1) = 1.05G
  - 2.8. IMPORTANCE FACTOR (I) = 1.25
  - 2.9. Ri = 2.25 ANCHORED; = 3.25, IF BURIED
  - 2.10. Rc = 1.0
  - 2.11. RISK CATEGORY = III
  - 2.12. SEISMIC DESIGN CATEGORY = D
  - 2.13. BASIC SEISMIC FORCE RESISTING SYSTEM = CONCRETE SHEARWALL PER ACI 350.3-06
  - 2.14. DESIGN BASE SHEAR ANCHORED V = 106,080 # (10,500 GAL TANK)
  - 2.15. Cw = 0.1625 (10,500 GAL TANK)
  - 2.16. Ci = 1.647 (ALL TANKS)

Cc = 0.77 (ALL TANKS)

Ct = 1.647 (ALL TANKS)

- 2.17. ANALYSIS PROCEDURE USED: ACI 305.3-06 SEISMIC DESIGN OF LIQUID CONTAINING STRUCTURES & COMMENTARY
- TANKS ARE TO BE USED FOR NON-HAZARDOUS STORAGE.
- FOUNDATIONS:
  - 4.1. FOUNDATIONS TO BE EXCAVATED TO FIRM UNDISTURBED SOIL AS REQUIRED. IN-SITU SOILS MAY BE USED UNEXCAVATED PER GEOTECHNICAL ENGINEER.
  - 4.2. MINIMUM BEARING CAPACITY FOR DESIGN OF 2000 PSF MIN., PER 2022 CBC TABLE 1806.2
  - 4.3. DRILLED PIER (IF NEEDED) MINIMUM PASSIVE RESISTANCE FOR DESIGN IS 150 PCF. SEE SHEET S2.
- UNIFORM FILL AROUND TANK, UP TO 1' FROM BOTTOM OF ROOF SLAB W/NO ADDITIONAL SURCHARGE PERMITTED. FILL TO BE PLACED IN 6"-8" UNIFORM LIFTS AROUND TANK W/APPROPRIATE SUBDRAINAGE.
- THE EDGE OF THE BOTTOM OF THE TANK SLAB SHALL NOT BE CLOSER THAN 7' TO A TOP OF BANK OR SLOPE OF BANK, OR THE GEOTECHNICAL ENGINEER SHALL BE CONTACTED TO REVIEW SITE CONDITIONS.
- CONSTRUCTION DATA:
  - OCCUPANCY GROUP = U
  - TYPE OF CONSTRUCTION = V-8
  - STORIES = 1
  - AREA OF WORK = 200 SF
  - SPRINKLERS = N/A
  - REINFORCING STEEL SHALL BE SPECIAL INSPECTED BEFORE PLACING CEMENT
- WIND DESIGN DATA
  - 8.1. V = 110 MPH
  - 8.2. Vasd = 78 MPH
  - 8.3. RISK CATEGORY = III
  - 8.4. INTERNAL PRESSURE COEFFICIENT = 1.3 (MAX)

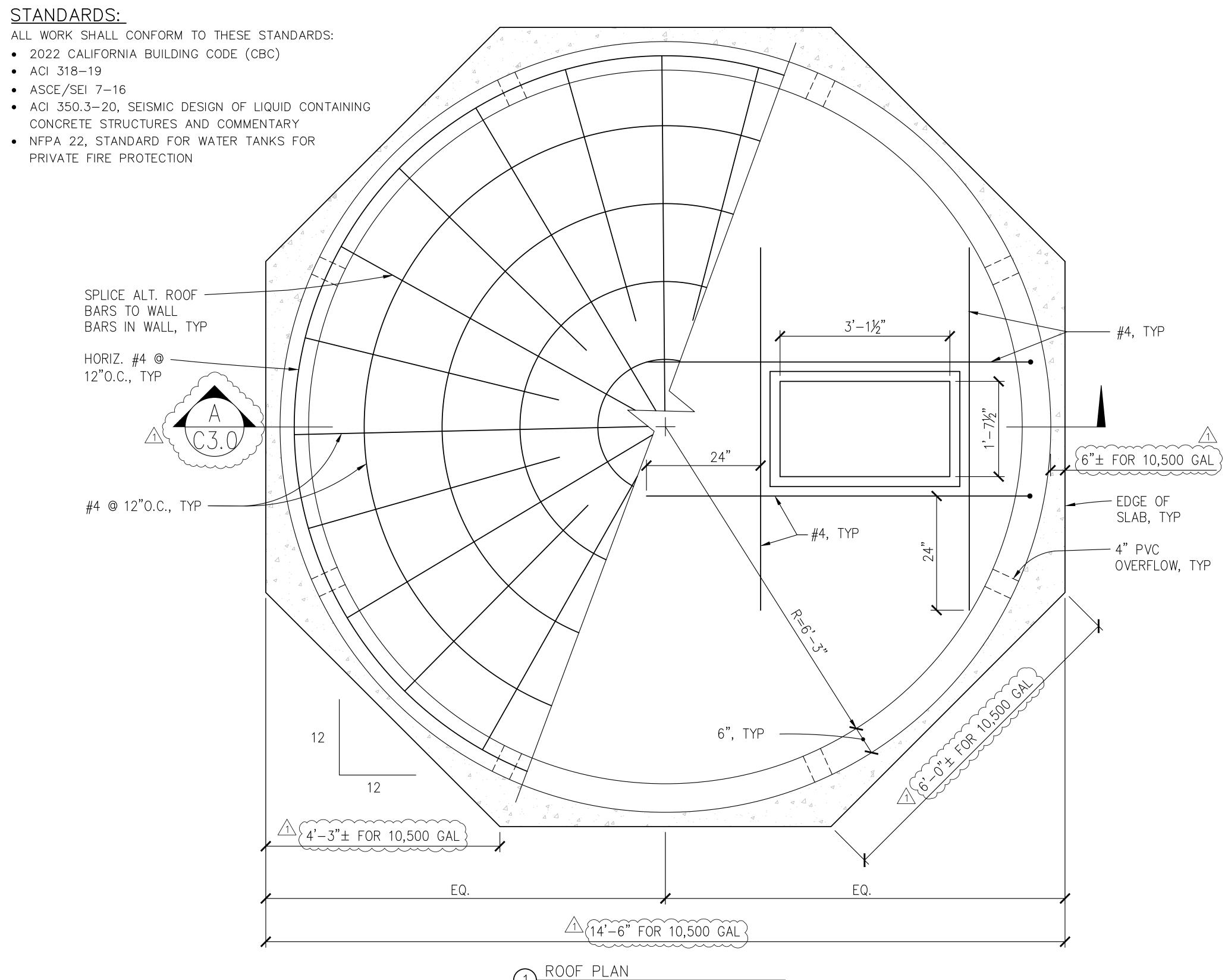
#### STRUCTURAL NOTES:

- CONCRETE: SLAB AND TANK 28 DAYS, CONCRETE STRENGTH = 2500 PSI
- 2. REINFORCING STEEL: PER ASTM A615 GRADE 40 STAGGERED ADJACENT HORIZONTAL SPLICES, LAP = 24" MIN.

#### SPECIAL INSPECTION:

SPECIAL INSPECTION IS REQUIRED FOR REINFORCED CONCRETE CONSTRUCTION AND SEISMIC RESISTANCE OF FOUNDATION AND TANK PER 2022 CBC 1705.3 & 1705.8. BEFORE A PERMIT CAN BE ISSUED, SIGN AND SUBMIT TWO (2) COPIES OF THE REQUIRED AGENCY SPECIAL INSPECTION DOCUMENTS. SPECIAL INSPECTION (8.5x11) WILL BE PROVIDED FOR EVERY WATER TANK SIGNED BY THE ENGINEER AND THE OWNER. THE COUNTY BUILDING OFFICIAL CAN WAIVE THE SPECIAL INSPECTION REQUIREMENTS.

#### STANDARDS:



1" = 1'-0"

EBE.

RALL

SHEET SHEETS JOB No.

17019

