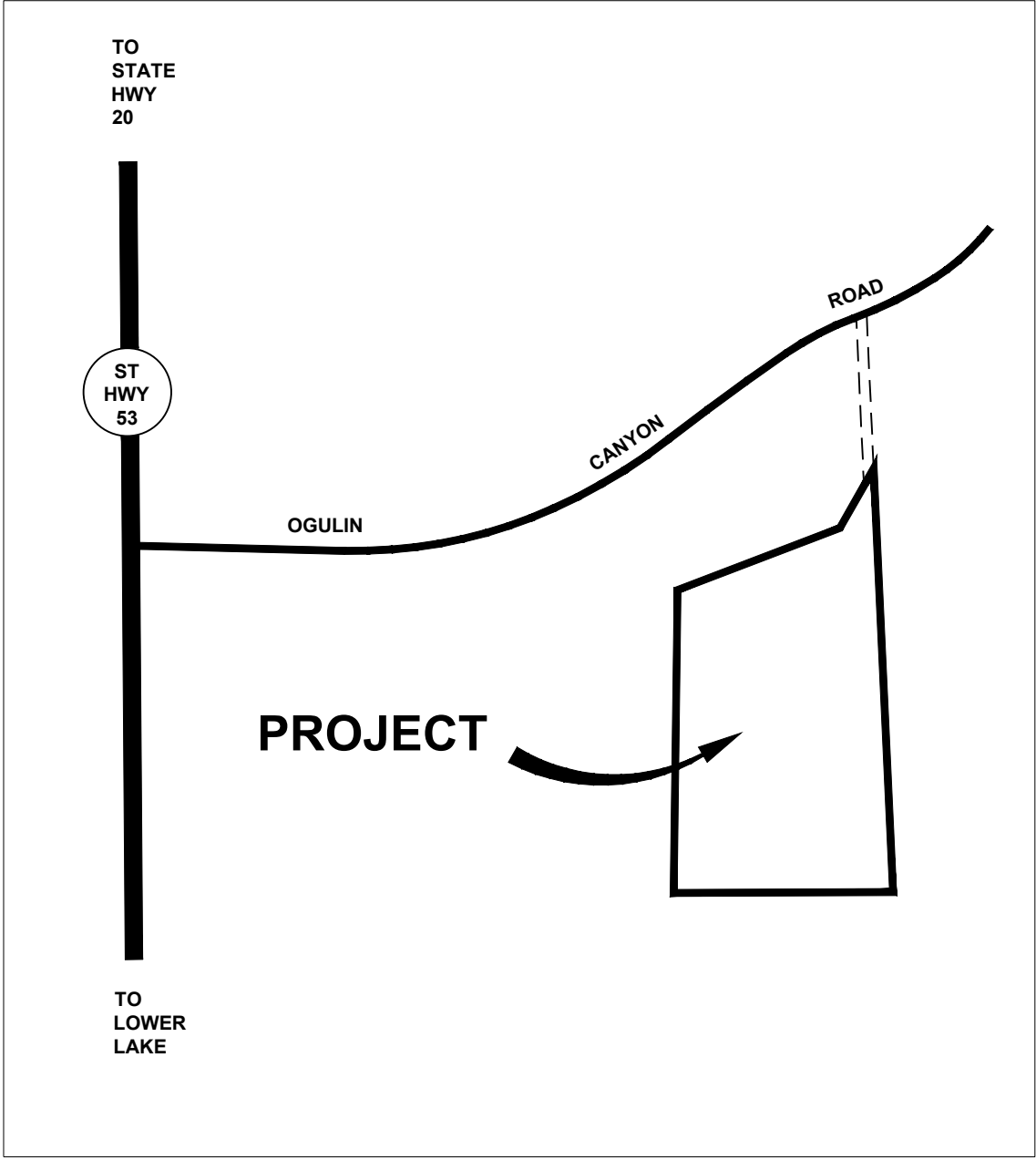




VICINITY MAP
(NTS)

CONSTRUCTION PLANS
for
SITE GRADING and DRAINAGE
for
CLEARLAKE HARVEST COMPANY, LLC

APRIL 2022

PROJECT INFORMATION

ASSESSORS PARCEL NUMBER: 010-044-19

PROPERTY ADDRESS:
2250 OGULIN CANYON ROAD
CLEARLAKE, CA 95422-8289

APPLICANT AND PROPERTY LESSEE:
CLEARLAKE HARVEST COMPANY, LLC
PHONE: (605) 393-7658

RUZICKA ASSOCIATES CONSULTING ENGINEERS
2495 PARALLEL DRIVE (P.O. BOX 1189)
MARK ANDREWS, PE
PHONE: (707) 263-6155

DRAWINGS INDEX

1. TITLE SHEET
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11. BIO-RETENTION NOTES & SPECIFICATIONS
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DEFERRED SUBMITTAL

METAL BUILDING STRUCTURAL

APPROVED:

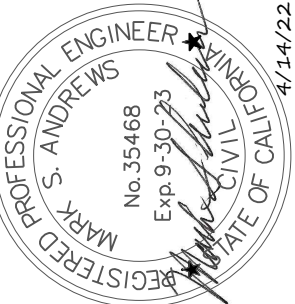
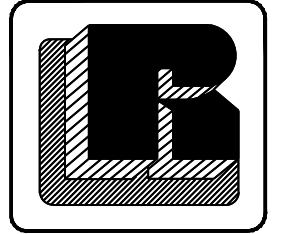
BY: _____ DATE _____
MARK S ANDREWS, PE

BY: _____ DATE _____
DAVID SWARTZ, CITY ENGINEER
RCE 52840, LS 8401

DRAFT

REVISION BLOCK				DRN BY:
REV	DATE	DESCRIPTION	BY	MSA-IAG
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				CHK'D BY: MSA 36468
				DATE: 04/14/22
				SHEET: - 4 - OF - 12 -

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CLEARLAKE HARVEST COMPANY
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA

TITLE SHEET
SITE GRADING AND DRAINAGE
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA 95422

GENERAL SPECIFICATIONS

- ALL MATERIAL WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO THE CITY OF CLEARLAKE STANDARD SPECIFICATIONS AND STANDARD PLANS, THE STATE OF CALIFORNIA STANDARD PLANS AND SPECIFICATIONS, LATEST ENGLISH UNIT EDITION.
- CONTRACTOR SHALL OBTAIN REQUIRED PERMITS FROM ALL AGENCIES AND PAY ALL AGENCY FEES PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL CONFORM WITH ZONING CODE, BUILDING CODE, AND ALL OTHER REQUIREMENTS ADMINISTERED BY THE CITY OF CLEARLAKE.
- 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 ENGINEER AND OWNER IMMEDIATELY UPON DISCOVERY. SAID NOTIFICATION SHALL BE IN WRITING.
- ITEMS SPECIFIED ON THE STANDARD PLANS ARE APPROVED FOR USE. ALL SUBSTITUTES OR ALTERATIONS SHALL BE SUBMITTED TO THE ENGINEER IN WRITING FOR APPROVAL.
- CONTRACTOR SHALL IMMEDIATELY HALT ALL GRADING/LAND-CLEARING ACTIVITIES AND CONTACT THE CITY OF CLEARLAKE IMMEDIATELY IF ARCHAEOLOGICAL, HISTORICAL OR PALEONTOLOGICAL RESOURCES ARE ENCOUNTERED, OR IN THE EVENT OF THE ACCIDENTAL DISCOVERY OF HUMAN REMAINS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PLACE 6" STRAW WATTLES AROUND ALL EXISTING STORM WATER INLETS AND SURFACE DRAINAGE BETWEEN THE CONSTRUCTION AREA AND ANY DRAINAGE COURSE DURING CONSTRUCTION TO ENSURE THAT NO CONSTRUCTION DEBRIS OR RUNOFF PASSES THROUGH. CONTRACTOR IS RESPONSIBLE FOR CLEANING AND REPLACING STRAW WATTLES AS NEEDED. IF AN EVENT OCCURS WHERE CONSTRUCTION RUNOFF IS NOT BEING CONTAINED, IT IS THE CONTRACTORS RESPONSIBILITY TO STOP WORK TO CONTAIN THE RUNOFF.
- OWNER SHALL PROVIDE COMPACTION, GRADATION, SAND EQUIVALENT AND ALL OTHER SOILS TESTS AS REQUIRED. CONTRACTOR IS LIABLE FOR ANY NON-APPROVED PLAN CHANGES. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, IN WRITING FOR REVIEW AND APPROVAL. CONTRACTOR SHALL, AT THEIR OWN EXPENSE, REMOVE AND RECONSTRUCT ANY WORK NOT IN ACCORDANCE WITH THESE PLANS.
- IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORK HOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF PROPER SHORING OF TRENCHES IN ACCORDANCE WITH THE LATEST OCCUPATIONAL SAFETY LAWS. THE DUTIES OF THE ENGINEER DO NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY, IN, ON, OR NEAR THE CONSTRUCTION SITE.
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING STRUCTURES AND/OR UTILITIES DURING CONSTRUCTION. PROPER REPAIR SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER AND THE OWNER.
- SLOPES OF ALL EMBANKMENT FILL SHALL BE NO STEEPER THAN 2:1 (HORIZONTAL-VERTICAL) UNLESS OTHERWISE NOTED ON PLANS OR AS DIRECTED BY THE ENGINEER. ATTENTION IS DIRECTED TO CALTRANS STANDARD SPECIFICATIONS, SECTION 19, FOR EMBANKMENT CONSTRUCTION WHERE APPLICABLE.
- DUST CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHALL BE FOLLOWED AS NEEDED AT ALL TIMES DURING CONSTRUCTION OPERATIONS. ENGINEER, AT THEIR DISCRETION, SHALL APPLY MANDATORY DUST CONTROL MEASURES IF NECESSARY.
- EROSION CONTROL SHALL BE PERFORMED ON ALL DISTURBED AREAS AND ON ALL EMBANKMENT CONSTRUCTION.
- ALL ELEVATIONS SHOWN ARE FINISHED ELEVATIONS UNLESS STATED OTHERWISE.

NOTIFICATION FOR INSPECTIONS

- APPROVAL OF ALL WORK SHALL BE NECESSARY AT THE COMPLETION OF EACH THE FOLLOWING STAGES OF WORK AND SUCH APPROVAL MUST BE OBTAINED BEFORE SUBSEQUENT STAGES OF WORK MAY BE COMMENCED.
- ADDITIONALLY, THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF ANY OF THE FOLLOWING STAGES OF WORK:
 - COMPACTION AND PREPARATION OF EMBANKMENTS, EXCAVATIONS, AND SUBGRADES.
 - CONSTRUCTION OF FORMS FOR ALL CONCRETE STRUCTURES.
 - EXCAVATION FOR STORM DRAINS AND CULVERTS.
 - PLACING OF CONCRETE IN STRUCTURES, INCLUDING CURBS, GUTTERS AND SIDEWALKS.
 - PLACING OF STORM DRAINS AND CULVERT PIPES. EXCAVATION AND BACKFILL FOR STRUCTURES AND PIPES.
 - PLACING AND COMPACTING OF BASE MATERIAL.
 - FINAL CLEAN-UP.
- ANY CONSTRUCTION OR EXCAVATION REQUIRING INSPECTION THAT IS UNDERTAKEN WITHOUT INSPECTION IS SUBJECT TO RECONSTRUCTION AND RE-EXCAVATION AT THE CONTRACTOR'S EXPENSE.

STANDARD GRADING NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK WITH THE ENGINEER. ALL GRADING SHALL BE PERFORMED TO THE SATISFACTION OF THE ENGINEER.
- ALL GRADED AREAS AND EXPOSED SOIL WITHIN THIS PROJECT SHALL BE SEEDED AND COVERED BY A BIODEGRADABLE COCONUT FIBER MESH BLANKETS AFTER WATTLES HAVE BEEN INSTALLED ON CONTOUR PER PLAN. A SILT FENCE SHALL BE MAINTAINED ALONG THE TOE OF THE SLOPE AND UPSLOPE OF THE EXISTING DRAINAGE CULVERTS. A SEDIMENT BARRIER SHALL BE CONSTRUCTED AROUND EACH CULVERT INLET (REFER TO SEDIMENT AND EROSION CONTROL PLAN).
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE DUST CONTROL MEASURES FOR THE ENTIRE CONSTRUCTION PERIOD OF THIS PROJECT TO THE SATISFACTION OF THE CITY OF CLEARLAKE AND AIR QUALITY MANAGEMENT DISTRICT AS APPLICABLE.
- EXCAVATED MATERIALS IN EXCESS OF WHAT IS REQUIRED FOR FILL MATERIAL SHALL BE HAULED OFF-SITE TO AN APPROVED CLEAN SOIL DISPOSAL SITE OR POSSIBLY AS FILL MATERIAL NEEDED BY A DIFFERENT PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE LAKE COUNTY ENVIRONMENTAL HEALTH DEPARTMENT AT 707-263-1164 IMMEDIATELY IF HAZARDOUS WASTE OR HAZARDOUS MATERIAL IS ENCOUNTERED DURING EXCAVATION OR GRADING OPERATIONS.
- CONTRACTOR SHALL ALSO COMPLY WITH ANY AND ALL GRADING PERMIT REQUIREMENTS ADMINISTERED BY THE CITY OF CLEARLAKE PLANNING AND BUILDING SERVICES DEPARTMENT.
- ROAD AND PARKING LOT SUBGRADE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION TO A DEPTH OF NO LESS THAN 6 INCHES.
- AS A MINIMUM, ALL GRADED AREAS AND EXPOSED SOIL WITHIN THIS PROJECT SHALL BE SEEDED FOR EROSION CONTROL BY THE CONTRACTOR. SEED AND MULCH WILL BE APPLIED BY OCTOBER 1ST TO ALL CUT AND FILL SLOPES WITHIN OR ADJACENT TO PROJECT ROADS. SEED AND FERTILIZER WILL BE APPLIED HYDRAULICALLY OR BY HAND AT THE RATES SPECIFIED. ON SLOPES, STRAW WILL BE APPLIED BY BLOWER OR BY HAND AND ANCHORED IN PLACE BY PUNCHING. ALL CRITICAL EARTHWORK OPERATIONS SHALL BE PERFORMED DURING THE DRY WEATHER SEASON, FROM MAY 1ST TO OCTOBER 1ST OR AS OTHERWISE APPROVED BY THE CITY OF CLEARLAKE. THE CLEARING OF EXISTING VEGETATION SHALL BE CONFINED WITHIN THE LIMITS OF ACTUAL EARTHWORK. STAGING OF THE WORK SHALL BE REQUIRED TO ENSURE THAT THE AMOUNT OF LAND CLEARED AT ANY TIME IS LIMITED TO THE AREA THAT CAN BE DEVELOPED DURING THE CONSTRUCTION PERIOD. STORM WATER SHALL NOT BE ALLOWED TO FLOW DIRECTLY DOWN UNPROTECTED SLOPES. ENERGY DISSIPATING STRUCTURES AND EROSION CONTROL DEVICES SHALL BE PLACED AT ALL DRAINAGE OUTLETS WHICH DISCHARGE TO NATURAL CHANNELS AS SHOWN ON THESE PLANS. ALL SEDIMENT TRAPS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL SUCH TIME THAT THE OWNER AND CITY OF CLEARLAKE ACCEPTS MAINTENANCE RESPONSIBILITY.

ADDITIONAL GRADING AND EARTHWORK SPECIFICATIONS

ALL SITE PREPARATION WORK, OVER-EXCAVATION AND RECOMPACTION OF ON-SITE SOILS, FOUNDATION EXCAVATION, AND FILL COMPACTION SHALL BE DONE UNDER THE DIRECTION OF THE ENGINEER. CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCE NOTICE.

- SITE PREPARATION:
 - AREAS TO BE DEVELOPED SHALL BE CLEARED OF VEGETATION AND DEBRIS.
 - CLEARED AND GRUBBED MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH CITY OF CLEARLAKE GUIDELINES.
- STRIPPING:
 - AREAS TO BE GRADED SHALL BE STRIPPED OF ALL ORGANIC MATTER.
 - SOIL CONTAINING MORE THAN TWO PERCENT BY WEIGHT OF ORGANIC MATTER SHOULD BE CONSIDERED ORGANIC.
 - THE STRIPPING SHALL BE STOCKPILED FOR RE-USE AS TOPSOIL IN LANDSCAPING AREAS.
- COMPACTION TESTING:
 - THE OWNER REQUIRES THAT COMPACTION TESTING IS PERFORMED ON THE SUBGRADE, TRENCH BACKFILL, ENGINEERED FILL AND AGGREGATE BASE ROCK. RETESTING OF FAILED TESTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH 48-HOUR NOTICE PRIOR TO STARTING FILL CONSTRUCTION.

EXCAVATIONS

- FOLLOWING INITIAL SITE PREPARATIONS, EXCAVATION SHOULD BE PERFORMED AS RECOMMENDED HEREIN. EXCAVATIONS EXTENDING BELOW THE PROPOSED FINISHED GRADE SHOULD BE BACKFILLED WITH SUITABLE MATERIALS COMPACTED TO THE REQUIREMENTS AS SET FORTH IN FILL AND PLACEMENT AND IN THE SUMMARY OF COMPACTION REQUIREMENTS.
- WITHIN PAVEMENT AND SIDEWALK AREAS, WEAK SOIL AND OLD FILL, IF PRESENT, SHOULD BE EXCAVATED IN ITS ENTIRETY. THE EXCAVATION OF THESE SOILS SHOULD EXTEND AT LEAST 3 FEET BEYOND THE EDGE OF THE SIDEWALK AND PAVEMENTS. THE EXCAVATED MATERIALS SHOULD BE STOCKPILED FOR LATER USE AS COMPACTED FILL.

FILL QUALITY

- ALL FILL MATERIALS SHOULD BE FREE OF DELIRIOUS AND AND PERISHABLE MATTER AND ROCKS OR LUMPS OVER 4 INCHES IN DIAMETER AND MEET THE CRITERIA AS SET FORTH HEREIN FOR SELECT FILL. THE SUITABILITY OF THE ON-SITE SOIL FOR USE AS SELECT FILL SHOULD BE VERIFIED BY THE ENGINNER DURING GRADING OPERATIONS.

FILL PLACEMENT

- DEPOSIT FILL AND BACKFILL MATERIALS IN HORIZONTAL LAYERS OF MAXIMUM 8 INCHES LOOSE DEPTH, AND COMPACT EACH LAYER AFTER UNIFORMLY MOISTURE-CONDITIONING THE LAYER TO NEAR OPTIMUM. COMPACT EACH LAYER TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY OF THE MATERIALS AS VERIFIED BY FIELD TESTING USING ASTM TEST METHOD D6938-17ae01. EXCEPT THE UPPER 6 INCHES OF FILL FOR BUILDINGS OR ROADWAY AREAS SHALL BE COMPACTED TO 95%.
- ALL FILLS SHALL BE TRIMMED AND TRACK-WALKED AFTER COMPLETION TO PROVIDE A UNIFORM, FIRM TOP SURFACE.

AGGREGATE BASE AND ASPHALTIC CONCRETE SPECIFICATIONS

- AGGREGATE BASE SHALL BE CLASS 2, 3/4" MAXIMUM. MATERIALS AND PLACEMENTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 26 OF THE CALTRANS STANDARD SPECIFICATIONS, 2018 EDITION.
- AGGREGATE BASE SHALL BE PLACED AND COMPACTED TO 95% RELATIVE COMPACTION. COMPACTION REQUIREMENTS SHALL BE BASED ON ASTM TEST D1557-12R21 AND FIELD TESTING OF IN-PLACE MATERIALS USING ASTM TEST METHOD D6938-17ae01.
- ASPHALTIC CONCRETE PAVEMENT MATERIALS AND PLACEMENT SHALL CONFORM TO SECTION 39 OF THE CALTRANS STANDARD SPECIFICATIONS, 2018. ASPHALT CONCRETE SHALL BE TYPE B.

STANDARD UNDERGROUND CONSTRUCTION NOTES

- CONTRACTOR SHALL NOTIFY 811 DIG PRIOR TO ANY EXCAVATION. CALL TOLL FREE (811) 642-4188 AT LEAST 48 HOURS PRIOR TO EXCAVATION.
- CONTRACTOR SHALL NOT BEGIN EXCAVATION UNTIL ALL EXISTING UTILITIES HAVE BEEN MARKED IN THE FIELD BY THE APPLICABLE ENTITY RESPONSIBLE FOR THAT PARTICULAR UTILITY. THE CONTRACTOR SHALL NOTIFY EACH APPLICABLE ENTITY AT LEAST 72 HOURS BEFORE STARTING WORK.
- CONTRACTOR SHALL UNCOVER EXISTING BURIED UTILITIES WITH UTILITY OWNER TO VERIFY LOCATIONS AND ELEVATIONS OF UTILITIES. BURIED UTILITIES INCLUDE BUT ARE NOT LIMITED TO WATER MAINS AND LATERALS, SEWER MAINS, STORM DRAINS, ELECTRICAL DISTRIBUTION LINES, TELEPHONE, CATV, AND FIBER OPTIC LINES. ALL UTILITIES CONFLICTING WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED PRIOR TO THE START OF CONSTRUCTION.
- ALL UNDERGROUND IMPROVEMENTS SHALL BE INSTALLED, TESTED AND APPROVED PRIOR TO PAVING.

STORM DRAINAGE SPECIFICATIONS

- STORM DRAIN PIPES AND FITTINGS SHALL BE CORRUGATED HIGH-DENSITY POLYETHYLENE PIPE (HDPE) WITH AN INTEGRALLY FORMED SMOOTH INTERIOR AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, TYPE N-12, OR APPROVED EQUAL.
- ALL DRAIN INLETS SHALL BE PRECAST CONCRETE AS MANUFACTURED BY SANTA ROSA CAST PRODUCTS, OR EQUAL, WITH STANDARD GRATES AS NOTED ON THE PLANS.

SUMMARY OF COMPACTION RECOMMENDATIONS	
AREA	COMPACTION RECOMMENDATIONS
GENERAL FILL	COMPACT TO A MINIMUM OF 90 PERCENT RELATIVE COMPACTION.
TRENCHES	COMPACT TO A MINIMUM OF 90 PERCENT RELATIVE COMPACTION. COMPACT THE TOP 6 INCHES BELOW VEHICLE PAVEMENT SUBGRADE TO A MINIMUM OF 95 PERCENT RELATIVE COMPACTION.
PAVEMENTS, EXTENDING OUTWARD TO 3' BEYOND EDGE OF PAVEMENT	COMPACT UPPER 6 INCHES OF SUBGRADE (WHERE BEDROCK IS NOT EXPOSED) TO A MINIMUM OF 95 PERCENT RELATIVE COMPACTION.
CONCRETE FLATWORK AND EXTERIOR SLABS, EXTENDING OUTWARD TO 3' BEYOND EDGE OF SLAB	COMPACT SUBGRADE (WHERE BEDROCK IS NOT EXPOSED) TO A MINIMUM OF 90 PERCENT RELATIVE COMPACTION. WHERE SUBJECT TO VEHICLE TRAFFIC, COMPACT UPPER 6 INCHES OF SUBGRADE (WHERE BEDROCK IS NOT EXPOSED) TO AT LEAST 95 PERCENT RELATIVE COMPACTION.
AGGREGATE BASE	COMPACT AGGREGATE BASE TO AT LEAST 95 PERCENT RELATIVE COMPACTION.

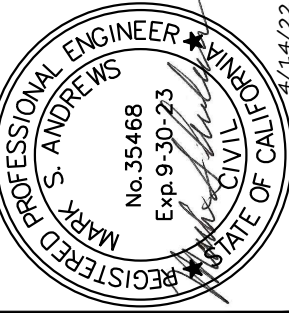
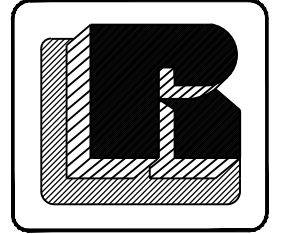
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LAKEPORT, CA. 95453

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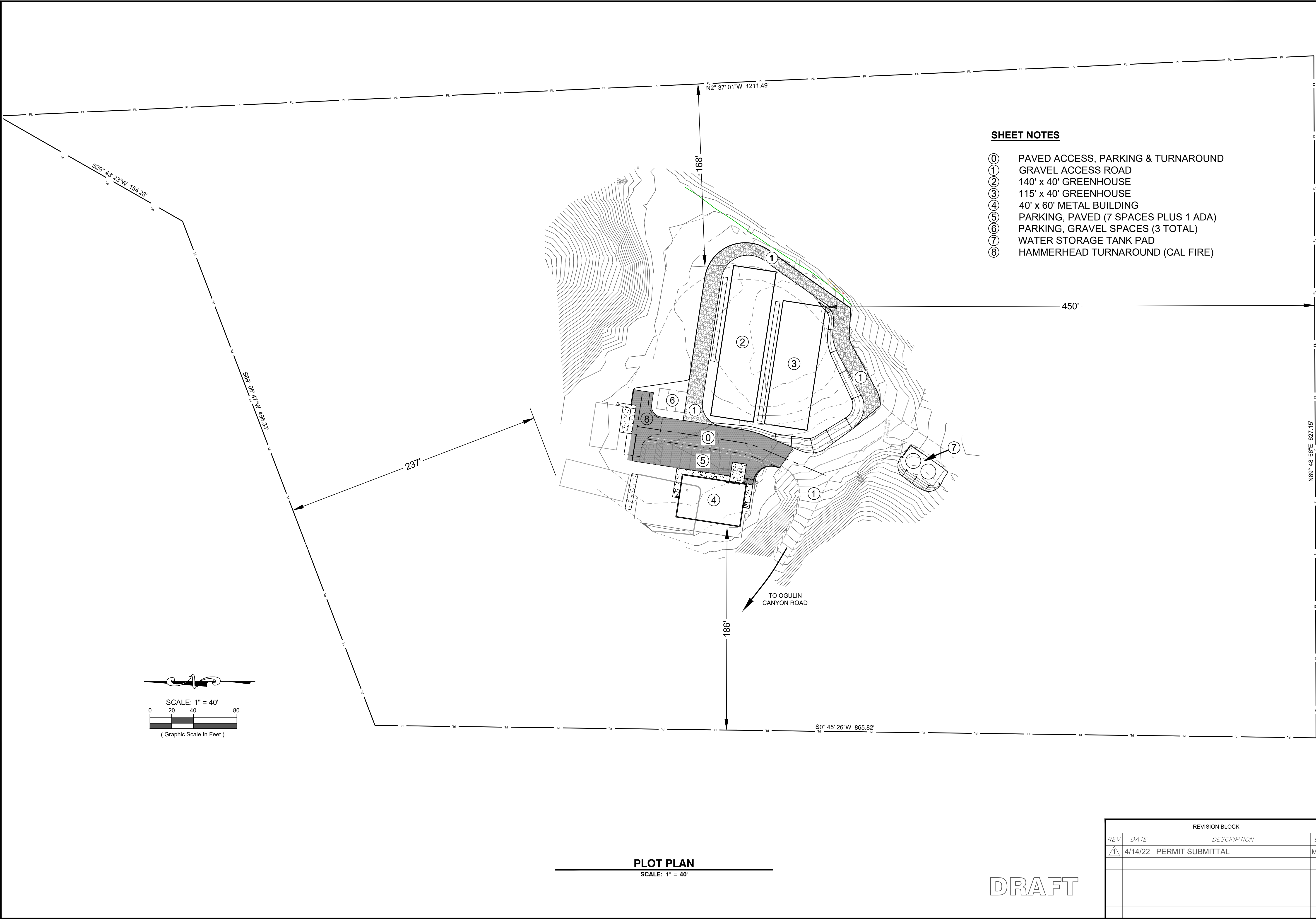
PH. (707) 263-6155
FAX (707) 263-0768



CLEARLAKE HARVEST COMPANY, LLC
2250 OGULION CANYON ROAD
CLEARLAKE, CALIFORNIA

GENERAL NOTES & SPECIFICATIONS
SITE GRADING AND DRAINAGE
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA 95422

REVISION BLOCK				DRN BY:	MSA / AG
REV	DATE	DESCRIPTION	BY	JOB NO.:	21-8530
1	4/14/22	PERMIT SUBMITTAL	MSA	CHK'D BY:	MSA 35468
				DATE:	04/14/22
				SHEET:	2 OF 12

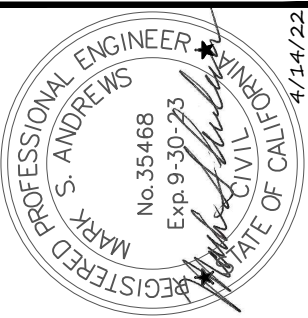
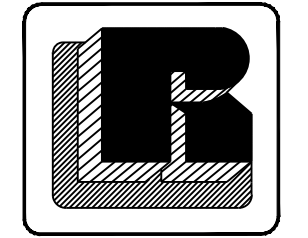


SHEET NOTES

- ① PAVED ACCESS, PARKING & TURNAROUND
- ② GRAVEL ACCESS ROAD
- ③ 140' x 40' GREENHOUSE
- ④ 115' x 40' GREENHOUSE
- ⑤ 40' x 60' METAL BUILDING
- ⑥ PARKING, PAVED (7 SPACES PLUS 1 ADA)
- ⑦ PARKING, GRAVEL SPACES (3 TOTAL)
- ⑧ WATER STORAGE TANK PAD
- ⑨ HAMMERHEAD TURNAROUND (CAL FIRE)

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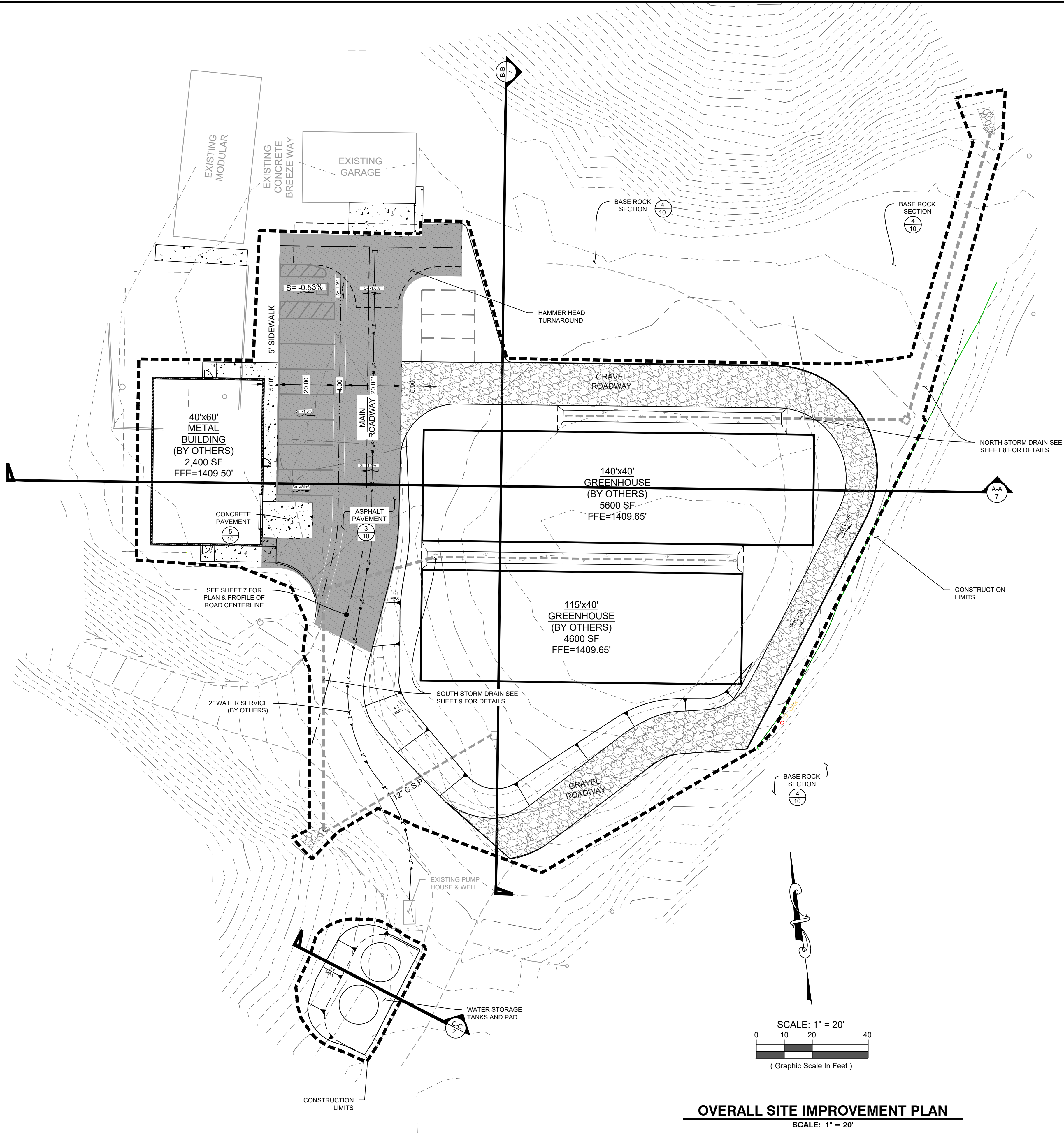
PLOT PLAN
SITE GRADING AND DRAINAGE
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA 95422

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SHEET: 3 OF 12

PLOT PLAN
SCALE: 1" = 40'

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OVERALL SITE IMPROVEMENT PLAN
SCALE: 1" = 20'

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CLEARLAKE HARVEST COMPANY, LLC
2250 OGULION CANYON ROAD
CLEARLAKE, CALIFORNIA

OVERALL SITE IMPROVEMENT PLAN
SITE GRADING AND DRAINAGE
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA 95422

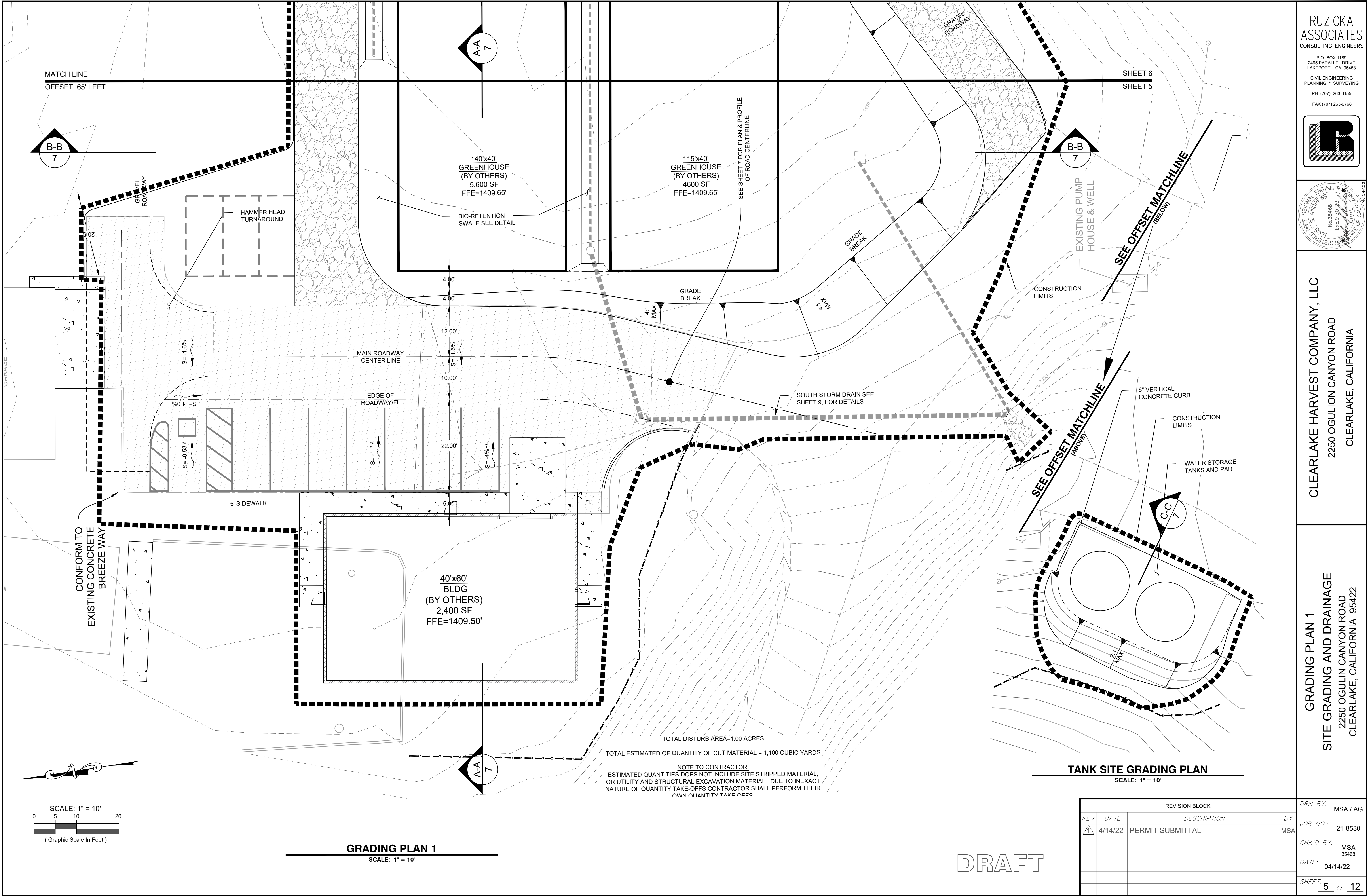
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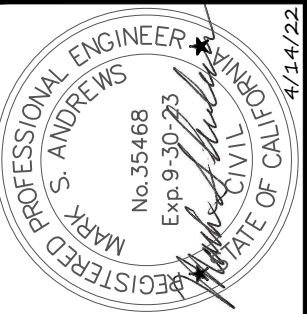
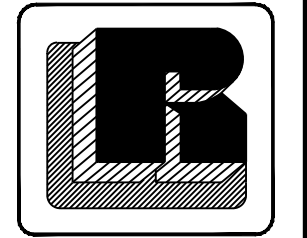
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REGISTERED PROFESSIONAL ENGINEER
MARK S. ANDREW
No. 35468
Exp. 9/30/23
CIVIL
STATE OF CALIFORNIA 42422

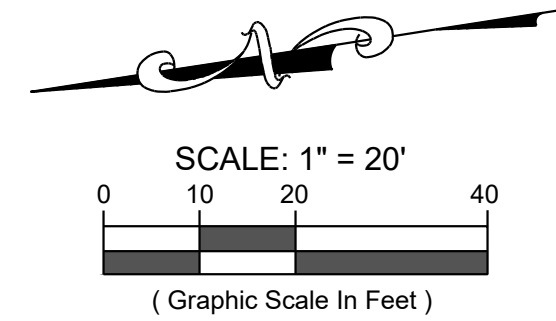




CLEARLAKE HARVEST COMPANY, LLC
2250 OGULION CANYON ROAD
CLEARLAKE, CALIFORNIA

GRADING PLAN 2
SITE GRADING AND DRAINAGE
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CLEARLAKE, CALIFORNIA 95422

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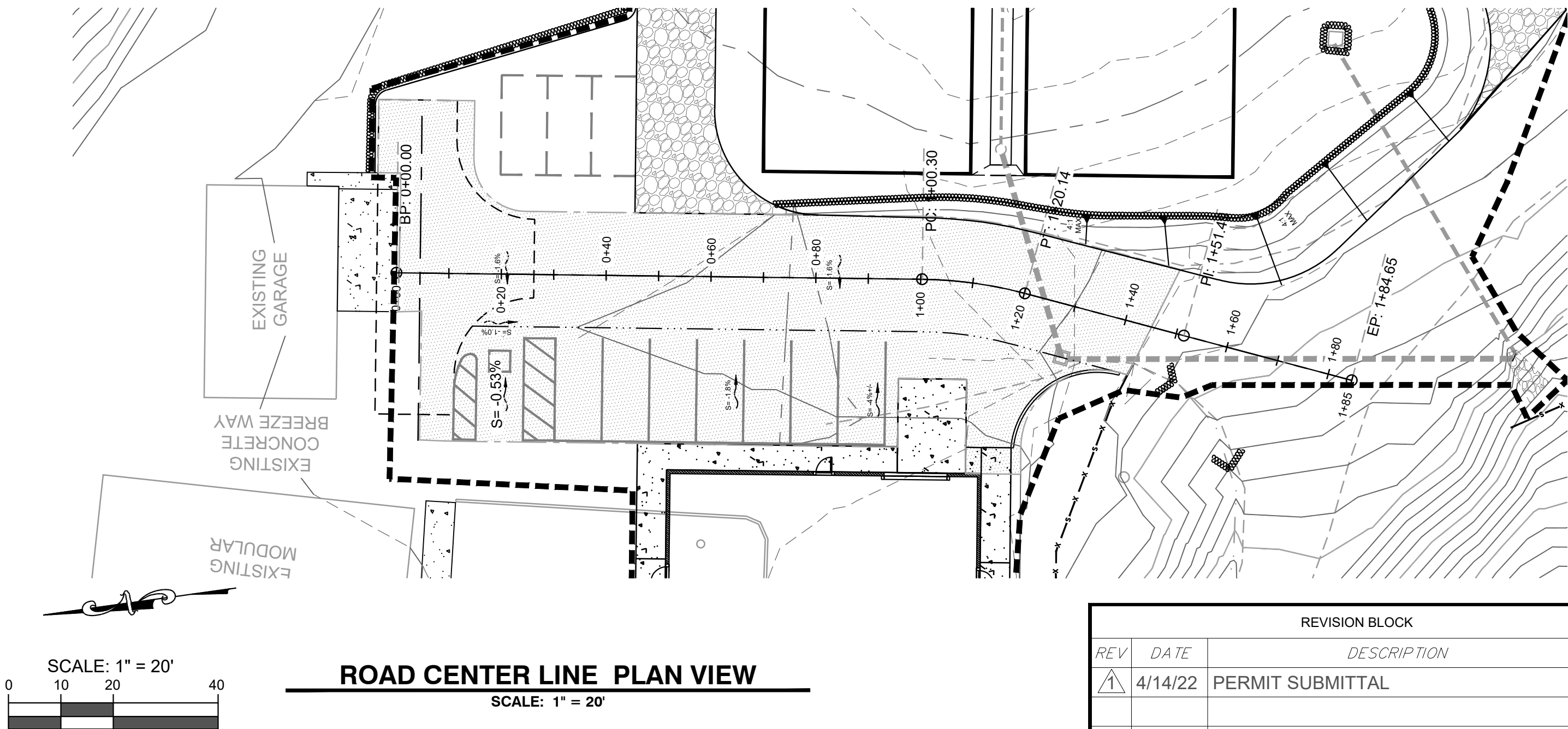
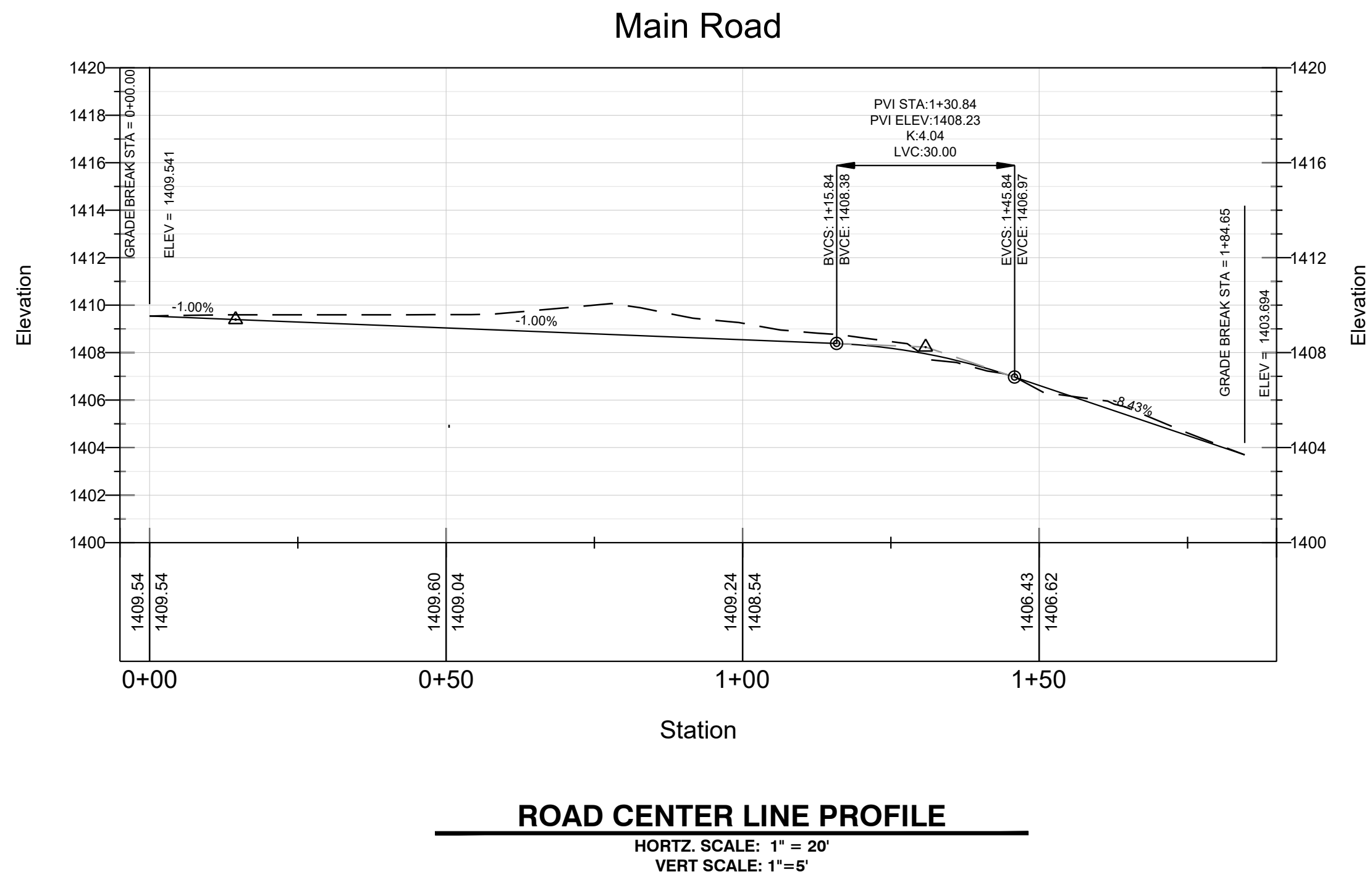
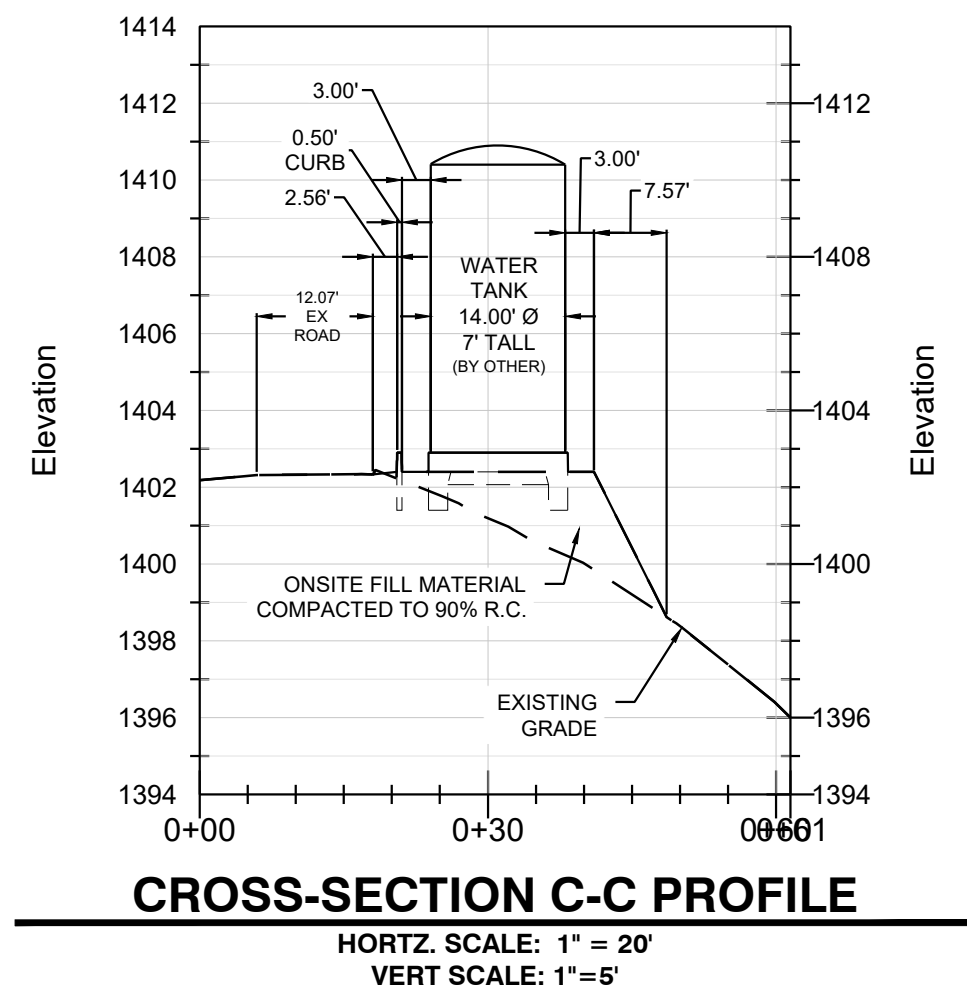
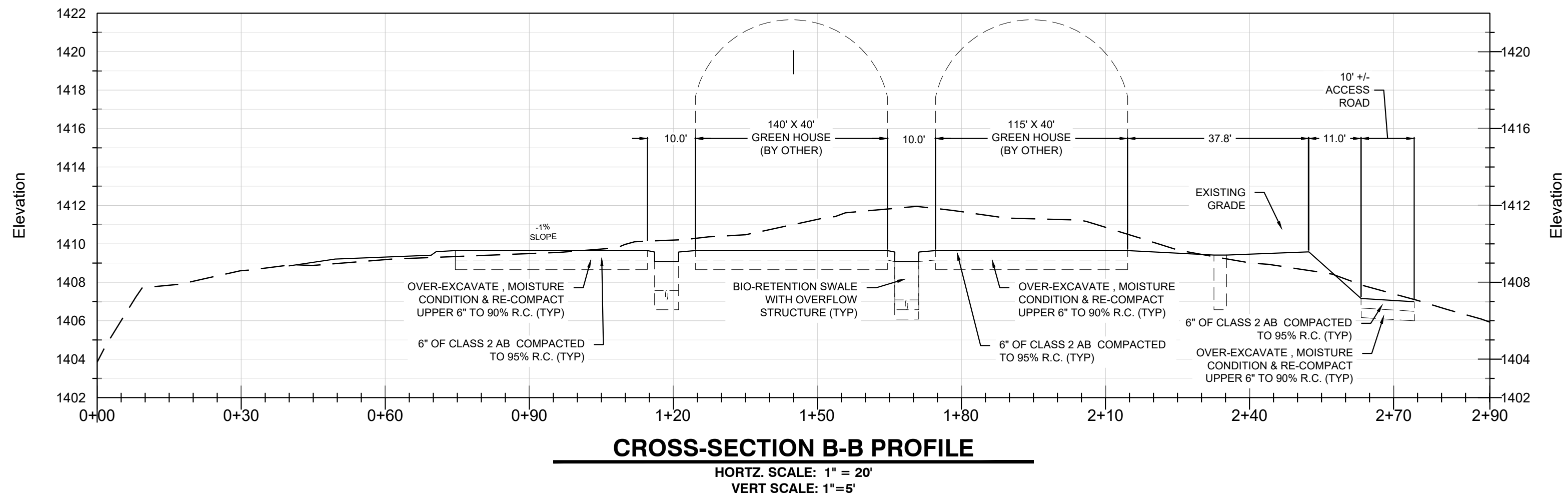
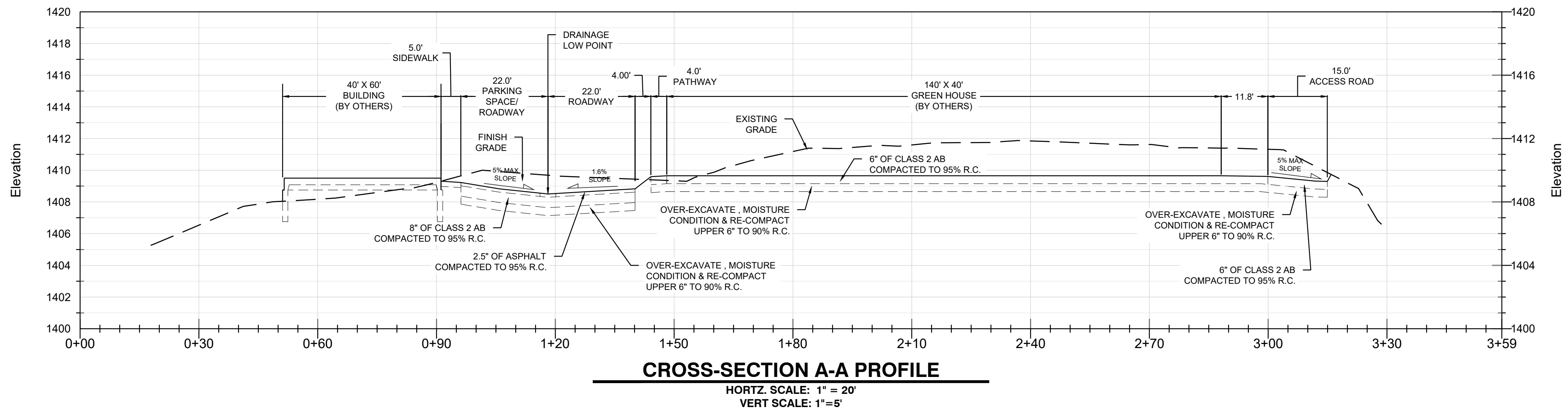


MATCH LINE
OFFSET: 65' LEFT

SHEET 6
SHEET 5

GRADING PLAN 2
SCALE: 1" = 10'

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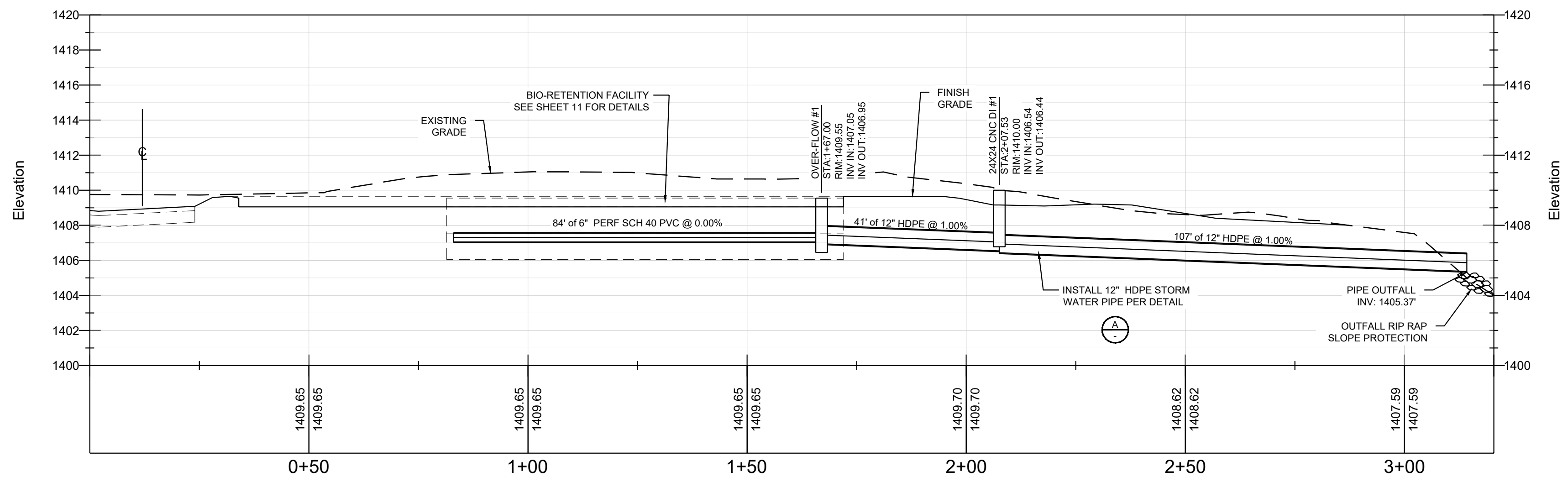
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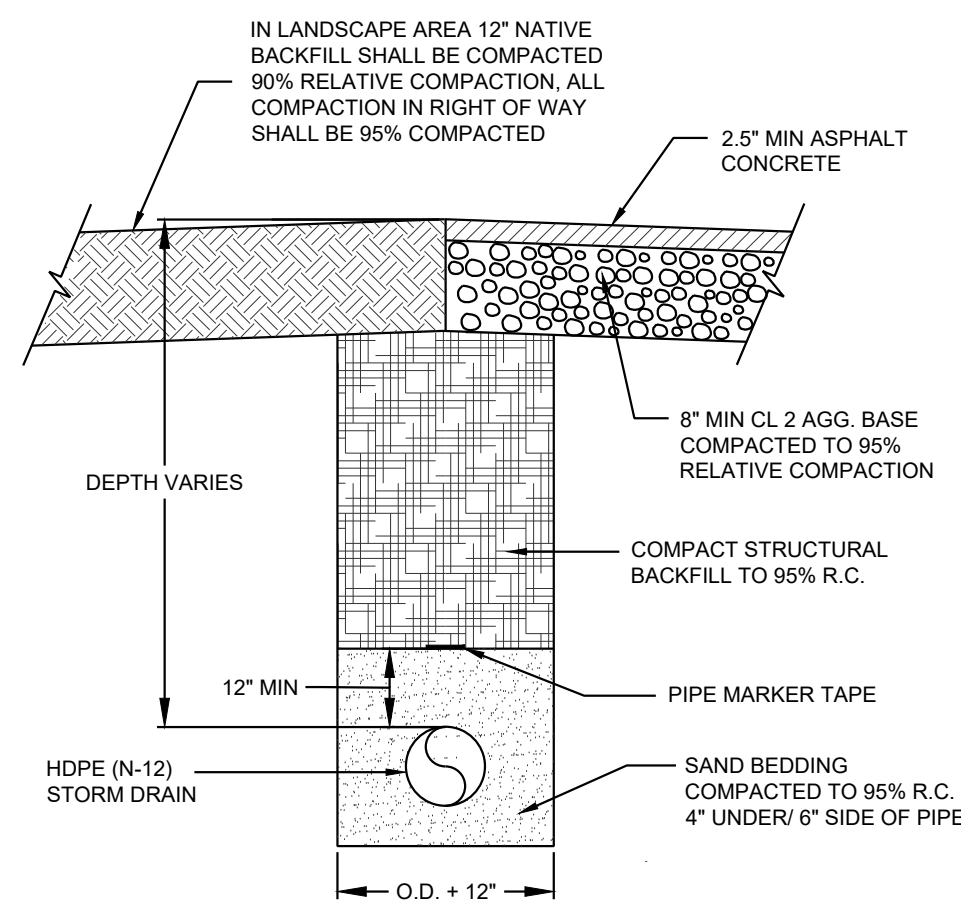
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2250 OGULION CANYON ROAD
CLEARLAKE, CALIFORNIA

CROSS SECTIONS AND ROAD PROFILE
SITE GRADING AND DRAINAGE
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA 95422

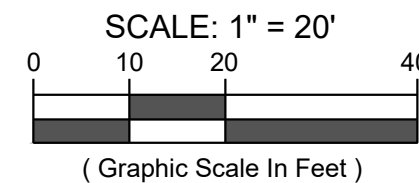
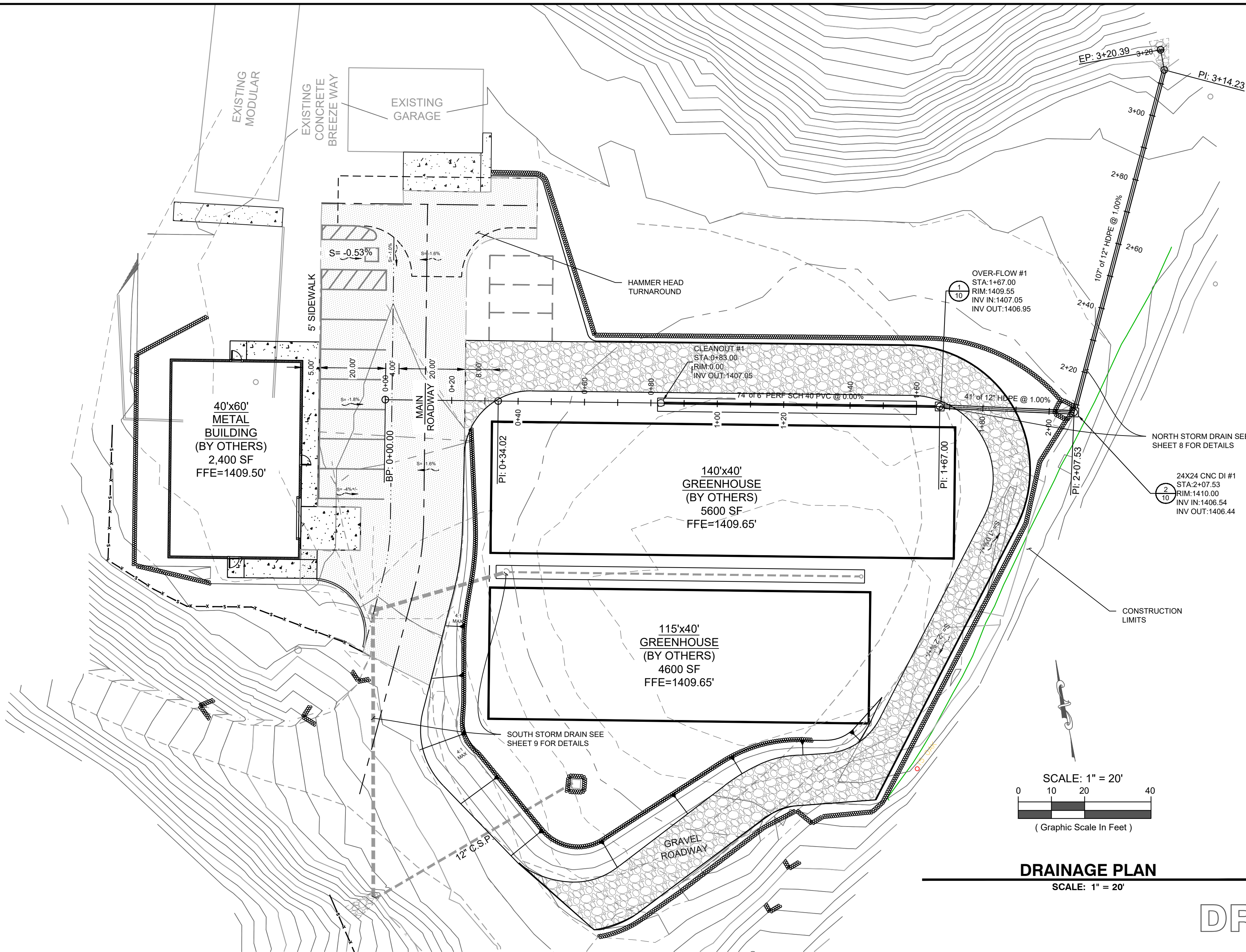
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PROFILE VIEW
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



STORM DRAIN TRENCH SECTION DETAIL
SCALE: N.T.S.

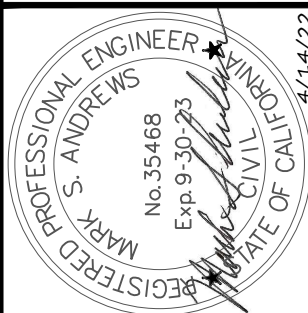
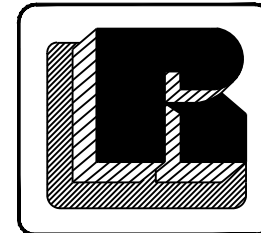


DRAINAGE PLAN
SCALE: 1" = 20'

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RUZICKA
ASSOCIATES

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2485 PARALLEL DRIVE
LAKEPORT, CA 95453
CIVIL ENGINEERING
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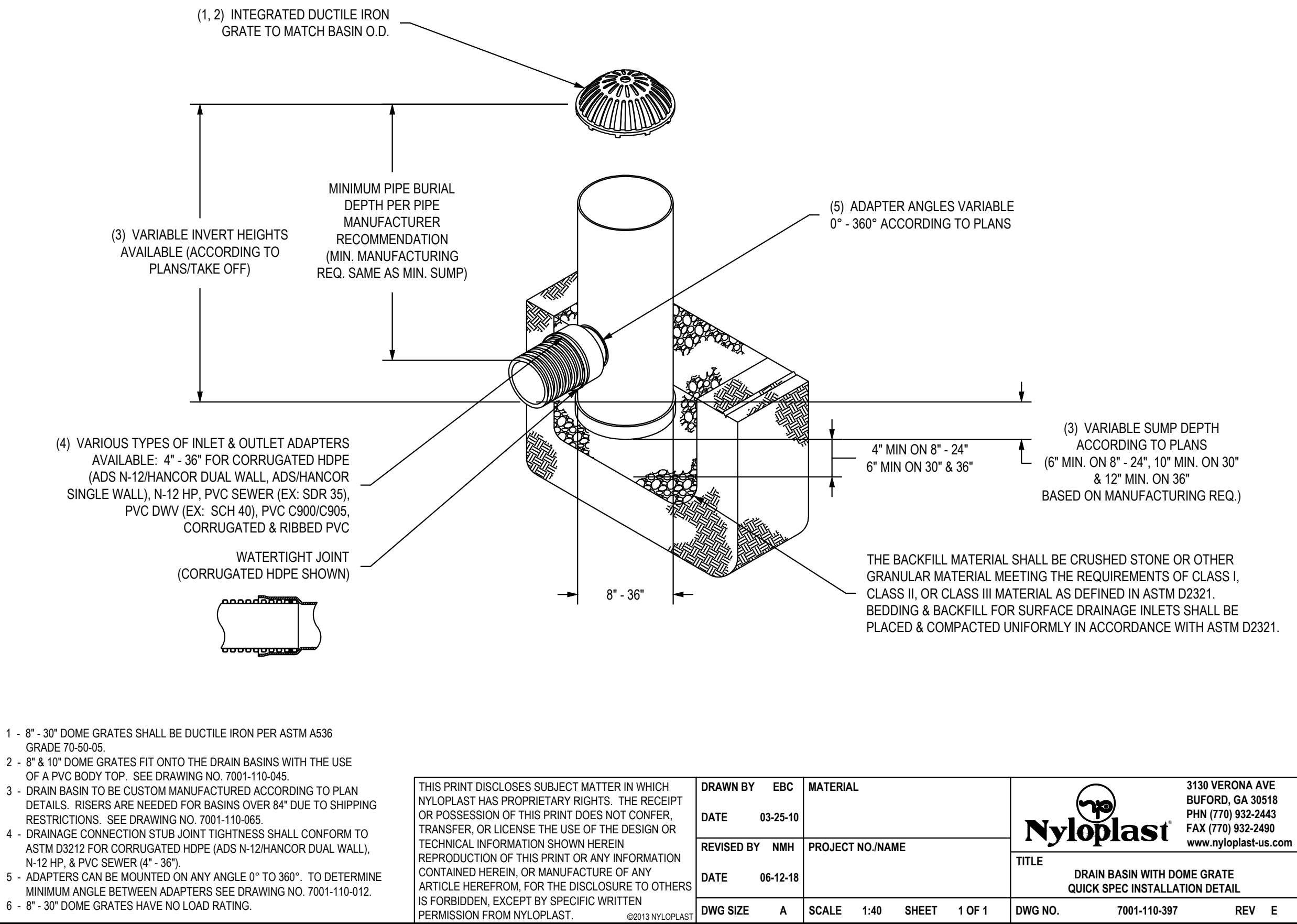
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2250 OGULION CANYON ROAD
CLEARLAKE, CALIFORNIA

NORTH STORM DRAIN SYSTEM
SITE GRADING AND DRAINAGE
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA 95422

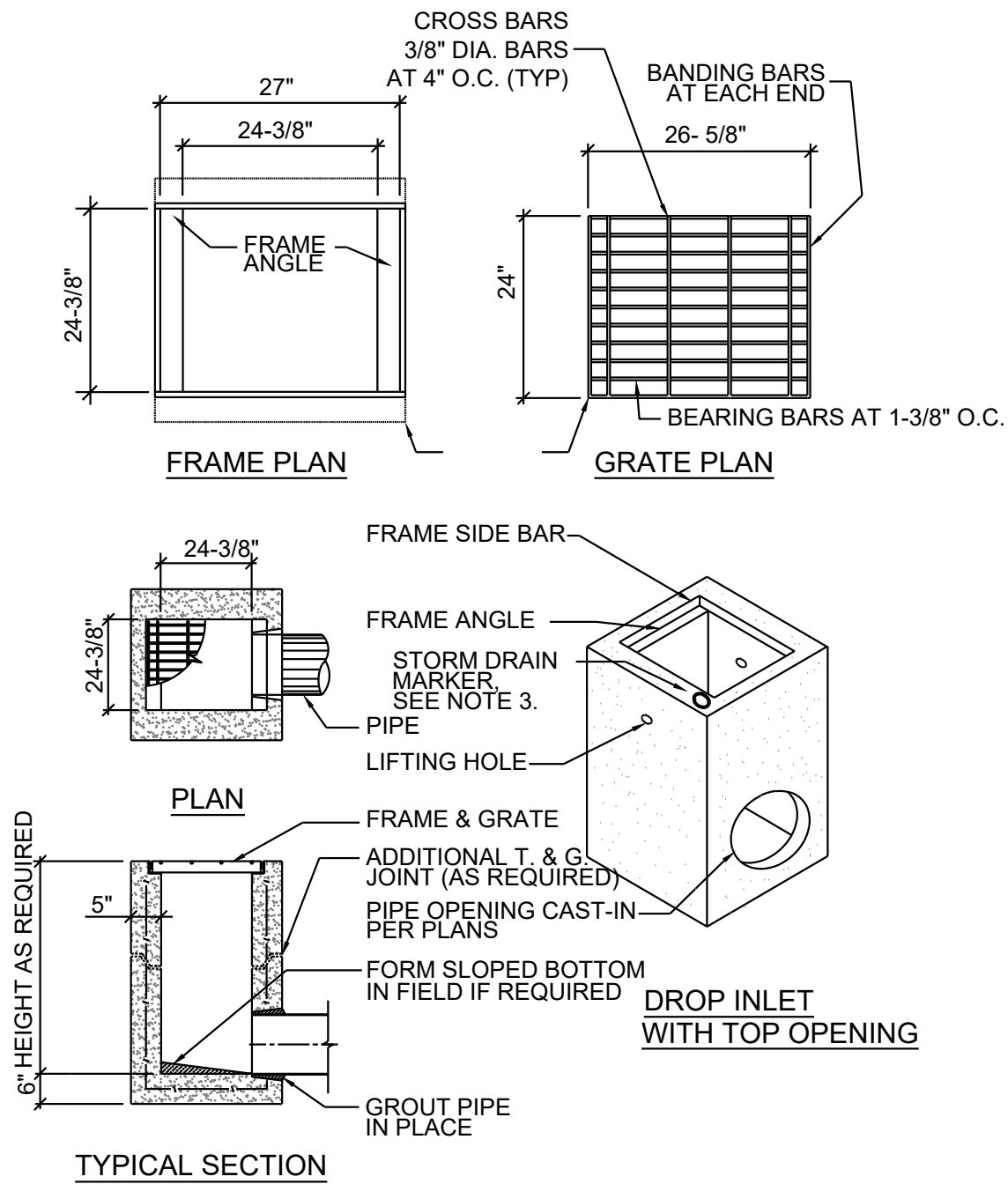
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CHK'D BY: MSA 35468
DATE: 04/14/22
SHEET: 8 OF 12

NYLOPLAST DRAIN BASIN WITH DOME GRATE



1
-
24" NYLOPLAST DRAIN BASIN
WITH DOME GRATE
NTS



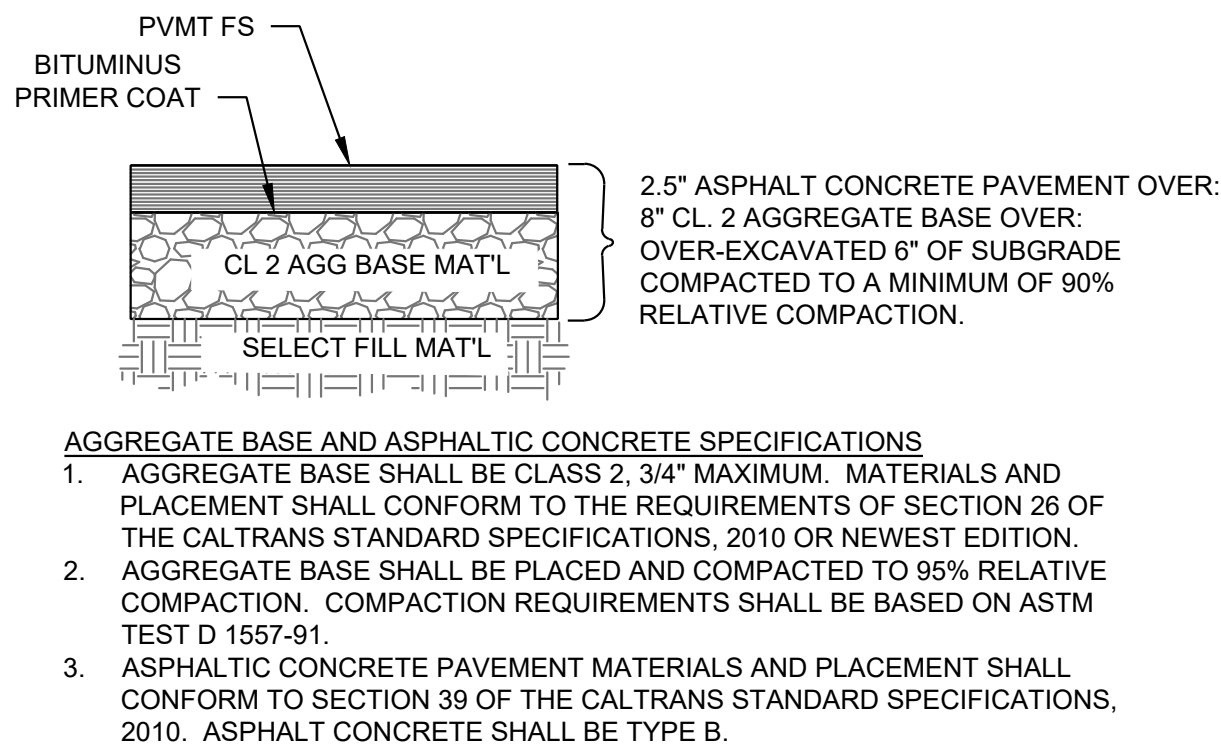
NOTES:

- FRAMES AND GRATES SHALL BE TRAFFIC RATED AND GALVANIZED. FRAMES SHALL BE US CONCRETE PRECAST MODEL CB2424TF GRATES SHALL BE MODEL CB2424TG OR AS APPROVED BY CITY ENGINEER.
- DROP INLET SHALL BE US CONCRETE PRECAST MODEL CB2424 OR APPROVED BY CITY ENGINEER.
- ATTACHED "DRAINS TO LAKE" MARKER PER CITY STD 313. TO THE FRONT RIGHT CORNER ON THE TOP OF DROP INLET ALIGNED TO BE READ FROM STREET.

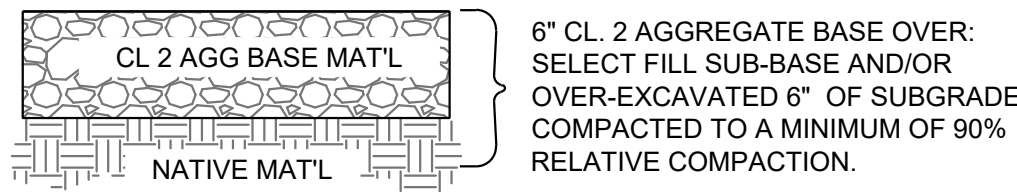
APPROVED STORM DRAIN MARKER:

ALMETEX 4" ROUND PAINTED ALUMINUM.

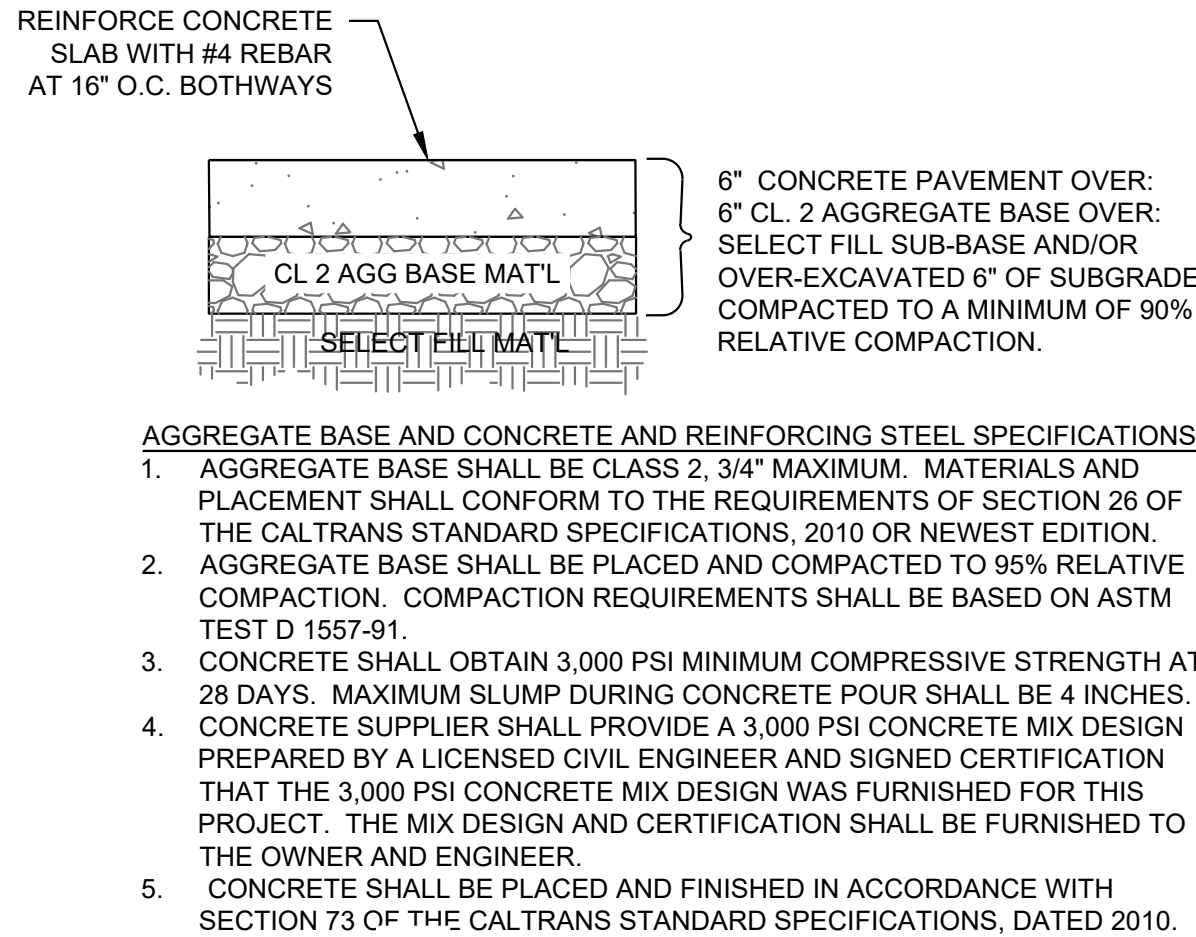
2
-
AREA DRAIN DROP INLET
FLUSH OPENING
(NTS)



3
-
ASPHALT CONCRETE
PAVEMENT SECTION
NTS



4
-
AGGREGATE BASE ROCK
PAVEMENT SECTION
NTS

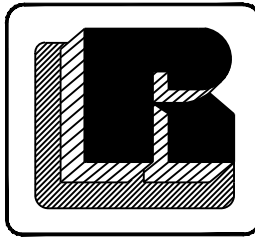


5
-
PORTLAND CEMENT CONC
PAVEMENT SECTION
NTS

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				DATE:	04/14/22
				SHEET:	10 OF 12

RUZICKA
ASSOCIATES
CONSULTING ENGINEERS

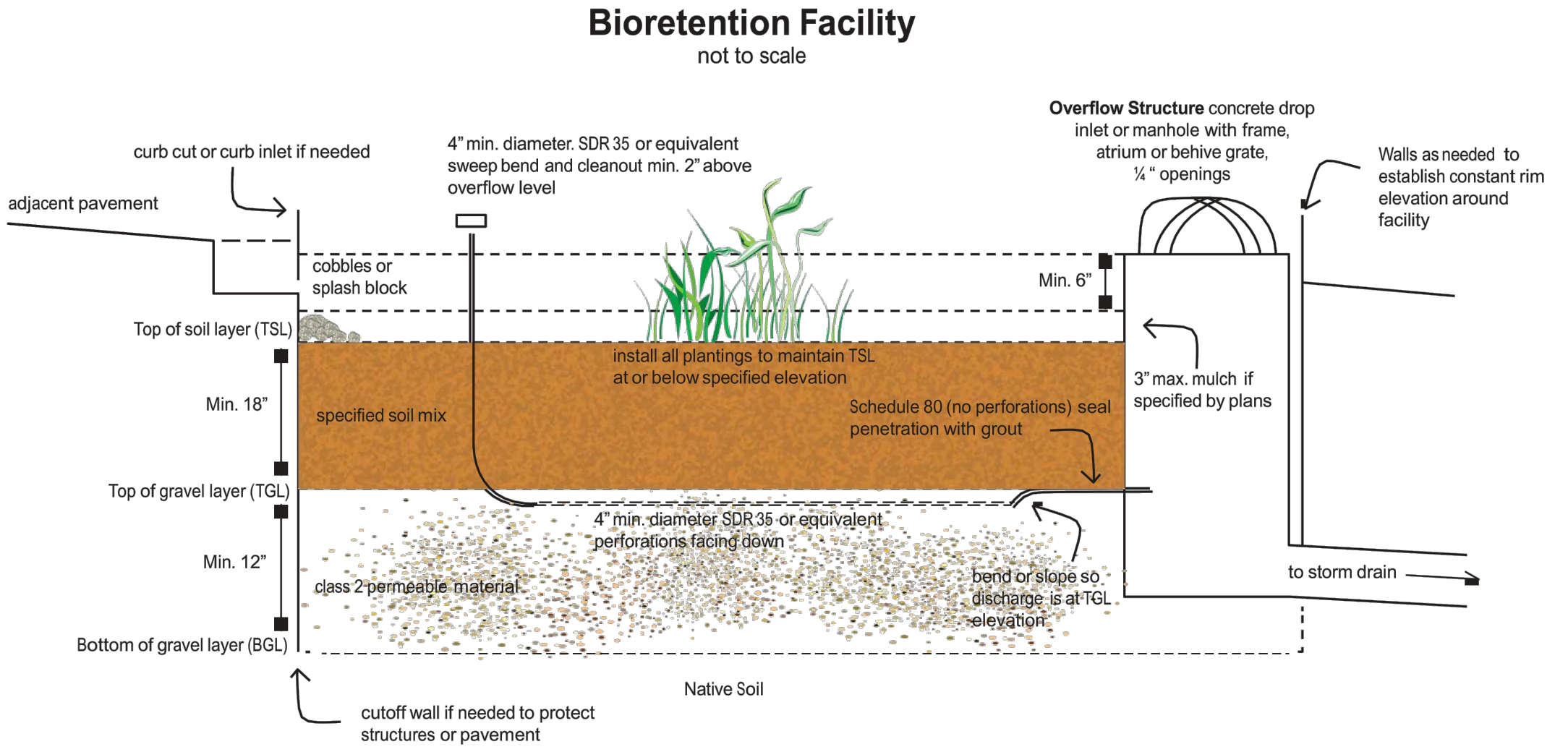
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CLEARLAKE HARVEST COMPANY, LLC
2250 OGULION CANYON ROAD
CLEARLAKE, CALIFORNIA

GENERAL DETAILS
SITE GRADING AND DRAINAGE
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA 95422

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Allowed variations for special site conditions:

- Facilities located within 10 feet of structures or other potential geotechnical hazards may incorporate an impervious cutoff wall
- Facilities with documented high concentrations of pollutants in underlying soil or groundwater, facilities where infiltration could contribute to a geotechnical hazard, and facilities located on elevated plazas or other structures may incorporate an impervious liner between the native soil and the BGL and locate the underdrain discharge at the BGL (flow-through planter configuration)
- Facilities located in areas of high groundwater, highly infiltrative soils, or where connection of the underdrain to a surface drain or subsurface storm drain are infeasible may omit the underdrain

Notes:

- No liner, no filter fabric, no landscape cloth.
- Maintain BGL, TGL, TSL throughout facility area at elevations to be specified in plan.
- Class 2 permeable layer may extend below and underneath drop inlet.
- Elevation or underdrain discharge is at top of gravel layer.
- See Chapter X for instructions on facility sizing and additional specifications

Soil/Compost and Gravel Specifications for Bioretention Facility

Gravel Layer

The gravel layer used in the bioretention facility must consist of *Class 2 Permeable Material* as specified in the State of California's Business, Transportation and Housing Agency, Department of Transportation, Standard Specifications 2010, manual (http://www.dot.ca.gov/hq/esc/oe/construction_contract_standards/std_specs/2010_StdSpecs/2010_StdSpecs.pdf).

The specific section, Subsurface Drains, Sec. 68, of the manual is used because it offers specific specifications for subsurface drains. In addition to the standardized permeable layer, a membrane layer of pea gravel or other intermediate-sized material is recommended at the top of the gravel layer to prevent fines from the soil/compost layer from moving downward into the gravel layer.

68-2.02F(1) General

Permeable material for use in backfilling trenches under, around, and over underdrains must consist of hard, durable, clean sand, gravel, or crushed stone and must be free from organic material, clay balls, or other deleterious substances.

Permeable material must have a durability index of not less than 40.

68-2.02F(3) Class 2 Permeable Material

The percentage composition by weight of Class 2 permeable material in place must comply with the grading requirements shown in the following table:

Class 2 Permeable Material Grading Requirements

Sieve sizes	Percentage passing
1"	100
3/4"	90–100
3/8"	40–100
No. 4	25–40
No. 8	18–33
No. 30	5–15
No. 50	0–7
No. 200	0–3

Class 2 permeable material must have a sand equivalent value of not less than 75.

Soil/Compost and Gravel Specifications for Bioretention Facility

BIORETENTION SOIL SHALL BE SANDY LOAM SOIL MIX WITH COMPOST AS PROVIDE BY SOILAND COMPANY, CONTACT FOR MORE INFORMATION AT 707-795-1775. PROVIDE CUT SHEET OF SOIL MIX FOR APPROVAL

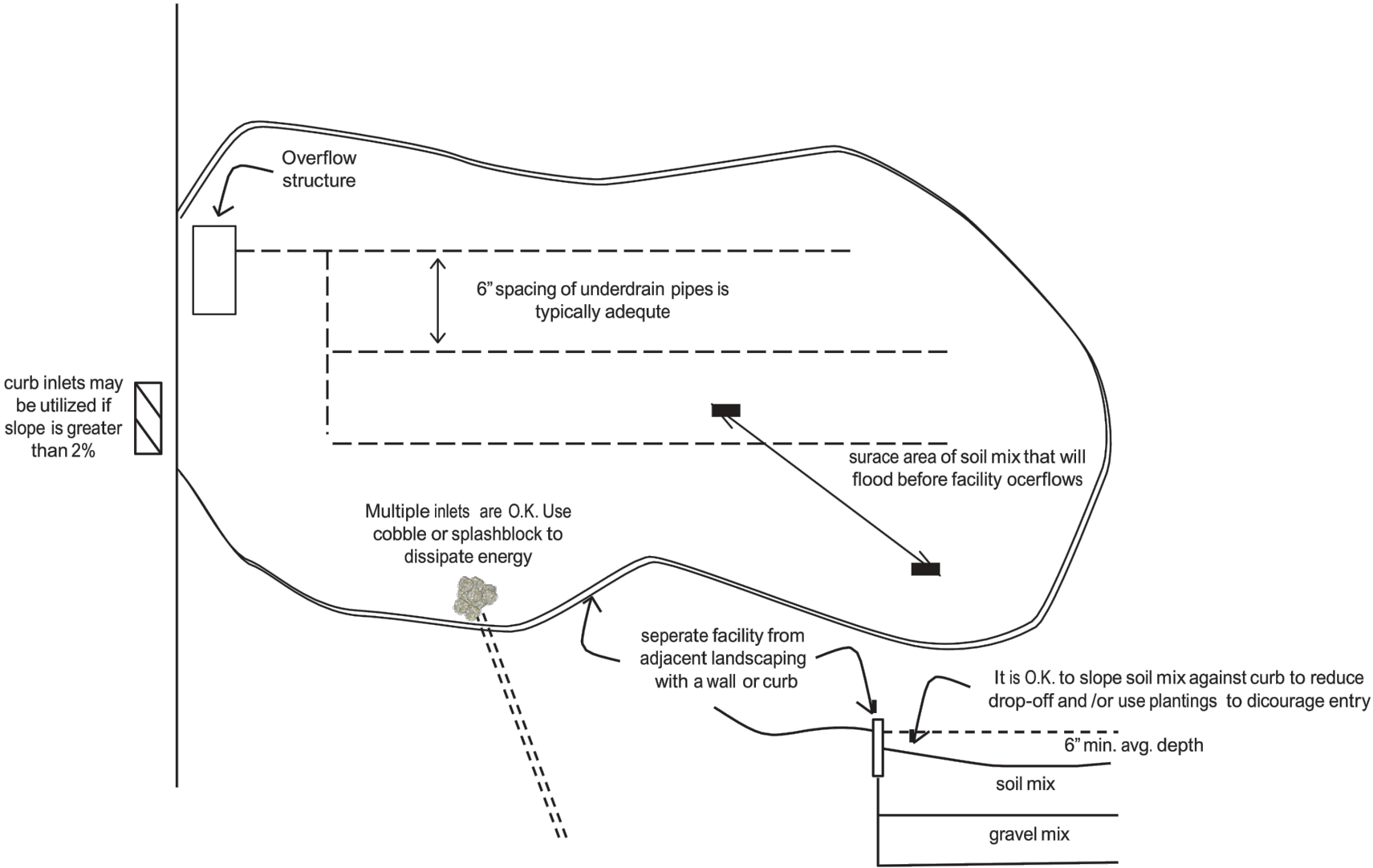
Compost shall be a well-decomposed, stable, weed-free organic matter source derived from waste materials including yard debris, wood wastes or other organic materials not including manure or biosolids, and shall meet the standards developed by the US Composting Council (USCC). The product shall be certified through the USCC Seal of Testing Assurance (STA) Program (a compost testing and information disclosure program).

Compost Quality Analysis:

Before delivery of the soil, the supplier shall submit a copy of the lab analysis performed by a laboratory that is enrolled in the USCC's Compost Analysis Proficiency (CAP) program and using approved Test Methods for the Evaluation of Composting and Compost (IMECC). The lab report shall verify that the compost parameters are within the limits specified below.

Parameter	Range	Reported as (units)
Organic Matter Content	35-75	%, dry weight basis
Carbon to Nitrogen Ratio	15:1 to 25:1	ratio
Maturity (Seed Emergence and Seedling Vigor)	>80	average % of control
Stability (CO ₂ Evolution Rate)	<8	mg CO ₂ -C/g unit OM/day
Soluble Salts (Salinity)	<6.0	mmhos/cm
pH	6.5 - 8.0 May vary with plant species	units
Heavy Metals Content	PASS	PASS/FAIL: US EPA Class A standard, 40 CFR § 503.13, tables 1 and 3.
Pathogens		
Fecal coliform	PASS	PASS/FAIL: US EPA Class A standard, 40 CFR § 503.32(a) levels
Salmonella	PASS	PASS/FAIL: US EPA Class A standard, 40 CFR § 503.32(a) levels
Nutrient Content (provide analysis, including):		
Total Nitrogen (N)	≥0.9	%
Boron (Total B)	<80	ppm
Calcium (Ca)	For information only	%
Sodium (Na)	For information only	%
Magnesium (Mg)	For information only	%
Sulfur (S)	For information only	%

Bioretention Facility - Overview
not to scale



Note:

Show all elevations of curb, pavement, inlet, top of soil layer (TSL), top of gravel layer (TGL), and bottom of gravel layer (BGL) at all inlets and outlets and at key points along edge of facility.

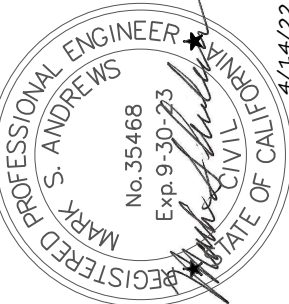
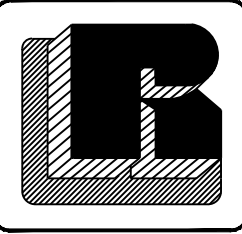


**County of Lake
City of Lakeport
City of Clearlake**

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**RUZICKA
ASSOCIATES**
CONSULTING ENGINEERS

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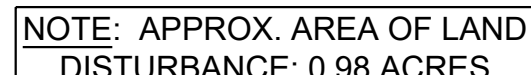
CLEARLAKE HARVEST COMPANY, LLC
2250 OGULION CANYON ROAD
CLEARLAKE, CALIFORNIA

**BIO-RETENTION NOTES & SPECIFICATIONS
SITE GRADING AND DRAINAGE**
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA 95422

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DATE: 04/14/22
SHEET: 11 OF 12

1. THE CONTRACTOR SHALL INSTALL EROSION CONTROL BARRIER AROUND THE IMMEDIATE PERIMETER OF THE LIMITS OF DISTURBED AREA AND SAID PROVISIONS SHALL BE MAINTAINED AND UPGRADED OR MODIFIED AS REQUIRED DURING THE CONSTRUCTION PERIOD.
2. THE CONTRACTOR SHALL INSTALL AND MAINTAIN AN APPROVED CONCRETE WASH-OUT FACILITY ON THE PROJECT SITE IN CONFORMANCE WITH THE STATE STANDARD SPECIFICATIONS IN SECTION 12-3.06B. THE CONTRACTOR SHALL DISPOSE OF THE WASTE AT AN APPROVED FACILITY.
3. THE CONTRACTOR SHALL FOLLOW STANDARD PROCEDURES FOR SPILL AND LEAK PREVENTION, AND CLEAN-UP PROCEDURES FOR CHEMICALS AND HAZARDOUS SUBSTANCES, PETROLEUM PRODUCTS, SANITARY AND SEPTIC WASTE SUBSTANCES.
4. EROSION CONTROL MATERIAL SHALL BE INSTALLED AROUND EXCAVATION SPOILS.
5. AIR BORNE DUST FROM CONCRETE SAWING PROCEDURES SHALL BE MINIMIZED USING WATER MIST AND CONCRETE RESIDUE SHALL BE COLLECTED WHEN POSSIBLE.
6. DO NOT OVERSPRAY CONCRETE CURING COMPOUND. MINIMIZE THE DRIFT BY SPRAYING AS CLOSE TO THE CONCRETE AS POSSIBLE.
7. USE 8 INCH STRAW WATTLES AS AN EROSION CONTROL BARRIER AS REQUIRED IN NOTE 1.



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				DATE: 04/14/22
				SHEET: 12 OF 12

EROSION CONTROL PLAN
SITE GRADING AND DRAINAGE
2250 OGULIN CANYON ROAD
CLEARLAKE, CALIFORNIA 95422

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