

GENERAL NOTES:

1. THE PAVEMENT DESIGN FOR THIS PROJECT IS BASED ON R-VALUE TESTING PERFORMED BY A3GEO INFORMATION DATED FEBRUARY 12, 2013.
2. UNDERGROUND FACILITIES AND OBSTRUCTIONS INDICATED, ARE FOR INFORMATION ONLY. EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS WERE LOCATED BASED ON THE INFORMATION PROVIDED BY THE CITY AND/OR FROM SCHEMATIC DRAWINGS PROVIDED BY THE UTILITY COMPANIES AND ARE APPROXIMATE LOCATIONS ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES WITHIN THE WORK AREA PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT 811 OR (800) 227-2600 A MINIMUM OF TWO (2) WORKING DAYS IN ADVANCE OF ANY EXCAVATION.
3. EVERY EFFORT HAS BEEN MADE TO SHOW THE LOCATION OF EXISTING UTILITIES AND OBSTRUCTIONS WHICH MAY INTERFERE WITH THE WORK. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE AGENCIES PRIOR TO STARTING ANY WORK WHICH MAY AFFECT THEIR FACILITIES. THE FOLLOWING UTILITIES AND AGENCIES ARE KNOWN TO HAVE FACILITIES WITHIN THE PROJECT LIMITS:

BERKELEY PUBLIC WORKS DEPARTMENT	(510)981-6300
EBMUD	(510)287-1008
PG&E	(415)267-7000
4. THE CONTRACTOR SHALL INSPECT THE PROJECT SITE PRIOR TO SUBMITTING A BID IN ORDER TO OBSERVE AND DETERMINE THE EXISTING JOB SITE CONDITIONS.
5. TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ALL TRAFFIC CONTROL AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
6. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE REQUIRED TO ASSUME COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THESE PLANS DO NOT INCLUDE COMPONENTS NECESSARY FOR CONSTRUCTION SAFETY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FOR THE SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF THE PROJECT.
7. THE CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS AND CAL/OSHA. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
8. THE CONTRACTOR SHALL PROVIDE FOR CONTINUOUS INGRESS AND EGRESS TO ALL ACTIVE PUBLIC AREAS ADJACENT TO THE WORK, INCLUDING THE EAST PARKING LOT ADJACENT TENANTS AND BAY TRAIL, THROUGHOUT THE PERIOD OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE ENGINEER. SEE NOTE 13 FOR MORE INFORMATION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE SITE OR THE SURROUNDING AREA AS A RESULT OF THE CONTRACTOR'S WORK OR OPERATIONS. EXISTING PAVEMENT, FENCING, UTILITIES AND OTHER IMPROVEMENTS THAT ARE DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. ALL STREET SURVEY MONUMENTS AND RECORDED SURVEY POINTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, BEFORE THE IMPROVEMENTS ARE ACCEPTED BY THE CITY. REPLACEMENT SHALL BE MADE UNDER THE DIRECTION OF A LICENSED PROFESSIONAL LAND SURVEYOR AND AS INSTRUCTED IN SECTION 8771 OF THE PROFESSIONAL LAND SURVEYORS CODE.
11. WORK IS NOT PERMITTED ON SATURDAYS, SUNDAYS, OR DESIGNATED LEGAL HOLIDAYS, AS RECOGNIZED BY THE CITY OF BERKELEY, UNLESS OTHERWISE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL REFER TO THE GENERAL REQUIREMENTS FOR ADDITIONAL INFORMATION.
12. ATTENTION IS DIRECTED TO THE PROVISIONS OF CHAPTER 9 OF DIVISION 3 OF THE BUSINESS AND PROFESSIONS CODE CONCERNING THE LICENSING OF CONTRACTORS. THE CONTRACTOR SHALL POSSESS A VALID CALIFORNIA CLASS A OR CLASS C-12 LICENSE AT THE TIME THIS CONTRACT IS AWARDED.
13. ADJACENT BUSINESSES OPERATE DURING REGULAR BUSINESS HOURS AND WEEKENDS. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE BUSINESS REPRESENTATIVES AT ALL TIMES WHEN PERFORMING WORK THAT MAY AFFECT ACCESS TO THESE BUSINESSES. MAINTAIN ACCESS TO THE BUSINESSES AT ALL TIMES UNLESS APPROVAL TO BLOCK ACCESS IS GRANTED BY BUSINESS REPRESENTATIVES AND ENGINEER.

SURVEY NOTES:

1. TOPOGRAPHIC SURVEY PREPARED BY LCC ENGINEERING & SURVEYING, INC. FROM FIELD DATA COLLECTED IN AUGUST 2020.

UTILITY NOTES:

1. VERIFICATION OF LOCATIONS OF UTILITIES: POTHOLE AND VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WITHIN THE WORK AREA ASSOCIATED WITH THE WORK TO BE PERFORMED PRIOR TO STARTING CONSTRUCTION.
2. EXCAVATION NEAR ACTIVE UTILITIES: ALL EXCAVATION NEAR EXISTING CABLES OR OTHER NON-ABANDONED EXISTING UTILITY LINES SHALL BE PERFORMED BY HAND. ALL CABLES OR OTHER EXISTING UTILITY LINES THAT ARE DAMAGED SHALL BE REPAIRED IMMEDIATELY UNDER THE UTILITY OWNER'S DIRECTION AND AT THE CONTRACTOR'S EXPENSE.
3. SHORING, BRACING AND FALSEWORK: PROVIDE TEMPORARY SHORING, BRACING AND FALSEWORK AS REQUIRED TO SUPPORT AND PROTECT ALL ITEMS AFFECTED BY THE WORK.
4. UTILITY POINTS OF CONNECTION: CONTRACTOR SHALL POTHOLE AND LOCATE ALL UTILITY POINT OF CONNECTIONS PRIOR TO START OF CONSTRUCTION.
5. PROVIDE TRACER WIRE DIRECTLY ABOVE NON-METALLIC LINES.
6. REFER TO THE LANDSCAPE PLANS FOR GUIDANCE ON TRIMMING ROOTS FOUND WITHIN TRENCHES OR OTHER EXCAVATIONS.

EROSION CONTROL NOTES:

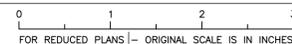
1. IMPLEMENT THE FOLLOWING BEST MANAGEMENT PRACTICES FOR ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTABILIZED WITH BUILDING, PAVING OR SIDEWALK: TEMPORARY AND PERMANENT SEEDING, MULCHING, TOPSOILING, DUST CONTROL.
2. DURING CONSTRUCTION, PROVIDE DUST CONTROL, PROCESS SAWCUTTING AND SURFACING POLLUTION PREVENTION MEASURES, CONCRETE HANDLING MEASURES.
3. THE CONTRACTOR SHALL ENSURE THAT THE OFFSITE BORROW OR FILL SITE CONDITIONS COMPLY WITH ALL STATE AND LOCAL CRITERIA. THESE CRITERIA ARE AIMED AT CONTROLLING THE RUNOFF FROM THE SITE SO AS TO REDUCE THE EROSION AND SEDIMENT PROBLEMS ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
4. THE CONTRACTOR SHALL PREPARE STORMWATER POLLUTION PREVENTION PLANS (SWPPP). TO ENSURE THAT THE PREPARATION AND IMPLEMENTATION OF THE SWPPP IS SUFFICIENT FOR EFFECTIVE POLLUTION PREVENTION, THE CONTRACTOR'S QUALIFIED SWPPP DEVELOPER (QSD) CREATES AND REVISES DEVELOPMENTS. THE CONTRACTOR'S QUALIFIED SWPPP PRACTITIONER (QSP) IS RESPONSIBLE FOR IMPLEMENTING THE SWPPP.
5. MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO:
 - 5.2. CLEANING OF THE ROADWAYS AND OTHER VEHICULAR SURFACES OF ALL TRACKED AND/OR SPILLED MATERIAL.
 - 5.3. GRADING AND PROPERLY PLACING WASTE MATERIAL OR EXCESS EXCAVATED MATERIAL TO ESTABLISH MAINTAINABLE SOIL SLOPES.
 - 5.4. SEEDING AND GRADING TO DRAIN THE AREA AFTER THE CONSTRUCTION ACTIVITIES ARE COMPLETED OR WHEN CONSTRUCTION ACTIVITIES ARE HALTED.
6. THE SWPPP SHALL COMPLY WITH THE REQUIREMENTS OF ALL STATE AND LOCAL CRITERIA.
7. THE IMPLEMENTATION OF THIS SWPPP AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE BEST MANAGEMENT PRACTICE (BMP) FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
8. THE EROSION MEASURES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM & ONTO PUBLIC ROADWAYS.
9. THE EROSION MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS AND NOT MEANT TO BE A REPLACEMENT FOR THE SWPPP. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
10. THE EROSION MEASURES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING THROUGHOUT CONSTRUCTION.
11. THE EROSION MEASURES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A MAJOR STORM EVENT OR AS DICTATED BY THE SWPPP.
12. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM STORM SYSTEM.
13. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

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SUITE 303
BERKELEY, CA 94704
PHONE: (510) 835-2761

NO SCALE



DEPICTION OF MONUMENTS: DATE _____
SURVEY PARTY CHIEF _____
WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
SUPERVISING CIVIL ENGINEER R.C.E. _____ EXP. _____
APPROVED: DATE _____
MANAGER OF ENGINEERING R.C.E. _____ EXP. _____

DESIGN: JDV
DRAWN: MDR
CHECK: RZ
AS BUILT: _____
DATE: 03/04/2025

HORIZ.: 1"=X'
VERT.: 1"=X'
BOOK: _____

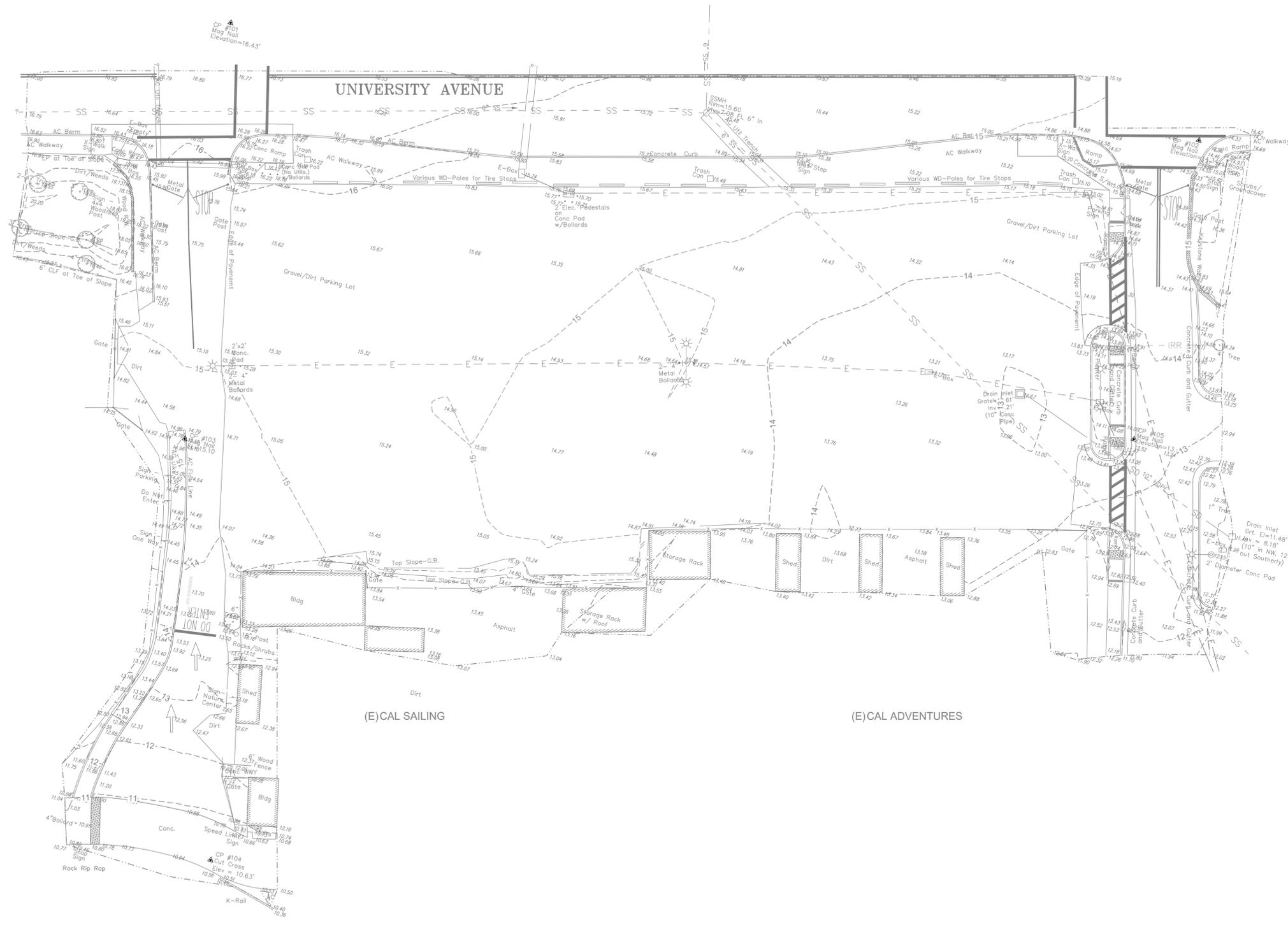
CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

CIVIL NOTES
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN: 8169
FILE: 405-212
G-002
SHEET 2 OF 47



APPROVAL	
DESCRIPTION	
DATE	
MARK	
REVISION	



- SURVEY CONTROL NOTES:**
1. THE COORDINATE SYSTEM IS BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE III NAD 83, EPOCH 2010. RTK GPS WAS USED TO ESTABLISH COORDINATES FOR TEMPORARY LOCAL CONTROL POINTS CP#101 (N 2142044.60, E 6037990.09), A MAG NAIL IN UNIVERSITY AVENUE AT THE NORTHEASTERLY RETURN OF A DRIVEWAY INTERSECTION LOCATED AT THE NORTHWESTERLY LIMITS OF THIS SITE (AS SHOWN), AND CP#102 (N 2142081.20, E 6038322.90), A MAG NAIL IN UNIVERSITY AVENUE AT THE SOUTHEASTERLY RETURN OF A DRIVEWAY INTERSECTION LOCATED AT THE NORTHEASTERLY LIMITS OF THIS SITE (AS SHOWN).
 2. RTK GPS WAS USED TO ESTABLISH COORDINATES FOR TEMPORARY LOCAL CONTROL POINT CP#101 (SEE NOTE 1 FOR DESCRIPTION), HELD ELEV = 16.43 FEET (NAVD88) (GPS OBSERVED).
 3. UTILITIES SHOWN ARE BASED UPON SURFACE OBSERVATIONS OF STRUCTURES FOUND IN THE FIELD. ANY UNDERGROUND UTILITY LOCATIONS ARE BASED UPON SURFACE OBSERVATIONS OF UTILITY PAINT MARKS AND HAVE BEEN INCLUDED IN THIS MAP FOR INFORMATION PURPOSES ONLY. THE SURVEYOR ASSUMES NO RESPONSIBILITY FOR LOCATIONS, CAPACITIES OR FUNCTIONALITY OF ALL UTILITIES SHOWN HEREON. SOME UNDERGROUND UTILITIES MAY NOT BE SHOWN.
 4. THIS SURVEY DOES NOT REPRESENT A BOUNDARY SURVEY. PROPERTY CORNERS HAVE NOT BEEN SEARCHED FOR OR LOCATED. NEW CORNERS OR MONUMENTS HAVE NOT BEEN SET DURING THIS SURVEY. FURTHER SURVEY AND ANALYSIS WOULD BE REQUIRED TO INSERT BOUNDARY/PROPERTY LINES INTO THIS EXHIBIT, IF REQUIRED.

SURVEY CONTROL POINTS:

POINTNUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
101	2142044.60	6037990.09	16.43	MAG NAIL
102	2142081.20	6038322.90	14.34	MAG NAIL
103	2141902.27	6038007.29	15.10	MAG NAIL
104	2141763.79	6038048.78	10.63	CUT CROSS
105	2141976.40	6038324.47	13.55	MAG NAIL

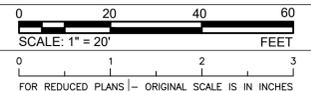
LEGEND:

◁ CONTROL POINT



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 WATERSHED REVIEW: DATE _____

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 SUPERVISING CIVIL ENGINEER _____
 APPROVED: DATE _____
 MANAGER OF ENGINEERING _____

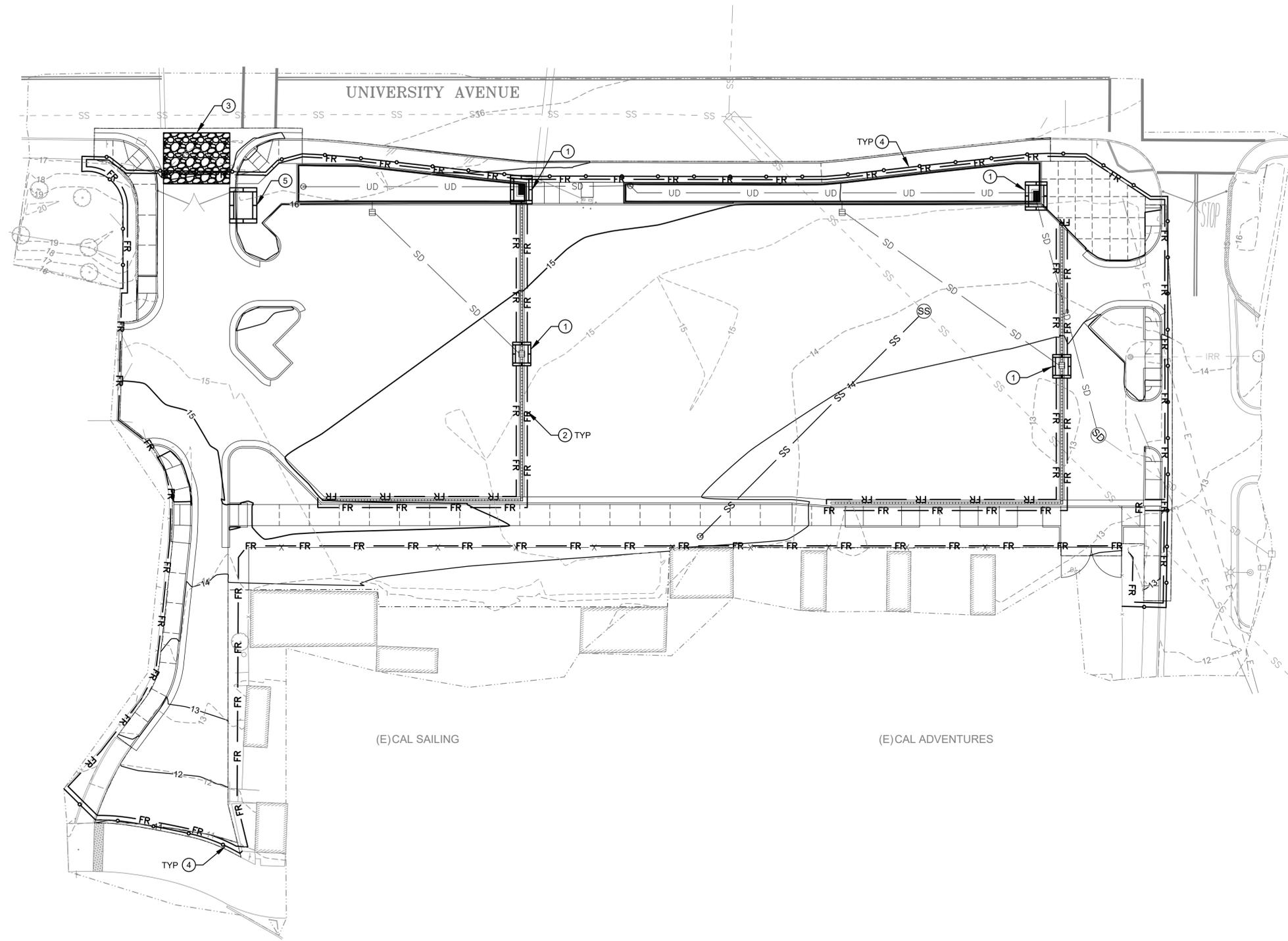
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 DRAWN: MDR
 CHECK: RZ
 AS BUILT: _____
 HORIZ. 1"=X'
 VERT. 1"=X'
 BOOK: _____
 DATE: 03/04/2025

CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

SURVEY CONTROL PLAN
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 G-003
 SHEET 3 OF 47

APPROVAL	DESCRIPTION	DATE	MARK	REVISION



GENERAL NOTES:
 1. SEE SHEET G-002 FOR EROSION CONTROL NOTES.

KEY NOTES: (X)
 1. STORM DRAIN INLET PROTECTION PER DETAILS 1 & 2/CE-501.
 2. FIBER ROLL PER DETAIL 1/CE-502.
 3. CONSTRUCTION ENTRANCE PER DETAIL 1/CE-503.
 4. TEMPORARY FENCE, SUGGESTED LOCATION.
 5. CONCRETE WASHOUT AREA PER DETAIL 1/CE-504.

LEGEND:

- FR — FIBER ROLL
- ○ — TEMPORARY FENCE
- STORM DRAIN INLET PROTECTION
- ▨ CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT

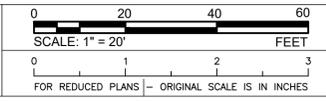


REVISION	MARK	DATE	DESCRIPTION	APPROVAL

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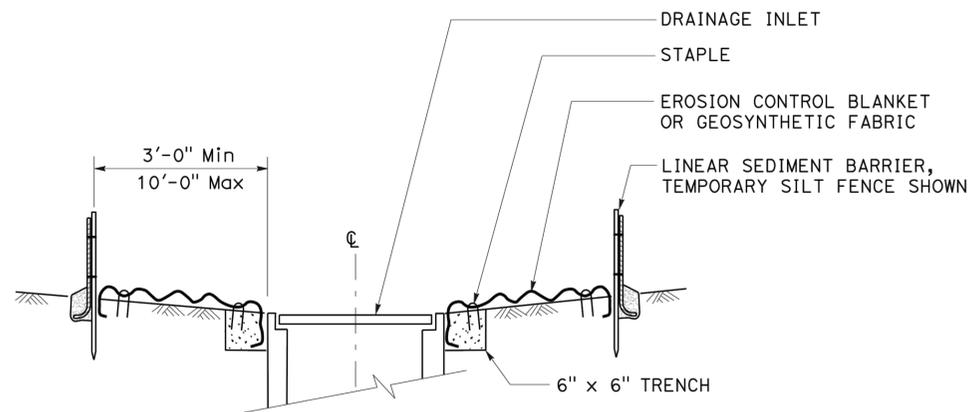
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 SUPERVISING CIVIL ENGINEER _____
 APPROVED: _____ DATE _____
 MANAGER OF ENGINEERING _____

DESIGN: JDV
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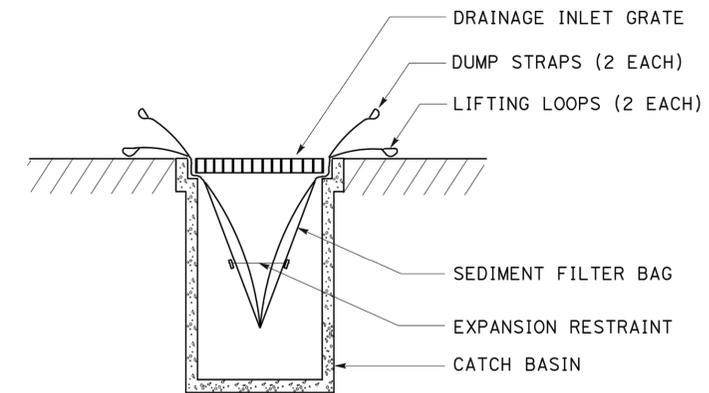
HORIZ. 1"=X'
 VERT. 1"=X'
 BOOK _____
 CITY OF BERKELEY
 DEPARTMENT OF PARKS,
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EROSION CONTROL PLAN
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 CE-101
 SHEET 4 OF 47

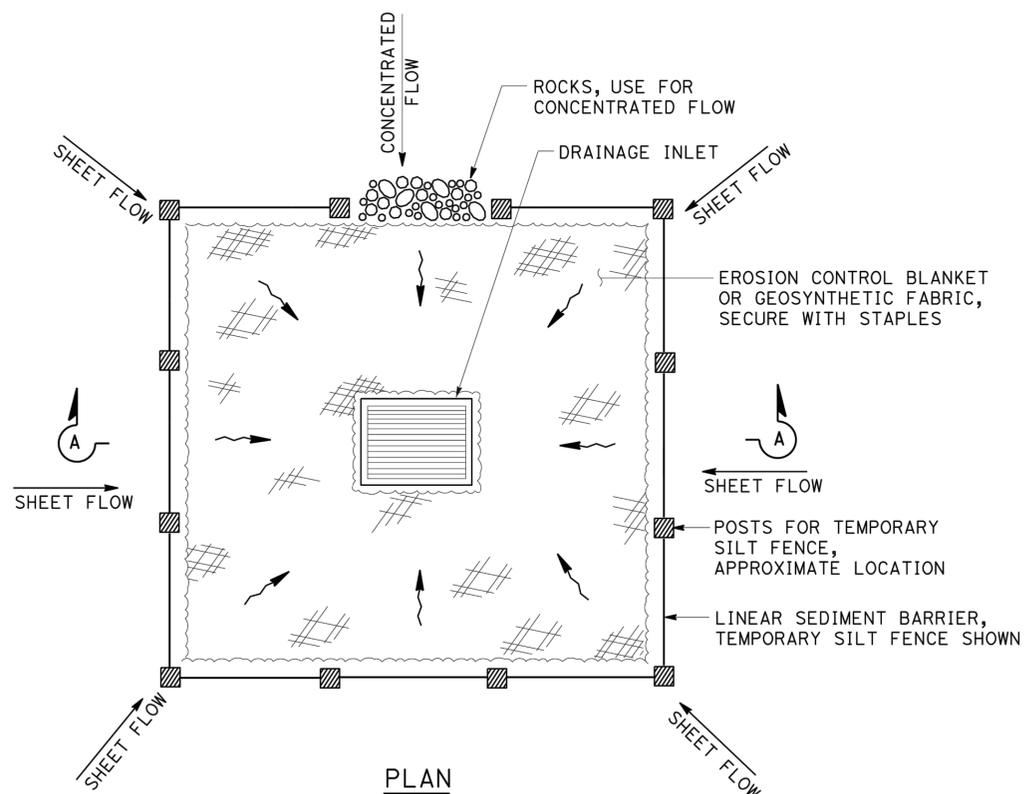


SECTION A-A

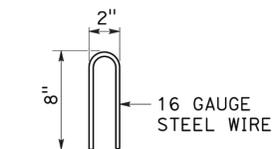


SECTION B-B

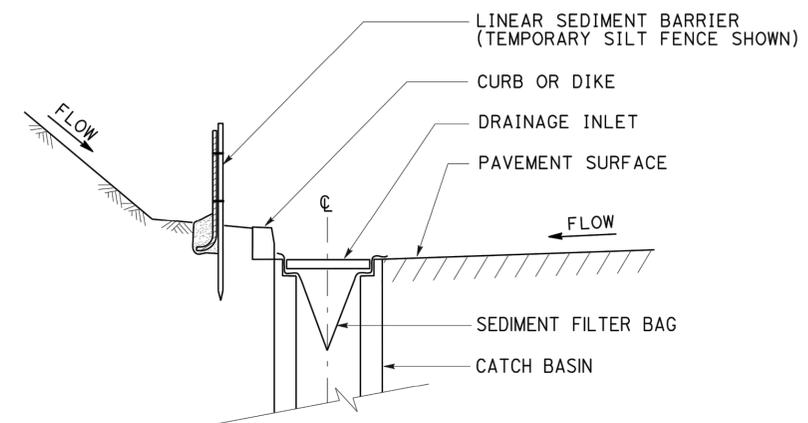
SEDIMENT FILTER BAG DETAIL



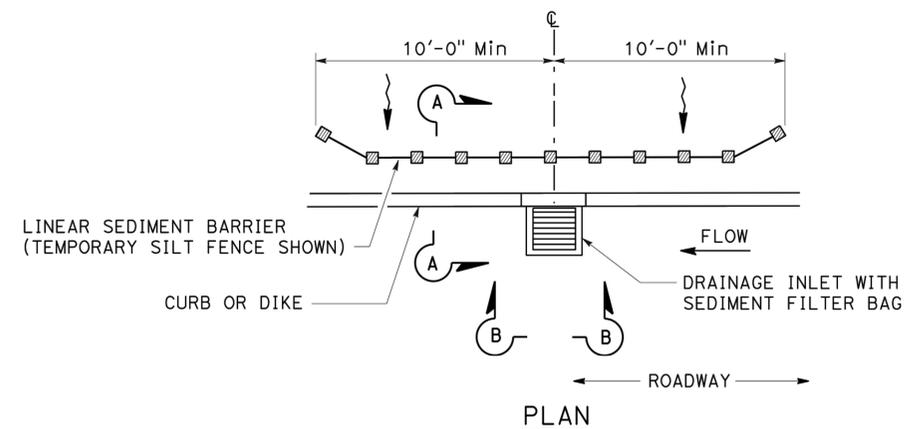
PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 1)



STAPLE DETAIL



SECTION A-A



PLAN

NOTE:
1. DIMENSIONS MAY VARY TO FIT FIELD CONDITIONS.

NOTE:
1. DIMENSIONS MAY VARY TO FIT FIELD CONDITIONS.

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2) (EXCAVATED SEDIMENT TRAP)

1
CE-101 CE-501 NTS

2
CE-101 CE-501 NTS

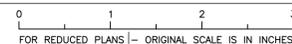


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NO SCALE



DEPICTION OF MONUMENTS: DATE _____
SURVEY PARTY CHIEF: _____
WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
SUPERVISING CIVIL ENGINEER: _____
APPROVED: DATE _____
MANAGER OF ENGINEERING: _____

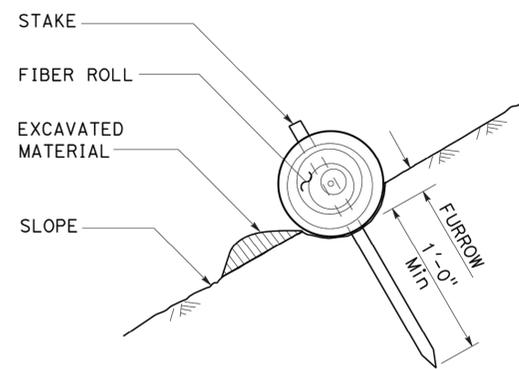
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DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

EROSION CONTROL DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

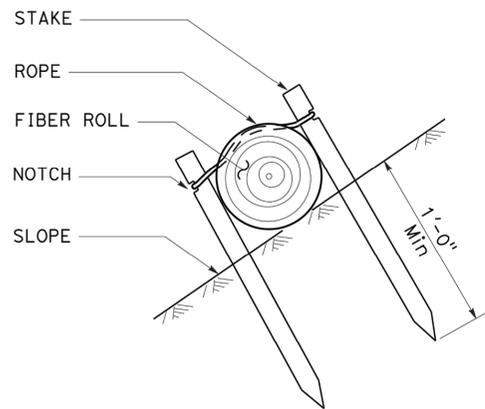
PLAN 8169
FILE 405-212
CE-501
SHEET 5 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



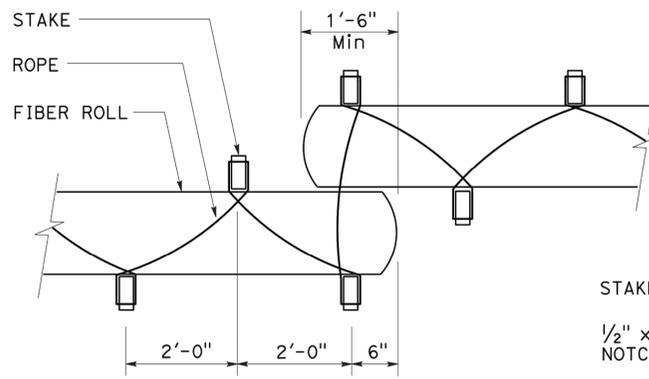
SECTION

TEMPORARY FIBER ROLL (TYPE 1)

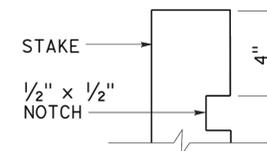


SECTION

TEMPORARY FIBER ROLL (TYPE 2)

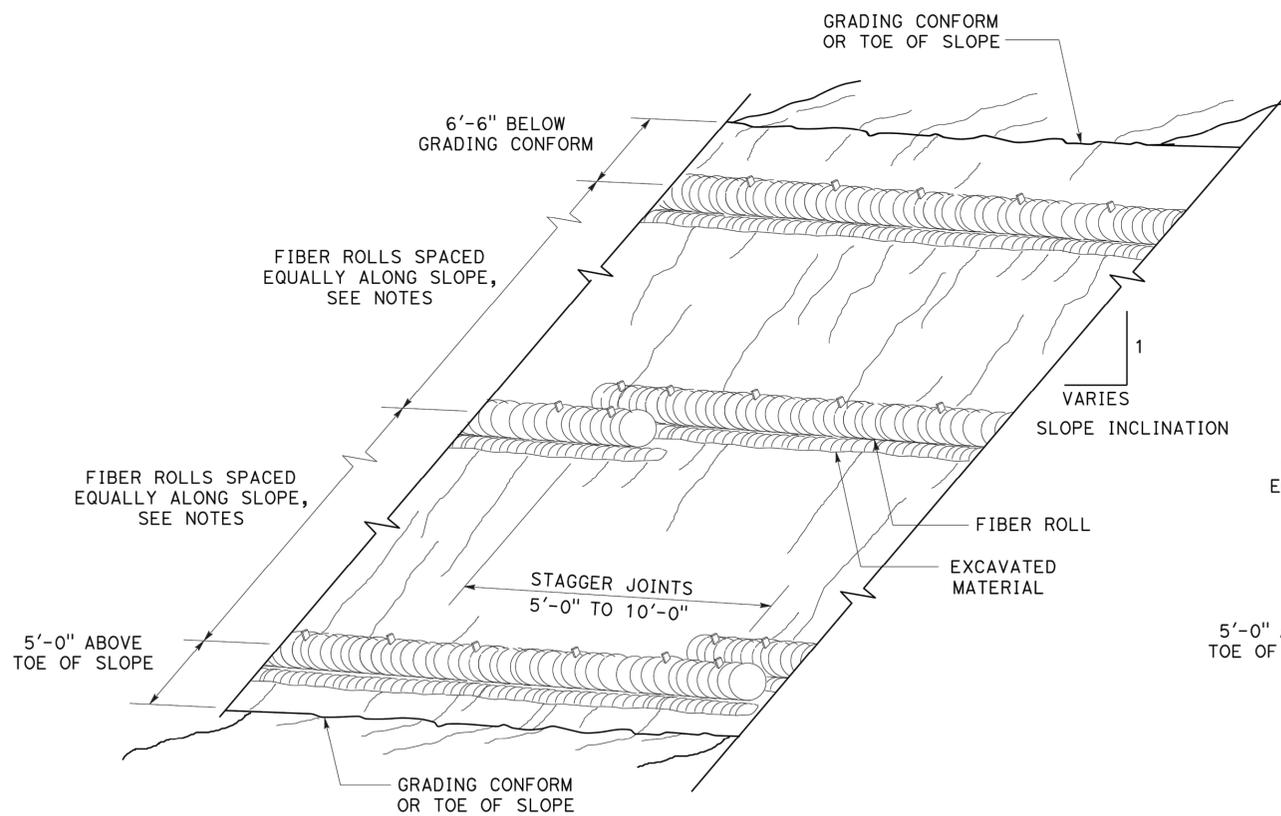


PLAN



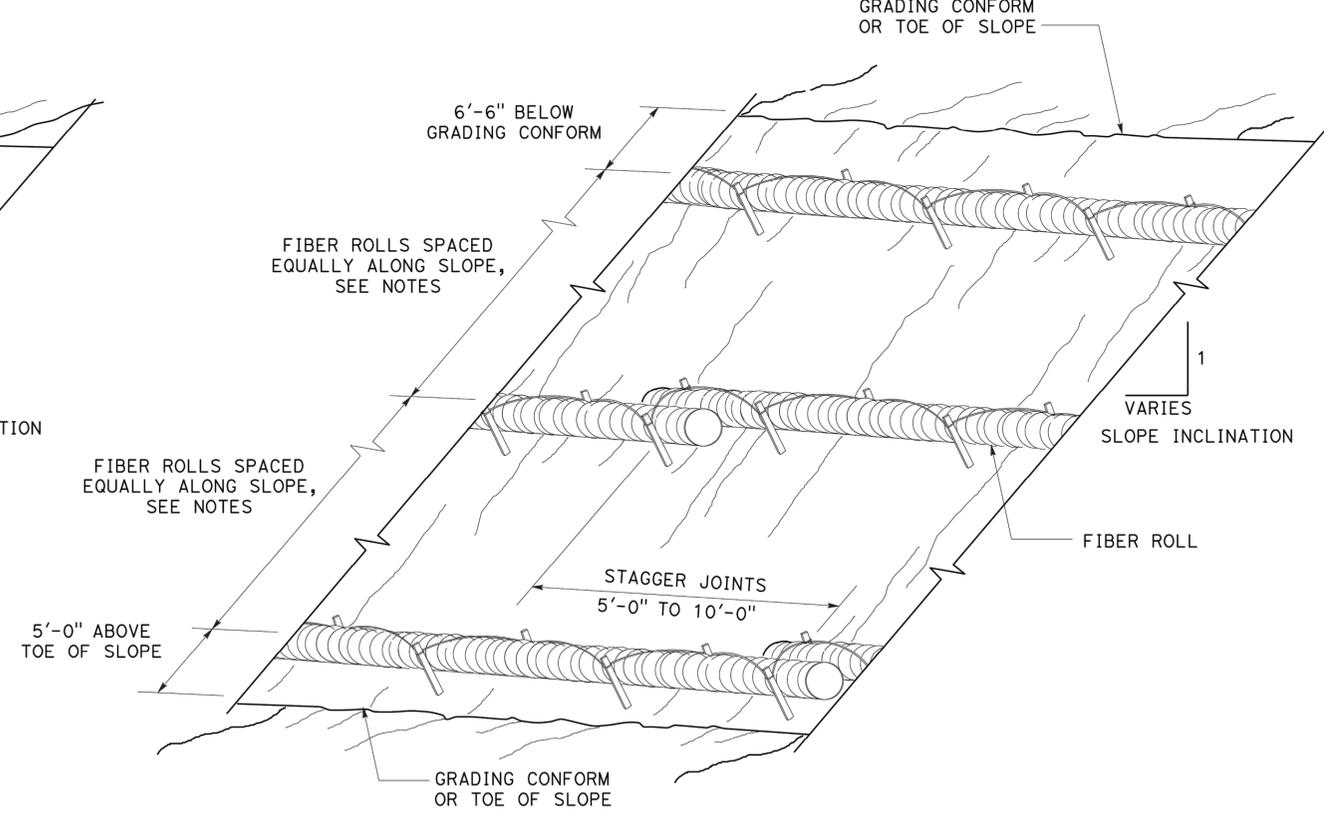
ELEVATION

STAKE NOTCH DETAIL



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 1)



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 2)

1 TEMPORARY FIBER ROLL (TYPE 1 & 2)
CE-101 CE-502 NTS



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APPROVED: _____ DATE _____
MANAGER OF ENGINEERING _____

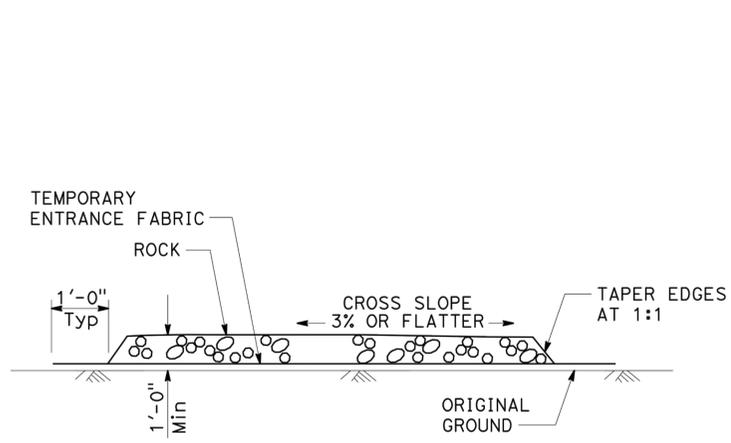
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DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

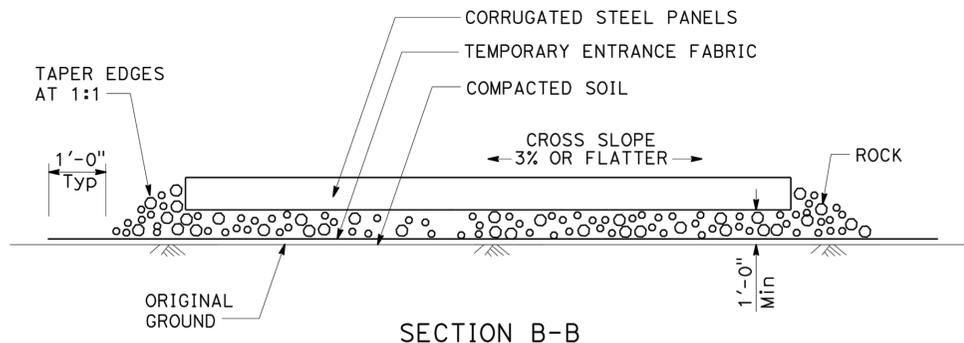
EROSION CONTROL DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN: 8169
FILE: 405-212
CE-502
SHEET 6 OF 47

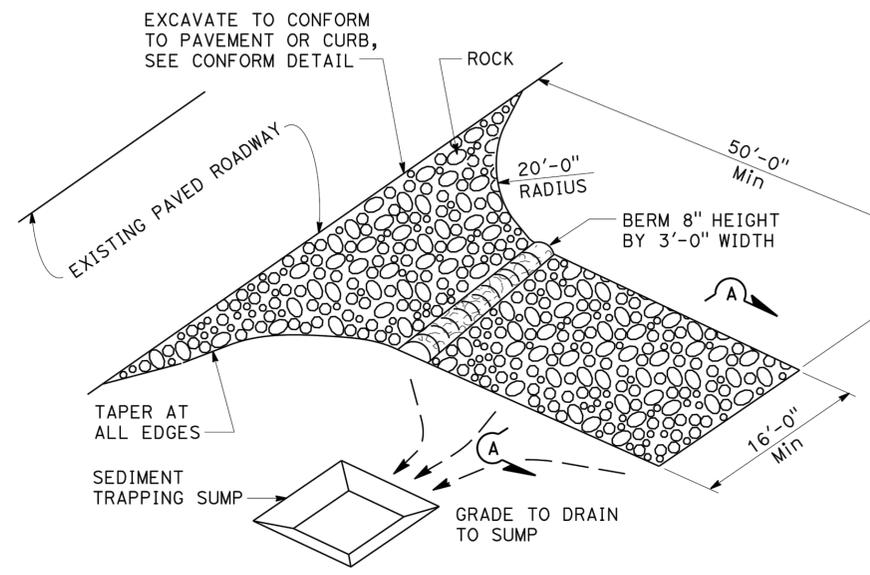
REVISION	MARK	DATE	DESCRIPTION	APPROVAL



SECTION A-A

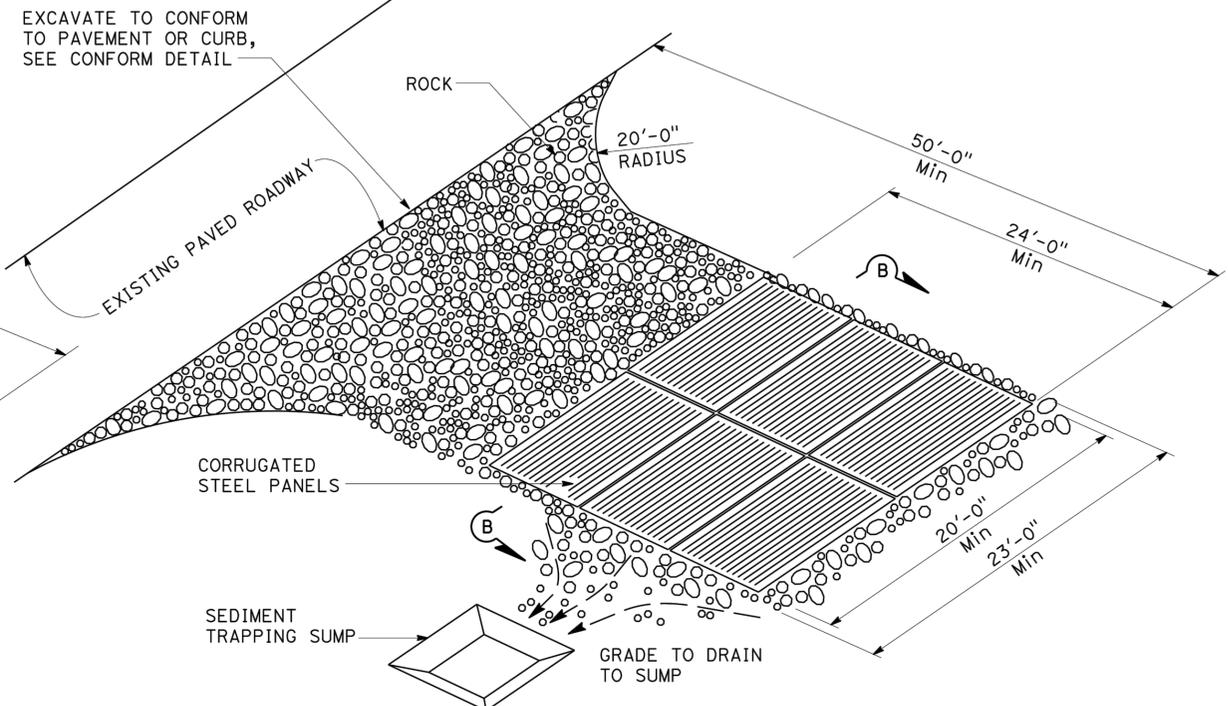


SECTION B-B



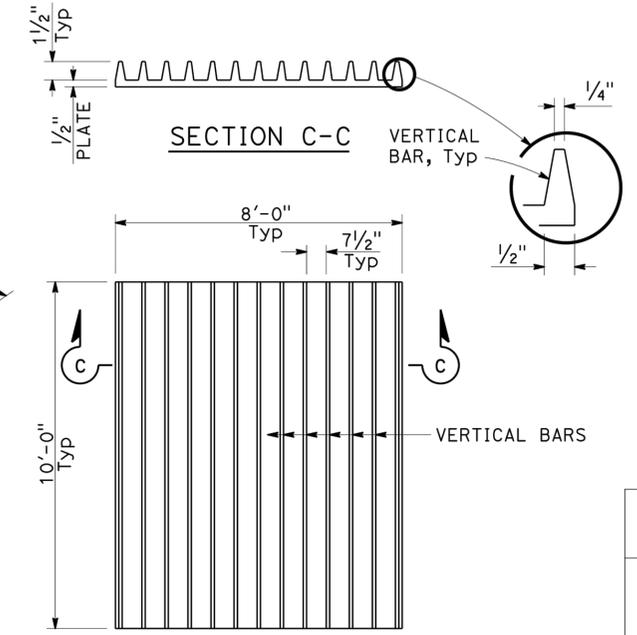
PERSPECTIVE

TEMPORARY CONSTRUCTION ENTRANCE (TYPE 1)



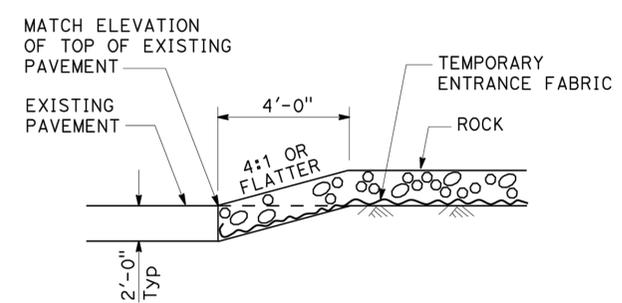
PERSPECTIVE

TEMPORARY CONSTRUCTION ENTRANCE (TYPE 2)

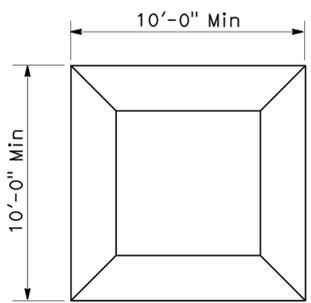


PLAN

TYPICAL CORRUGATED STEEL PANEL DETAIL



SECTION CONFORM DETAIL



PLAN



ELEVATION

SEDIMENT TRAPPING SUMP

TEMPORARY CONSTRUCTION ENTRANCE (TYPE 1 & 2)



FINAL SUBMITTAL



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NO SCALE
0 1 2 3
FOR REDUCED PLANS - ORIGINAL SCALE IS IN INCHES

DEPICTION OF MONUMENTS: DATE _____
SURVEY PARTY CHIEF: _____
WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
SUPERVISING CIVIL ENGINEER: _____
APPROVED: DATE _____
MANAGER OF ENGINEERING: _____

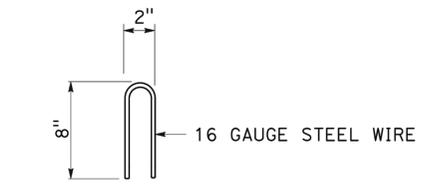
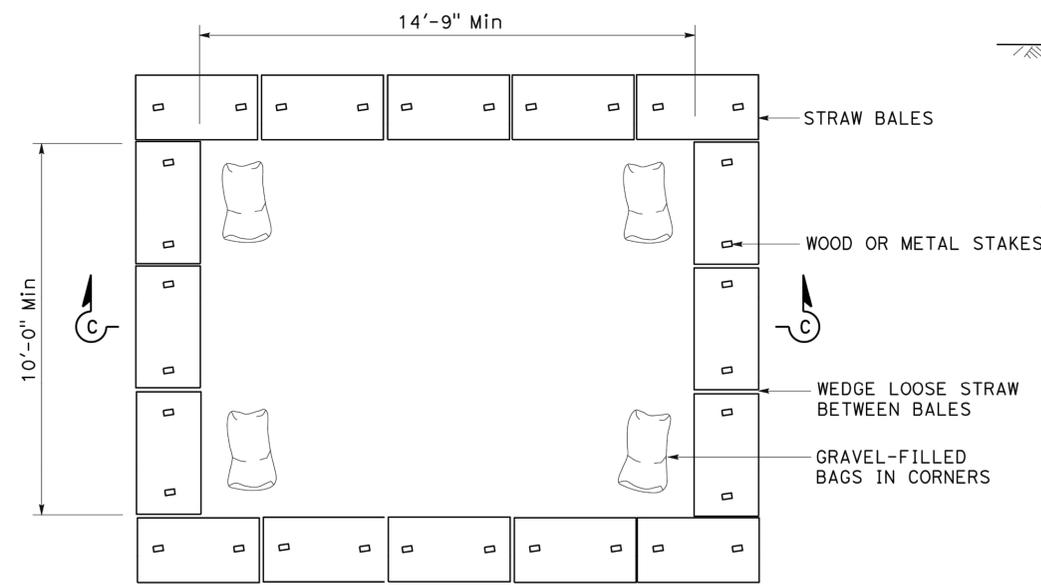
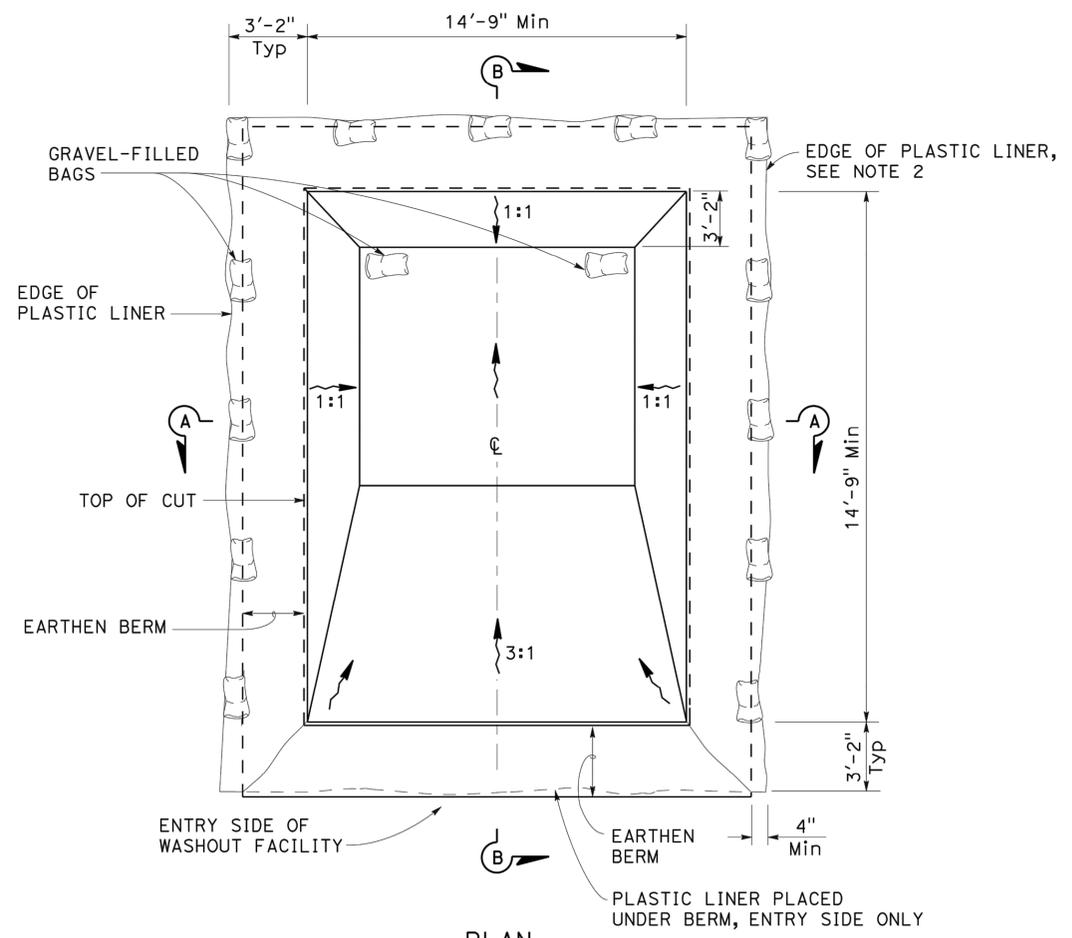
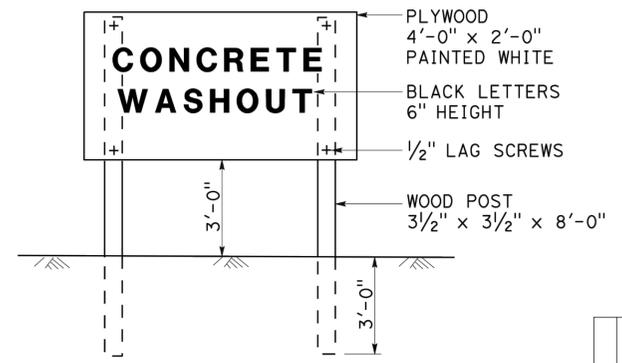
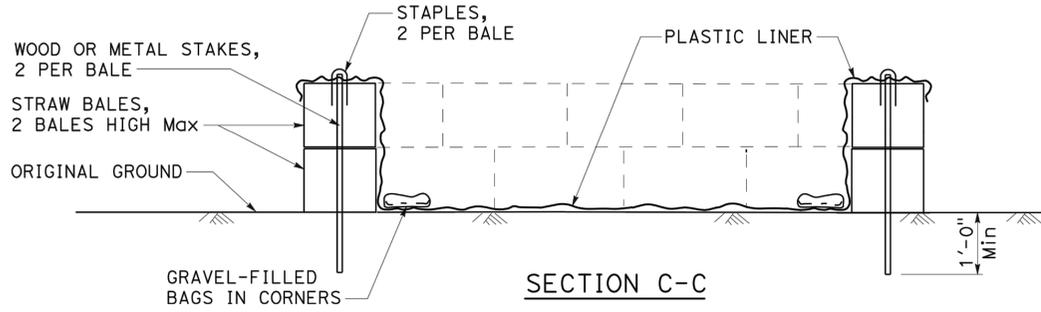
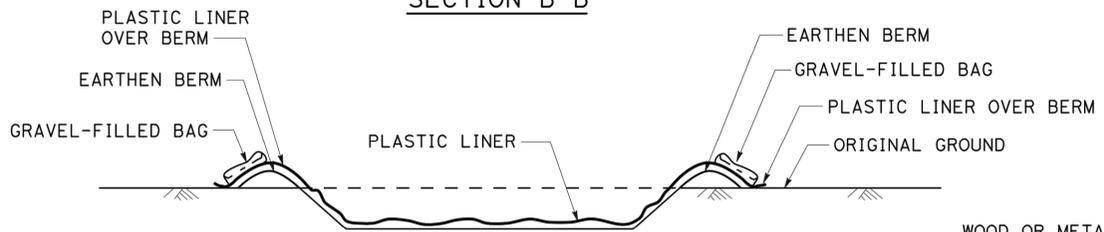
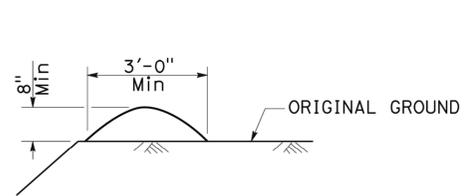
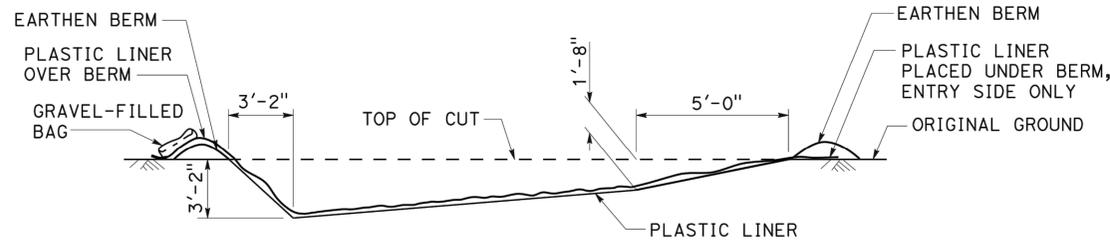
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DRAWN: MDR
CHECK: RZ
AS BUILT: _____
DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

EROSION CONTROL DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
CE-503
SHEET 7 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



TEMPORARY CONCRETE WASHOUT FACILITY
Below Grade

TEMPORARY CONCRETE WASHOUT FACILITY
On Grade

- NOTE:**
 1. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 32'-10" OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
 2. PLASTIC LINER SHALL BE ANCHORED WITH GRAVEL-FILLED BAGS FOR BELOW GRADE CONCRETE WASHOUT FACILITY.

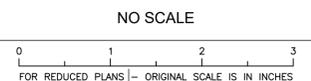
1 TEMPORARY CONCRETE WASHOUT FACILITY
NTS



REVISION	MARK	DATE	DESCRIPTION	APPROVAL

FINAL SUBMITTAL

TRANSYSTEMS
 2000 CENTER STREET
 SUITE 303
 BERKELEY, CA 94704
 PHONE: (510) 835-2761



DEPICTION OF MONUMENTS: DATE _____
 SURVEY PARTY CHIEF: _____
 WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
 SUPERVISING CIVIL ENGINEER: _____
 APPROVED: DATE _____
 MANAGER OF ENGINEERING: _____

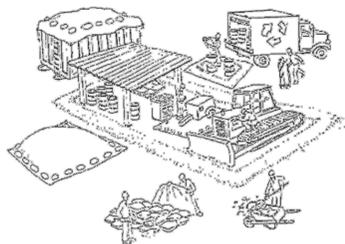
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CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

EROSION CONTROL DETAILS
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 CE-504
 SHEET 8 OF 47

City of Berkeley's Pollution Prevention - It's Part of the Plan



Make sure your crews and subs do the job right!

Runoff from streets and other paved areas is a major source of pollution and damage to creeks and the San Francisco Bay. Construction activities can directly affect the health of creeks and the Bay unless contractors and crews plan ahead to keep dirt, debris, and other construction waste away from storm drains and local creeks. Following these guidelines and the project specifications will ensure your compliance with City of Berkeley requirements.

Materials storage & spill cleanup

Non-hazardous materials management

- Sand, dirt, and similar materials must be stored at least 10 feet (3 meters) from catch basins. All construction material must be covered with a tarp and contained with a perimeter control during wet weather or when rain is forecasted or when not actively being used within 14 days.
- Use (but don't overuse) reclaimed water for dust control as needed.
- Sweep or vacuum streets and other paved areas daily. Do not wash down streets or work areas with water!
- Recycle all asphalt, concrete, and aggregate base material from demolition activities. Comply with City of Berkeley Ordinances for recycling construction materials, wood, gyp board, pipe, etc.
- Check dumpsters regularly for leaks and to make sure they are not overfilled. Repair or replace leaking dumpsters promptly.
- Cover all dumpsters with a tarp at the end of every work day or during wet weather.

Hazardous materials management

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state, and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecasted.
- Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecasted within 24 hours.
- Be sure to arrange for appropriate disposal of all hazardous wastes.

Spill prevention and control

- Keep a stockpile of spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.
- When spills or leaks occur, contain them immediately and be particularly careful to prevent leaks and spills from reaching the gutter, street, or storm drain. Never wash spilled material into a gutter, street, storm drain, or creek!
- Dispose of all containment and cleanup materials properly.
- Report any hazardous materials spills immediately! Dial 911 or the City of Berkeley's Public Works Department by dialing 311

Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking.

Vehicle and equipment maintenance & cleaning

- Inspect vehicles and equipment for leaks frequently. Use drip pans to catch leaks until repairs are made; repair leaks promptly.
- Fuel and maintain vehicles on site only in a bermed area or over a drip pan that is big enough to prevent runoff.
- If you must clean vehicles or equipment on site, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or creeks.
- Do not clean vehicles or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc.



Earthwork & contaminated soils

- Keep excavated soil on the site where it will not collect in the street.
- Transfer to dump trucks should take place on the site, not in the street.
- Use fiber rolls, silt fences, or other control measures to minimize the flow of silt off the site.



- Earth moving activities are only allowed during dry weather by permit and as approved by the City Inspector in the Field.
- Mature vegetation is the best form of erosion control. Minimize disturbance to existing vegetation whenever possible.
- If you disturb a slope during construction, prevent erosion by securing the soil with erosion control fabric, or seed with fast-growing grasses as soon as possible. Place fiber rolls down-slope until soil is secure.

- If you suspect contamination (from site history, discoloration, odor, texture, abandoned underground tanks or pipes, or buried debris), call the Engineer for help in determining what should be done, and manage disposal of contaminated soil according to their instructions.

Architectural Copper

If project contains architectural copper use best management practices as detailed in the handout Requirements for Architectural Copper available at the lobby of the Permit Service Center.

Dewatering operations

- Effectively manage all run-on, all runoff within the site, and all runoff that discharges from the site. Run-on from off site shall be directed away from all disturbed areas or shall collectively be in compliance.
- Reuse water for dust control, irrigation, or another on-site purpose to the greatest extent possible.
- Be sure to notify and obtain approval from the Engineer before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the Engineer to determine what testing is required and how to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.



Saw cutting

- Always completely cover or barricade storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or sand/gravel bags to keep slurry out of the storm drain system.
- Shovel, absorb, or vacuum saw-cut slurry and pick up all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- If saw cut slurry enters a catch basin, clean it up immediately.

Paving/asphalt work



- Always cover storm drain inlets and manholes when paving or applying seal coat, tack coat, slurry seal, or fog seal.
- Protect gutters, ditches, and drainage courses with sand/gravel bags, or earthen berms.
- Do not sweep or wash down excess sand from sand sealing into gutters, storm drains, or creeks. Collect sand and return it to the stockpile, or dispose of it as trash.
- Do not use water to wash down fresh asphalt concrete pavement.

Concrete, grout, and mortar storage & waste disposal

- Store concrete, grout, and mortar under cover, on pallets, and away from drainage areas. These materials must never reach a storm drain.
- Wash out concrete equipment/trucks off-site or into contained washout areas that will not allow discharge of wash water onto the underlying soil or onto the surrounding areas.



- Collect the wash water from washing exposed aggregate concrete and remove it for appropriate disposal off site.

Painting

- Never rinse paint brushes or materials in a gutter or street!
- Paint out excess water-based paint before rinsing brushes, rollers, or containers in a sink.
- Paint out excess oil-based paint before cleaning brushes in thinner.
- Filter paint thinners and solvents for reuse whenever possible. Dispose of oil-based paint sludge and unusable thinner as hazardous waste.



Landscape Materials

- Contain, cover, and store on pallets all stockpiled landscape materials (mulch, compost, fertilizers, etc.) during wet weather or when rain is forecasted or when not actively being used within 14 days.
- Discontinue the application of any erodible landscape material within 2 days of forecasted rain and during wet weather.

Storm drain polluters may be liable for fines of \$10,000 or more per day!

For references and more detailed information:
www.cleanwaterprogram.org
www.cabmphandbooks.com

1 BEST MANAGEMENT PRACTICES
CE-101 CE-505 NTS

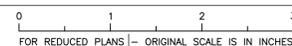


FINAL SUBMITTAL

TRANSYSTEMS

2000 CENTER STREET
SUITE 303
BERKELEY, CA 94704
PHONE: (510) 835-2761

NO SCALE



DEPICTION OF MONUMENTS: _____ DATE _____

SURVEY PARTY CHIEF _____

WATERSHED REVIEW: _____ DATE _____

SUBMITTED: _____ DATE _____

SUPERVISING CIVIL ENGINEER _____

APPROVED: _____ DATE _____

MANAGER OF ENGINEERING _____

DATE _____

R.C.E. _____

DATE _____

EXP. _____

DESIGN _____

MDR _____

DATE _____

AS BUILT _____

HORIZ. 1"=X'

VERT. 1"=X'

BOOK _____

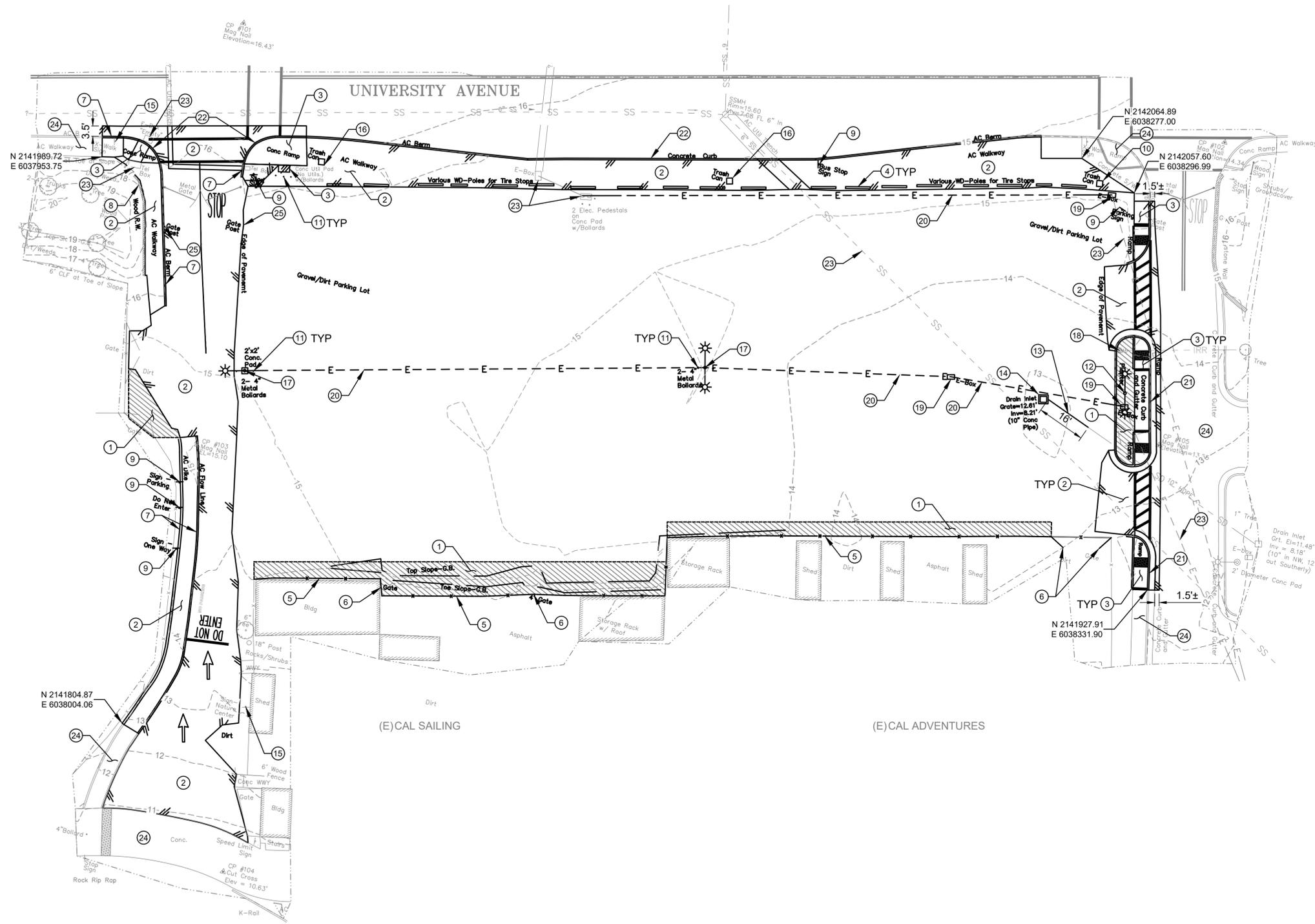
DATE 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

EROSION CONTROL DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

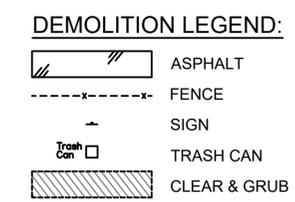
PLAN 8169
FILE 405-212
CE-505
SHEET 9 OF 47

APPROVAL	
DATE	
MARK	
REVISION	



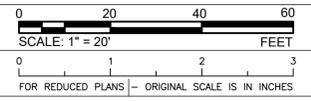
- GENERAL NOTES:**
1. ALL SCREENED LINE WORK IS EXISTING TO REMAIN. PROTECT IN PLACE. BLACK LINE WORK DENOTES DEMOLITION ITEMS.
 2. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION REGARDING ELECTRICAL DEMOLITION.

- KEY NOTES: (X)**
1. CLEAR AND GRUB.
 2. REMOVE AC PAVEMENT.
 3. REMOVE PCC SIDEWALK.
 4. REMOVE WOOD POLES.
 5. REMOVE FENCING.
 6. REMOVE GATE.
 7. REMOVE AC DIKE.
 8. WOOD RETAINING WALL TO REMAIN.
 9. REMOVE SIGN, POST AND FOOTING. SALVAGE SIGN PANEL FOR REINSTALLATION.
 10. REMOVE AND SALVAGE TRASH CAN FOR REUSE. SEE LANDSCAPING PLANS.
 11. REMOVE BOLLARD.
 12. REMOVE AND SALVAGE LIGHT POLE.
 13. REMOVE 10" STORM DRAIN PIPE.
 14. REMOVE STORM DRAIN INLET.
 15. SIGN TO REMAIN.
 16. REMOVE AND SALVAGE TRASH CAN AND PLACE IN CITY YARD.
 17. REMOVE LIGHT POLE AND DISPOSE.
 18. SEE IRRIGATION CONTROL PLAN FOR INFORMATION.
 19. REMOVE PULL BOX.
 20. REMOVE ELECTRICAL CONDUITS.
 21. REMOVE CONCRETE CURB & GUTTER.
 22. REMOVE CONCRETE CURB.
 23. UTILITY TO REMAIN.
 24. PAVEMENT TO REMAIN.
 25. REMOVE GATE POST AND SALVAGE FOR REINSTALLATION.



FINAL SUBMITTAL

TRANSYSTEMS
 2000 CENTER STREET
 SUITE 303
 BERKELEY, CA 94704
 PHONE: (510) 835-2761



DEPICTION OF MONUMENTS: DATE _____
 SURVEY PARTY CHIEF _____
 WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
 SUPERVISING CIVIL ENGINEER R.C.E. _____
 EXP. _____
 APPROVED: DATE _____
 MANAGER OF ENGINEERING R.C.E. _____
 EXP. _____

DESIGN: JDV
 DRAWN: MDR
 CHECK: RZ
 AS BUILT: _____
 DATE: 03/04/2025

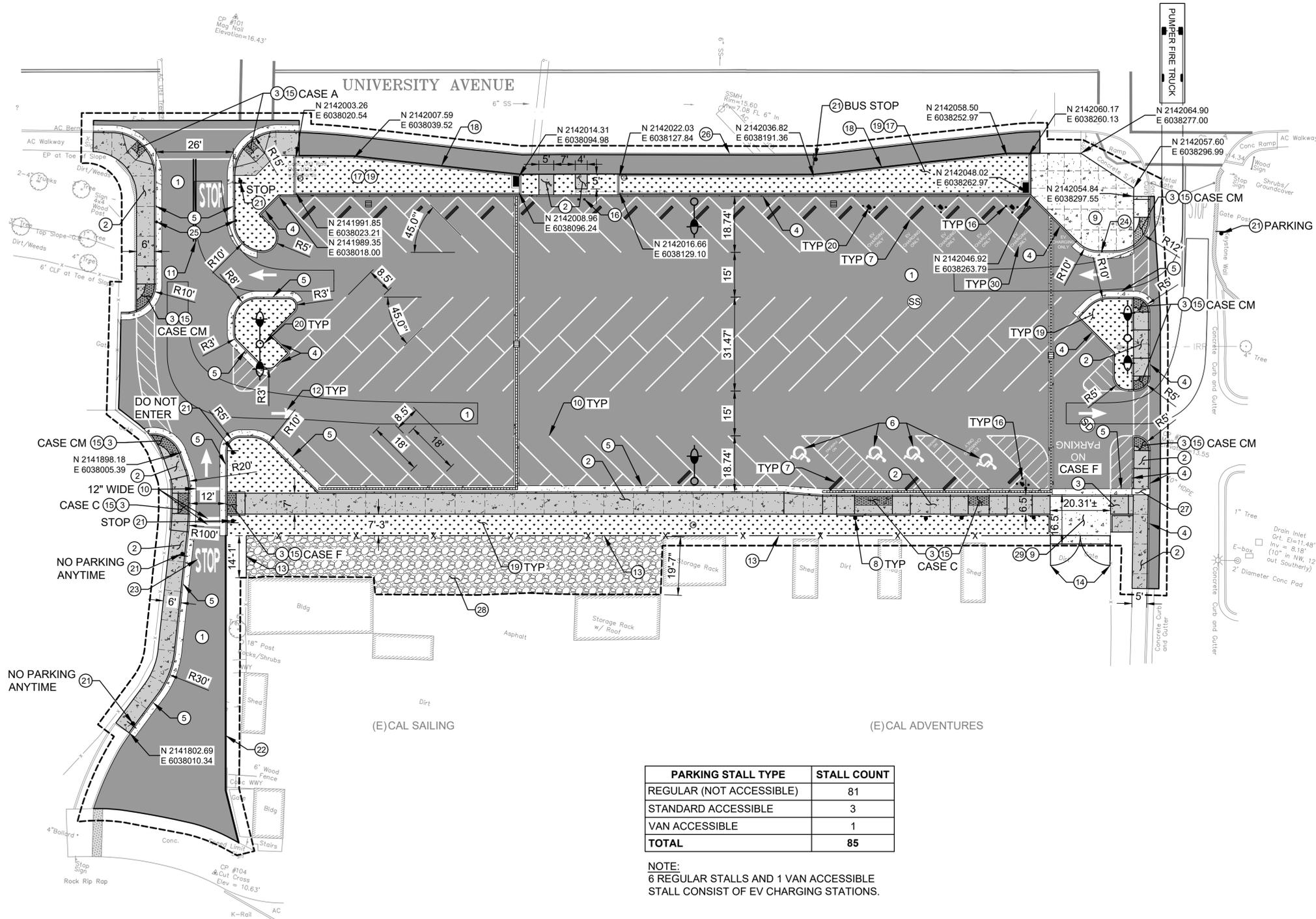
HORIZ. 1"=X'
 VERT. 1"=X'
 BOOK: _____
 DATE: 03/04/2025

CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

DEMOLITION PLAN
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 CD-101
 SHEET 10 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



PARKING STALL TYPE	STALL COUNT
REGULAR (NOT ACCESSIBLE)	81
STANDARD ACCESSIBLE	3
VAN ACCESSIBLE	1
TOTAL	85

NOTE:
6 REGULAR STALLS AND 1 VAN ACCESSIBLE STALL CONSIST OF EV CHARGING STATIONS.

GENERAL NOTES:

- SEE CE-101 FOR EROSION CONTROL PLAN.
- SEE CG-101 FOR GRADING AND DRAINAGE ITEMS.
- SEE ELECTRICAL SHEETS FOR ELECTRICAL ITEMS.
- TURNING MOVEMENTS SHOWN ARE BASED ON A PIERCE PUMPER FIRE TRUCK, AS PROVIDED BY THE BERKELEY FIRE DEPARTMENT, WITH AN INSIDE TURNING RADIUS OF 14'-10".

KEY NOTES: (X)

- AC PAVEMENT PER DETAIL 1/CS-501.
- PCC WALKWAY PAVEMENT PER DETAIL 3/CS-501.
- PCC CURB RAMP PER DETAILS ON SHEET CS-505.
- 6" CONCRETE CURB PER DETAIL 4/CS-501.
- CONCRETE CURB AND GUTTER PER DETAIL 6/CS-501.
- ACCESSIBLE PARKING STALL PER DETAIL 1/CS-503.
- CONCRETE WHEEL STOP PER DETAIL 2/CS-502.
- ADA PARKING SIGN PER DETAIL 1/CS-503 AND 1, 2 & 3/CS-504.
- VEHICULAR CONCRETE PAVEMENT PER DETAIL 5/CS-501.
- 4" WIDE WHITE STRIPING UNLESS OTHERWISE NOTED.
- DOUBLE YELLOW (CALTRANS DETAIL 22), 6" WIDE.
- WHITE CALTRANS TYPE I 10'-0" ARROW.
- 6' SLATTED CHAIN LINK FENCE PER DETAIL 1/CS-502.
- 10' WIDE SLATTED CHAIN LINK SWING GATE TO MATCH FENCE. PER SUPPLIER DESIGN.
- DETECTABLE WARNING SURFACE PER DETAILS ON SHEET CS-505.
- BOLLARDS PER DETAIL 3/CS-502. BOLLARDS AROUND EVCS EQUIPMENT ARE BID ALTERNATE WORK.
- BIOSWALE STRUCTURE. SEE CG-101, STRUCTURAL SHEETS AND LANDSCAPE PLANS.
- GUARDRAIL. SEE STRUCTURAL PLANS.
- LANDSCAPING. SEE LANDSCAPE PLANS.
- ELECTRICAL FEATURE. SEE ELECTRICAL PLANS.
- ROADWAY SIGN WITH NEW OR SALVAGED SIGN PANEL PER DETAILS ON CS-504. TYPE AS NOTED.
- REDWOOD HEADER.
- 'STOP' LEGEND.
- ROLLED CURB AND GUTTER PER DETAIL 4 & 5/CS-502.
- SALVAGED GATE POST. INSTALL PER DETAIL 3/CS-502.
- BASE BID: AC SIDEWALK AND DIKE PER DETAIL 3/CS-503. [ALTERNATE BID: PCC SIDEWALK AND CURB & GUTTER PER DETAIL 3/CS-503.]
- 24" WIDE GUTTER (SIDEWALK UNDERDRAIN) COVERED WITH DIAMOND STEEL PLATE PER DETAIL 2/CS-503.
- 4" CL. 2 AGGREGATE BASE SURFACE MATERIAL COMPACTED TO 90%.
- DRIVEWAY PER DETAIL 1/CS-506.
- "EV CHARGING ONLY" MARKINGS SHALL CONSIST OF LETTERS 12" HIGH MINIMUM, CENTERED IN THE BACK OF THE STALL UNLESS OTHERWISE NOTED.

LEGEND:

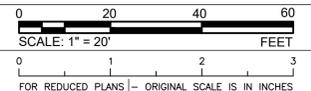
- VEHICULAR CONCRETE
- PEDESTRIAN CONCRETE
- ASPHALT PAVEMENT
- AGGREGATE BASE SURFACE MATERIAL
- LANDSCAPING
- CONTRACTION JOINT
- LIMIT OF WORK



FINAL SUBMITTAL



2000 CENTER STREET
SUITE 303
BERKELEY, CA 94704
PHONE: (510) 835-2761



DEPICTION OF MONUMENTS: DATE _____
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MANAGER OF ENGINEERING: _____

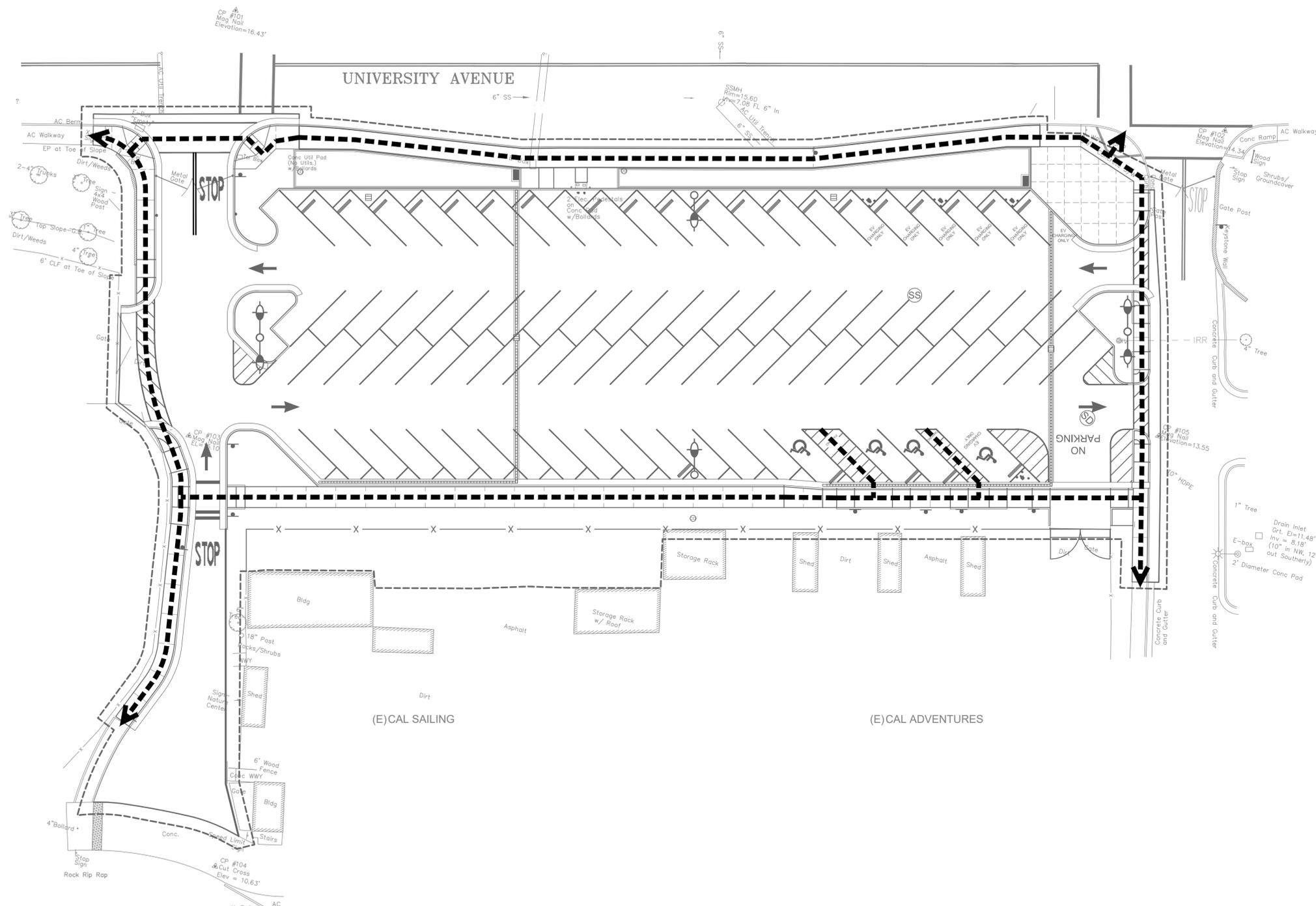
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CHECK: RZ
AS BUILT: _____
DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

SITE PLAN
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
CS-101
SHEET 12 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



GENERAL NOTES:

- ALL ACCESSIBLE PATHS OF TRAVEL SHOWN ON PLAN COMPLY WITH ADA REQUIREMENTS FOR LONGITUDINAL AND CROSS SLOPES.

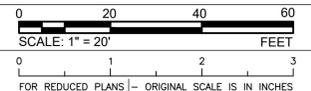
LEGEND:

— — — — — ACCESSIBLE PATH OF TRAVEL



FINAL SUBMITTAL

TRANSYSTEMS
 2000 CENTER STREET
 SUITE 303
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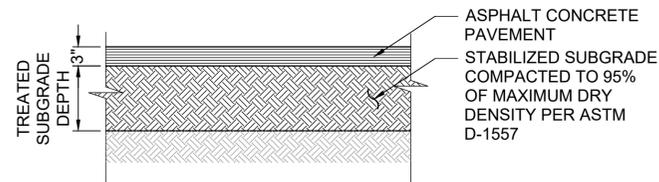
HORIZ. 1"=10'
 VERT. 1"=1'
 BOOK: _____
 DATE: 03/04/2025

CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

ACCESSIBILITY PLAN
 SOUTH COVE WEST PARKING LOT
 PROJECT

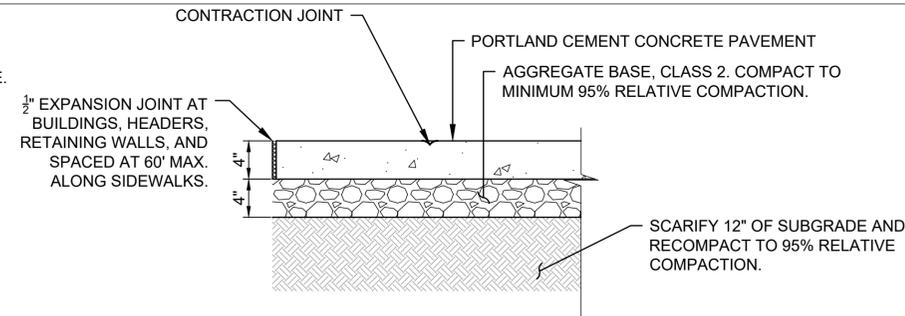
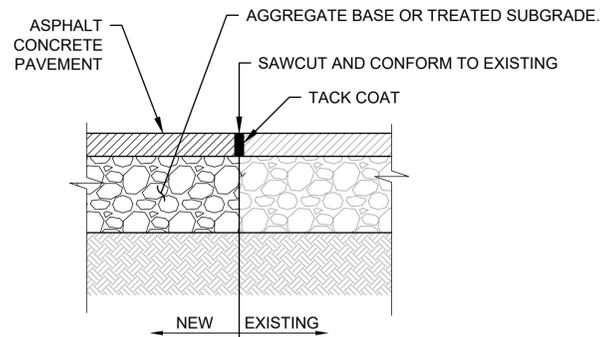
PLAN 8169
 FILE 405-212
 CS-102
 SHEET 13 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



TREATED SUBGRADE	
	DEPTH OF TREATMENT AREA
EMC SQUARED SYSTEM	18" (TWO 9" LIFTS)

NOTE:
SEE SHEET CP-101 FOR SUBGRADE TREATMENT AREA.

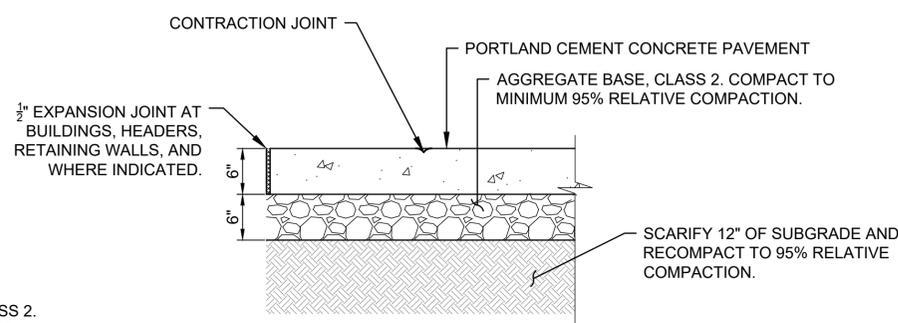
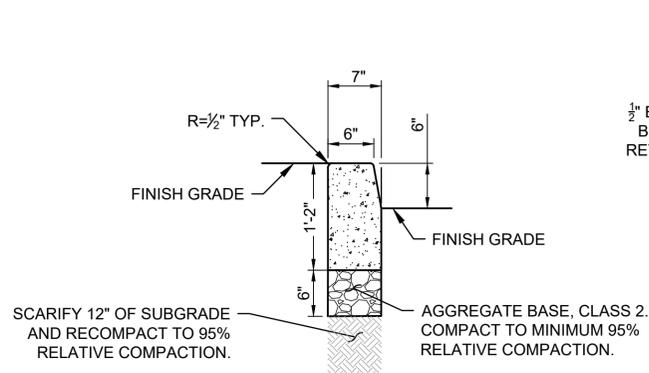


NOTE: PROVIDE TOOLED OR SAWCUT CONTRACTION JOINTS AT 7' SPACING, MAX. IN WALKWAYS AND PAVEMENT. PROVIDE EXPANSION JOINTS AT 60' MAX. SPACING.

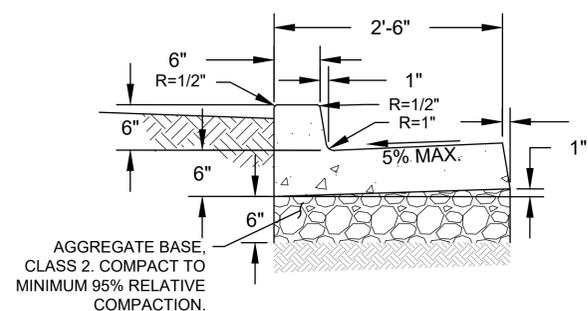
1 ASPHALT CONCRETE PAVEMENT DETAIL
CS-101 CS-501 NTS

2 ASPHALT CONCRETE PAVEMENT CONFORM DETAIL
CS-101 CS-501 NTS

3 PCC WALKWAY AND RAMP PAVEMENT DETAIL
CS-101 CS-501 NTS



NOTE:
PROVIDE TOOLED OR SAWCUT CONTRACTION JOINTS AT 10' SPACING, MAX. IN WALKWAYS AND PAVEMENT. PROVIDE EXPANSION JOINTS AT 60' MAX. SPACING.

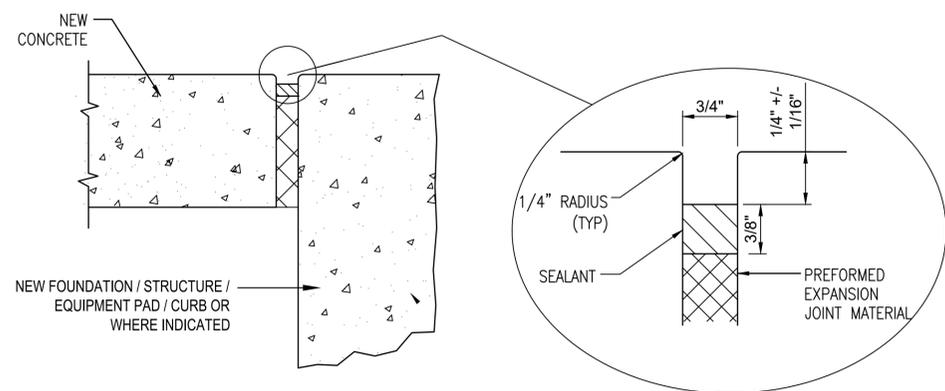


NOTE:
FOR LOCATIONS CONSISTING OF TRENCH DRAIN, REFER TO DETAIL 6 ON SHEET CG-501.

4 6" CONCRETE CURB DETAIL
CS-101 CS-501 NTS

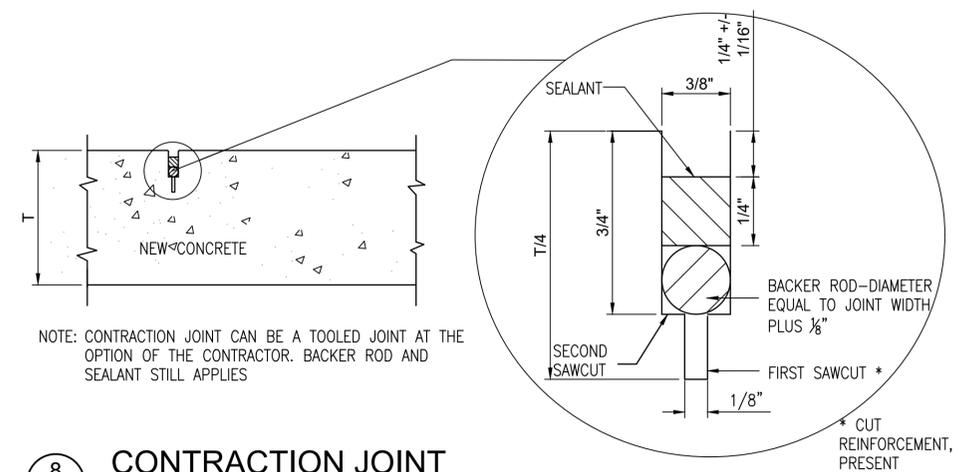
5 VEHICULAR PCC PAVEMENT DETAIL
CS-101 CS-501 NTS

6 CONCRETE CURB AND GUTTER DETAIL
CS-101 CS-501 NTS



7 EXPANSION JOINT
CS-101 CS-501 NTS

NOTE:
SEE GEOTECHNICAL REPORT AND SPECIFICATIONS FOR ADDITIONAL PROVISIONS RELATED TO COMPACTION AND MOISTURE CONDITIONING.



8 CONTRACTION JOINT
CS-101 CS-501 NTS

NOTE: CONTRACTION JOINT CAN BE A TOOLED JOINT AT THE OPTION OF THE CONTRACTOR. BACKER ROD AND SEALANT STILL APPLIES

* CUT REINFORCEMENT, IF PRESENT

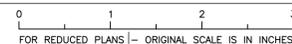


FINAL SUBMITTAL



2000 CENTER STREET
SUITE 303
BERKELEY, CA 94704
PHONE: (510) 835-2761

NO SCALE



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SURVEY PARTY CHIEF: _____
WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
SUPERVISING CIVIL ENGINEER: R.C.E. _____
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CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

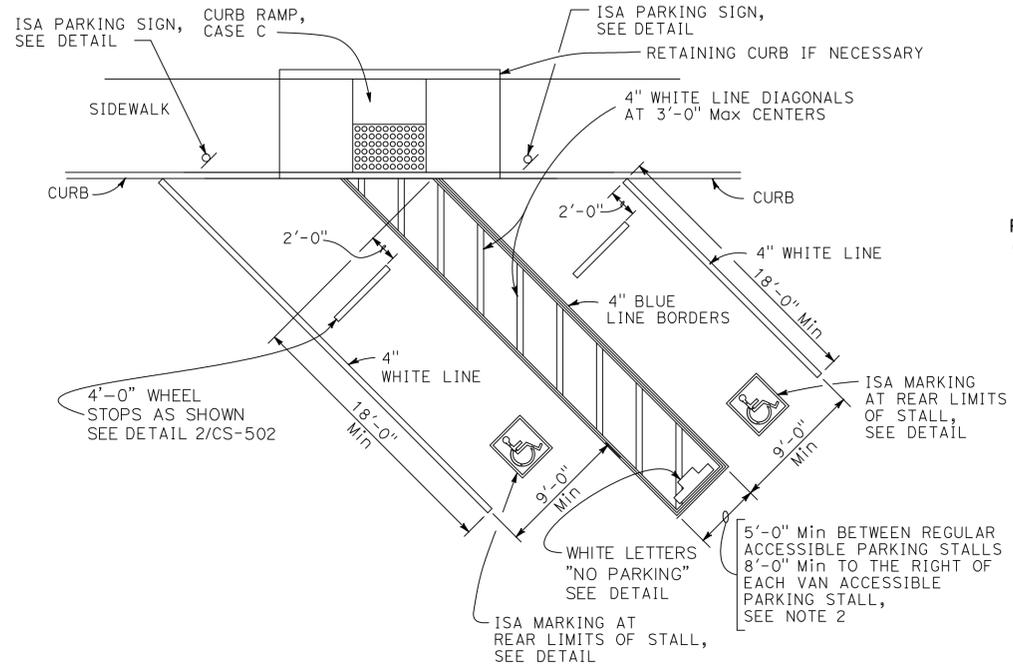
SITE DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
CS-501
SHEET 14 OF 47

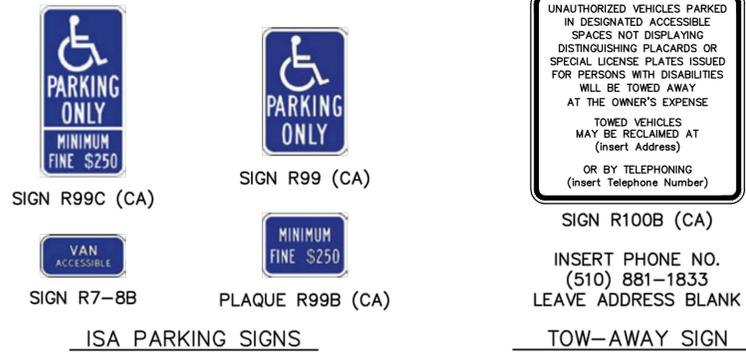
APPROVAL
DATE
MARK
REVISION

NOTES

1. VAN PARKING SPACES MAY BE REDUCED TO 9'-0" WIDE MINIMUM WHERE THE ACCESS AISLE IS INCREASED TO 8'-0" WIDE MINIMUM.
2. ACCESS AISLES MAY BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR VAN PARKING SPACES WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
3. TWO ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE.
4. ACCESS AISLES SHALL BE AT THE SAME LEVEL AS THE PARKING SPACES THEY SERVE. SURFACE SLOPES IN PARKING SPACE AND ACCESS AISLE SHALL NOT EXCEED 2% IN ANY DIRECTION.
5. ACCESS AISLES SHALL ADJOIN AN ACCESSIBLE ROUTE. THE LOCATION OF THE ACCESSIBLE ROUTE IS SITE-DEPENDENT AND NOT SHOWN IN THIS PLAN.

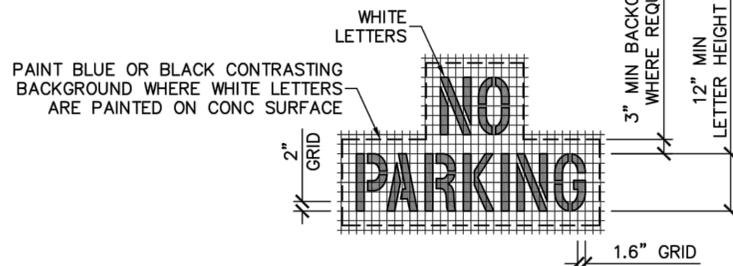


DIAGONAL DOUBLE PARKING STALLS

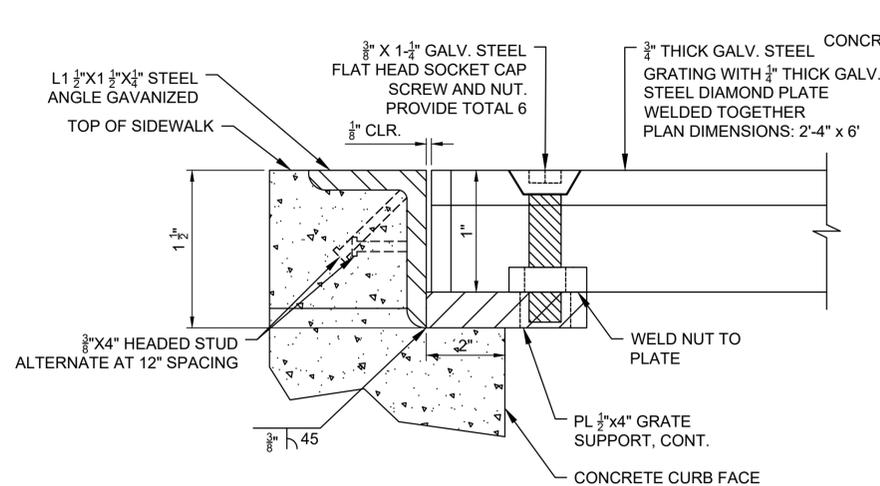


ISA PARKING SIGNS

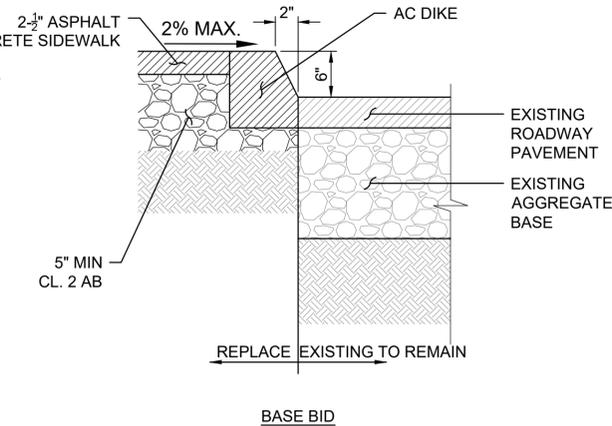
ISA MARKING - LAYOUT



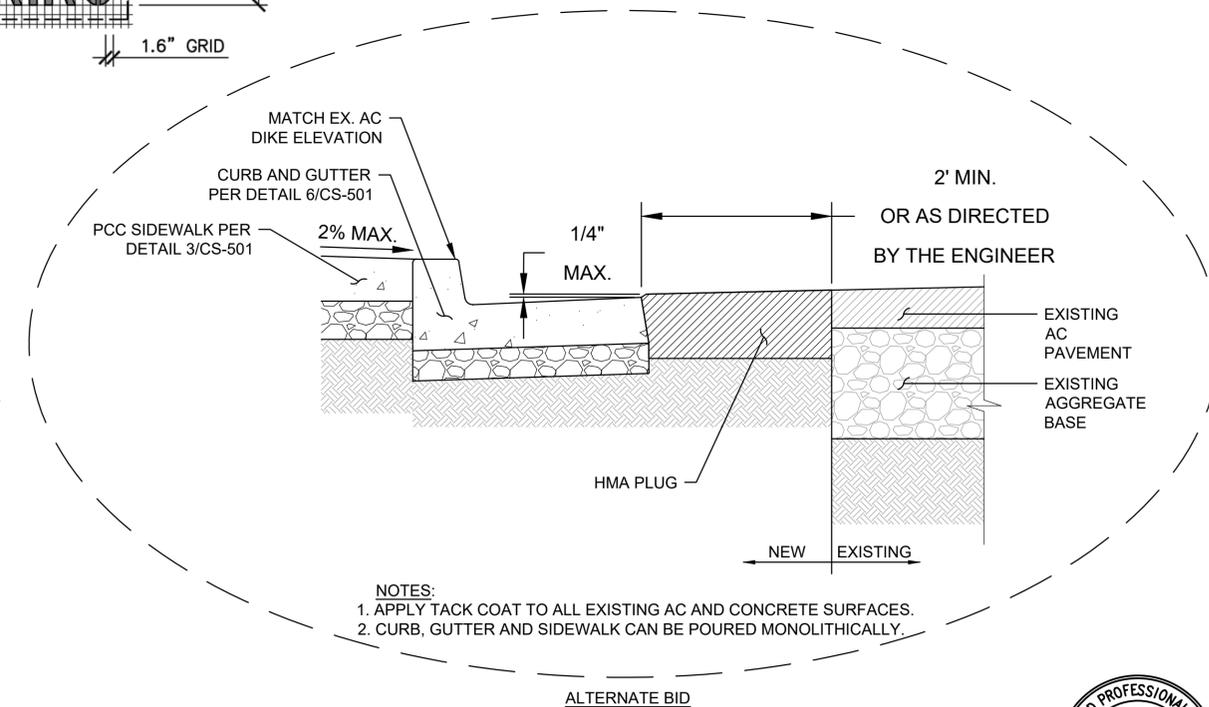
1 ACCESSIBLE PARKING STALL DETAILS
CS-101 CS-503 NTS



2 SIDEWALK UNDERDRAIN COVER DETAIL
CS-101 CS-503 NTS



3 AC DIKE AND ALTERNATE BID
CS-101 CS-503 NTS



- NOTES:**
1. APPLY TACK COAT TO ALL EXISTING AC AND CONCRETE SURFACES.
 2. CURB, GUTTER AND SIDEWALK CAN BE POURED MONOLITHICALLY.

SIGN AND MARKING NOTES:

1. "ACCESSIBLE PARKING ONLY" SIGN SHALL BE SIGN R99C (CA) OR SIGN R99 (CA) WITH PLAQUE R99B (CA).
2. "VAN ACCESSIBLE" SIGN R7-8B SHALL BE MOUNTED BELOW THE R99C (CA) SIGN OR THE R99B (CA) PLAQUE, AT VAN ACCESSIBLE PARKING SPACES ONLY.
3. THE BOTTOM OF THE LOWEST SIGN OR PLAQUE PANEL SHALL BE A MINIMUM OF 80" ABOVE THE SURROUNDING SURFACE GRADE, EXCEPT THAT SIGNS INSTALLED OUTSIDE OF TRAVEL ROUTES, SUCH AS IN A PLANTER OR MOUNTED ON A FENCE OR WALL, MAY BE LOWERED TO 60" ABOVE SURROUNDING SURFACE GRADE.
4. ISA PARKING SIGNS SHALL BE INSTALLED IN FRONT OF THE HEAD OF EACH ACCESSIBLE SPACE. WHERE THERE IS AN ACCESSIBLE PATH ADJACENT TO THE HEAD OF THE PARKING SPACE, THE SIGNS MAY BE LOCATED IN A CLEARLY VISIBLE LOCATION ON THE FAR SIDE OF THE PATH.
5. AN R100B (CA) "TOW-AWAY" SIGN SHALL BE POSTED IN A CONSPICUOUS PLACE AT EACH ENTRANCE OF PARKING FACILITIES OR IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH SPACE.
6. LOCATION OF SIGNS TO BE APPROVED BY THE DISTRICT REPRESENTATIVE PRIOR TO INSTALLATION.
7. WATERBORNE TRAFFIC PAINT FOR ASPHALT AND CONCRETE SHALL HAVE A VOC LESS THAN 150 AND SHALL BE LEAD AND CHROMATE FREE. SHERWIN-WILLIAMS PRO-PARK WATERBORNE TRAFFIC MARKING PAINT, BENJAMIN MOORE INSL-X ALKYD TRAFFIC PAINT, RAE PRODUCTS & CHEMICALS CORPORATION TRAFFIC MARKING PAINT, OR EQUAL.
8. PARKING IDENTIFICATION SIGNS SHALL BE REFLECTORIZED WITH A MINIMUM AREA OF 70 SQUARE INCHES.

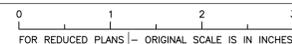


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PHONE: (510) 835-2761

NO SCALE



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SURVEY PARTY CHIEF: _____
WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
SUPERVISING CIVIL ENGINEER: _____
APPROVED: DATE _____
MANAGER OF ENGINEERING: _____

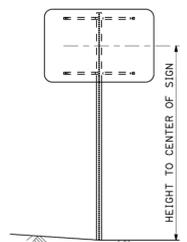
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DRAWN: MDR
CHECK: RZ
AS BUILT: _____
HORIZ. 1"=X'
VERT. 1"=X'
BOOK: _____
DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

SITE DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

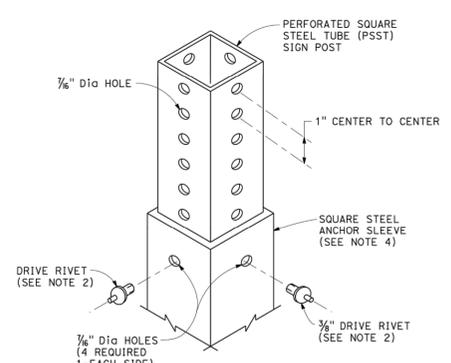
PLAN 8169
FILE 405-212
CS-503
SHEET 16 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

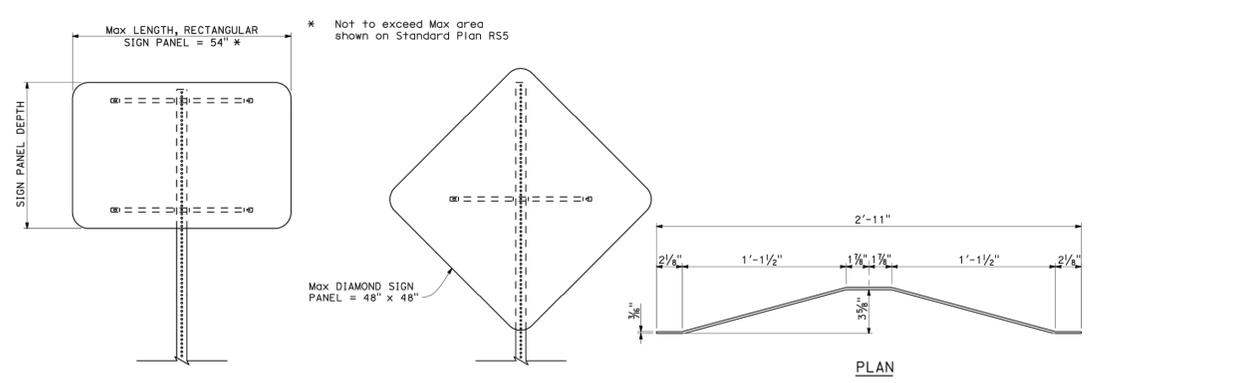


SINGLE POST INSTALLATION

POST SIZE	Max AREA (SQUARE FEET) OF SIGN								SLEEVE SIZE
2" x 2" x 12 Gg	10.8	8.9	7.6	6.6	5.9	5.3	4.8	2 1/4" x 2 1/2" x 10 Gg	
2 1/2" x 2 1/2" x 10 Gg	20	18	16	14	12	11	10	2 3/4" x 2 3/4" x 10 Gg	
HEIGHT TO CENTER OF SIGN SINGLE POST GROUND SIGNS 100 MPH WIND SPEED	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	-	



DETAIL "A"



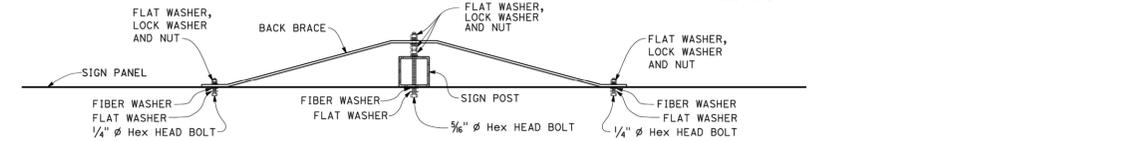
BALANCED
See Note 3

BALANCED
See Note 4

SINGLE POST INSTALLATION

ELEVATION

BACK BRACE DETAIL
See note 1



BACK BRACE MOUNTING DETAIL

See Note 1

NOTES:

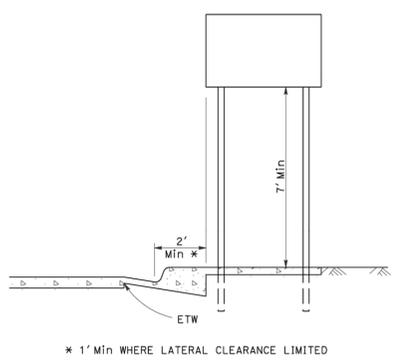
1. THE SIGN POST SHALL HAVE 7/16" DIAMETER PERFORATIONS 1" ON CENTER ON ALL FOUR SIDES FOR THE FULL LENGTH.
2. USE TWO DRIVE RIVETS TO FASTEN ASSEMBLED SIGN AND SIGN POST INTO ANCHOR SLEEVE. INSTALL DRIVE RIVETS OR FASTENER ALTERNATIVE INTO THE SIDES FACING TRAFFIC.
3. ALL STEEL SIGN POSTS AND ANCHOR SLEEVES SHALL BE GALVANIZED.
4. ALL ANCHOR SLEEVES SHALL BE EMBEDDED IN PCC.
5. STEEL POST: FY = 60 KSI

NOTES:

1. BALANCED SINGLE POST INSTALLATIONS OF SINGLE SHEET ALUMINUM PANEL SIGNS REQUIRE BACK BRACES WHEN 2'-10" OR MORE IN LENGTH.
2. WOOD BLOCK SPACERS ARE NOT REQUIRED FOR SIGNS MOUNTED ON METAL POSTS.
3. ATTACH RECTANGULAR SIGN PANEL TO SIGN POST WITH BOLTS AT THE TOP AND BOTTOM. CENTER MAY BE ATTACHED WITH EITHER BOLT OR 3/8" DRIVE RIVETS.
4. ATTACH DIAMOND SIGN PANEL TO SIGN POST WITH BOLT AT CENTER. TOP AND BOTTOM MAY BE ATTACHED WITH EITHER BOLTS OR 3/8" DRIVE RIVETS.

1 **ROADSIDE SIGN PSST POST TYPICAL INSTALLATION DETAILS**
CS-101 CS-504 NTS

2 **ROADSIDE SIGN PSST POST TYPICAL INSTALLATION DETAILS**
CS-101 CS-504 NTS



* 1' Min WHERE LATERAL CLEARANCE LIMITED

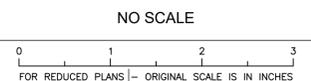
3 **URBAN ROADSIDE SIGN TYPICAL INSTALLATION**
CS-101 CS-504 NTS



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SUBMITTED: DATE _____
SUPERVISING CIVIL ENGINEER: _____
APPROVED: DATE _____
MANAGER OF ENGINEERING: _____

DESIGN: JDV
DRAWN: MDR
CHECK: RZ
AS BUILT: _____

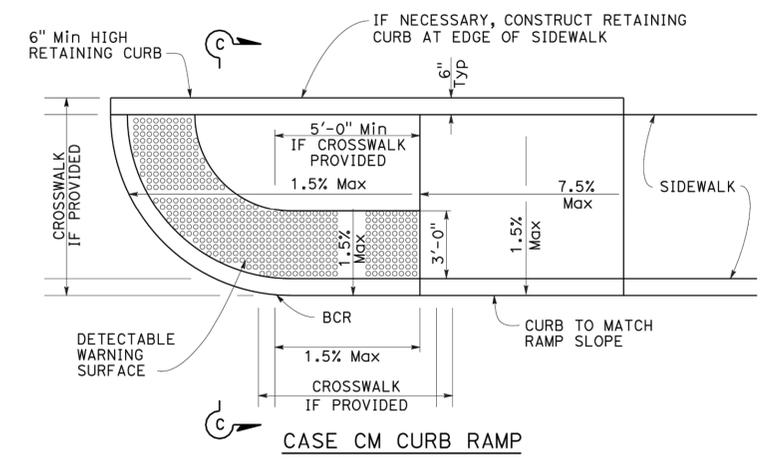
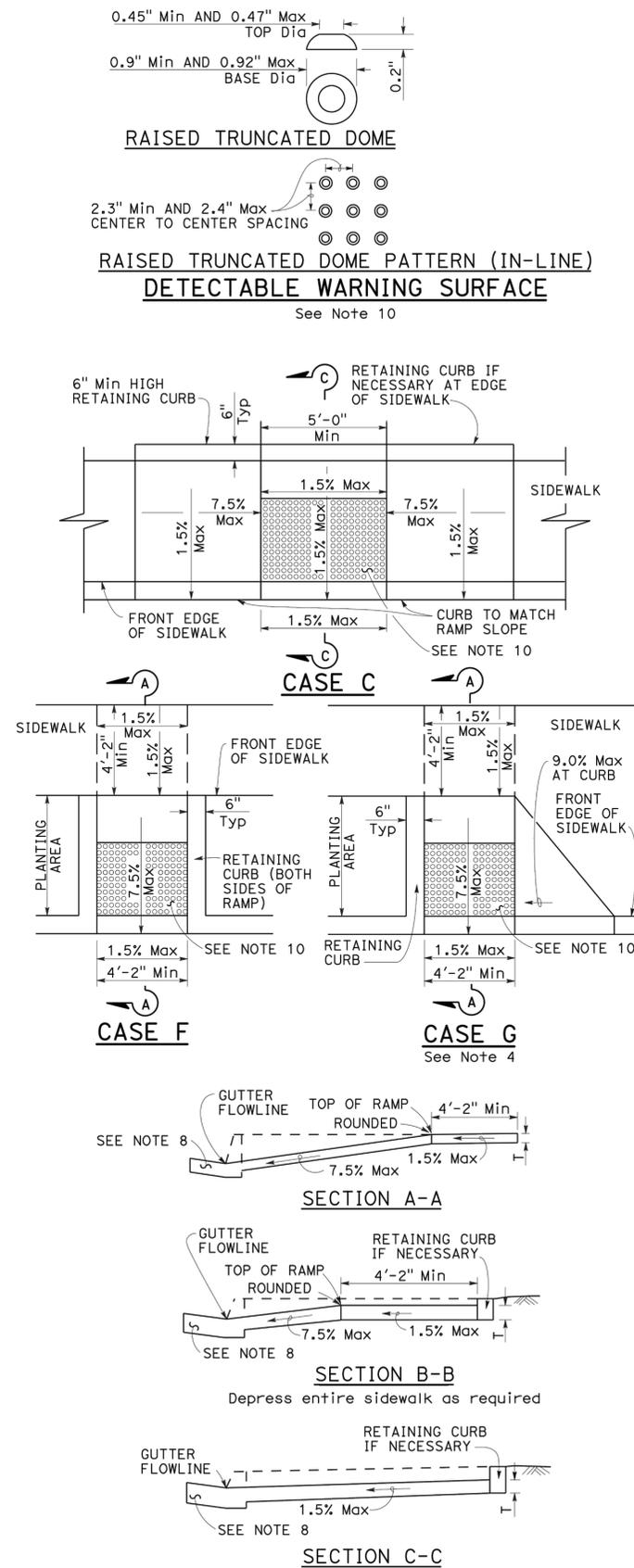
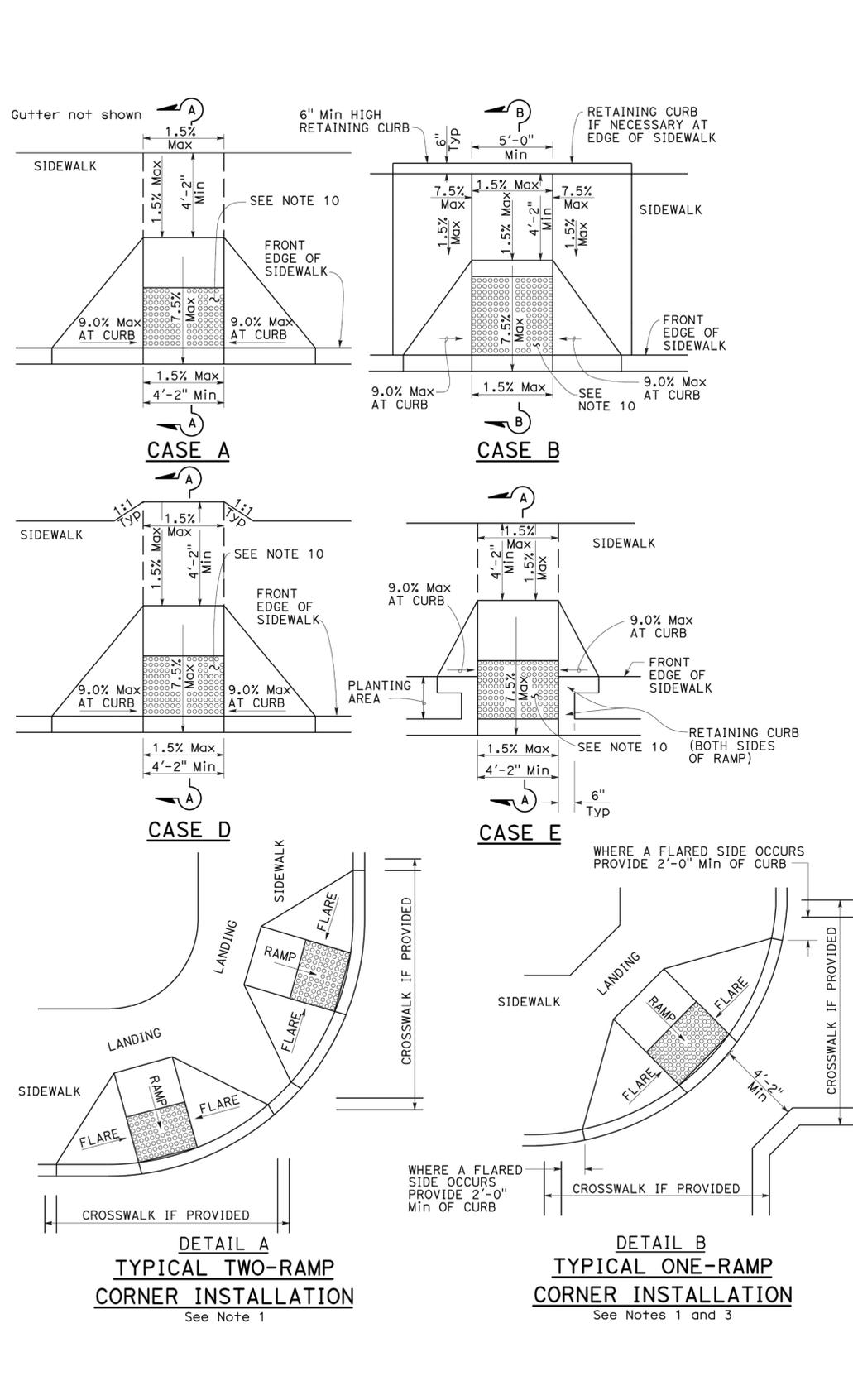
HORIZ.: 1"=X'
VERT.: 1"=X'
BOOK: _____
DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

SITE DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

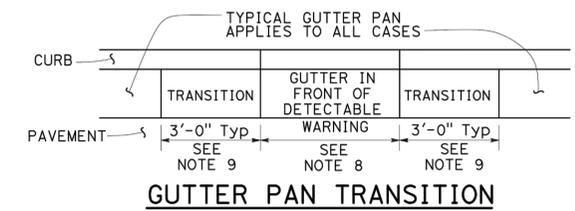
PLAN: 8169
FILE: 405-212
CS-504
SHEET 17 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



NOTES:

- As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate. For specific site condition configuration, including the conform to existing sidewalk, see Project Plans.
- If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
- When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
- As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
- The ramp portion of the curb ramp is a typical rectangle, unless modified in the Project Plans.
- Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
- The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
- Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 48 inches from the flow line shall not be steeper than 1V:20H (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
- Transition gutter pan slope from 1" of depth for each 2'-0" of width to match typical gutter pan slope per Standard Plan A87A.
- The detectable warning surface will be a rectangle as shown at back of curb, unless modified in the Project Plans. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable warning surfaces shall extend the full width of the ramp except a maximum gap of 1 inch is allowed on each side of the ramp. Detectable warning surfaces shall conform to the requirements in the Standard Specifications.
- Sidewalk and ramp thickness "T", shall be 3/2" minimum.
- Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
- Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.



1 CURB RAMP DETAILS
 CS-101 CS-505 NTS



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NO SCALE
 0 1 2 3
 FOR REDUCED PLANS - ORIGINAL SCALE IS IN INCHES

DEPICTION OF MONUMENTS: DATE _____
 SURVEY PARTY CHIEF: _____
 WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
 SUPERVISING CIVIL ENGINEER: R.C.E. _____
 EXP. _____
 APPROVED: DATE _____
 MANAGER OF ENGINEERING: R.C.E. _____
 EXP. _____

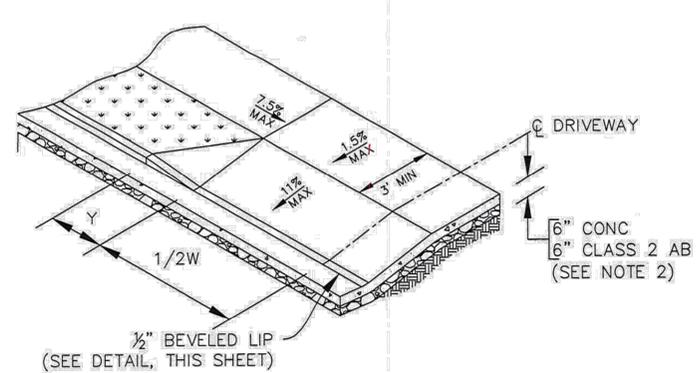
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 AS BUILT: _____
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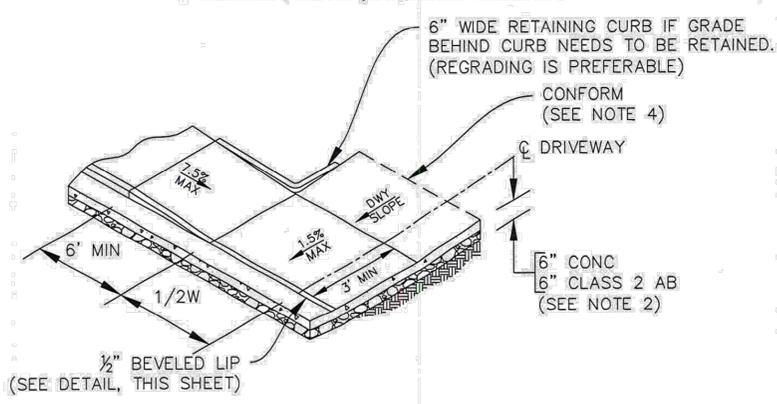
SITE DETAILS
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 CS-505
 SHEET 18 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



DRIVEWAY WITH SEPARATED SIDEWALK
W=DRIVEWAY WIDTH (SEPARATED SIDEWALK)



DRIVEWAY WITH MONOLITHIC SIDEWALK
W=DRIVEWAY WIDTH (MONOLITHIC SIDEWALK)

- NOTES:**
- REFER TO GENERAL NOTES FOR CONCRETE WORK.
 - RESIDENTIAL DRIVEWAYS SHALL BE 6 INCHES THICK PORTLAND CEMENT CONCRETE (PCC). COMMERCIAL AND INDUSTRIAL DRIVEWAYS SHALL BE 6 INCHES THICK REINFORCED CONCRETE. REINFORCEMENT SHALL BE 6"x6" WELDED WIRE FABRIC, #10 GAUGE MESH OR #4 BARS AT 18 INCH O.C. EACH WAY. THE REQUIRED STRUCTURAL SECTION FOR ANY DRIVEWAY SHALL BE CONTINUOUS FROM THE CURB TO THE BACK OF SIDEWALK.
 - DEPTH OF GUTTER FLOWS SHALL BE CALCULATED AND COMPARED TO PROPOSED SIDEWALK ELEVATIONS DURING DESIGN TO ENSURE GUTTER FLOWS ARE CONTAINED AND RUNOFF WITHIN THE PUBLIC RIGHT OF WAY DOES NOT DRAIN ONTO PRIVATE PROPERTY.
 - RETAINING CURBS AND DRIVEWAY CONFORMS AS REQUIRED.
 - FOR ADDITIONAL REQUIREMENTS, SEE PLAN 8144, "CONCRETE WORK NOTES."

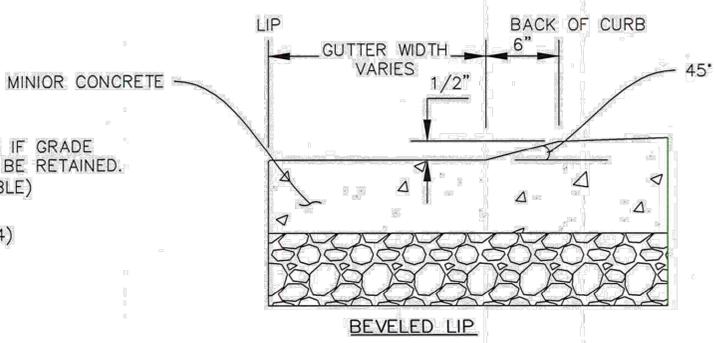


TABLE OF DRIVEWAY DIMENSIONS		
Dimension	Commercial & Industrial	Residential
Y	5' MIN	2' MIN
W	12' MIN	8' MIN

1 DRIVEWAY DETAILS
CS-101 CS-506 NTS

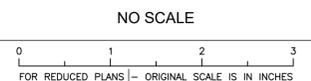


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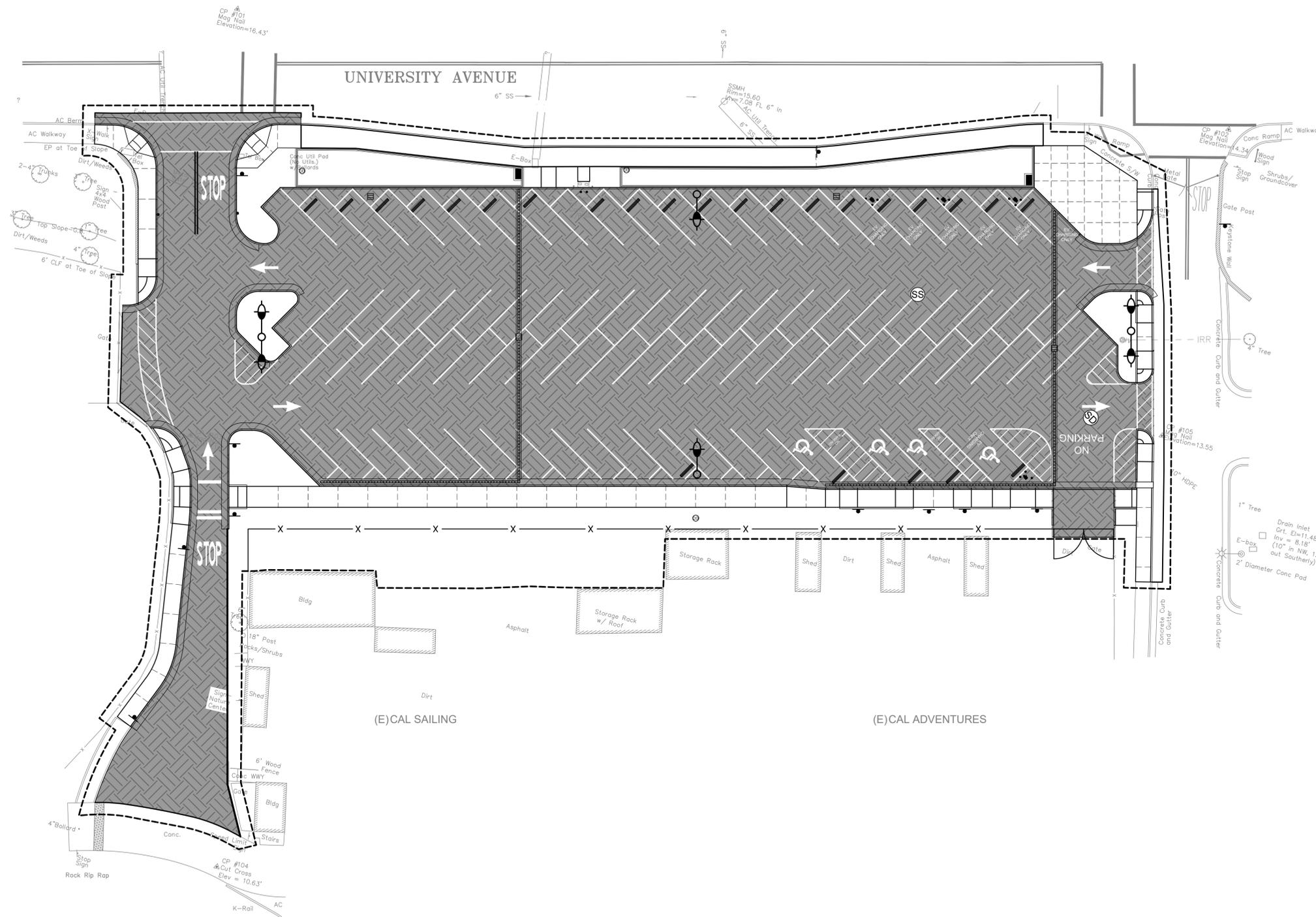
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SUPERVISING CIVIL ENGINEER: _____
APPROVED: DATE _____
MANAGER OF ENGINEERING: _____

DESIGN: JDV
DRAWN: MDR
CHECK: RZ
AS BUILT: _____

HORIZ. 1"=X'
VERT. 1"=X'
BOOK: _____
DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

PLAN 8169
FILE 405-212
CS-506
SHEET 19 OF 47



- ### PHASE 1 - MOBILIZATION AND DEMOLITION
- PLACE TRAFFIC CONTROL SIGNS AS REQUIRED BY TRAFFIC CONTROL PLANS
 - ERECT TEMPORARY FENCING
 - IMPLEMENT EROSION CONTROL BMPs
 - COORDINATE DEMOLITION TIMING OF WEST DRIVEWAY PAVEMENT WITH ENGINEER
 - REMOVE AND SALVAGE ONE LIGHT POLE AND DEMOLISH OTHERS
 - DEMOLISH ALL OTHER ITEMS, EXCEPT FOR SITE ELECTRIC SERVICE AND SAILING CLUB FENCING
 - CLEAR AND GRUB

- ### PHASE 2 - UNDERGROUND CONSTRUCTION
- INITIAL ROUGH GRADING AND OFF-HAUL EXCESS SOIL
 - RELOCATE SITE ELECTRIC SERVICE CONDUITS, CONDUCTORS AND BOXES
 - EXCAVATE FOR BIORETENTION BASINS. FORM AND POUR CONCRETE WALLS
 - MODIFY EXISTING STORM DRAIN AND INSTALL 10" STORM DRAIN OUTLET PIPE AND MANHOLE
 - INSTALL SANITARY SEWER LATERAL AND APPURTENANCES

- ### PHASE 3 - SUBGRADE TREATMENT
- EXCAVATE AND STOCKPILE 9" OF THE FIRST HALF OF THE SUBGRADE TREATMENT AREA TO THE SECOND HALF OF THE SITE
 - TREAT THE LOWER 9" OF SUBGRADE IN THE EXCAVATED AREA
 - MOVE THE STOCKPILED SOIL AND 9" OF THE SECOND HALF OF THE SUBGRADE TREATMENT AREA TO THE FIRST HALF OF THE SITE
 - TREAT THE LOWER 9" OF SUBGRADE IN THE EXCAVATED AREA
 - REGRADE THE SITE AND TREAT THE UPPER 9" OF SUBGRADE THROUGHOUT THE ENTIRE SUBGRADE TREATMENT AREA
 - INSTALL SHALLOW STORM DRAIN SYSTEM INLETS AND PIPES.
 - INSTALL REMAINING ELECTRIC CIRCUITS FOR LIGHTING AND EV IF IN CONTRACT.
 - INSTALL IRRIGATION PIPING AND CONTROL WIRING
 - BACKFILL UTILITIES IN THIS PHASE WITH CONTROLLED LOW-STRENGTH MATERIAL

- ### PHASE 4 - ABOVE GROUND CONSTRUCTION
- COMPLETE ALL REMAINING SITE SURFACE ITEMS
 - ONLY REMOVE SAILING CLUB FENCING AFTER OR DURING NEW FENCING INSTALLATION
 - REMOVE EROSION CONTROL BMPs, TEMPORARY FENCING AND TRAFFIC CONTROL

- ### PHASING NOTES:
- PRIOR TO COMMENCING ANY WORK OR ACTIVITY IN SUBSEQUENT PHASES OF CONSTRUCTION, THE PREVIOUS PHASE OF CONSTRUCTION SHALL BE COMPLETED IN ITS ENTIRETY TO THE SATISFACTION OF THE ENGINEER, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
 - MINOR VARIATIONS IN THE ORDER OF WORK MAY BE ALLOWED BY THE ENGINEER IF THERE IS BENEFIT TO THE PROJECT, BUT ONLY AFTER APPROVAL BY THE ENGINEER.

GENERAL NOTES:

- SEE CE-101 FOR EROSION CONTROL PLAN.
- SEE CG-101 FOR GRADING AND DRAINAGE ITEMS.
- SEE ELECTRICAL SHEETS FOR ELECTRICAL ITEMS.

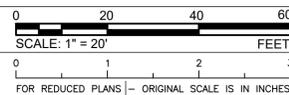
LEGEND:

SUBGRADE TREATMENT AREA

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MANAGER OF ENGINEERING _____

DESIGN: JDV
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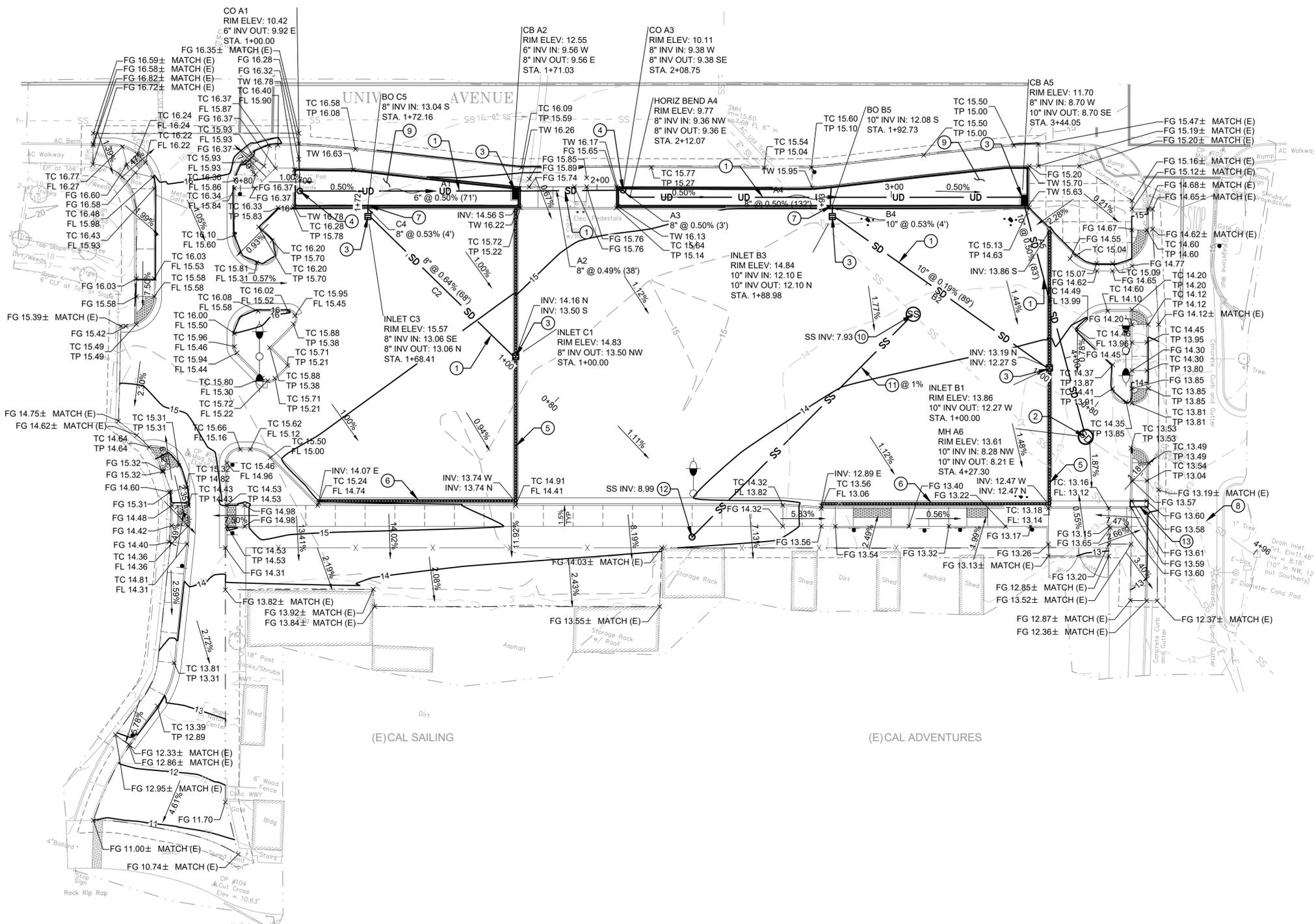
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DEPARTMENT OF PARKS,
RECREATION & WATERFRONT



SUBGRADE TREATMENT AREA
AND PHASING PLAN
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
CP-101
SHEET 20 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



- GENERAL NOTES:**
- SEE SHEET CS-101 FOR SITE IMPROVEMENTS.
 - WHERE PROPOSED STORM DRAIN PIPE CONFLICTS WITH EXISTING UTILITIES, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER TO DISCUSS AN APPROPRIATE SOLUTION.
 - ALL PROPOSED STORM DRAIN STRUCTURES WITHIN PAVED AREAS SHALL BE HS-20 RATED. ALL OTHER STRUCTURES SHALL HAVE A MEDIUM DUTY FRAME AND GRATE.
 - ALL WALKWAYS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2% AND A MAXIMUM LONGITUDINAL SLOPE OF 5%, UNLESS OTHERWISE NOTED.
 - TOP OF CURB ELEVATION IS TYPICALLY 6" ABOVE TOP OF PAVEMENT ELEVATION UNLESS OTHERWISE NOTED.
 - MARK ALL INLETS WITH THE WORDS, "NO DUMPING! DRAINS TO BAY."

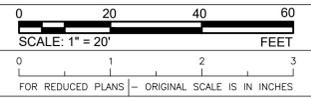
- KEY NOTES:** (X)
- STORM DRAIN PIPE, SIZE, SLOPE, AND MATERIAL AS NOTED ON PLAN.
 - STORM DRAIN MANHOLE PER DETAIL 1/CG-501.
 - STORM DRAIN INLET PER DETAIL 2/CG-501.
 - STORM DRAIN CLEANOUT PER DETAIL 3/CG-501.
 - TRENCH DRAIN PER DETAIL 5/CG-501.
 - TRENCH DRAIN IN GUTTER PER DETAIL 6/CG-501.
 - BASIN OUTLET, SEE STRUCTURAL PLANS.
 - EXISTING STORM DRAIN TO REMAIN. PROTECT IN PLACE.
 - BIOSWALE STRUCTURE PER DETAIL 4/CG-501.
 - SANITARY SEWER MANHOLE PER DETAIL 1/CG-501.
 - 6" PVC SANITARY SEWER PIPE.
 - SANITARY SEWER CLEANOUT. SEE SPECIFICATIONS.
 - EXTENDED GUTTER COVERED BY STEEL PLATE (SIDEWALK UNDERDRAIN) PER DETAIL 2/CG-503.

- LEGEND:**
- SURFACE FLOW ARROW
 - GRADE BREAK
 - 1.00% SURFACE SLOPE



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DESIGN: JDV
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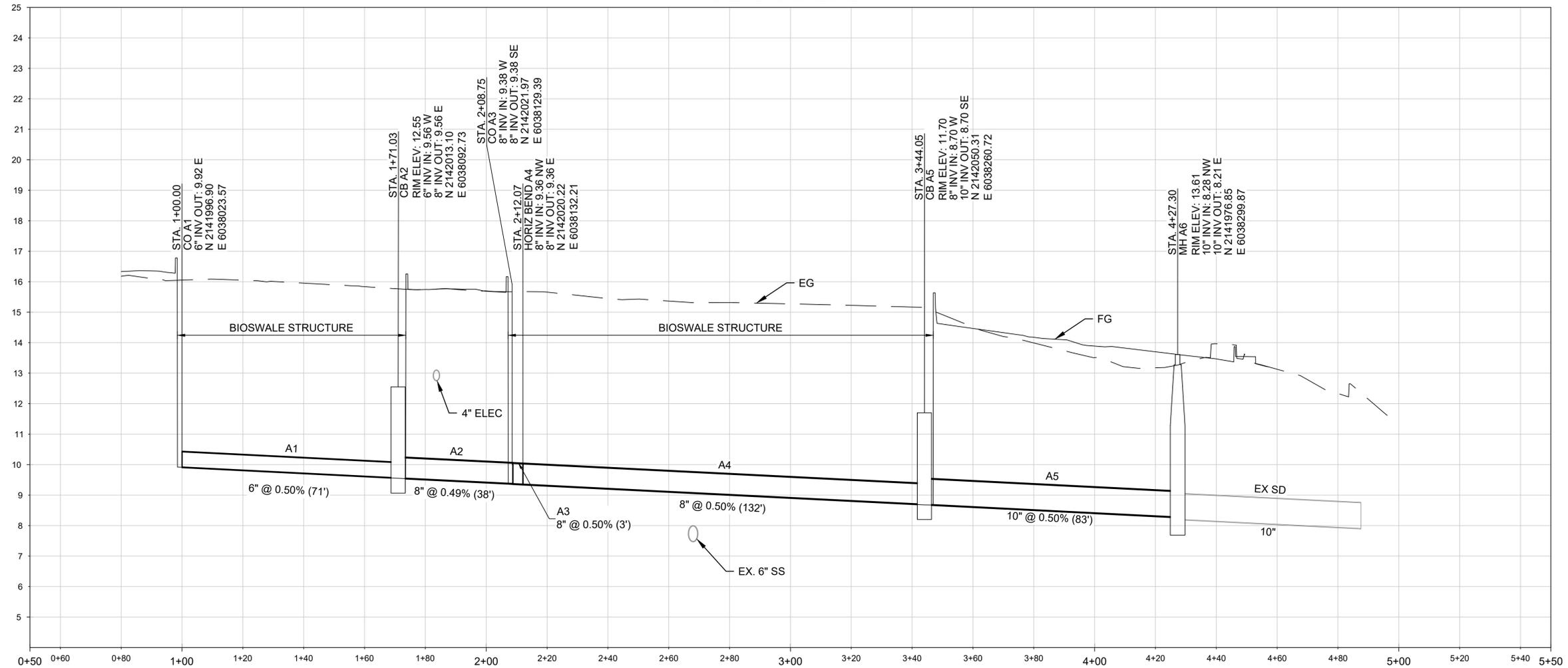
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 RECREATION & WATERFRONT

GRADING AND DRAINAGE PLAN
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 CG101
 SHEET 21 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

PROFILE VIEW OF SD ALIGNMENT A

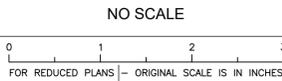


1 STORM DRAIN PROFILE A
 CG-101 CG-301 HORIZONTAL: 1"=20', VERTICAL: 1"=2'

FINAL SUBMITTAL



2000 CENTER STREET
 SUITE 303
 BERKELEY, CA 94704
 PHONE: (510) 835-2761



DEPICTION OF MONUMENTS: DATE _____
 SURVEY PARTY CHIEF: _____
 WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
 SUPERVISING CIVIL ENGINEER: _____
 APPROVED: DATE _____
 MANAGER OF ENGINEERING: _____

DESIGN: JDV
 DRAWN: MDR
 CHECK: RZ
 AS BUILT: _____
 HORIZ.: 1"=X'
 VERT.: 1"=X'
 BOOK: _____
 DATE: 03/04/2025

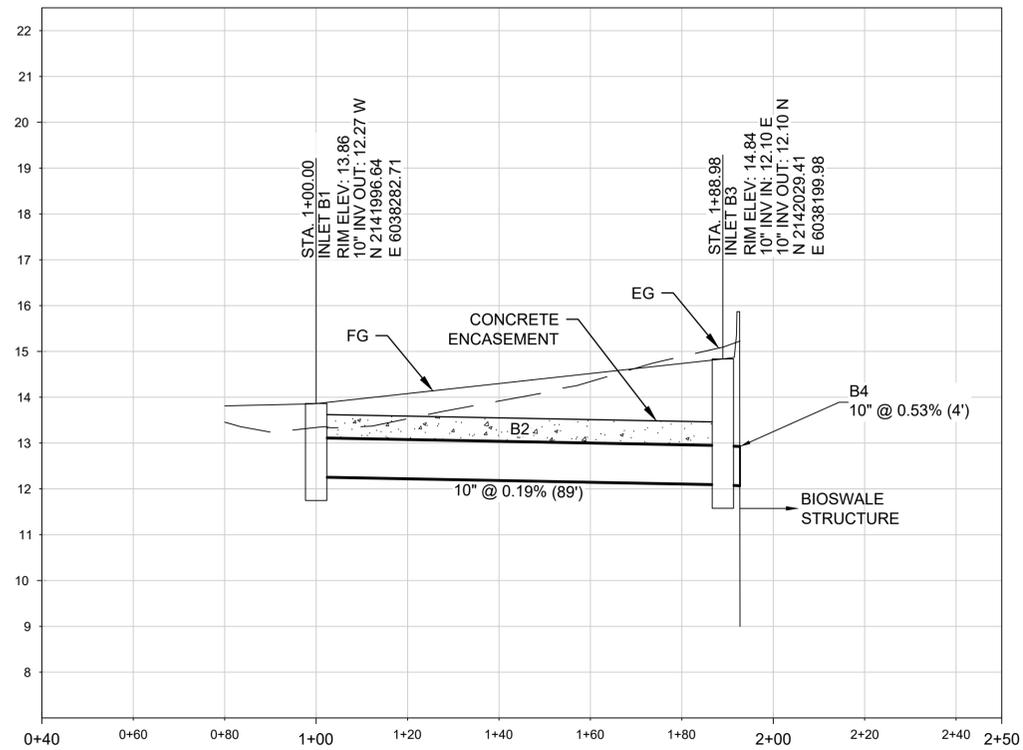
CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

STORM DRAIN PROFILES
 SOUTH COVE WEST PARKING LOT
 PROJECT

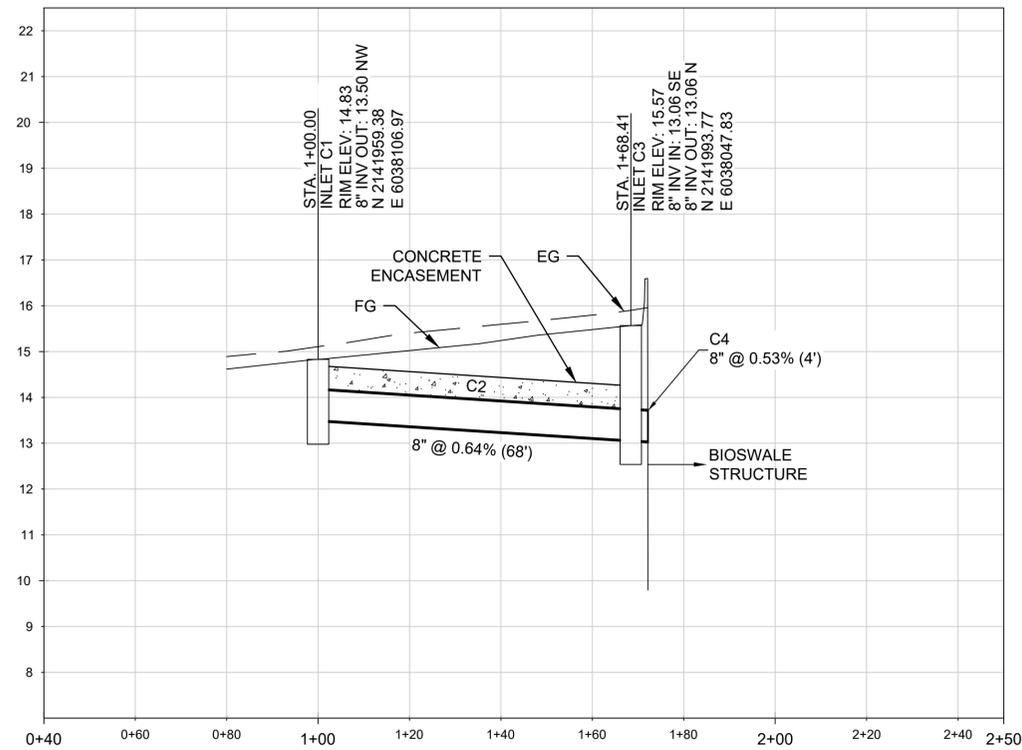
PLAN 8169
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 SHEET 22 OF 47



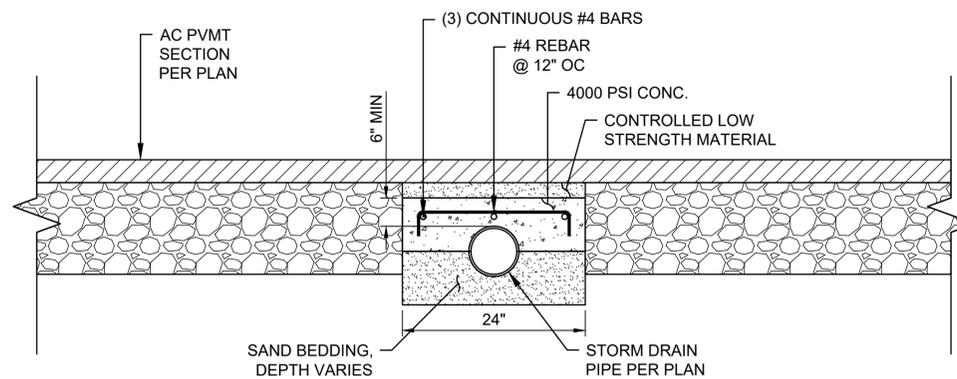
REVISION	MARK	DATE	DESCRIPTION	APPROVAL



1 STORM DRAIN PROFILE B
 CG-101 CG-302 HORIZONTAL: 1"=20', VERTICAL: 1"=2'



2 STORM DRAIN PROFILE C
 CG-101 CG-302 HORIZONTAL: 1"=20', VERTICAL: 1"=2'



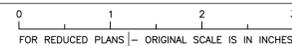
3 CONCRETE PIPE ENCASEMENT
 CG-302 CG-302 NTS

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 PHONE: (510) 835-2761

NO SCALE



DEPICTION OF MONUMENTS: DATE _____
 SURVEY PARTY CHIEF _____
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SUBMITTED: DATE _____
 SUPERVISING CIVIL ENGINEER R.C.E. _____
 EXP. _____
 APPROVED: DATE _____
 MANAGER OF ENGINEERING R.C.E. _____
 EXP. _____

DESIGN: JDV
 DRAWN: MDR
 CHECK: RZ
 AS BUILT: _____

HORIZ.: 1"=X'
 VERT.: 1"=X'
 BOOK: _____
 DATE: 03/04/2025

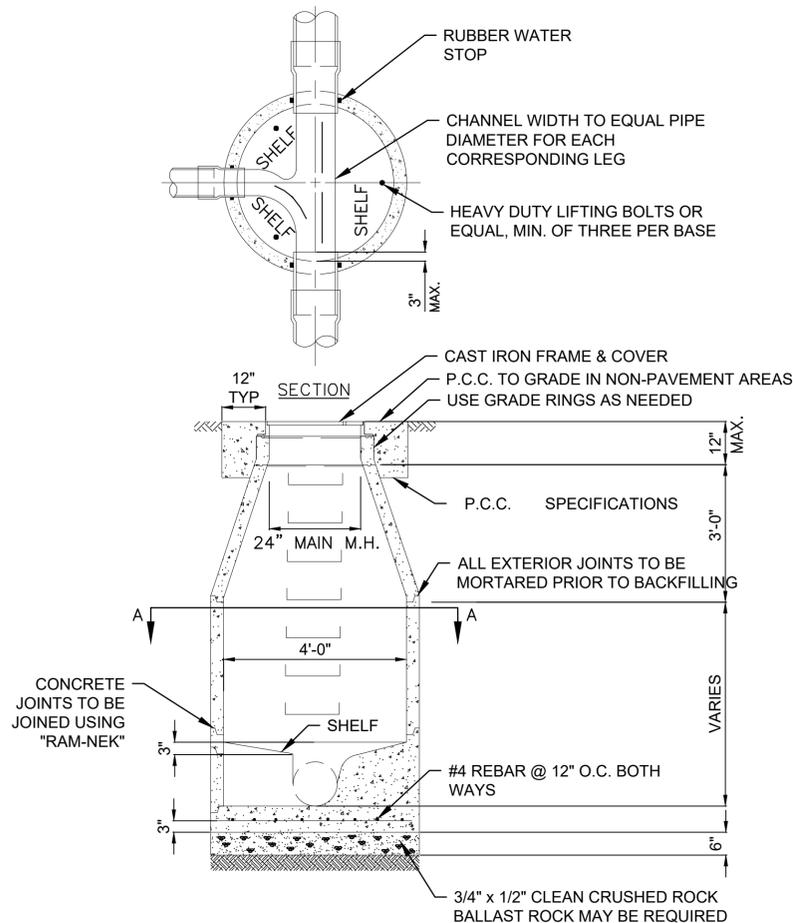
CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

STORM DRAIN PROFILES
 SOUTH COVE WEST PARKING LOT
 PROJECT



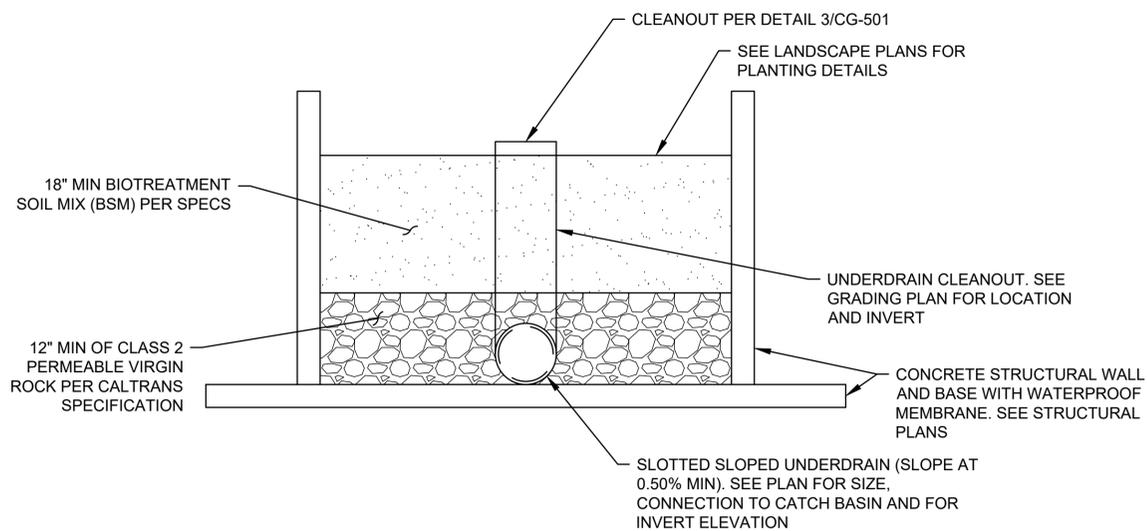
PLAN: 8169
 FILE: 405-212
 CG-302
 SHEET 23 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

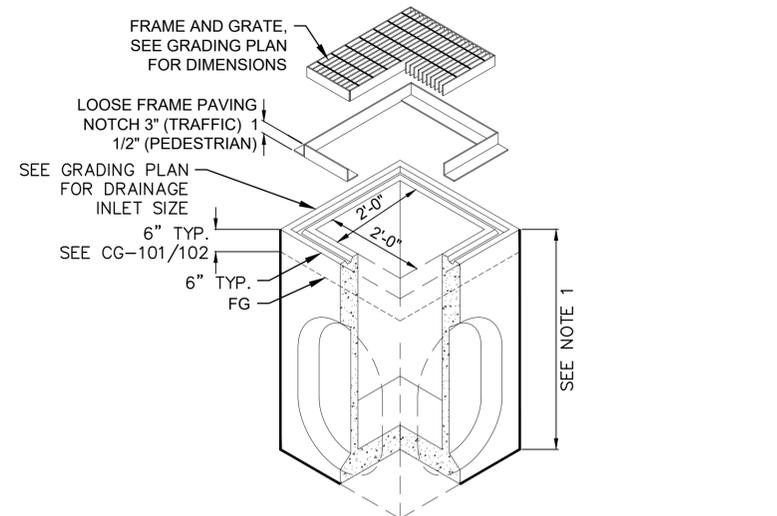


- NOTES:
1. PROVIDE STEPS AT 16" MAX. O.C. IN MANHOLES 6 FEET DEEP OR GREATER.
 2. PRECAST STORM SEWER MANHOLE MAY BE USED.
 3. PIPE CONNECTIONS TO EXISTING MANHOLES SHALL BE CENTERED ON THE MANHOLES. HOLES FOR NEW PIPE SHALL BE NO LARGER THAN 1.5 TIMES THE DIAMETER OF THE PIPE AND SHALL BE PACKED WITH CEMENT MORTAR AROUND THE ENTIRE PERIPHERY OF THE PIPE.

1 STORM SEWER MANHOLE DETAIL
CG-101 CG-501 NTS

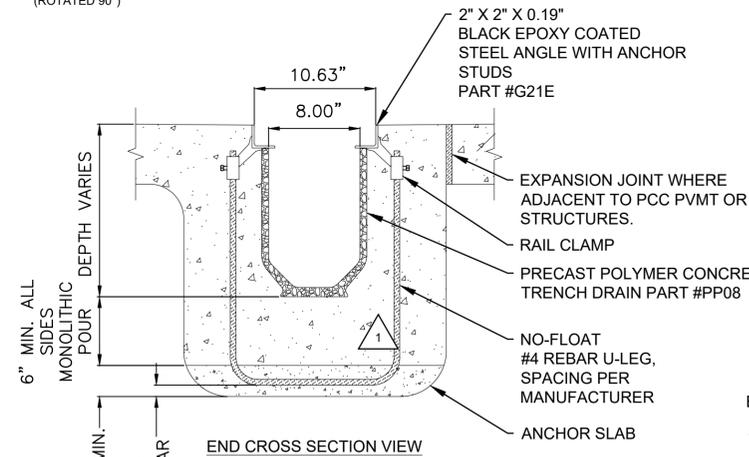
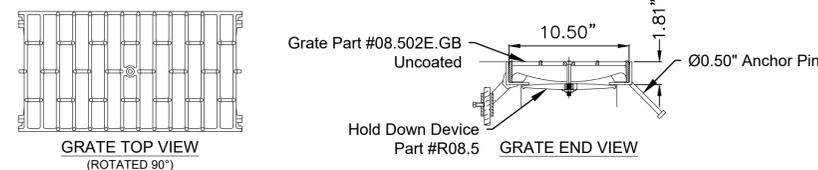


4 BIOSWALE DETAIL
CG-101 CG-501 NTS



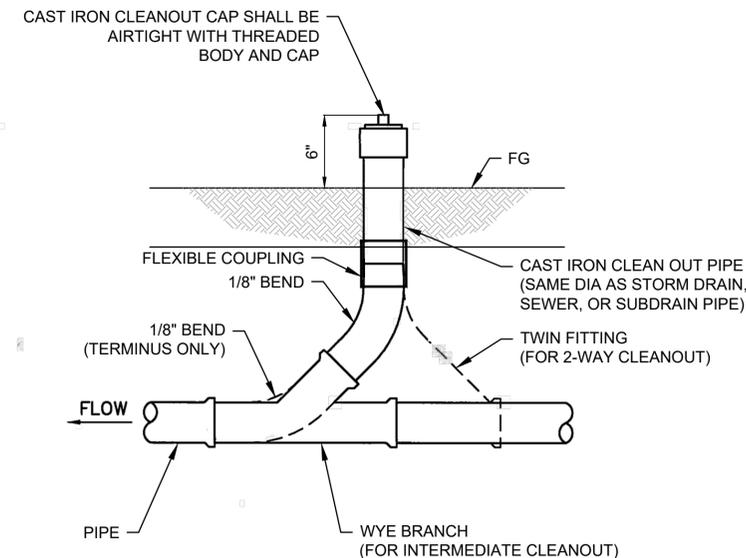
- NOTE:
1. SEE GRADING PLAN FOR STRUCTURE ELEVATIONS.
 2. AFFIX AN ALAMEDA COUNTY CLEAN WATER PROGRAM COMPLIANT PLACARD TO THE TOP OF THE INLET STATING "NO DUMPING! DRAINS TO BAY."

2 PRECAST DRAINAGE INLET
CG-101 CG-501 NTS

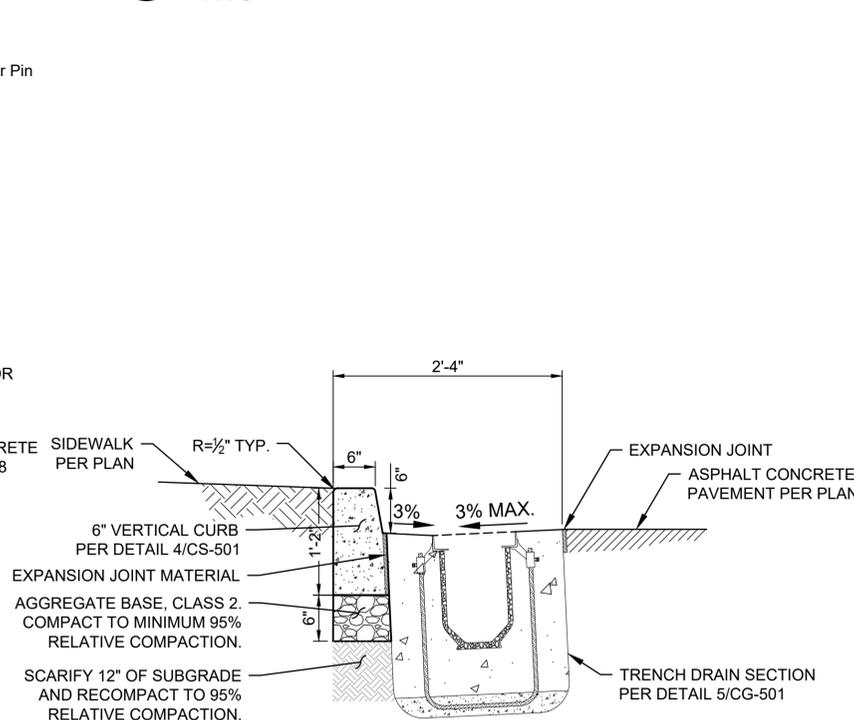


- NOTES:
1. CHANNELS TO BE INSTALLED WITH BLANK GRATE. GRATE TO BE PROTECTED FROM CONCRETE POUR (COVER HOLES WITH TAPE).
 2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 3. GRATES:
 - 3.1. DUCTILE IRON PER ASTM A536-84 GRADE 80-55-06 (UNCOATED)
 - 3.2. OPEN AREA: 0.65 FT² PER LINEAL FOOT
 - 3.3. LOAD RATING: LOAD CLASS E, 620 PSI (AASHTO M-306 TEST METHOD)
 - 3.4. MADE IN THE USA
 4. FORM RELEASE: NON-PETROLEUM BASED
 5. TRENCH DRAIN GRATES WITHIN THE ACCESSIBLE PARKING STALLS AREA SHALL BE CODE COMPLIANT BY HAVING A 1/2" MAXIMUM OPENING WITH ELONGATED OPENING DIMENSIONS BEING PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

5 8" TRENCH DRAIN
CG-101 CG-501 NTS



3 CLEANOUT
CG-101 CG-501 NTS



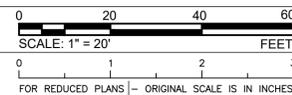
6 TRENCH DRAIN IN GUTTER DETAIL
CG-101 CG-501 NTS



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PHONE: (510) 835-2761



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MANAGER OF ENGINEERING: _____

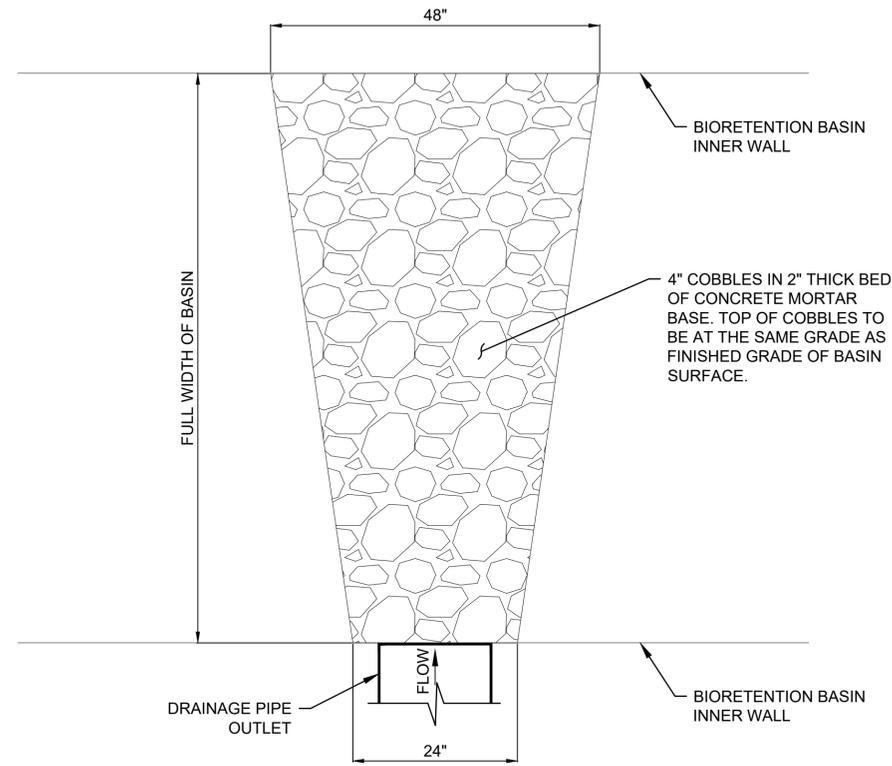
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CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

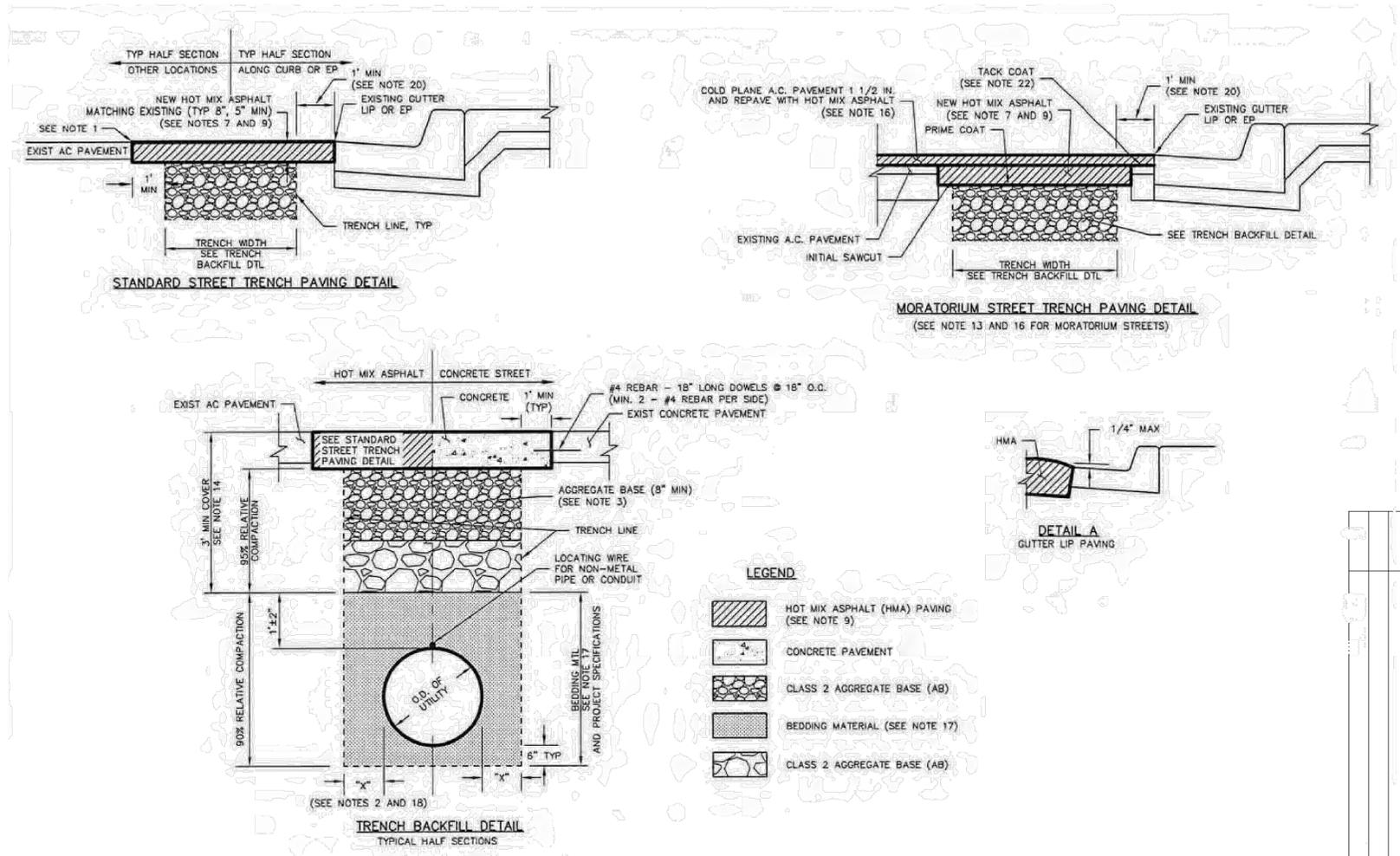
GRADING AND DRAINAGE DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
CG-501
SHEET 24 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



1 ENERGY DISSIPATER DETAIL
CG-101 CG-502 NTS



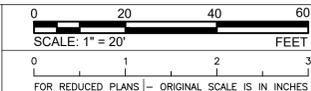
2 TRENCH SECTION DETAILS
CG-101 CG-502 NTS



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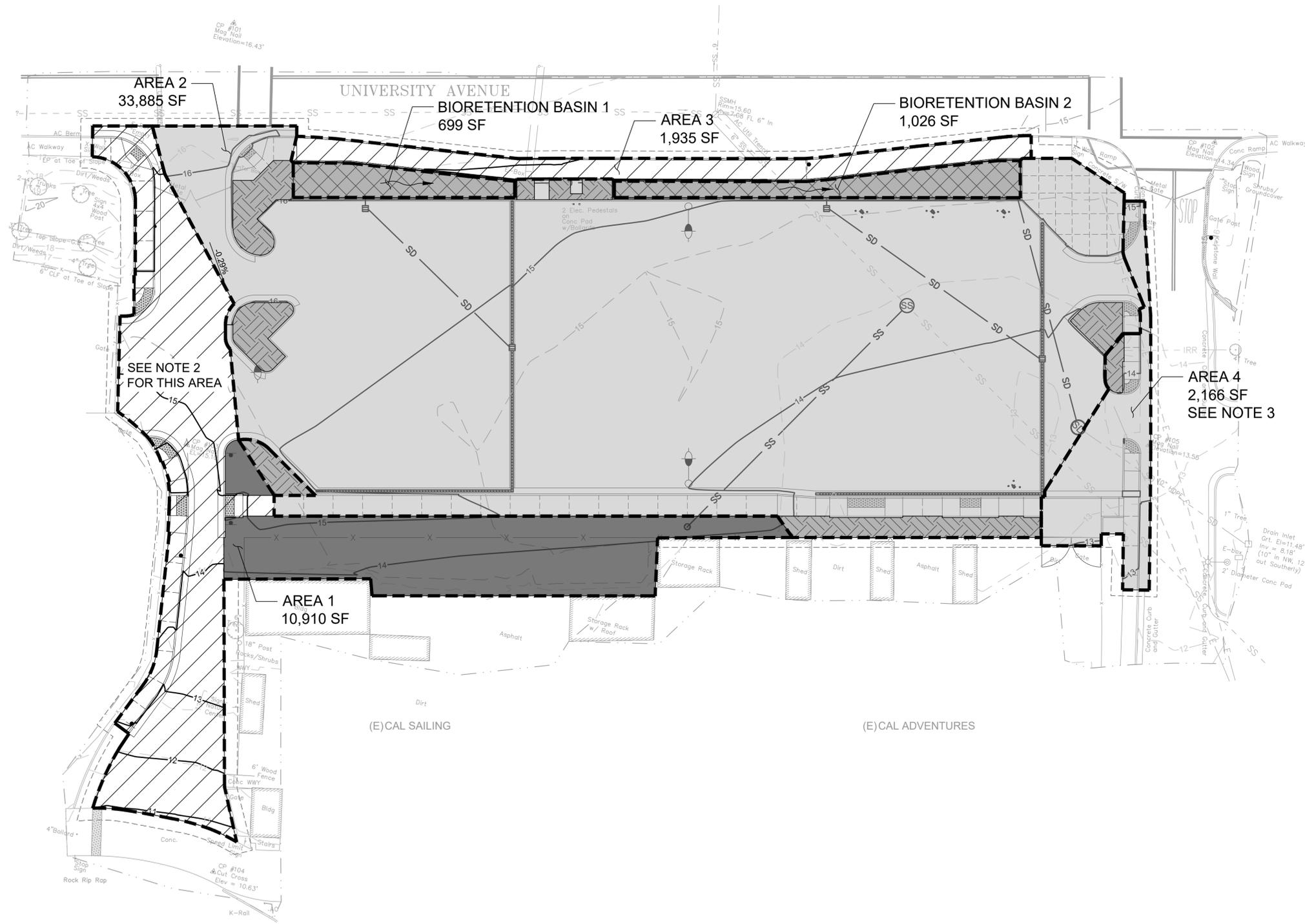
DESIGN: JDV
DRAWN: MDR
CHECK: RZ
AS BUILT: _____
DATE: 03/04/2025

HORIZ. 1"=10'
VERT. 1"=1'
BOOK: _____
CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

GRADING AND DRAINAGE DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
CG-502
SHEET 25 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



- GENERAL NOTES:**
1. THIS PROJECT WAS ORIGINALLY APPROVED FOR C.3 IN 2016 AS PART OF PARKING LOT IMPROVEMENTS FOR ALL OF THE SOUTH COVE AREA. THERE WERE INSUFFICIENT FUNDS TO CONSTRUCT THE WEST PARKING LOT WHEN THE EAST PARKING LOT WAS CONSTRUCTED IN 2018. THE CURRENT DESIGN IS MODIFIED FROM THE 2016 DESIGN BUT WITH SIMILAR IMPERVIOUS AND PERVIOUS AREAS.
 2. ALTHOUGH THIS AREA IS TECHNICALLY INFEASIBLE TO BE TREATED WITH THIS PROJECT, ADDITIONAL TREATMENT AREA WAS PROVIDED IN THE NEARBY SKATES PARKING LOT IMPROVEMENTS PROJECT TO MITIGATE FOR THIS CIRCUMSTANCE.
 3. THIS AREA CANNOT BE TREATED BY THE BIORETENTION BASIN AREAS CREATED FOR THIS PROJECT. IT WILL BE TREATED BY EXISTING BIORETENTION AREA IN THE EAST PARKING LOT. THIS AREA WAS ACCOUNTED FOR WHEN SIZING THE EAST PARKING LOT TREATMENT AREA.

POST-DEVELOPMENT CONDITIONS:

TOTAL PROJECT AREA:	50,621 SF (1.16 AC)
POST-DEVELOPMENT PERVIOUS AREA:	7,854 SF (0.18 AC) (16% OF TOTAL AREA)
POST-DEVELOPMENT IMPERVIOUS AREA:	42,767 SF (0.98 AC) (84% OF TOTAL AREA)
POST-DEVELOPMENT TREATED AREA:	34,283 SF (0.79 AC) (80% OF IMPERVIOUS AREA)
POST-DEVELOPMENT UNTREATED AREA:	8,484 SF (0.19 AC) (20% OF IMPERVIOUS AREA)
TOTAL BIORETENTION BASIN AREA:	1,725 (0.04 AC) (SHOWN ON PLAN)

CALCULATIONS:

MINIMUM TREATMENT AREA = PROJECT IMPERVIOUS AREA X 4%
 MINIMUM TREATMENT AREA = 42,767 SF X 4% = 1,711 SF
 BIORETENTION AREA PROVIDED = 1,725 SF

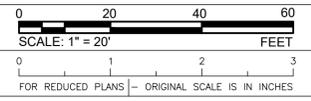
LEGEND:

	SURFACE FLOW ARROW
	DRAINAGE AREA BOUNDARY
	POST-DEVELOPMENT IMPERVIOUS AREA THAT CAN BE TREATED USING THE BIORETENTION AREAS SHOWN
	POST-DEVELOPMENT IMPERVIOUS AREA THAT CANNOT BE TREATED DUE TO PROJECT CONSTRAINTS
	BIORETENTION AREAS
	POST-DEVELOPMENT PERVIOUS AREA THAT CAN BE TREATED USING THE BIORETENTION AREAS SHOWN
	POST-DEVELOPMENT PERVIOUS AREA THAT CANNOT BE TREATED DUE TO PROJECT CONSTRAINTS



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 VERT.: 1"=3'
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CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

STORMWATER TREATMENT PLAN
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 CG-503
 SHEET 26 OF 47

APPROVAL	DESCRIPTION	DATE	MARK	REVISION

STRUCTURAL NOTES:

DESIGN CODES AND STANDARDS

2022 EDITION OF THE CALIFORNIA BUILDING CODE
ASCE/SEI 7-16: MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES WITH SUPPLEMENT NO.1
ACI318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

DESIGN LOADS

DESIGN DEAD LOADS WEIGHT OF BUILDING MATERIALS

DESIGN LIVE LOADS, PER CBC BUILDING CODE REQUIREMENTS, ARE AS FOLLOWS:

GUARDRAILS / GRAB BARS 50 LBS/FT, 250 LBS

SNOW LOADS
GROUND SNOW LOAD, pg 0.0 PSF

WIND LOADS
ULTIMATE WIND SPEED, V_u 87.0 MPH
NOMINAL WIND SPEED, V_{ASD} 67.4 MPH
RISK CATEGORY I
WIND EXPOSURE CATEGORY, I_w 1.0
EXPOSURE CATEGORY D
INTERNAL PRESSURE COEFFICIENT ±0.0
GUST EFFECT FACTOR 0.95

SEISMIC LOADS
RISK CATEGORY I
IMPORTANCE FACTOR, I_s 1.0
0.2s SPECTRAL RESPONSE ACCELERATION, S_s 1.532g
1.0s SPECTRAL RESPONSE ACCELERATION, S₁ 0.600g
DESIGN SPECTRAL RESPONSE ACCELERATION, S_{DS} 0.919g
DESIGN SPECTRAL RESPONSE ACCELERATION, S_{D1} 0.960g

CAST-IN-PLACE CONCRETE:

REFERENCE STANDARDS:
EXCEPT AS INDICATED, ALL CONCRETE WORK AND DETAILING, FABRICATION AND PLACING OF REINFORCING SHALL BE GOVERNED BY:

- ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, 2016.
- ACI 305.1, HOT WEATHER CONCRETING, 2014.
- ACI 306, COLD WEATHER CONCRETING, 2016.
- ACI 315, DETAILS AND DETAILING OF CONCRETE REINFORCEMENT, 2018.
- ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 2019.

THE CAST-IN-PLACE CONCRETE AT 28 DAYS OF AGE MINIMUM STRENGTH SHALL BE AS FOLLOWS: WALLS & FOUNDATIONS SHALL BE MINIMUM 4,000 PSI. ALL CONCRETE SHALL HAVE 3/4" MAXIMUM AGGREGATE SIZE, 4" MAXIMUM SLUMP AND MAXIMUM W/C RATIO OF 0.40. ALL CONCRETE SHALL BE TYPE IIII CONCRETE.

- ALL EXPOSED CONCRETE TO SNOW AND ICE AND IN CONTACT WITH SOIL INCLUDING EXTERIOR WALLS AND FOUNDATIONS SHALL HAVE 6% AIR ENTRAINMENT. POZZOLANS ARE PROHIBITED AS A CEMENT ALTERNATE.
- FLY ASH MUST BE USED AS A CEMENT ALTERNATIVE. FLY ASH: ASTM C618, TYPE F OR C. WHEN USED, FLY ASH TO TOTAL CEMENTITIOUS RATIO SHALL BE 15% MINIMUM, 25% MAXIMUM. GROUND GRANULATED BLAST FURNACE SLAG: ASTM C989. TOTAL GROUND GRANULATED LAST FURNACE SLAG TO TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 50% MAXIMUM. SLAG SHALL NOT BE USED IN COMBINATION WITH FLY ASH AND SLAG MAY BE USED IN AREAS WHERE THEY ARE NOT AFFECTED BY STRAY CURRENT. FLY ASH OR GROUND GRANULATED BLAST FURNACE SLAG: WHEN EXPOSED TO DEICING CHEMICALS, LIMIT THE MAXIMUM WEIGHT TO THE PERCENTAGES OF THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS PER ACI 301.
- PLASTICIZING AND RETARDING ADMIXTURE: ASTM C1017. WATER REDUCING ADMIXTURE: ASTM C494. CHLORIDE CONTENT OF CONCRETE: LIMIT TOTAL CHLORIDE ION CONTENT TO AMOUNT INDICATED IN TABLE 4.2.2.7.4 OF ACI 301-10 (EXPOSURE CLASS CO UNLESS NOTED OTHERWISE) . ADMIXTURES CONTAINING CHLORIDE ARE NOT PERMITTED IN REINFORCED CONCRETE OR CONCRETE CONTAINING METALS.

HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS SHALL BE PERMITTED ONLY WHERE INDICATED ON THE DRAWINGS. SUBMIT PROPOSED LOCATIONS FOR CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD. ADDITIONAL CONSTRUCTION JOINTS MAY REQUIRE ADDITIONAL REINFORCEMENT AS SPECIFIED BY THE STRUCTURAL ENGINEER OF RECORD, WHICH MUST BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.

EMBEDDED CONDUITS, PIPES, AND SLEEVES SHALL MEET THE REQUIREMENTS OF ACI 318, SECTION 6.3, INCLUDING THE FOLLOWING:

- CONDUITS AND PIPES EMBEDDED WITHIN A SLAB (OTHER THAN THOSE PASSING THROUGH) SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN 1/3 THE OVERALL THICKNESS OF THE SLAB, WALL OR BEAM IN WHICH THEY ARE EMBEDDED.
- CONDUITS, PIPES AND SLEEVES SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS.
- ALL CONDUITS AND PIPES THROUGH SLABS SHALL BE APPROVED BY ENGINEER OF RECORD BEFORE CONSTRUCTION. CONCRETE MIX DESIGNS MUST BE SUBMITTED FOR APPROVAL A MINIMUM OF 15 DAYS PRIOR TO THE PLACEMENT OF CONCRETE IN PLANT OR FIELD. ANY ADJUSTMENT TO THE APPROVED MIX DESIGNS, INCLUDING CHANGES TO THE ADMIXTURES, MUST BE SUBMITTED FOR APPROVAL PRIOR TO THE PLACEMENT OF CONCRETE IN PLANT OR FIELD.

CONCRETE DESIGNED TO BE PUMPED SHALL BE SO NOTED ON THE MIX DESIGNS AND SHALL HAVE MIX PROPORTIONS COMPATIBLE WITH THE PUMPING PROCESS.

ALL MAJOR DEFECTIVE AREAS IN CONCRETE INCLUDING HONEYCOMBS, CRACKS IN EXCESS OF 0.01", AND SPALLS THAT OCCUR IN LOAD CARRYING MEMBERS VITAL TO STRUCTURAL INTEGRITY SHALL BE REPAIRED USING EPOXY ADHESIVE, EPOXY MORTAR AND/OR POLYMER CONCRETE. EXTENT AND DETERMINATION OF MAJOR DEFECTIVE AREAS SHALL BE DETERMINED BY THE ENGINEER OF RECORD.

UNLESS SPECIFIED OTHERWISE, SLAB ON GRADE CONSTRUCTION SHALL FOLLOW THE RECOMMENDATIONS OF GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 302.1R, LATEST EDITION. DURING PLACEMENT OF THE CONCRETE SLABS, TAKE ALL NECESSARY STEPS TO AVOID PLASTIC CRACKS DUE TO WEATHER CHANGES. CURE ALL CONCRETE ACCORDING TO ACI 308.1 AND SPECIFICATIONS.

WHERE ANY OPENING REQUIRED FOR THE WORK IS NOT INDICATED, OBTAIN APPROVAL FROM THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE WORK.

ALL CONCRETE USED ON THE PROJECT SHALL BE NORMAL WEIGHT.

AT SLAB OPENING CORNERS AND REINSTRAN CORNERS, PROVIDE ADDITIONAL REINFORCEMENT PER TYPICAL DETAILS, UNO.

CONDUITS AND PIPES OF ALUMINUM SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE UNLESS EFFECTIVELY COATED TO PREVENT ALUMINUM-CONCRETE REACTION OR ELECTROLYTIC ACTION BETWEEN ALUMINUM AND STEEL.

IF CONCRETE ARRIVES AT THE POINT OF DELIVERY WITH A SLUMP BELOW THAT WHICH WILL RESULT IN THE SPECIFIED SLUMP, THE SLUMP MAY BE ADJUSTED ONCE ONLY TO THE REQUIRED VALUE BY ADDING WATER UP TO THE AMOUNT OF WATER WITHHELD AND ALLOWED IN THE ACCEPTED MIXTURE PROPORTIONS. DO NOT EXCEED SPECIFIED WATER-CEMENTITIOUS MATERIAL RATIO OR SLUMP IN THE APPROVED MIX DESIGN. DO NOT ADD WATER TO CONCRETE DELIVERED IN EQUIPMENT NOT ACCEPTABLE FOR MIXING. AFTER PLASTICIZING OR WATER REDUCING ADMIXTURES ARE ADDED TO THE CONCRETE AT THE SITE TO ACHIEVE FLOWABLE CONCRETE, DO NOT ADD WATER TO THE CONCRETE. MEASURE SLUMP (AND AIR CONTENT OF THE AIR ENTRAINED CONCRETE) , AFTER SLUMP ADJUSTMENT, TO VERIFY COMPLIANCE WITH SPECIFIED REQUIREMENTS.

CONTRACTOR'S TWO-WEEK LOOKAHEAD SCHEDULE MUST INDICATE CONSTRUCTION HOLDS FOR ALL STRUCTURAL CONCRETE INSPECTIONS.

CONCRETE FORMWORK:

THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ALL FORMS, SHORES, BACKSHORES, FALSEWORK, BRACING, AND OTHER TEMPORARY SUPPORTS SHALL BE ENGINEERED TO SUPPORT ALL LOADS INCLUDING INCLUDING THE WET WEIGHT OF CONCRETE, CONSTRUCTION EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND WET UNBALANCED CONCRETE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR DETERMINING WHEN TEMPORARY SUPPORTS, SHORES, BACKSHORES, AND OTHER BRACING SHALL BE SAFELY REMOVED.

PROVIDE FORMWORK IN ACCORDANCE WITH ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE.

TRANSYSTEMS IS NOT RESPONSIBLE FOR THE DESIGN OF ANY TEMPORARY BRACING OR SHORING. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF ANY TEMPORARY BRACING OR SHORING.

THE CONTRACTOR'S ENGINEER SHALL SIGN AND SEAL ALL SHORING CALCULATIONS AND SHOP DRAWINGS. THE CONTRACTOR'S ENGINEER SHALL BE REGISTERED IN THE STATE THAT THE PROJECT IS DONE. A RECORD COPY OF ALL THE SHORING DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER OF RECORD OF THE JOB FOR GENERAL CONFORMANCE REVIEW ONLY.

CONCRETE REINFORCING:
REINFORCING STEEL SHALL BE DEFORMED NEW BILLET STEEL BARS IN ACCORDANCE WITH ASTM SPECIFICATION A615 GRADE 60.

DETAILING AND FABRICATION OF REINFORCING STEEL AND SUPPORTS SHALL CONFORM TO ACI DETAILING MANUAL ACI 315 (SP-66) AND ACI 318, LATEST EDITIONS.

ALL HOOKS AND BENDS IN REINFORCING BARS SHALL CONFORM TO ACI DETAILING STANDARDS UNLESS SHOWN OTHERWISE.

HEAT SHALL NOT BE USED IN THE FABRICATION OR INSTALLATION OF REINFORCEMENT.

REINFORCING BARS SHALL BE FREE OF DIRT AND FORM RELEASE AGENTS.

EXCEPT AS INDICATED, MINIMUM COVER FOR REINFORCING SHALL BE AS FOLLOWS:

- FOUNDATIONS, WALLS:
TOP: 2"
BOTTOM: 3"
SIDES, EARTH FORMED: 3"
SIDES, FORMED: 3"
EXPOSED TO WEATHER: 2"

POST-INSTALLED ANCHORS

ALL POST-INSTALLED ANCHORS SHALL BE DRILL-IN EXPANSION TYPE ANCHORS UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL ANCHORS SHALL BE MANUFACTURED BY HILTI OR ENGINEER APPROVED EQUIVALENT. PROVIDE BACK-UP DATA BY MANUFACTURER SHOWING PROPOSED SUBSTITUTION ANCHORS MEET OR EXCEED CAPACITY OF SPECIFIED HILTI ANCHORS.

ALL ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH HILTI'S INSTALLATION INSTRUCTIONS AND CURRENT ICC-ESR REPORT INCLUDING BUT NOT LIMITED TO CLEANING OF THE HOLE PRIOR TO ANCHOR INSTALLATION. ALL ANCHORS SHALL HAVE SPECIAL INSPECTIONS PERFORMED IN ACCORDANCE WITH THE STATEMENT OF SPECIAL INSPECTIONS.

ANCHORS FOR CONCRETE CONSTRUCTION SHALL BE HILTI KWIK TZ2 BOLTS UNLESS NOTED OTHERWISE ON THE DRAWINGS. ANCHORS SHALL BE SPACED AS SPECIFIED ON THE STRUCTURAL DRAWINGS.

FOUNDATIONS:

FOUNDATIONS ARE BASED ON THE AVAILABLE SOIL BORING LOGS AND THE FINAL GEOTECHNICAL REPORT DATED FEBRUARY 12, 2013 BY A3SEO THE FINAL FOUNDATION DESIGN WILL BE UPDATED AND VALIDATED BASED ON ANY ADDITIONAL UPDATES PROVIDED BY GEOTECHNICAL ENGINEER.

PRIOR TO ANY EXCAVATION OPERATIONS, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES OR OTHER SUBSURFACE STRUCTURES WITHIN THE AREA TO BE EXCAVATED.

FOUNDATIONS HAVE BEEN DESIGNED FOR MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 1,000 PSF. THE MAXIMUM ALLOWABLE SOIL BEARING PRESSURE SHALL BE CONFIRMED BY THE GEOTECHNICAL ENGINEER BEFORE CONCRETE FOUNDATIONS ARE CAST.

FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE PASSIVE PRESSURE OF 300 PCF AND FRICTION COEFFICIENT OF 0.35' .

STORMWATER MUST BE DIVERTED FROM OPEN EXCAVATIONS. MOISTURE CONTROL OF SOILS MUST BE MAINTAINED. FOUNDATION EXCAVATIONS MUST BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER.

ANCHOR RODS/BOLTS AND FOUNDATION DOWELS MUST NOT BE REPAIRED. REPLACED OR FIELD MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.

ALL FOUNDATIONS MUST BE FOUNDED ON COMPACTED STRUCTURAL FILL OR NATIVE SOILS WITH THE BOTTOM OF FOUNDATION AT GEOTECHNICAL REPORT RECOMMENDED DEPTH.

FOUNDATION ELEVATIONS SHOWN ARE FOR BIDDING PURPOSES ONLY AND ARE ASSUMED TO BE IN SUITABLE BEARING MATERIALS OR APPROVED STRUCTURAL FILL. THE ACTUAL ADEQUACY OF THE BEARING MATERIAL MUST BE DETERMINED BY A QUALIFIED GEOTECHNICAL REPRESENTATIVE PRIOR TO PLACING OF REINFORCING OR CONCRETE, AND FOUNDATION ELEVATIONS MUST BE ADJUSTED, OR THE REMEDIAL ACTION TAKEN, AS DIRECTED BY THE GEOTECHNICAL ENGINEER'S REPRESENTATIVE AND APPROVED BY THE INSPECTOR OF RECORD.

FOUNDATIONS ARE DESIGNED TO BE FOUNDED ON SUBGRADES THAT ARE RECOMPACTED OR COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY UNIT WEIGHT PER ASTM D1557 LATEST EDITION OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

CONTRACTOR SHALL FOLLOW RECOMMENDATIONS CONTAINED WITHIN THE GEOTECHNICAL REPORT IN PREPARATION OF THE SITE, UNDERSLAB SUB-GRADE, BACKFILL AND FOUNDATIONS.

DENSITY TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE SPECIFICATIONS.

PROOF ROLL IN ACCORDANCE WITH THE SPECIFICATIONS AND GEOTECHNICAL REPORT.

ANY STRUCTURAL FILL UTILIZED TO SUPPORT THE FOOTINGS SHALL BE EXTENDED AT LEAST 0.5 FEET BEYOND THE PROPOSED FOOTING LIMITS AND THEN 0.5 FOOT HORIZONTALLY FOR EACH 1 FOOT OF FILL BELOW THE BASE OF THE FOOTING.

FOUNDATIONS: CONTINUED

EXCAVATIONS:

A. EXCAVATIONS IN THE VICINITY OF EXISTING FOUNDATIONS SHALL BE PERMITTED WITHOUT ANY SPECIAL MEASURES AS LONG AS THE BOTTOM NEAR EDGE OF THE EXCAVATION IS ABOVE A LINE WITH SLOPE OF 1 HORIZONTAL TO 1 VERTICAL EXTENDING OUTWARD AND DOWNWARD FROM THE NEAREST BOTTOM CORNER OF THE EXISTING FOUNDATION.

B. EXCAVATIONS IN THE VICINITY OF EXISTING FOUNDATIONS WITH THE BOTTOM NEAR EDGE OF THE EXCAVATIONS BELOW A LINE WITH SLOPE OF 1 HORIZONTAL TO 1 VERTICAL EXTENDING OUTWARD AND DOWNWARD FROM THE NEAREST BOTTOM CORNER OF THE EXISTING FOUNDATION SHALL BE MADE ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE PROJECT GEOTECHNICAL ENGINEER. SUCH EXCAVATIONS MAY REQUIRE SPECIAL TEMPORARY EXCAVATION BRACING OR UNDERPINNING OF EXISTING FOUNDATIONS, WHICH IS THE RESPONSIBILITY OF THE CONTRACTOR AS PART OF ITS SELECTED MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES. CONTRACTOR SHALL SUBMIT TEMPORARY EXCAVATION BRACING AND UNDERPINNING DETAILS PRIOR TO EXCAVATION. CONTRACTOR SHALL PERFORM THESE EXCAVATIONS WITH CAUTION SO AS NOT TO UNDERMINE ANY EXISTING STRUCTURE FOUNDATION, AND EXCAVATIONS SHALL BE MADE IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

C. EXCAVATION MUST NOT REMAIN OPEN FOR EXTENDED PERIODS OF TIME. ANY UNFORESEEN WORK STOPPAGES SHALL BE DISCUSSED WITH THE RESIDENT ENGINEER AND DISPOSITION FOR PREPARING THE EXCAVATION MUST BE ARRIVED AT BEFORE LEAVING THE JOBSITE.

ALL AREAS WITHIN THE FOOTPRINT OF THE SLAB-ON-GROUND, INCLUDING UTILITY TRENCHES, MUST BE FREE OF ANY WET AND/OR SOFT AREAS PRIOR TO PLACEMENT OF FILL MATERIAL OR SLAB.

THE CONTRACTOR SHALL REFER TO THE LOCAL REGULATIONS FOR BURIED CONTAMINATED DEBRIS, UNDERGROUND STORAGE TANKS, BURIED DRUMS, BURIED WASTE OF ANY OTHER FEATURES THAT WOULD IMPACT THE SITE AND TAKE REMEDIAL MESURES THAT INCLUDE BUT NOT LIMITED TO REMOVAL OF THE CONTAMINATED MATERIAL AND ABANDONED FEATURES IN THE SLAB-ON-GROUND FOOTPRINT.

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS SHALL BE PERFORMED BY THE OWNER'S DESIGNATED SPECIAL INSPECTION AGENCY. ALL INSPECTION, TESTING, AND DOCUMENTATION SHALL BE IN ACCORDANCE WITH THE STRUCTURAL SPECIAL INSPECTIONS OUTLINED ON SHEET S002.

A SEPARATE STATEMENT OF SPECIAL INSPECTIONS AS REQUIRED PER SECTION 1704 OF THE CBC BUILDING CODE SHALL BE PROVIDED BY OTHERS FOR ALL MATERIALS, SYSTEMS, COMPONENTS, AND WORK NOT INCLUDED IN THE STRUCTURAL DRAWINGS.

EXISTING CONDITIONS

THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND FRAMING SHOWN ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS WHICH PERTAIN TO ANY NEW WORK, PRIOR TO BEGINNING FABRICATION OF MATERIALS AND/OR PRIOR TO STARTING ANY NEW CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY IF ANY EXISTING CONDITIONS ARE FOUND TO BE IN CONFLICT WITH THE ARCHITECTURAL OR STRUCTURAL DRAWINGS.

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS SHALL BE PERFORMED BY THE OWNER'S DESIGNATED SPECIAL INSPECTION AGENCY. ALL INSPECTION, TESTING, AND DOCUMENTATION SHALL BE IN ACCORDANCE WITH THE STRUCTURAL SPECIAL INSPECTIONS OUTLINED ON SHEET S002.

A SEPARATE STATEMENT OF SPECIAL INSPECTIONS AS REQUIRED PER SECTION 1704 OF THE CBC BUILDING CODE SHALL BE PROVIDED BY OTHERS FOR ALL MATERIALS, SYSTEMS, COMPONENTS, AND WORK NOT INCLUDED IN THE STRUCTURAL DRAWINGS.

EXISTING CONDITIONS

THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND FRAMING SHOWN ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS WHICH PERTAIN TO ANY NEW WORK, PRIOR TO BEGINNING FABRICATION OF MATERIALS AND/OR PRIOR TO STARTING ANY NEW CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY IF ANY EXISTING CONDITIONS ARE FOUND TO BE IN CONFLICT WITH THE ARCHITECTURAL OR STRUCTURAL DRAWINGS.

SHOP DRAWINGS AND REFERRED DELEGATED SUBMITTAL ITEMS:

SHOP DRAWINGS AND DATA SUBMITTALS SHALL BE SUBMITTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

THE GENERAL CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS AND PRODUCT DATA FOR CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTAL. ANY SHOP DRAWINGS OR PRODUCT DATA NOT REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR WILL BE RETURNED WITHOUT REVIEW. THE CONTRACTOR SHALL CLOUD OR FLAG ALL ITEMS NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. VERIFY ALL DIMENSIONS WITH ARCHITECT.

ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM THE ORIGINAL CONTRACT DRAWINGS SHALL BE CLOUDED BY THE MANUFACTURER OR FABRICATOR. ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED ALLOWED AFTER THE SEOR REVIEW, UNLESS NOTED ACCORDINGLY BY THE SEOR.

THE SEOR RESERVES THE RIGHT TO ALLOW OR NOT ALLOW ANY CHANGES TO THE ORIGINAL CONTRACT DRAWINGS AT ANY TIME BEFORE OR AFTER SHOP DRAWING REVIEW.

REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS AND COMPLETENESS RESTS SOLELY WITH THE CONTRACTOR.

SHOP DRAWINGS WILL BE RETURNED FOR RESUBMITTAL IF MAJOR ERRORS ARE FOUND DURING REVIEW.

DEFERRED SUBMITTALS - SHOP DRAWING SUBMITTALS THAT ARE SUBMITTED DURING CONSTRUCTION AND REQUIRED BY THE GENERAL STRUCTURAL NOTES WHICH CONTAIN DESIGN CALCULATIONS AND SEALS BY A REGISTERED STRUCTURAL ENGINEER OTHER THAN THE SEOR, SHALL BE REVIEWED BY THE SEOR AND DETERMINED TO BE IN GENERAL CONFORMANCE WITH THE BUILDING DESIGN AND SO STATED ON THE SUBMITTAL DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. THE DESIGN CALCULATIONS AND SHOP DRAWINGS SUBMITTAL SHALL BE SIGNED AND SEALED BY THE SAME DELEGATED STRUCTURAL ENGINEER.

DEFERRED SUBMITTAL SHALL INCLUDE THE FOLLOWING:

- A. CONSTRUCTION JOINT LAYOUTS FOR CONCRETE WALLS AND FOUNDATIONS.
- B. CONCRETE MIX DESIGNS.
- C. RAILINGS ASSEMBLY AND CONNECTIONS TO CONCRETE.

STRUCTURAL STANDARD DRAWING ABBREVIATIONS

#	Number	JT	Joint	
Ø	Diameter	JST	Joist	TYPE
ABV	Above	K	Kip(s)	
AFF	Above Finished Floor	KSF	Kips per Square Foot	
ADDL	Additional	L	Angle Section (Structural Shape)	
ADJ	Adjacent	LAM	Laminated	
ACCU	Air Cooled Condensing Unit	LT	Light	
AHU	Air Handling Unit	LWC	Light Weight Concrete	
ALT	Alternate	LL	Live Load	
AB	Anchor Bolt	LLH	Long Leg Horizontal	
ARCH	Architectural / Architect	LLV	Long Leg Vertical	
AESS	Architectural Exposed Structural Steel	LSH	Long Side Horizontal	
AHJ	Authority Having Jurisdiction	LSV	Long Side Vertical	
BM	Beam	MFR	Manufacturer	
BRG	Bearing	MAS	Masonry	
BET	Between	MO	Masonry Opening	
BS	Both Sides	MATL	Material	
B/	Bottom of	MAX	Maximum	
BOTT	Bottom	MECH	Mechanical	
BLDG	Building	MTL	Metal	
C	Channel Section Structural Shape	MEZZ	Mezzanine	
Ⓢ	Centerline	MIN	Minimum	
CANT	Cantilever	MISC	Miscellaneous	
CFMF	Cold-formed Metal Framing	MC	MC Section (Structural Section)	
CFS	Cold-formed Steel	NS	Near Side	
CIP	Cast-in-place	NWC	Normal Weight Concrete	
CTR	Center	NIC	Not In Contact	
CHKD	Checked	NTS	Not To Scale	
CLR	Clear	OC	On Center	
COL	Column	OPG	Opening	
CONC	Concrete	OPP	Opposite	
CMU	Concrete Masonry Unit	OD	Outside Diameter	
CONN	Connection	PL	Plate	
CONSTR	Construction	PLBG	Plumbing	
CONT	Continuous	PT CONC	Post-Tensioned Concrete	
CJ	Contraction / Control Joint	LB	Pound	
COORD	Coordinate	PCF	Pounds Per Cubic Foot	
DL	Dead Load	PLF	Pounds Per Linear Foot	
DEMO	Demolish	PSF	Pounds Per Square Foot	
DTL	Detail	PSI	Pounds Per Square Inch	
DIAG	Diagonal	PC	Precast Concrete	
DIM	Dimension	PT	Pressure Treated	
DO	Ditto	PROJ	Projection	
DWL	Dowel	REF	Reference	
DN	Down	REINF	Reinforcement / Reinforcing	
DWG	Drawing	REQD	Required	
E	Modulus of Elasticity	S	S Section Structural Steel	
EA	Each	SCHED	Schedule	
EF	Each Face	SIM	Section	
ES	Each Side	SOD	Slab-on-Deck	
EW	Each Way	SOG	Slab-on-Grade	
ECC	Eccentric	SFA	Space(s), Spacing	
EOD	Edge of Deck	SPEC	Specification(s)	
EOS	Edge of Slab	SQ	Square	
ELEC	Electrical	SS	Stainless Steel	
ELEV	Elevation	STG(D)	Stagger(ed)	
ELVR	Elevator	STD	Standard	
EMBED	Embedment	STL	Steel	
EQ	Equal	STP	Step	
ETC	Et Cetera	STIFF	Stiffener	
EXIST	Existing	STRUCT	Structural	
EXP	Expansion	SYMM	Symmetrical	
EJ	Expansion Joint	TEMP	Temporary	
EXT	Exterior	THK	Thick(ness)	
EIFS	Exterior Insulation Finish System	THRU	Through	
FS	Far Side	T & B	Top and Bottom	
FIN	Finish	TYP	Typical	
FFE	Finished Floor Elevation	UNO	Unless Noted Otherwise	
FLR	Floor	GA	Gage	
FT	Foot or Feet	GALV	Galvanized	
FTG	Footing	GC	General Contractor	
FDN	Foundation	GR	Grade	
FUT	Future	GRTG	Grating	
		W	W Section (Structural Shape)	
		WFF	Welded Wire Fabric	
		WPS	Welding Procedure Specification	
		WL	Wind Load	
		W/Ø	With	
		WD	Without	
		WP	Work Point	
		WT	WT Section (Structural Shape)	
		X-STRONG	Extra Strong	
		XX-STRONG	Double Extra Strong	

			APPROVAL
			DESCRIPTION
			DATE
			MARK
			REVISION



FINAL SUBMITTAL		2000 CENTER STREET SUITE 303 BERKELEY, CA 94704 PHONE: (510) 835-2761	DEPICTION OF MONUMENTS: DATE _____	SUBMITTED: DATE _____	DESIGN: <u>ABI</u>	HORIZ. <u>1"=4'</u>	CITY OF BERKELEY DEPARTMENT OF PARKS, RECREATION & WATERFRONT	STRUCTURAL NOTES	FILE <u>8169</u>
			SURVEY PARTY CHIEF _____	SUPERVISING CIVIL ENGINEER _____	DRAWN: <u>RDR</u>	VERT			

STRUCTURAL SPECIAL INSPECTIONS - CONCRETE CONSTRUCTION				
	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD	CBC BUILDING CODE REFERENCE
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-----	X	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1- 26.6.3	-----
2. REINFORCING BAR WELDING:				
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	-----	X	AWS D1.4, ACI 318: 26.6.4	-----
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND	-----	X		
C. INSPECT ALL OTHER WELDS.	X	-----		
3. INSPECT ANCHORS CAST IN CONCRETE.	-----	X	ACI 318: 17.8.2	-----
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.				
A. ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	-----	ACI 318: 17.8.2.4	-----
B. MECHANICAL ANCHORS AND ANCHORS NOT DEFINED IN 4A.	-----	X	ACI 318: 17.8.2	-----
5. VERIFY USE OF REQUIRED DESIGN MIX.	-----	X	ACI 318: Ch.19 26.4.3, 26.4.4	1904.1, 1904.2
6. PRIOR CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-----	ASTM C31, ASTM C172, ACI 318: 26.5, 26.12	-----
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-----	ACI 318: 26.5	-----
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-----	X	ACI 318: 26.5.3, 26.5.5	-----
9. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO REMOVAL OF SHORES, AND FORMS.	-----	X	ACI 318: 26.11(b)	-----
STRUCTURAL SPECIAL INSPECTIONS - SOILS				
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVED THE DESIGN BEARING CAPACITY.	-----	X		
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-----	X		
3. PERFORM CLASSIFICATION AND TESTING COMPACTED FILL MATERIALS.	-----	X		
4. DURING FILL PLACEMENT, VERIFY THE USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED MATERIAL.	X (SEE NOTE)	-----		1705.6
5. PRIOR PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-----	X		

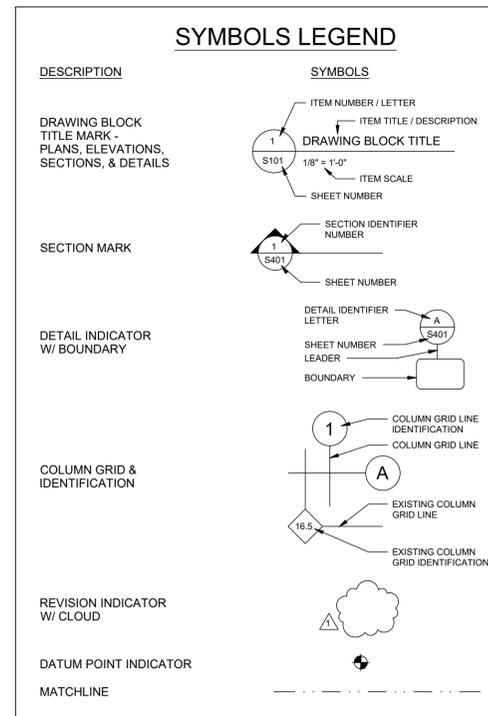
NOTE:
 ALL FILLS USED TO SUPPORT THE FOUNDATIONS OF ANY BUILDING OR STRUCTURE SHALL BE CONTINUOUSLY INSPECTED BY THE GEOTECHNICAL ENGINEER OR HIS OR HER QUALIFIED REPRESENTATIVE. IT SHALL BE THE RESPONSIBILITY OF THE GEOTECHNICAL ENGINEER TO VERIFY THAT FILLS MEET THE REQUIREMENTS OF THE APPROVED CONSTRUCTION DOCUMENTS AND TO COORDINATE ALL FILL INSPECTION AND TESTING DURING CONSTRUCTION INVOLVING SUCH FILLS. THE DUTIES OF THE GEOTECHNICAL ENGINEER OR HIS OR HER QUALIFIED REPRESENTATIVE SHALL INCLUDE, BUT NEED NOT BE LIMITED TO, THE INSPECTION OF CLEARED AREAS AND BENCHES PREPARED TO RECEIVE FILL; INSPECTION OF THE REMOVAL OF ALL UNSUITABLE SOILS AND OTHER MATERIALS; THE APPROVAL OF SOILS TO BE USED AS FILL MATERIAL; THE INSPECTION OF PLACEMENT AND COMPACTION OF FILL MATERIALS; THE TESTING OF THE COMPLETED FILLS; AND THE INSPECTION OR REVIEW OF GEOTECHNICAL DRAINAGE DEVICES, BUTTRESS FILLS OR OTHER SIMILAR PROTECTIVE MEASURES IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.

A VERIFIED REPORT SHALL BE SUBMITTED BY THE GEOTECHNICAL ENGINEER AS REQUIRED BY THE CALIFORNIA ADMINISTRATIVE CODE. THE REPORT SHALL INDICATE THAT ALL TESTS AND INSPECTIONS REQUIRED BY THE APPROVED CONSTRUCTION DOCUMENTS WERE COMPLETED AND WHETHER THE TESTED MATERIALS AND/OR INSPECTED WORK MEET THE REQUIREMENTS OF THE APPROVED CONSTRUCTION DOCUMENTS.

STRUCTURAL TESTS AND SPECIAL INSPECTIONS:

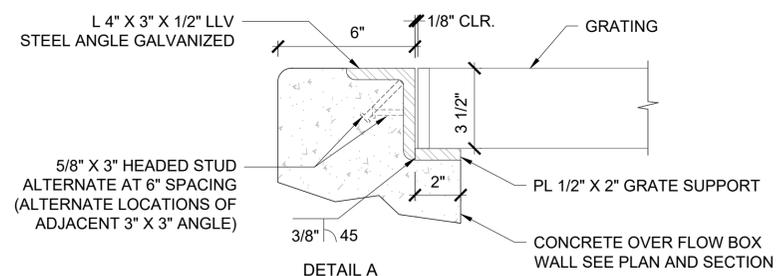
THE GENERAL CONTRACTOR SHALL MAINTAIN A QUALITY CONTROL PROGRAM SEPARATE FROM THE SPECIAL INSPECTION PROGRAM PROVIDED BY THE OWNER. OWNER'S AUTHORIZED AGENT, OTHER THAN THE CONTRACTOR, SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PROVIDE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION. THE CONTRACTOR/SUBCONTRACTOR (S) SHALL NOT USE OWNER'S SPECIAL INSPECTIONS FOR A SUBSTITUTE FOR HIS QUALITY CONTROL. THE CONTRACTOR/SUBCONTRACTOR (S) SHALL DESIGNATE A QUALITY CONTROL REPRESENTATIVE FOR EACH AREA LISTED UNDER SPECIAL INSPECTIONS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBCONTRACTOR (S) PROVIDING QUALITY CONTROL AND SHALL BE RESPONSIBLE FOR THE ENTIRE QUALITY CONTROL PROGRAM.

- GENERAL QUALIFICATIONS OF INSPECTORS AND TESTING AGENCIES (UNLESS NOTED OTHERWISE BY CALIFORNIA BUILDING CODE) :
 - THE TESTING AGENCIES ARE REQUIRED TO SUBMIT EVIDENCE OF QUALIFICATIONS TO PERFORM THE SPECIFIED TESTS.
 - THE INSPECTORS MUST SHOW EVIDENCE OF QUALIFIED PROFESSIONAL STAFF EMPLOYED TO MAKE INSPECTIONS. LABORATORY TESTING FACILITIES MUST BE ACCREDITED BY A NATIONALLY-RECOGNIZED AGENCY SUCH AS THE AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION (AALA), THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST), OR NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NAVLAP).
- THE SPECIAL INSPECTOR(S) SHALL REVIEW THE PROJECT PLANS, SPECIFICATIONS, AND CONSTRUCTION SCHEDULE TO BECOME FAMILIAR WITH THE SCOPE OF THE INSPECTION AND TESTING SERVICES REQUIRED (UNLESS NOTED OTHERWISE BY CALIFORNIA BUILDING CODE REQUIREMENTS).
- THE SPECIAL INSPECTOR (S) TO KEEP RECORDS OF INSPECTIONS (UNLESS NOTED OTHERWISE BY CALIFORNIA BUILDING CODE REQUIREMENTS).
- THE SPECIAL INSPECTOR(S) TO FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE ENGINEER. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS (UNLESS NOTED OTHERWISE BY CALIFORNIA BUILDING CODE REQUIREMENTS).
- INSPECTION OF WORK SHALL INCLUDE: VERIFICATION OF DIMENSIONS, DIMENSIONAL TOLERANCE, LOCATION AND NUMBER OF ITEMS SUPPLIED; VERIFICATION OF PROPER CARE OR CONSTRUCTION MATERIALS DURING PERIODS OF DELETERIOUS WEATHER CONDITIONS; AND VERIFICATIONS OF PROPER CONSTRUCTION IN TERMS OF MATERIALS, LOCATION, DIMENSIONAL TOLERANCE, AND CONSTRUCTION DETAILS (UNLESS NOTED OTHERWISE BY CALIFORNIA BUILDING CODE REQUIREMENTS).
- THE SPECIAL INSPECTOR (S) SHALL BRING DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR(S) SHALL BRING DISCREPANCIES TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE ENGINEER PRIOR TO COMPLETION OF THAT PHASE OF WORK (UNLESS NOTED OTHERWISE BY CALIFORNIA BUILDING CODE REQUIREMENTS).
- THE SPECIAL INSPECTOR (S) SHALL PERIODICALLY SUBMIT A REPORT OF INSPECTIONS DOCUMENTING REQUIRED INSPECTIONS AND METHOD OF CORRECTION ACTION OF ALL DISCREPANCIES NOTED IN THE INSPECTIONS AT A FREQUENCY DETERMINED BY THE BUILDING OFFICIAL (UNLESS NOTED OTHERWISE BY CITY OF CALIFORNIA BUILDING CODE REQUIREMENTS).
- THE SPECIAL INSPECTOR (S) TO VERIFY THAT EACH FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION, CONTROL OF WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR (S) SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR FABRICATOR'S SCOPE OF WORK. SPECIAL INSPECTIONS ARE NOT REQUIRED WHERE THE FABRICATOR IS APPROVED AS DESCRIBED BELOW (UNLESS NOTED OTHERWISE BY CALIFORNIA BUILDING CODE REQUIREMENTS).
- THE SPECIAL INSPECTION OF FABRICATORS ARE NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION PER CBC SECTION 1704.2.5. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLETION WITH THE APPROVED CONSTRUCTION DOCUMENTS (UNLESS NOTED OTHERWISE BY CALIFORNIA BUILDING CODE REQUIREMENTS) .
- THE CONTRACTOR SHALL PROVIDE ACCESS TO THE WORK BEING INSPECTED TO THE SPECIAL INSPECTOR AND SHALL PROVIDE ONE DAY BUSINESS NOTICE, MINIMUM, OF THE INTENTION OF ANY WORK REQUIRED TO HAVE SPECIAL INSPECTIONS. REGARDLESS OF NOTICE PROVIDED TO THE SPECIAL INSPECTOR, ALL WORK PERFORMED WITHOUT REQUIRED SPECIAL INSPECTION WILL BE SUBJECT TO REMOVAL AT THE DISCRETION OF THE ARCHITECT, DESIGN ENGINEER, OR BUILDING OFFICIAL AT NO COST TO OWNER.
- ANY REWORK REQUIRED DUE TO NON-CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS SHALL BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER. ANY REWORK REQUIRED BY THE CONTRACTOR DUE TO NON-CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS SHALL BE NOTED AND TIME KEPT SEPARATE BY THE SPECIAL INSPECTOR (S). ANY FURTHER INSPECTION (S) AND TESTING THAT ARE REQUIRED DUE TO NON-CONFORMING WORK SHALL BE PAID BY THE CONTRACTOR.
- SPECIAL INSPECTOR (S) AND REPRESENTATIVES OF THE TESTING AGENCIES ARE NOT AUTHORIZED TO ALTER ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS NOR APPROVE OR ACCEPT ANY PORTION OF THE WORK.
- STRUCTURAL WORK REQUIRING SPECIAL INSPECTION AND STRUCTURAL TESTING SHALL BE AS LISTED UNDER "STRUCTURAL TESTS AND SPECIAL INSPECTION TABLES" AS A MINIMUM.
- THE ITEMS CHECKED WITH "X" SHALL BE INSPECTED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO THE PROJECT SPECIFICATIONS. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIAL THAT FAILS TO MEET THE PROJECT SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL DELEGATED DESIGN COMPONENTS.
- CONTINUOUS SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON THE SITE AT ALL TIMES OBSERVING THE WORK REQUIRING SPECIAL INSPECTION . PERIODIC SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON SITE AT TIME INTERVALS NECESSARY TO CONFIRM THAT ALL WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE.
- INSPECTION FOR PREFABRICATED CONSTRUCTION SHALL BE THE SAME AS IF THE MATERIAL USED IN THE CONSTRUCTION TOOK PLACE ON SITE. CONTINUOUS INSPECTION WILL NOT BE REQUIRED DURING PREFABRICATION IF THE APPROVED AGENCY CERTIFIES THE CONSTRUCTION AND FURNISHES EVIDENCE OF COMPLIANCE.
- THE GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS SHALL BE USED TO DETERMINE COMPLIANCE OF SPECIAL INSPECTIONS. THE GEOTECHNICAL ENGINEER SHOULD ALSO VERIFY COMPLIANCE.
- PROVIDE ICC-ES EVALUATION REPORTS FOR ALL POST-INSTALLED ANCHORS.

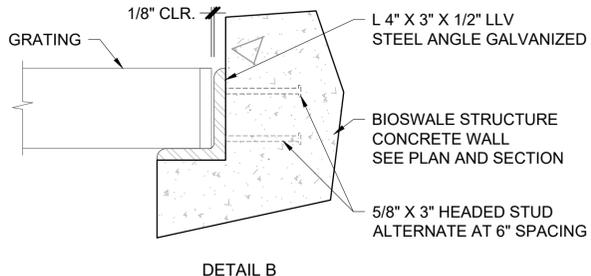


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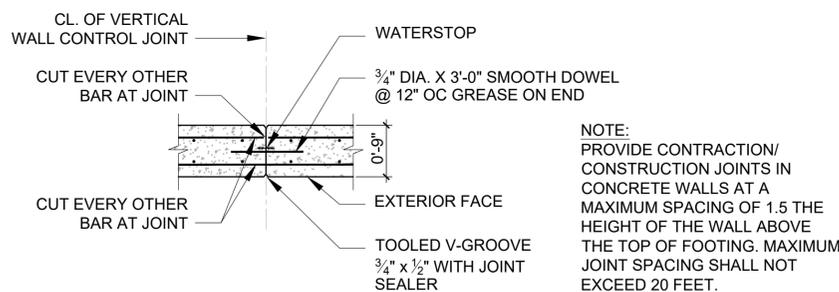




1 TYPICAL GRATING FRAMING SUPPORT
S-302 SCALE: 3\"/>

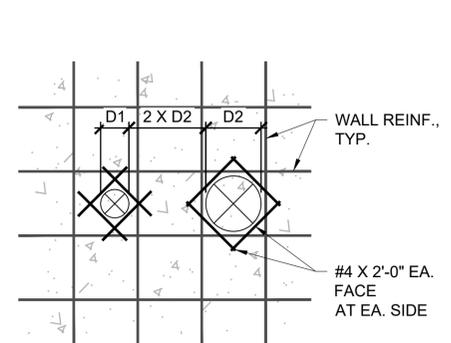


2 WALL CONTROL JOINT TYPICAL DETAIL
S-302 SCALE: 3\"/>

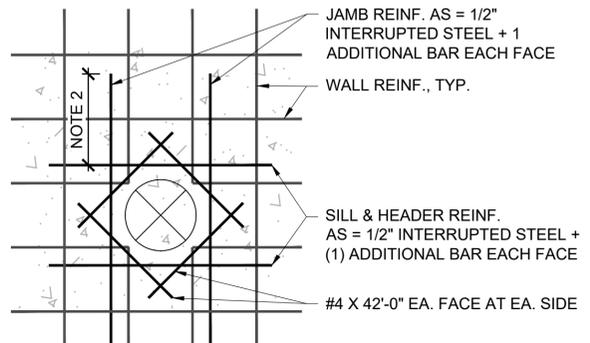


NOTE:
PROVIDE CONTRACTION/
CONSTRUCTION JOINTS IN
CONCRETE WALLS AT A
MAXIMUM SPACING OF 1.5 THE
HEIGHT OF THE WALL ABOVE
THE TOP OF FOOTING. MAXIMUM
JOINT SPACING SHALL NOT
EXCEED 20 FEET.

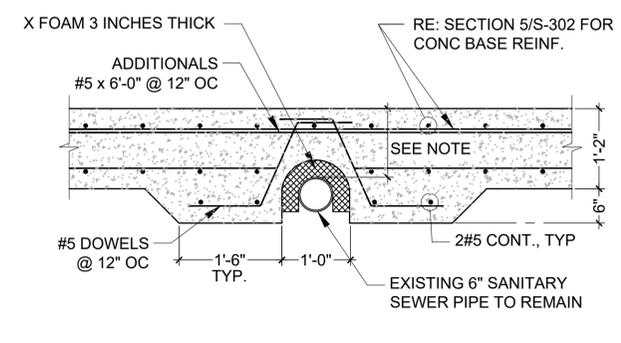
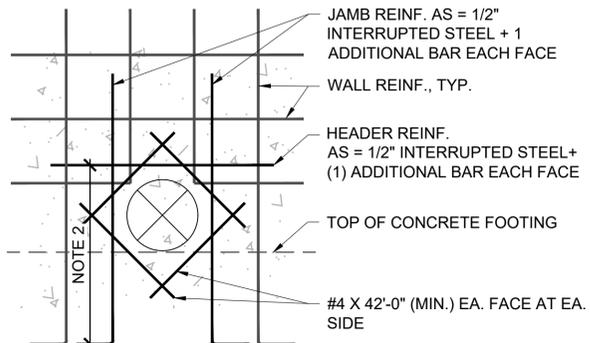
- GENERAL NOTES:**
- SEE SHEET S-101 FOR ELEVATION OF WALL AND STRUCTURE FLOORS. ELEVATIONS TAKE PRECEDENCE OVER VERTICAL DIMENSIONS SHOWN ON THIS SHEET.
 - VERIFY PIPE PENETRATION LOCATIONS & SIZES WITH CIVIL DRAWINGS.
 - SEE DETAILS ON SHEET S-303 FOR INFORMATION ON THE ALUMINUM RAILING.



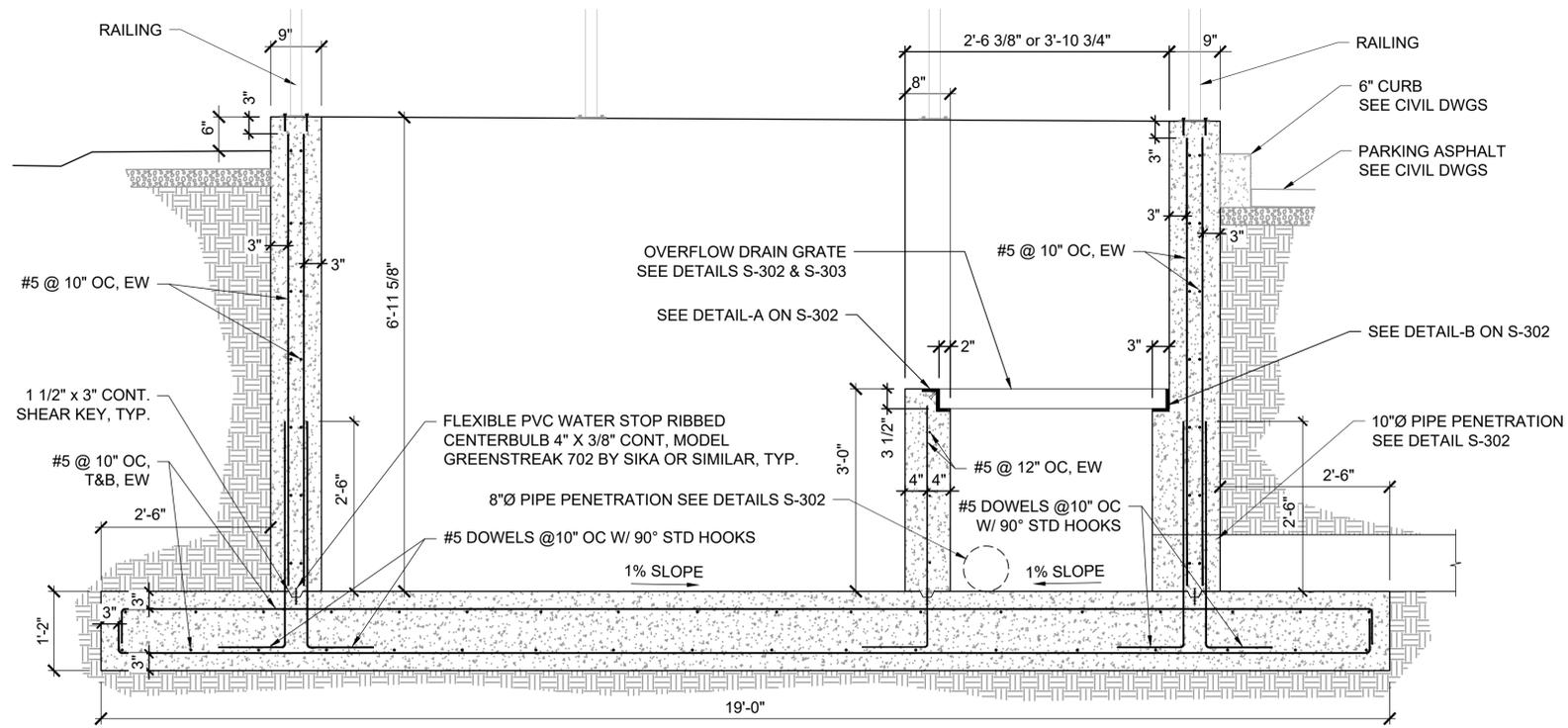
3 TYPICAL CONCRETE WALL OR SLAB PENETRATION DETAILS
S-302 SCALE: 3\"/>



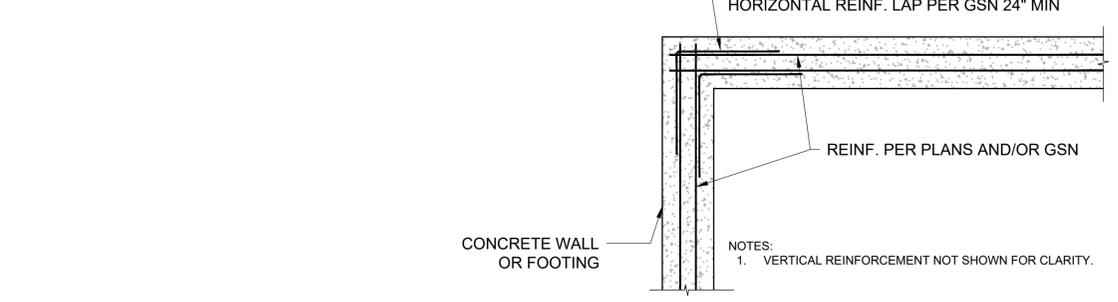
4 TYPICAL CONCRETE WALL OR SLAB PENETRATION DETAILS
S-302 SCALE: 3\"/>



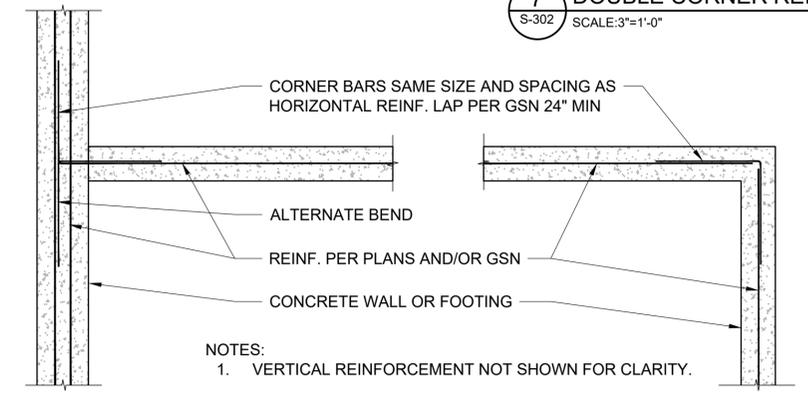
5 TYPICAL EXISTING SEWER PIPE IN FOOTING DETAIL
S-302 SCALE: 3\"/>



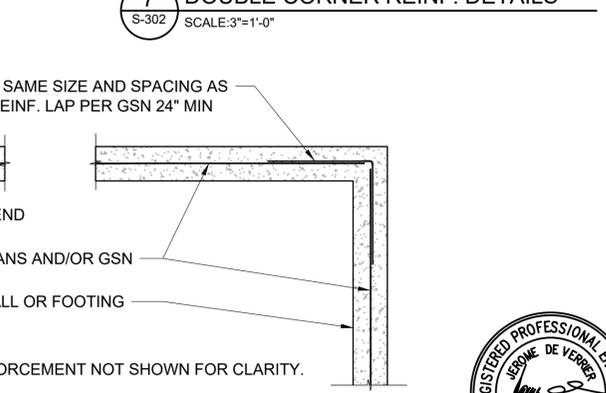
6 TYPICAL ENLARGED BIOSWALE STRUCTURE CONCRETE DETAILS
S-101 SCALE: 3/4\"/>



7 TYPICAL FOOTING OR CONC. WALL DOUBLE CORNER REINF. DETAILS
S-302 SCALE: 3\"/>



8 FOOTING OR CONC. WALL SINGLE INTERSECTION REINF. DETAIL
S-302 SCALE: 3\"/>



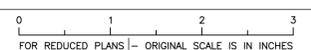
9 TYPICAL FOOTING OR CONC. WALL SINGLE CORNER REINF. DETAIL
S-302 SCALE: 3\"/>



FINAL SUBMITTAL



2000 CENTER STREET
SUITE 303
BERKELEY, CA 94704
PHONE: (510) 835-2761



DEPICTION OF MONUMENTS: DATE _____
SURVEY PARTY CHIEF: _____
WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
SUPERVISING CIVIL ENGINEER: R.C.E. _____
APPROVED: DATE _____
MANAGER OF ENGINEERING: R.C.E. _____

DESIGN: ABI
DRAWN: RDR
CHECK: RZ
AS BUILT: _____

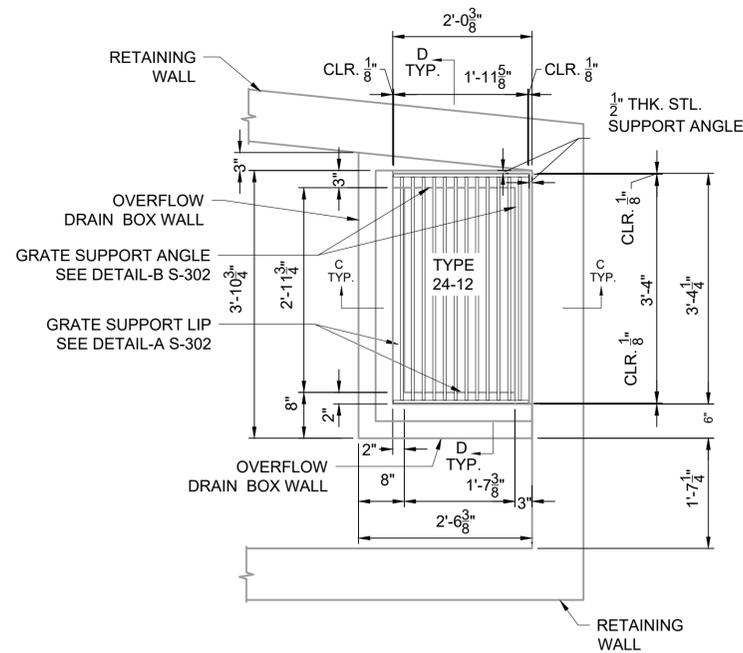
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CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

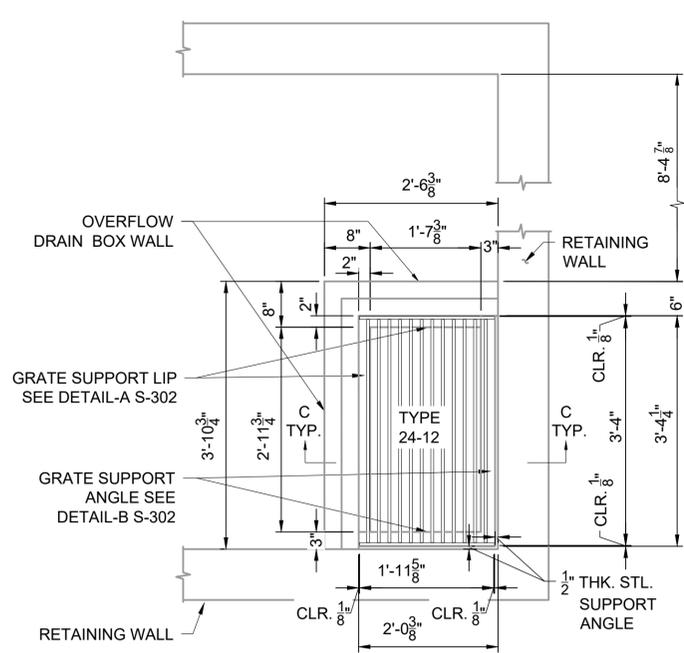
STRUCTURAL DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
S-302
SHEET 31 OF 47

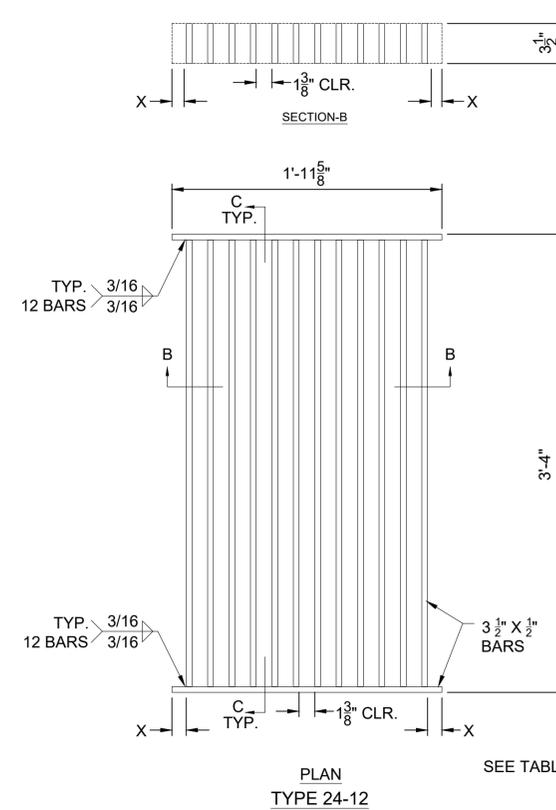
APPROVAL	DESCRIPTION	DATE	MARK	REVISION



1 BIOSWALE STRUCTURE-1
OVER FLOW DRAIN BOX - ENLARGED PLAN
S-303 SCALE: 3/4"=1'-0"



2 BIOSWALE STRUCTURE-2
OVER FLOW DRAIN BOX - ENLARGED PLAN
S-303 SCALE: 3/4"=1'-0"

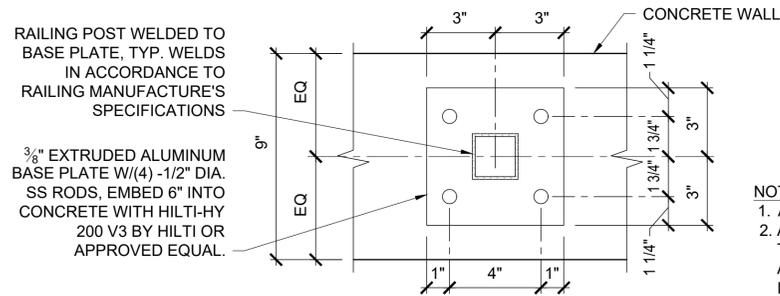


3 RECTANGULAR GRATE DETAILS
S-303 SCALE: 1/2"=1'-0"

TYPE	NO. OF BARS	CLEAR BAR SPACING	X
24-12	12	1 3/8"	1 1/4"

INLET TYPE	GRATE TYPE	NO. OF GRATES	WEIGHT LB
BIOSWALE STRUCTURE-1	24-12	1	634
BIOSWALE STRUCTURE-2	24-12	1	634

SEE NOTE 5

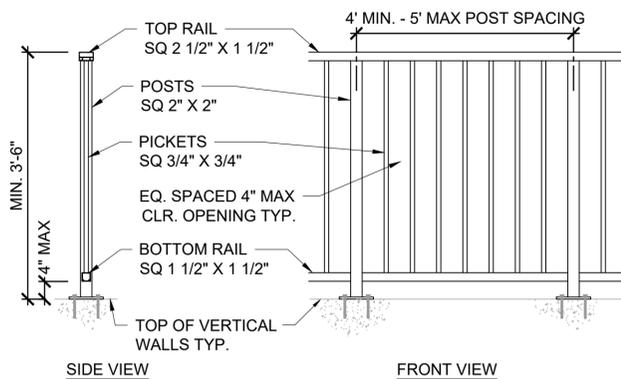


TYPICAL FENCE POST BASE PLATE DETAIL

- NOTES:
1. ALUMINUM ALLOY 6063-T5
 2. APPLY BITUMINOUS COATING TO ALUMINUM BASE PLATE AND CONCRETE BEFORE INSTALLATION.

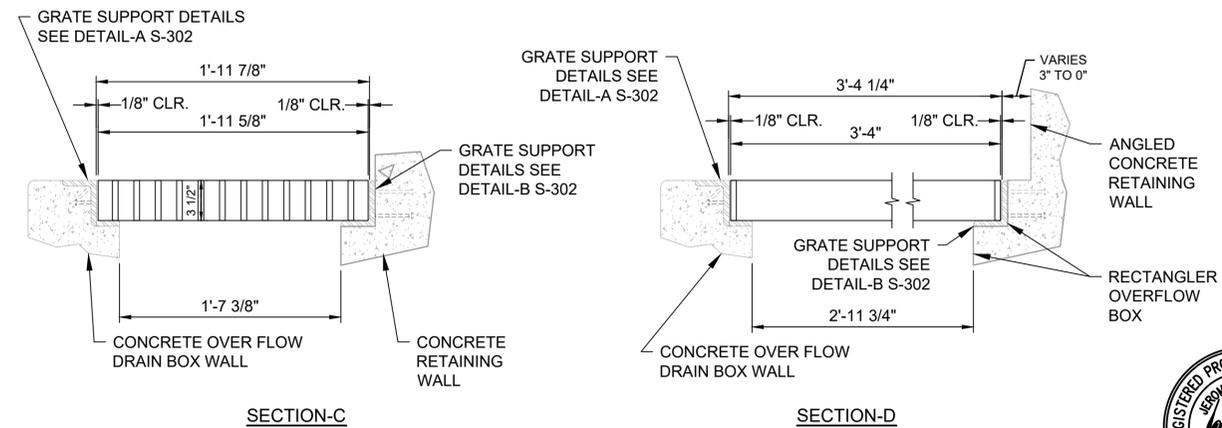
BASIS FOR MISC STEEL FINAL PAY WEIGHTS FOR DRAINAGE INLETS

- GRATING NOTES:
1. GRATE TYPE NUMBERS REFER TO APPROXIMATE WIDTH OF GRATE IN INCHES AND NUMBER OF BARS RESPECTIVELY.
 2. ROUNDED TOP BARS OPTIONAL ON ALL GRATES.
 3. PIPE INLETS WITH A GRATE SHALL BE PLACED SO THAT BARS PARALLEL DIRECTION OF PRINCIPLE SURFACE FLOW.
 4. COMPLETE JOINT PENETRATION BUTT WELDS MAY BE SUBSTITUTED FOR THE FILLET WELDS ON ALL ANCHORS.
 5. GRATE AND FRAME WEIGHTS ARE BASED ON WELDED GRATES (WEIGHTS OF FACE ANGLES, STEPS, PROTECTION BARS, ETC. ARE NOT INCLUDED).
 6. CONNECT CHAIN TO GRATE AND FRAME ONLY AT LOCATIONS SHOWN ON THE PLANS. WHEN CHAIN IS REQUIRED, DO NOT USE CAST DUCTILE IRON GRATES.



- NOTES:
1. MANUFACTURER: ATR TECHNOLOGIES, INC OR APPROVED EQUAL MODEL: STYLE 6A (2 LINE) ALUMINUM PICKET GUARDRAIL.
 2. BASE PLATES AND ANCHORS TO BE COORDINATE BY MANUFACTURER'S RECOMMENDATIONS.

4 TYPICAL RETENTION VAULT ALUMINUM RAILING DETAILS
S-303 SCALE: 3/4"=1'-0"



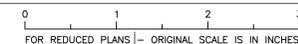
5 TYPICAL GRATING SUPPORT SECTION
S-303 SCALE: 3"=1'-0"



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2000 CENTER STREET
SUITE 303
BERKELEY, CA 94704
PHONE: (510) 835-2761



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MANAGER OF ENGINEERING: _____

DESIGN: ABI
DRAWN: RDR
CHECK: RZ
AS BUILT: _____
DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

STRUCTURAL DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
S-303
SHEET 32 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

ABBREVIATIONS	
(D)	DEMOLISH
(E)	EXISTING
(F)	FUTURE
(N)	NEW
A	AMPERES
AC	ALTERNATING CURRENT
AF	AMP FRAME
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPS INTERRUPTING CAPACITY
ANN	ANNUNCIATOR
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BAT	BATTERY
BFG	BELOW FINISH GRADE
CATV	CABLE TELEVISION
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CO	CONDUIT ONLY
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
EF	EXHAUST FAN
EGU	ENGINE GENERATOR UNIT
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NON-METALLIC TUBING
EP	EXPLOSION PROOF
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FC	FOOT CANDLE
FU	FUSE
GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
HID	HIGH INTENSITY DISCHARGE
HOA	"HAND-OFF-AUTO" SWITCH
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HVAC	HEATING, VENTILATION & AIR-CONDITIONING
IG	ISOLATED GROUND
JB	JUNCTION BOX
KAIC	KILO-AMPS INTERRUPTING CAPACITY
KV	KILOVOLT
KVA	KILOVOLT-AMP
KW	KILOWATT
KWH	KILOWATT-HOUR
LPS	LOW PRESSURE SODIUM
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MH	METAL HALIDE
MLO	MAIN LUGS ONLY
MV	MEDIUM VOLTAGE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OC	ON CENTER
PA	PUBLIC ADDRESS
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PB	PULL BOX, ELECTRICAL
RECPT	RECEPTACLE, OUTLET
RGS	RIGID GALVANIZED STEEL (CONDUIT)
RVSS	REDUCED VOLTAGE SOFT START
RTU	REMOTE TERMINAL UNIT
TVSS	TRANS. VOLT. SURGE SUPPRESSOR
UF	UNDER FLOOR
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
VA	VOLT-AMP
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
WPI	WEATHERPROOF IN USE
XFMR	TRANSFORMER

LIGHTING	
	DECORATIVE STYLE POLE LIGHT (DOUBLE ARM)
	DECORATIVE STYLE POLE LIGHT (SINGLE ARM)
	DENOTES PANEL-CIRCUIT NUMBER

POWER	
	DUPLEX RECEPTACLE, 20A 125V 2P 3W, GROUNDING TYPE, MOUNTING HEIGHT: +18" AFF UON
	SPECIAL PURPOSE RECEPTACLE AS DESIGNATED SEE 'SPECIAL SYMBOLS' ON EACH SHEET
	JUNCTION BOX, CODE SIZED UON
	DISCONNECT SWITCH - FUSED WHERE APPLICABLE
	MOTOR CONNECTION
	CEILING EXHAUST FAN
	WATER HEATER
	GROUND ROD

OBJECT LINES	
	NEW OBJECTS (HEAVY CONTINUOUS LINES, UNDERGROUND CONDUIT HEAVY DASHED LINES)
	EXISTING OBJECTS TO REMAIN, MAY INCLUDE NEW CIRCUITING ETC. (FINE CONTINUOUS LINES, UNDERGROUND CONDUIT FINE DASHED LINES)
	EXISTING OBJECTS TO BE DEMOLISHED (EXTRA FINE DASHED LINES, SCREENED)

EQUIPMENT	
	MAIN SWITCHBOARD
	DISTRIBUTION PANEL BOARD
	COMBINATION METER/MAIN SERVICE PANEL
	BRANCH CIRCUIT PANEL BOARD, SURFACE OR FLUSH MOUNTED
	LIGHTING CONTROL PANEL
	SIGNAL TERMINAL CABINET OR CONTROL PANEL SURFACE OR FLUSH MOUNTED
	SIGNAL TERMINAL BACKBOARD
	CONCRETE UNDERGROUND HAND HOLE (NUMBER DENOTES CHRISTY SIZE)
	TRANSFORMER

CONDUIT	
	CONDUIT INSTALLED ABOVE GRADE
	CONDUIT INSTALLED UNDERGROUND OR UNDER SLAB
	CONDUIT STUB-OUT WITH CAP
	FLEXIBLE CONDUIT WHIP TO LIGHT FIXTURE OR EQUIPMENT
	INDICATES CIRCUIT BREAKER I.D.
	CONDUIT HOME RUN TO DESIGNATED PANEL, TERMINAL, OR CONTROL CABINET
	COMMA INDICATES MULTIPLE SINGLE POLE CIRCUITS
	SLASH INDICATES MULTI-POLE CIRCUIT
	NOTE FOR CONDUIT: THE TIC MARKS INDICATE THE QUANTITY OF #12 AWG WIRES OR, IF INDICATED, THE QUANTITY OF OTHER SIZE WIRE OR CABLES.
	SEE THE SINGLE LINE DIAGRAM FOR FEEDER SIZES.
	EXAMPLES: $\text{---} \text{---} \text{---} = (3) \#12$ $\text{---} \text{---} = (2) \#10$
	$\text{---} \text{---} \text{---} = (1) \text{TYPE F1 CABLE. SEE CABLE SCHEDULE.}$

ANNOTATION	
	KEYNOTE
	RACEWAY, FEEDER OR CIRCUIT DESIGNATION (SEE SCHEDULE)
	DENOTES TYPE LIGHTING FIXTURE TYPE DESIGNATION (SEE SCHEDULE)
	DENOTES WATTS
	DETAIL NUMBER
	SECTION LETTER
	DETAIL INDICATOR SHEET NUMBER ON WHICH DETAIL APPEARS
	SECTION INDICATOR SHEET NUMBER ON WHICH SECTION APPEARS
	MECHANICAL EQUIPMENT DESIGNATION (SEE SCHEDULE)

GENERAL ELECTRICAL NOTES	
1.	ALL WORK SHALL CONFORM TO THE LATEST ADOPTED VERSION OF THE CALIFORNIA ELECTRICAL CODE (CEC).
2.	THE CONTRACTOR SHALL MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORK PERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED TO MAINTAIN SAFETY.
3.	PRIOR TO COMMENCING WORK ON EXISTING SYSTEMS OR WHERE EXISTING SYSTEMS REQUIRE TEMPORARY SHUT DOWNS, COORDINATE WITH OWNERS REPRESENTATIVE. WHERE DISCONNECTING, MODIFYING OR WORKING ON EXISTING EQUIPMENT OR SYSTEMS, PROVIDE A WRITTEN METHOD OF PROCEDURE OUTLINING DATES, TIMES, DURATION AND DESCRIPTION OF PROPOSED WORK FOR APPROVAL PRIOR TO COMMENCING WORK. WORK ON EXISTING EQUIPMENT SHALL NOT COMMENCE UNTIL WRITTEN AUTHORIZATION IS GIVEN BY THE OWNERS REPRESENTATIVE.
4.	ALL EQUIPMENT SHALL BE LISTED AND LABELED PER RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURERS INSTRUCTIONS.
5.	ALL EQUIPMENT SHALL BE GROUNDED PER THE REQUIREMENTS OF CEC ARTICLE 250. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL POWER SYSTEM RACEWAYS AND HAND HOLES.
6.	CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS PRIOR TO CONSTRUCTION.
7.	ALL WORK ON OR AROUND UTILITY EQUIPMENT AND FEEDERS SHALL BE COORDINATED WITH THAT UTILITY. ALL WORK ON UTILITY EQUIPMENT SHALL BE TO UTILITY STANDARDS AND REQUIREMENTS.
8.	ELECTRICAL EQUIPMENT TIGHTENING TORQUE VALUES FOR TERMINAL CONNECTIONS SHALL BE AS INDICATED ON EQUIPMENT OR IN INSTALLATION INSTRUCTIONS PROVIDED BY THE MANUFACTURER.

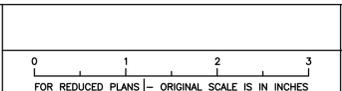


REVISION	MARK	DATE	DESCRIPTION
1		03/04/2025	BUILDING AND SAFETY COMMENTS
			APPROVAL

FINAL SUBMITTAL

CONSULTANT

 GHD Inc.
 2235 Mercury Way Suite 150
 Santa Rosa California 95407 USA
 T 1 707 523 1010



DEPICTION OF MONUMENTS: DATE _____
 SURVEY PARTY CHIEF _____
 WATERSHED REVIEW: DATE _____

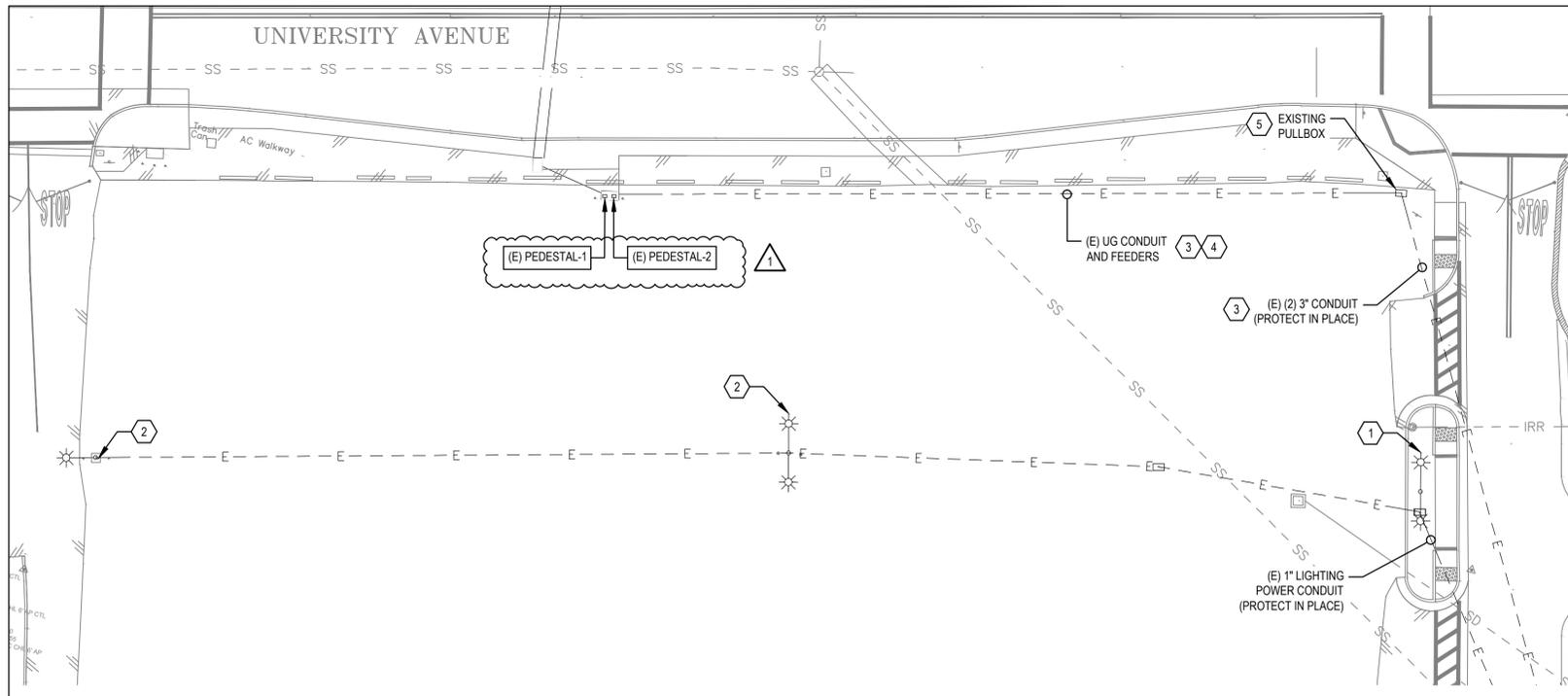
SUBMITTED: DATE _____
 SUPERVISING CIVIL ENGINEER _____
 APPROVED: DATE _____
 MANAGER OF ENGINEERING _____

DESIGN: EAO
 DRAWN: FY
 CHECK: CAR
 AS BUILT: _____
 DATE: 03/04/2025

HORIZ. 1"=X'
 VERT. 1"=X'
 BOOK _____
 CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

ELECTRICAL ABBREVIATIONS, LEGENDS,
 SYMBOLS, AND GENERAL NOTES
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 ES-001
 SHEET 33 OF 47

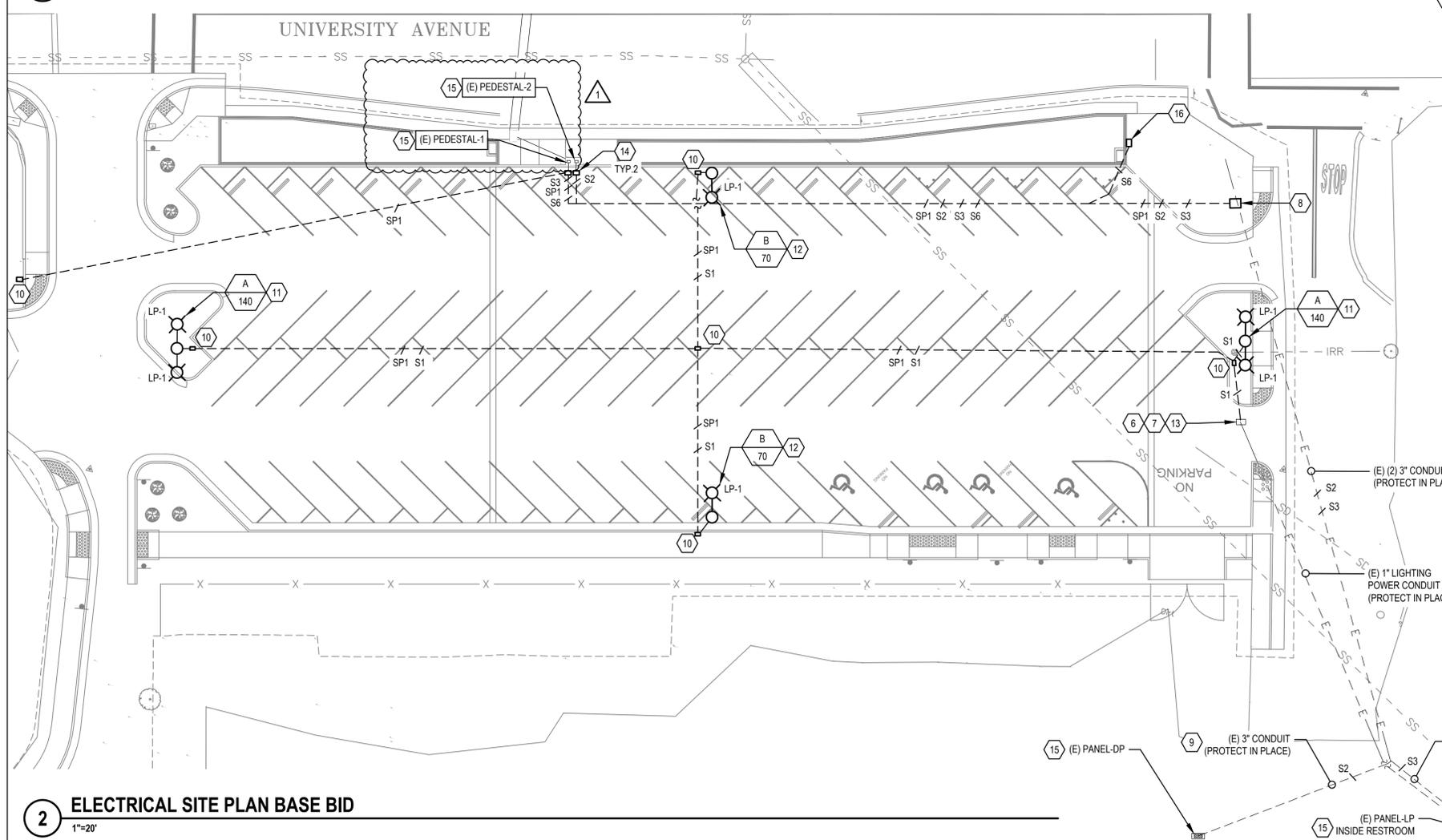


- ### SHEET KEYNOTES BID ALT ADD
- DISCONNECT AND REMOVE SERVICE PEDESTAL SERVING RESTROOM PANEL-LP AND EAST PARKING LOT LIGHTS.
 - REPLACE EXISTING EAST PARKING LOT/RESTROOM 100A SERVICE PEDESTAL WITH 200A PEDESTAL. REFER TO SINGLE LINE DIAGRAM 1 ON SHEET ES-601.
 - PROVIDE 40A-2POLE CIRCUIT BREAKER IN CALADVENTURE PEDESTAL FOR (1) EV CHARGER. SEE SINGLE LINE DIAGRAM 3 ON SHEET ES-601.
 - PROVIDE EVCS (CHARGEPOINT CT4000 DUAL PORT CHARGER) AND BASE MOUNT PER MANUFACTURER REQUIREMENTS. REFER TO SINGLE LINE DIAGRAM FOR EQUIPMENT RATINGS.
 - PROVIDE 11"x17" PULL BOX AND COVER. REFER TO DETAIL 1 ON SHEET ES-501.
 - PROVIDE EVCS (CHARGEPOINT CT4000 SINGLE PORT CHARGER) AND BASE MOUNT PER MANUFACTURER REQUIREMENTS. REFER TO SINGLE LINE DIAGRAM FOR EQUIPMENT RATINGS.
 - CONNECT NEW PG&E CONDUIT TO EXISTING PG&E PULLBOX PER PG&E REQUIREMENTS.

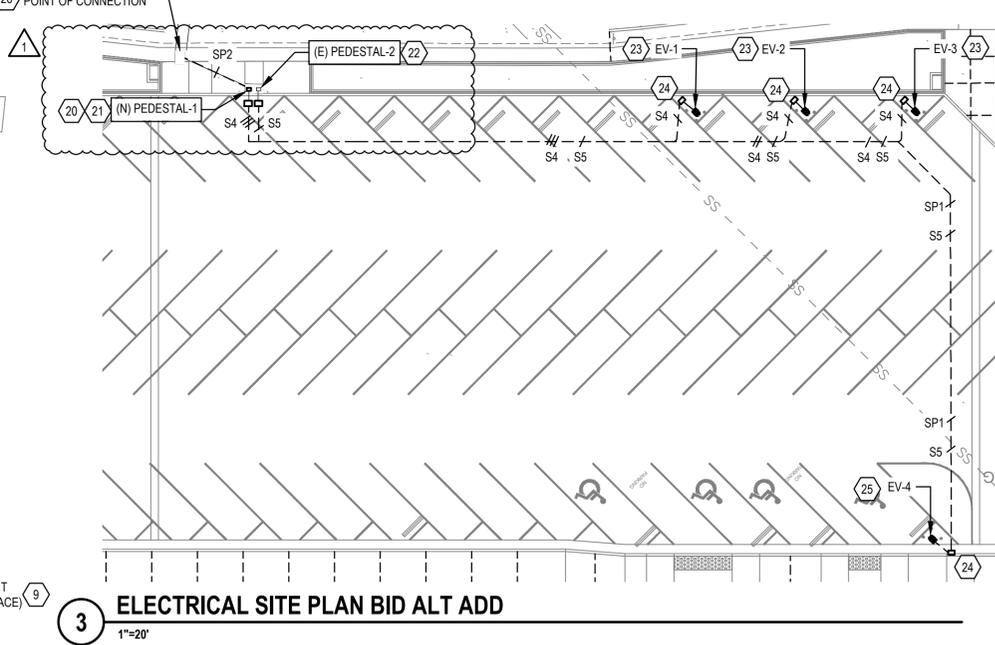
- ### SHEET KEYNOTES BASE BID
- DISCONNECT AND REMOVE EXISTING DECORATIVE LIGHT POLE ASSEMBLY, ASSOCIATED CONCRETE BASE, ARM, LUMINARIES AND ACCESSORIES. PRESERVE AND PREPARE TO REINSTALL IN NEW LOCATION.
 - DISCONNECT AND REMOVE EXISTING LIGHT POLE ASSEMBLY, ASSOCIATED CONCRETE BASE, ARM, LUMINARIES AND ACCESSORIES. PRESERVE EQUIPMENT AND TURN OVER TO CITY LIGHTING AND POWER DIVISION.
 - DISCONNECT AND REMOVE CALADVENTURE AND EAST PARKING LOT/RESTROOM FEEDERS FROM EACH BUILDING BACK TO SOURCE SERVICE PEDESTAL.
 - REMOVE EMPTY CONDUIT BETWEEN SERVICE PEDESTAL(S) AND DEMOLISHED PULLBOX INDICATED IN KEYNOTE 5.
 - DISCONNECT AND REMOVE PULLBOX
 - EXTEND CONDUIT FROM EXISTING PULLBOX TO NEW LIGHT FIXTURE PULLBOX.
 - ADJUST PULL BOX TO MATCH NEW GRADE, PROVIDE EXTENSION RING(S) AS REQUIRED.
 - PROVIDE 30"x36" TRAFFIC RATED PULL BOX AND COVER, INTERCEPT EXISTING 3" CONDUITS AT INDICATED LOCATION.
 - ROUTE NEW FEEDER(S) VIA EXISTING 3" CONDUIT(S).
 - PROVIDE 11"x17" PULL BOX AND COVER. REFER TO DETAIL 1 ON SEET ES-501. PROVIDE NON TRAFFIC RATED IN LANDSCAPE AREAS.
 - PROVIDE CONCRETE BASE PER DETAIL 1 ON SHEET ES-502. INSTALL CITY PROVIDED DECORATIVE STYLE LIGHT POLE WITH DOUBLE ARMS. PROVIDE LED LUMINAIRES AS INDICATED.
 - PROVIDE CONCRETE POLE BASE PER DETAIL 1 ON SHEET ES-502. PROVIDE DECORATIVE STYLE LIGHT POLE WITH SINGLE ARM AND LED LUMINAIRE AS INDICATED.
 - SPLICE EXISTING LIGHTING POWER CIRCUIT FROM PANEL LP-1 AT INDICATED PULL BOX AND EXTEND TO NEW LIGHTING.
 - PROVIDE 30"x36" PULL BOX AND COVER. REFER TO DETAIL 1 ON SHEET ES-501.
 - CONNECT NEW FEEDER FROM TO INDICATED PANEL.
 - PROVIDE 1 GANG 18" STAINLESS STEEL POWER PEDESTAL WITH LOCKABLE FLUSH HINGE COVER AND 240V, 20AMP RECEPTACLE. LEVITON 1PF18-S OR APPROVED EQUAL.

- ### SHEET GENERAL NOTES
- COORDINATION WITH PG&E IS REQUIRED FOR UTILITY SERVICE UPGRADES. CONTRACTOR MUST PROVIDE UTILITY PROVISIONS PER PG&E REQUIREMENTS.
 - NUMBER OF EV CHARGERS DOES NOT MEET CAL GREENBERKELEY ENERGY COMPLIANCE. CITY TO OBTAIN EXEMPTION FROM AUTHORITIES HAVING JURISDICTION.
 - REFER TO SINGLE LINE DIAGRAM ON SHEET ES-601 FOR EQUIPMENT RATINGS.
 - PROVIDE CONDUIT IN TRENCH PER DETAIL 3 ON SHEET ES-501. PROVIDE CONDUIT AND WIRE MAKEUP PER CONDUIT AND CABLE SCHEDULE ON THIS SHEET.
 - REFER TO SHEET ES-501 #2 FOR TYPICAL CONDUIT STUB UP.
 - REFER TO SHEET ES-602 FOR LIGHTING FIXTURE SCHEDULE.
 - REFER TO THE PHASING ORDER ON SHEET CP-101 FOR SPECIFIC TIMING OF DEMOLITION AND CONSTRUCTION OF ELECTRICAL FACILITIES.

1 ELECTRICAL SITE DEMOLITION PLAN
1"=20'



2 ELECTRICAL SITE PLAN BASE BID
1"=20'



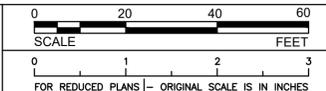
3 ELECTRICAL SITE PLAN BID ALT ADD
1"=20'

CONDUIT AND CABLE SCHEDULE	
SYMBOL	DESCRIPTION
S1	LIGHTING CIRCUIT
S2	(E) 1" C - (2) #10 (H,N) #10 GND
S3	CALADVENTURE 100 AMP FEEDER 3" C - (4) #3/0 (H,H,H,N) #3 GND
S4	RESTROOM 100 AMP FEEDER 3" C - (3) #2/0 (H,H,N) #4 GND
S5	(BID ALT ADD) EVCS-40A FEEDER (UPSIZED FOR VOLTAGE DROP) 2" C - (3) #6 (H,H,N) #8 GND
S6	(BID ALT ADD) EVCS-40A FEEDER (UPSIZED FOR VOLTAGE DROP) 2" C - (3) #4 (H,H,N) #6 GND
SP1	1" C WITH (3) #10 AWG, #10 GND
SP2	2" C - SPARE WITH PULL STRING
	PG&E SECONDARY CONDUIT 3" C SPARE WITH PULL-STRING



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GHD Inc.
2235 Mercury Way Suite 150
Santa Rosa California 95407 USA
T 1 707 523 1010



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APPROVED: DATE _____
MANAGER OF ENGINEERING R.C.E. _____

DESIGN: EAO
DRAWN: FY
CHECK: CAR
AS BUILT: _____
DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

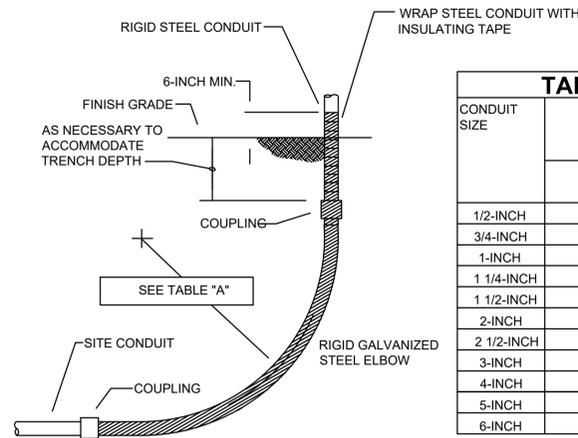
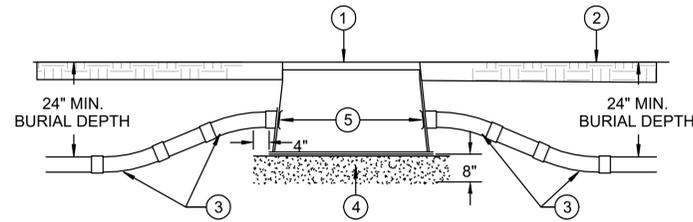
ELECTRICAL SITE PLAN
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
ES-101
SHEET 34 OF 47

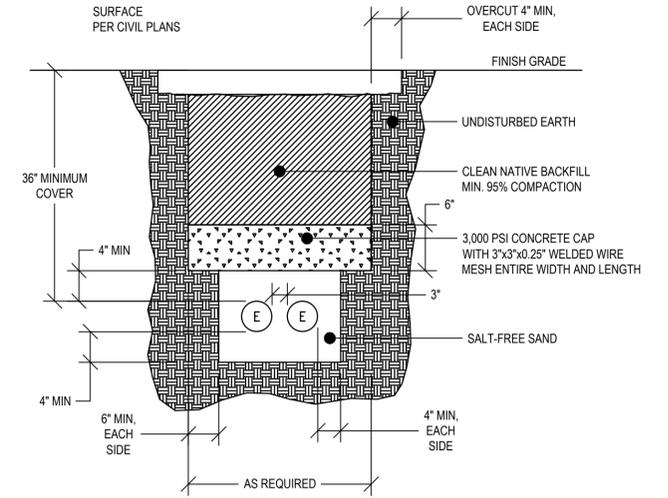
REVISION	MARK	DESCRIPTION	DATE	APPROVAL

DETAIL NOTES:
A. REFER TO SITE PLAN(S) FOR PULL BOX LOCATIONS.
B. PULL BOX LOCATED ADJACENT TO ROADWAYS SHALL BE RATED H20.

DETAIL KEY NOTES: #
1. HANDHOLE
2. FINISHED GRADE
3. 22-1/2 36" SWEEP ELBOW
4. GRAVEL DRAIN FILL
5. END BELL



CONDUIT SIZE	MINIMUM ELBOW RADIUS REQUIREMENTS	
	RUNS 0-100 FEET	RUNS GREATER THAN 101 FEET
	1/2-INCH	4-INCH
3/4-INCH	4 1/2-INCH	4 1/2-INCH
1-INCH	5 3/4-INCH	5 3/4-INCH
1 1/4-INCH	7 1/4-INCH	7 1/4-INCH
1 1/2-INCH	8 1/4-INCH	8 1/4-INCH
2-INCH	9 1/2-INCH	9 1/2-INCH
2 1/2-INCH	10 1/2-INCH	11 7/16-INCH
3-INCH	13-INCH	13 3/4-INCH
4-INCH	16-INCH	18 1/4-INCH
5-INCH	24-INCH	-
6-INCH	30-INCH	-



E = ELECTRICAL
 NOTE:
 SEE PLANS FOR QUANTITY, SIZE AND TYPE OF CONDUITS

1 TYPICAL PULL BOX

NOT TO SCALE

2 CONDUIT STUB-UP

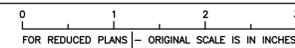
NOT TO SCALE

3 TYPICAL DUCT BANK

NOT TO SCALE

FINAL SUBMITTAL

CONSULTANT
GHD
 GHD Inc.
 2235 Mercury Way Suite 150
 Santa Rosa California 95407 USA
 T 1 707 523 1010



DEPICTION OF MONUMENTS: DATE _____
 SURVEY PARTY CHIEF _____
 WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
 SUPERVISING CIVIL ENGINEER _____
 APPROVED: DATE _____
 MANAGER OF ENGINEERING _____

DESIGN EAO
 DRAWN FY
 CHECK CAR
 AS BUILT _____
 DATE 03/04/2025

CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

ELECTRICAL DETAILS
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 ES-501
 SHEET 35 OF 47



REVISION	MARK	DATE	DESCRIPTION	APPROVAL

THE FOUNDATION DESIGN SET FORTH IN THIS DETAIL IS BASED ON THE FOLLOWING PARAMETERS. FOUNDATION REQUIREMENTS MAY DIFFER DEPENDING ON GEOGRAPHIC LOCATION, LUMINAIRE SIZE AND CONFIGURATION, POLE SIZE AND CONFIGURATION AS WELL AS SOIL CONDITIONS. THE DESIGN PROFESSIONAL SHALL VERIFY THAT THE FOUNDATION DESIGN PROVIDED MEETS OR EXCEEDS THAT REQUIRED FOR THE PROJECT IN WHICH THIS DETAIL IS BEING USED. THIS DESIGN ASSUMES THAT WIND LOAD GOVERNS OVER SEISMIC LOADING FOR THE LIGHT POLE FOUNDATION DESIGN.

DESIGN CODES: 2019 CALIFORNIA BUILDING CODE (2019 CBC) USING ASCE 7-16, CHAPTER 29, FOR WIND LOADS AND THE POLE FOUNDATION FORMULAS AS SET FORTH IN 2019 CBC SECTION 1807A.3.2.

EFFECTIVE PROJECTED AREA (EPA):
 LUMINAIRE: 5-FT²
 POLE: 0.5-FT x POLE HEIGHT
 BOLLARD BASE: 2-FT²

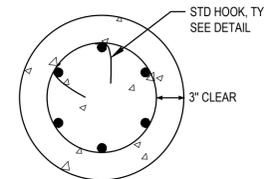
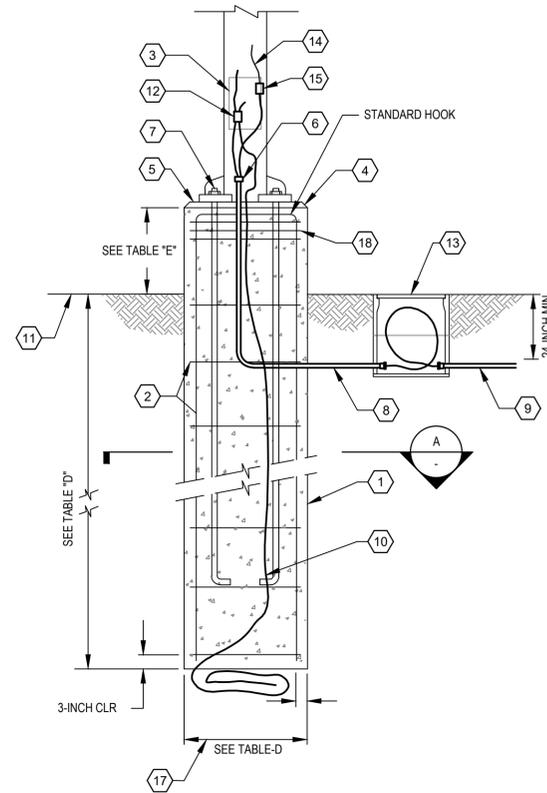
RISK CATEGORY: II
 BASIC WIND SPEED: 110 MPH
 DIRECTIONALITY FACTOR K_d: 0.95
 EXPOSURE CATEGORY: C
 TOPOGRAPHIC FACTOR K_z: 1.0
 GUST EFFECT FACTOR G: 0.85
 VELOCITY PRESSURE COEFFICIENT K_z:
 0 FT - 15 FT: 0.85
 15 FT - 20 FT: 0.90
 20 FT - 25 FT: 0.94
 25 FT - 30 FT: 0.98
 30 FT - 35 FT: 1.01

VELOCITY PRESSURE: $q = 0.00256K_zK_dK_eK_fV^2$ (PSF)
 FORCE COEFFICIENT C_f:
 0 FT - 15 FT: 0.64
 15 FT - 25 FT: 0.70
 25 FT - 35 FT: 0.86

WIND FORCE: $F = q_sGC_A$

SOIL TYPE: CLAY SOIL PER TABLE 1806A.2

- 1 POURED IN PLACE ROUND CONCRETE SUPPORT BASE.
- 2 6- NO. 6 VERTICAL BARS WITH NO. 3 TIES @ 12-INCH O.C. SEE NOTE 18.
- 3 ACCESS HAND-HOLE.
- 4 3/4-INCH - 45° CHAMFER ALL AROUND.
- 5 GROUT IN ALL AROUND BETWEEN BOTTOM OF POLE BASE FOLLOWING POLE ERECTION AND FINAL LEVELING.
- 6 STUB CONDUIT UP INTO POLE BASE WIRING CAVITY. (IF RGS TERMINATE WITH GROUNDING BUSHING.)
- 7 PROVIDE SUPPORT AND LEVELING NUTS ON TOP AND BOTTOM OF POLE BASE MOUNTING PLATE. MOUNTING PLATE AND MOUNTING BOLTS SHALL BE PER MANUFACTURERS BOLT PATTERN, LENGTH SHALL BE PER MANUFACTURERS SPECIFICATIONS, WITH 2'-0" MIN. EMBEDMENT INTO CONCRETE POLE BASE.
- 8 TYPICAL PVC CONDUIT. 3/4-INCH MIN. WITH CONDUCTORS AS INDICATED ON DRAWINGS. 1/2" ACCEPTABLE FOR BOLLARD FIXTURES.
- 9 TYPICAL INCOMING EXTERIOR BRANCH CIRCUIT CONDUIT AND WIRING FROM U.G. CONDUITS.
- 10 (1) #4 AWG BARE COPPER GROUND. COIL 30-INCH AT BOTTOM OF FOUNDATION.
- 11 TOP OF SODDED GRADE, SIDEWALK OR ASPHALT PAVING AS INDICATED ON THE RESPECTIVE AREA SITE PLAN.
- 12 BOLTED TYPE WIRE GROUND CONNECTOR.
- 13 REINFORCED, PRECAST GRADE MOUNTED ELECTRICAL BOX, CHRISTY B1017 OR EQUAL. PROVIDE WITH OPEN BOTTOM. ALL SPLICES SHALL BE MADE IN THE PULL BOX AND SHALL BE WATERPROOF, CAST TYPE.
- 14 WIRING TO LIGHT FIXTURE. CONNECT COMPLETE.
- 15 WATERPROOF IN-LINE FUSES.
- 16 NOT USED
- 17 WHERE THERE ARE EXISTING POLE MOUNTED FIXTURES ON THE JOB SITE, MODIFY DIAMETER OF POLE BASE TO MATCH EXISTING. MINIMUM DIAMETER SHALL BE AS NOTED.
- 18 LATERAL REINFORCEMENT SHALL BE DISTRIBUTED WITHIN 5-INCHES OF THE TOP OF THE COLUMN AND SHALL CONSIST OF 2-NO. 4 OR 3-NO. 3 BARS. (PER ACI3-18, SECTION 10.7.6.1.6)



POLE HEIGHT	POLE BASE DEPTH (H)		
	CONSTRAINED*	NON-CONSTRAINED	MIN DIAMETER
0 FT - 4 FT (BOLLARD)	18-INCH	24-INCH	12-INCH
4 FT - 15 FT	39-INCH	52-INCH	18-INCH
15 FT - 25 FT	54-INCH	72-INCH	18-INCH
25 FT - 35 FT	66-INCH	87-INCH	18-INCH

*LATERAL CONSTRAINT IS PROVIDED AT THE GROUND SURFACE SUCH AS BY A RIGID FLOOR OR CONCRETE PAVEMENT OR ASPHALT PAVEMENT.

POLE LOCATION	BASE HEIGHT ABOVE FINISHED GRADE
PARKING LOT	36"
PRIVATE DRIVE	36"
LANDSCAPE, PEDESTRIAN AREAS	FLUSH WITH GRADE

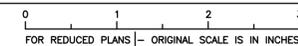
1 POLE BASE DETAIL

NOT TO SCALE



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DEPICTION OF MONUMENTS: DATE _____
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 WATERSHED REVIEW: DATE _____

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 SUPERVISING CIVIL ENGINEER _____
 APPROVED: DATE _____
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DESIGN EAO
 DRAWN FY
 CHECK CAR
 AS BUILT _____
 HORIZ. 1"=X'
 VERT. 1"=X'
 BOOK _____
 DATE 03/04/2025

CITY OF BERKELEY
 DEPARTMENT OF PARKS,
 RECREATION & WATERFRONT

ELECTRICAL DETAILS
 SOUTH COVE WEST PARKING LOT
 PROJECT

PLAN 8169
 FILE 405-212
 ES-502
 SHEET 36 OF 47

REVISION	MARK	DATE	DESCRIPTION	APPROVAL

LIGHTING FIXTURE SCHEDULE										
TYPE	DESCRIPTION	MANUFACTURER	MODEL	LAMP TYPE	COLOR TEMP	BALLAST/DRIVER	FIXTURE LUMENS	FIXTURE WATTS	MOUNTING	NOTES
A	DOUBLE ARM DECORATIVE POLE	LU/MEC	CAND 1-65W/2LED4K-G2-PC-CGB-RLE3-120	LED	4000K	0-10V DRIVER	15,256	140	POLE	PROVIDE (2) LED LUMINAIRES AND POLE BASE. POLE AND ARM ASSEMBLY PROVIDED BY CITY. LUMINAIRE FINISH TO MATCH CITY STANDARDS. PROVIDE MANUFACTURER RECOMMENDED PHOTOCELL AND MOTION SENSOR.
B	SINGLE ARM DECORATIVE POLE	LU/MEC	CAND 1-65W/2LED4K-G2-PC-CGB-RLE3-120	LED	4000K	0-10V DRIVER	7,628	70	POLE	PROVIDE (1) LED LUMINAIRE, POLE/ARM ASSEMBLY AND POLE BASE LUMINAIRE AND POLE ASSEMBLY FINISH TO MATCH CITY STANDARDS. PROVIDE MANUFACTURER ARM MEDIUM REACH BRACKET "PM" STYLE AND POLE MODEL # AM6-U-15-PH8. PROVIDE MANUFACTURER RECOMMENDED PHOTOCELL AND MOTION SENSOR.

NOTES:
1. REFER TO SPEC SECTION 26 09 23 FOR LIGHTING CONTROL SEQUENCE OF OPERATIONS

1 LIGHTING FIXTURE SCHEDULE
NO SCALE

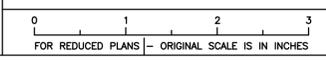
PANEL SCHEDULE (RESTROOM)																		
PANEL NAME: PANEL-LP			VOLTAGE: 240/120			NEMA RATING:			MOUNTING: SURFACE			NOTES:						
MAINS RATING: 100 A MCB			PHASE: 1			AIC RATING:			LOCATION: UTILITY ROOM									
BUS RATING: 100 A			WIRE: 3			DEMAND FACTOR: STD												
CKT NO.	USE	DESCRIPTION	BKR SIZE	CKT KVA	CKT AMPS	WIRE SIZE	WIRE LENGTH (FT)	VOLTAGE DROP %	PHASE	VOLTAGE DROP %	WIRE LENGTH (FT)	WIRE SIZE	CKT AMPS	CKT KVA	BKR SIZE	DESCRIPTION	USE	CKT NO.
1	L	WEST PARKING LOT LIGHTING	20/1	0.40	3.33	10	150	0.83	A	0.24	50	10	2.89	0.35	20/1	RESTROOM LIGHTING	L	2
3	L	EAST PARKING LOT LIGHTING	20/1	1.20	10.00	12	100	2.73	B	0.16	20	12	3.00	0.36	20/1	RESTROOM OUTLETS (TWO DUPLEX)	R	4
5	O	HAND DRYER - MEN ROOM	20/1	1.40	11.67	12	50	1.69	A	0.82	50	12	6.00	0.72	20/1	IRRIGATION CONTROLLER (TWO DOUBLE DUPLEX)	R	6
7	O	HAND DRYER - WOMEN ROOM	20/1	1.40	11.67	12	50	1.69	B	0.24	50	12	1.67	0.20	20/1	SECURITY SYSTEM (MAGNETIC DOOR HOLDER)	O	8
9	O	HAND DRYER - FAMILY ROOM NORTH	20/1	1.40	11.67	12	50	1.69	A						20/1	SPARE		10
11	O	HAND DRYER - FAMILY ROOM SOUTH	20/1	1.40	11.67	12	50	1.69	B	2.93	100	10	16.67	2.00	30/1	ELECTRIC WATER HEATER (FUTURE)	H	12
13		SPARE	30/2						A	0.42	30	10	8.33	1.00	20/1	FUTURE FOOD TRUCK	R	14
15			30/2						B						20/1			16
17			100/2						A						20/1			18
19		MAIN CIRCUIT BREAKER	100/2						B						20/1			20
CONNECTED KVA			DEMAND KVA			DEMAND AMPS			USE LEGEND			VOLTAGE DROP CALCULATION						
PHASE A: 5.3			5.5			45.4			ID LOAD TYPE ASSUMED PF			VOLTAGE DROP IS BASED ON THE IEEE RED BOOK AND 2011 NEC CHAPTER 9 TABLE 9 FORMULA:			ASSUMPTIONS:			
PHASE B: 6.6			6.9			57.2			L LIGHTING 0.85			VD = 1 * (R * PF + X * SIN(ACOS(PF))) * L			POWER FACTOR VARIED BY LOAD TYPE			
									M MOTOR 0.85			WITH AN ADDITIONAL MULTIPLIER OF 2 FOR SINGLE PHASE AND			CONDUIT TYPE RGS			
									R RECEPTACLE 0.80			1.732 FOR 3-PHASE LOADS			WIRE MATERIAL CU			
									P PANEL 0.85			R AND X VALUES ARE TAKEN FROM 2011 NEC CHAPTER 9 TABLE 9.						
									O OTHER 0.85									
STD DEMAND LOAD BASED ON 125% OF THE LARGEST MOTOR AND 100% OF THE REMAINING MOTORS, 125% OF CONTINUOUS LOADS, 100% OF NONCONTINUOUS LOADS, AND 50% OF RECEPTACLE LOADS BEYOND THE FIRST 10KVA																		

2 PANEL-LP (RESTROOM)
NO SCALE



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Santa Rosa California 95407 USA
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DEPICTION OF MONUMENTS: DATE _____
SURVEY PARTY CHIEF _____
WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
SUPERVISING CIVIL ENGINEER _____
APPROVED: DATE _____
MANAGER OF ENGINEERING _____

DESIGN: EAO
DRAWN: FY
CHECK: CAR
AS BUILT: _____
HORIZ.: 1"=X'
VERT.: 1"=X'
BOOK: _____
DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

ELECTRICAL SCHEDULES
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
ES-602
SHEET 38 OF 47

APPROVAL	
DESCRIPTION	
DATE	
MARK	
REVISION	

PANEL SCHEDULE (BASE BID)																		
PANEL NAME: PEDESTAL-1			VOLTAGE: 240/120			NEMA RATING: 4X			MOUNTING: SURFACE			NOTES:						
MAINS RATING: 100 A MCB			PHASE: 1			AIC RATING: 22KAIC			LOCATION: EXTERIOR									
BUS RATING: 100 A			WIRE: 3			DEMAND FACTOR: STD												
CKT NO.	USE	DESCRIPTION	BKR SIZE	CKT KVA	CKT AMPS	WIRE SIZE	WIRE LENGTH (FT)	VOLTAGE DROP %	PHASE	VOLTAGE DROP %	WIRE LENGTH (FT)	WIRE SIZE	CKT AMPS	CKT KVA	BKR SIZE	DESCRIPTION	USE	CKT NO.
1	P	PANEL-LP	100/2	4.50	37.50	2/0	400	1.42	A							NOT AVAILABLE		
2	P	PANEL-LP	100/2	6.30	52.50	2/0	400	1.99	B							NOT AVAILABLE		
3	R	240V RECPT	20/2	1.40	11.67	10	30	0.29	A							NOT AVAILABLE		
4	R	240V RECPT	20/2	1.40	11.67	10	30	0.29	B							NOT AVAILABLE		
5		SPACE							A							NOT AVAILABLE		
6		SPACE							B							NOT AVAILABLE		
7		SPACE							A							NOT AVAILABLE		
8		SPACE							B							NOT AVAILABLE		
9		SPACE							A							NOT AVAILABLE		
10		SPACE							B							NOT AVAILABLE		
CONNECTED KVA			DEMAND KVA			DEMAND AMPS			USE LEGEND			VOLTAGE DROP CALCULATION						
PHASE A: 5.9			5.9			49.2			ID LOAD TYPE ASSUMED PF			VOLTAGE DROP IS BASED ON THE IEEE RED BOOK AND 2011 NEC CHAPTER 9 TABLE 9 FORMULA:			ASSUMPTIONS:			
PHASE B: 7.7			7.7			64.2			H HVAC 0.85			VD = 1 * (R * PF + X * SIN(ACOS(PF))) * L			POWER FACTOR VARIED BY LOAD TYPE			
									L LIGHTING 0.80			WITH AN ADDITIONAL MULTIPLIER OF 2 FOR SINGLE PHASE AND			CONDUIT TYPE RGS			
									M MOTOR 0.85			1.732 FOR 3-PHASE LOADS			WIRE MATERIAL CU			
									R RECEPTACLE 0.80			R AND X VALUES ARE TAKEN FROM 2011 NEC CHAPTER 9 TABLE 9.						
									P PANEL 0.85									
									O OTHER 0.85									

1 (E) PEDESTAL 1 (BASE BID)
NO SCALE

PANEL SCHEDULE (BID ALT ADD)																		
PANEL NAME: PEDESTAL-1			VOLTAGE: 240/120			NEMA RATING: 4X			MOUNTING: SURFACE			NOTES:						
MAINS RATING: 200 A MCB			PHASE: 1			AIC RATING: 22KAIC			LOCATION: EXTERIOR									
BUS RATING: 200 A			WIRE: 3			DEMAND FACTOR: STD												
CKT NO.	USE	DESCRIPTION	BKR SIZE	CKT KVA	CKT AMPS	WIRE SIZE	WIRE LENGTH (FT)	VOLTAGE DROP %	PHASE	VOLTAGE DROP %	WIRE LENGTH (FT)	WIRE SIZE	CKT AMPS	CKT KVA	BKR SIZE	DESCRIPTION	USE	CKT NO.
1	P	PANEL-LP	100/2	4.50	37.50	2/0	400	1.42	A							NOT AVAILABLE		
2	P	PANEL-LP	100/2	6.30	52.50	2/0	400	1.99	B							NOT AVAILABLE		
3	O	EV-1	40/2	3.83	31.92	6	120	1.44	A							NOT AVAILABLE		
4	O	EV-1	40/2	3.83	31.92	6	120	1.44	B							NOT AVAILABLE		
5	O	EV-2	40/2	3.83	31.92	6	140	1.68	A							NOT AVAILABLE		
6	O	EV-2	40/2	3.83	31.92	6	140	1.68	B							NOT AVAILABLE		
7	O	EV-3	40/2	3.83	31.92	6	160	1.92	A							NOT AVAILABLE		
8	O	EV-3	40/2	3.83	31.92	6	160	1.92	B							NOT AVAILABLE		
9	R	240V RECEPT	20/2	1.40	11.67	10	30	0.29	A							NOT AVAILABLE		
10	R	240V RECEPT	20/2	1.40	11.67	10	30	0.29	B							NOT AVAILABLE		
11		SPACE							A							NOT AVAILABLE		
12		SPACE							B							NOT AVAILABLE		
CONNECTED KVA			DEMAND KVA			DEMAND AMPS			USE LEGEND			VOLTAGE DROP CALCULATION						
PHASE A: 17.4			17.4			144.9			ID LOAD TYPE ASSUMED PF			VOLTAGE DROP IS BASED ON THE IEEE RED BOOK AND 2011 NEC CHAPTER 9 TABLE 9 FORMULA:			ASSUMPTIONS:			
PHASE B: 19.2			19.2			159.9			H HVAC 0.85			VD = 1 * (R * PF + X * SIN(ACOS(PF))) * L			POWER FACTOR VARIED BY LOAD TYPE			
									L LIGHTING 0.80			WITH AN ADDITIONAL MULTIPLIER OF 2 FOR SINGLE PHASE AND			CONDUIT TYPE RGS			
									M MOTOR 0.85			1.732 FOR 3-PHASE LOADS			WIRE MATERIAL CU			
									R RECEPTACLE 0.80			R AND X VALUES ARE TAKEN FROM 2011 NEC CHAPTER 9 TABLE 9.						
									P PANEL 0.85									
									O OTHER 0.85									

2 NEW PEDESTAL 1 (BID ALT ADD)
NO SCALE

PANEL SCHEDULE																		
PANEL NAME: PEDESTAL-2			VOLTAGE: 208/120			NEMA RATING: 4X			MOUNTING: SURFACE			NOTES:						
MAINS RATING: 100 A MCB			PHASE: 3			AIC RATING: 22KAIC			LOCATION: EXTERIOR									
BUS RATING: 100 A			WIRE: 4			DEMAND FACTOR: STD												
CKT NO.	USE	DESCRIPTION	BKR SIZE	CKT KVA	CKT AMPS	WIRE SIZE	WIRE LENGTH (FT)	VOLTAGE DROP %	PHASE	VOLTAGE DROP %	WIRE LENGTH (FT)	WIRE SIZE	CKT AMPS	CKT KVA	BKR SIZE	DESCRIPTION	USE	CKT NO.
1	P	PANEL-DP	100/3	6.45	53.75	3/0	450	1.90	A							NOT AVAILABLE		
2	P	PANEL-DP	100/3	6.45	53.75	3/0	450	1.90	B							NOT AVAILABLE		
3	P	PANEL-DP	100/3	5.90	49.17	3/0	450	1.74	C							NOT AVAILABLE		
4	O	EV-4	40/2	3.12	30.00	4	250	2.13	A							NOT AVAILABLE		
5	O	EV-4	40/2	3.12	30.00	4	250	2.13	B							NOT AVAILABLE		
6																NOT AVAILABLE		
7									A							NOT AVAILABLE		
8									B							NOT AVAILABLE		
9									C							NOT AVAILABLE		
10									A							NOT AVAILABLE		
CONNECTED KVA			DEMAND KVA			DEMAND AMPS			USE LEGEND			VOLTAGE DROP CALCULATION						
PHASE A: 9.6			9.6			79.8			ID LOAD TYPE ASSUMED PF			VOLTAGE DROP IS BASED ON THE IEEE RED BOOK AND 2011 NEC CHAPTER 9 TABLE 9 FORMULA:			ASSUMPTIONS:			
PHASE B: 9.6			9.6			79.8			H HVAC 0.85			VD = 1 * (R * PF + X * SIN(ACOS(PF))) * L			POWER FACTOR VARIED BY LOAD TYPE			
PHASE C: 5.9			5.9			49.2			L LIGHTING 0.80			WITH AN ADDITIONAL MULTIPLIER OF 2 FOR SINGLE PHASE AND			CONDUIT TYPE RGS			
									M MOTOR 0.85			1.732 FOR 3-PHASE LOADS			WIRE MATERIAL CU			
									R RECEPTACLE 0.80			R AND X VALUES ARE TAKEN FROM 2011 NEC CHAPTER 9 TABLE 9.						
									P PANEL 0.85									
									O OTHER 0.85									

3 EXISTING PEDESTAL 2 (BID ALT ADD)
NO SCALE



FINAL SUBMITTAL

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0 1 2 3
FOR REDUCED PLANS - ORIGINAL SCALE IS IN INCHES

DEPICTION OF MONUMENTS: DATE _____
SURVEY PARTY CHIEF _____
WATERSHED REVIEW: DATE _____

SUBMITTED: DATE _____
R.C.E. _____
EXP. _____
SUPERVISING CIVIL ENGINEER
APPROVED: DATE _____
R.C.E. _____
EXP. _____
MANAGER OF ENGINEERING

DESIGN: EAO
DRAWN: FY
CHECK: CAR
AS BUILT: _____
HORIZ.: 1"=30'
VERT.: 1"=30'
BOOK: _____
DATE: 03/04/2025

CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

ELECTRICAL SCHEDULES
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
ES-603
SHEET 39 OF 47

APPROVAL	
REVISION	△
MARK	
DATE	03/04/2025
DESCRIPTION	BUILDING AND SAFETY COMMENTS

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION
NRC-ELC-E

CERTIFICATE OF COMPLIANCE
Project Name: SOUTH COVE WEST PARKING LOT PROJECT
Project Address: 127 UNIVERSITY AVE
Report Page: (Page 1 of 4)
Date Prepared: 2/11/2025

A. GENERAL INFORMATION
01 Project Location (city): BERKLEY
02 Climate Zone: 3
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
RESTROOM PEDESTAL 1	Add/Alt to feeders and branch circuits only	50	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

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.

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STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION
NRC-ELC-E

C. COMPLIANCE RESULTS
Results in this table are automatically calculated from data input and calculations in Tables F through H. 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)	Separation for Monitoring 130.5(b) / 160.6(b) (See Table G)	Voltage Drop 130.5(c) / 160.6(c) (See Table H)	Controlled Receptacles 130.5(d) / 160.6(d) (See Table I)	Electric Ready 160.9 (See Table J)	Compliance Results
Yes	AND Yes	AND Yes	AND Yes	AND Yes	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 section does not apply to this project.

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING
This section does not apply to this project.

H. VOLTAGE DROP
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)(2)(ii) / 180.2(b)(4)(b)(v).

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

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STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION
NRC-ELC-E

CERTIFICATE OF COMPLIANCE
Project Name: SOUTH COVE WEST PARKING LOT PROJECT
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H. VOLTAGE DROP
RESTROOM PEDESTAL 1
Voltage drop less than 5%
Permitted by CA Elec Code (Exception to 130.5(c))
In construction documents
ES-602

¹ NOTES: If "Permitted by CA Elec Code" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.
² 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
NRC-ELC-E - Must be submitted for all buildings

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION
NRC-ELC-E

CERTIFICATE OF COMPLIANCE
Project Name: SOUTH COVE WEST PARKING LOT PROJECT
Project Address: 127 UNIVERSITY AVE
Report Page: (Page 4 of 4)
Date Prepared: 2/11/2025

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Aly Young
Signature Date: 2025-02-11
Signature:

Company: GHD Inc
Address: 2235 Mercury Way, Santa Rosa CA 95407
City/State/Zip: Santa Rosa CA 95407

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 the 24, Part 1 and Part 5 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 inspectors. 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: ERICK OSORNO
Signature Date: 2025-02-11
Signature:

Company: GHD
Address: 2235 MERCURY WAY SUITE 150, SANTA ROSA CA 95407
City/State/Zip: SANTA ROSA CA 95407

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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
NRC-LTO-E

CERTIFICATE OF COMPLIANCE
Project Name: SOUTH COVE WEST PARKING LOT PROJECT
Project Address: 127 UNIVERSITY AVE
Report Page: (Page 1 of 7)
Date Prepared: 2/11/2025

A. GENERAL INFORMATION
01 Project Location (city): BERKLEY
02 Climate Zone: 3
03 Outdoor Lighting Zone per Title 24 Part 1 10.114 or as designated by Authority Having Jurisdiction (AHJ):
 L2-0: Very Low - Underdeveloped Parkland
 L2-2: Moderate - Urban Clusters
 L2-4: High - Must be reviewed by CA Energy Commission for Approval
 L2-1: Low - Rural Areas
 L2-3: Moderately High - Urban Areas
05 Occupancy Types within Project
All Other Occupancies

B. PROJECT SCOPE
This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7 / 170.2(e)(6) or 141.0(b)(2) / 180.2(b)(4)(b) for alterations.

My Project Consists of:

01	02
<input type="checkbox"/> New Lighting System	Must Comply with Allowances from 140.7 / 170.2(e)(6)
<input checked="" type="checkbox"/> Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? Yes <input checked="" type="radio"/> No <input type="radio"/>
03 % of Existing Luminaires Being Altered ¹	04 Sum Total of Luminaires Being Added or Altered
<input type="checkbox"/> < 10% <input type="checkbox"/> >= 10% and < 50% <input type="checkbox"/> >= 50%	05 Calculation Method
	0

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.
¹ FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.

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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
NRC-LTO-E

CERTIFICATE OF COMPLIANCE
Project Name: SOUTH COVE WEST PARKING LOT PROJECT
Project Address: 127 UNIVERSITY AVE
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C. COMPLIANCE RESULTS
Results in this table are automatically calculated from data input and calculations in Tables F through N. 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	07	08	09
General Hardscape Allowance 140.7(d)(1) / 170.2(e)(6) (See Table J)	Per Application 140.7(d)(2) / 170.2(e)(6) (See Table J)	Sales Frontage 140.7(d)(2) / 170.2(e)(6) (See Table K)	Ornamental 140.7(d)(2) / 170.2(e)(6) (See Table L)	Per Specific Area 140.7(d)(2) / 170.2(e)(6) (See Table M)	Existing Power Allowance 141.0(b)(2) / 180.2(b)(4)(b) (See Table N)	Total Allowed (Watts)	Total Actual (Watts)	07 must be >= 08
1,017						1,017	420	COMPLIES

Shading Compliance (See Table G for Details)
Controls Compliance (See Table H for Details)

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.

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STATE OF CALIFORNIA
Outdoor Lighting
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NRC-LTO-E

CERTIFICATE OF COMPLIANCE
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F. OUTDOOR LIGHTING FIXTURE SCHEDULE
For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(c)(6) all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)(2) only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H, and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Watts per luminaire ^{1,2}	How is Wattage determined	Total Number Luminaires ²	Luminaire Status ³	Excluded per 140.7(a) / 170.2(e)(6)A	Design Watts	Cutoff Req. > 6,200 initial lumen output 130.2(b) / 160.5(c) ⁴	Field Inspector Pass / Fail
A	Type A	<input type="checkbox"/> Linear 140	Mfr. Spec	2	New	<input type="checkbox"/>	280	NA: < 6200 lumens	<input type="checkbox"/>
B	Type B	<input type="checkbox"/> Linear 70	Mfr. Spec	2	New	<input type="checkbox"/>	140	NA: < 6200 lumens	<input type="checkbox"/>
							Total Design Watts:	420	

¹ NOTES: Selections with "a" require a note in the space below explaining how compliance is achieved.
Ex: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)
² FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)
³ For linear luminaires, wattage should be indicated as W/ft instead of Watts/Luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.
⁴ Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstated" for existing luminaires which are being removed and reinstated as part of the project scope.
⁵ Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by 130.2(b) / 160.5(c)

G. SHIELDING REQUIREMENTS (BUG)
This section does not apply to this project.

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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
NRC-LTO-E

CERTIFICATE OF COMPLIANCE
Project Name: SOUTH COVE WEST PARKING LOT PROJECT
Project Address: 127 UNIVERSITY AVE
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H. OUTDOOR LIGHTING CONTROLS
This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie, untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit.

Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings

01	02	03	04	05
Area Description	Shut-Off 130.2(c)(1) / 160.5(c)	Auto-Schedule 130.2(c)(2) / 160.5(c)	Motion Sensor 130.2(c)(3) / 160.5(c)	Field Inspector Pass / Fail
SOUTH COVE WEST PARKING LOT	Photocontrol	Provided	Provided	<input type="checkbox"/>

¹ FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.
Authority having jurisdiction may ask for cut sheets or other documentation to confirm compliance of light source.
² Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are exempted from ii and iii.

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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
NRC-LTO-E

CERTIFICATE OF COMPLIANCE
Project Name: SOUTH COVE WEST PARKING LOT PROJECT
Project Address: 127 UNIVERSITY AVE
Report Page: (Page 5 of 7)
Date Prepared: 2/11/2025

I. LIGHTING POWER ALLOWANCE (per 140.7 / 170.2(e))
This table includes areas using allowance calculations per 140.7 / 170.2(e). General Hardscape Allowance is per Table 140.7-A, Table 170.2-A while "Use it or lose it" Allowances are per Table 140.7-B, Table 170.2-S. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance. Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H, and are not included here. All other multifamily outdoor lighting is included here.

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

02	03	04	05	06	07	08	09
Area Description	Illuminated Area (ft ²)	Area Wattage Allowance (AWA) (W/ft ²)	Area Allowance (Watts)	Perimeter Length (ft)	Linear Wattage Allowance (LWA) (W/ft)	Linear Allowance (Watts)	Total General AWA + LWA (Watts)
SOUTH COVE WEST PARKING LOT	35301	0.019	670.7	977	0.2	146.5	817
Initial Wattage Allowance for Entire Site (Watts):							200
Instances of Initial Wattage Allowance (L2 only) ¹							
Total General Hardscape Allowance (Watts):							1017

J. LIGHTING ALLOWANCE: PER APPLICATION
This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE
This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL
This section does not apply to this project.

Generated Date/Time: Documentation Software: EnergyPro
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FINAL SUBMITTAL

CONSULTANT

GHD Inc.
2235 Mercury Way Suite 150
Santa Rosa California 95407 USA
T 1 707 523 1010

DEPICTION OF MONUMENTS: DATE _____
SURVEY PARTY CHIEF: _____
WATERSHED REVIEW: DATE _____

0 1 2 3
FOR REDUCED PLANS - ORIGINAL SCALE IS IN INCHES

SUBMITTED: DATE _____
R.C.E. _____
EXP. _____
SUPERVISING CIVIL ENGINEER: _____
APPROVED: DATE _____
R.C.E. _____
EXP. _____
MANAGER OF ENGINEERING: _____

DESIGN: EAO
DRAWN: FY
CHECK: CAR
AS BUILT: _____

HORIZ. 1"=X'
VERT. 1"=X'
BOOK: _____
DATE: 03/04/2025

Generated Date/Time: Documentation Software: EnergyPro
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CITY OF BERKELEY
DEPARTMENT OF PARKS,
RECREATION & WATERFRONT

TITLE 24
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
ES-701
SHEET 40 OF 47

APPROVAL
DATE
MARK
REVISION

STATE OF CALIFORNIA
Outdoor Lighting CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: SOUTH COVE WEST PARKING LOT PROJECT Report Page: (Page 6 of 7)
 Date Prepared: 2/11/2025

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA
 This section does not apply to this project.

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)
 This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
 Selections have been made based on information provided in this document. If any selection has 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

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Selections have been made based on information provided in this document. If any selection has 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 must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/atttcp/providers.html>
 Form/Title Systems/Spaces To Be Field Verified
 NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires. SOUTH COVE WEST PARKING LOT;

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STATE OF CALIFORNIA
Outdoor Lighting CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: SOUTH COVE WEST PARKING LOT PROJECT Report Page: (Page 7 of 7)
 Project Address: 127 UNIVERSITY AVE Date Prepared: 2/11/2025

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: My Young Documentation Author Signature: *My Young*
 Company: GHD Inc Signature Date: 2025-02-11
 Address: 2235 Mercury Way CEA/HERS Certification Identification (if applicable):
 City/State/Zip: Santa Rosa CA 95407 Phone: (707)523-1010

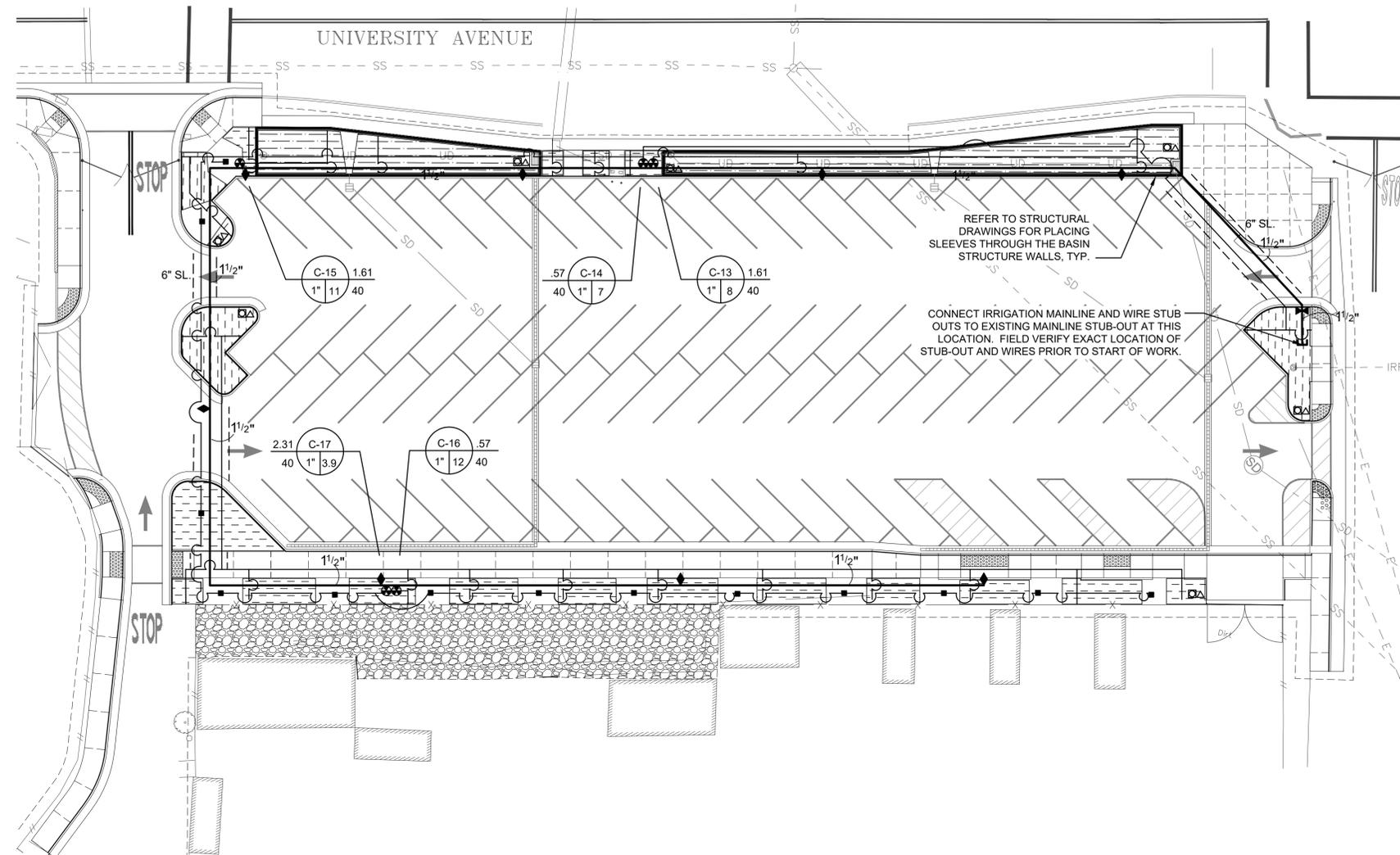
RESPONSIBLE PERSON'S DECLARATION STATEMENT
 I certify the following under penalty of perjury, under the laws of the State of California:
 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept 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: ERICK OSORNO Responsible Designer Signature: *Erick Osorno*
 Company: GHD Date Signed: 2025-02-11
 Address: 2235 MERCURY WAY SUITE 150 License: E23831
 City/State/Zip: SANTA ROSA CA 95407 Phone: (707)523-1010

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REVISION	MARK	DATE	DESCRIPTION	APPROVAL



NOTE: SEE SHEET IP-102 FOR IRRIGATION NOTES AND LEGEND

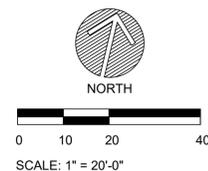
SOUTH COVE WEST PARKING LOT WATER EFFICIENT LANDSCAPE WORKSHEET										
Reference Evapotranspiration (Eto)		41.8								
ZONE NO.	PLANT TYPE	HYDROZONE* (PLANT WATER USE)	PLANT FACTOR (PF)	IRRIGATION METHOD**	IRRIGATION EFFICIENCY (IE)	ETAF (PF/IE)	HYDROZONE AREA (HA) (Sq Ft)	ETAF x HA	ESTIMATED TOTAL WATER USE (ETWU)	% LANDSCAPE AREA
REGULAR LANDSCAPE AREA										
C-13	BIORETENTION	LW	0.30	DL	0.81	0.37	961	356	9,224	22.2%
C-14	SHRUB	LW	0.30	DL	0.81	0.37	649	240	6,229	15.0%
C-15	BIORETENTION	LW	0.30	DL	0.81	0.37	659	244	6,325	15.2%
C-16	TREE	MW	0.50	B	0.81	0.62	163	101	2,608	3.8%
C-17	SHRUB	LW	0.30	DL	0.81	0.37	1,890	700	18,141	43.7%
TOTALS (REGULAR LANDSCAPE AREAS)							4,322	1,641	42,528	100.0%
SPECIAL LANDSCAPE AREA										
0							0	0	0	0.0%
TOTALS (SPECIAL LANDSCAPE AREAS)							0	0	0	0.0%
TOTALS FOR ALL AREAS							4,322	1,641	42,528	100%

CITY OF BERKELEY LANDSCAPE WATER USE STATEMENT	
PROJECT NAME:	SOUTH COVE WEST PARKING LOT
PROJECT ADDRESS:	SOUTH COVE WEST PARKING LOT
PREPARED BY:	JANET LUEHRS (CID, CLIA #43274) BROOKWATER INC., IRRIGATION CONSULTANTS 480 SAINT JOHN STREET, SUITE 220 PLEASANTON, CA 94566 925-855-0417 925-855-0357 (FAX) Janet@Brookwater.com (e-mail)
"I have complied with the criteria of the Water Efficient Landscape Ordinance and applied them accordingly for the efficient use of water in the irrigation design plan."	
Signed: <i>Janet Luehrs</i>	
PART ONE	MAXIMUM APPLIED WATER ALLOWANCE (MAWA)
$MAWA = ETo \times .62 \times [(ETAF \times HA) + ((1-ETAF) \times SLA)]$	
YEARLY ETo	41.8
CONVERSION FACTOR	0.62
ETAF	0.45
TOTAL IRRIGATED LANDSCAPE AREA (HA)	4,322 SQUARE FEET
SPECIAL LANDSCAPE AREA (SLA)	0 SQUARE FEET
LANDSCAPE WATER ALLOWANCE	50,404 GALLONS PER YEAR
TOTAL ACRE FEET	0.15 ACRE FEET
PART TWO	ESTIMATED TOTAL WATER USE (ETWU)
(AVERAGE ETAF AND ETWU FROM WATER EFFICIENT LANDSCAPE WORKSHEET)	
AVERAGE ETAF FOR REGULAR LANDSCAPE AREAS (TOTAL ETAF x AREA / TOTAL AREA)	0.38
ETWU FOR REGULAR LANDSCAPE AREAS	42,528 GALLONS PER YEAR
SITE WIDE ETAF	0.38
ETWU FOR ALL LANDSCAPE AREAS	42,528 GALLONS PER YEAR
TOTAL ACRE FEET	0.13 ACRE FEET

HYDROZONE SUMMARY		
*Hydrozone Description	Total Sq. Ft.	% of Landscape
Cool Season Turf (CST)	0	0.0%
Warm Season Turf (WST)	0	0.0%
High Water Use Plants (HW)	0	0.0%
Bioretention Plants (BR)	0	0.0%
Medium Water Use Plants (MW)	163	3.8%
Low Water Use Plants (LW)	4,159	96.2%
Very Low Water Use Plants (VLW)	0	0.0%
Water Feature	0	0.0%
Special Landscape Area (SLA)	0	0.0%
TOTAL	4,322	100.0%

**Irrigation Method	Total Sq. Ft.	% of Landscape
Rotor (FC-R, PC-R)	0	0.0%
Multi-Stream Rotator (MR)	0	0.0%
Spray (S)	0	0.0%
Bubbler (B)	163	3.8%
Drip (D)	0	0.0%
In-Line Drip (DL)	4,159	96.2%
Micro Spray (MS)	0	0.0%
Other (O)	0	0.0%

BROOKWATER
IRRIGATION CONSULTANTS
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PLEASANTON, CALIFORNIA 94566
TEL 925.855.0417 FAX 925.855.0357
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DESIGN: JL
DRAWN: EG
CHECK: SK
AS BUILT: _____
HORIZ. AS SHOWN
VERT. N/A
BOOK: _____
DATE: 03/04/25

CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

IRRIGATION PLAN
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
IP-101
SHEET 42 OF 47

APPROVAL
DESCRIPTION
DATE
MARK
REVISION

IRRIGATION NOTES

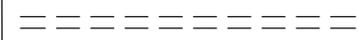
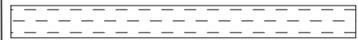
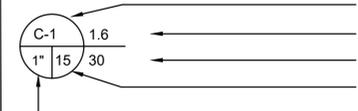
- THE CONTRACTOR SHALL REVIEW RELATED DRAWINGS AND SHALL ENSURE COORDINATION WITH ALL APPLICABLE TRADES PRIOR TO SUBMITTING BID.
- THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY LICENSED CONTRACTORS AND EXPERIENCED WORKERS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO THEIR WORK.
- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. PARALLEL PIPES MAY BE INSTALLED IN COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED DIRECTLY ABOVE ONE ANOTHER.
- DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. COORDINATE WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC. CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXCAVATION OF TRENCHES. CONTRACTOR IS TO REPAIR ANY DAMAGE CAUSED BY THEIR WORK AT NO ADDITIONAL COST TO THE OWNER.
- DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL WORK AND PLAN WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.
- ELECTRICAL CONTRACTOR TO SUPPLY 120 VAC (2.5 AMP) SERVICE TO CONTROLLER LOCATION. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER. IRRIGATION CONTROL WIRE SHALL BE #14, U.L. APPROVED FOR DIRECT BURIAL. COMMON WIRE SHALL BE #12 U.L. APPROVED AND SHALL BE WHITE IN COLOR. WIRING TO INDIVIDUAL REMOTE CONTROL VALVES SHALL BE COLOR OTHER THAN WHITE.
- EACH CONTROLLER SHALL HAVE ITS OWN INDEPENDENT GROUND WIRE.
- REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SEQUENCE AS SHOWN ON PLANS. RUN WIRE FROM EACH RCV TO THE CONTROLLER. SPLICING WIRES TOGETHER OUTSIDE OF VALVE BOXES WILL NOT BE PERMITTED.
- SPLICING OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" COIL OF EXCESS WIRE AT EACH SPLICE AND 100 FEET ON CENTER ALONG WIRE RUN. TAPE WIRE IN BUNDLES 10 FEET ON CENTER. NO TAPING PERMITTED INSIDE SLEEVES.
- WIRE CONNECTORS SHALL BE 3M-DBRY-6 DIRECT BURY UNLESS OTHERWISE NOTED.
- INSTALL ONE (1) SPARE CONTROL WIRE FOR EVERY SIX (6) STATIONS ON THE CONTROLLER ALONG THE ENTIRE MAIN LINE. SPARE WIRES SHALL BE THE SAME COLOR (ONE WITH A WHITE STRIPE) AND OF A DIFFERENT COLOR THAN OTHER CONTROL WIRES. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.
- VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE (NOT IN LAWN AREA.)
- INSTALL VALVE BOXES MINIMUM 12" FROM AND PERPENDICULAR TO WALK, CURB, LAWN, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, LAWN, ETC. AND EACH BOX SHALL BE MINIMUM 12" APART. SHORT SIDE OF VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, LAWN, ETC.
- LOCATE QUICK COUPLING VALVE 12" FROM HARDSCAPE AREA.
- IN LOCATIONS WHERE LOW HEAD DRAINAGE WILL CAUSE EROSION AND EXCESS WATER, INSTALL KING BROS. CV SERIES CHECK VALVES IN LATERAL LINES FOR EVERY 10' OF ELEVATION CHANGE.
- ALL MAIN LINES SHALL BE FLUSHED PRIOR TO THE INSTALLATION OF IRRIGATION HEADS. AT 30 DAYS AFTER INSTALLATION EACH SYSTEM SHALL BE FLUSHED TO ELIMINATE GLUE AND DIRT PARTICLES FROM THE LINES.
- NOTIFY ARCHITECT OF ANY ASPECTS OF LAYOUT THAT WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS/HER INSTRUCTIONS ARE OBTAINED.
- LOCATE BUBBLERS ON UPHILL SIDE OF TREES. TREE BUBBLERS ARE FOR ESTABLISHMENT AND DROUGHT CONDITIONS. THEY ARE TO BE TURNED OFF AFTER TREES ARE ESTABLISHED AND TURNED ON DURING DROUGHT CONDITIONS.
- IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF SLEEVES AND CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.
- ALL EXCAVATIONS ARE TO BE FILLED WITH COMPACTED BACKFILL. REPAIR ALL SETTLED TRENCHES PROMPTLY, FOR A PERIOD OF 1 YEAR AFTER COMPLETION OF WORK.
- CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF WORK.
- THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.
- IRRIGATION DEMAND: REFER TO IRRIGATION POINTS OF CONNECTION.
- CONNECT FLOW SENSOR TO CONTROLLER WITH 2 CONDUCTOR DIRECT BURIAL SHIELDED SENSOR CABLE (EV-CAB-SEN.) INSTALL FLOW SENSOR CABLE IN A SEPARATE 1" HDPE PIPE.
- OPERATE IRRIGATION CONTROLLER(S) BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM.
- NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.
- NOTIFY UNDERGROUND SERVICE ALERT AT 811 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

DRIPLINE NOTES

- PLANS ARE DIAGRAMMATIC. INSTALL DRIPLINE AND COMPONENTS PER MANUFACTURERS INSTRUCTIONS AND INSTALLATION DETAILS.
- INSTALL DRIPLINE A MAXIMUM OF 18" APART (12" IN BIORETENTION AREAS) WITH EMITTERS TRIANGULARLY SPACED. INSTALL 2' FROM PERIMETER OF PLANTED AREA. THERE SHOULD BE A MINIMUM OF TWO DRIPLINE LATERALS IN EACH PLANTED AREA. DRIPLINE SHALL BE INSTALLED AT A CONSISTANT DEPTH THROUGHOUT THE CIRCUIT.
- PLACE AIR/VACUUM RELIEF VALVES AT THE HIGHEST POINTS OF EACH ZONE AND JUST BELOW CHECK VALVES ON SLOPES. INSTALL ONE AIR/VACUUM RELIEF VALVE FOR EVERY 1125' OF TOTAL DRIPLINE PER ZONE.
- PLACE FLUSH VALVES AT THE HYDRAULIC CENTER OF THE EXHAUST HEADER OR AT LOW POINT ON SLOPES.
- INSTALL IN-LINE CHECK VALVES ON SLOPES GREATER THAN 3% AND WHERE LOW-LINE DRAINAGE COULD CAUSE WET AREAS IN THE LOWEST AREAS OF AN IRRIGATION ZONE. CHECK VALVES SHALL BE PLACED EVERY 4-5 FEET BETWEEN DRIPLINE LATERALS AND BEFORE THE FLUSH VALVE.
- ON ALL SLOPES AND MOUNDS, PLACE THE DRIPLINE LATERALS PARALLEL TO THE SLOPE CONTOUR WHERE POSSIBLE. INCREASE THE LATERAL SPACING BY 25% ON THE LOWER ONE-THIRD OF THE SLOPE TO AVOID EXCESS DRAINAGE.
- PVC SUPPLY AND FLUSH LINE SIZING GUIDE (ALL SUPPLY AND FLUSH LINES SHALL BE THE SAME SIZE FOR THE ENTIRE ZONE):
 - 0-8 GPM – 3/4"
 - 8.1-15 GPM – 1"
 - 15.1-25 GPM – 1 1/4"
- FITTINGS SHALL BE OF THE SAME MANUFACTURER AS DRIPLINE.
- THOROUGHLY FLUSH EACH INSTALLATION SEGMENT TO ENSURE NO DEBRIS CONTAMINATION OCCURS.
- RUN THE DRIPLINE SYSTEM EVERY DAY OR EVERY OTHER DAY TO ESTABLISH PLANT MATERIAL. MAINTAIN A CONSISTENT MOISTURE BALANCE IN THE SOIL. IT IS IMPORTANT TO KEEP THE SOIL MOIST WITHOUT SATURATION.

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	PSI	FLOW RATE (GPM)	MAX. RADIUS	MAX. SPACING
■	LF40-PC	TORO PRESSURE COMPENSATING DRIP BUBBLER	25	4 GPH	-	-
△	T-FCH-H-FIPT	INSTALL TWO BUBBLERS PER TREE				
NOT SHOWN	T-YD-500-34	TORO DL2000 FLUSH VALVE				
□	T-DL-MP9	TORO DL2000 AIR VENT				
⊕	DZK-700-1-LF / LT-1000-T	TORO DL2000 POP-UP OPERATION INDICATOR				
◆	44LRC	TORO DRIP ZONE VALVE KIT - INCL. REMOTE CONTROL VALVE, WYE FILTER WITH 150 MESH SCREEN, AND PRESET PRESSURE REGULATOR / KBI PVC BALL VALVE				
◀▶	T-113IRR	RAIN BIRD QUICK COUPLING VALVE				
		NIBCO GATE VALVE (LINE SIZE)				
		CONTROLLER AND STATION NUMBER				
		APPLICATION RATE (INCHES)				
		OPERATING PRESSURE (PSI) OR AIR RELIEF VALVE QUANTITY				
		APPROXIMATE GALLONS PER MINUTE				
		REMOTE CONTROL VALVE SIZE				
		MAIN LINE: PE3408 HIGH DENSITY POLYETHYLENE DR9 (HDPE) PIPE. JOIN PIPE WITH HEAT FUSION, USE MANUFACTURER RECOMMENDED COMPRESSION FITTINGS. 24" COVER.				
		LATERAL LINE: 1" PE3408 HIGH DENSITY POLYETHYLENE DR9 (HDPE) PIPE. JOIN PIPE WITH HEAT FUSION. USE MANUFACTURER RECOMMENDED COMPRESSION FITTINGS. 18" COVER.				
		SUB-SURFACE DRIPLINE: TORO DL2000 RGP-212-10 DRIPLINE WITH ROOT GUARD. USE ONLY DL2000 DRIPLINE LOC-EZE FITTINGS. 4" COVER. (12" EMITTER SPACING; .53 GPH PER EMITTER)				
		SUB-SURFACE DRIPLINE: TORO DL2000 RGP-412-10 DRIPLINE WITH ROOT GUARD. USE ONLY DL2000 DRIPLINE LOC-EZE FITTINGS. 4" COVER. (12" EMITTER SPACING; 1.0 GPH PER EMITTER)				
		SLEEVE (SL): PE3408 HIGH DENSITY POLYETHYLENE DR9 (HDPE) PIPE. 36" COVER.				



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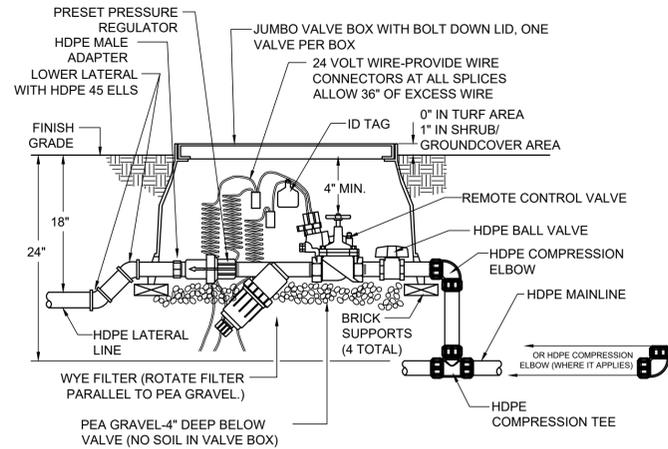
CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS

IRRIGATION NOTES AND LEGEND
SOUTH COVE WEST PARKING LOT
PROJECT

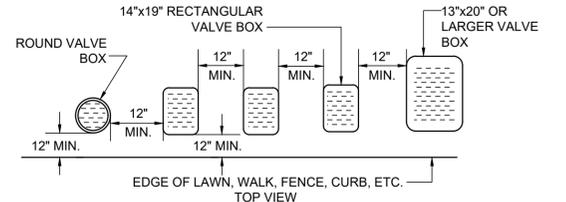
PLAN 8169
FILE 405-212
IP-102
SHEET 43 OF 47



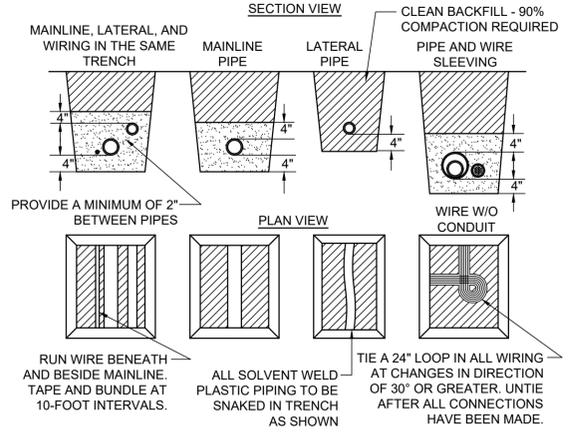
APPROVAL	
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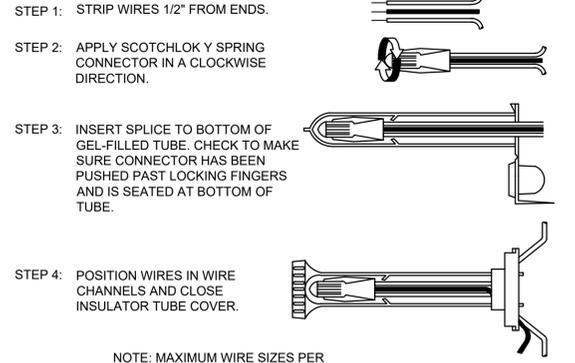
1 VALVE/FILTER/REGULATOR DETAIL
NOT TO SCALE



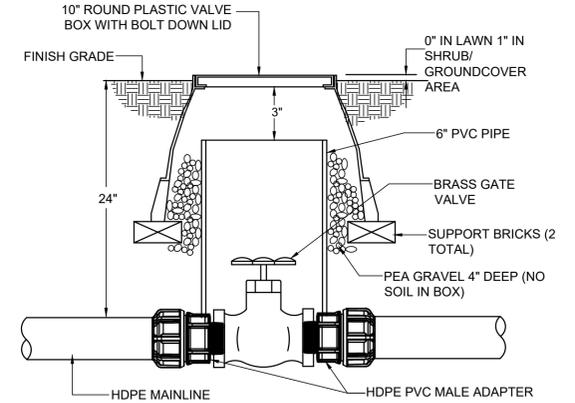
2 VALVE BOX INSTALLATION DETAIL
NOT TO SCALE



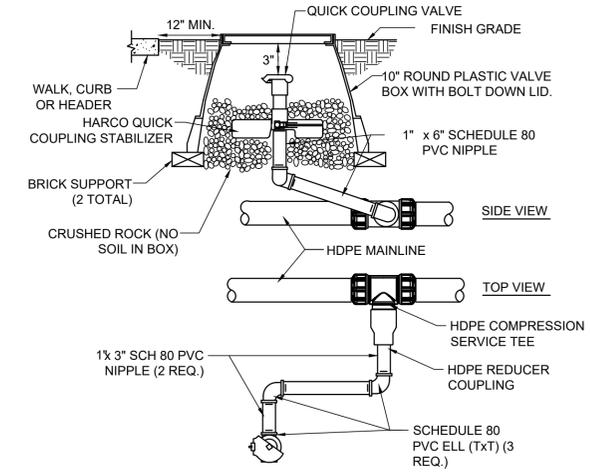
3 PIPE AND WIRE TRENCHING
NOT TO SCALE



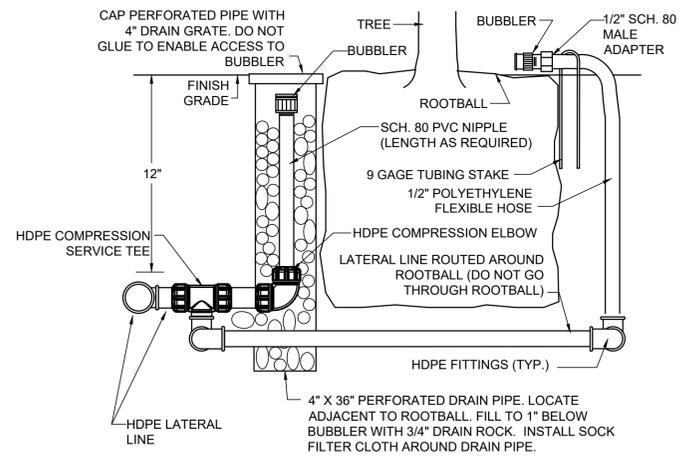
4 WIRE CONNECTION DETAIL
NOT TO SCALE



5 GATE VALVE DETAIL - 2 1/2" & SMALLER
NOT TO SCALE



6 QUICK COUPLER IN BOX DETAIL
NOT TO SCALE



7 TREE BUBBLER DETAIL
NOT TO SCALE

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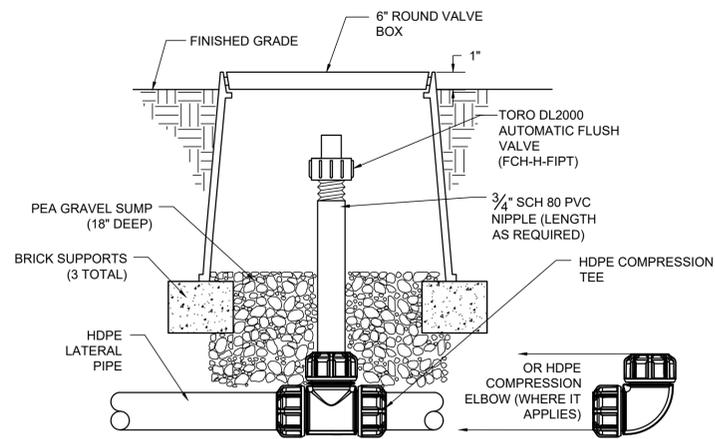
IRRIGATION DETAILS
SOUTH COVE WEST PARKING LOT
PROJECT

PLAN 8169
FILE 405-212
IP-103
SHEET 44 OF 47

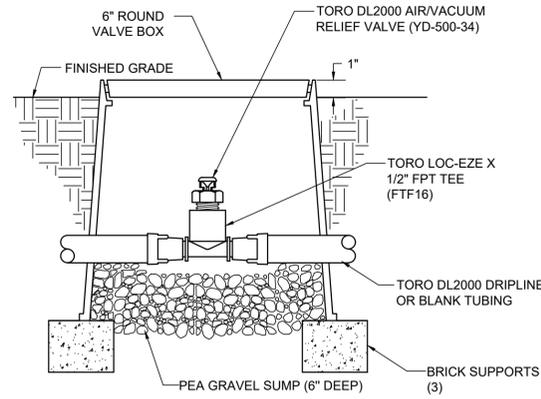
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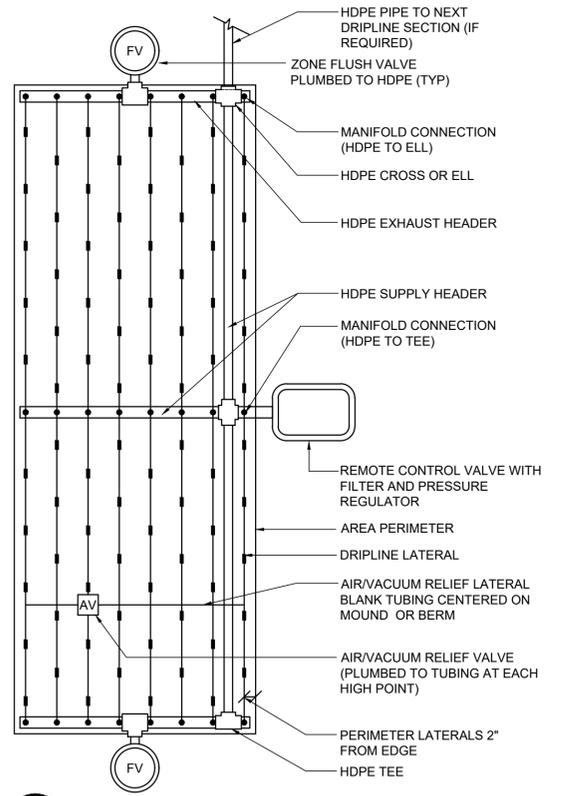
REVISION	MARK	DATE	DESCRIPTION	APPROVAL



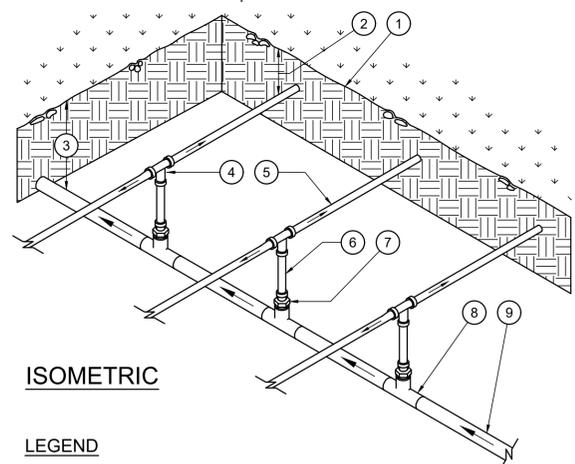
8 TORO DL2000 AUTOMATIC FLUSH VALVE - PLUMBED TO PVC
NOT TO SCALE



9 TORO DL2000 AIR/VACUUM RELIEF VALVE - PLUMBED TO TUBING
NOT TO SCALE

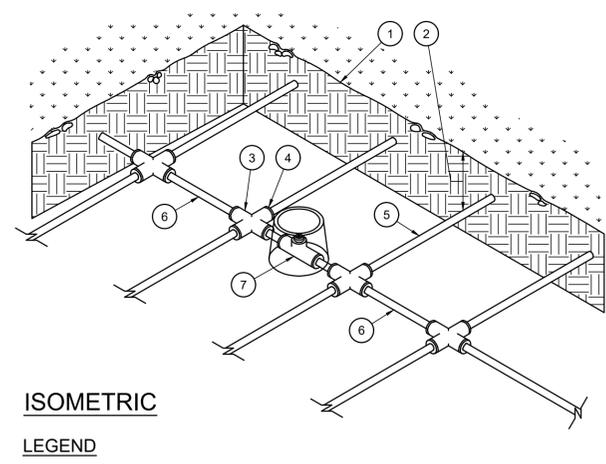


10 CENTER FEED INLINE DRIP LAYOUT
NOT TO SCALE



ISOMETRIC
LEGEND
1. FINISH GRADE.
2. DEPTH OF TUBING PER SPECIFICATIONS
3. DEPTH OF HDPE SUPPLY MANIFOLD PER SPECIFICATIONS.
4. DRIPLINE TEE FITTING.
5. DRIPLINE LATERAL.
6. BLANK POLY TUBING, LENGTH AS NECESSARY.
7. DRIPLINE MPT ADAPTER.
8. HDPE SERVICE TEE WITH 1/2" FPT OUTLET.
9. HDPE SUPPLY MANIFOLD FROM REMOTE CONTROL VALVE ASSEMBLY.

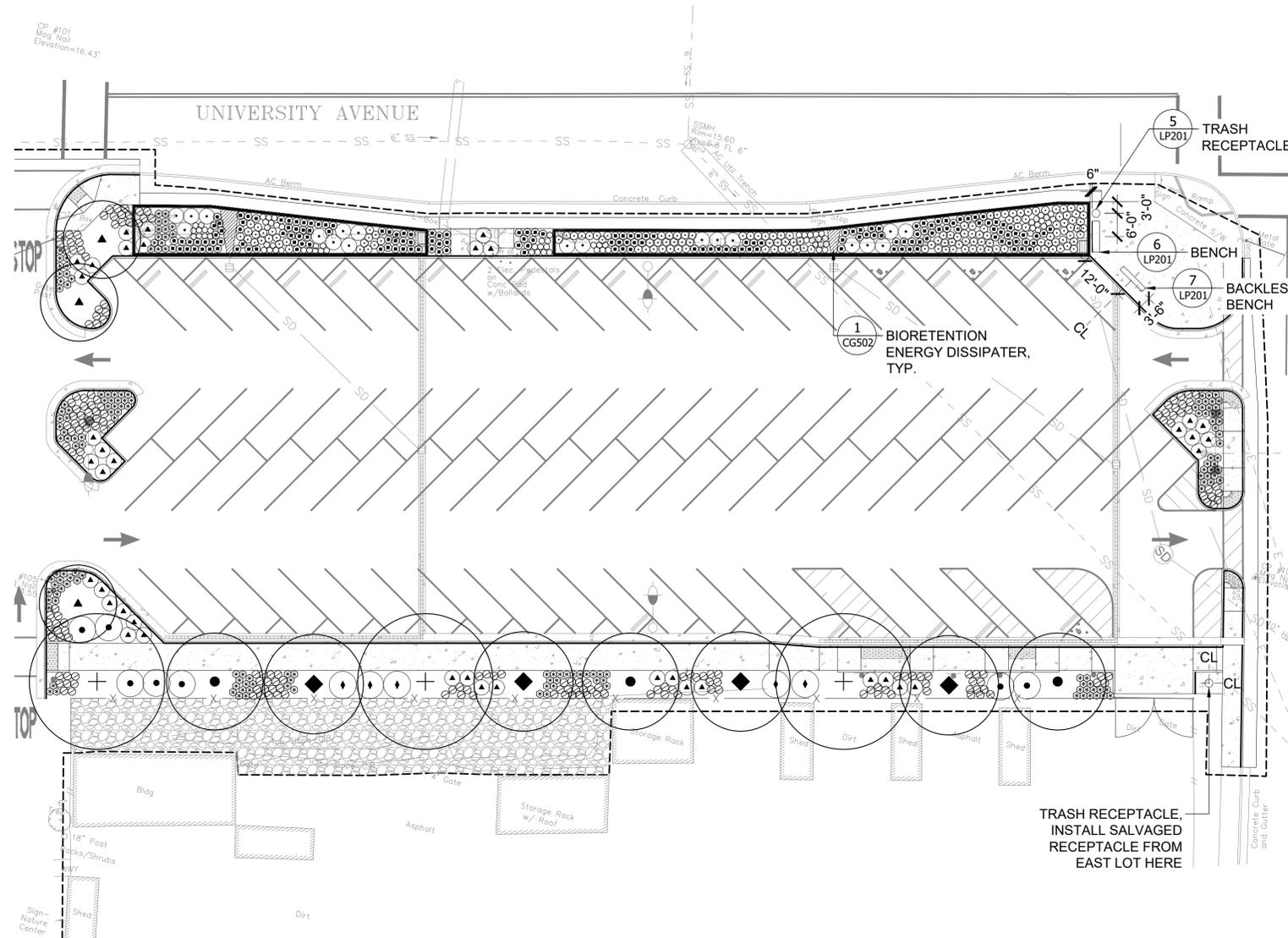
11 CENTER FEED MANIFOLD
NOT TO SCALE



ISOMETRIC
LEGEND
1. FINISH GRADE.
2. DEPTH OF TUBING PER SPECIFICATIONS
3. PVC CROSS (SxSxSxS)
4. COMPRESSION ADAPTER.
5. DRIPLINE LATERAL.
6. AIR/VACUUM RELIEF LATERAL, BLANK POLY TUBING CENTERED ON MOUND OR BERM
7. AIR/VACUUM RELIEF VALVE AT HIGH POINT. REFER TO AIR/VACUUM RELIEF VALVE DETAIL.

12 AIR/VACUUM RELIEF LATERAL
NOT TO SCALE

REVISION	MARK	DATE	DESCRIPTION	APPROVAL



NOTES

1. CONTRACTOR TO VERIFY LOCATION OF UNDERGROUND UTILITY LINES. LOCATE BEFORE TRENCHING FOR IRRIGATION, DIGGING PLANT HOLES, ETC. IF CONFLICTS ARISE AT PLANT LOCATION TIME, CITY TO BE CONSULTED FOR ADJUSTMENTS PRIOR TO INSTALLATION. ADJUSTMENTS TO BE MADE BY CONTRACTOR AT NO ADDITIONAL COST.
2. PRIOR TO PLANT INSTALLATION, CLEAR ALL PLANTING AREAS OF DEBRIS. SEE SPECS.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY, SHALL HAVE NORMAL HABITS OF GROWTH, BE HEALTHY AND HAVE IDENTIFYING NURSERY TAGS ON EACH PLANT DELIVERED TO THE SITE.
4. NO SUBSTITUTE PLANT MATERIALS WILL BE PERMITTED UNLESS APPROVED BY THE LANDSCAPE ARCHITECT AND CITY.
5. PLANT LOCATIONS TO BE LAID OUT SO AS NOT TO INTERRUPT ESTABLISHED GRADING AND DRAINAGE PATTERNS.
6. SPACE GROUNDCOVERS EVENLY AS INDICATED ON DRAWINGS, STAGGERING SPACING AROUND SHRUBS AND TREES AS WELL AS OPEN AREAS.
7. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

LEGEND										
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SOURCE	HEIGHT x WIDTH	NATIVE	IN MP	
TREES										
3		LYONOTHAMNUS FLORIBUNDUS SSP ASPLENDIFOLIUS	CATALINA IRONWOOD	24" BOX	LOW	WUCOLS	20'-35' X 15'	Y	Y	
3		EUCALYPTUS FICIFOLIA	RED FLOWERING GUM	24" BOX	LOW	WUCOLS	45' X 15'-60'	N	Y	
4		QUERCUS TOMENTELLA	ISLAND OAK	24" BOX	LOW	WUCOLS	50' X 25'-40'	Y	Y	
3		PINUS TORRYANA	TORREY PINE	24" BOX	LOW	WUCOLS	50' x 20'-25'	Y	Y	
SHRUBS/ GRASSES										
7		ARCTOSTAPHYLOS 'HOWARD MCMINN'	HOWARD MCMINN MANZANITA	5 GAL	LOW	WUCOLS	5'-6' x 7'	Y	Y	
166		CAREX TUMULICOLA	BERKELEY SEDGE	1 GAL	LOW	WUCOLS	1' x 1.5'	N	N	
5		CEANOTHUS 'JULIA PHELPS'	JULIA PHELPS WILD LILAC	5 GAL	LOW	WUCOLS	4.5'-7' x 7'-9'	Y	Y	
19		CHONDROPETALUM TECTORUM	CAPE RUSH	5 GAL	LOW	WUCOLS	4'-6' x 4'-6'	N	N	
74		IRIS DOUGLASIANA	DOUGLAS IRIS	1 GAL	LOW	WUCOLS	1.5' x 1.5'	Y	Y	
160		ERIGERON GLAUCUS	SEASIDE DAISY	1 GAL	LOW	WUCOLS	1' x 1.5'	Y	Y	
141		JUNCUS PATENS 'CARMAN'S GRAY'	CALIFORNIA GREY RUSH	1 GAL	LOW	WUCOLS	2' X 1'-2'	Y	N	
194		LIMONIUM PEREZII	SEA LAVENDER	1 GAL	LOW	WUCOLS	1' x 1'-2'	Y	N	
40		MUHLENBERGIA RIGENS	DEER GRASS	5 GAL	LOW	WUCOLS	4' x 4'	Y	N	
MP= APPENDIX D MASTER PLANT LIST BAY TRAIL EXTENSION TO THE BERKELEY MARINA DESIGN PLAN AND FINAL ISMND NOVEMBER 2003 WUCOLS - WATER USE CLASSIFICATION OF LANDSCAPE SPECIES										

NOTE: ESCHSCHOLZIA CALIFORNICA TO BE HAND SEEDING AS DIRECTED BY OWNER'S REPRESENTATIVE

----- LIMIT OF WORK

