Meeting of the Central Valley Flood Protection Board
September 25, 2015

Staff Report

Sacramento Area Flood Control Agency (SAFCA)
Florin Creek Multi-Use Basin Project, Sacramento County

1.0 – ITEM

Consider Central Valley Flood Protection Board (Board) approval to complete the Florin Creek Multi-Use Basin Project (Project) to provide flood-risk reduction measures in coordination with the U.S. Army Corps of Engineers (USACE) South Sacramento Streams Group Project (SSSG) along Florin Creek (Attachment A) through Permit No. 19013 (Attachment B).

2.0 – APPLICANT

Sacramento Area Flood Control Agency (SAFCA)

3.0 – PROJECT LOCATION

The project is located adjacent to the right (north) bank of Florin Creek immediately downstream of Persimmon Avenue in Sacramento County (Attachment A). It extends north to Orange Avenue and encompasses the Florin Creek Park and vacant land to the north currently owned by the Sacramento Area Flood Control Agency (SAFCA).

4.0 – PROJECT DESCRIPTION

SAFCA is proposing to construct the Project in Florin Creek Park to increase flood protection and incorporate environmental and recreational enhancements. Work includes the excavation of the park; bank improvements; weir excavation; the installation of drainage, landscaping, lighting, and habitat features; pump station construction; finish grading of the park; and frontage improvements at Orange Ave.

The Project is designed to complete flood risk reduction measures being constructed as part of the USACE SSSG project. The USACE SSSG Project will construct channel improvements at Florin Creek, between Franklin Boulevard and State Route 99 (SR 99). The USACE project includes widening of Florin Creek to the extents allowable by existing rights-of-way. Because the area of Florin Creek downstream of SR 99 is highly urbanized, sufficient rights-of-way were not able to be obtained in order to fully provide protection from the 100-year storm event. In order to provide this protection, SAFCA, the California Department of Water Resources (DWR), and the Sacramento Area Flood Control Agency (SAFCA) designed the Project to provide the remaining increment of flood risk reduction.

The Project will construct a detention basin in Florin Creek Park, which will be expanded with adjoining SAFCA property. During high flows (exceeding the approximately 25-year event), water will spill over a weir to be constructed on the right bank of Florin Creek into the basin. As the peak event recedes, water will spill back into Florin Creek via the weir, a culvert with flap gate, and pumps located on the park property. When completed, the Project and the SSSG project will together provide 100-year protection to downstream areas within the Florin Creek floodplain.

5.0 – AUTHORITY OF THE BOARD

California Water Code § 8534, 8590 – 8610.5, and 8700 – 8710

Title 23:

- § 6 – Need for a Permit
- § 112 – Streams Regulated and Nonpermissible Work Periods
- § 116 – Borrow and Excavation Activities – Land and Channel
- § 120 – Levees
- § 121 – Erosion Control
- § 123 – Pipelines, Conduits and Utility Lines
- § 130 – Patrol Roads and Access Ramps
- § 130 – Vegetation

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

The comments and endorsements associated with this project from all pertinent agencies are shown below:

- The U.S. Army Corps of Engineers 33 USC 408 decision letter has not been received for this application. Staff anticipates receipt of a letter indicating that the USACE District Engineer has no objection to the project, subject to conditions. Upon receipt of the letter, staff will review to ensure conformity with the permit language and incorporate it into the permit as Exhibit A.

- Sacramento County Department of Water Resources (County) endorsed the project on July 2, 2015 with conditions (Attachment D). Staff did not incorporate the County's conditions into Draft Permit No. 19013 because the conditions reefer to county standards, processes, and agreements between the applicant to be addressed separately.

7.0 – PROJECT ANALYSIS

7.1 – Project Background

The Project has grown out of a 2011 local effort to coordinate with the USACE on the SSSG project. USACE has constructed many flood improvements in the Morrison Creek watershed as part of the SSSG project, but due to limits in congressionally-authorized funding as well as physical constraints on Florin Creek, it became apparent that the authorized funding would not allow 100-year protection to be attained throughout the watershed. SAFCA began investigating off-stream storage alternatives that would accept a portion of peak creek flows, thus reducing the 100-year discharge downstream. The Florin Creek Park site was selected because it is near State Route 99 at the upstream end of the area to be protected and because a detention basin design could be compatible with park uses.

By reducing downstream peak flows, the Project, in concert with USACE SSSG Florin channel capacity improvements now under contract for construction by the USACE, will achieve 100-year protection for the area without further congressional authorization. The USACE has completed the remainder of the SSSG improvements in the Morrison Creek watershed, and the SSSG project will be able to be closed out after completion of the USACE and SAFCA work on Florin Creek.

The Project is being led by SAFCA and funded by way of a Stormwater Flood Management Grant from the Department of Water Resources (DWR), Proposition 1E, Round 2. During significant flood events (events with a recurrence interval exceeding an approximate 25-year event), storm water will spill into the basin by way of a weir at the right (north) bank of Florin Creek at Florin Creek Park, downstream of Persimmon Avenue.

7.2 – Project Construction Details

The basin will be up to ten feet deep and will be constructed with typical landside slopes of either 5:1 (horizontal to vertical) or 4:1. As floodwaters recede in Florin Creek, the basin will spill back into the creek through the weir and through a 36” culvert located on the south end of the park site below the weir. Once the basin drains to the level of the culvert invert, pumps will be needed to fully empty the basin. A pump station will be constructed in the southwest corner of the project site and a 15-horsepower pump will be used to empty the remainder of the water in the basin after the weir has spilled. This pumped water will discharge via a ten (10) inch pipe and outfall into Florin Creek. A five (5)-horsepower pump with a four (4) inch pipe and outfall will be used to discharge nuisance drainage to the creek when the weir has not spilled (e.g. when rainfall within the park itself has caused water to pond in less than a 25-year event).

The Southgate Park District, which owns and manages Florin Creek Park, is partnering with SAFCA on the Project and is providing assistance in designing the recreational enhancements to be incorporated. The Project will expand the overall size of Florin Creek Park, developing three additional parcels located north of the park's current northern boundary. The Southgate Recreation and Park District owns one of the three parcels for expansion, and will acquire the other two from SAFCA as part of the Project. The size of the park will increase from 10.5 acres to approximately 16.5 acres and the flood control basins will be graded to provide enhanced recreational benefits in the form of soccer fields. Environmental enhancements associated with the Project will include the planting of native plant species and the incorporation of additional trees in the park. The acreage of the park's existing water features will also be expanded.

7.3 – Hydraulic Summary

The Project is designed to divert a portion of Florin Creek peak flows during events exceeding the 25-year event, detain them on site, and return them to Florin Creek after the peak flow in the creek has passed (Attachment E). The project features that encroach on the creek include the weir and the outfalls for the pumps and a 36" culvert with a flap gate. The waterside geometry of the creek and will therefore not adversely affect hydraulics within the creek.

After review of SAFCA's proposal and all related design and supporting documents, Board staff has determined that the project is not anticipated to result in any adverse hydraulic impacts to Florin Creek or the SSSG project.

7.4 – Geotechnical Summary

Flows of less than two (2) feet per second will flow over the earthen weir. These velocities do not require the weir to be lined with concrete; however construction of the weir includes erosion control measure including mats and blankets being placed over the weir and down the landside and waterside slopes. Erosion control blankets and mats will be installed on the upstream and downstream sides of the weir as well. The outfalls will be constructed with concrete wing walls, and concrete slope protection will be constructed below them to conform to the concrete low-flow channel lining in Florin Creek (Attachment C).

Board staff agrees with SAFCA's assessments, which indicate that the proposed project will cause no adverse geotechnical impacts to Florin Creek or the SSSG project.

8.0 – CEQA ANALYSIS

Board staff has prepared the following California Environmental Quality Act (CEQA) determination:

The Board, as a responsible agency under CEQA, has reviewed an Initial Study and the subsequent Mitigated Negative Declaration (IS/MND) (SCH Number: 2014032030, March 2014 and Resolution 2014-027) and Mitigation Monitoring and Reporting Program (in Resolution 2014-027) for the Florin Creek Multi-Use Basin Project prepared by the lead agency, the Sacramento Area Flood Control Agency. These documents, including project design, may be viewed or downloaded from the Central Valley Flood Protection Board website at http://www.cvfpb.ca.gov/meetings/2015/09-25-2015.cfm under a link for this agenda item. These documents are also available for review in hard copy at the Board and the Sacramento Area Flood Control Agency offices.

The Sacramento Area Flood Control Agency determined that the project would not have a significant effect on the environment on April 17, 2014 in Resolution 2014-027 and filed a Notice of Determination on April 21, 2014 with the State Clearinghouse. Board staff finds the proposed project will not have a potentially significant effect on the environment because the Sacramento Area Flood Control Agency, as lead agency, has required mandatory mitigation measures that will mitigate all potentially significant impacts to less than significant. These mandatory mitigation measures have been incorporated into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant impacts will occur. These mitigation measures are included in the project proponent's IS/MND and in Resolution 2014-027, and address impacts to air quality, biological resources, cultural resources, greenhouse gas emissions, noise, and transportation and traffic. The description of the mitigation measures are further described in the adopted IS/MND and Resolution 2014-027.

The documents and other materials which constitute the record of the Central Valley Flood Board's proceedings in this matter are in the custody of Leslie Gallagher, Executive Officer, Central Valley Flood Protection Board, 3310 El Camino Ave., Rm. 151, Sacramento, California 95821.

9.0 – CALIFORNIA WATER CODE SECTION 8610.5 CONSIDERATIONS

- Evidence that the Board admits into its record from any party, federal, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

  The Board has considered all the evidence presented in this matter, including the application for Permit No. 19013, supporting technical documentation provided by SAFCA, as well as all evidence submitted up through the hearing on this matter.

- The best available science related to the scientific issues presented by the executive officer, legal counsel, the Department of Water Resources, or other parties that raise credible scientific issues:

  In making its findings, the Board has used the best available science relating to the issues presented by all parties. On the important issue of hydraulic impacts the SAFCA (in coordination with the USACE) used the HEC-RAS hydraulic model. This model is considered as the best available scientific tool for the purpose of evaluating effects to water surface elevation and velocity for the increased level of detail needed for the proposed project.

- Effects of the decision on the facilities of the State Plan of Flood Control (SPFC), and consistency of the proposed project with the Central Valley Flood Protection Plan (CVFPP) as adopted by Board Resolution 2012-25 on June 29, 2012:

  The Project is expected to result in no adverse hydraulic or geotechnical impacts on the facilities of the SPFC and is consistent with the CVFPP and current Title 23 standards because the Project is anticipated to produce no increases in water surface elevation, increases in channel velocities, or adverse geotechnical impacts on SPFC facilities.

- Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

  The Project will not affect hydrology, climate, or development in this area other than to reduce flood peaks downstream of the project. In conjunction with the SSSG, it will keep 100-year flood flows within the channel downstream of the basin. Flows from upstream are moderated by the culvert at SR 99, and little development potential remains in the vicinity, which is largely built out in residential land uses.

10.0 – STAFF RECOMMENDATION

Staff recommends that the Board:

Adopt: the CEQA findings;

Approve: Encroachment Permit No. 19013, in substantially the form provided, conditioned upon receipt of a U.S. Army Corps of Engineers 33 USC 408 decision letter indicating that the District Engineer has no objection to the project, subject to conditions;

Direct: the Executive Officer to take the necessary actions to execute the permit and file a Notice of Determination with the State Clearinghouse.

11.0 – LIST OF ATTACHMENTS

A – Project Maps and Photos

B – Draft Permit No. 19013

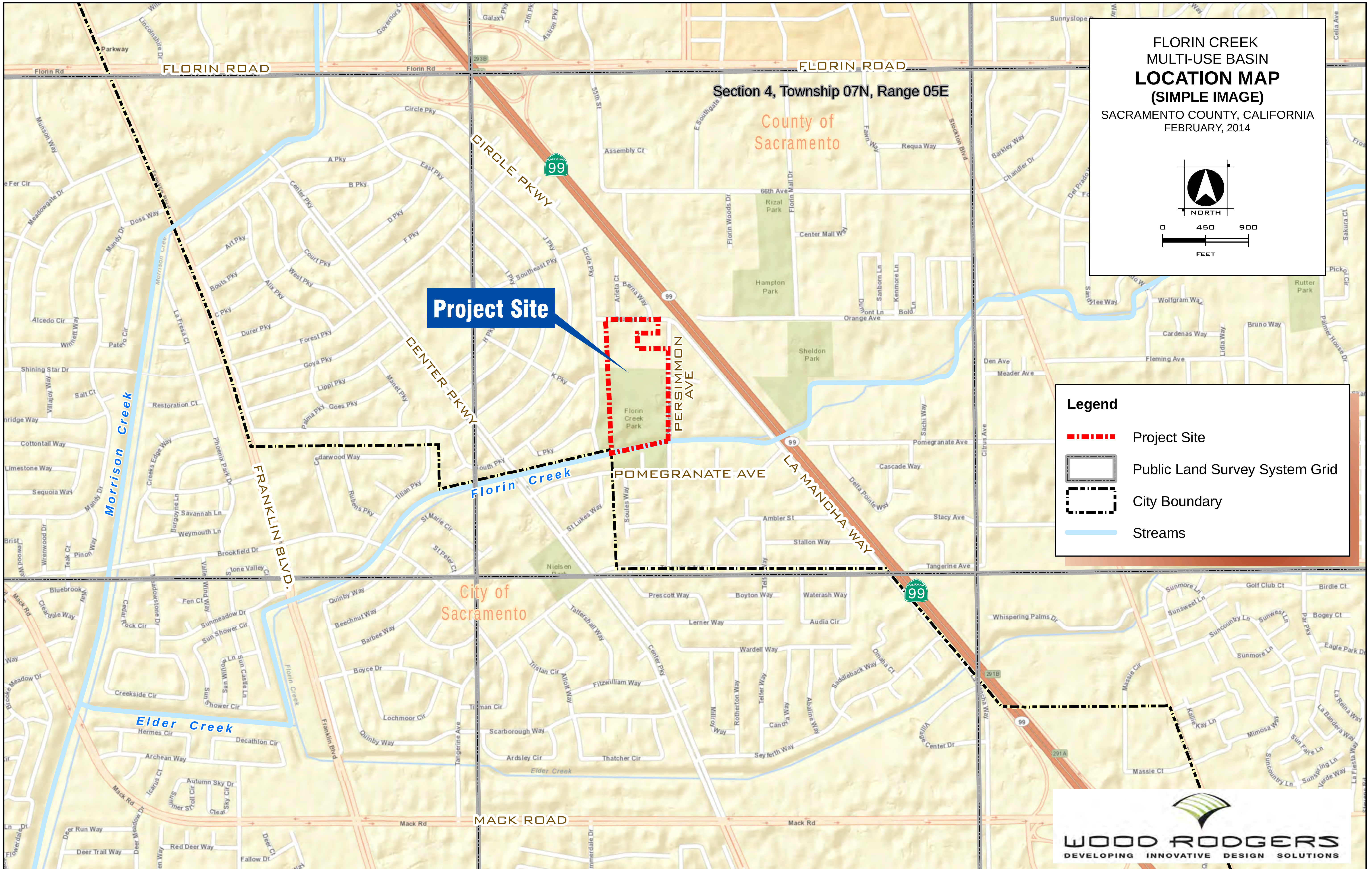
Exhibit A: USACE 408 Decision Letter

C – Project Drawings

D – County Endorsement and Conditions

E – Hydraulic Information

Prepared By:	Nancy Moricz, PE, Senior Engineer, Planning Branch
Environmental Review:	Andrea Buckley, Senior Environmental Scientist (Specialist)
Staff Report Review:	Ali Porbaha, PE, Senior Engineer, Projects & Environmental Branch
	Len Marino, PE, Chief Engineer
	Carlos Mejia, Deputy Attorney General
	Leslie Gallagher, Executive Officer


FLORIN CREEK
MULTI-USE BASIN
LOCATION MAP
(SIMPLE IMAGE)
SACRAMENTO COUNTY, CALIFORNIA
FEBRUARY, 2014
NORTH
0 450 900
FEET
Section 4, Township 07N, Range 05E
County of Sacramento
City of Sacramento
Project Site
FLORIN ROAD
MACK ROAD
FRANKLIN BLVD.
CIRCLE PKWY
CENTER PKWY
PERSIMMON AVE
POMEGRANATE AVE
LA MANCHA WAY
Florin Creek
Morrison Creek
Elder Creek
Florin Creek Park
Legend
Project Site
Public Land Survey System Grid
City Boundary
Streams
WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
Attachment A - Location Maps and Photos

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek_OA\GIS\Tasks\CVFPB_Encr_Permit_Application\Fig2_LocationMap_aerial_20140328_V2.mxd 03/28/2014 03:39:46 PM kwrightson

Attachment A - Location Maps and Photos

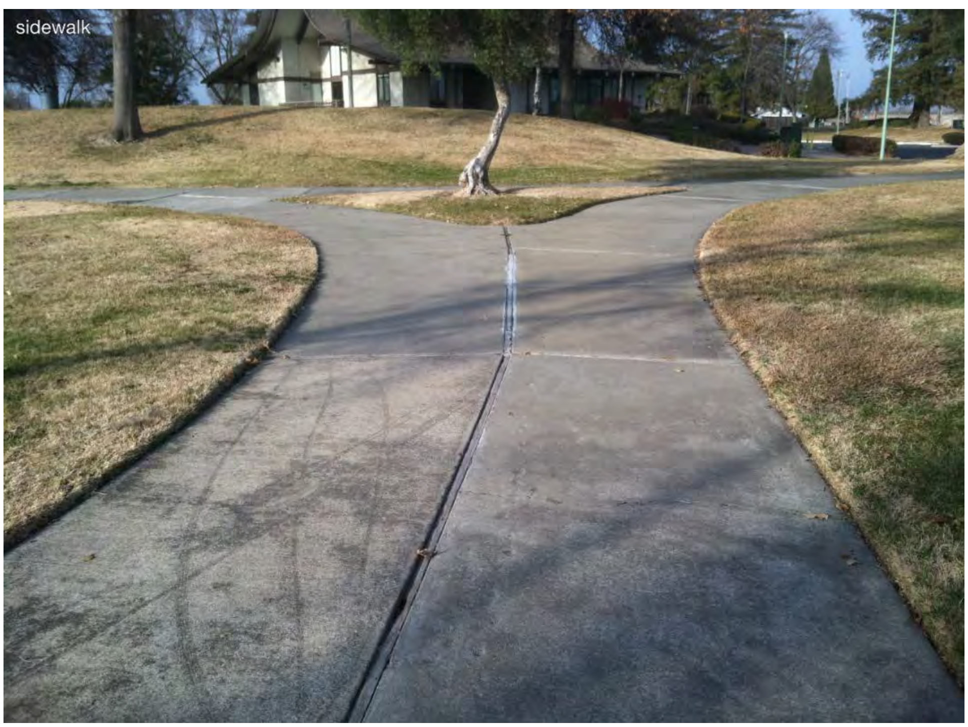
ATTACHMENT D

West Entrance. Florin Creek Park looking east from park access.

West Play Area. Florin Creek Park looking east. Note the existing play area to remain.

Representative Photos of the Project Area
ATTACHMENT H

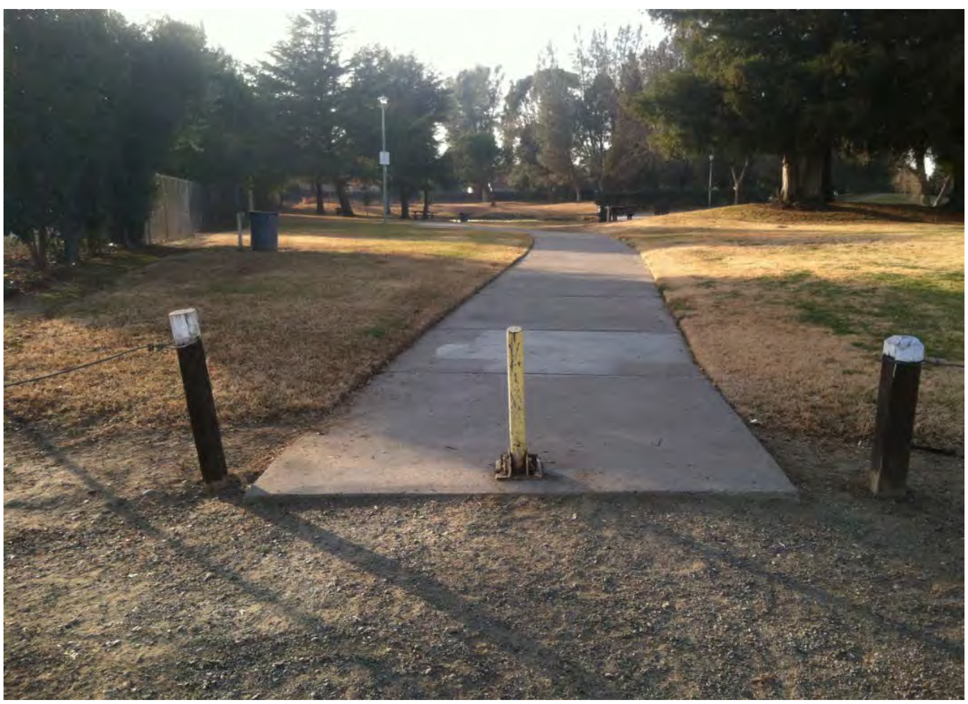
Existing Bridge. Florin Creek Park from south end looking north**.**



Existing Sidewalk. Florin Creek Park at east entrance facing north. Note the existing building to remain.

Representative Photos of the Project Area
ATTACHMENT H

Toe of Slope. Florin Creek Park at existing sidewalk facing east.



South Entrance. Florin Creek Park southeast entrance facing west. Note Florin Creek on the left.

Representative Photos of the Project Area
ATTACHMENT H

North Parking Area. End of Florin Creek Park facing northeast of project site.

North End Park. Florin Creek Park facing west of project site.

Representative Photos of the Project Area
ATTACHMENT H

DRAFT

STATE OF CALIFORNIA
THE RESOURCES AGENCY

THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 19013 BD

This Permit is issued to:

Sacramento Area Flood Control Agency (SAFCA)
1007 7th Street, 7th Floor
Sacramento, California 95814

To construct construct the Florin Creek Multi-Use Basin in Florin Creek Park which will increase flood protection and incorporate environmental and recreational enhancements. Work includes the excavation of the park; bank improvements; weir excavation; the installation of drainage, landscaping, lighting, and habitat features; pump station construction; finish grading of the park; and frontage improvements at Orange Ave.

The project is located in Florin Creek Park, between Persimmon Avenue, Orange Avenue, and Circle Parkway in Sacramento, CA (Section 4, T7N, R5E, MDB&M, Maintenance Area 9, Florin Creek, Sacramento County).

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

(SEAL)

Dated: ______________________ ______________________
Executive Officer

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS FOR PERMIT NO. 19013 BD

THIRTEEN: All work completed under this permit, as directed by the general and special conditions herein, shall be accomplished to ensure that the work is not injurious to adopted plans of flood control, regulated streams, and designated floodways under Central Valley Flood Protection Board (Board) jurisdiction, as defined in California Code of Regulations, Title 23. This permit only applies to the completion of work in the project description located within, or adjacent to and having bearing on Board jurisdiction, and which directly or indirectly affects the Board's jurisdiction. This special condition shall apply to all subsequent conditions herein.

LIABILITY AND IMDEMNIFICATION

FOURTEEN: The permittee shall defend, indemnify, and hold the Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

FIFTEEN: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Board and the "State," safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

SIXTEEN: The Board and Department of Water Resources (DWR) shall not be held liable for damages to the permitted project resulting from releases of water from reservoirs, flood fight, operation, maintenance, inspection, or emergency repair.

SEVENTEEN: If the permittee does not comply with the conditions of the permit and enforcement by the Board is required, the permittee shall be responsible for bearing all costs associated with the enforcement action, including reasonable attorney's fees. Permittee acknowledges that State law allows the imposition of fines in enforcement matters.

EIGHTEEN: The permittee agrees to incur all costs for compliance with local, State, and Federal permitting. If any conditions issued by other agencies conflict with any of the conditions of this permit, then the permittee shall resolve conflicts between any of the terms and conditions that agencies might impose under the laws and regulations it administers and enforces.

AGENCY CONDITIONS

NINETEEN: The permittee shall comply with all conditions set forth in the letter from the U.S. Army Corps of Engineers (USACE) District Engineer dated September XX, 2015, which is attached to this permit as Exhibit A and is incorporated by reference.

PRE-CONSTRUCTION

TWENTY: The permittee shall contact the Board by telephone at (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 20 working days prior to start of work may result in delay of the project.

TWENTY-ONE: Thirty (30) calendar days prior to start of any demolition and/or construction activities within the floodway, the permittee shall submit to the Chief Engineer two sets of plans, specifications and supporting geotechnical and/ or hydraulic impact analyses, for any and all temporary, in channel cofferdam(s), gravel work pad(s), work trestle(s), scaffolding, piles, and/or other appurtenances that are to remain in the floodway during the flood season from November 1 through April 15. The Board shall acknowledge receipt of this submittal in writing within ten (10) working days of receipt, and shall work with the permittee to review and respond to the request as quickly as possible. Time is of the essence. The Board may request additional information as needed and will seek comment from the USACE and / or local maintaining agency when necessary. The Board will provide written notification to the permittee if the review period is likely to exceed thirty (30) calendar days.

TWENTY-TWO: Prior to commencement of work, the permittee shall create a photo record, including associated descriptions, of the existing site conditions. The photo record shall be certified (signed and stamped) by a licensed land surveyor or licensed civil engineer registered in the State of California and submitted to the Board within 30 days of beginning the project.

TWENTY-THREE: The permittee shall provide supervision and inspection services acceptable to the Board.

CONSTRUCTION

TWENTY-FOUR: No construction work of any kind shall be done during the flood season from November 1 to April 15 without prior approval of the Board.

TWENTY-FIVE: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit (stated in the permit description), shall be done in the area without prior approval of the Board.

TWENTY-SIX: All addenda or other changes made to the submitted documents by the permittee after issuance of this permit shall be submitted to the Chief Engineer for review and approval prior to incorporation into the permitted project. The submittal shall include supplemental plans, specifications, and supporting geotechnical, hydrology and hydraulics, or other technical analyses. The Board shall acknowledge receipt of the addendum or change submittal in writing within ten (10) working days of receipt, and shall work with the permittee to review and respond to the request as quickly as possible. Time is of the essence. The Board may request additional information as needed and will seek comment from the USACE and / or the local maintaining agency when necessary. The Board will provide written notification to the permittee if the review period is likely to exceed thirty (30) calendar days. Upon approval of the submitted documents the permit shall be revised, if needed, prior to construction related to the proposed changes.

TWENTY-SEVEN: No material stockpiles, temporary buildings, or equipment shall remain in the floodway during the flood season from November 1 to April 15 without prior approval of the Board.

TWENTY-EIGHT: Temporary access ramps and/or roads shall be removed from the floodway during flood season from November 1 through April 15, and after completion of the project.

TWENTY-NINE: All debris generated by this project shall be disposed of outside the floodway.

THIRTY: Fill material shall be placed only within the area indicated on the approved plans.

THIRTY-ONE: Backfill material for excavations shall be placed in four (4) to six (6) inch layers and compacted to at least the density of the adjacent, firm, undisturbed material.

THIRTY-TWO: All fill materials shall be placed in four (4) to six (6) inch layers and compacted to a relative compaction of not less than 90 percent per ASTM D 1557-91 or 97 percent per ASTM D 698-91 above optimum moisture content. Field density tests shall be taken by a certified soils laboratory to verify compaction of the fill placed.

THIRTY-THREE: Erosion protection revetment/mats/blankets shall be uniformly placed and properly transitioned into the bank or adjacent erosion protection and in a manner which avoids segregation or displacement.

THIRTY-FOUR: The revetment shall not contain any reinforcing steel, floatable, or objectionable material. Asphalt or other petroleum-based products may not be used as fill or erosion protection on the levee section or within the floodway.

THIRTY-FIVE: Adequate erosion protection revetment/mats/blankets shall be placed at the discharge end of outfall pipes to prevent erosion.

THIRTY-SIX: The waterward end of the discharge pipe shall be constructed to direct the flow away from the levee to prevent erosion.

THIRTY-SEVEN: The pipe shall be buried at least 12 inches below the levee slopes and 24 inches below the levee crown.

THIRTY-EIGHT: The permittee shall be responsible for all damages due to settlement, consolidation, or heave from any construction-induced activities.

THIRTY-NINE: Except with respect to the activities expressly allowed under this permit, the work area shall be restored to the condition that existed prior to start of work.

VEGETATION / ENVIRONMENTAL MITIGATION

FORTY: The permittee will be responsible for securing any necessary permits incidental to habitat manipulation and restoration and will provide any biological surveying, monitoring, and reporting needed to satisfy those permits.

FORTY-ONE: No plantings, other than those shown in the approved plans or Board staff approved addenda, shall be planted within the project area without prior approval of the Board.

FORTY-TWO: Cleared trees and brush (or pruning therefrom) shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1st to April 15th.

FORTY-THREE: A copy of this permit shall be included as an attachment to any Long-Term Management Plan for the permitted project area.

POST-CONSTRUCTION

FORTY-FOUR: Within 120 days of completion of the project, the permittee shall submit to the Board and DWR a copy of as-built drawings and a certification report, stamped and signed by a licensed civil engineer registered in the State of California, certifying the work was performed and inspected in accordance with the Board permit conditions and submitted drawings and specifications.

OPERATIONS AND MAINTENANCE

FORTY-FIVE: After each period of high water, debris that accumulates at the site shall be removed from the floodway when reasonably determined as necessary by the Board.

FORTY-SIX: The permittee shall be responsible for repair of any damages to the channel, banks, floodway, or any other flood control facilities due to construction, operation, or maintenance of the proposed project.

FORTY-SEVEN: The permittee shall maintain the permitted project within the utilized area in the manner required and as requested by the authorized representative of the Board, or any other agency responsible for maintenance.

FORTY-EIGHT: If any feature of the project adversely impacts the successful execution, functioning, maintenance, or operation of the Florin Creek floodway, or downstream facilities of the Sacramento River Flood Control Project, the permittee must either remove the feature, or mitigate for the adverse impact of the feature at the permittee’s expense after approval of the proposed mitigations by the Board. If the permittee does not comply, the Board may modify or remove the feature at the permittee’s expense.

PROJECT ABANDONMENT, CHANGE IN PLAN OF FLOOD CONTROL

FORTY-NINE: If the project land is to be sold, the transfer of interest shall not occur without written notification to the Board, and the permit with all conditions shall be transferred to the new owner. The permittee is required to notify the prospective new owner of the need to apply for a name change permit from the Board.

FIFTY: If the project, or any portion thereof, is to be abandoned in the future, the permittee shall abandon the project under direction of the Board, at the permittee's cost and expense.

FIFTY-ONE: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted project) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Board may remove, alter, relocate, or reconstruct the permitted project at the permittee's expense.

END OF CONDITIONS

SACRAMENTO AREA FLOOD CONTROL AGENCY

PROJECT PLANS FOR CONSTRUCTION OF

FLORIN CREEK MULTI-USE BASIN

VOLUME 2 OF 2

FLORIN CREEK MULTI-USE BASIN IMPROVEMENT PLANS

LOCATION MAP
NOT TO SCALE

LIST OF CONTRACT VOLUMES:

VOLUME 1: SPECIFICATIONS

VOLUME 2: FLORIN CREEK MULTI-USE BASIN IMPROVEMENT PLANS

APPROVALS

CONTRACT NO. 1207

APPROVED ON:____________ BY: SAFCA BOARD OF DIRECTORS

RESOLUTION NO: ____________ ____________

CLERK OF THE BOARD

ISSUED FOR CONSTRUCTION

APPROVAL RECOMMENDED BY: ____________ DATE: ________
PETE GHELFI
DIRECTOR OF ENGINEERING
SACRAMENTO AREA FLOOD CONTROL AGENCY

APPROVED BY: ____________ DATE: ________
RICHARD M. JOHNSON
EXECUTIVE DIRECTOR
SACRAMENTO AREA FLOOD CONTROL AGENCY

SACRAMENTO COUNTY MUNICIPAL SERVICES AGENCY	
FLORIN CREEK MULTI-USE BASIN	
Parcel No: 050-321-003, 050-321-004, 050-321-012, 050-321-016	
Map Coordinates: 6,722,000/1,939,600	
Approved:	
Order No.:	Drainage Fee:
Checked By:	Drainage Approved:

WDID #: TBD
CONSTRUCTION START DATE:
FINAL STABILIZATION DATE:
AREA OF DISTURBANCE: 13.2 AC
VOL CUT: 65,080 CY VOL FILL: 3,820 CY APPROX. ONLY BASED ON ORIGINAL TOPO. CONTRACTOR TO MAKE HIS OWN DETERMINATION OF QUANTITIES BASED ON CURRENT CONDITIONS. DOES NOT INCLUDE TRENCH SPOILS.
POST-CONST. STORMWATER BMP'S RQD: NO

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

WOOD RODGERS
DEVELOPING • INNOVATIVE • DESIGN • SOLUTIONS
3301 C STREET, BLDG. 100-B, SACRAMENTO, CA 95816
PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED APPROVED

SAFCA

FLORIN CREEK MULTI-USE BASIN

TITLE SHEET AND LOCATION MAP

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

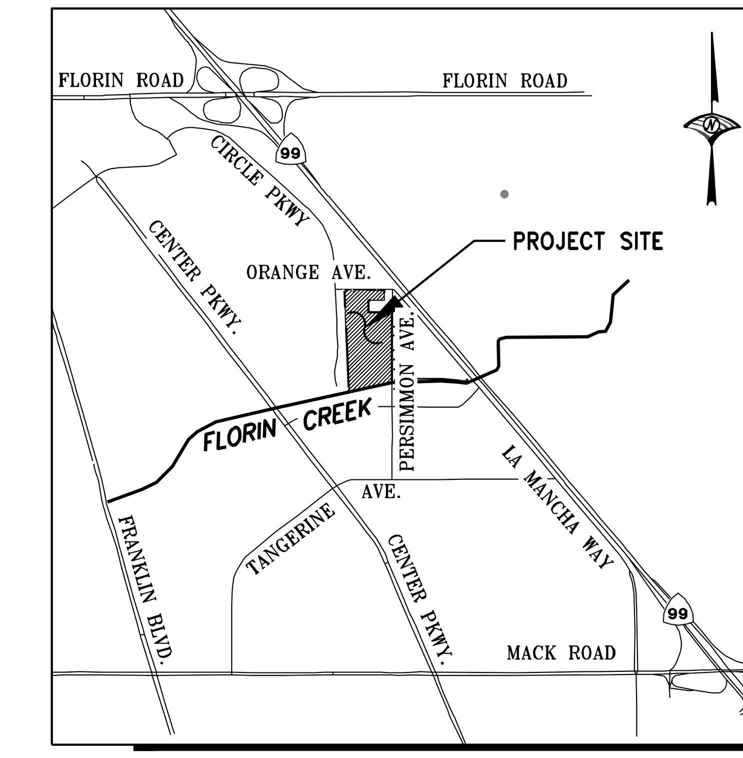
DRAWING NO. G-01 SHEET 1

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_001_G-01_TS_FCB.dwg 8/18/2015 4:11 PM Jenny Priest

Attachment C - Project Drawings

SITE PLAN

SCALE: 1" = 100'



VICINITY MAP

SCALE: NTS

SHEET INDEX

DRAWING NUMBER	SHEET NUMBER	DRAWING TITLE
GENERAL		
G-01	1	TITLE SHEET AND LOCATION MAP
G-02	2	SITE MAP, VICINITY MAP & SHEET INDEX
G-03	3	GENERAL NOTES & SURVEY CONTROL NOTES ABBREVIATIONS, SYMBOLS & LEGEND
CIVIL		
C-01	4	DEMOLITION PLAN - 1 OF 2
C-02	5	DEMOLITION PLAN - 2 OF 2
C-03	6	ORANGE AVENUE - STA 10+00 TO 15+53.43
C-04	7	FLORIN CREEK CHANNEL -NORTH BANK STA 54+00 TO 60+00
C-05	8	ORANGE AVENUE & FLORIN CREEK SECTIONS & DETAILS
C-06	9	OVERALL GRADING, DRAINAGE & SITE PLAN, GRADING NOTES & KEY MAP
C-07	10	GRADING, DRAINAGE & SITE PLAN - 1 OF 3
C-08	11	GRADING, DRAINAGE & SITE PLAN - 2 OF 3
C-09	12	GRADING, DRAINAGE & SITE PLAN - 3 OF 3
C-10	13	SOUTH BASIN GRADING SECTIONS
C-11	14	NORTH BASIN GRADING SECTIONS
C-12	15	GRADING TYPICAL SECTIONS & DETAILS - 1 OF 2
C-13	16	GRADING TYPICAL SECTIONS & DETAILS - 2 OF 2
C-14	17	PUMP STATION LAYOUT
C-15	18	POND GRADING LAYOUT
C-16	19	POND SECTIONS & DETAILS
C-17	20	DRAIN PIPE OUTFALL LAYOUT #1 STA 10+00 TO 15+00
C-18	21	DRAIN PIPE OUTFALL LAYOUT #1 STA 15+00 TO 20+00
C-19	22	DRAIN PIPE OUTFALL LAYOUT #1 STA 20+00 TO 22+00 DRAIN PIPE OUTFALL LAYOUT #2
C-20	23	DRAIN PIPE OUTFALL DETAILS - 1 OF 3
C-21	24	DRAIN PIPE OUTFALL DETAILS - 2 OF 3
C-22	25	DRAIN PIPE OUTFALL DETAILS - 3 OF 3
C-23	26	EROSION AND SEDIMENT CONTROL NOTES & DETAILS
C-24	27	EROSION AND SEDIMENT CONTROL PLAN - 1 OF 2
C-25	28	EROSION AND SEDIMENT CONTROL PLAN - 2 OF 2
C-26	29	SPOIL SITE LOCATION AND SITE PLAN

DRAWING NUMBER	SHEET NUMBER	DRAWING TITLE
PUMP STATION - MECHANICAL		
M-01	30	SDPS PLAN AND SECTION
M-02	31	SDPS DETAILS
	32-39	NOT USED
PUMP STATION - ELECTRICAL		
E-01	40	SYMBOLS AND ABBREVIATIONS
E-02	41	ONE LINE DIAGRAM
E-03	42	PEDESTAL ELEVATION DIAGRAM
E-04	43	PUMP ELEMENTARY DIAGRAM
E-05	44	SITE PLANS
E-06	45	ELECTRICAL DETAILS
	46-49	NOT USED
STRUCTURAL		
S-01	50	STRUCTURAL NOTES AND TYPICAL DETAILS
S-02	51	BRIDGE ABUTMENT PLAN AND DETAILS
	52-59	NOT USED
LANDSCAPE		
L1.1	60	LANDSCAPE LAYOUT PLAN
L1.2	61	LANDSCAPE LAYOUT PLAN
L1.3	62	LANDSCAPE LAYOUT PLAN
L1.4	63	LANDSCAPE LAYOUT NOTES AND DETAILS
L2.0	64	IRRIGATION LEGEND AND NOTES
L2.1	65	IRRIGATION PLAN & IRRIGATION SCHEDULE
L2.2	66	IRRIGATION PLAN
L2.3	67	IRRIGATION PLAN
L2.4	68	IRRIGATION DETAILS
L2.5	69	IRRIGATION DETAILS
L3.1	70	PLANTING PLAN LEGEND & NOTES
L3.2	71	PLANTING PLAN
L3.3	72	PLANTING PLAN
L3.4	73	PLANTING SOILS ANALYSIS
	74-99	NOT USED
LANDSCAPE - ELECTRICAL		
LE0.1	100	SITE ELECTRICAL SYMBOLS
LE1.1	101	SITE ELECTRICAL PLAN - NORTH
LE1.2	102	SITE ELECTRICAL PLAN - SOUTH
LE1.3	103	SITE ELECTRICAL PLAN - EAST
LE1.4	104	SITE ELECTRICAL DETAILS & SCHEDULES
LE1.5	105	SITE ELECTRICAL DETAILS & SCHEDULES

CONTACT REPRESENTATIVES

CLIENT/ CONSULTANT	REPRESENTATIVES		PHONE
U.S.A.	————	————	1-800-227-2600
OWNER	SAFCA	PETE GHELFI	(916) 874-7606
OWNER (O&M)	SOUTHGATE REC AND PARK DIST.	SCOTT HOKAMA	(916) 919-3460
DESIGN ENGINEER	WOOD RODGERS, INC.	CARLOS CONTRERAS	(916) 440-8736
GEOTECHNICAL ENGINEER	BLACKBURN INC	ROBERT LOKTEFF	(916) 375-8706
SURVEYOR	WOOD RODGERS, INC.	MIKE LONG	(916) 326-5894
LANDSCAPE ARCHITECT	HLA GROUP, INC.	GREG HAUSER	(916) 447-7400
IRRIGATION	SOUTHGATE REC AND PARK DIST.	SCOTT HOKAMA	(916) 919-3460
GAS	P.G.&E.	GEORGE KARKAZIS	(916) 408-3291
ELECTRICITY	SMUD	YANCEY HOLLOWAY	(530) 634-6576
PUBLIC WORKS (COUNTY)	SACRAMENTO COUNTY	MICHAEL JOHNSON	(916) 874-8646
PUBLIC WORKS (COUNTY)	SACRAMENTO COUNTY	ANTHONY SANTIAGO	(916) 874-7093
HABITAT MANAGER	CBEC INC	CHRIS BOWLES	(916) 231-6052

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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SITE PLAN, VICINITY MAP & SHEET INDEX

VERIFY SCALES
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0 1"

DRAWING NO. G-02
SHEET 2

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_002_G-02_VM_INDEX_FCB.dwg 8/18/2015 4:11 PM Jenny Priest

Attachment C - Project Drawings

SACRAMENTO COUNTY GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE COUNTY OF SACRAMENTO STANDARD CONSTRUCTION SPECIFICATIONS AND IMPROVEMENT STANDARDS. WHERE INCONSISTENCIES EXIST, THE LATEST EDITION SHALL TAKE PRECEDENCE.
2. PUBLIC CONVENIENCE, PUBLIC SAFETY AND TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 6-12 AND 6-13 OF THE STANDARD CONSTRUCTION SPECIFICATIONS AND AS DIRECTED BY THE COUNTY INSPECTOR. SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION.
3. THE CONSULTING ENGINEER SHALL NOTIFY THE COUNTY OF SACRAMENTO CONSTRUCTION INSPECTION OFFICE UPON COMPLETION OF STAKING. (PHONE 875-2700)
4. THE CONTRACTOR SHALL NOTIFY THE COUNTY OF SACRAMENTO CONSTRUCTION INSPECTION OFFICE TWO WORKING DAYS PRIOR TO THE INTENTION TO COMMENCE WORK. THE CONTRACTOR SHALL NOT START ANY GRADING UNTIL THE COUNTY COMPLETES A PRE-CONSTRUCTION MEETING. (PHONE 875-2700)
5. THE COUNTY OF SACRAMENTO IS A MEMBER OF THE UNDERGROUND SERVICE ALERT (U.S.A.) ONE CALL PROGRAM. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY MEMBERS OF U.S.A. TWO WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING THE TOLL-FREE NUMBER: 1-800-227-2600. THOMAS BROTHERS MAP PAGE ___, INDEX __, ___ EDITION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A LICENSED LAND SURVEYOR AT THE CONTRACTORS EXPENSE.
7. WHENEVER THE WORK AREA IS ADJACENT TO A TRAFFIC LANE AND THERE IS A CUT, DITCH OR TRENCH MORE THAN TWO INCHES DEEP, THE CONTRACTOR SHALL MAINTAIN CONTINUOUS BARRICADES SPACED AT APPROXIMATELY 20-FOOT INTERVALS FOR THE FIRST 100 FEET FROM THE BEGINNING OF THE CUT, DITCH, OR TRENCH, AND AT APPROXIMATELY 50-FOOT INTERVALS THEREAFTER. IF THE CUT, DITCH, OR TRENCH IS MORE THAN TEN FEET FROM A TRAFFIC LAND, THE BARRICADE SPACING MAY BE GREATER BUT SHALL NOT EXCEED 200 FEET.
8. A TRAFFIC CONTROL PLAN SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO SACRAMENTO COUNTY CONSTRUCTION MANAGEMENT AND INSPECTION DIVISION FOR REVIEW AT LEAST 20 DAYS PRIOR TO COMMENCEMENT OF ANY WORK. AN ENCROACHMENT PERMIT OR PLAN APPROVAL MUST FIRST BE OBTAINED PRIOR TO ANY WORK COMMENCING WITHIN THE COUNTY RIGHT-OF-WAY.
7. EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH SECTION 11 OF THE COUNTY OF SACRAMENTO IMPROVEMENT STANDARDS.
8. EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT SHALL BE IN SUBSTANTIAL COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THE PROJECT IN ACCORDANCE WITH THE STATE'S GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES. ACCORDING TO STATE LAW, IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER THAT THE SWPPP IS KEPT UP-TO-DATE TO REFLECT CHANGING SITE CONDITIONS AND IS AVAILABLE ON THE PROJECT SITE AT ALL TIMES FOR REVIEW BY LOCAL AND STATE INSPECTORS.

SACRAMENTO COUNTY DRAINAGE NOTES

1. ALL CONSTRUCTION AND MATERIALS FOR DRAINAGE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE COUNTY OF SACRAMENTO IMPROVEMENT STANDARDS AND STANDARD CONSTRUCTION SPECIFICATIONS. WHERE DISCREPANCIES EXIST, APPROPRIATE NOTES SHALL BE ADDED TO THE PLANS, TAKING PRECEDENCE OVER THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. THE MINIMUM COVER REQUIREMENTS DURING CONSTRUCTION FOR TEMPORARY CONSTRUCTION VEHICLE LOADING SHALL BE 4-FEET FOR METAL AND PLASTIC PIPE, AND 3-FEET FOR REINFORCED CONCRETE PIPE.
3. THE CONTRACTOR SHALL PLACE THE PROPER STRENGTH PIPE IF TRENCH CONDITIONS ENCOUNTERED DIFFER FROM THE DESIGN TRENCH.
4. DRAINAGE IN PUBLIC ROW AND DRAINAGE EASEMENTS SHALL CONFORM TO THE FOLLOWING:
   A. DRAINAGE PIPE MATERIAL SHALL CONFORM TO SECTION 36 AND SECTION 50 (EXCLUDING 50-20, WHICH IS NOT ALLOWED) OF THE STANDARD CONSTRUCTION SPECIFICATIONS.
   B. DRAINAGE MANHOLES SHALL CONFORM TO SECTION 39 OF THE STANDARD CONSTRUCTION SPECIFICATIONS.
   C. RESILIENT CONNECTORS, IN CONFORMANCE WITH SECTION 39-2.02 AND STD DWG 9-7A OF THE STANDARD CONSTRUCTION SPECIFICATIONS, ARE REQUIRED BETWEEN PRE-CAST MANHOLE AND PIPE, AND BETWEEN PRE-CAST DROP INLET AND PIPE. WATER STOPS ARE REQUIRED FOR PIPE TO CAST-IN-PLACE MANHOLE/DROP INLET CONNECTIONS.
5. TESTING OF DRAINAGE SYSTEMS
   A. DRAINAGE IN PUBLIC ROW AND DRAINAGE EASEMENTS SHALL CONFORM TO THE FOLLOWING:
      i. DRAINAGE PIPES, INCLUDING DRAIN INLET LATERALS, SHALL BE TESTED IN CONFORMANCE WITH SECTION 38-10 OF THE STANDARD CONSTRUCTION SPECIFICATIONS.
      ii. STORM DRAIN MANHOLES SHALL BE TESTED IN CONFORMANCE WITH SECTION 39-4.02 OF THE STANDARD CONSTRUCTION SPECIFICATIONS.
6. EROSION CONTROL STRUCTURES (STD DWG 9-27) SHALL BE CLASS B CONCRETE, NOT GROUTED COBBLE.
7. ALL DRAINAGE INLETS IN PUBLIC ROW AND DRAINAGE EASEMENTS SHALL HAVE A PERMANENT STORM DRAIN MESSAGE "NO DUMPING - FLOWS TO CREEK" OR OTHER APPROVED MESSAGE CONSISTENT WITH SECTION 9-14G AND STD. DWGS 11-10A AND 11-10B OF THE SACRAMENTO COUNTY IMPROVEMENT STANDARDS. THIS ALSO APPLIES TO ALL PRIVATE, ON-SITE INLETS, PROPOSED AND EXISTING.
8. OWNER, AT OWNER'S SOLE COST AND EXPENSE, SHALL MAINTAIN THE PRIVATE DRAINAGE PIPELINE IN GOOD WORKING ORDER AND REPAIR COMMENSURATE WITH THE COUNTY'S STANDARDS FOR SIMILAR DRAINAGE PIPELINES SUCH THAT WATER FLOWS FREELY THROUGH THE SYSTEM AS AND WHEN WEATHER EVENTS OR OTHER SOURCES OF SURFACE WATER RUNOFF OCCUR. OWNER SHALL AT ALL TIMES TAKE ALL NECESSARY ACTION TO KEEP THE DRAINAGE PIPELINE FREE FROM DEBRIS, TRASH, FOLIAGE, AND ANY OTHER OBSTRUCTION WHICH MAY DISRUPT, ALTER, IMPEDE, OR CHANGE THE FLOW OF WATER. OWNER SHALL ALSO PERFORM ANY RELOCATION OF THE DRAINAGE PIPELINE PURSUANT TO THE STANDARD SPECIFICATIONS OF THE COUNTY SHOULD RELOCATION BE NECESSARY DUE TO PIPE FAILURE OR BLOCKAGE, AS DETERMINED NECESSARY BY THE COUNTY OR CITY.
9. DRAIN PIPE MATERIAL SHALL BE REINFORCED CONCRETE PIPE C-76 CLASS III, PVC D3034 SDR 35, OR AS SPECIFIED ON THE PLANS. IN ALL CASES, JOINTS FOR CONCRETE PIPE SHALL BE HAVE RESILIENT CONNECTORS.

WOOD RODGERS GENERAL NOTES

1. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND FURNISH, INSTALL, AND MAINTAIN TEMPORARY SIGNS, BRIDGES, BARRICADES, FLAGMEN, AND OTHER FACILITIES TO ADEQUATELY SAFEGUARD THE GENERAL PUBLIC AND WORK, AND TO PROVIDE FOR THE PROPER ROUTING OF VEHICULAR AND PEDESTRIAN TRAFFIC. CONSTRUCTION OPERATIONS SHALL COMPLY WITH THE WORK AREA AND TRAFFIC CONTROL HANDBOOK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS APPLICABLE TO ALL WORK PERFORMED UNDER THE CONTRACT.
4. THE CONTRACTOR SHALL COORDINATE WORK WITH THE APPROPRIATE UTILITY SERVICE PROVIDER WHEN WORKING NEAR POWER LINES, POWER POLES, IRRIGATION MAINS, OR ANY OTHER UTILITY STRUCTURE, ETC.
5. THE CONTRACTOR IS HEREBY NOTIFIED THAT, PRIOR TO COMMENCING CONSTRUCTION, HE IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES INVOLVED WITH THIS PROJECT. IN ADDITION, THE CONTRACTOR IS TO REQUEST TO HAVE ALL UNDERGROUND UTILITIES WHICH MAY POSSIBLY CONFLICT WIT THE ABOVEGROUND OR BELOWGROUND IMPROVEMENTS IDENTIFIED IN THE FIELD. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES AND FOR THE PROTECTION OF AND REPAIR OF DAMAGE TO THEM. THE CONTRACTOR OR ANY SUBCONTRACTOR IS REQUIRED TO NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION BY CALLING (800) 227-2600.
6. THE OPERATORS OF FACILITIES OF FLORIN CREEK PARK WILL REQUIRE A PLAN FOR OPERATION AND MAINTENANCE ACCESS. OPERATORS WILL BE INVITED TO WEEKLY CONSTRUCTION MEETINGS AND WILL REQUIRE NOTIFICATION FOR ACCESS TO THE PARK MAINTENANCE STAFF DURING CONSTRUCTION. THE WORK SHALL BE COORDINATED THROUGH THE AGENCY'S CONSTRUCTION MANAGER.
7. THE DESIGN CONSULTANT PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
8. WOOD RODGERS, INC. HAS EXERCISED A REASONABLE AND ACCEPTABLE STANDARD OF CARE IN THE PREPARATION OF THESE PLANS. HOWEVER, THE DESIGN PROCESS INCLUDES ACTIVITIES OCCURRING AFTER PLAN SIGNATURE. THESE ACTIVITIES INCLUDE CALCULATION, PLAN CHECK AND VERIFICATIONS DURING CONSTRUCTION. SHOULD PERSONS OTHER THAN WOOD RODGERS INC. PERFORM THE CONSTRUCTION STAKING OPERATIONS, THEY SHALL INDEMNIFY THE WOOD RODGERS, INC. FROM ANY DAMAGES RESULTING FROM FAILURE TO PERFORM THESE TASKS OR ANY EXPENSE OR DAMAGE RESULTING FROM OMISSION OR ERROR CONTAINED IN THE PLANS WHICH WOULD REASONABLY HAVE BEEN DISCOVERED AND CORRECTED BY WOOD RODGERS, INC.
9. PRIOR TO ANY CORRECTIVE ACTION BY THE CONTRACTOR WHICH IS NECESSARY DUE TO ALLEGED STAKING ERROR, THE CONTRACTOR SHALL NOTIFY WOOD RODGERS, INC. FOR RESTAKING AND VERIFICATION OF PREVIOUS STAKING. SHOULD ANY CORRECTIVE WORK BE DONE PRIOR TO NOTIFICATION, OR IF THE ORIGINAL STAKING IS DONE BY OTHERS, WOOD RODGERS, INC. ASSUMES NO LIABILITIES FOR THE COSTS INCURRED FOR THIS WORK. WHERE IT HAS BEEN DETERMINED THAT ANY CORRECTIVE ACTION WILL REQUIRE FINANCIAL PARTICIPATION BY WOOD RODGERS, INC., THAT AMOUNT SHALL BE AGREED TO BY WOOD RODGERS, INC. IN WRITING PRIOR TO TAKING CORRECTIVE ACTION. FAILURE TO OBTAIN WRITTEN ACCEPTANCE BY WOOD RODGERS INC. WILL NEGATE ALL REQUIREMENTS OF OUR FINANCIAL ASSISTANCE.
10. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF THE NEED FOR STAKING. ANY STAKING REQUESTED BY THE CONTRACTOR OR THEIR SUBCONTRACTORS THAT IS ABOVE AND BEYOND STANDARD STAKING NEEDS WILL BE SUBJECT TO AN EXTRA WORK BACKCHARGE TO THE CONTRACTOR.
11. ALL APPLICABLE ENCROACHMENT PERMIT OR UTILITY FEES (TAPS, TIE-IN CONNECTIONS, METERS) FROM LOCAL AGENCIES MUST BE PAID AND ALL REQUIRED PERMITS MUST BE OBTAINED BY THE CONTRACTOR BEFORE COMMENCEMENT OF CONSTRUCTION.
12. THE TYPES, LOCATIONS, SIZES, AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WOOD RODGERS, INC. CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS.
15. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SIZES, AND LOCATIONS OF ALL EXISTING FACILITIES AND FEATURES BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR TO EXPOSE END OF EXISTING WATER MAIN, AND DRAIN LINES FOR SURVEYORS TO VERIFY LOCATION AND ELEVATION PRIOR TO BEGINNING WORK. ALL COSTS OF SUCH EXCAVATION AND BACKFILL SHALL BE INCLUDED IN THE PRICE PAID FOR VARIOUS ITEMS OF WORK.
16. THE CONTRACTOR SHALL LOCATE, PROTECT, SHORE, BRACE, SUPPORT, AND MAINTAIN ALL EXISTING FACILITIES INCLUDING GAS, WATER, IRRIGATION, SEWER, POWER, STREET LIGHTS, TELEPHONE, AND OTHER UNDERGROUND PIPES, CONDUITS, DRAINS, AND UNDERGROUND CONSTRUCTION WHICH MAY BE UNCOVERED OR OTHERWISE AFFECTED BY THE WORK. HE SHALL BE RESPONSIBLE FOR THE LOCATION AND PRESERVATION OF ALL SUCH FACILITIES IN THE AREA OF CONSTRUCTION, AND SHALL NOTIFY UTILITIES TWENTY-FOUR HOURS IN ADVANCE OF ANY CONSTRUCTION.
17. FOR ALL TRENCH EXCAVATIONS 5 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE DIVISION OF INDUSTRIAL SAFETY PRIOR TO BEGINNING ANY EXCAVATION. A COPY OF THIS PERMIT SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS FOR ALL WORK THROUGHOUT THE COURSE OF CONSTRUCTION. SUCH DRAWINGS SHALL RECORD THE LOCATION AND GRADE OF ALL IMPROVEMENTS AND FILLS THAT ARE CONSTRUCTED AND COPIES SHALL BE DELIVERED TO THE AGENCY PRIOR TO ACCEPTANCE OF THE WORK AS INDICATED IN THE SPECIFICATIONS.
19. DRAWINGS SHOWN WITH AERIAL PHOTOGRAPHS ARE PROVIDED FOR REFERENCE ONLY. ALL FACILITIES MAY NOT BE SHOWN ON PHOTOGRAPHS. THE CONTRACTOR SHALL SATISFY ITSELF AS TO THE LOCATION OF EXISTING FACILITIES THAT MAY BE AFFECTED BY CONSTRUCTION.
20. SEE SPECIFICATION SECTION 01 35 26, GENERAL PROJECT SIGNAGE AND SAFETY, REGARDING PROJECT-REPLATED SIGNS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
21. ADMINISTRATION OF ALL WORK BY THE CONTRACTOR SHALL COMPLY WITH THE GENERAL SPECIFICATIONS.

SURVEY CONTROL POINTS

1. THE FOLLOWING PRIMARY CONTROL POINTS HAVE BEEN ESTABLISHED BY WOOD RODGERS, INC. AS PART OF THE DEPARTMENT OF WATER RESOURCES (DWR) CENTRAL VALLEY FLOODPLAIN EVALUATION AND DELINEATION (CVFED) PROGRAM"S GLOBAL POSITIONING SYSTEM (GPS) CONTROL NETWORK AND ARE PROVIDED FOR THE CONTRACTOR'S USE:

POINT	NORTHING	EASTING	ELEV	DESCRIPTION
102	1939658.936	6719885.798	18.60	SET PK W/WASHER
103	1938447.093	6720911.638	20.33	SET PK W/WASHER
104	1939019.120	6723424.655	27.19	SET M/NAIL W/WASHER
105	1938593.258	6720796.066	19.59	SET PK W/WASHER

2. CONTRACTOR SHALL PRESERVE AND PROTECT ALL CONTROL POINTS. WHERE CONTROL POINTS CONFLICT WITH OR WILL BE REMOVED BY CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL REMOVE AND REPLACE THE CONTROL POINTS AT CONTRACTOR'S EXPENSE.
3. SURVEY DATA (AERIAL PHOTO, TOPOGRAPHIC MAPPING, BOUNDARY SURVEY, AND SURVEY CONTROL) SHOWN HEREON IS BASED ON INFORMATION PROVIDED BY: WOOD RODGERS, INC. THE AERIAL PHOTO IS DATED MARCH 16-17, 2008. THE SURVEY CONTROL WAS ESTABLISHED SEPTEMBER 2008.
4. TOPOGRAPHIC MAPPING IS BASED ON LIGHT DETECTION AND RANGING (LIDAR) DATA DATED MARCH 16-27, 2008, UNLESS OTHERWISE NOTED.
5. BASELINE COORDINATES, DISTANCE, AND STATIONING SHOWN ON THE PLANS ARE "GRID" BASED UPON THE GLOBAL POSITIONING SYSTEM (GPS) CONTROL NETWORK, ADJUSTED TO NATIONAL GEODETIC SURVEY (NGS) PUBLISHED US STATE PLANE 1983, CALIFORNIA ZONE 2 COORDINATES AND ORTHOMETRIC HEIGHT, CONVERTED TO CALIFORNIA COORDINATE SYSTEM, ZONE 2. MULTIPLY GRID DISTANCES BY 1.000027435 TO OBTAIN GROUND DISTANCES.

HORIZONTAL DATUM

THE HORIZONTAL DATUM OF THIS SURVEY IS THE NORTH AMERICAN DATUM OF 1983 (NAD83) BEING THE CALIFORNIA COORDINATE SYSTEM OF 1983 ZONE 2 (GRID SURFACE).

VERTICAL DATUM

THE VERTICAL DATUM OF THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BEING BASED ON NATIONAL GEODETIC SURVEY (NGS) POINTS LISTED AND DERIVED BY GLOBAL POSITIONING SYSTEM (GPS) STATIC METHOD.

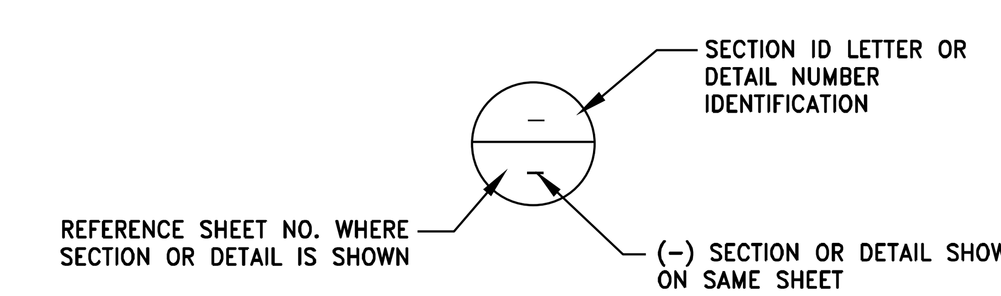
HPGN D CA (AC9246) NAVD 88 = 43.60'
M 953 (JS1193) NAVD 88 = 63.65'

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
APN	ASSESOR'S PARCEL NO.
APPROX.	APPROXIMATE
BC	BEGIN CURVE
BEG	BEGIN
BOW	BACK OF WALK
BW	BOTTOM OF WALL
CONST	CONSTRUCTION
℄	CENTERLINE
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CONC	CONCRETE
DI	DROP INLET
DIA, Ø	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
DWY	DRIVEWAY
E	EAST
EA	EACH
EC	END CURVE
EP	EDGE OF PAVEMENT
EL, ELEV	ELEVATION
ESMT	EASEMENT
EXIST, EX	EXISTING
FES	FLARED END SECTION
FH	FIRE HYDRANT
FL, FL	FLOW LINE
FNC	FENCE
FOC	FACE OF CURB
FT	FOOT OR FEET
GB	GRADE BREAK
GR	GRATE
H	HEIGHT
HORIZ	HORIZONTAL
HP	HIGH POINT
ID	INSIDE DIAMETER / IDENTIFICATION
INV	INVERT
IR/IRR	IRRIGATION
JP	JOINT POLE
L	LENGTH
LF	LINEAR FEET
LIP	LIP OF GUTTER
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MH(D)	STORM DRAIN MANHOLE
MH(S)	SANITARY SEWER MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
N	NORTH
N/A	NOT APPLICABLE
NO	NUMBER
NTS	NOT TO SCALE
OH	OVERHEAD
P&C	POST & CABLE
PL, PL	PROPERTY LINE
PP	POWER POLE
PVMT	PAVEMENT
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RT	RIGHT
ROW	RIGHT-OF-WAY
S	SOUTH
SAFCA	SACRAMENTO AREA FLOOD CONTROL AGENCY
SD	STORM DRAIN
SS	SANITARY SEWER
SW	SIDEWALK
SF	SQUARE FOOT
SHT	SHEET
SPEC	SPECIFICATIONS
STA	STATION
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
TEMP	TEMPORARY
TBC	TOP BACK OF CURB
TYP	TYPICAL
TOW	TOP OF WALL
TRANS	TRANSITION
VERT	VERTICAL
VOL	VOLUME
W/	WITH
WSE	WATER SURFACE ELEVATION
W	WEST
WM	WATER MAIN

LEGEND

ITEM	EXISTING	PROPOSED
CENTER LINE		
PROPERTY LINE		N/A
RIGHT OF WAY		N/A
EASEMENT		N/A
FENCE	X X	X X
POST AND CABLE		N/A
OVERHEAD UTILITY LINE	OH OH	N/A
UTILITY POLE		N/A
FIRE HYDRANT		N/A
STREETLIGHT		N/A
UNDERGROUND ELECTRICAL	UE UE	N/A
UNDERGROUND GAS	UG UG	N/A
UNDERGROUND TELEPHONE	UT UT	N/A
EARTH SLOPE	TOP / TOE	TOP / TOE
GUTTER FLOW LINE	N/A	GFL 99.00
GROUND CONTOUR	50	N/A
SPOT ELEVATION	x 99.7	x 99.7
WATER SURFACE		N/A
TREES FOR REMOVAL		
EXISTING STRUCTURE FOR DEMOLITION		N/A
OVERLAND RELEASE PATH		



SECTION AND DETAIL CROSS-REFERENCING CONVENTIONS

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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SUBMITTED
APPROVED

SAFCA

FLORIN CREEK MULTI-USE BASIN
GENERAL NOTES, SURVEY CONTROL NOTES, ABBREVIATIONS, SYMBOLS & LEGEND

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. G-03
SHEET 3

Attachment C - Project Drawings

40' 20' 0 40'

SCALE: 1" = 40'

DEMOLITION NOTES:

1. REMOVE EXISTING CONCRETE SIDEWALK.
2. CONTRACTOR SHALL LOCATE, REMOVE AND CAP ALL EXISTING IRRIGATION SYSTEM, WATER PIPES AND APPURTENANCES AS SHOWN. SEE LANDSCAPE PLANS FOR ADDITIONAL IRRIGATION SYSTEM REMOVAL.
3. REMOVE AND CAP EXISTING DRAIN PIPES AND GRATES AS SHOWN.
4. EXISTING LIGHT POLE TO BE REMOVED BY OTHERS.
5. REMOVE EXISTING TREE AND VEGETATION AS SHOWN.
6. REMOVE, SALVAGE AND REPLACE EXISTING BRIDGE.
7. REMOVE AND SALVAGE EXISTING GOAL POSTS.
8. REMOVE AND SALVAGE EXISTING PICNIC TABLES. REMOVE AND DISPOSE CONCRETE FOUNDATOINS WITHIN LIMITS OF WORK AREA.
9. REMOVE EXISTING GARBAGE BIN/ POST AS SHOWN.
10. REMOVE EXISTING CHAIN LINK FENCE AS SHOWN.
11. CONTRACTOR SHALL LOCATE AND PROTECT IN PLACE UNDERGROUND ELECTRICAL UTILITIES.
12. EXISTING GUY WIRE, SEE GENERAL NOTE 1, DWG G-04.
13. REMOVE AND DISPOSE EXISTING POND FACILITIES.
14. REMOVE AND REPLACE EXISTING PIPES & SIDEWALK AS NEEDED FOR INSTALLATION OF NEW 42" DRAIN PIPE.
15. EXISTING 10" WATER LINE TO BE REMOVED BY OTHERS.
16. EXISTING FIRE HYDRANT TO REMAIN.
17. REMOVE AND SALVAGE EXISTING BOULDERS NOT SET IN CONCRETE.
18. REMOVE AND SALVAGE MONUMENT PLAQUES.
19. TEMPORARY PLUG EXISTING 12" OPENING AND REMOVE AND DISPOSE OF 12" DRAIN PIPE AS PART OF CLEAR AND GRUBBING.
20. PLUG EXISTING 12" PIPE AND REMOVE AND DISPOSE OF 12" PIPE (SOUTH) AS PART OF CLEAR AND GRUBBING.

SHEET NOTES:

1. EXISTING UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL LOCATE AND VERIFY ALL BURIED UTILITIES. SEE GENERAL NOTE 1, DWG G-04.
2. DEMOLITION SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02 41 00.

LEGEND

— — BASIN EXCAVATION DEMOLITION LIMITS

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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FLORIN CREEK MULTI-USE BASIN
DEMOLITION PLAN
1 OF 2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-01
SHEET 4

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_004_C-01_DEMO-01_FCB.dwg 8/18/2015 4:11 PM Jenny Priest

Attachment C - Project Drawings

40' 20' 0 40'

SCALE: 1" = 40'

DEMOLITION NOTES:

1. REMOVE AND DISPOSE EXISTING FENCE.
2. CONTRACTOR SHALL LOCATE, REMOVE AND CAP ALL EXISTING IRRIGATION SYSTEM, WATER PIPES AND APPURTENANCES AS SHOWN. SEE LANDSCAPE PLANS FOR ADDITIONAL IRRIGATION SYSTEM REMOVAL.
3. REMOVE AND CAP EXISTING DRAIN PIPES AND GRATES AS SHOWN.
4. REMOVE EXISTING TREE AND VEGETATION AS SHOWN.
5. REMOVE AND REPLACE STREET SIGNS.
6. REMOVE AND REPLACE EXISTING PIPES AS NEEDED FOR INSTALLATION OF NEW 42" DRAIN PIPE.
7. SEE ORANGE AVENUE IMPROVEMENT PLANS DWG C-03 FOR AC REMOVAL.
8. PLUG EXISTING 8" PIPE AND REMOVE AND DISPOSE OF 8" PIPE (EAST) AS PART OF CLEAR AND GRUBBING.

SHEET NOTES:

1. EXISTING UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL LOCATE AND VERIFY ALL BURIED UTILITIES. SEE GENERAL NOTE 1, DWG G-04.
2. DEMOLITION SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02 41 00.

LEGEND

BASIN EXCAVATION DEMOLITION LIMITS

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
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CHECKED BY: J. KORS
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DATE: 08/17/2015

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FLORIN CREEK MULTI-USE BASIN
DEMOLITION PLAN
SHEET 2 OF 2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-02
SHEET 5

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_005_C-02_DEMO-02_FCB.dwg 8/18/2015 4:11 PM Jenny Priest

Attachment C - Project Drawings

CONSTRUCTION NOTES:

1. CONSTRUCT TYPE 2 CURB AND GUTTER WITH 4" PCC SIDEWALK.
2. CONSTRUCT 5 LF TRANSITION FROM TYPE 1A TO TYPE 2 CURB AND GUTTER. SEE DETAIL 3 DWG C-05.
3. SAWCUT AND REMOVE A MINIMUM OF 1' OF EXISTING PAVEMENT IN ACCORDANCE WITH SACRAMENTO COUNTY PAVEMENT WIDENING DWG 4-32.
4. RELOCATE EXISTING SPEED BUMP WARNING SIGNS TO BEHIND BACK OF WALK.
5. RELOCATE EXISTING STREET NAME SIGN TO BEHIND BACK OF WALK.
6. CONSTRUCT 5 LF TRANSITION FROM GUTTER FLOWLINE TO SWALE FLOWLINE, GRADE TO DRAIN.
7. REMOVE AND DISPOSE EXISTING FENCE AS PART OF CLEAR & GRUBBING. SEE DWG C-02.
8. CONSTRUCT TYPE B DROP INLET AND CONNECT TO EX. MH(D) WITH 45 LF 12" DRAIN PIPE,
@ S= 0.017
FL @ DI= 19.88
FL @ EX. MH= 19.10
GFL= 22.88
9. CONSTRUCT POST AND CABLE FENCING IN ACCORDANCE WITH SACRAMENTO COUNTY DWG L-20.

20' 10' 0 20'
SCALE: 1" = 20'

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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FLORIN CREEK MULTI-USE BASIN
ORANGE AVENUE
STA 10+00 TO 15+53.43

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
HORIZ: 1"=20' VERT: 1"=4'
DRAWING NO. C-03
SHEET 6

Attachment C - Project Drawings

CONSTRUCTION NOTES:

1. REMOVE AND DISPOSE OF EXISTING FENCE AS PART OF CLEAR & GRUBBING, SEE DWG. C-01.
2. PRIOR TO CHANNEL IMPROVEMENTS THE CONTRACTOR SHALL POTHOLE EXISTING AT&T TELEPHONE LINE BY HAND DIGGING TO DETERMINE THE EXACT LOCATION AND DEPTH OF UTILITY.
3. EXISTING CAL-AM WATER PIPE, REMOVED BY OTHERS.
4. CONSTRUCT CONCRETE EROSION CONTROL PIPE DISCHARGE IN ACCORDANCE WITH SACRAMENTO COUNTY STANDARD DRAWING 9-26.
5. DRAIN PIPE OUTFALL LAYOUT #1, SEE DWG. C-17.
6. DRAIN PIPE OUTFALL LAYOUT #2, SEE DWG. C-19.
7. CONSTRUCT CONCRETE EROSION CONTROL BLANKETS/MATS IN ACCORDANCE WITH SACRAMENTO COUNTY STANDARD DRAWING 11-10 OR APPROVED EQUAL.

SHEET NOTE:

1. EXISTING TREES ARE NOT SHOWN ON THIS PLAN SHEET FOR CLARITY. SEE DEMOLITION PLAN DWGS. C-01 & C-02 FOR TREES TO BE REMOVED.

SCALE: 1" = 20'

100% DESIGN

PRELIMINARY

DESIGNED BY:	C. CONTRERAS
DRAWN BY:	J. PRIEST
CHECKED BY:	J. KORS
IN CHARGE:	J. KORS
DATE:	08/17/2015

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

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SAFCA

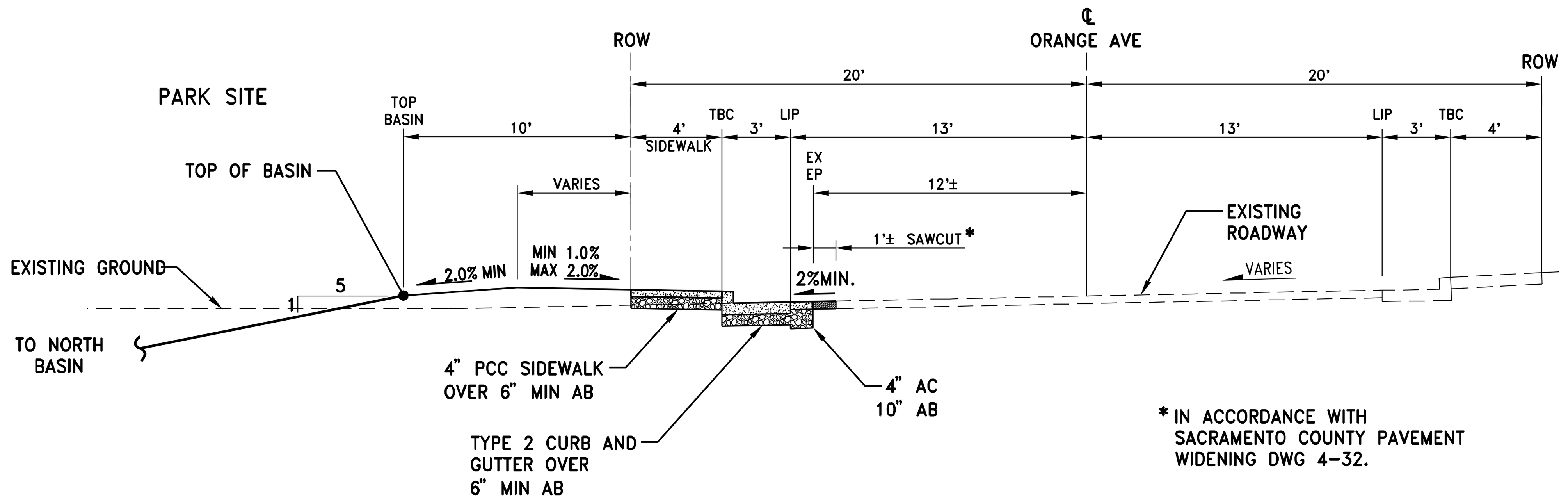
FLORIN CREEK MULTI-USE BASIN
FLORIN CREEK CHANNEL - NORTH BANK
STA 54+00 TO 60+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS

HORIZ: 1"=20' | VERT: 1"=4'

DRAWING NO. C-04 | SHEET 7

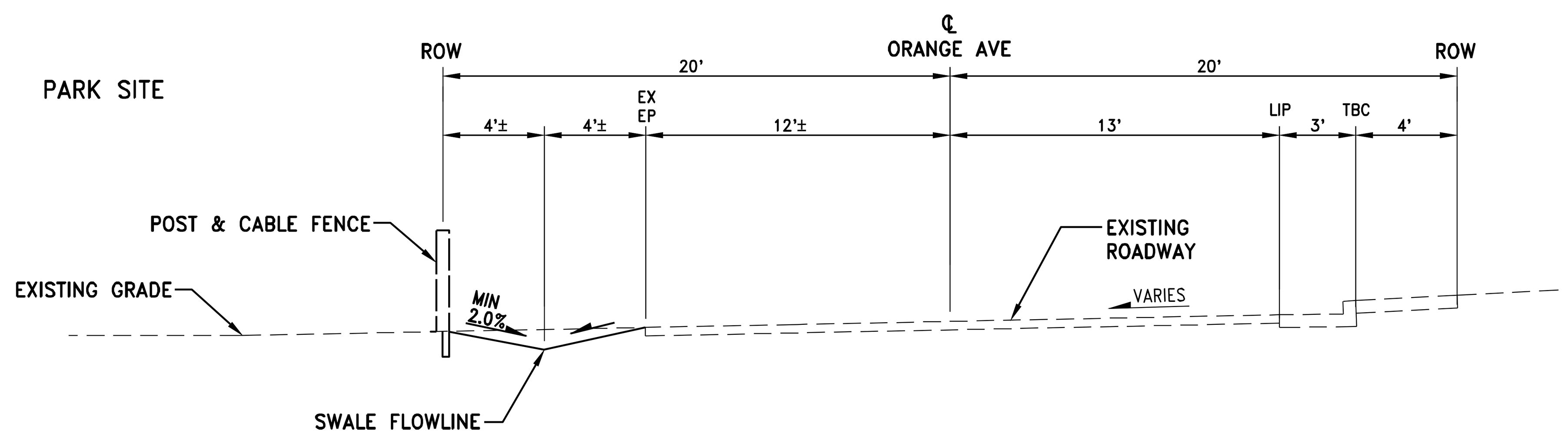
Attachment C - Project Drawings



TYPICAL SECTION - ORANGE AVENUE 1/–

SCALE: N.T.S.

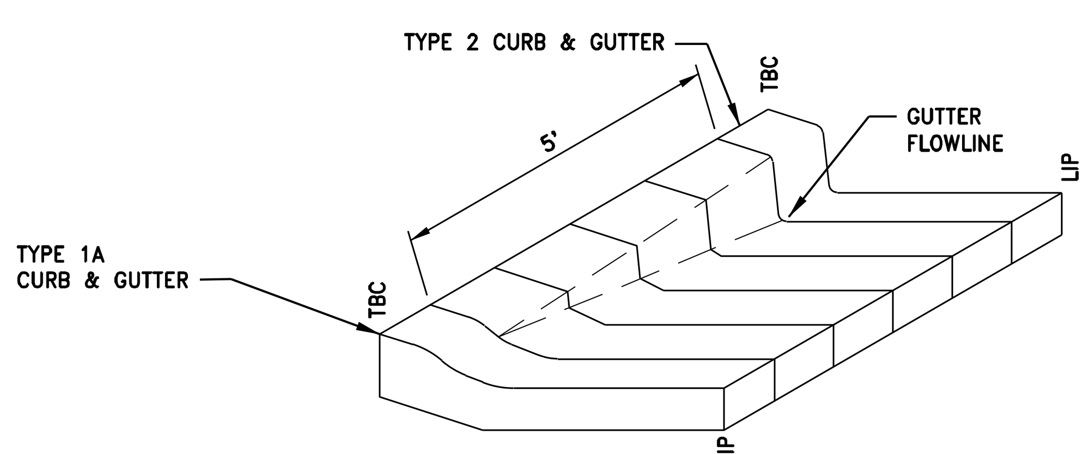
STA. 10+00 TO 13+41.79



TYPICAL SECTION - ORANGE AVENUE 2/–

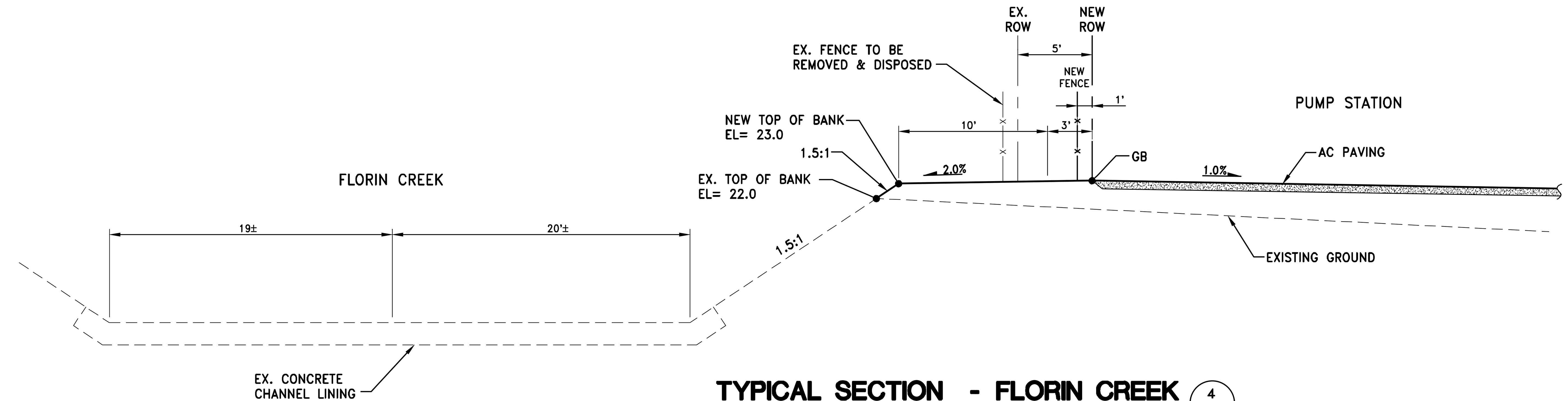
SCALE: N.T.S.

STA. 13+41.79 TO 15+53.43



CURB & GUTTER TRANSITION DETAIL 3/–

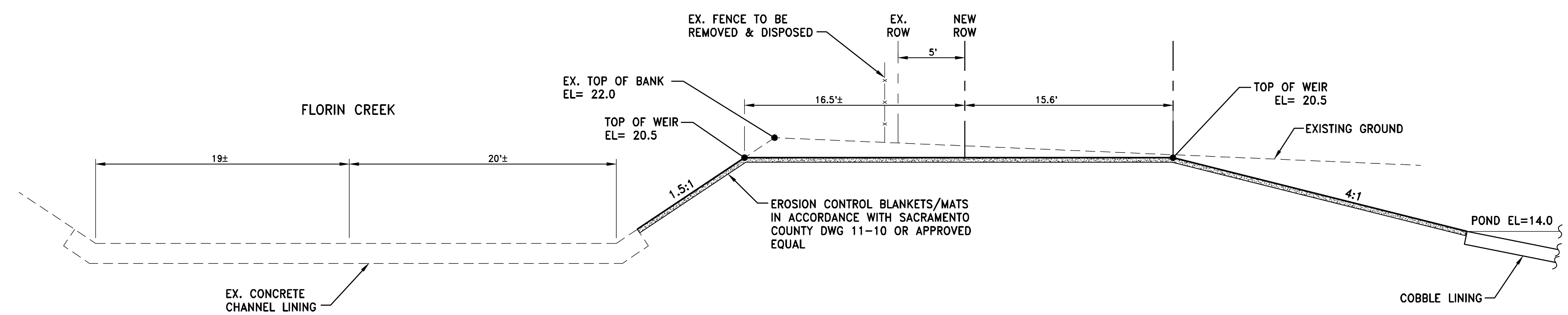
SCALE: N.T.S.



TYPICAL SECTION - FLORIN CREEK 4/–

SCALE: N.T.S.

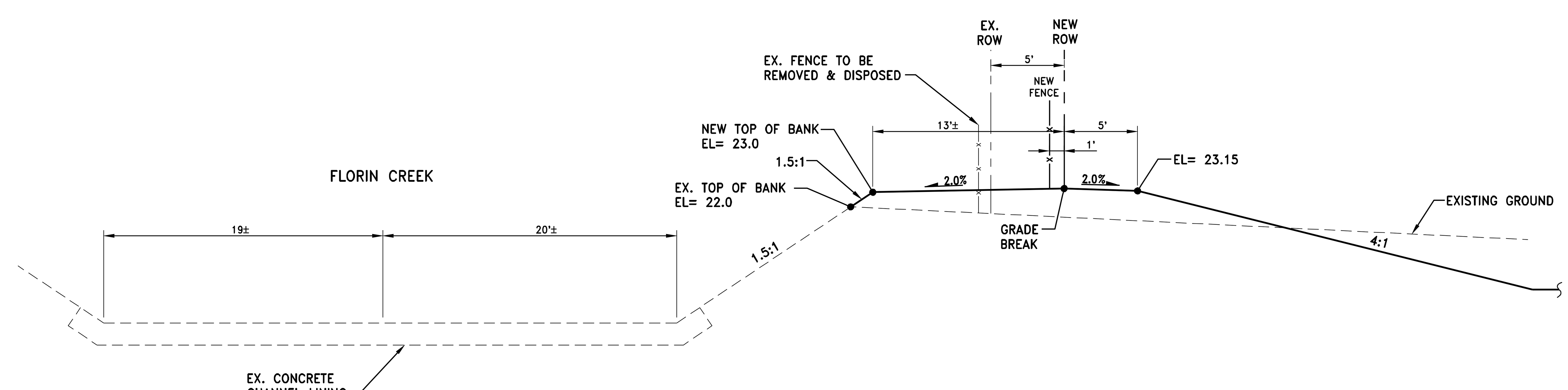
STA. 54+15.37 TO 55+63.91



TYPICAL SECTION - FLORIN CREEK 5/–

SCALE: N.T.S.

STA. 55+63.91 TO 57+43.91



TYPICAL SECTION - FLORIN CREEK 6/–

SCALE: N.T.S.

STA. 57+43.91 to 59+63±

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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SAFCA

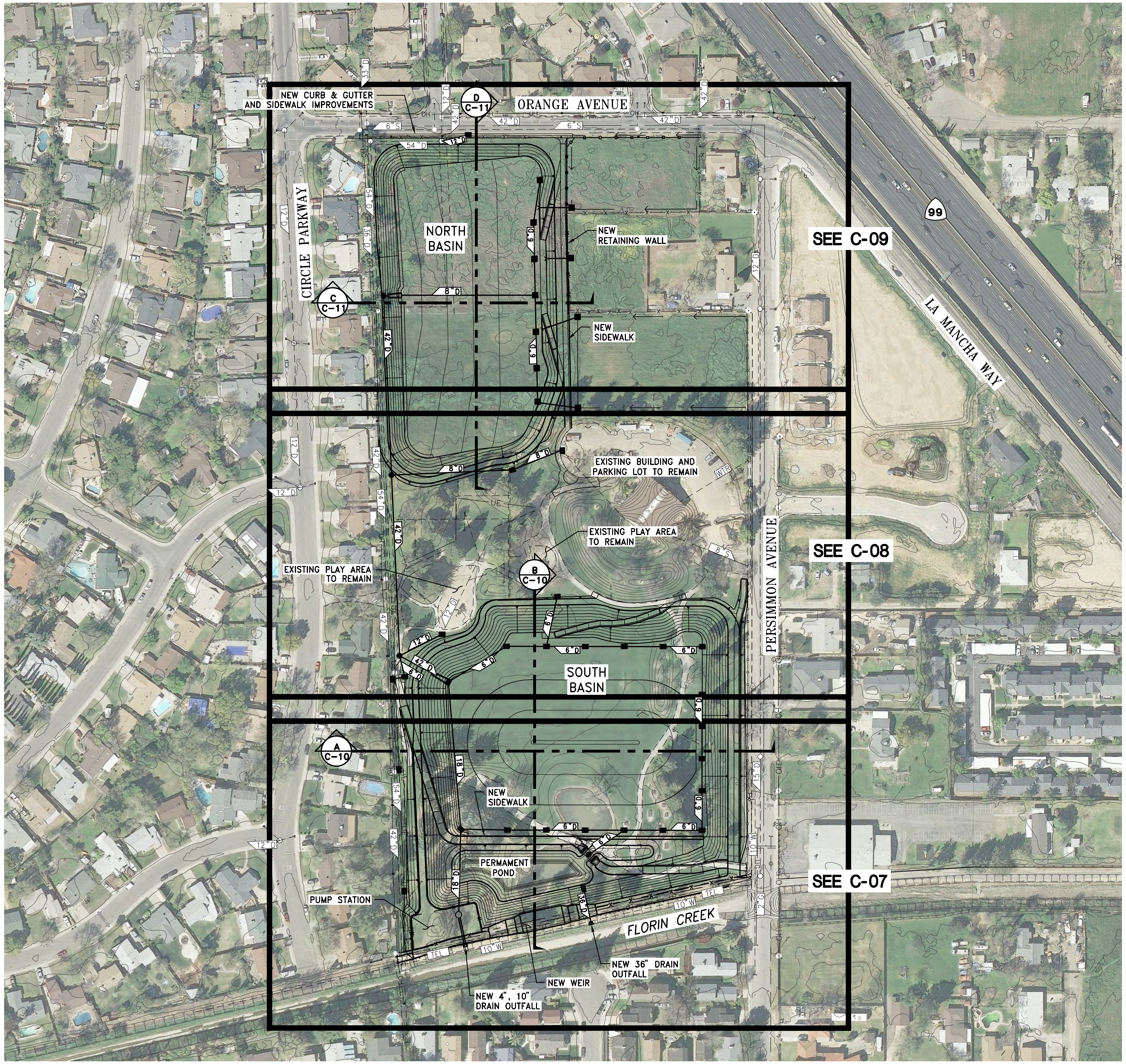
FLORIN CREEK MULTI-USE BASIN
ORANGE AVENUE & FLORIN CREEK SECTIONS AND DETAILS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-05 | SHEET 8

Attachment C - Project Drawings

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_008_C-05_PLAN-01_FCB.dwg 8/18/2015 4:12 PM Jenny Priest



OVERALL GRADING, DRAINAGE & SITE PLAN

SCALE: 1" = 100'

100' 50' 0 100'

SCALE: 1" = 100'

EARTHWORK SUMMARY			
	CUT (CUBIC YARDS)	FILL (CUBIC YARDS)	NET (CUBIC YARDS)
NORTH BASIN	23,050 CY	350 CY	22,700 CY
SOUTH BASIN	41,980 CY	3,470 CY	38,510 CY
TOTAL	65,030 CY	3,820 CY	61,210 CY

GRADING NOTES:

1. CONTRACTOR TO VERIFY EARTHWORK QUANTITIES.
2. NO ADJUSTMENTS HAVE BEEN MADE TO THE QUANTITIES IN THE EARTHWORK SUMMARY FOR SHRINKAGE OR SWELL. CONTRACTOR IS RESPONSIBLE FOR MAKING OWN ADJUSTMENTS.
3. FOR PARCEL BOUNDARIES AND UTILITY EASEMENTS, SEE DEMOLITION DWGS C-01 & C-02.
4. EXISTING UTILITIES TO BE DEMOLISHED IN ACCORDANCE WITH DWGS C-01 AND C-02 ARE NOT SHOWN FOR CLARITY.

GENERAL NOTES:

1. SEE PLAN AND PROFILE DRAWINGS, C-03, C-04 FOR ORANGE AVENUE AND FLORIN CREEK CHANNEL GRADING AND DRAINAGE INFORMATION.
2. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONTINUING WORK.
3. UNLESS OTHERWISE NOTED, ALL DRAIN PIPES 6" TO 18" DIAMETER SHALL BE PVC D3034 SDR 35.
4. SEE DRAWINGS G-03 FOR ADDITIONAL NOTES.

100% DESIGN

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_009_C-06_GRD_PLAN-01_FCB.dwg 8/18/2015 4:12 PM Jenny Priest

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
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PRELIMINARY

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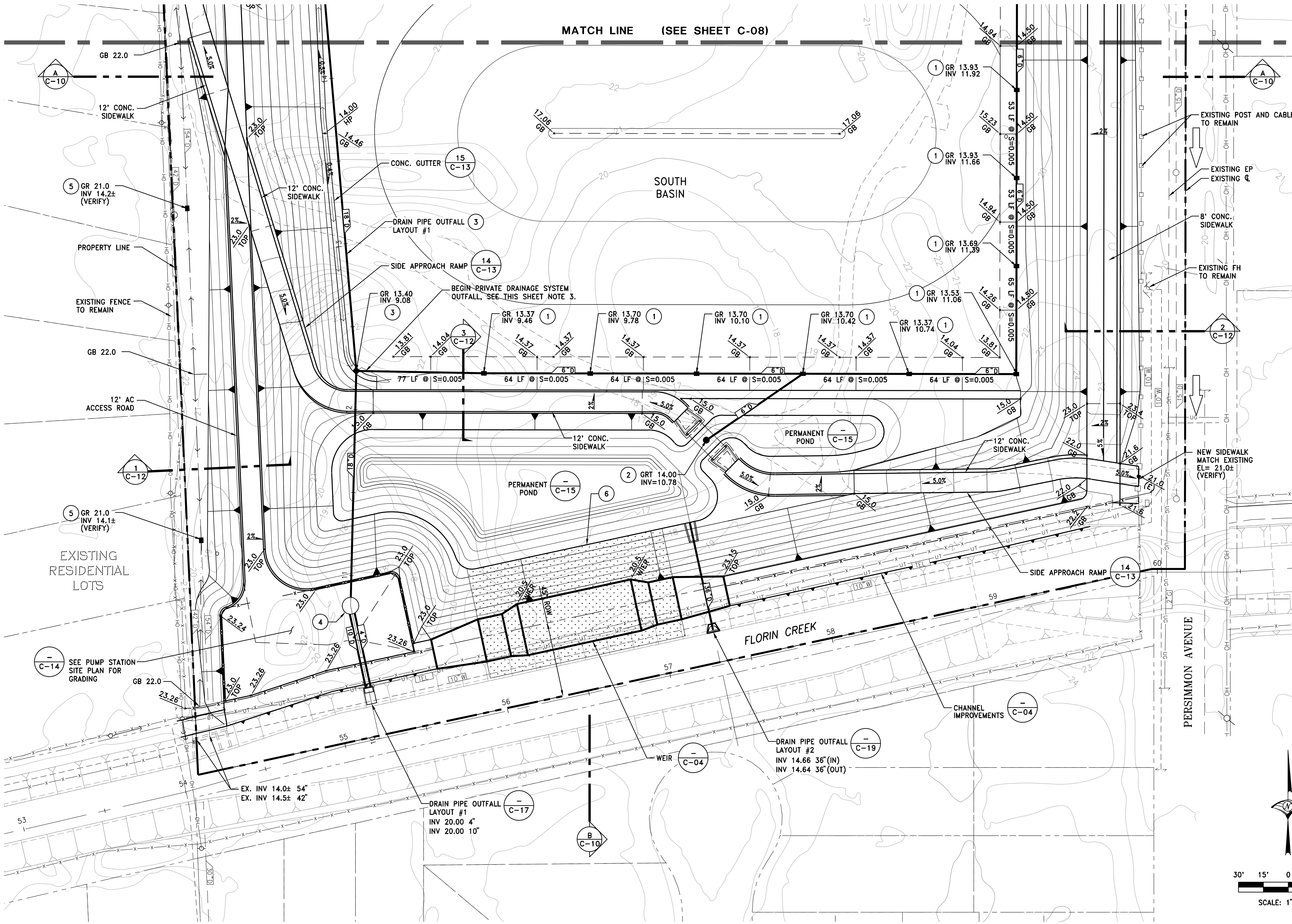
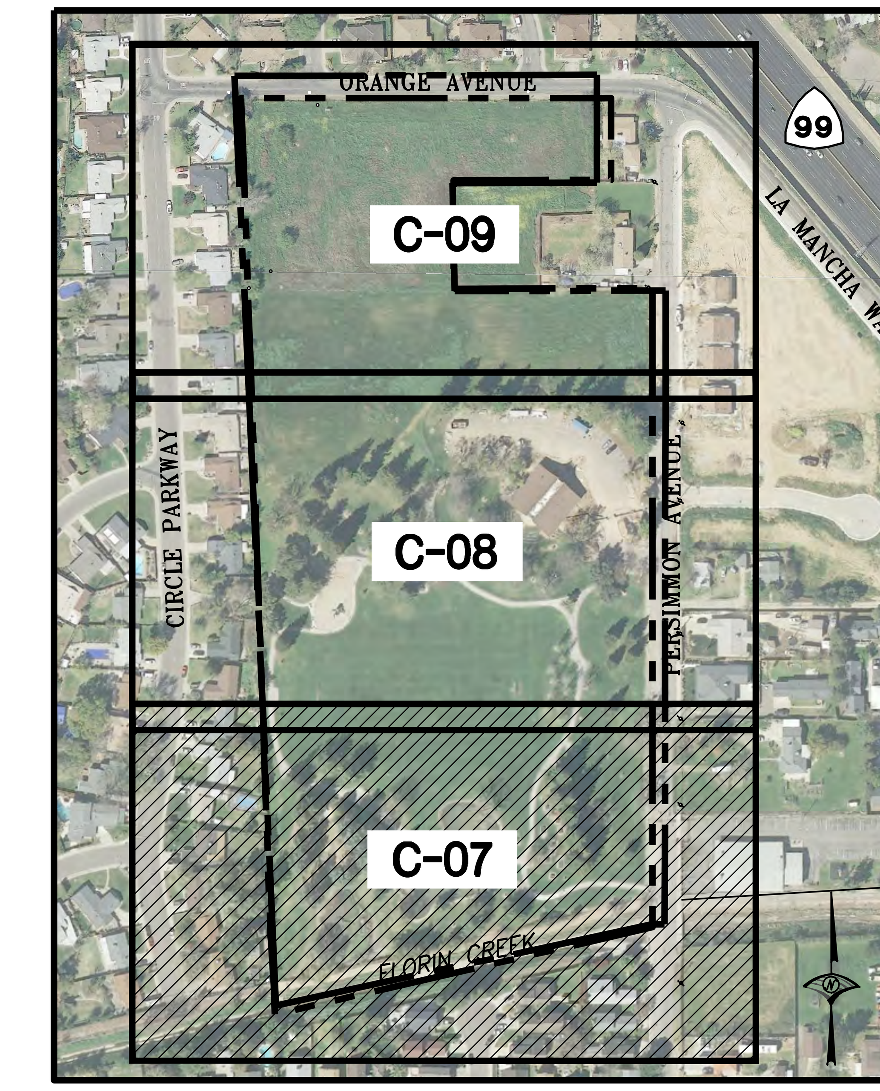
FLORIN CREEK MULTI-USE BASIN
OVERALL GRADING, DRAINAGE & SITE PLAN
GRADING NOTES & KEY MAP

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-06
SHEET 9

Attachment C - Project Drawings





KEY MAP

SCALE: 1" = 250'

SHEET NOTES:

1. SEE GRADING NOTES DWG. C-06.
2. SEE DEMOLITION PLAN DWG C-01, C-02 FOR REMOVED EXISTING UTILITIES. REMOVED UTILITIES NOT SHOWN ON GRADING AND DRAINAGE PLAN FOR CLARITY
3. SEE SACRAMENTO COUNTY DRAINAGE NOTE 8 DWG C-03 FOR PRIVATE DRAINAGE SYSTEM REQUIREMENTS.

CONSTRUCTION NOTES:

1. CONSTRUCT 9" SQUARE CATCH BASIN WITH A PLASTIC GREEN, BOLTED DOWN GRATE, FROM NDS PRODUCTS OR APPROVED EQUAL.
2. CONSTRUCT TYPE F DROP INLET AND CONNECT TO DROP INLET WITH 70 LF 6" DRAIN PIPE @ S= 0.005
   FL @ DI= 10.78
   FL @ DI= 10.43
   GR= 14.00
3. CONSTRUCT DRAIN PIPE OUTFALL LAYOUT #1 PER DWG. C-17 TO C-19.
4. CONSTRUCT WET WELL DRAINAGE STRUCTURE PER DWG. M-01.
5. CONSTRUCT TYPE B SADDLE MANHOLE WITH GRATED LID IN ACCORDANCE WITH SACRAMENTO COUNTY STD. DWG 9-7.
6. CONSTRUCT EROSION CONTROL BLANKETS/MATS IN ACCORDANCE WITH SACRAMENTO COUNTY DWG 11-10 OR APPROVED EQUAL

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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SAFCA

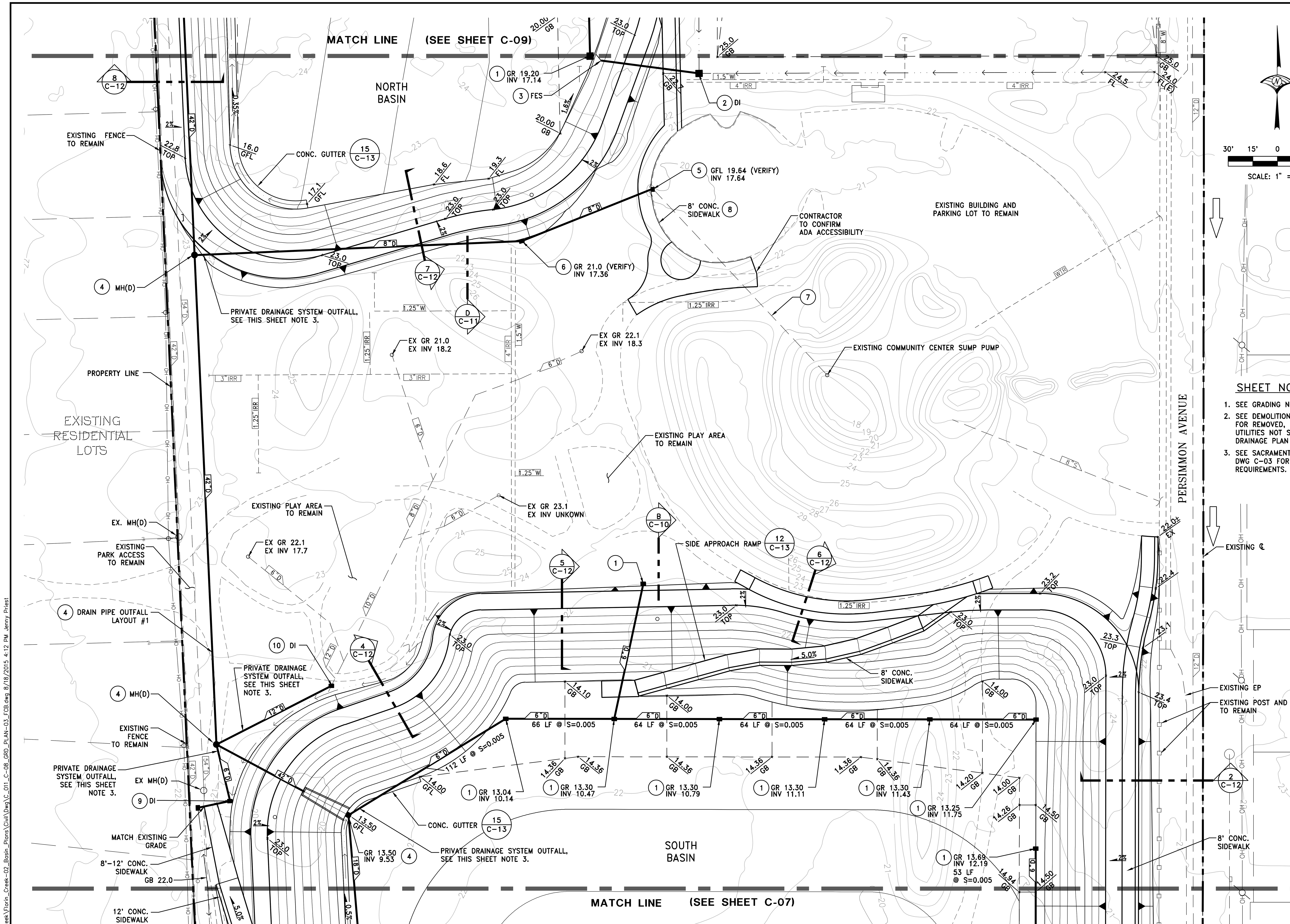
FLORIN CREEK MULTI-USE BASIN
GRADING, DRAINAGE & SITE PLAN
1 OF 3

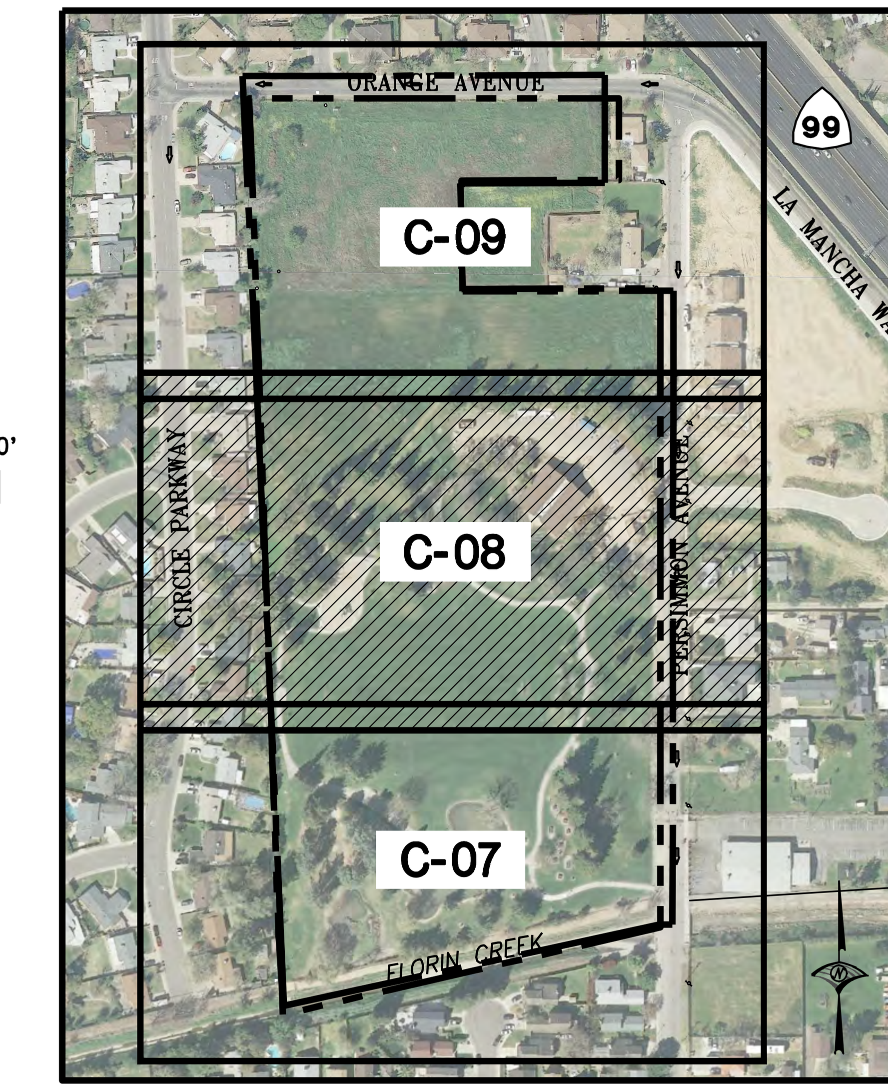
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-07 SHEET 10

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_010_C-07_GRD_PLAN-02_FCB.dwg 8/18/2015 4:12 PM Jenny Priest

Attachment C - Project Drawings





KEY MAP

SCALE: 1" = 250'

SHEET NOTES:

1. SEE GRADING NOTES DWG. C-06.
2. SEE DEMOLITION PLAN DWG C-01, C-02 FOR REMOVED, EXISTING UTILITIES. REMOVED UTILITIES NOT SHOWN ON GRADING AND DRAINAGE PLAN FOR CLARITY
3. SEE SACRAMENTO COUNTY DRAINAGE NOTE 8 DWG C-03 FOR PRIVATE DRAINAGE SYSTEM REQUIREMENTS.

CONSTRUCTION NOTES:

1. CONSTRUCT 9" SQUARE CATCH BASIN WITH A PLASTIC GREEN, BOLTED DOWN GRATE, FROM NDS PRODUCTS OR APPROVED EQUAL.
2. CONSTRUCT TYPE F DROP INLET AND CONNECT TO FLARED END SECTION WITH 62 LF 12" DRAIN PIPE @ S= 0.003
   FL @ DI= 20.00
   FL @ FES= 19.80
   GR= 22.00
3. CONSTRUCT 12" FLARED END SECTION PER CALTRANS STANDARDS AND SPECIFICATIONS DWG NO. D94B.
4. CONSTRUCT DRAIN PIPE OUTFALL LAYOUT #1 PER DWG. C-17 TO C-19.
5. REMOVE EXISTING DROP INLET, CONSTRUCT TYPE C DROP INLET AND CONNECT TO DROP INLET WITH 85 LF 8" DRAIN PIPE @ S= 0.0033
   FL @ DI= 17.64
   FL @ DI= 17.36
   GR= 19.64 (VERIFY)
6. CONSTRUCT TYPE F DROP INLET AND CONNECT TO MH(D) WITH 200 LF 8" DRAIN PIPE @ S= 0.0033
   FL @ DI= 17.36
   FL @ MH= 16.70
   GR= 21.00 (VERIFY)
7. MODIFY EXISTING SUMP PUMP DISCHARGE PIPE TO RAISE ABOVE ELEVATION 22.0. REPLACE EXISTING SUMP PUMP AT BOTTOM FLOOR OF COMMUNITY CENTER
8. REMOVE AND REPLACE EXISTING CURB AND REPLACE WITH TYPE 2 CURB AND 8' SIDEWALK
9. CONSTRUCT 9" SQUARE CATCH BASIN AND CONNECT TO MH(D) WITH 37 LF 6" DRAIN PIPE,
   @ S= 0.0127
   FL @ DI= 18.62
   FL @ MH(D)= 18.15
   GR= 20.62 (VERIFY)
10. LOCATE EXISTING 12" DRAIN PIPE AND CONSTRUCT 9" SQUARE CATCH BASIN AND CONNECT TO MH(D) WITH 80 LF 12" DRAIN PIPE,
   @ S= 0.005
   FL @ DI= 17.2 (VERIFY)
   FL @ MH(D)= 16.80
   GR= 21.40 (VERIFY)

100% DESIGN

Attachment C - Project Drawings

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

WOOD RODGERS
DEVELOPING • INNOVATIVE • DESIGN • SOLUTIONS
3301 C STREET, BLDG. 100-B, SACRAMENTO, CA 95816
PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED | APPROVED

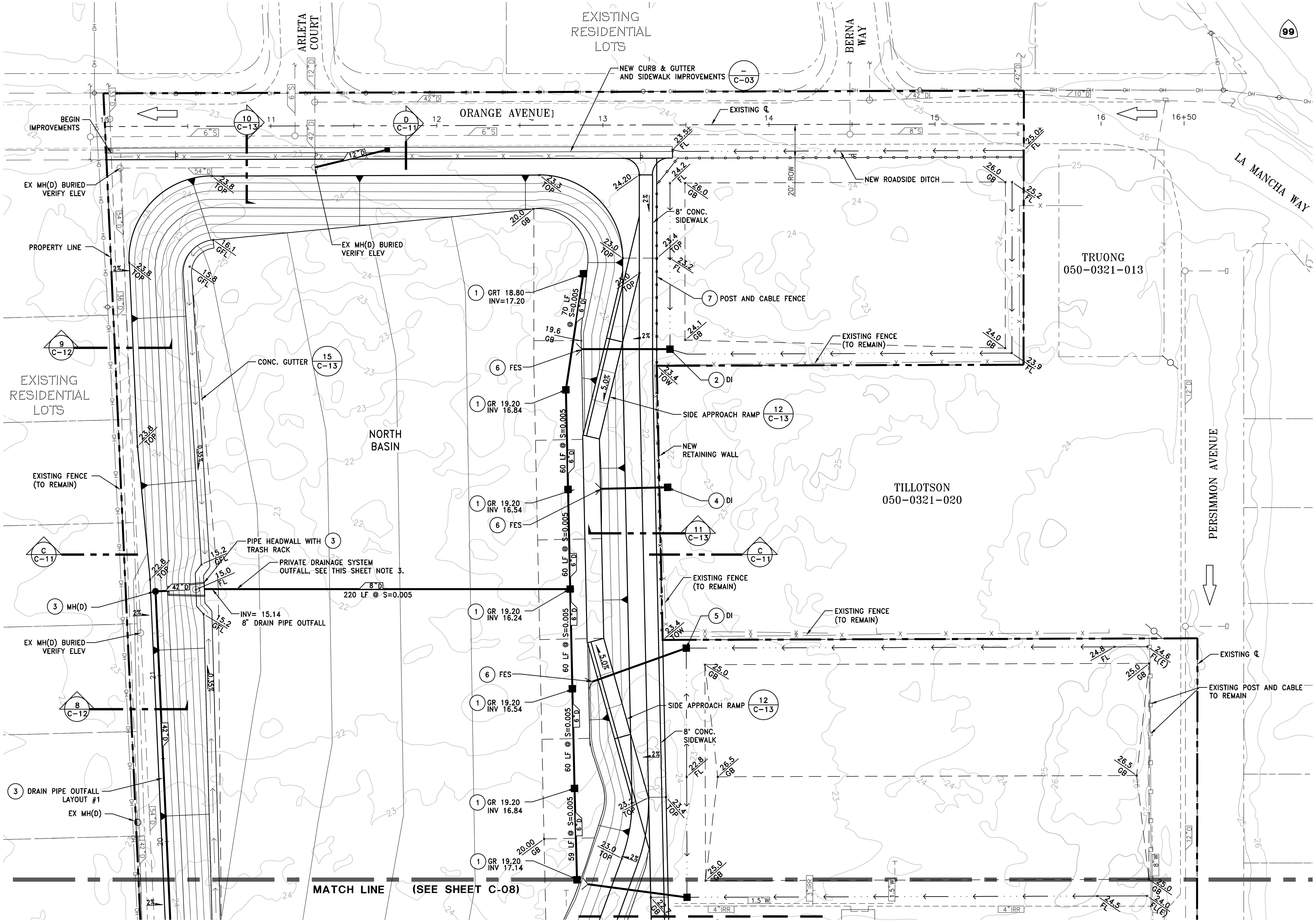
SAFCA

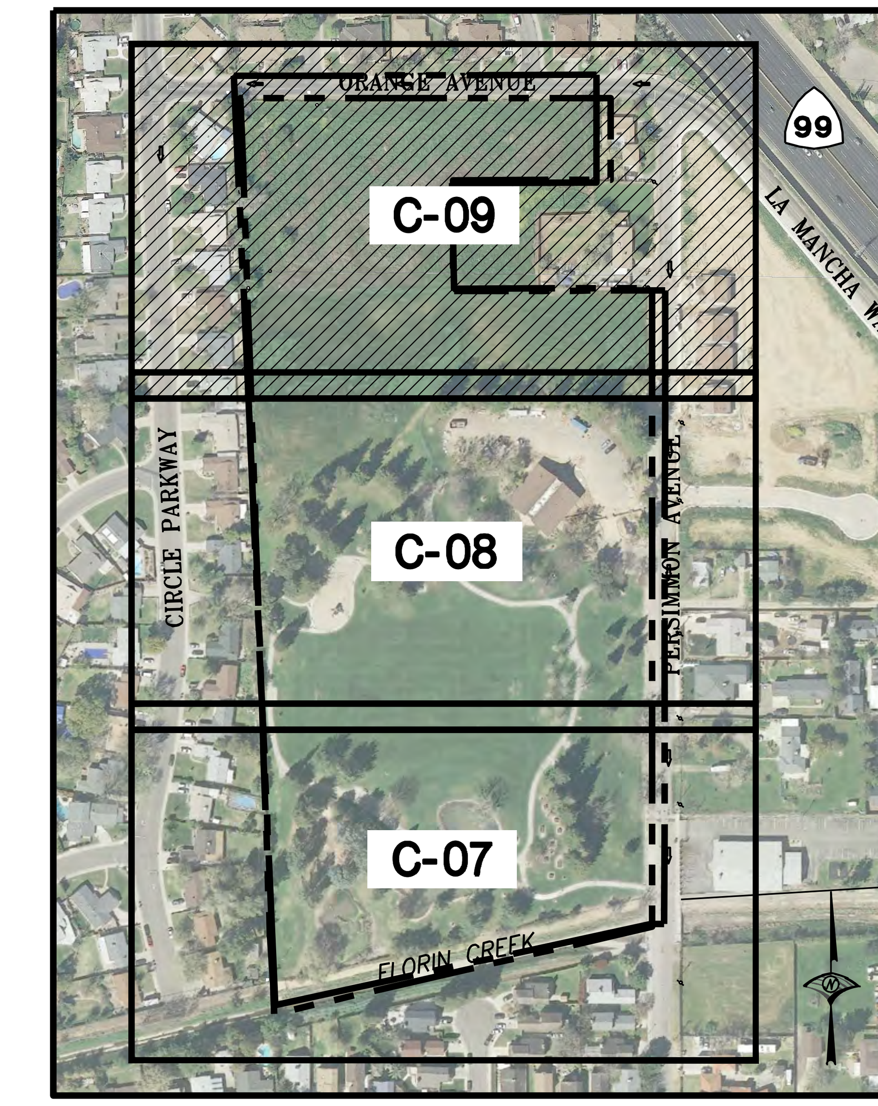
FLORIN CREEK MULTI-USE BASIN
GRADING, DRAINAGE & SITE PLAN
2 OF 3

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-08
SHEET 11

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_011_C-08_GRD_PLAN-03_FCB.dwg 8/18/2015 4:12 PM Jenny Priest





KEY MAP

SCALE: 1" = 250'

SHEET NOTES:

1. SEE GRADING NOTES DWG. C-06.
2. SEE DEMOLITION PLAN DWG C-01, C-02 FOR REMOVED, EXISTING UTILITIES. REMOVED UTILITIES NOT SHOWN ON GRADING AND DRAINAGE PLAN FOR CLARITY
3. SEE SACRAMENTO COUNTY DRAINAGE NOTE 8 DWG C-03 FOR PRIVATE DRAINAGE SYSTEM REQUIREMENTS.

CONSTRUCTION NOTES:

1. CONSTRUCT 9" SQUARE CATCH BASIN WITH A PLASTIC GREEN, BOLTED DOWN GRATE, FROM NDS PRODUCTS OR APPROVED EQUAL.
2. CONSTRUCT TYPE F DROP INLET AND CONNECT TO FLARED END SECTION WITH 53 LF 12" DRAIN PIPE @ S= 0.003
   FL @ DI= 20.00
   FL @ FES= 19.84
   GR= 22.00
3. CONSTRUCT DRAIN PIPE OUTFALL LAYOUT #1 PER DWG. C-17 TO C-19.
4. CONSTRUCT TYPE F DROP INLET AND CONNECT TO FLARED END SECTION WITH 40 LF 12" DRAIN PIPE @ S= 0.005
   FL @ DI= 20.00
   FL @ FES= 19.80
   GR= 22.00
5. CONSTRUCT TYPE F DROP INLET AND CONNECT TO FLARED END SECTION WITH 60 LF 12" DRAIN PIPE @ S= 0.003
   FL @ DI= 20.00
   FL @ FES= 19.80
   GR= 22.00
6. CONSTRUCT 12" FLARED END SECTION PER CALTRANS STANDARDS AND SPECIFICATIONS DWG NO. D94B.
7. CONSTRUCT POST AND CABLE FENCING IN ACCORDANCE WITH SACRAMENTO COUNTY DWG L-20.

30' 15' 0 30'

SCALE: 1" = 30'

100% DESIGN

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FLORIN CREEK MULTI-USE BASIN
GRADING, DRAINAGE & SITE PLAN
3 OF 3

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-09
SHEET 12

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_012_C-09_GRD_PLAN-04_FCB.dwg 8/18/2015 4:12 PM Jenny Priest

A
–
TYPICAL CROSS SECTION - SOUTH BASIN
N.T.S.

B
–
TYPICAL CROSS SECTION - SOUTH BASIN
N.T.S.

100% DESIGN

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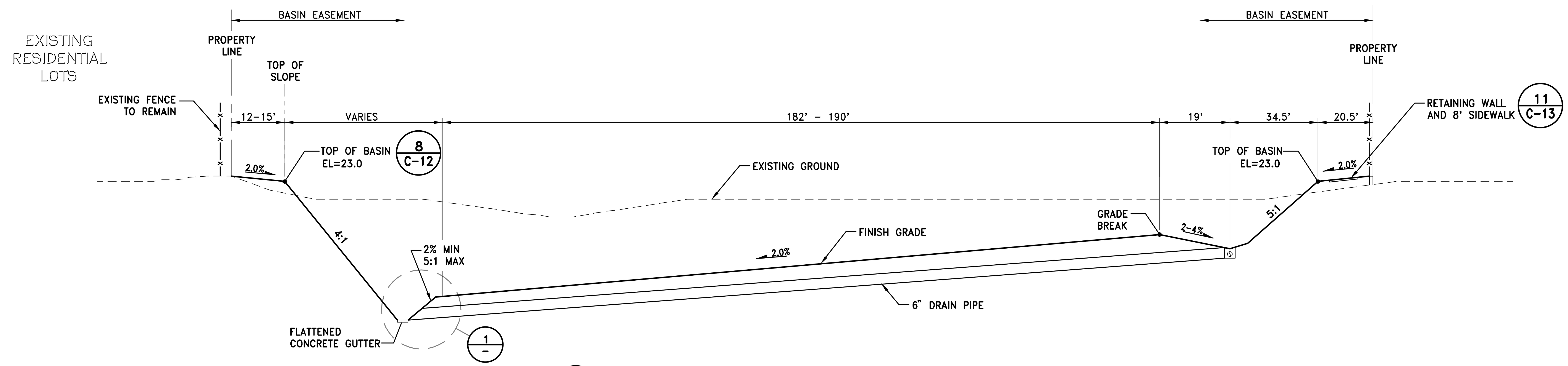
SAFCA
FLORIN CREEK MULTI-USE BASIN
SOUTH BASIN
GRADING SECTIONS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

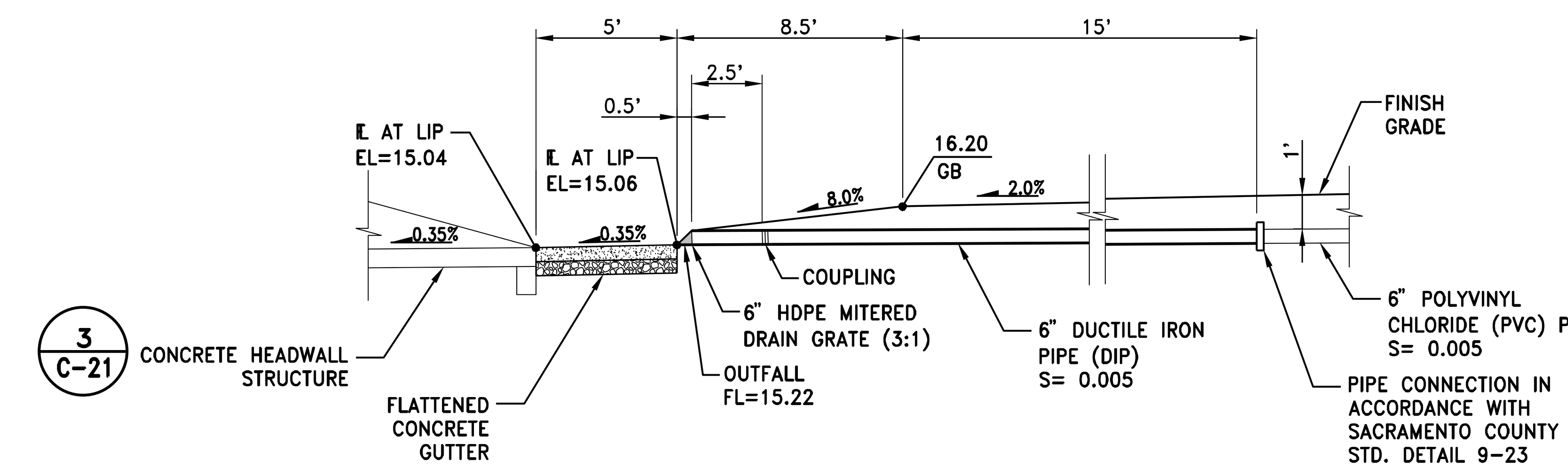
DRAWING NO. C-10
SHEET 13

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_013_C-10_GRD_SEC-01_FCB.dwg 8/18/2015 4:12 PM Jenny Priest

Attachment C - Project Drawings



C
-
TYPICAL CROSS SECTION - NORTH BASIN
N.T.S.



DETAIL 1
-
SCALE: N.T.S.

D
-
TYPICAL CROSS SECTION - NORTH BASIN
N.T.S.

100% DESIGN

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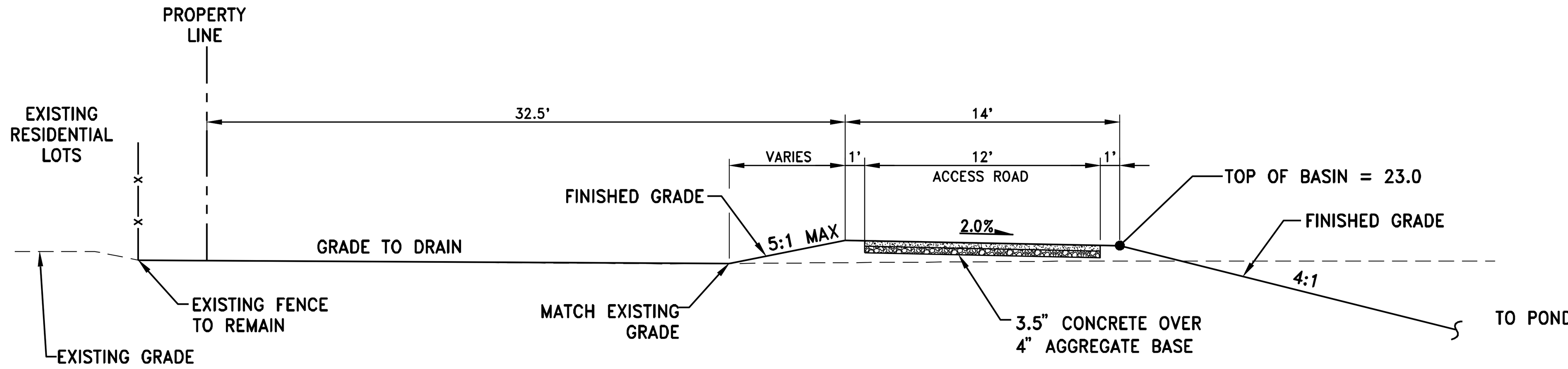
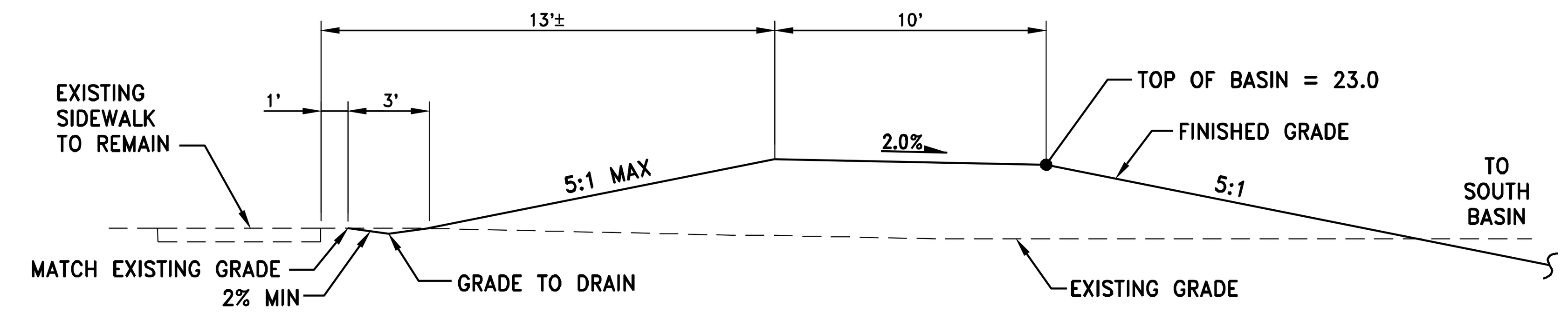
SAFCA
FLORIN CREEK MULTI-USE BASIN
NORTH BASIN
GRADING SECTIONS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

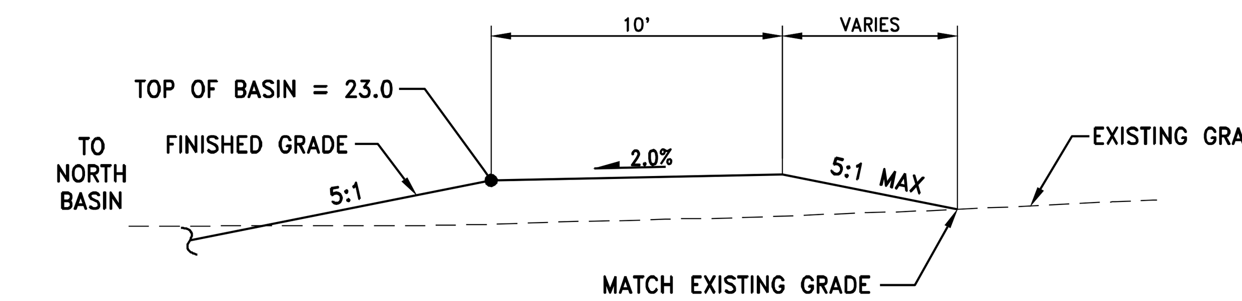
DRAWING NO. C-11
SHEET 14



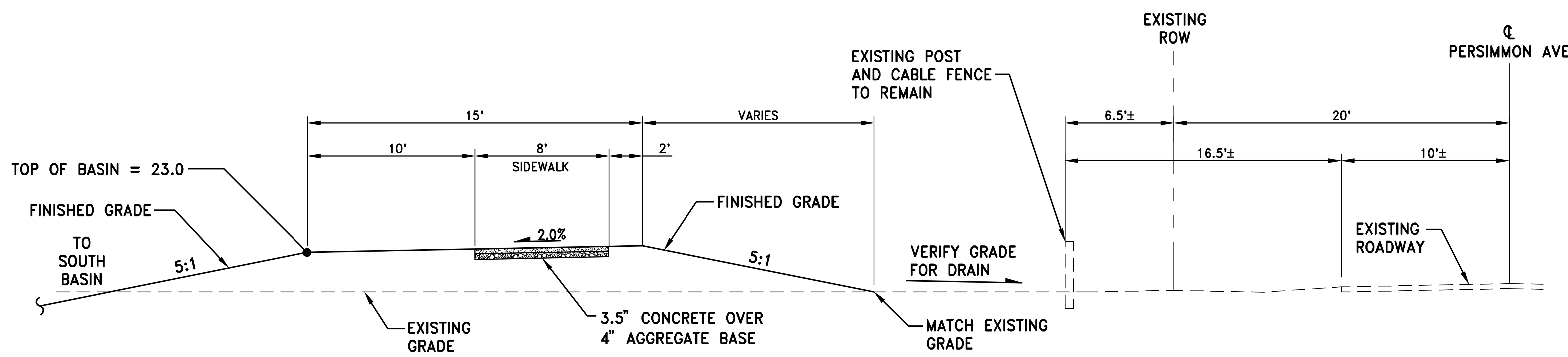
TYPICAL SOUTH BASIN SECTION 1/–
SCALE: N.T.S.
SOUTH WESTERLY TOP OF BASIN



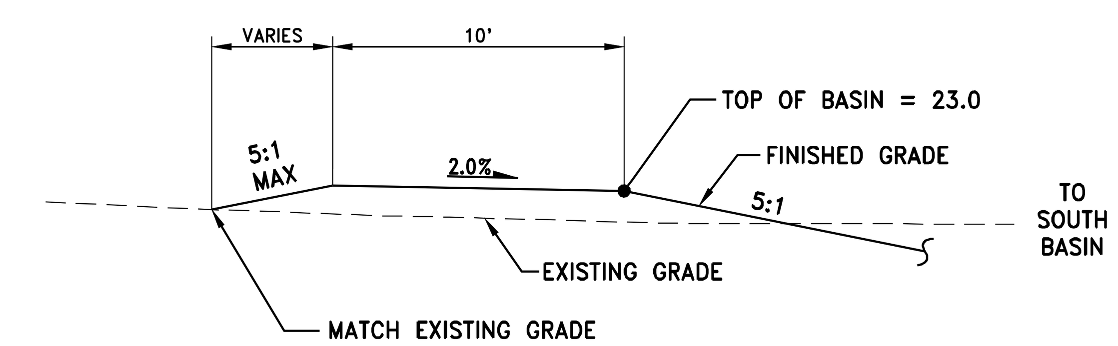
TYPICAL SOUTH BASIN SECTION 4/–
SCALE: N.T.S.
NORTH WESTERLY TOP OF BASIN



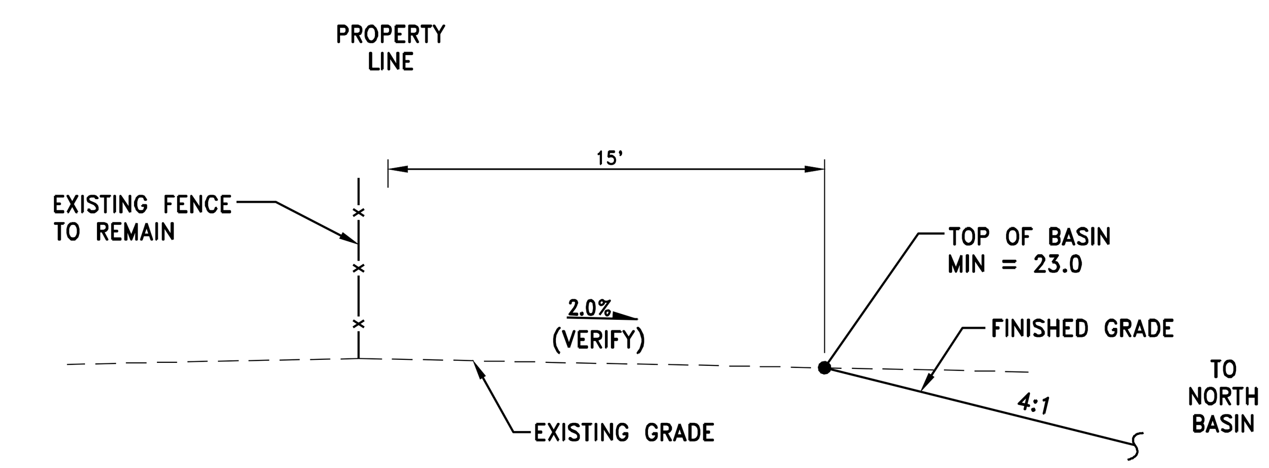
TYPICAL NORTH BASIN SECTION 7/–
SCALE: N.T.S.
SOUTHERLY TOP OF BASIN



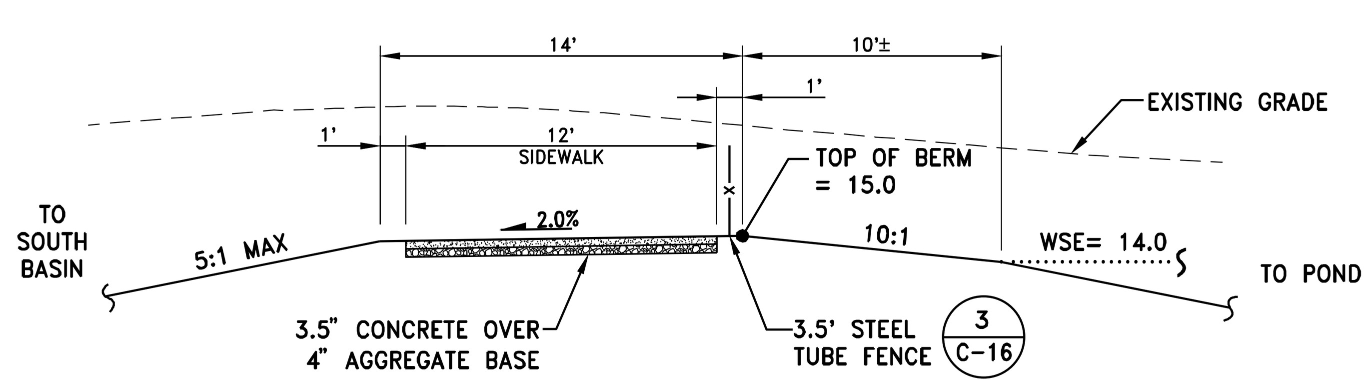
TYPICAL SOUTH BASIN SECTION 2/–
SCALE: N.T.S.
EASTERLY TOP OF BASIN



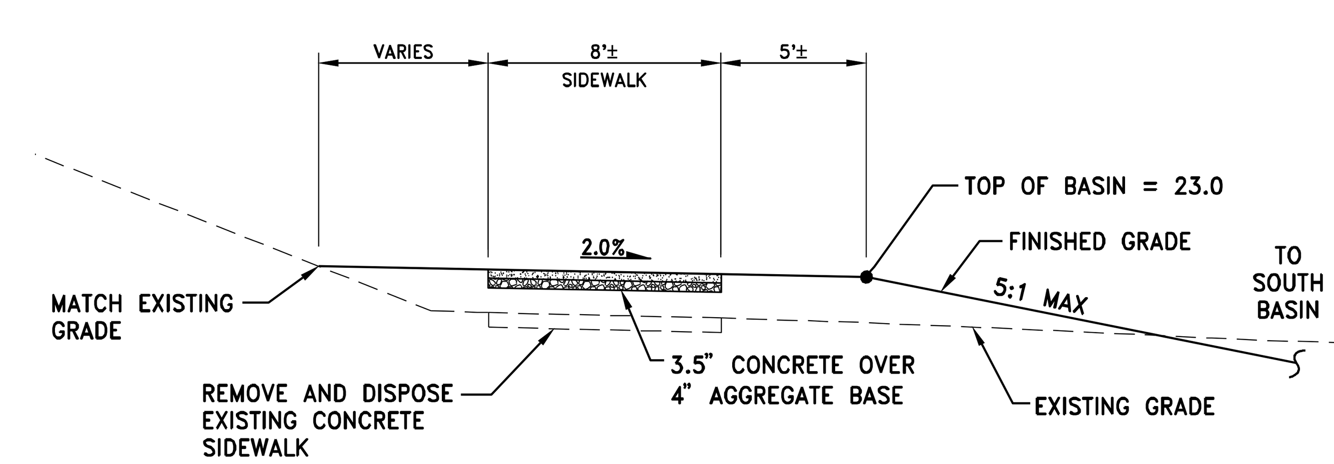
TYPICAL SOUTH BASIN SECTION 5/–
SCALE: N.T.S.
NORTHERLY TOP OF BASIN



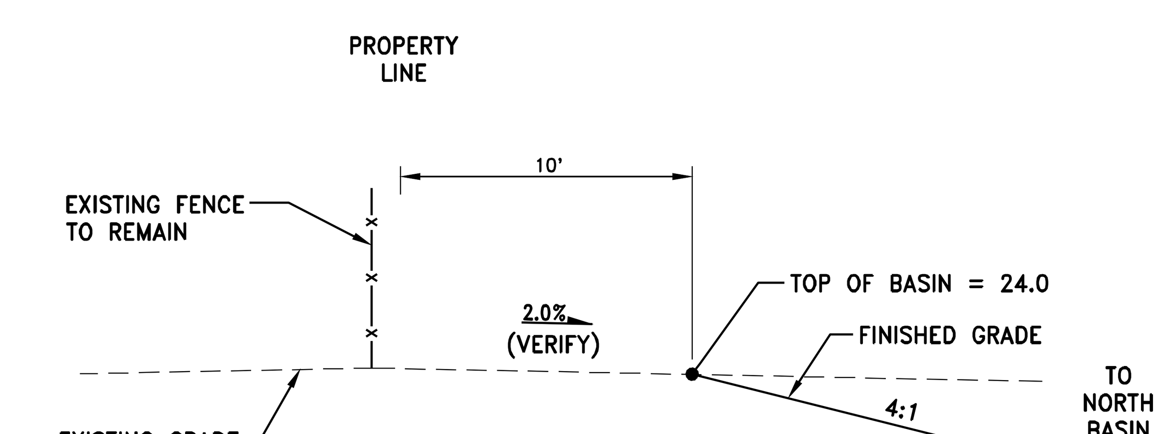
TYPICAL NORTH BASIN SECTION 8/–
SCALE: N.T.S.
SOUTH-WESTERLY TOP OF BASIN



TYPICAL SOUTH BASIN SECTION 3/–
SCALE: N.T.S.
BOTTOM OF BASIN SIDEWALK



TYPICAL SOUTH BASIN SECTION 6/–
SCALE: N.T.S.
NORTHERLY TOP OF BASIN



TYPICAL NORTH BASIN SECTION 9/–
SCALE: N.T.S.
NORTH-WESTERLY TOP OF BASIN

100% DESIGN

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DRAWN BY: J. PRIEST
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DATE: 08/17/2015

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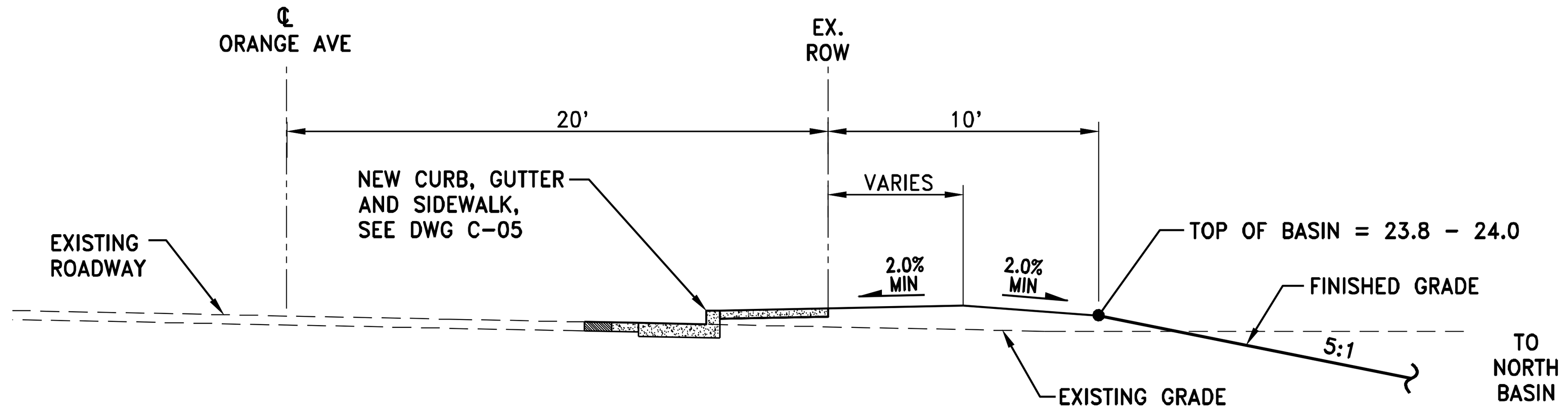
FLORIN CREEK MULTI-USE BASIN
GRADING TYPICAL SECTIONS & DETAILS
1 OF 2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-12
SHEET 15

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_015_C-12_GRD_DTL-01_FCB.dwg 8/18/2015 4:12 PM Jenny Priest

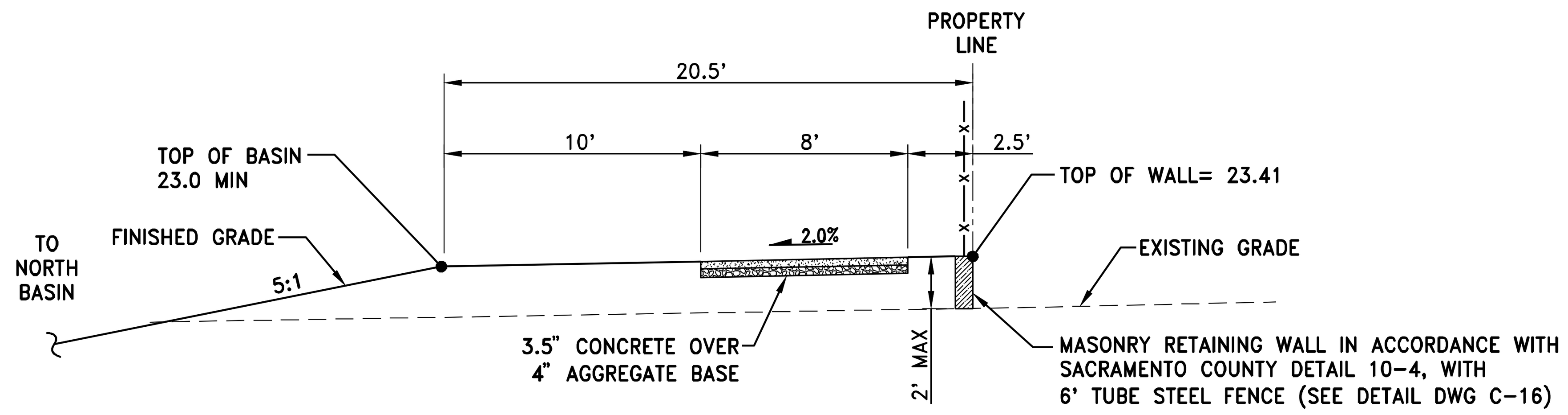
Attachment C - Project Drawings



TYPICAL NORTH BASIN SECTION (10/–)

SCALE: N.T.S.

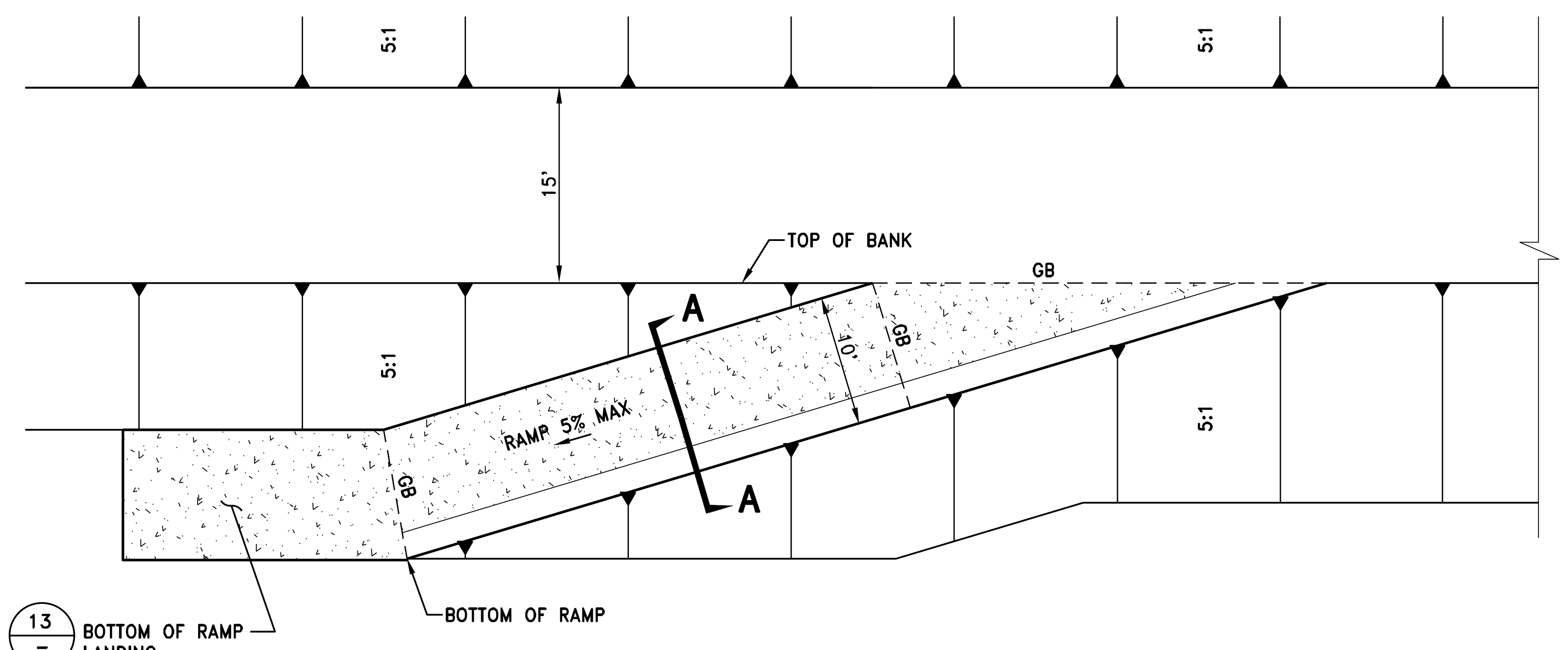
NORTHERLY TOP OF BASIN



TYPICAL NORTH BASIN SECTION (11/–)

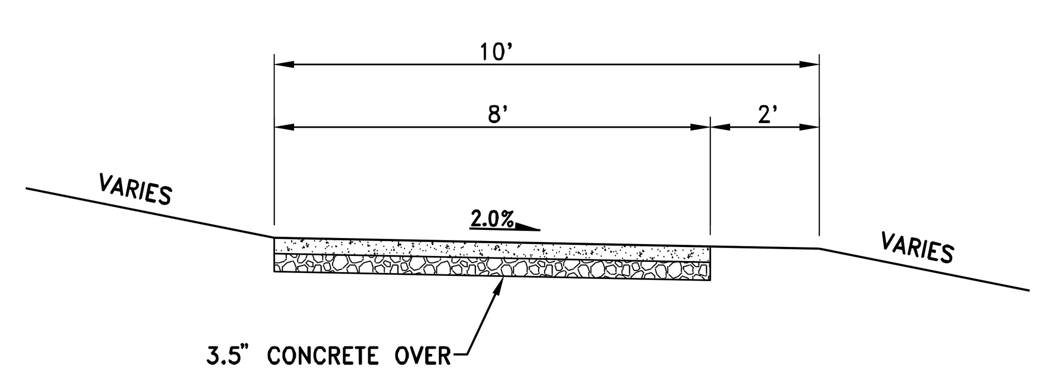
SCALE: N.T.S.

EASTERLY TOP OF BASIN



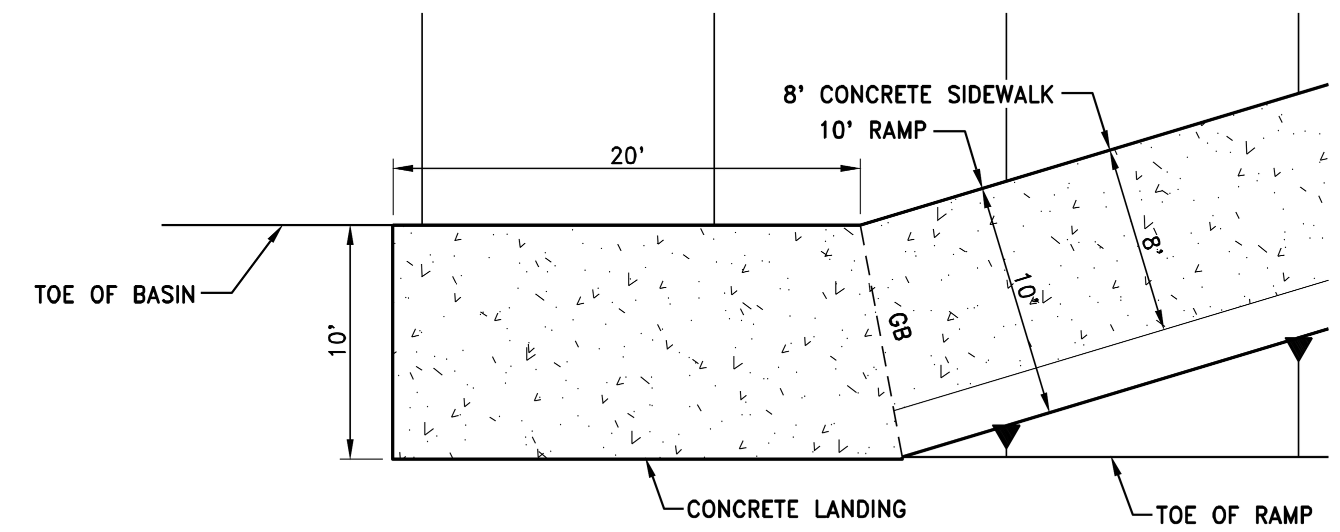
TYPICAL SIDE APPROACH RAMP (12/–)

SCALE: N.T.S.



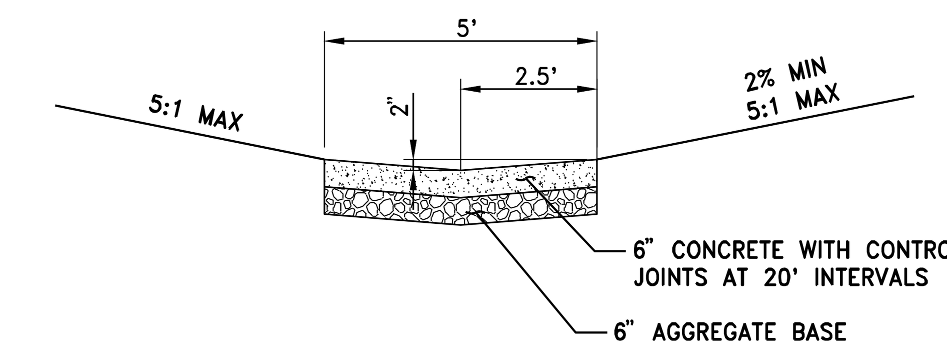
DETAIL A-A

SCALE: N.T.S.



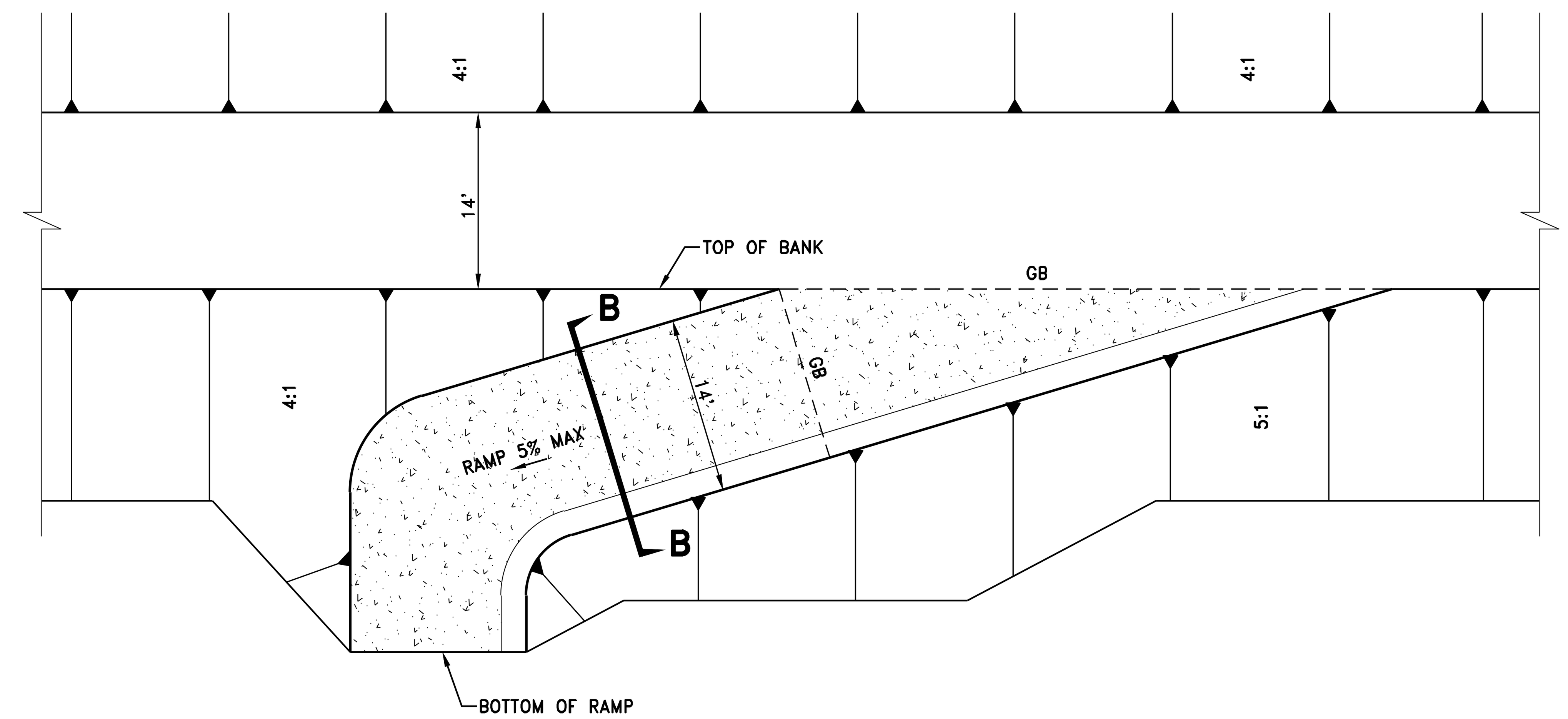
TYPICAL BOTTOM OF RAMP LANDING (13/–)

SCALE: N.T.S.



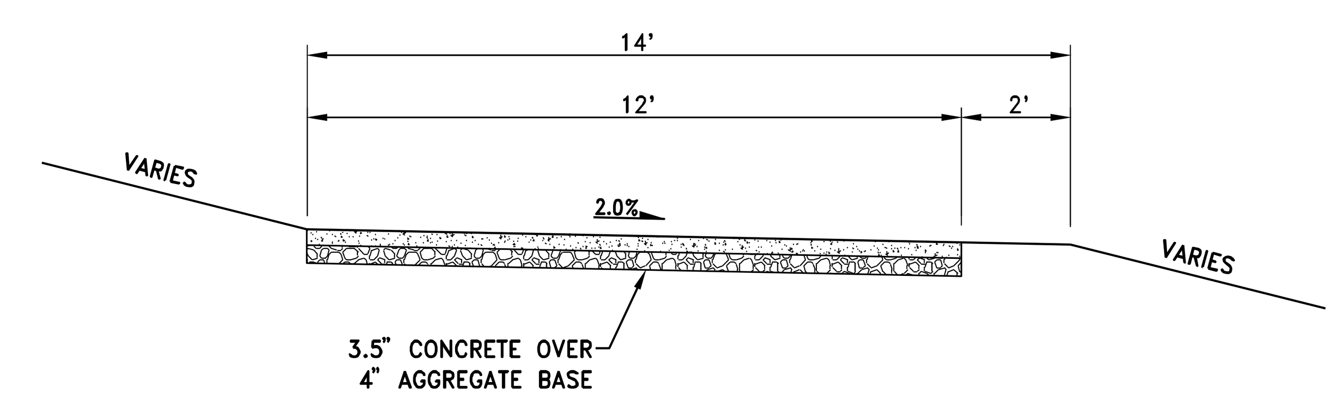
TYPICAL GUTTER FLOWLINE (15/–)

SCALE: N.T.S.



SIDE APPROACH RAMP (14/–)

SCALE: N.T.S.



DETAIL B-B

SCALE: N.T.S.

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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APPROVED

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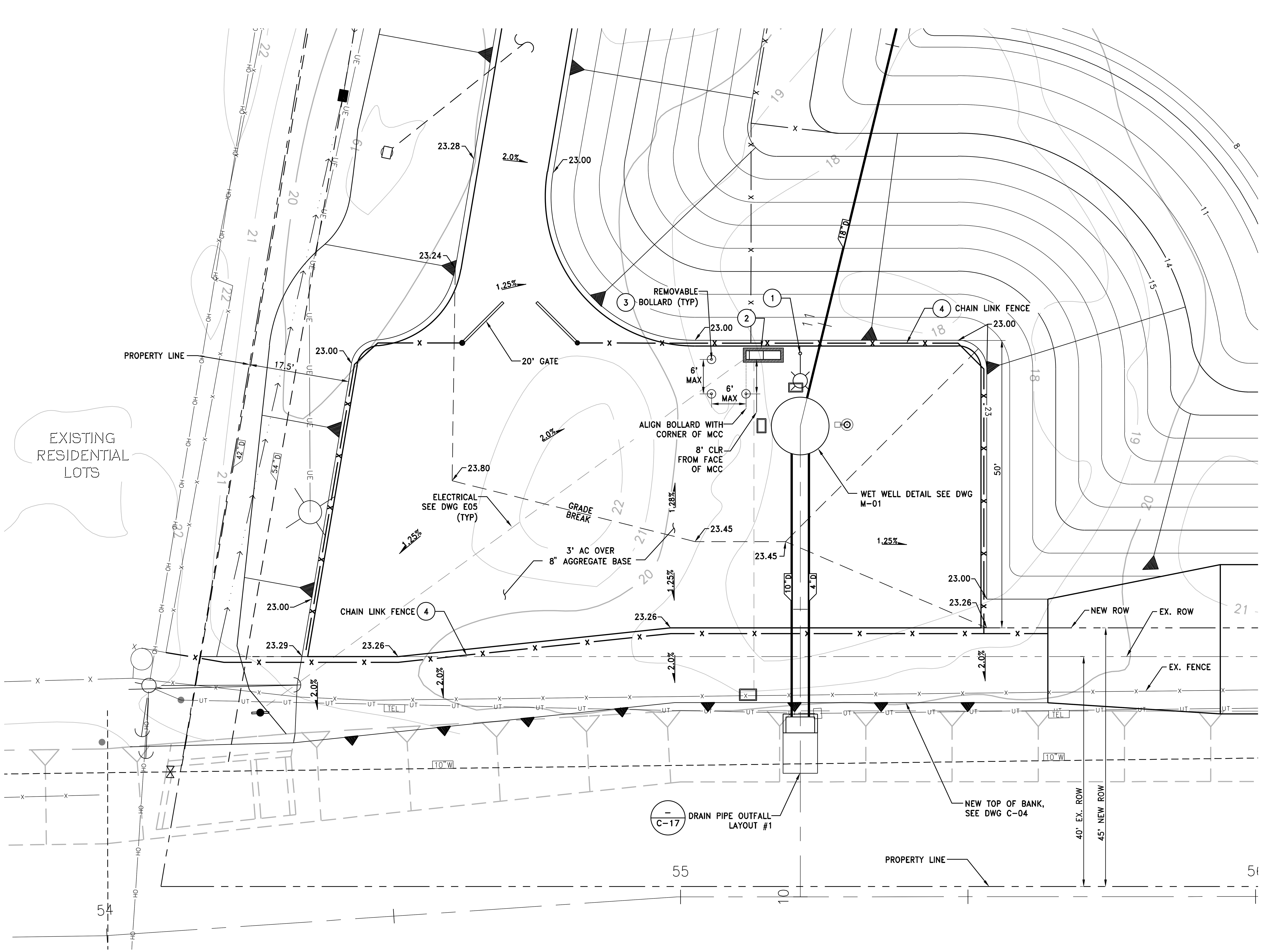
FLORIN CREEK MULTI-USE BASIN
GRADING TYPICAL SECTIONS & DETAILS
2 OF 2

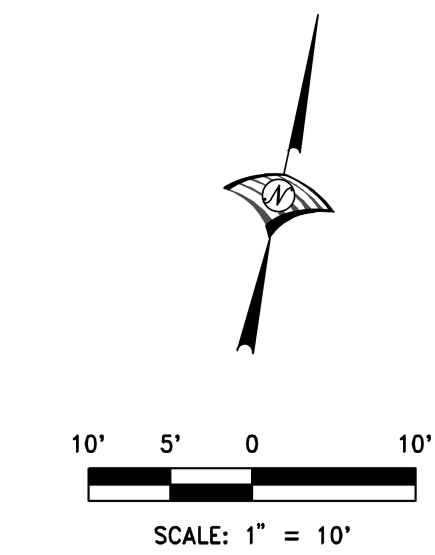
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-13
SHEET 16

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_016_C-13_GRD_DTL-02_FCB.dwg 8/18/2015 4:12 PM Jenny Priest

Attachment C - Project Drawings





CONSTRUCTION NOTES:

1. LIGHT POLE, SEE LIGHTING SCHEDULE ON LANDSCAPING ELECTRICAL DRAWINGS.
2. ELECTRICAL MCC ON MINIMUM 3' WIDE CONCRETE PAD, SEE DETAIL 1, DWG M-02.
3. REMOVABLE BOLLARD, SEE DETAIL 2, DWG M-02.
4. CONSTRUCT 7-FOOT HIGH CHAIN LINK FENCE WITH 4-STRANDS OF BARBED ON TOP IN ACCORDANCE WITH CITY OF SACRAMENTO DWG 12.3-2 AND DWG 12.3-3 AND INSTALL "NO TRESPASSING" SIGNS ON GATE.

PUMP STATION LAYOUT

SCALE: 1" = 10'

100% DESIGN

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_017_C-14_PUMP-STN_FCB.dwg 8/18/2015 4:12 PM Jenny Priest

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FLORIN CREEK MULTI-USE BASIN
PUMP STATION LAYOUT

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
HORIZ: 1"=10'

DRAWING NO. C-14
SHEET 17

Attachment C - Project Drawings

CONSTRUCTION NOTES:

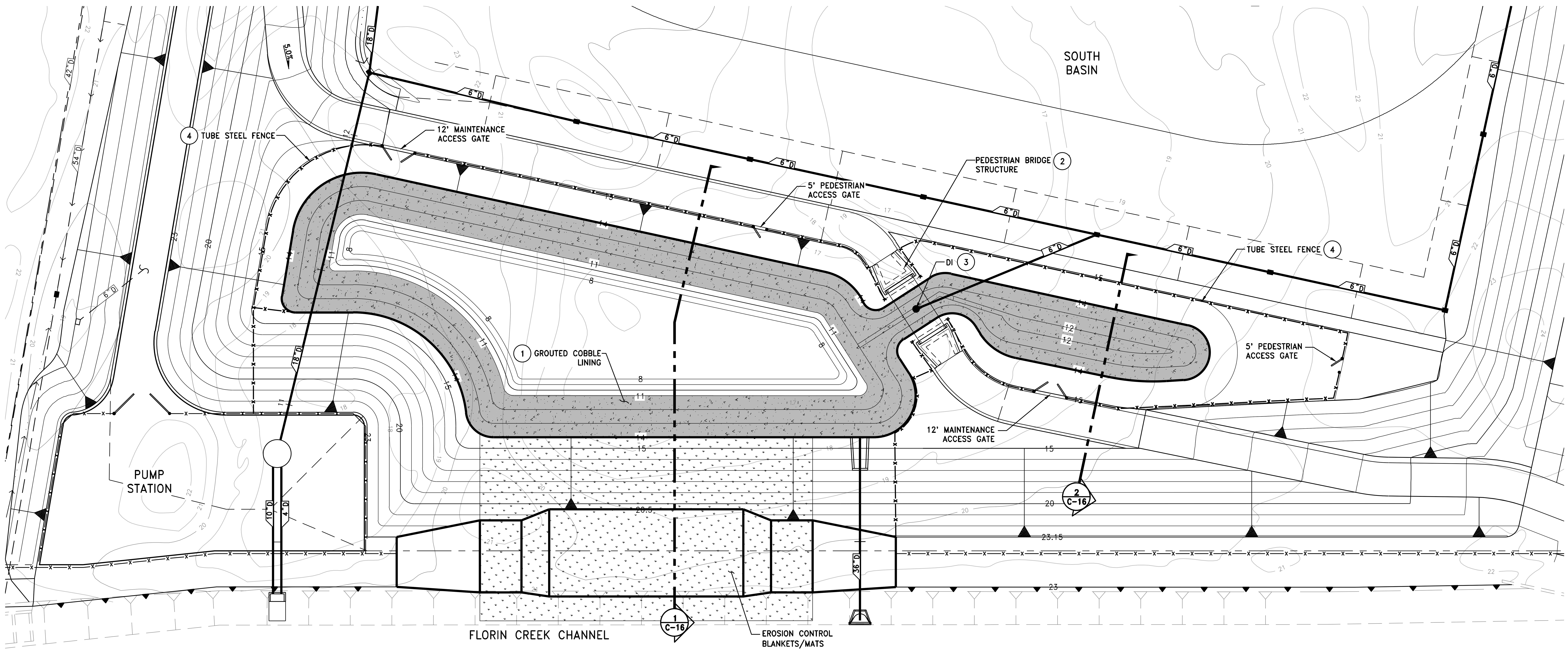
1. CONSTRUCT GROUTED COBBLE LINING PER DETAIL 4 DWG C-16.
2. REPLACE PEDESTRIAN BRIDGE FOUNDATION AND STRUCTURE PER DWG S-01, S-02.
3. CONSTRUCT TYPE F DROP INLET PER DWG C-13.
4. CONSTRUCT 3.5' TUBE STEEL FENCE PER DETAIL 3 DWG C-13.

LEGEND

GROUTED COBBLE LINING LIMITS

20' 10' 0 20'

SCALE: 1" = 20'



POND GRADING LAYOUT

SCALE: 1" = 20'

100% DESIGN

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FLORIN CREEK MULTI-USE BASIN
POND GRADING LAYOUT

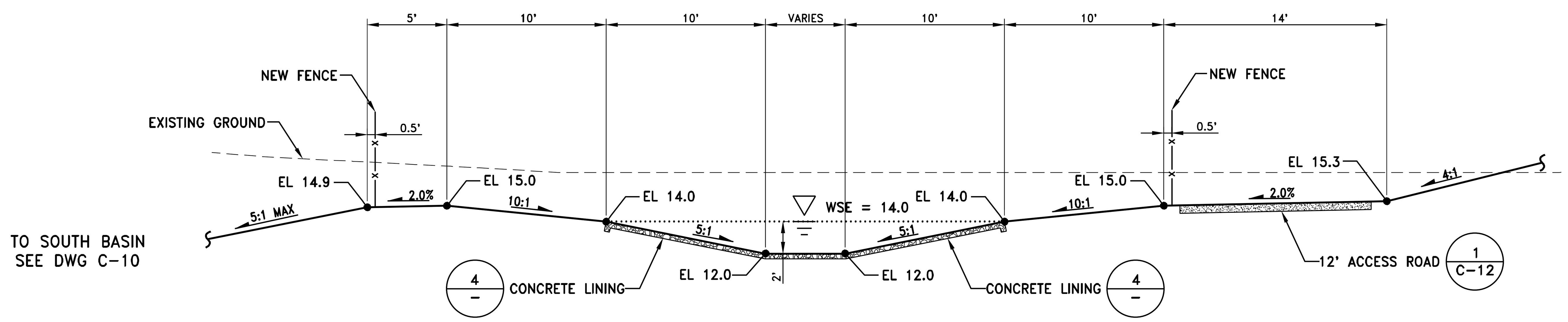
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

HORIZ: 1"=20'

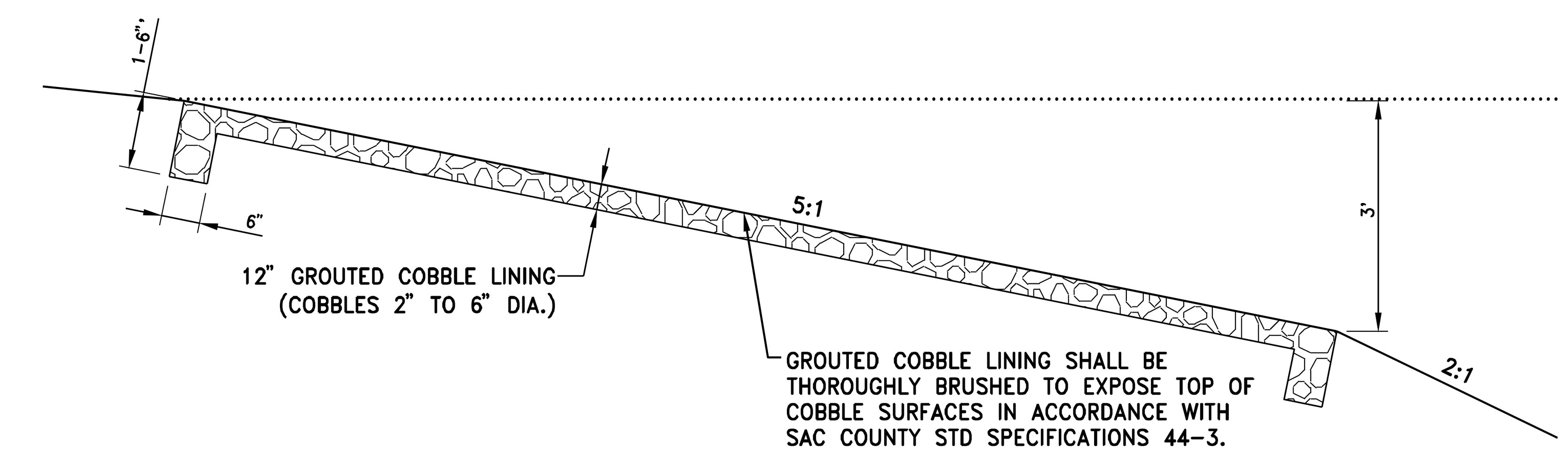
DRAWING NO. C-15 | SHEET 18

Attachment C - Project Drawings

TYPICAL SECTION 1
SCALE: N.T.S.



TYPICAL SECTION 2
SCALE: N.T.S.



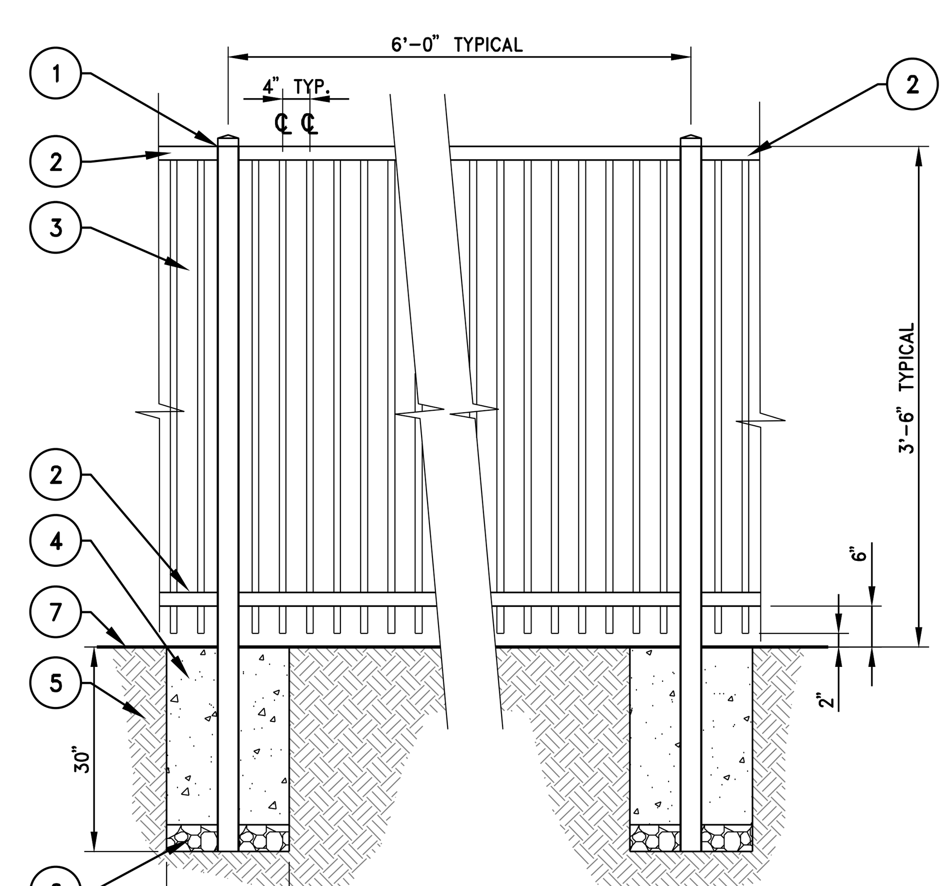
GROUTED COBBLE LINING 4
NTS

KEY

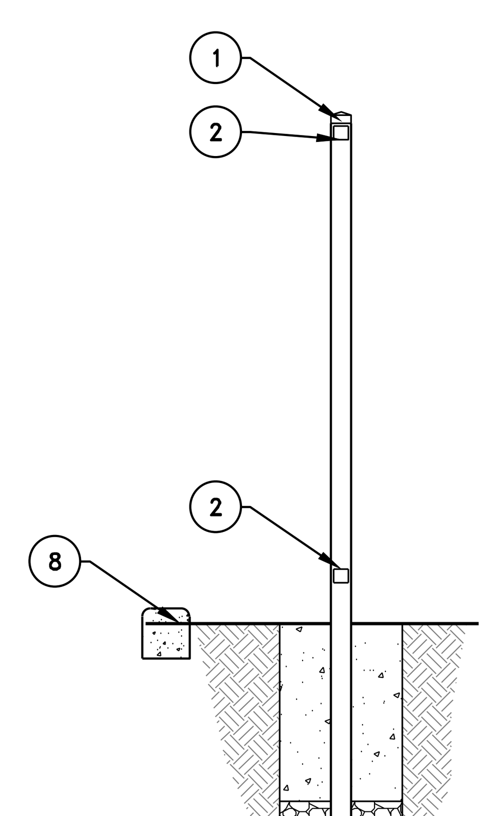
1. 3"ø x 12 GA. POST
2. 1 3/4"ø x 14 GA. RAIL
3. 1"ø GA. PICKET
4. 18" X 30" CONCRETE FOOTING
5. COMPACTED SUBGRADE TO 90% R.D.
6. 4" AGGREGATE BASE, COMPACTED TO 95% R.D.
7. FINISH GRADE
8. CONSTRUCT 6" CONCRETE MOW CURB, SEE DETAIL 5

NOTES

1. ALL FENCE PARTS TO BE TUBULAR STEEL. GRIND SMOOTH ALL WELDS.
2. PRIME & APPLY 2 COATS OF SEMIGLOSS BLACK PAINT.
3. ALL PAINT & PRIMER SHALL BE APPLIED TO CLEAN SURFACES IN 5 MIL. COATS.
4. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.



SECTION VIEW



SIDE SECTION VIEW

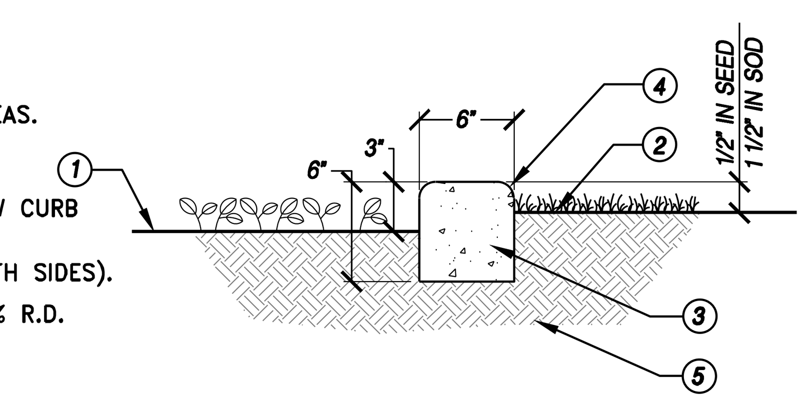
TUBE STEEL FENCE 3
NTS

KEY

1. FINISH GRADE IN PLANTER AREAS.
2. FINISH GRADE IN TURF AREAS.
3. NATURAL GRAY CONCRETE MOW CURB WITH BROOM TROWEL FINISH.
4. 1" RADIUS, TOOLED EDGE (BOTH SIDES).
5. SUBGRADE COMPACTED TO 90% R.D.

NOTES

1. PROVIDE 3/8" WIDE X 3/4" DEEP SCORE JOINTS @ 20' OC.



6" CONRETE MOW CURB 5
NTS

100% DESIGN

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CHECKED BY: J. KORS
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DATE: 08/17/2015

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SUBMITTED
APPROVED

SAFCA

FLORIN CREEK MULTI-USE BASIN
POND
SECTIONS & DETAILS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-16
SHEET 19

CONSTRUCTION NOTES:

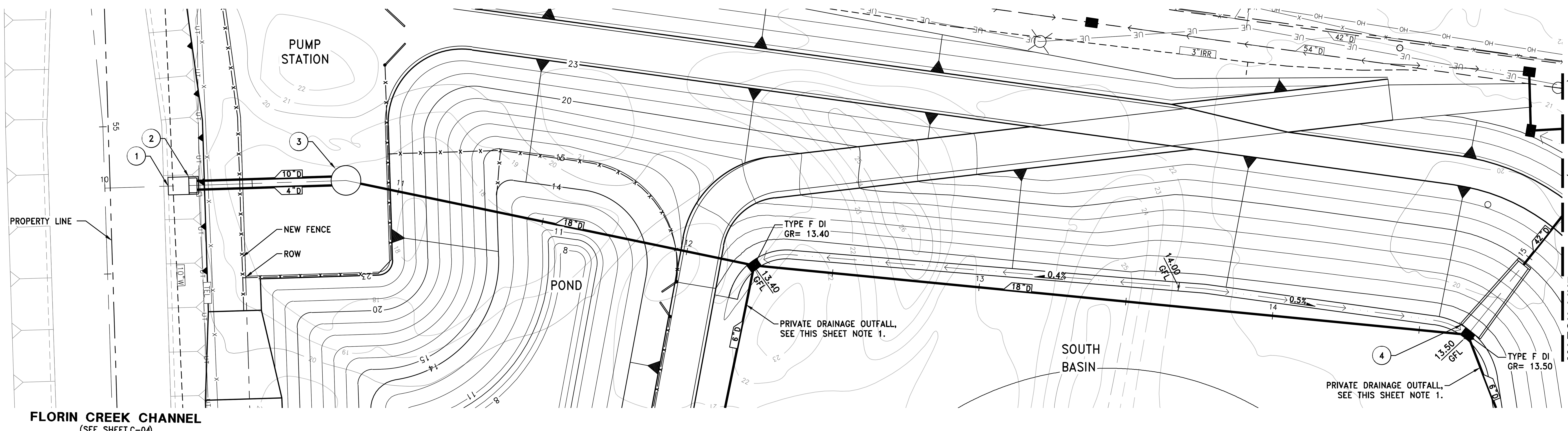
1. CONSTRUCT CONCRETE EROSION CONTROL PIPE DISCHARGE IN ACCORDANCE WITH SACRAMENTO COUNTY STANDARD DRAWING 9-26.
2. CONSTRUCT OUTFALL STRUCTURE #1, SEE DWG C-20.
3. CONSTRUCT 10' DIAMETER WET WELL, SEE DWG M-01.
4. CONSTRUCT OUTFALL STRUCTURE #2, SEE DWG C-21.

SHEET NOTE:

1. SEE SACRAMENTO COUNTY DRAINAGE NOTE 8 WGG-03 FOR PRIVATE DRAINAGE SYSTEM REQUIREMENTS.

20' 10' 0 20'

SCALE: 1" = 20'



DRAIN PIPE OUTFALL LAYOUT #1

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

WOOD RODGERS
DEVELOPING • INNOVATIVE • DESIGN • SOLUTIONS
3301 C STREET, BLDG. 100-B, SACRAMENTO, CA 95816
PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED | APPROVED

SAFCA

FLORIN CREEK MULTI-USE BASIN
DRAIN PIPE OUTFALL LAYOUT #1
STA 10+00 TO 15+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS

HORIZ: 1"=20' VERT: 1"=4'

DRAWING NO. C-17
SHEET 20

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_020_C-17_DRN-01_FCB.dwg 8/18/2015 4:12 PM Jenny Priest

Attachment C - Project Drawings

CONSTRUCTION NOTES:

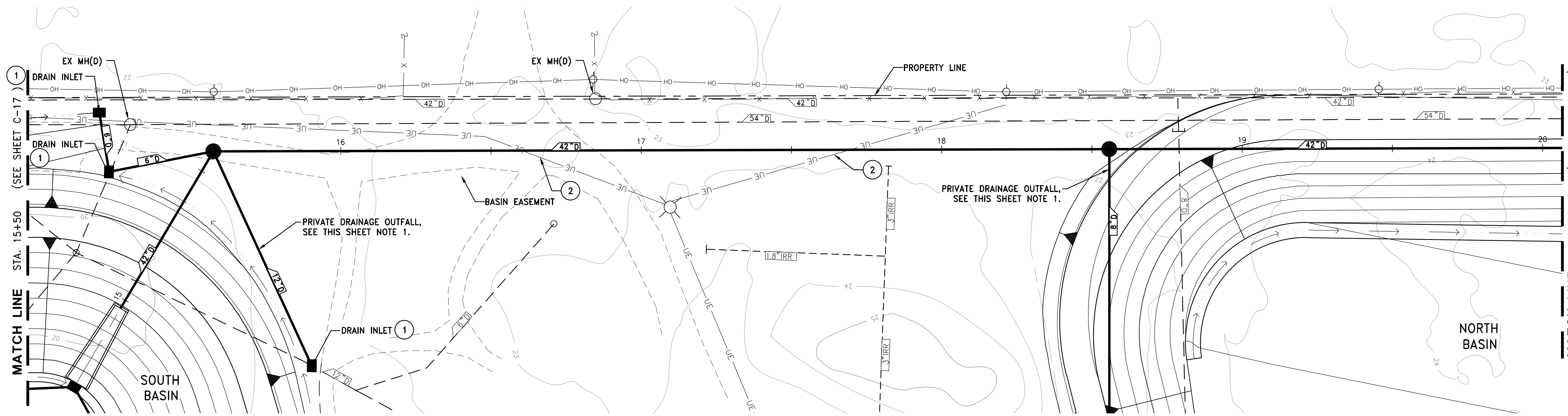
1. SEE GRADING, DRAINAGE AND SITE PLAN DWG C-08 FOR PRIVATE DRAINAGE SYSTEM FACILITIES.
2. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONTINUING WORK.

SHEET NOTE:

1. SEE SACRAMENTO COUNTY DRAINAGE NOTE 8 DWG C-03 FOR PRIVATE DRAINAGE SYSTEM REQUIREMENTS.

20' 10' 0 20'

SCALE: 1" = 20'



DRAIN PIPE OUTFALL LAYOUT #1

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED APPROVED

SAFCA

FLORIN CREEK MULTI-USE BASIN
DRAIN PIPE OUTFALL LAYOUT #1
STA 15+00 TO 20+00

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
HORIZ: 1"=20' VERT: 1"=4'

DRAWING NO. C-18 SHEET 21

Attachment C - Project Drawings

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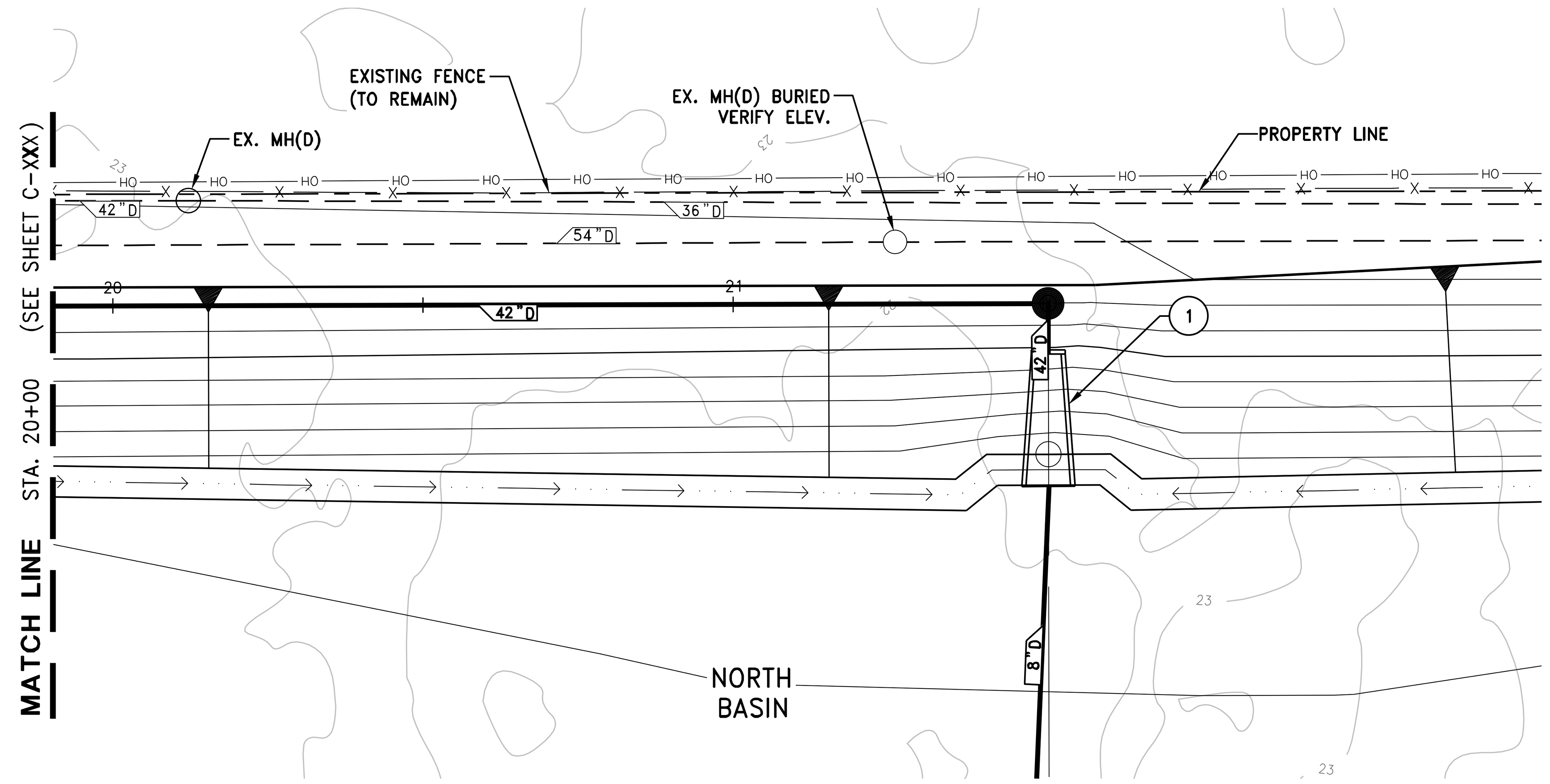
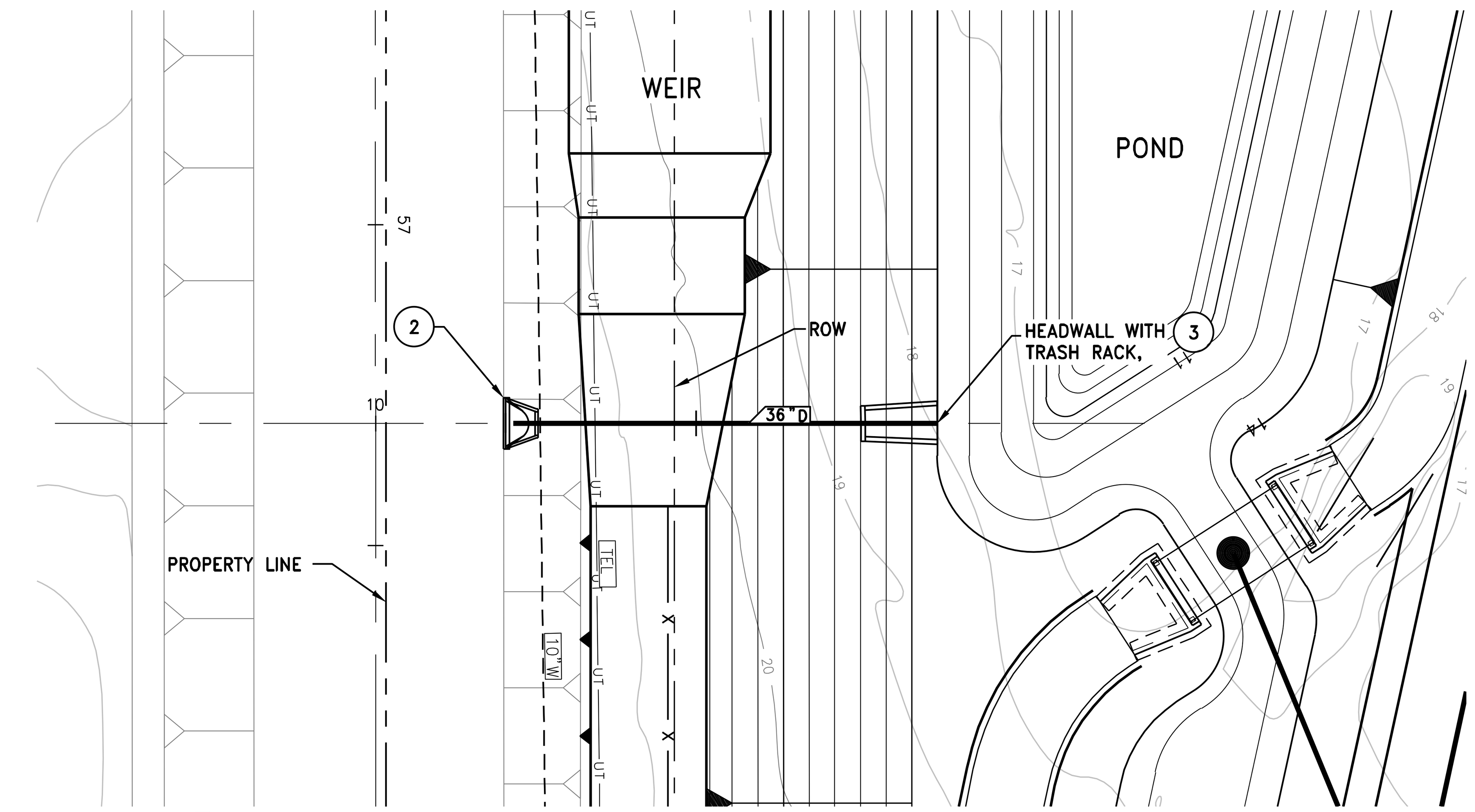
CONSTRUCTION NOTES:

1. CONSTRUCT OUTFALL STRUCTURE #3, SEE DWG C-21.
2. CONSTRUCT OUTFALL STRUCTURE #4, SEE DWG C-22.
3. CONSTRUCT OUTFALL STRUCTURE #5, SEE DWG C-22.



DRAIN PIPE OUTFALL LAYOUT #1



DRAIN PIPE OUTFALL LAYOUT #2

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED

APPROVED

SAFCA

FLORIN CREEK MULTI-USE BASIN
DRAIN PIPE OUTFALL LAYOUT #1 - STA 20+00 TO 22+00
DRAIN PIPE OUTFALL LAYOUT #2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS

HORIZ: 1"=20' VERT: 1"=4'

DRAWING NO. C-19

SHEET 22

Attachment C - Project Drawings

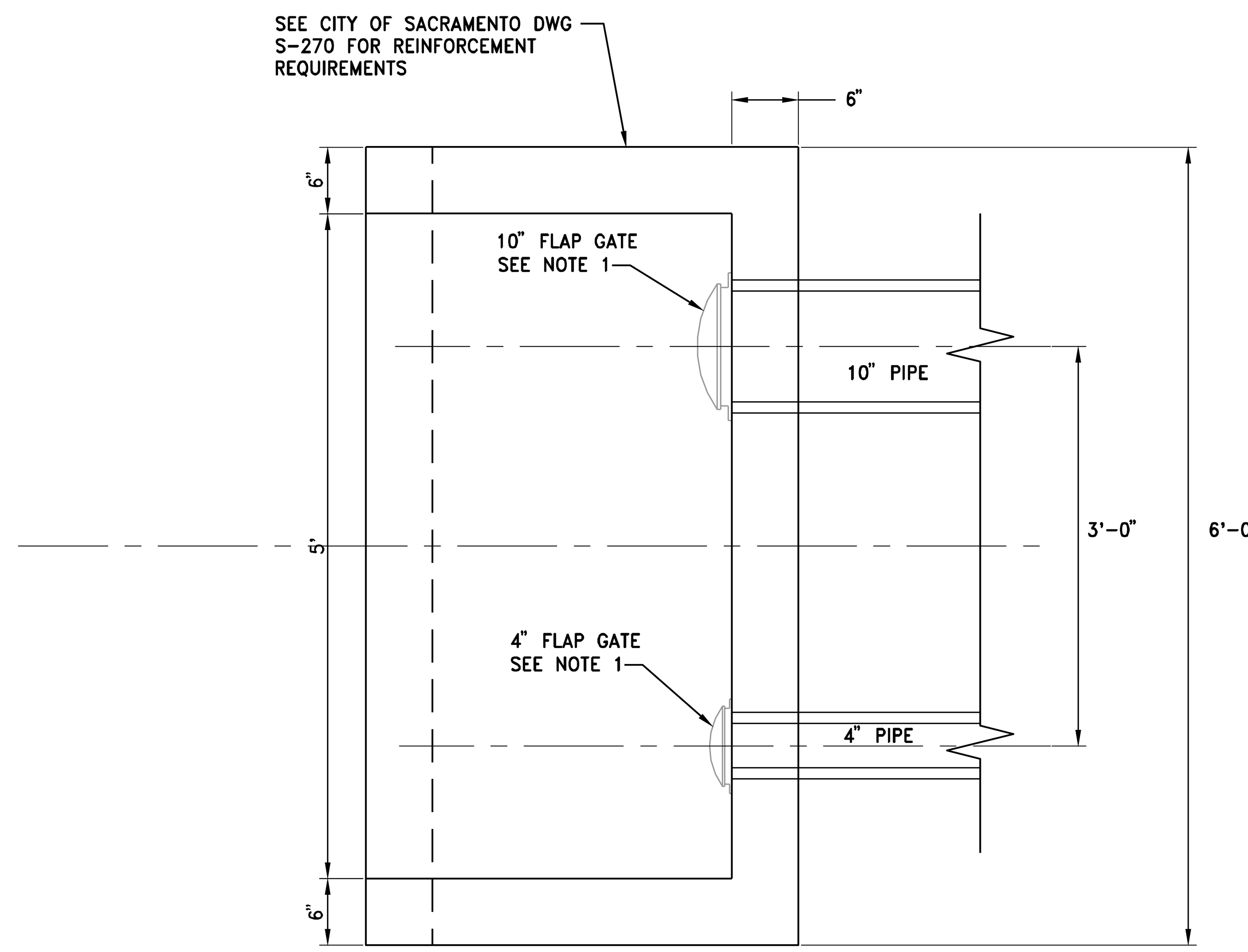
NOTE:

1. PROVIDE A FLAP GATE ON THE 4" AND 10" OUTLETS AS SHOWN. FLAP GATES SHALL BE OF THE CIRCULAR DOUBLE PIVOT TYPE, WITH MEANS TO ALLOW FOR ADJUSTMENT OF THE UPPER PIVOT POINT HORIZONTALLY TOWARD OR AWAY FROM THE SEATING PLANE. EACH GATE SHALL BE MOUNTED ON EMBEDDED CAST IRON WALL THIMBLE, OR FLANGED MOUNTED ON END OF PIPE. FOR FLANGE MOUNTING CONTRACTOR SHALL PROVIDE FLANGE ON END OF PIPE AND INCREASE OUTFALL PIPE LENGTH AS REQUIRED TO ACCOMMODATE FLANGE MOUNTING. EACH GATE SHALL CONSIST OF THE FOLLOWING COMPONENTS:

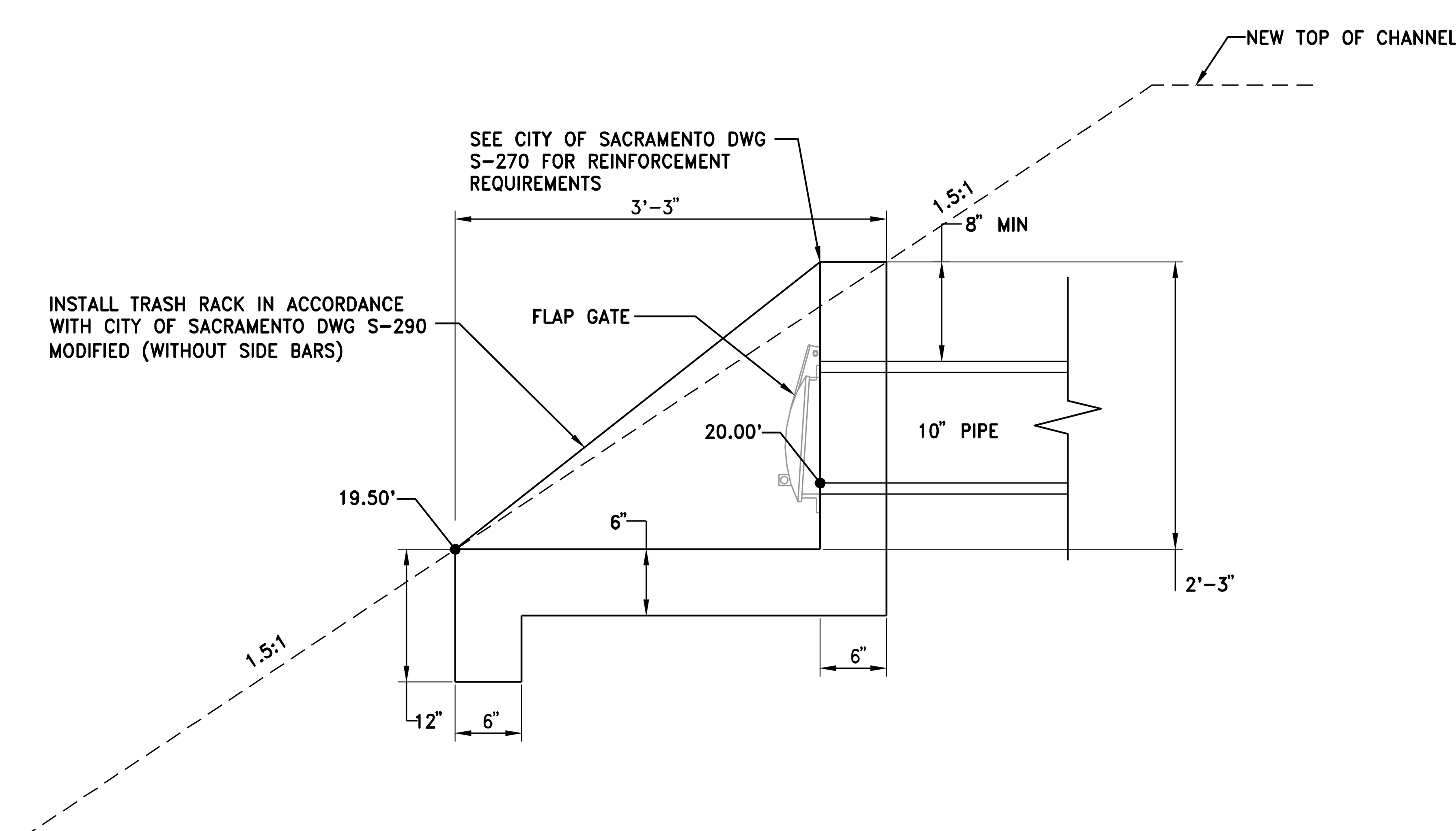
   a. ONE-PIECE CAST IRON FLAT BACK SEAT WITH RAISED SEAT FACE AND DRILLED AND TAPPED PIVOT LUG BOSSES
   b. CAST IRON COVER WITH LIFTING EYE AND LINK PIVOT BOSSES
   c. MACHINED SEAT FACES WITH RESILIENT SEAT
   d. DUCTILE IRON PIVOT LUGS, ADJUSTABLE, WITH CORROSION RESISTANT ADJUSTMENT STUDS
   e. DUCTILE IRON LINKS WITH ADJUSTABLE ROTATION LIMITERS, AND BRONZE BUSHINGS AT EACH PIVOT POINT
   f. FACTORY APPLIED COATING ON ALL CAST OR DUCTILE IRON SURFACES
   g. STAINLESS STEEL HARDWARE.

   FLAP GATES SHALL BE HYDROGATE MODEL 50C, RODNEY HUNT SERIES FV-AC, OR EQUAL.

2. CONSTRUCT OUTFALL STRUCTURE IN ACCORDANCE WITH CITY OF SACRAMENTO DWG S-270.



PLAN



SIDE ELEVATION

OUTFALL STRUCTURE #1 (1/–)
SCALE: NTS

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED
APPROVED

SAFCA

FLORIN CREEK MULTI-USE BASIN
DRAIN PIPE OUTFALL DETAILS
1 OF 3

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
HORIZ: 1"=40' VERT: 1"=4'
DRAWING NO. C-20
SHEET 23

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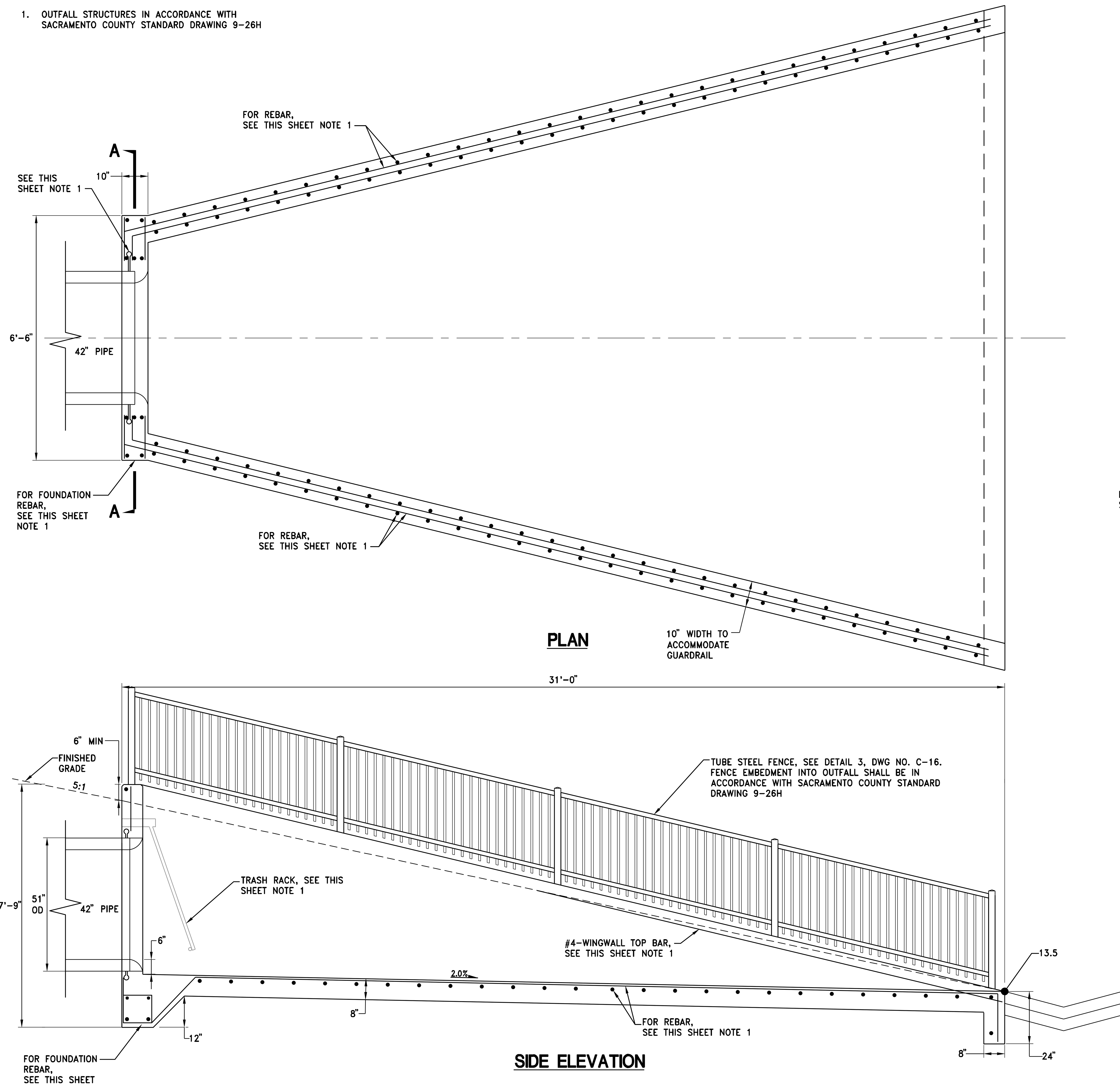
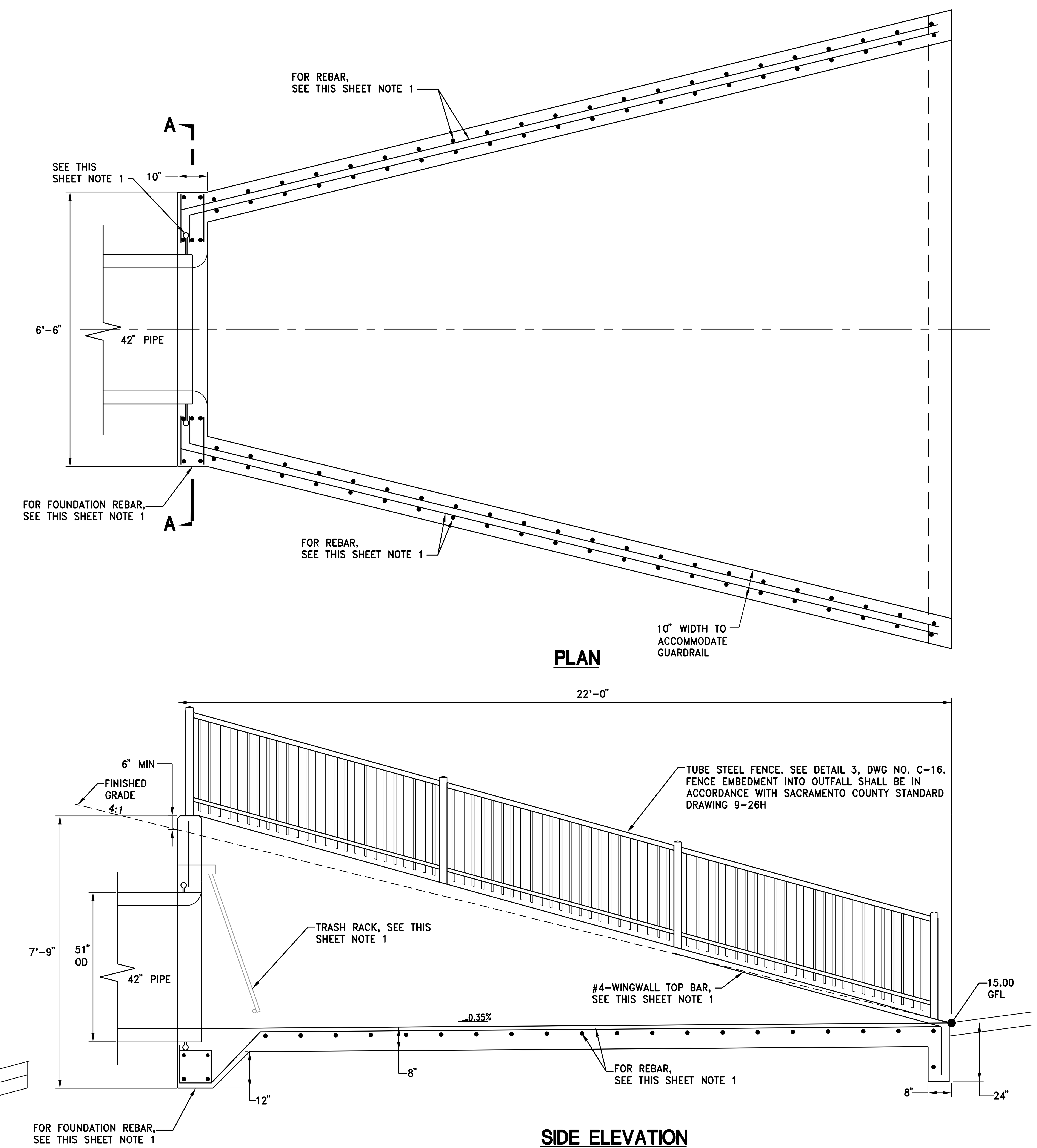
Attachment C - Project Drawings

SHEET NOTE:

1. OUTFALL STRUCTURES IN ACCORDANCE WITH SACRAMENTO COUNTY STANDARD DRAWING 9-26H



OUTFALL STRUCTURE #2
IN ACCORDANCE WITH SACRAMENTO COUNTY DRAWING 9-26H
SCALE: NTS 2 / -



OUTFALL STRUCTURE #3
IN ACCORDANCE WITH SACRAMENTO COUNTY DRAWING 9-26H
SCALE: NTS 3 / -

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

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FLORIN CREEK MULTI-USE BASIN
DRAIN PIPE OUTFALL DETAILS
2 OF 3

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
HORIZ: 1"=40' VERT: 1"=4'
DRAWING NO. C-21
SHEET 24

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_024_C-21_DRN-DTL-02_FCB.dwg 8/18/2015 4:13 PM Jenny Priest

Attachment C - Project Drawings

SHEET NOTES:

1. PROVIDE A FLAP GATE ON THE 36" OUTLET AS SHOWN. FLAP GATE SHALL BE OF THE CIRCULAR DOUBLE PIVOT TYPE, WITH MEANS TO ALLOW FOR ADJUSTMENT OF THE UPPER PIVOT POINT HORIZONTALLY TOWARD OR AWAY FROM THE SEATING PLANE. GATE SHALL BE MOUNTED ON EMBEDDED CAST IRON WALL THIMBLE, OR FLANGED MOUNTED ON END OF PIPE. FOR FLANGE MOUNTING CONTRACTOR SHALL PROVIDE FLANGE ON END OF PIPE AND INCREASE OUTFALL PIPE LENGTH AS REQUIRED TO ACCOMMODATE FLANGE MOUNTING. GATE SHALL CONSIST OF THE FOLLOWING COMPONENTS:

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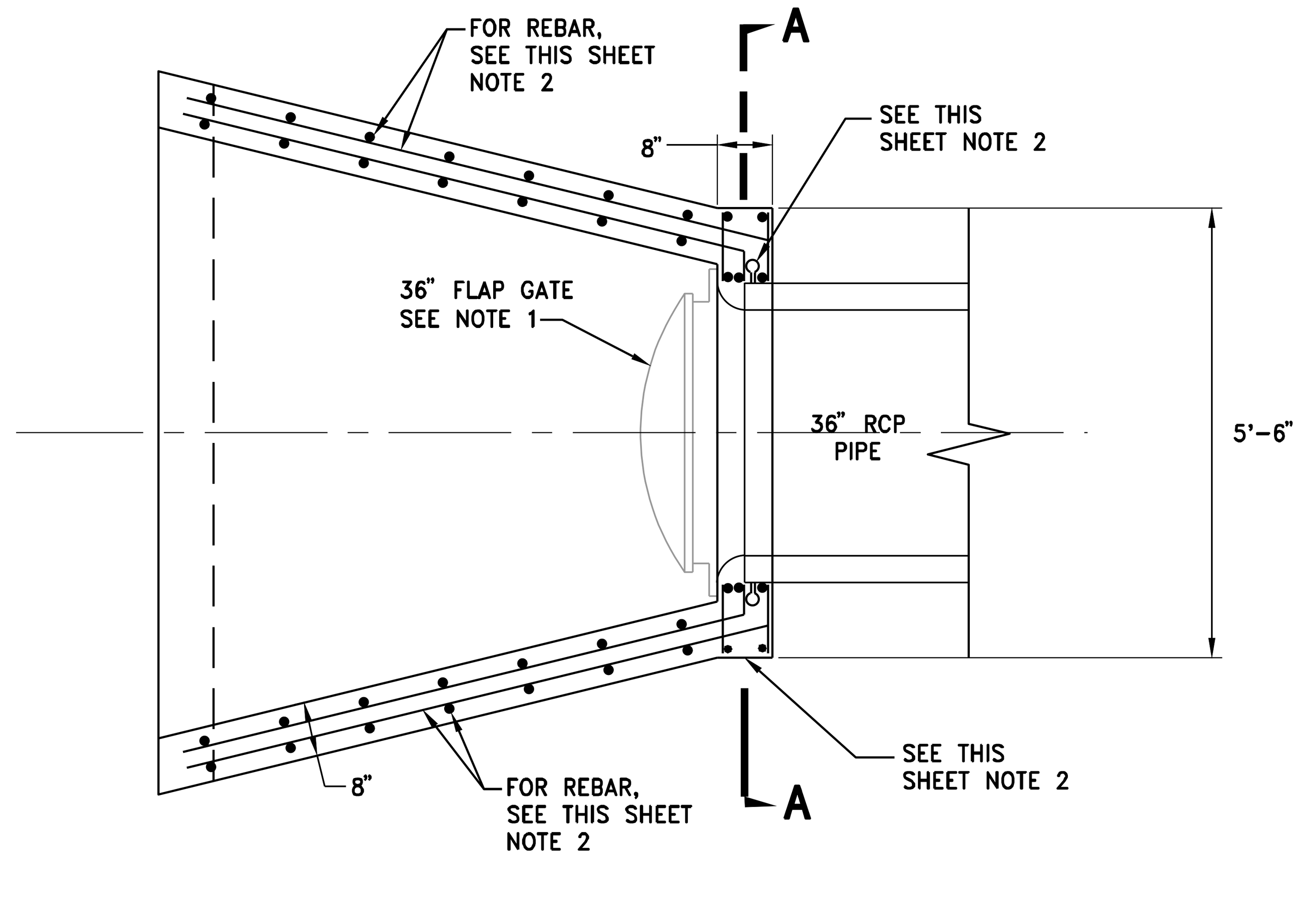
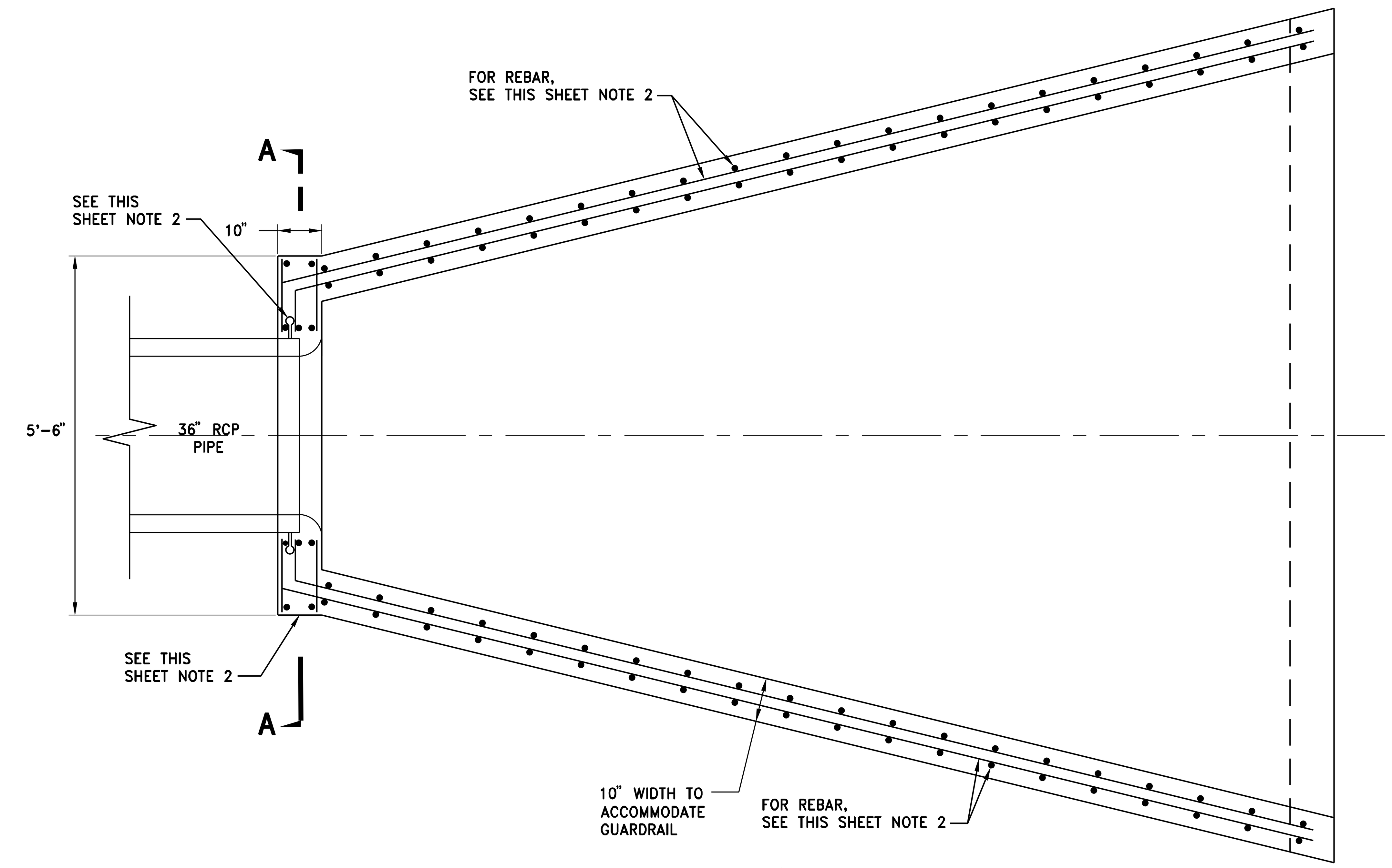
   e. DUCTILE IRON LINKS WITH ADJUSTABLE ROTATION LIMITERS, AND BRONZE BUSHINGS AT EACH PIVOT POINT
   f. FACTORY APPLIED COATING ON ALL CAST OR DUCTILE IRON SURFACES
   g. STAINLESS STEEL HARDWARE.

   FLAP GATE SHALL BE HYDROGATE MODEL 50C, RODNEY HUNT SERIES FV-AC, OR EQUAL.

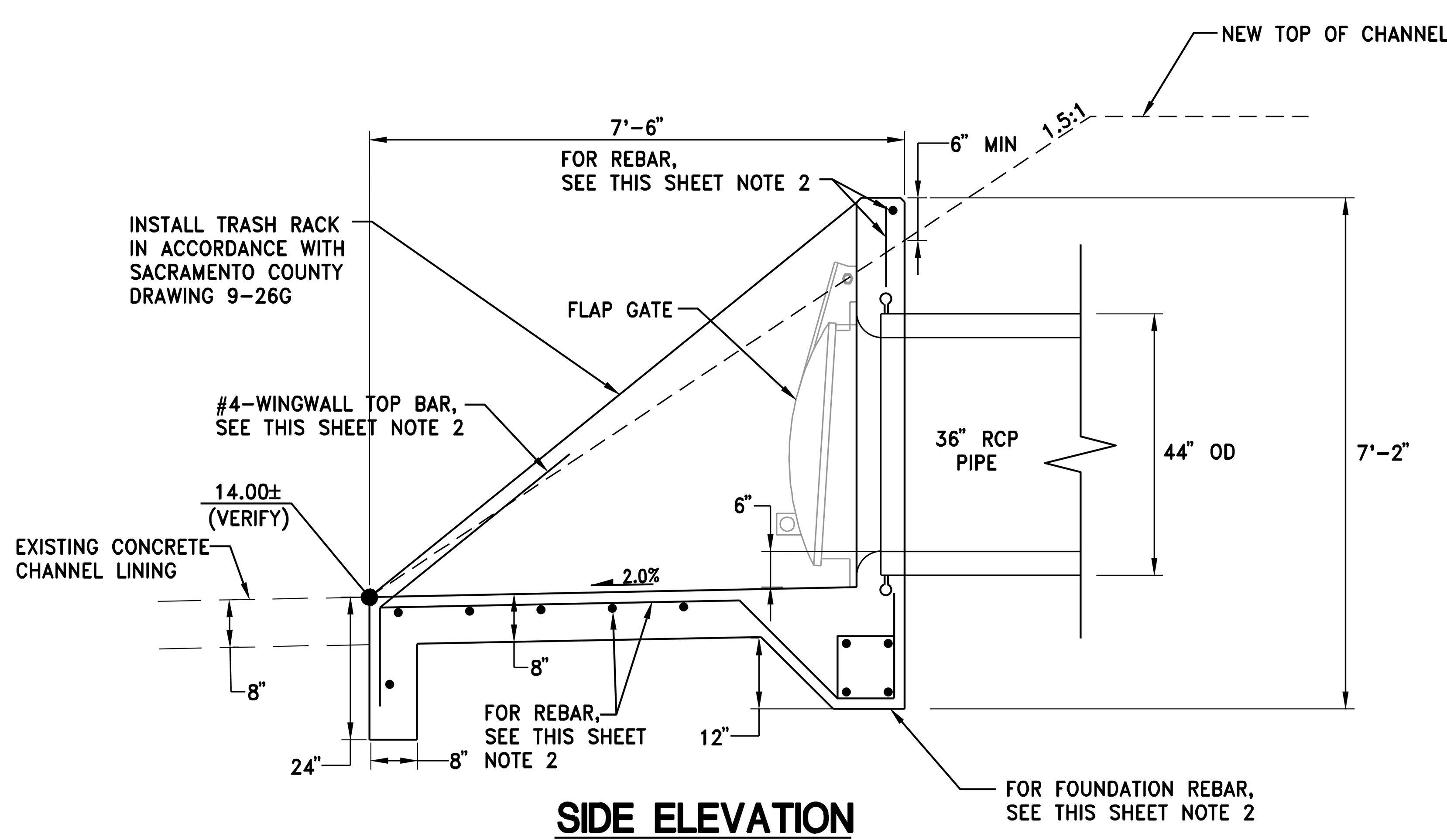
2. OUTFALL STRUCTURES IN ACCORDANCE WITH SACRAMENTO COUNTY STANDARD DRAWING 9-26H



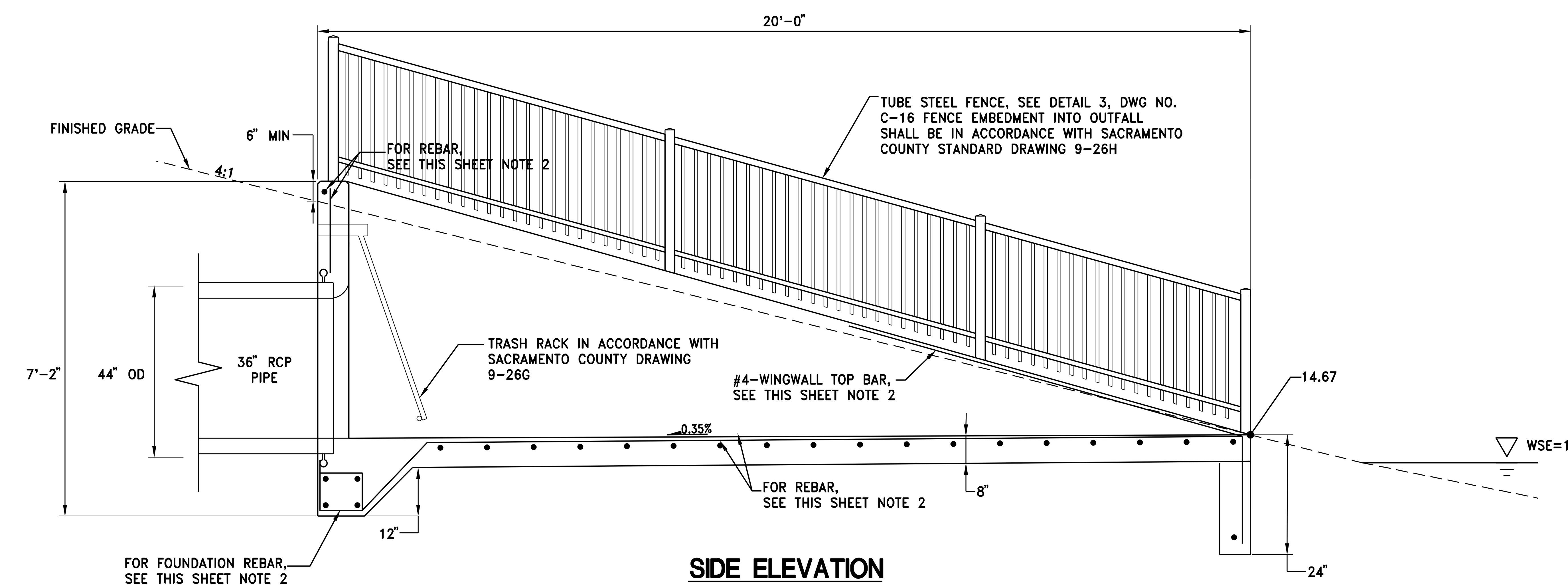
PLAN



PLAN



SIDE ELEVATION



SIDE ELEVATION

OUTFALL STRUCTURE #4
IN ACCORDANCE WITH SACRAMENTO COUNTY DRAWING 9-26H
SCALE: NTS 4 / –

OUTFALL STRUCTURE #5
IN ACCORDANCE WITH SACRAMENTO COUNTY DRAWING 9-26H
SCALE: NTS 5 / –

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_025_C-22_DRN-DTL-03_FCB.dwg 8/18/2015 4:13 PM Jenny Priest

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED | APPROVED

SAFCA

FLORIN CREEK MULTI-USE BASIN
DRAIN PIPE OUTFALL DETAILS
3 OF 3

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
HORIZ: 1"=40' | VERT: 1"=4'

DRAWING NO. C-22 | SHEET 25

Attachment C - Project Drawings

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE COUNTY OF SACRAMENTO IMPROVEMENT STANDARDS, CURRENT EDITION, AND THE COUNTY OF SACRAMENTO EROSION AND SEDIMENT CONTROL GUIDELINES, DATED NOVEMBER 2000.
2. EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE INSTALLED AND MAINTAINED DURING THE WET SEASON (OCTOBER 1 THROUGH APRIL 30). SEDIMENT CONTROL BMPs SHALL BE INSTALLED AND MAINTAINED ALL YEAR.
3. ALL DRAINAGE INLETS IMMEDIATELY DOWNSTREAM OF THE WORK AREAS AND WITHIN THE WORK AREAS SHALL BE PROTECTED WITH SEDIMENT CONTROL AND INLET FILTER BAGS, YEAR ROUND. INLET FILTER BAGS SHALL BE REMOVED FROM THE DRAINAGE INLETS UPON ACCEPTANCE OF THE PUBLIC IMPROVEMENTS BY THE COUNTY.
4. ALL STABILIZED CONSTRUCTION ACCESS LOCATIONS SHALL BE CONSTRUCTED PER STANDARD DRAWING 11-1 WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES PAVED AREAS. THE STABILIZED ACCESS SHALL BE MAINTAINED ON A YEAR ROUND BASIS UNTIL THE COMPLETION OF CONSTRUCTION.
5. ALL AREAS DISTURBED DURING CONSTRUCTION, BY GRADING, TRENCHING, OR OTHER ACTIVITIES, SHALL BE PROTECTED FROM EROSION DURING THE WET SEASON (FROM OCTOBER 1 THROUGH APRIL 30). HYDROSEED, IF UTILIZED, MUST BE PLACED BY SEPTEMBER 15. HYDROSEED PLACED DURING THE WET SEASON SHALL USE A SECONDARY EROSION METHOD.
6. SENSITIVE AREAS AND AREAS WHERE EXISTING VEGETATION IS BEING PRESERVED SHALL BE PROTECTED WITH CONSTRUCTION FENCING. SEDIMENT CONTROL BMPs SHALL BE INSTALLED WHERE ACTIVE CONSTRUCTION AREAS DRAIN INTO SENSITIVE OR PRESERVED VEGETATION AREAS.
7. SEDIMENT CONTROL BMPs SHALL BE PLACED ALONG THE PROJECT PERIMETER WHERE DRAINAGE LEAVES THE PROJECT. SEDIMENT CONTROL BMPs SHALL BE MAINTAINED YEAR ROUND UNTIL THE CONSTRUCTION IS COMPLETE OR THE DRAINAGE PATTERN HAS BEEN CHANGED AND NO LONGER LEAVES THE SITE.
8. EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT SHALL BE IN SUBSTANTIAL COMPLIANCE AT ALL TIMES WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THE PROJECT IN ACCORDANCE WITH THE STATE OF CALIFORNIA GENERAL CONSTRUCTION PERMIT. THIS PERMIT REQUIRES THAT THE SWPPP BE KEPT UP TO DATE TO REFLECT THE CHANGING SITE CONDITIONS AND THE SWPPP IS TO BE AVAILABLE ON SITE AT ALL TIMES FOR REVIEW BY STATE AND LOCAL INSPECTORS.
9. EFFECTIVE EROSION CONTROL BMPS SHALL BE IN PLACE PRIOR TO ANY STORM EVENT.

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDS)

1. CONTRACTOR IS ADVISED THAT THE STATE OF CALIFORNIA HAS ADOPTED NATIONAL POLLUTION DISCHARGE ELIMINATION REQUIREMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CLEAN WATER ACT. THIS PROJECT IS SUBJECT TO ALL OF THE REQUIREMENTS CONTAINED IN THOSE ACTS THE CONTRACTOR SHALL ABIDE BY ALL OF THE LAWS, ORDINANCES AND REGULATIONS ASSOCIATED WITH THE NPDS AND THE CLEAN WATER ACT.
2. AS PART OF THE NPDS REQUIREMENTS, A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MUST BE DEVELOPED FOR THE PROJECT. AN OUTLINE OF THIS PLAN HAS BEEN DEVELOPED BY THE OWNER. THE CONTRACTOR SHALL COMPLETE THE SWPPP AND UPDATE IT AS NECESSARY THROUGHOUT CONSTRUCTION OF THE PROJECT. A COPY OF THE OUTLINE SWPPP IS AVAILABLE FROM THE OWNER.
3. THE STORM WATER POLLUTION PREVENTION PLAN MUST BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION AND BE AVAILABLE AT THE CONSTRUCTION SITE. THE CONTRACTOR IS ADVISED THAT HE SHALL CONFORM TO THIS REQUIREMENT AND THAT HE SHALL IMPLEMENT ALL OF THE MEASURES REQUIRED BY THE STORM WATER POLLUTION PREVENTION PLAN, INCLUDING MAINTENANCE OF DILIGENT RECORD KEEPING AND LOGS AS REQUIRED BY THE SWPPP.
4. THE CONTRACTOR SHALL PROVIDE COPIES OF THE UPDATED STORM WATER POLLUTION PREVENTION PLAN TO THE CITY AND OWNER PRIOR TO STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL PROVIDE COPIES OF HIS SWPPP RECORDS AND LOGS DURING THE COURSE OF CONSTRUCTION, ON A MONTHLY BASIS, TO THE OWNER. THE CONTRACTOR SHALL ALSO KEEP COPIES OF THESE RECORDS AND LOGS WITH THE SWPPP AT THE CONSTRUCTION SITE FOR POTENTIAL VIEWING BY THE STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD.

MATERIAL DELIVERY & STORAGE NOTES

THE FOLLOWING STEPS SHALL BE TAKEN TO MINIMIZE RISK:

1. TEMPORARY STORAGE AREA SHALL BE LOCATED AWAY FROM VEHICULAR TRAFFIC.
2. MATERIAL SAFETY DATA SHEETS (MSDS) SHALL BE SUPPLIED AND AVAILABLE BY THE CONTRACTOR FOR ALL MATERIALS STORED.
3. ALL MATERIAL DELIVERY AND STORAGE SHALL TAKE PLACE AT WITHIN THE DESIGNATED AREA.
4. STORAGE OF REACTIVE, IGNITABLE, OR FLAMMABLE LIQUIDS MUST COMPLY WITH THE LOCAL FIRE CODES.
5. AN UP TO DATE INVENTORY OF MATERIALS DELIVERED AND STORED ONSITE SHALL BE KEPT BY CONTRACTOR.
6. HAZARDOUS MATERIALS STORAGE ONSITE SHALL BE MINIMIZED.
7. HAZARDOUS MATERIALS SHALL BE HANDLED AS INFREQUENTLY AS POSSIBLE.
8. DURING THE RAINY SEASON, MATERIALS SHALL BE STORED IN A COVERED AREA. STORE MATERIALS IN SECONDARY CONTAINMENTS SUCH AS EARTHEN DIKE, HORSE TROUGH, OR EVEN A CHILDREN'S WADING POOL FOR NON REACTIVE MATERIALS SUCH AS DETERGENTS, OIL, GREASE, AND PAINTS. SMALL AMOUNTS OF MATERIAL MAY BE SECONDARILY CONTAINED IN "BUS BOY" TRAYS OR CONCRETE MIXING TRAYS.
9. DO NOT STORE CHEMICALS, DRUMS, OR BAGGED MATERIALS DIRECTLY ON THE GROUND. PLACE THESE ITEMS ON A PALLET AND, WHEN POSSIBLE, IN SECONDARY CONTAINMENT.
10. IF DRUMS MUST BE KEPT UNCOVERED, USE DOMED PLASTIC COVERS OR STORE THEM AT A SLIGHT ANGLE TO REDUCE PONDING OF RAINWATER ON THE LIDS TO REDUCE CORROSION.
11. CHEMICALS SHALL BE KEPT IN THEIR ORIGINAL LABELED CONTAINERS.
12. EMPLOYEES AND SUBCONTRACTORS SHALL BE TRAINED ON THE PROPER MATERIAL DELIVERY AND STORAGE PRACTICES.
13. THE CONTRACTOR SHALL ARRANGE FOR EMPLOYEES TRAINED IN EMERGENCY SPILL CLEANUP PROCEDURES TO BE PRESENT WHEN DANGEROUS MATERIALS OR LIQUID CHEMICALS ARE UNLOADED.

MATERIAL STORAGE AREAS & PRACTICES NOTES

1. LIQUIDS, PETROLEUM PRODUCTS, AND SUBSTANCES LISTED IN 40 CFR PARTS 110, 117, OR 302 SHALL BE STORED IN APPROVED CONTAINERS AND DRUMS AND SHALL NOT BE OVERFILLED. CONTAINERS AND DRUMS SHALL BE PLACED IN TEMPORARY CONTAINMENT FACILITIES FOR STORAGE.
2. A TEMPORARY CONTAINMENT FACILITY SHALL PROVIDE FOR A SPILL CONTAINMENT VOLUME ABLE TO CONTAIN PRECIPITATION FROM A 25 YEAR STORM EVENT, PLUS THE GREATER OF 10% OF THE AGGREGATE VOLUME OF ALL CONTAINERS OR 100% OF THE CAPACITYOF THE LARGEST CONTAINER WITHIN ITS BOUNDARY, WHICHEVER IS GREATER.
3. A TEMPORARY CONTAINMENT FACILITY SHALL BE IMPERVIOUS TO THE MATERIALS STORED THEREIN FOR A MINIMUM CONTACT TIME OF 72 HOURS.
4. A TEMPORARY CONTAINMENT FACILITY SHALL BE MAINTAINED FREE OF ACCUMULATED RAINWATER AND SPILLS. IN THE EVENT OF SPILLS OR LEAKS, ACCUMULATED RAINWATER AND SPILLS SHALL BE COLLECTED AND PLACED INTO DRUMS. THESE LIQUIDS SHALL BE HANDLED AS A HAZARDOUS WASTE UNLESS TESTING DETERMINES THEM TO BE NON-HAZARDOUS. ALL COLLECTED LIQUIDS OR NON-HAZARDOUS LIQUIDS SHALL BE SENT TO AN APPROVED DISPOSAL SITE.
5. SUFFICIENT SEPARATION SHALL BE PROVIDED BETWEEN STORED CONTAINERS TO ALLOW FOR SPILL CLEANUP AND EMERGENCY RESPONSE ACCESS.
6. INCOMPATIBLE MATERIALS, SUCH AS CHLORINE AND AMMONIA, SHALL NOT BE STORED IN THE SAME TEMPORARY CONTAINMENT FACILITY.
7. THROUGHOUT THE RAINY SEASON, EACH TEMPORARY CONTAINMENT FACILITY SHALL BE COVERED DURING NON-WORKING DAYS, PRIOR TO, AND DURING RAIN EVENTS.
8. MATERIALS SHALL BE STORED IN THEIR ORIGINAL CONTAINERS AND THE ORIGINAL PRODUCT LABELS SHALL BE MAINTAINED IN PLACE IN A LEGIBLE CONDITION. DAMAGED OR OTHERWISE ILLEGIBLE LABELS SHALL BE REPLACED IMMEDIATELY.
9. BAGGED AND BOXED MATERIALS SHALL BE STORED ON PALLETS AND SHALL NOT BE ALLOWED TO ACCUMULATE ON THE GROUND. TO PROVIDE PROTECTION FROM WIND AND RAIN THROUGHOUT THE RAINY SEASON, BAGGED AND BOXED MATERIALS SHALL BE COVERED DURING NON-WORKING DAYS AND PRIOR TO AND DURING RAIN EVENTS.
10. PROPER STORAGE INSTRUCTIONS SHALL BE POSTED AT ALL TIMES IN AN OPEN AND CONSPICUOUS LOCATION.
11. AN AMPLE SUPPLY OF APPROPRIATE SPILL CLEAN UP MATERIAL SHALL BE KEPT NEAR STORAGE AREAS OR PROVIDED BY CONTRACTOR.

VEHICLE AND EQUIPMENT CLEANING, FUELING, AND MAINTENANCE NOTES

1. THE CONTRACTOR SHALL PERFORM AS MUCH AS POSSIBLE ALL CLEANING OFF SITE OR CONTRACT WITH EITHER AN OFFSITE OR MOBILE COMMERCIAL WASHING BUSINESS FOR ALL NECESSARY CLEANING.
2. THE CONTRACTOR SHALL USE OFFSITE FUELING STATIONS AND REPAIR SITES AS MUCH AS POSSIBLE.
3. THE CONTRACTOR SHALL DISCOURAGE "TOPPING-OFF" OF FUEL TANKS.
4. THE CONTRACTOR SHALL MAKE AVAILABLE ABSORBENT SPILL CLEANUP MATERIALS AND SPILL KITS IN FUELING AREAS AND ON FUELING TRUCKS.
5. THE CONTRACTOR SHALL USE DRIP PANS OR ABSORBENT PADS DURING VEHICLE AND EQUIPMENT FUELING AND MAINTENANCE WORK THAT INVOLVES FLUIDS.
6. THE CONTRACTOR SHALL USE ABSORBENT MATERIALS EVEN ON SMALL SPILLS. DO NOT HOSE DOWN OR BURY THE SPILL.
7. THE CONTRACTOR SHALL REMOVE THE ABSORBENT MATERIALS PROMPTLY AND DISPOSE OF PROPERLY.
8. IF EQUIPMENT CAN BE MOVED, FUELING AND MAINTENANCE SHALL TAKE PLACE ONLY IN THE DESIGNATED AREA. THE CONTRACTOR SHALL AVOID MOBILE FUELING AND MAINTENANCE OF MOBILE CONSTRUCTION EQUIPMENT AROUND THE SITE; RATHER, TRANSPORT THE EQUIPMENT TO DESIGNATED AREA.
9. THE CONTRACTOR SHALL TRAIN EMPLOYEES AND SUBCONTRACTORS IN PROPER FUELING, MAINTENANCE, AND SPILL CLEANUP PROCEDURES.
10. FUELING AND MAINTENANCE SHALL BE PERFORMED ON LEVEL-GRADE AREAS.
11. THE CONTRACTOR SHALL PROTECT FUELING AND MAINTENANCE AREAS WITH BERMS AND DIKES TO PREVENT RUNON, RUNOFF, AND TO CONTAIN SPILLS.
12. NOZZLES USED IN VEHICLE AND EQUIPMENT FUELING SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF TO CONTROL DRIPS. FUELING OPERATIONS SHALL NOT BE LEFT UNATTENDED.
13. THE CONTRACTOR SHALL OBSERVE FEDERAL, STATE, AND LOCAL REQUIREMENTS FOR ANY STATIONARY ABOVE GROUND STORAGE TANKS.
14. THE CONTRACTOR SHALL INSPECT ONSITE VEHICLES AND EQUIPMENT DAILY AT STARTUP FOR LEAKS, AND REPAIR IMMEDIATELY. KEEP VEHICLES AND EQUIPMENT CLEAN; DO NOT ALLOW EXCESSIVE BUILD-UP OF OIL AND GREASE.
15. THE CONTRACTOR SHALL SEGREGATE AND RECYCLE WASTES, SUCH AS GREASES, USED OIL OR OIL FILTERS, ANTIFREEZE, CLEANING SOLUTIONS, AUTOMOTIVE BATTERIES, HYDRAULIC AND TRANSMISSION FLUIDS. PROVIDE SECONDARY CONTAINMENT AND COVERS FOR THESE MATERIALS IF STORED ONSITE.
16. THE CONTRACTOR SHALL PROPERLY DISPOSE OF USED OILS, FLUIDS, LUBRICANTS, BATTERIES, AND SPILL CLEANUP MATERIALS.

SPILL CLEANUP NOTES

1. THE CONTRACTOR SHALL CONTAIN AND CLEAN UP ANY MINOR SPILL IMMEDIATELY. THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE EMERGENCY SERVICES FOR LARGE SPILLS.
2. THE CONTRACTOR SHALL PROPERLY REMOVE AND DISPOSE OF ANY HAZARDOUS MATERIALS OR CONTAMINATED SOIL IF SIGNIFICANT RESIDUAL MATERIALS REMAIN ON THE GROUND AFTER CONSTRUCTION IS COMPLETE.

DUST CONTROL NOTE

THE CONTRACTOR SHALL PROVIDE, AT HIS EXPENSE, APPROPRIATE DUST CONTROL (WATER TRUCK OR OTHER DUST PALLIATIVE) AS REQUIRED FOR THE PREVENTION AND/OR ALLEVIATION OF DUST NUISANCE DURING THE COURSE OF PROJECT CONSTRUCTION IN ACCORDANCE WITH SECTION 17 OF THE SACRAMENTO COUNTY SPECIFICATIONS.

DEWATERING NOTES

DEWATERING AND PONDED WATER MANAGEMENT APPLIES TO AREAS WHERE STORMWATER HAS COLLECTED IN LOW SPOTS, TRENCHES OR OTHER DEPRESSIONS AND NEEDS TO BE REMOVED TO PROCEED WITH CONSTRUCTION ACTIVITIES OR FOR VECTOR CONTROL. BELOW ARE THE SEDIMENT REMOVAL OPTIONS THAT WILL BE CONSIDERED DURING DEWATERING ACTIVITIES. IN ALL CASES, OPTION 1 (REUSE OF WATER) WILL BE THE FIRST OPTION CONSIDERED. IF OPTION 1 IS DETERMINED INFEASIBLE, DUE TO SITE SATURATION, THE REMAINING OPTIONS (DESCRIBED BELOW) WILL BE CONSIDERED. DEWATERING BMP SELECTION IS AN ITERATIVE PROCESS, THUS IF ONE TYPE OF BMP IS NOT EFFICIENTLY REMOVING SEDIMENT, ANOTHER SEDIMENT REMOVAL OPTION WILL NEED TO BE IMPLEMENTED. WHEN A SPECIFIC DEWATERING METHOD IS IMPLEMENTED, THE SITE'S SWPPP WILL BE AMENDED TO IDENTIFY WHICH OPTION WILL BE UTILIZED AND WILL DESCRIBE THE SPECIFICS OF THE SEDIMENT REMOVAL OPERATION (I.E., PUMP SIZE, TYPE OF FILTER USED, SPECIFIC LOCATION OF SEDIMENT REMOVAL DEVICE, ETC.). THE DEWATERING PLAN MAY ENCOMPASS ONE OR A COMBINATION OF THE SEDIMENT REMOVAL OPTIONS IDENTIFIED BELOW. IF A SEDIMENT REMOVAL BMP IS UTILIZED THAT IS NOT IDENTIFIED BELOW, THE SWPPP WILL BE AMENDED TO DESCRIBE THE ALTERNATIVE SEDIMENT REMOVAL METHOD. PLEASE REFER TO CALTRANS OR CASQA BMP CUT SHEETS FOR SPECIFIC REQUIREMENTS FOR EACH SEDIMENT REMOVAL OPTION IDENTIFIED BELOW.

1. REUSE ACCUMULATED STORM WATER REUSE WATER FOR DUST CONTROL. WHENEVER POSSIBLE THE FIRST OPTION FOR DEWATERING WILL BE TO REUSE ACCUMULATED STORM WATER RUNOFF FOR DUST CONTROL.
2. SEDIMENT/DESILTING BASIN
   EACH LOW POINT ON THE SITE SHALL SERVE AS A SEDIMENT/DESILTING BASING TO ALLOW SEDIMENT AND SUSPENDED SOLIDS TO SETTLE. IF ADDITIONAL SEDIMENT REMOVAL IS REQUIRED, SEDIMENT CONTROL BMPS SUCH AS HAY BALES, SILT FENCES, OR GRAVEL BAG CHECK DAMS MAY BE INCORPORATED INTO, UPSTREAM, OR DOWNSTREAM OF THE LOW POINT TO INCREASE SEDIMENT REMOVAL EFFICIENCY.
3. WEIR TANK OR DEWATERING TANK TREATMENTS
   WEIR TANKS MAY BE UTILIZED TO REMOVE SEDIMENT DURING DEWATERING OPERATIONS. DEWATERING TANKS MAY HAVE A MEDIA FILTER INSTALLED IN ONE OR MORE CHAMBERS TO PRE-TREAT WATER PRIOR TO DISCHARGING THROUGH FILTER FABRIC TO INCREASE SEDIMENT REMOVAL EFFICIENCY. TANKS SHALL BE CONFIGURED TO MAXIMIZE SETTLING TIME. TO ACCOMMODATE LARGE FLOWS, MULTIPLE TANKS MAY BE USED IN SERIES. IF NEEDED, TANKS CAN BE USED IN CONJUNCTION WITH SEDIMENT TRAPS OR SEDIMENT BASINS TO INCREASE SEDIMENT REMOVAL EFFICIENCY. TANK OUTLETS SHALL BE FITTED WITH A FILTER THAT IS SIZED APPROPRIATELY TO REMOVE THE SPECIFIC SIZE AND TYPE OF SEDIMENTS PRESENT IN STORM WATER RUNOFF.
4. GRAVITY BAG FILTERS
   GRAVITY BAG FILTERS ARE RECTANGULAR OR SQUARE WOVEN BAGS MADE OF GEOTEXTILE FABRICS THAT REMOVE SEDIMENT. WATER IS PUMPED INTO THE BAG AND THEN SEEPS THROUGH THE BOTTOM AND SIDE OF THE BAGS. SEDIMENT IS CAPTURED WITHIN THE BAG. GRAVITY BAG FILTERS MAY BE USED IN CONJUNCTION WITH OTHER SEDIMENT REMOVAL DEVICES. IF SEDIMENT ESCAPES THE BAG, HAY BALES, FILTER FABRIC, GRAVEL BAGS OR FIBER ROLLS MAY BE PLACED AROUND THE BAG TO INCREASE SEDIMENT REMOVAL EFFICIENCY.
5. CARTRIDGE OR CANISTER FILTERS
   CARTRIDGE OR CANISTER FILTERS MAY BE UTILIZED TO REMOVE SEDIMENT FROM STORM WATER DISCHARGES ASSOCIATED WITH DEWATERING ACTIVITIES. THERE ARE A VARIETY OF TYPES OF CARTRIDGES OR CANISTERS THAT MAY BE UTILIZED. THE TYPE OF CARTRIDGES OR CANISTERS UTILIZED SHALL BE APPROPRIATE FOR THE TYPE AND SIZE OF SEDIMENT TO BE REMOVED. IF CARTRIDGE OR CANISTER FILTERS ARE NOT ADEQUATELY REMOVING SEDIMENT THEY SHALL BE USED IN CONJUNCTION WITH ANOTHER SEDIMENT REMOVAL BMP.
6. ACTIVE TREATMENT SYSTEMS
   DUE TO PRESENCE OF CERTAIN SOILS ON-SITE, CHEMICAL ADDITIVES, SUCH AS A POLYMER OR ANOTHER TYPE OF FLOCCULENT, MAY BE INCORPORATED INTO THE ABOVE DESCRIBED FILTRATION METHODS TO ENHANCE SEDIMENTATION IF THE ROADWAYS ARE NOT PAVED. IF AN ACTIVE TREATMENT SYSTEM (ATS), A SPECIFIC DEWATERING PLAN WILL BE DEVELOPED AND THIS SWPPP WILL BE AMENDED TO INCORPORATE THE ATS REQUIREMENTS IDENTIFIED IN THE CONSTRUCTION GENERAL PERMIT. THIS DEWATERING PLAN WILL INCLUDE A DESCRIPTION OF OPERATIONAL AND MONITORING PROCEDURES THAT WILL INCLUDE SAFEGUARDS TO ENSURE NO CHEMICAL ADDITIVE IS DISCHARGED FROM THE TREATMENT SYSTEM. THE REGIONAL WATER QUALITY CONTROL BOARD WILL ALSO BE NOTIFIED IF A CHEMICAL ADDITIVE IS INCORPORATED INTO THE FILTRATION SYSTEM. IN ADDITION, THE SITE'S SAMPLE AND ANALYSIS PLAN WILL BE AMENDED TO ADDRESS THE SAMPLE AND ANALYTICAL REQUIREMENTS FOR NON-VISIBLE POLLUTANTS.

BEST MANAGEMENT PRACTICES SCHEDULE

Best Management Practice	Location	Schedule Implementation	Maintenance Schedule
Preserving Existing Vegetation	Around perimeter of project site	Continuous, until construction is completed	Educate employees and subcontractors regarding importance of maintaining existing vegetation to prevent erosion and filter out sediment in runoff from disturbed areas on the construction site. Inspect site perimeter monthly to verify the outside vegetation is not disturbed.
Protect Graded Areas and Slopes from Washout and Erosion	Throughout project site	During Wet Season	Inspect graded areas and slopes on at least a monthly basis to check for erosion. Regrade tributary areas or install sand bag dikes as necessary to prevent erosion.
Gravel Filter	Along flow lines of unpaved roadways within site	In place during Wet Season until roadways are paved	Inspect after each storm. Remove onsite sediment deposited behind berm or barrier to maintain effectiveness.
Bag Inlet Filter	Inlets to the storm drainage system	Continuous until Landscaping is in place.	Inspect weekly and after each storm. Remove sediment and debris before accumulations have reached one third the depth of the bag. Repair or replace inlet filter bag as soon as damage occurs.
Fiber Roll	See note 7 of erosion & sediment control notes	Continuous	Inspect after each storm. Remove sediment deposited behind fiber roll whenever necessary to maintain effectiveness.
Hydroseeding	3:1 slopes	in place during by Sept. 15	inspect slopes on at least a monthly basis to check for erosion. If erosion is noted, spread straw mulch over affected areas.
Stabilized Construction Entrance	Entrances to site from public roadways	Continuous, until entrances and onsite roadways are paved	Inspect on a monthly basis and after each rainfall. Add aggregate base material whenever necessary to prevent sediment from being tracked into public street.
Wind Erosion Control Practices	Wherever necessary throughout project site	Continuous until grading is completed and soils have stabilized	Inspect site during windy conditions to identify areas where wind erosion is occurring and abate erosion as necessary.
Good Housekeeping Measures	Throughout project site	Continuous until construction is completed	Inspect site on at least a monthly basis to verify good housekeeping practices are being implemented.
Proper Construction Material Storage	Designated area	Continuous until construction is completed	Inspect site on at least a weekly basis to verify that construction materials are stored in a manner which could not cause storm water pollution.
Proper Construction Waste Storage and Disposal including 1) Concrete	Designated collection area and containers	Continuous until construction is completed	Inspect site on at least a weekly basis to assure waste is stored properly and disposed of at legal disposal site, daily.
Spill Cleanup including 1) Paint & Painting Supplies	Material handling areas	Immediately at time of spill	Inspect material handling areas on at least a monthly basis to verify proper spill cleanup.
2) Vehicle fueling, maintenance & cleaning	Designated area with secondary containment	Continuous	Keep ample supplies of spill clean-up materials on site & inspect on regular schedule.
Street and Storm Drainage Facility Maintenance Definitions	Streets and storm drainage facilities	Continuous until construction is completed	Maintain storm drainage facilities and paved streets clear of sediment and debris.

1. Wet Season: Entire period between October 1 through April 30. Contractor shall also implement Wet Season Measures if wet weather is expected during the dry season
2. Phases of Grading
   - Initial: When clearing and grubbing activities occur.
   - Rough: When cut and fill activities occur and the site improvements are constructed, including underground piping, streets, sidewalks, and other improvements.
   - Final: When final elevations are set, and site improvements are completed and ready for County acceptance.

SWPPP IMPLEMENTATION

NAME
BUSINESS XXX-XXX-XXXX
RESPONSIBLE IMPLEMENTING PARTY TELEPHONE

X
X
ADDRESS

WDID NO. =

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

WOOD RODGERS
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SUBMITTED APPROVED

SAFCA

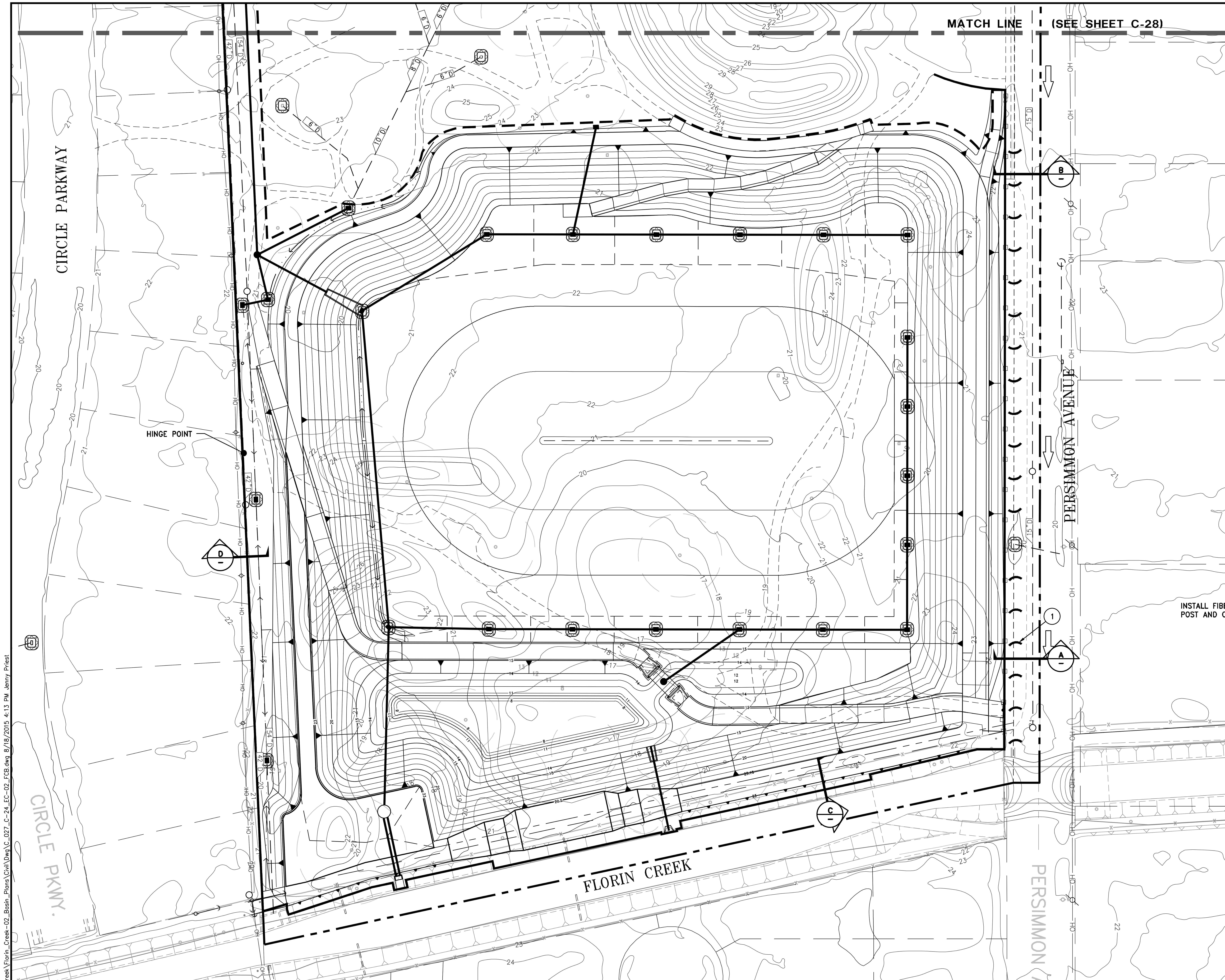
FLORIN CREEK MULTI-USE BASIN
EROSION & SEDIMENT CONTROL NOTES AND DETAILS

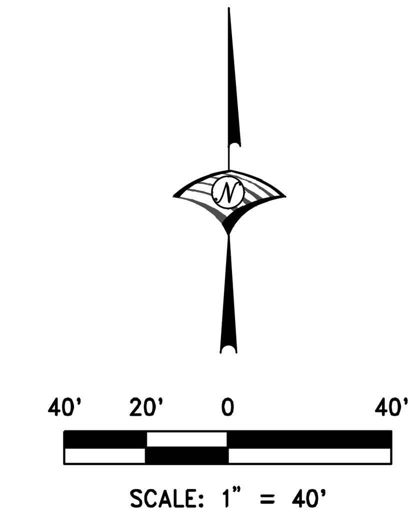
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-23
SHEET 26

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_026_C-23_EC-01_FCB.dwg 8/18/2015 4:13 PM Jenny Priest

Attachment C - Project Drawings





GENERAL NOTES

1. SEE EROSION AND SEDIMENT CONTROL NOTES DRAWING __ FOR NOTES REGARDING STORAGE, STOCKPILE, SPOILS, EQUIPMENT AREAS.
2. THE PROJECT AREA AS SHOWN DISTURBS APPROXIMATELY 13.2 ACRES.
3. APPROXIMATELY 65,080 CY OF EARTHWORK SHALL BE EXCAVATED OF WHICH APPROXIMATELY 3,820 CY WILL REMAIN AS PERMANENT FILL. APPROXIMATELY 61,210 CY IS EXPECTED TO BE EXPORTED.
4. MEASURES SHALL BE TAKEN IN ACCORDANCE WITH THE PROJECT SWPPP TO ENSURE THAT ANY MATERIAL TEMPORARY STORED ON SITE SHALL BE PROTECTED SUCH THAT NO SEDIMENT, PARTICLES, OR OTHER CONTAMINANTS ENTER THE STORM DRAIN SYSTEM NEW OR EXISTING.
5. ALL INTERIOR LANDSCAPE DRAINS (NOT PART OF THIS SET) TO ALSO RECEIVE SIMILAR INLET BAG PROTECTION AS SHOWN ON THESE PLANS.
6. FOR CLARITY, EXISTING ELECTRICAL, WATER, AND IRRIGATION UTILITY LINES ARE NOT SHOWN ON EROSION AND SEDIMENT CONTROL DRAWINGS. SEE DEMOLITION PLAN DRAWINGS FOR EXISTING UTILITY LINES.

CONSTRUCTION NOTES:

1. PROVIDE FIBER ROLLS ACROSS SWALES AT APPROXIMATELY 25' ON CENTER AS SHOWN ON PLANS.
2. STOCKPILING OR STAGING ADJACENT TO THE FLORIN CREEK CHANNEL WITHIN 20-FT IS PROHIBITED.

LEGEND

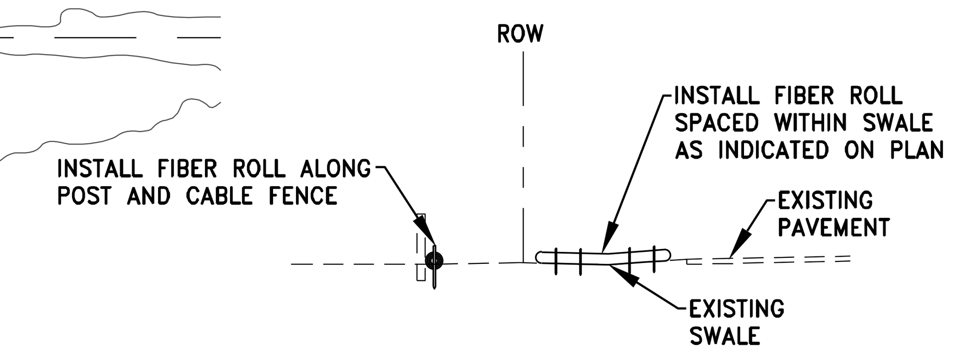
PROJECT AREA

DISTURBED AREA

FIBER ROLL (IN ACCORDANCE WITH SAC COUNTY DWG 11-4)

OVERLAND RELEASE

INLET PROTECTION
INLET SEDIMENT CONTROL BARRIER WITH INLET FILTER BAG (IN ACCORDANCE WITH SAC COUNTY DWG 11-7, 11-8)



A SECTION
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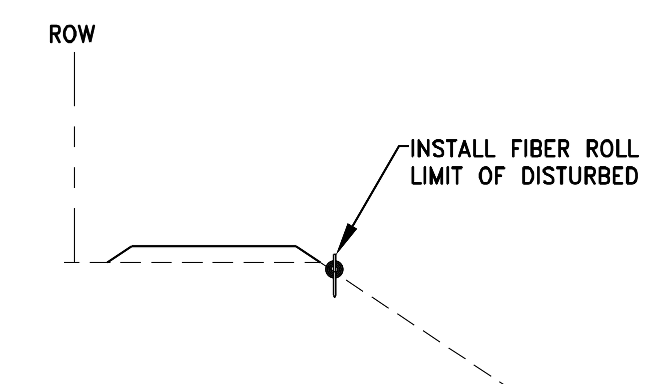

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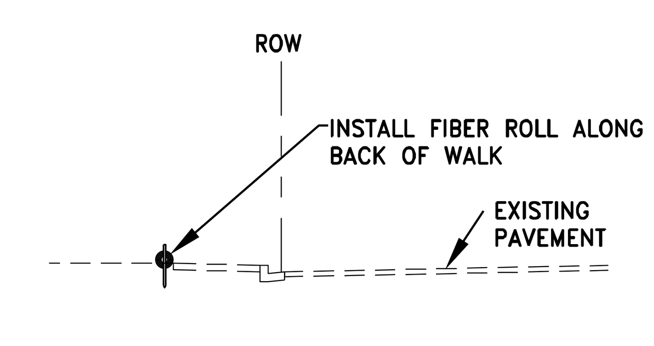

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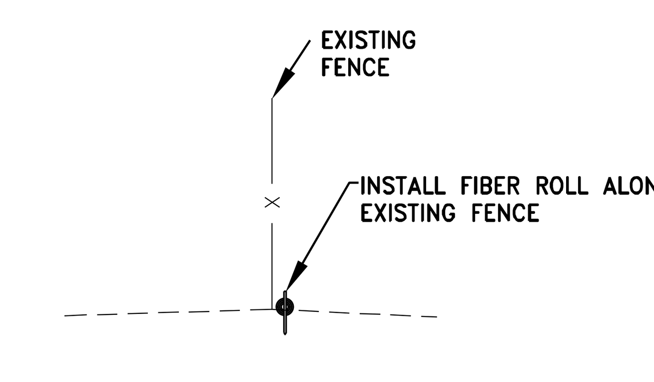

D SECTION
SCALE: N.T.S.

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

WOOD RODGERS
DEVELOPING • INNOVATIVE • DESIGN • SOLUTIONS
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SUBMITTED | APPROVED

SAFCA

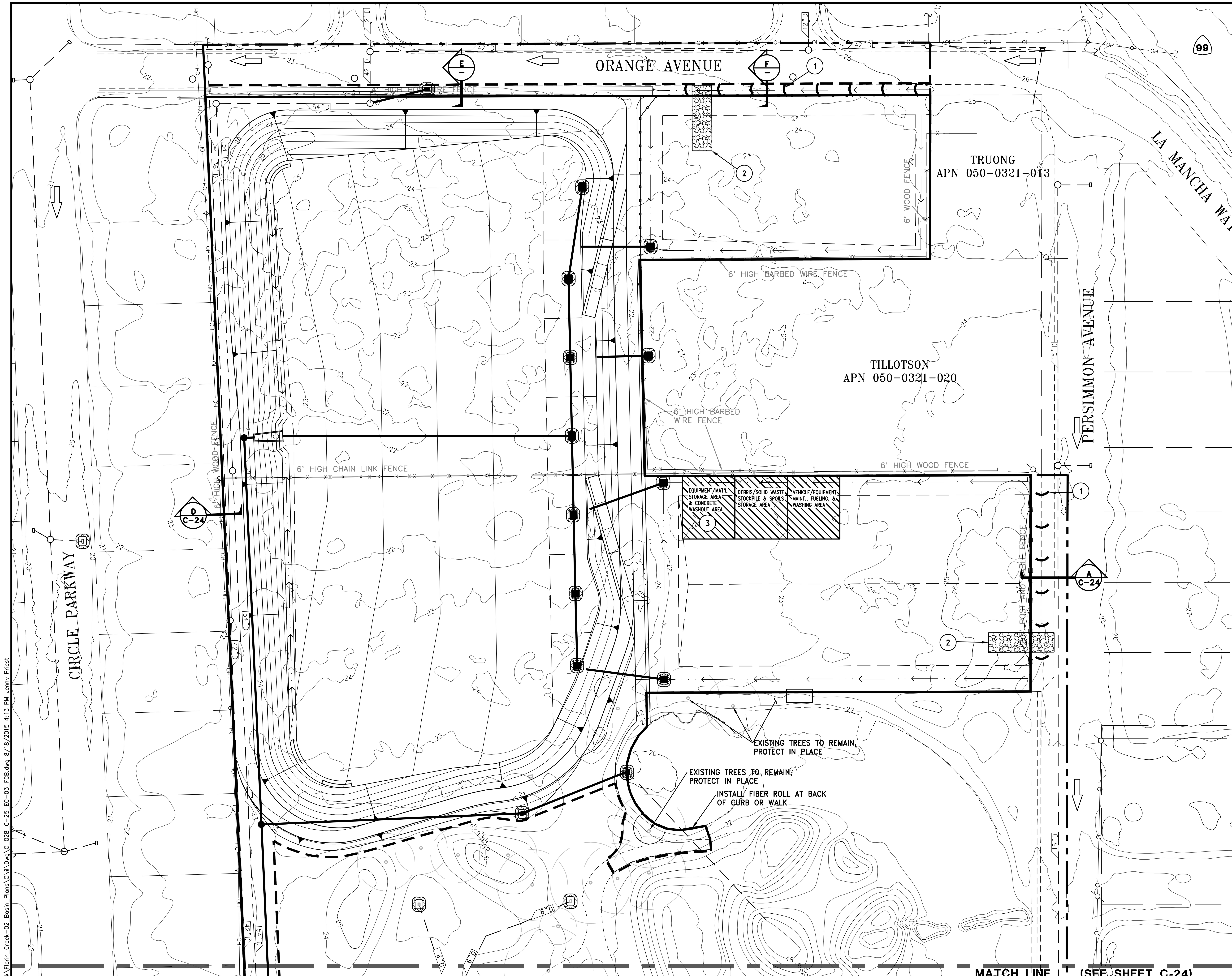
FLORIN CREEK MULTI-USE BASIN
EROSION & SEDIMENT CONTROL
PLAN 1 OF 2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-24
SHEET 27

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_027_C-24_EC-02_FCB.dwg 8/18/2015 4:13 PM Jenny Priest

Attachment C - Project Drawings



40' 20' 0 40'

SCALE: 1" = 40'

GENERAL NOTES

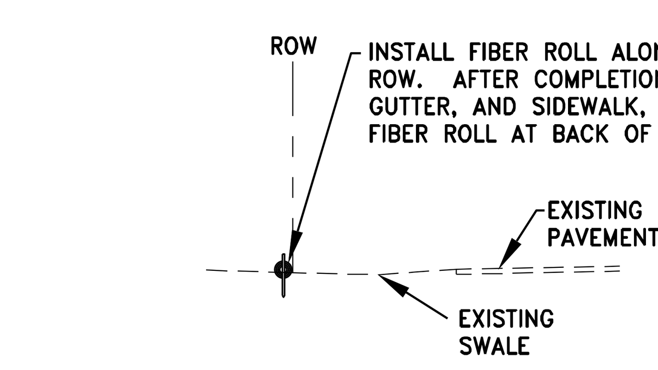
1. SEE EROSION AND SEDIMENT CONTROL PLAN DWG C-26 FOR EROSION AND SEDIMENT CONTROL GENERAL NOTES.

CONSTRUCTION NOTES:

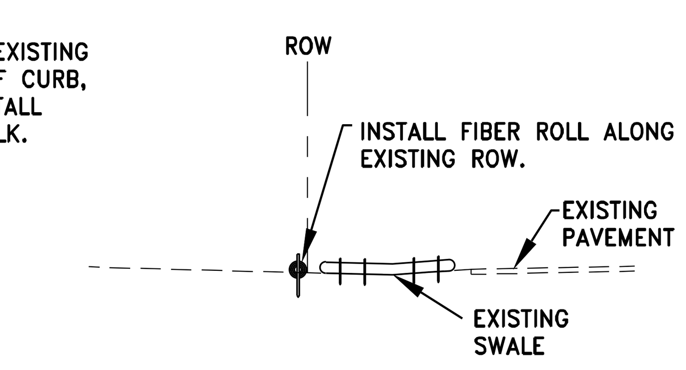
1. PROVIDE FIBER ROLLS ACROSS SWALES AT APPROXIMATELY 25' ON CENTER AS SHOWN ON PLANS.
2. CONSTRUCT STABILIZED CONSTRUCTION SITE ACCESS IN ACCORDANCE WITH SACRAMENTO COUNTY DRAWING 11-1. LOCATION TO BE VERIFIED BY AND APPROVED BY COUNTY IF CHANGED.
3. PLACE CONCRETE WASHOUT IN THIS AREA IN ACCORDANCE WITH SACRAMENTO COUNTY DRAWING 11-6. LOCATION TO BE VERIFIED BY AND APPROVED BY COUNTY IF CHANGED.

LEGEND

SEE EROSION AND SEDIMENT CONTROL PLAN DWG C-27 FOR LEGEND.



E - SECTION
SCALE: N.T.S.



F - SECTION
SCALE: N.T.S.

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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FLORIN CREEK MULTI-USE BASIN
EROSION & SEDIMENT CONTROL
PLAN 2 OF 2

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-25
SHEET 28

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_028_C-25_EC-03_FCB.dwg 8/18/2015 4:13 PM Jenny Priest

SPOIL SITE LOCATION

SCALE: 1" = 200'

SPOIL SITE PLAN

SCALE: 1" = 30'

GENERAL NOTES

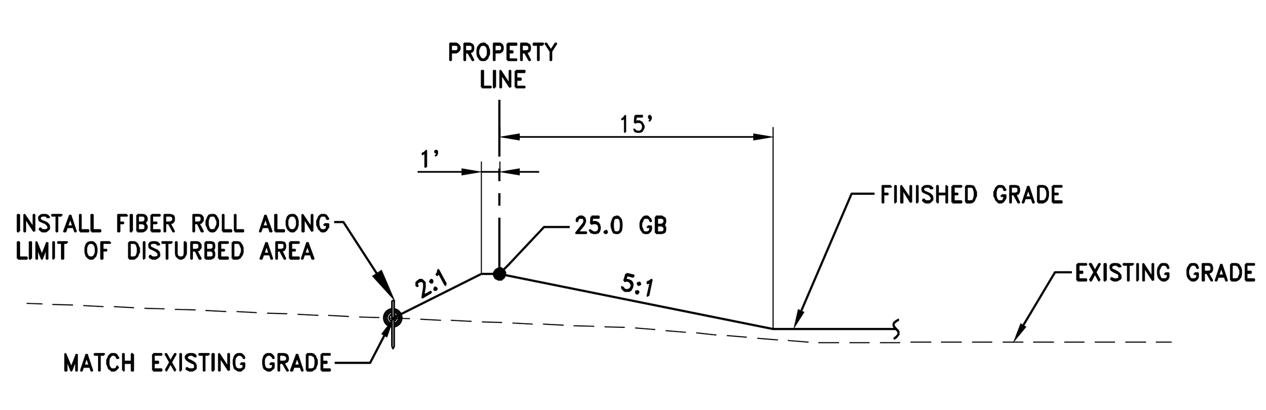
1. SEE EROSION AND SEDIMENT CONTROL PLAN DWG C-26 FOR EROSION AND SEDIMENT CONTROL GENERAL NOTES.

CONSTRUCTION NOTES:

1. PROVIDE FIBER ROLLS ACROSS SWALES AT APPROXIMATELY 25' ON CENTER AS SHOWN ON PLANS.
2. CONSTRUCT STABILIZED CONSTRUCTION SITE ACCESS IN ACCORDANCE WITH SACRAMENTO COUNTY DRAWING 11-1. LOCATION TO BE VERIFIED BY AND APPROVED BY COUNTY IF CHANGED.

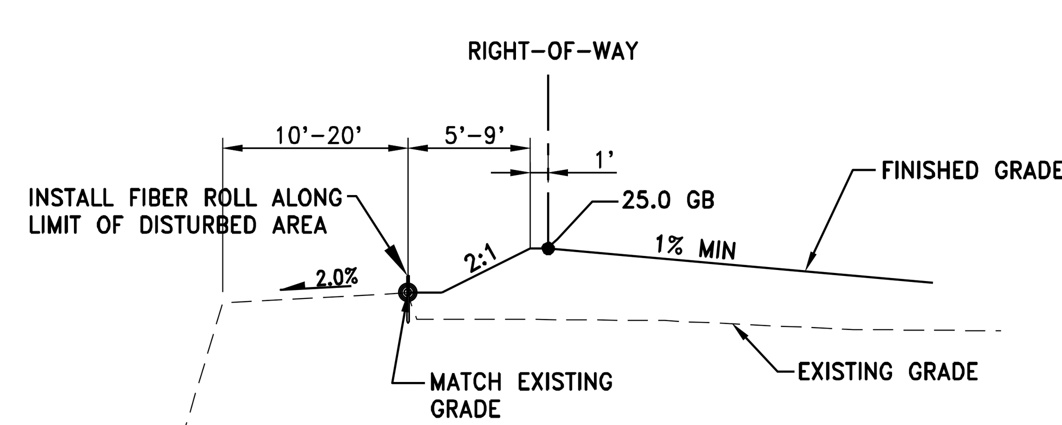
LEGEND

SEE EROSION AND SEDIMENT CONTROL PLAN DWG C-27 FOR LEGEND.



DETAIL A-A

SCALE: N.T.S.



DETAIL B-B

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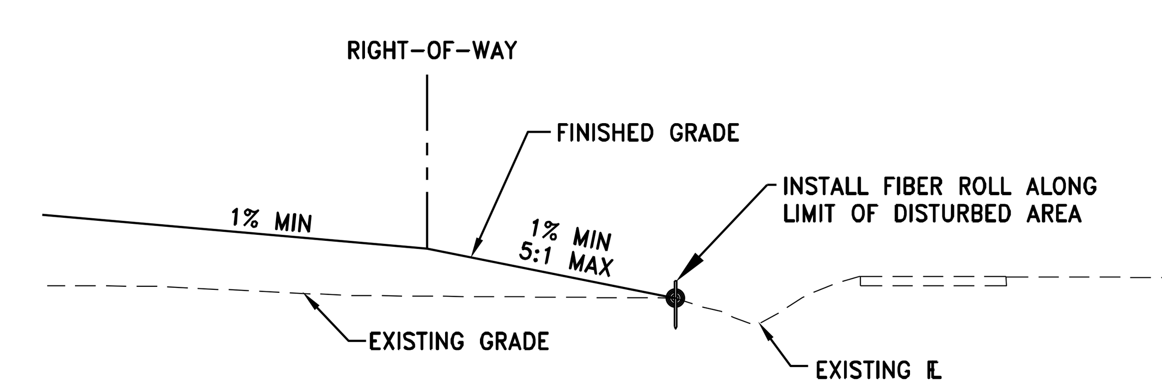

DETAIL C-C

SCALE: N.T.S.

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
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SUBMITTED
APPROVED

SAFCA

FLORIN CREEK MULTI-USE BASIN

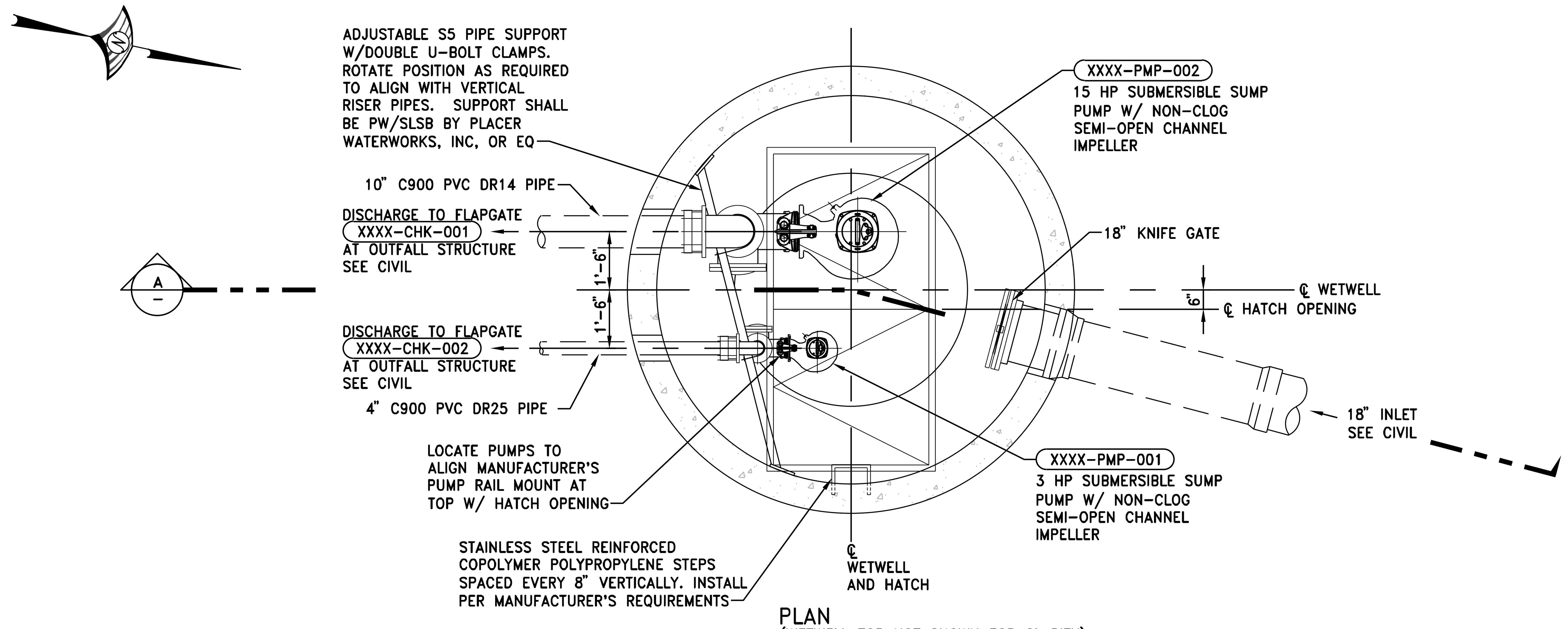
SPOIL SITE LOCATION AND SITE PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. C-26
SHEET 29

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek-02_Basin_Plans\Civil\Dwg\C_029_C-26_SPOIL_FCB.dwg 8/18/2015 4:13 PM Jenny Priest

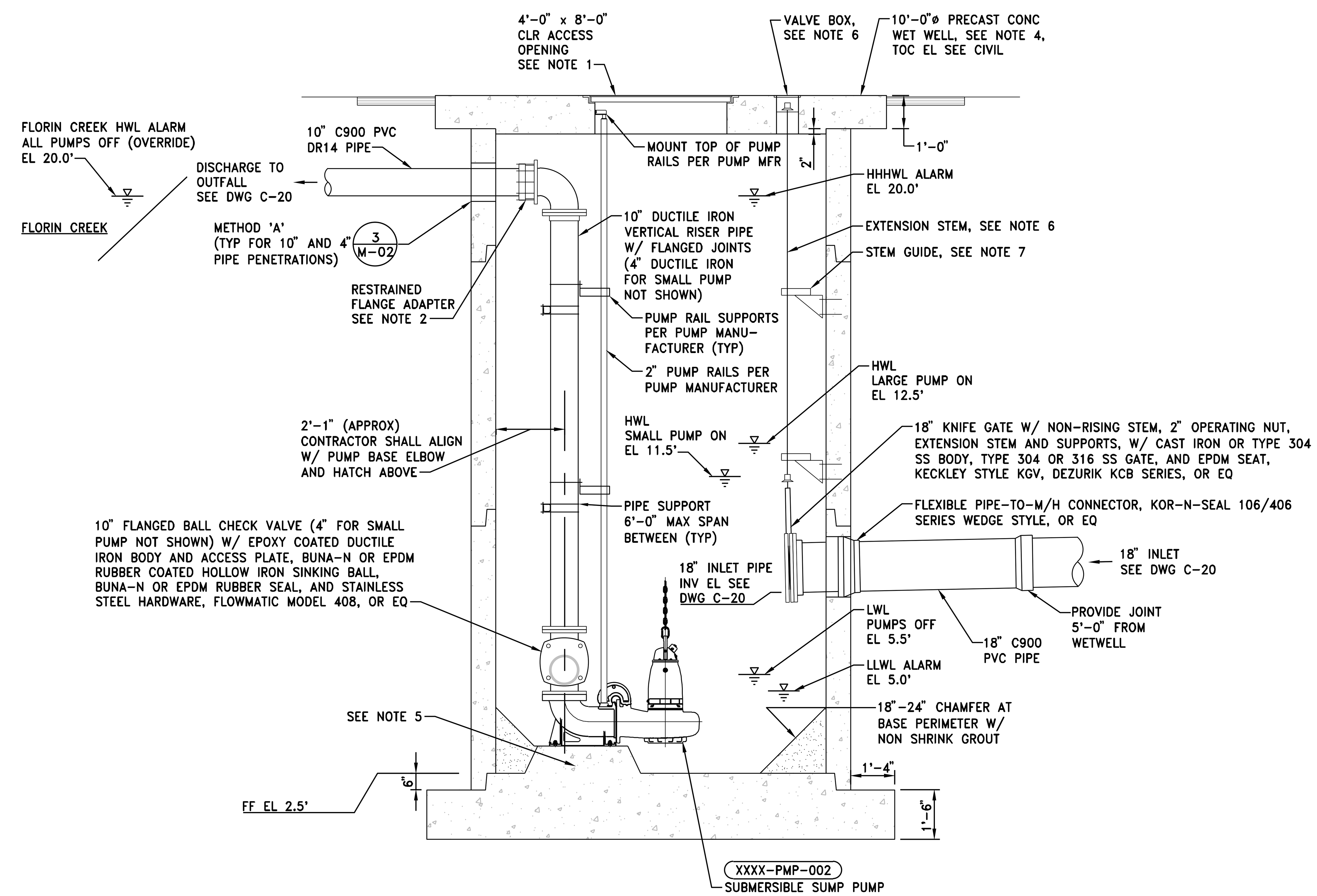
Attachment C - Project Drawings



PLAN
(WETWELL TOP NOT SHOWN FOR CLARITY)
SCALE: 3/8"=1'-0"

NOTES:

1. ACCESS HATCH SHALL BE H-20 RATED AND OF ALUMINUM CONSTRUCTION, AND SHALL HAVE SIDE-BY-SIDE 48"-SQUARE DOUBLE LEAF ACCESS DOORS WITH SECONDARY SAFETY GRATING. HATCH DOORS SHALL BE SPRING ASSIST OPENING, WITH STAINLESS STEEL HINGE PINS, HOLD-OPEN ARMS, EPDM DEBRIS GASKET, REMOVABLE LATCH, AND ALL HARDWARE NECESSARY FOR A COMPLETE INSTALLATION. HATCHES SHALL BE FLYGT "SAFE-HATCH", BILCO TYPE JD-3AL H20, OR APPROVED EQUAL.
2. FLANGE COUPLING ADAPTERS (FCA) FOR CONNECTING FLANGED TO PLAIN-END DUCTILE IRON PIPE SHALL BE RESTRAINED AND SHALL BE EBAA SERIES 2100 MEGAFLANGE, OR EQUAL.
3. DUCTILE IRON PIPE SHALL BE 150 CLASS MINIMUM, MORTAR LINED AND ASPHALTIC COATED PER SACRAMENTO COUNTY STANDARD CONSTRUCTION SPECIFICATIONS SECTION 50-25.01.
4. PROVIDE PRECAST CONCRETE WETWELL CONSISTING OF A REINFORCED CONCRETE FOUNDATION BASE AND TOP, REINFORCED PRECAST PIPE RINGS, GASKETS, AND ALL OPENINGS AND PENETRATIONS AS REQUIRED AND AS SHOWN. PRECAST CONCRETE WET WELL FOUNDATION AND TOP SLAB PERIMETER DESIGNS MAY BE CIRCULAR OR SQUARE AS VIEWED FROM ABOVE, AT THE CONTRACTOR'S OPTION. PRECAST CONCRETE WET WELL SUPPLIER SHALL SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS, SIGNED AND STAMPED BY A REGISTERED STRUCTURAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA, FOR REVIEW AND APPROVAL PRIOR TO WET WELL FABRICATION. DIMENSIONS FOR THE WET WELL FOUNDATION AND TOP SLABS ARE FOR BIDDING PURPOSES ONLY. ACTUAL DIMENSIONS SHALL BE BASED ON APPROVED STRUCTURAL CALCULATIONS AND SHOP DRAWINGS.
5. CONTRACTOR SHALL COORDINATE BETWEEN THE PUMP MANUFACTURER AND THE PRECAST CONCRETE WET WELL SUPPLIER TO PROVIDE THICKENED PORTION OF FOUNDATION AT PUMPS TO MEET THE PUMP MANUFACTURER'S BASE DESIGN REQUIREMENTS FOR PUMP MOUNTING AND CLEARANCES AROUND THE PUMP INLET. PUMP ANCHORAGE TO FOUNDATION SHALL BE PER PUMP MANUFACTURER REQUIREMENTS.
6. PROVIDE EXTENSION STEM WITH ROD COUPLING(S) OF LENGTH AS REQUIRED FOR MOUNTING ON TOP OF 12" KNIFE GATE, AND EXTENDING INTO VALVE BOX AS SHOWN. A 2" CAST IRON FEMALE SOCKET COUPLING COMPATIBLE WITH AN AWWA 2" SQUARE VALVE OPERATING NUT SHALL BE BOLTED TO THE BOTTOM OF THE STEM. TOP OF STEM SHALL HAVE AN AWWA 2" SQUARE OPERATING NUT. ALL BOLTS AND FASTENING HARDWARE SHALL BE STAINLESS STEEL.
7. PROVIDE STEM GUIDES ON SUPPORTS SPACED EVERY 5'-0" MAXIMUM. STEM GUIDES SHALL BE CAST IRON WITH BRONZE BUSHINGS, AND FULLY ADJUSTABLE TO ALIGN WITH THE VERTICAL STEM. ASSEMBLY FASTENERS SHALL BE STAINLESS STEEL. MOUNT GUIDE ON WALL USING 5/8"⌀ STAINLESS STEEL ADHESIVE ANCHORS, MINIMUM EMBEDMENT AS PER ANCHOR MANUFACTURER, OR PER SECTION 05501, WHICHEVER REQUIRES GREATER DEPTH. GROUT PACK BETWEEN GUIDES AND WETWELL WALL WITH APPROVED NON-SHRINK GROUT AFTER APPROVAL OF THE ALIGNMENT OF THE STEM GUIDES.



A SECTION
SCALE: 3/8"=1'-0"

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: C. CONTRERAS
DRAWN BY: J. PRIEST
CHECKED BY: J. KORS
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

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DEVELOPING • INNOVATIVE • DESIGN • SOLUTIONS
3301 C STREET, BLDG. 100-B, SACRAMENTO, CA 95816
PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED
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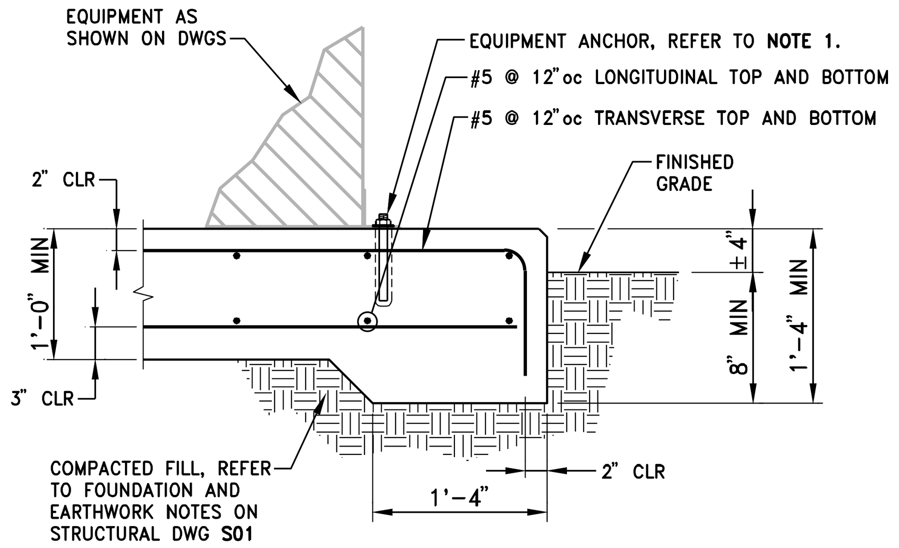
SAFCA

FLORIN CREEK MULTI-USE BASIN
PUMP STATION MECHANICAL
SDPS PLAN AND SECTION

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

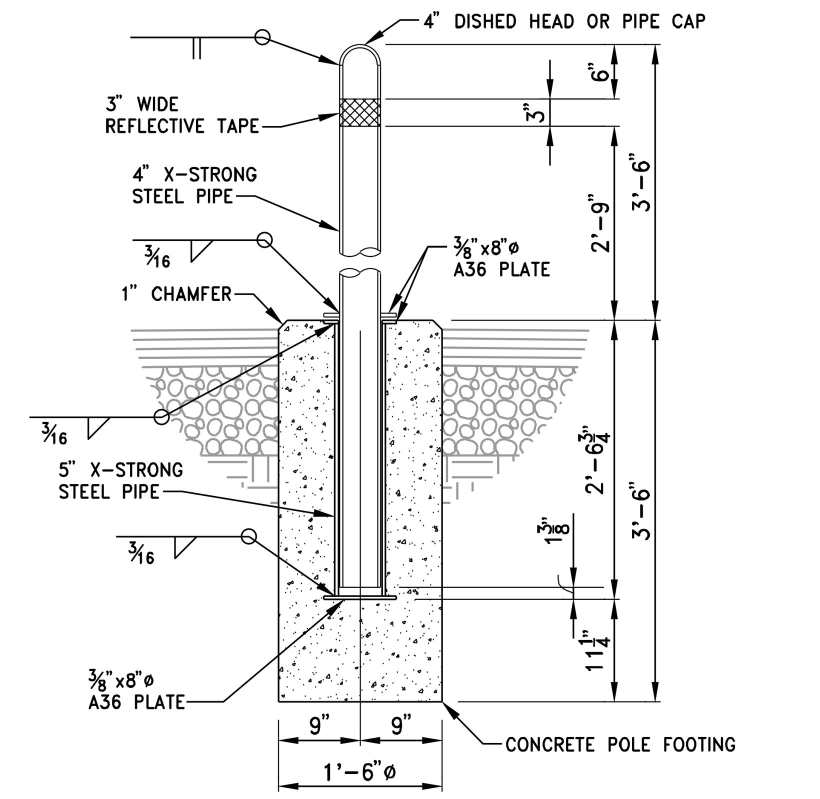
DRAWING NO. M-01
SHEET 30



NOTES:
1. ALL EQUIPMENT ANCHORAGE SHALL BE A MINIMUM OF 15" FROM EDGE OF SLAB UNLESS APPROVED BY THE ENGINEER.

1 EQUIPMENT SLAB ON GRADE

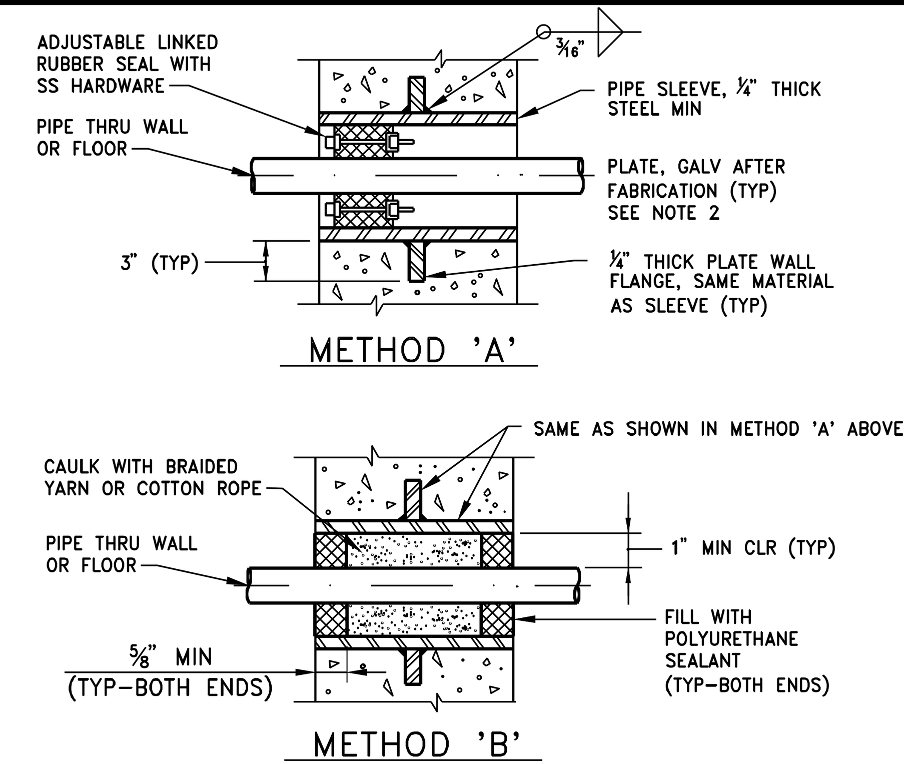
SCALE: N.T.S.



NOTES:
1. ALL TRAFFIC BOLLARD STEEL SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. AFTER GALVANIZING, PAINT ALL ABOVE GRADE BOLLARD STEEL SAFETY YELLOW.

2 REMOVABLE BOLLARD

SCALE: N.T.S.



NOTES:
1. THESE PIPE OPENING DETAILS ARE TO BE USED AS INDICATED ON THE PLANS.
2. SLEEVES ARE NOT REQUIRED IN CORE DRILLED WALLS, PENETRATIONS THROUGH EXISTING WALLS, OR FLOORS

3 PIPE PENETRATION

SCALE: N.T.S.

100% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

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FLORIN CREEK MULTI-USE BASIN
PUMP STATION MECHANICAL
SDPS DETAILS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. M-02
SHEET 31

J:\Jobs\8295_SAFCA\8295_Florin_Creek\Florin_Creek_0A\Mech\Dwg\M_002_Details_FCB.dwg 8/18/2015 4:17 PM Jenny Priest

Attachment C - Project Drawings

COMPONENTS

SYMBOL	DESCRIPTION
RES	RESISTOR
SV	SOLENOID COIL
HTR	HEATER
	CAPACITOR
	DIODE
	DIODE, ZENER
	METAL OXIDE VARISTOR
	AUDIBLE ALARM
?	3 PHASE MOTOR ? = MOTOR HP
M	3 PHASE MOTOR
M	SINGLE PHASE MOTOR
	TRANSFORMER SIZE AND VOLTAGE AS SHOWN
M	UTILITY POWER METER
	UFER GROUND
	GROUND ROD
	CURRENT TRANSFORMER RATIO AS NOTED
	DISCONNECT SWITCH SIZED PER FEEDER

SWITCHES – PROCESS

SYMBOL	DESCRIPTION
FS	FLOW SWITCH – CLOSES UPON INCREASING FLOW
FS	FLOW SWITCH – OPENS UPON INCREASING FLOW
LS	LEVEL SWITCH – CLOSES UPON INCREASING LEVEL
LS	LEVEL SWITCH – OPENS UPON INCREASING LEVEL
PS	PRESSURE SWITCH – CLOSES UPON INCREASING PRESSURE (DECREASING VACUUM)
PS	PRESSURE SWITCH – OPENS UPON INCREASING PRESSURE (DECREASING VACUUM)
TS	TEMPERATURE SWITCH – CLOSES UPON INCREASING TEMPERATURE
TS	TEMPERATURE SWITCH – OPENS UPON INCREASING TEMPERATURE
ZS	LIMIT SWITCH – CLOSES AT SET LIMIT
ZS	LIMIT SWITCH – OPENS AT SET LIMIT
WS	TORQUE SWITCH – CLOSES UPON INCREASING TORQUE
WS	TORQUE SWITCH – OPENS UPON INCREASING TORQUE

DEVICES – RELAY

SYMBOL	DESCRIPTION
M1	CONTACTOR OR STARTER M1
CR 1	CONTROL RELAY CR1
TR 2	TIME DELAY RELAY TR2 – ADJUSTABLE TIME DELAY RANGE & SETTING AS SHOWN
TDOE TDOD	TIME DELAY ON ENERGIZATION TIME DELAY ON DE–ENERGIZATION
107, 121	REFERENCED RELAY WITH N.O. CONTACT ON LINE 107 N.C. CONTACT ON LINE 121
CR1 (105)	NORMALLY OPEN, RELAY CONTACT – ACTUATED BY RELAY CR1 COIL LOCATED ON LINE 105
CR1	NORMALLY CLOSED, RELAY CONTACT – ACTUATED BY RELAY CR1
TR2	NORMALLY OPEN, TIME DELAY RELAY CONTACT – CONTACT CLOSES AFTER TR2 IS ENERGIZED
TR2	NORMALLY CLOSED, TIME DELAY RELAY CONTACT – CONTACT OPENS AFTER TR2 IS ENERGIZED
TR2	NORMALLY OPEN, TIME DELAY RELAY CONTACT – CONTACT OPENS AFTER TR2 IS DE–ENERGIZED
TR2	NORMALLY CLOSED, TIME DELAY RELAY CONTACT – CONTACT CLOSES AFTER TR2 IS DE–ENERGIZED
TR2	CONTACT OPENS AND CLOSES IN A TIMED REPEAT CYCLE

WIRING – CONNECTIONS

SYMBOL	DESCRIPTION
	PANEL OR EQUIPMENT WIRING
	FIELD WIRING
	CONDUCTORS – NOT CONNECTED
	CONDUCTORS – CONNECTED
	GROUND CONNECTION
	PLUG AND RECEPTACLE
	INCOMING LINE
123 123 123	TERMINAL BLOCKS WITH TERMINAL NUMBER AS SHOWN
	TERMINAL BLOCKS WITH TERMINAL NUMBER DETERMINED BY SUBMITTAL
SHIELD CONDUCTOR	SHIELDED CABLE

PLAN – SYMBOLS

SYMBOL	DESCRIPTION
	CONDUIT, EXPOSED
	CONDUIT, IN SLAB OR BELOW GRADE
	CONDUIT, CONCEALED IN WALL OR CEILING
	CONDUIT STUBBED OUT & CAPPED
	CONDUIT BENDS TOWARD OBSERVER
	CONDUIT BENDS AWAY FROM OBSERVER
	CONDUIT ENDS
	FLEXIBLE CONDUIT CONNECTION FROM J–BOX TO EQUIPMENT
	CONDUIT CHANGE IN ELEVATION
G	BARE COPPER GROUND WIRE
G	GROUND CONNECTION BOLTED TYPE
G	GROUND CONNECTION EXOTHERMIC WELD TYPE
	DISCONNECT SWITCH
	FIELD MOUNTED DEVICE
	TELEPHONE/DATA RECEPTACLE 2 PORT TA568A, 2 CAT 6 CABLES
#	CONDUIT REFERENCE TO SCHEDULE
T	THERMOSTAT
E	EYS SEAL
J	JUNCTION BOX
	PULL BOX OF SIZE SHOWN (CHRISTY BOX SIZE MINIMUM)
A a #	LIGHTING FIXTURE # – CIRCUIT BREAKER NUMBER A – FIXTURE SCHEDULE REF. a – CONTROL SWITCH REFERENCE
WP #7 WP	DUPLEX RECEPTACLE # – CIRCUIT BREAKER NUMBER WP – WEATHERPROOF (IF SHOWN) GFI – GROUND FAULT TYPE
aM	TOGGLE SWITCH a – FIXTURES CONTROLLED 3 – 3 WAY M – MOTION DETECTOR T – TIMER SWITCH
	SPECIAL RECEPTACLE AS REQUIRED FOR EQUIPMENT TO BE CONNECTED

SWITCHES – OPERATOR

SYMBOL	DESCRIPTION
SW	TOGGLE OR DISCONNECT SWITCH
PB	PUSHBUTTON – NORMALLY OPEN, MOMENTARY ACTION
PB	PUSHBUTTON – NORMALLY CLOSED, MOMENTARY UNLESS LOS (LOCK OUT STOP) WHERE MECHANICALLY HELD
PB	PUSHBUTTON, MECHANICALLY CONNECTED, DOUBLE CIRCUIT – NORMALLY CLOSED AND NORMALLY OPEN
HAND OFF AUTO	SELECTOR SWITCH, 3 POSITION – CONTACT STATUS SHOWN EXISTS I.E. AT POSITION OF HAND, OFF, OR AUTO
	SELECTOR SWITCH, 2 POSITION – MIDDLE POSITION IS DELETED
	POTENTIOMETER

DEVICES – FRONT PANEL

SYMBOL	DESCRIPTION
X	INDICATING LIGHT, LETTER "X" INDICATES COLOR: R=RED G=GREEN, A=AMBER, W=WHITE Y=YELLOW, B=BLUE
PTT X	INDICATING LIGHT, PUSH TO TEST
ETM	ELAPSED TIME METER

DEVICES – PROTECTIVE

SYMBOL	DESCRIPTION
y xA xP xT	LOW VOLTAGE MOLDED CASE, INSULATED CASE OR POWER CIRCUIT BREAKER. RATINGS AS SHOWN IN DRAWINGS AND AS DEFINED BELOW: xA: CIRCUIT BREAKER AMPERAGE xAT: AMPERAGE TRIP xAF: AMPERAGE FRAME xP: NUMBER OF POLES xT: TRIP PROTECTION MCP: MOTOR CIRCUIT PROTECTION TM: THERMAL MAGNETIC L: LONG TIME DELAY S: SHORT TIME DELAY I: INSTANTANEOUS TRIP G: GROUND FAULT A: ARC FLASH PROTECTION
100%	100% DUTY RATED
S K M E	y: BREAKER FEATURES / OPTIONS – SHUNT TRIP – KIRK–KEY INTERLOCK – MANUALLY CHARGED PUSHBUTTON OPERATION – ELECTRICALLY CHARGED PUSHBUTTON OPERATION
OL	THERMAL OVERLOAD CONTACT
	THERMAL OVERLOAD ELEMENT
	FUSE MEDIUM VOLTAGE CIRCUIT BREAKER
52	TRIP FUNCTIONS PER DRAWINGS AND SPECIFICATIONS
MFR	MULTIFUNCTION RELAY PER SPECIFICATIONS

MISCELLANEOUS ABBREVIATIONS

&	AND	MTR	MOTOR
@	AT	MUX	MULTIPLEXER
A	AMBER, AMPERES	MV	MERCURY VAPOR, MEDIUM VOLTAGE
AC	ALTERNATING CURRENT	N	NEUTRAL
ACK	ACKNOWLEDGE	NC	NORMALLY CLOSED
AFF	ABOVE FINISHED FLOOR	NHC	NORMALLY HELD CLOSED
AH	AMP HOUR	NHO	NORMALLY HELD OPEN
AI	ANALOG INPUT	NIC	NOT IN CONTRACT
AIC	AMP INTERRUPTING CAPACITY SYMMETRICAL	NL	NIGHT LIGHT
AM	AMP METER	NO	NORMALLY OPEN
AO	ANALOG OUTPUT	NTS	NOT TO SCALE
AWG	AMERICAN WIRE GUAGE	(N)	NEW
ATS	AUTOMATIC TRANSFER SWITCH	OC	ON CENTER
BATT	BATTERY	OI	OPERATOR INTERFACE
(B)	PROVIDED BY OWNER – INSTALLED BY CONTRACTOR	OL	OVERLOAD
BFC	BELOW FINISHED CEILING	ORP	OXIDATION REDUCTION POTENTIAL
BOD	BIOCHEMICAL OXYGEN DEMAND	P	POLE
BPF	BAND PASS FILTER	PB	PUSHBUTTON
BYP	BYPASS	PBX	PULL BOX
C	CONDUIT	PDB	POWER DISTRIBUTION BLOCK
CAP	CAPACITOR	PF	POWER FACTOR
CB	CIRCUIT BREAKER	PFR	POWER FAIL RELAY
CKT	CIRCUIT	PH	HYDROGEN ION CONCENTRATION
COAX	COAXIAL CABLE	PLC	PROGRAMMABLE LOGIC CONTROLLER
COMM	COMMUNICATION	PM	POWER MONITOR
CR	CONTROL RELAY	PNL	PANEL
CT	CURRENT TRANSFORMER	POT	POTENTIOMETER
CS	CONSTANT SPEED	PRESS	PRESSURE
CU	COPPER	PR	PAIR, TWISTED AND SHIELDED
DC	DIRECT CURRENT	PRI	PRIMARY
DET	DETAIL	PROVIDE	FURNISH, INSTALL, AND CONNECT
DI	DIGITAL INPUT	PS	PRESSURE SWITCH
DISC	DISCONNECT	PT	POTENTIAL TRANSFORMER
DO	DIGITAL OUTPUT	PTT	PUSH TO TEST
DPDT	DOUBLE POLE DOUBLE THROW	PVC	POLYVINYLCHLORIDE
DWG	DRAWING	PWR	POWER
E–DTL	ELECTRICAL DRAWING DETAIL	REF	REFERENCE
ELEV	ELEVATION	RFI	RADIO FREQUENCY INTERFERENCE
ENET	ETHERNET	RMS	ROOT MEAN SQUARE
ETM	ELAPSED TIME METER	RTD	RESISTANCE TEMPERATURE DETECTOR
ESW	ETHERNET SWITCH	RST	RESET
(E)	EXISTING	RVAT	REDUCE VOLTAGE AUTO TRANSFORMER
FCS	FIELD CONTROL STATION	RTU	REMOTE TERMINAL UNIT
FLA	FULL LOAD AMPS	(R)	REWIRE, RELOCATE, REVISE, REUSE
FLEX	FLEXIBLE LIQUID TIGHT CONDUIT	SCH	SCHEDULE
FRP	FIBERGLASS REINFORCED PLASTIC	SEC	SECONDARY, SECOND
FS	FULL SPEED	SECS	SECONDS
FVNR	FULL VOLTAGE NON–REVERSING	SEL	SELECTOR
FVR	FULL VOLTAGE REVERSING	SFA	SERVICE FACTOR AMPS
FWD	FORWARD	SPEC	SPECIFICATION
(F)	FUTURE	SS	STAINLESS STEEL
GALV	GALVANIZED	SSRC	STAINLESS STEEL RIGID CONDUIT
GFI	GROUND FAULT INTERRUPTER	SSS	SOLID STATE STARTER
GND	GROUND	STT	START
GRS	GALVANIZED RIGID STEEL CONDUIT	STP	STOP
GRS–PVC	PVC COATED GRS CONDUIT	SV	SOLENOID VALVE
HI	HIGH	SW	SWITCH
HIM	HUMAN INTERFACE MODULE	SWBD	SWITCHBOARD
HOA	HAND OFF AUTO	SYMM	SYMMETRICAL
HP	HORSE POWER	TB	TERMINAL BLOCK
HPS	HIGH PRESSURE SODIUM	TC	TIME CLOCK
HS	HAND SWITCH	TDOD	TIME DELAY ON DE–ENERGIZATION
HTR	HEATER	TDOE	TIME DELAY ON ENERGIZATION
HZ	HERTZ	TELCO	TELEPHONE COMPANY
HZD	HAZARD	TM	THERMAL MAGNETIC
I	INTERLOCK	TEMP	TEMPERATURE
I–DTL	INSTRUMENTATION DRAWING DETAIL	TR	TIME DELAY RELAY
I/O	INPUT/OUTPUT	TRIAD	TWISTED AND SHIELDED 3 CONDUCTOR
INST	INSTANTANEOUS	TS	TEMPERATURE SWITCH
ISR	INTRINSICALLY SAFE RELAY	TSPR	TWISTED AND SHIELDED PAIR
IS	INTRINSICALLY SAFE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
J	JUNCTION BOX	TYP	TYPICAL
K	KILO, PREFIX	UG	UNDERGROUND
LA	LIGHTNING ARRESTOR	ULH	ULTRA LOW HARMONIC
LC	LIGHTING CONTACTOR	UON	UNLESS OTHERWISE NOTED
LEL	LOWER EXPLOSION LIMIT	UPS	UNINTERRUPTIBLE POWER SUPPLY
LO	LOW	V	VOLTAGE
LOS	LOCK OUT STOP	VA	VOLT AMPS
LR	LATCHING RELAY	VAR	VOLT AMPS REACTIVE
LS	LIMIT SWITCH	VFD	VARIABLE FREQUENCY DRIVE
M	MOTOR CONTACTOR	VLV	VALVE
MAG	MAGNETIC FLOWMETER	VM	VOLTMETER
MAX	MAXIMUM	VMR	VOLTAGE MONITOR RELAY
MCM	THOUSAND CIRCULAR MILS	VR	VOLTAGE RELAY
MCP	MOTOR CIRCUIT PROTECTOR	W	WATTS
MCS	MOLDED CASE SWITCH	WP	WEATHER PROOF, NEMA 3R
MH	MANHOLE	WTP	WATER TREATMENT PLANT
MIN	MINIMUM, MINUTE	WWTP	WASTE WATER TREATMENT PLANT
MODEM	MODEM	XFMR	TRANSFORMER
MOV	MOTOR OPERATED VALVE	Z	IMPEDANCE
		ZS	LIMIT SWITCH

FRISCH ENGINEERING, INC.
CONSULTING ELECTRICAL ENGINEERS
13405 FOLSOM BLVD, UNIT 600 PH 916 353 1025
FOLSOM, CA 95630 FX 916 353 1028

FILE: 1504B-E01.DWG DATE: AUG 17, 2015 TIME: 1:45:14PM

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: T. FRISCH
DRAWN BY: N. CONANT
CHECKED BY: M. FRISCH
IN CHARGE: J. KORS
DATE: 04/13/2015

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SUBMITTED APPROVED

SAFCA

FLORIN CREEK MULTI–USE BASIN
ELECTRICAL
SYMBOLS AND ABBREVIATIONS

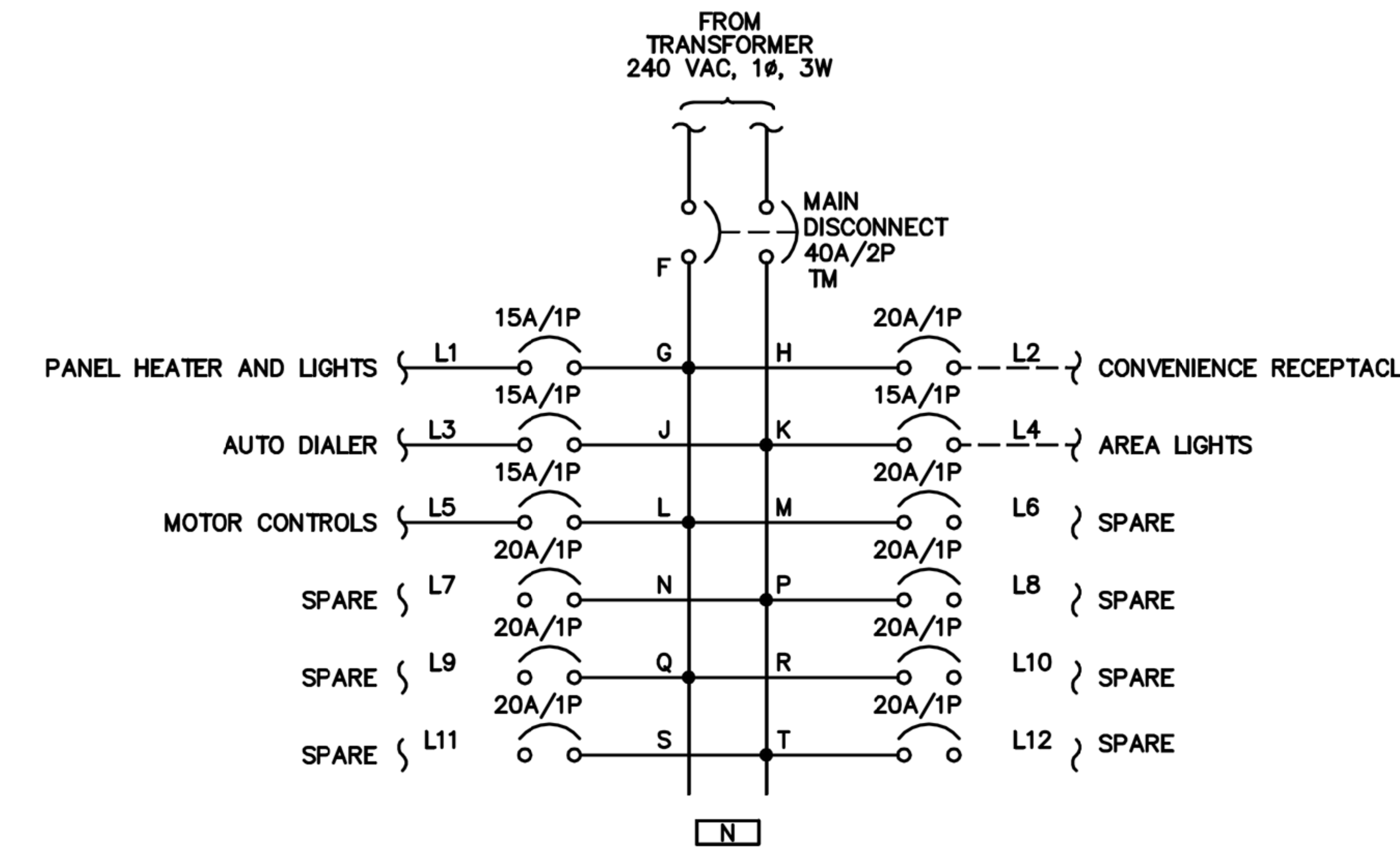
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
HORIZ: 1"=40' VERT: 1"=4'

DRAWING NO. E01 SHEET

Attachment C - Project Drawings

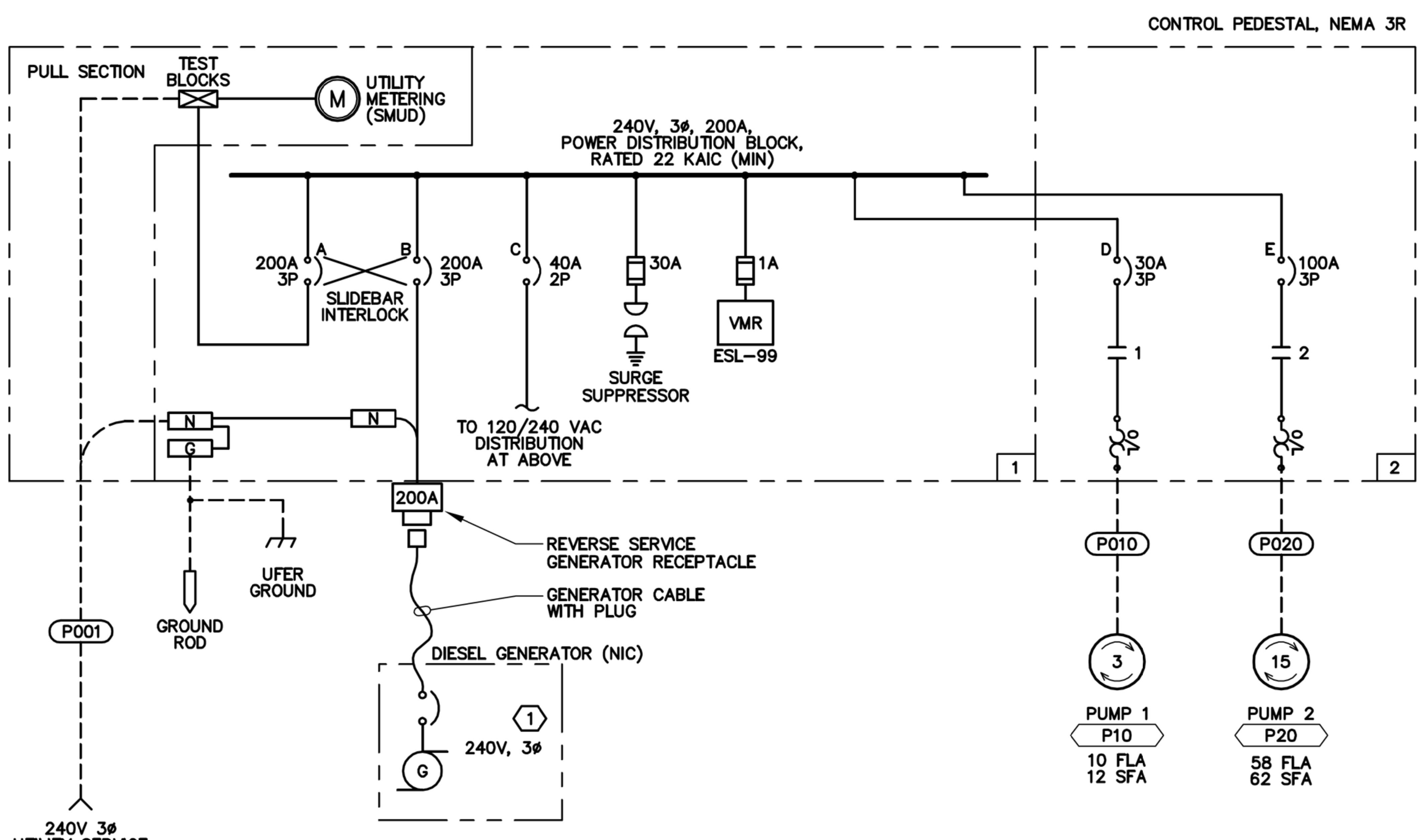
LOAD CALCULATIONS

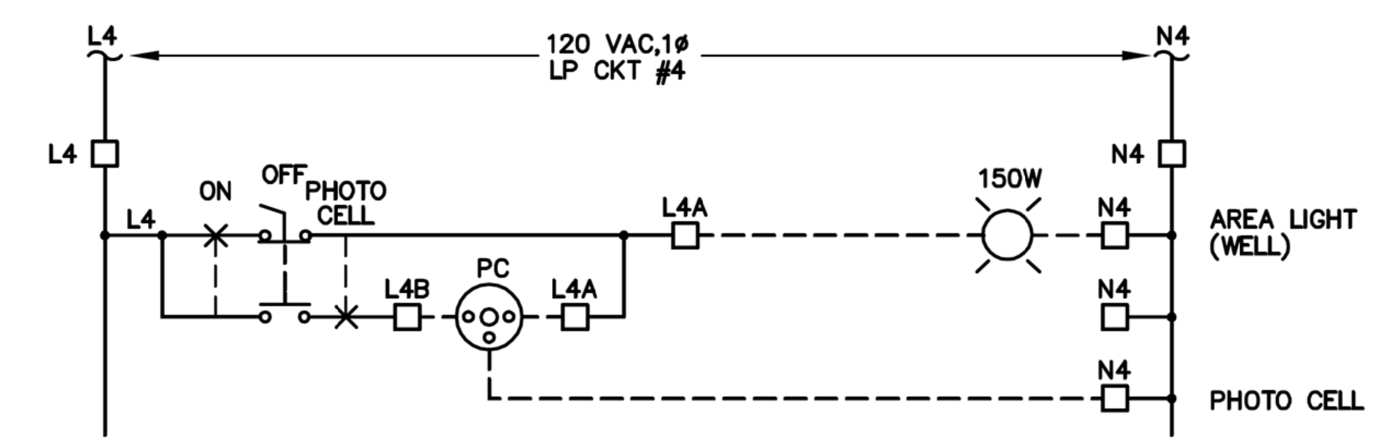
LOAD DESCRIPTION	CONNECTED LOAD LOAD	QTY	TOTAL	DEMAND LOAD LOAD	QTY	TOTAL
15HP PUMP	58.00 A	1	24110.1 VA	58.00 A	2	48220.3 VA
3HP BOOSTER PUMP	10.00 A	1	4156.9 VA	10.00 A	0	0.0 VA
PANELBOARD LP 120/240	3.97 A	1	1650.0 VA	3.97 A	1	1650.0 VA
TOTAL LOAD =	71.97 A	<	29917.1 VA	119.97 A	<	49870.3 VA
LOAD CORRECTION FACTORS						
LARGEST MOTOR LOAD x 25%						
15HP HP => 0.25 x 24110.1 VA =	14.50 A		6027.5 VA	14.50 A		6027.5 VA
80% BREAKER DERATING = TOTAL x 0.25 =	21.62 A		8986.2 VA	33.62 A		13974.5 VA
FOR CONTINUOUS LOADS NEC 210-20						
SERVICE SIZE (MIN) =	108.09 A		44930.8VA	168.09 A		69872.3VA
UTILITY SERVICE SIZE REQUIRED =	200 AMP					
240V, 3 PHASE, 4 WIRE						



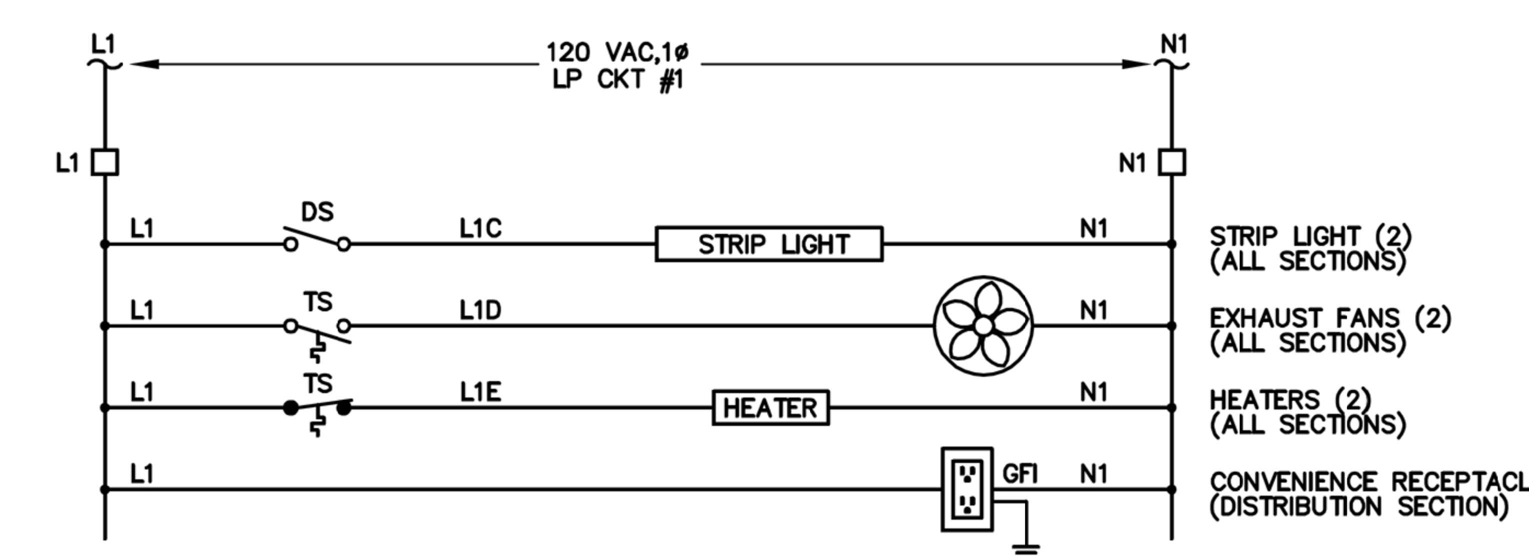
PANEL LP

120/240 VAC DISTRIBUTION DIAGRAM
NEUTRALS NOT SHOWN





AREA LIGHT



PEDESTAL AUXILLIARY

NOTES REFERENCED IN DRAWING:

1 GENERATOR NOT IN CONTRACT

FRISCH ENGINEERING, INC.
CONSULTING ELECTRICAL ENGINEERS
13405 FOLSOM BLVD, UNIT 600 PH 916 353 1025
FOLSOM, CA 95630 FX 916 353 1028

FILE:1504e-E02.dwg DATE: Aug 17, 2015 TIME: 1:46:09pm

ONE LINE DIAGRAM

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: T. FRISCH
DRAWN BY: N. CONANT
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SAFCA

FLORIN CREEK MULTI-USE BASIN
ELECTRICAL
ONE LINE DIAGRAM

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HORIZ: 1"=40' VERT: 1"=4'
DRAWING NO. E02 SHEET

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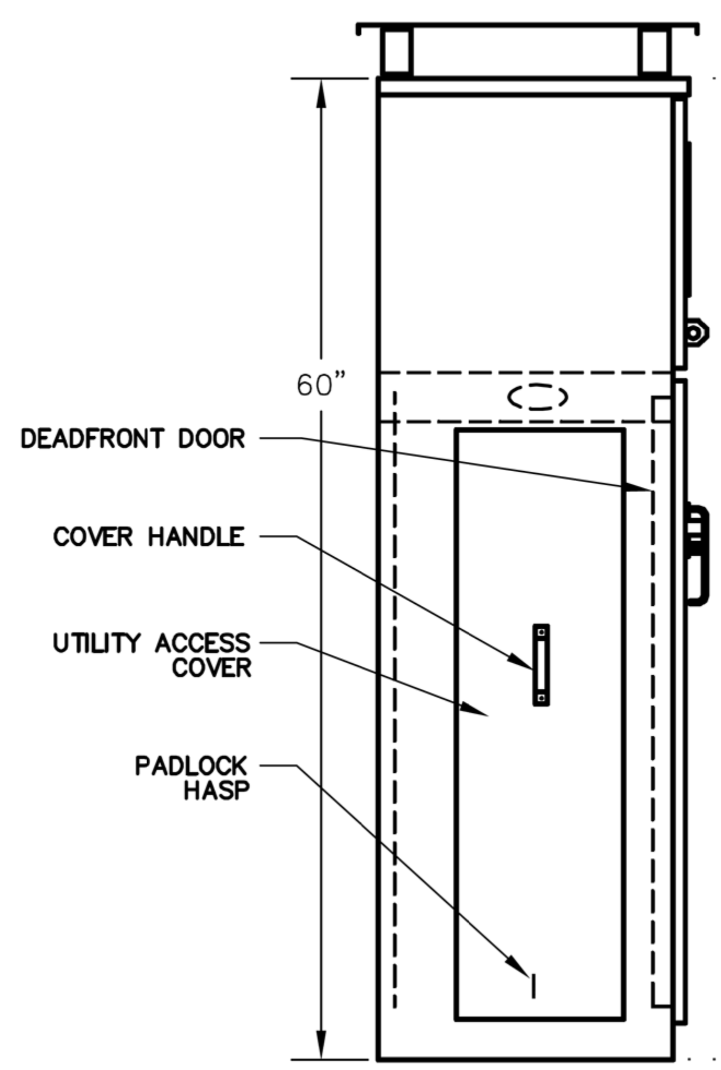
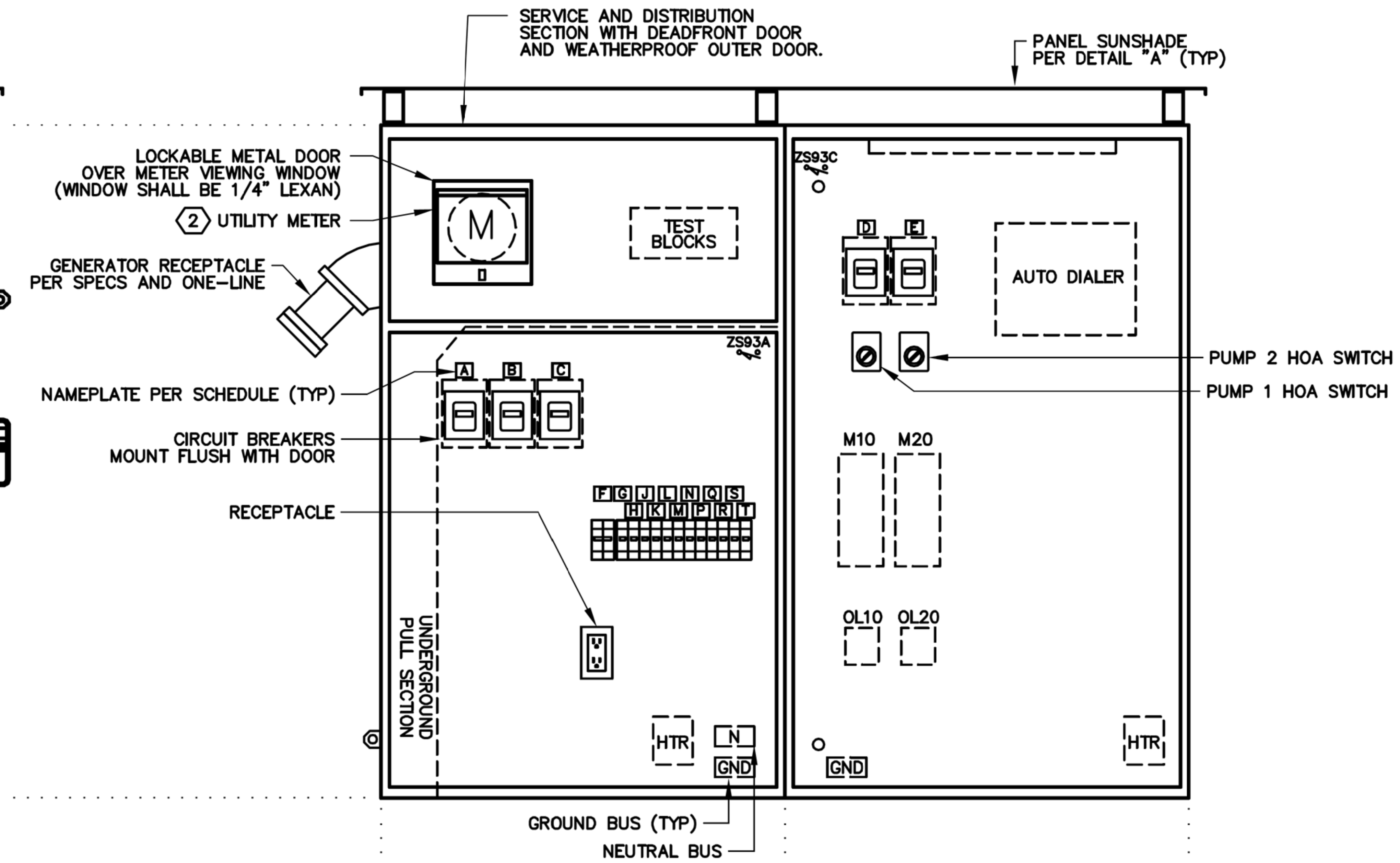


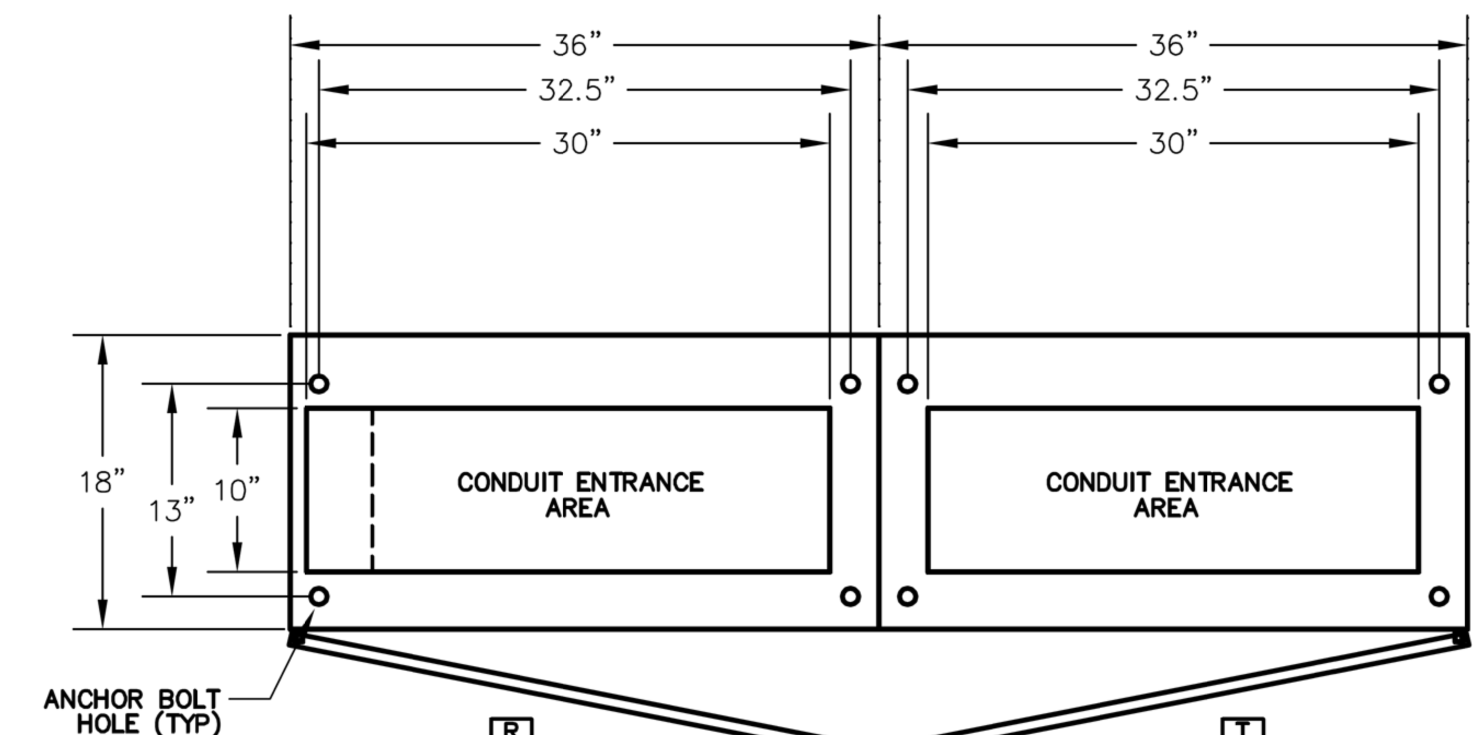
SIDE ELEVATION



1 FRONT ELEVATION

OUTER DOORS REMOVED FOR CLARITY

PEDESTAL ELEVATION

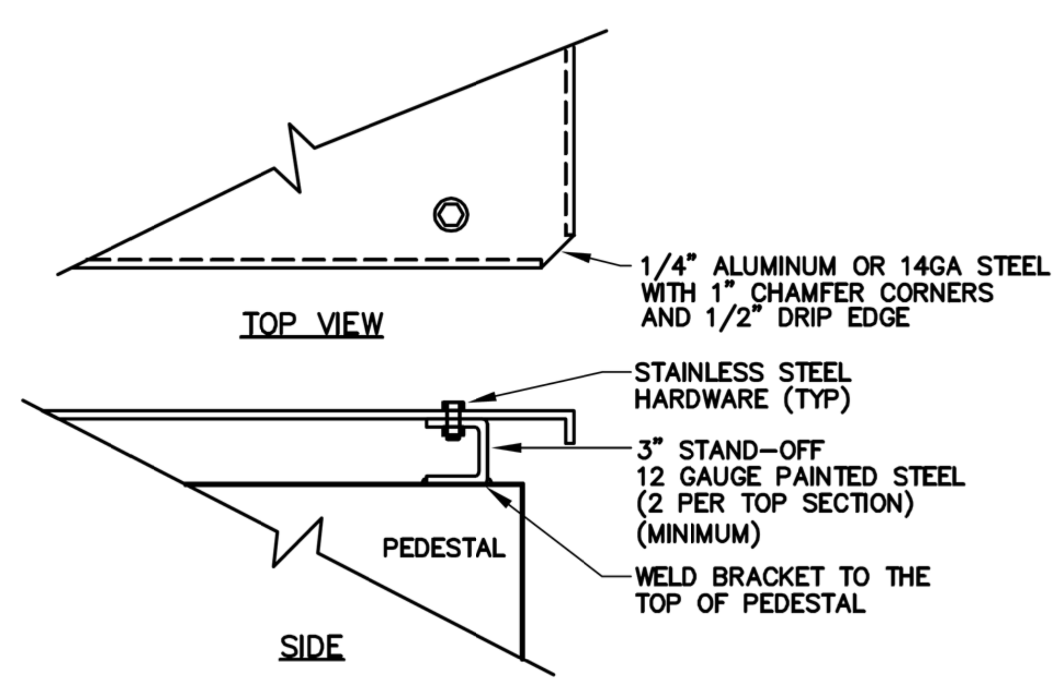


TOP VIEW

PEDESTAL BASE PLAN

PEDESTAL FABRICATION METHODS

1. NEMA 3R WEATHER-PROOF FOR OUTDOOR INSTALLATION.
2. OUTER DOORS SHALL BE SEALED WITH RUBBERIZED FOAM GASKET.
3. EXTERIOR FABRICATED FROM GALVANIZED SHEET STEEL.
4. 12 GAUGE EXTERIOR AND 14 GAUGE INTERIOR.
5. ALL SEAMS SHALL HAVE CONTINUOUS WELD GROUND SMOOTH.
6. OUTER DOORS TO BE PADLOCKABLE WITH HEAVY DUTY 3 POINT LATCHES.
7. DOOR HINGES AND PINS SHALL BE 316 STAINLESS STEEL.
8. NO SCREWS, RIVETS, OR BOLTS SHALL PROTRUDE EXTERNALLY.
9. INTERNAL SCREWS, RIVETS, BOLTS, AND NUTS SHALL BE STAINLESS STEEL.
10. POWER METERING SHALL PER USERC AND SERVING UTILITY'S REQUIREMENTS.
11. PAINT APPLICATION SHALL BE AS FOLLOWS:
    A. TWO STAGE CHEMICAL BATH CLEANING.
    B. ELECTROSTATICALLY APPLIED POWDER COAT PAINT FINISH.
    C. OVEN CURED FOR TWO HOURS.
    D. INTERIOR DEADFRONT DOOR COLOR: WHITE.
    E. EXTERIOR COLOR SHALL BE: AUTUMN WHITE
12. PHENOLIC SCREW MOUNTED NAMEPLATES SHALL BE PROVIDED FOR ALL OUTER DOOR SECTIONS AND DEVICES ON DEADFRONT.
13. FABRICATION AND WIRING SHALL CONFORM TO UL, NEC AND NEMA STANDARDS.
14. ALL WIRING SHALL BE LABELLED ON BOTH ENDS OF WIRE.
15. AS-BUILT WIRING DIAGRAMS SHALL BE SHIPPED WITH PANEL.
16. PROVIDE DRAWING POCKET ON INSIDE OF CONTROL PANEL DOOR.
17. UPS SHELF SHALL BE 14 GA WELDED STEEL BOLTED TO BACKPAN.
18. OUTER DOORS SHALL BE INSULATED WITH 1" RIGID INSULATION. ATTACH WITH MECHANICAL FASTENERS.



A / E05 SUNSHADE DETAIL (PARTIAL)

NOT TO SCALE

DRAWING REFERENCED NOTES:

1. ITEMS DRAWN IN DASHED LINES ARE TO BE LOCATED BEHIND DEADFRONT DOORS OUTER DOORS ARE NOT SHOWN ON FRONT VIEWS FOR ELEVATION CLARITY
2. PROVIDE METER PER PG&E REQUIREMENTS.

ELECTRICAL PEDESTAL ELEVATION DIAGRAM

FRISCH ENGINEERING, INC.
CONSULTING ELECTRICAL ENGINEERS
13405 FOLSOM BLVD, UNIT 600 PH 916 353 1025
FOLSOM, CA 95630 FX 916 353 1028

FILE:1504e-E03.dwg DATE: Aug 17, 2015 TIME: 1:46:15pm

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: T. FRISCH
DRAWN BY: N. CONANT
CHECKED BY: M. FRISCH
IN CHARGE: J. KORS
DATE: 04/13/2015

PRELIMINARY

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SAFCA

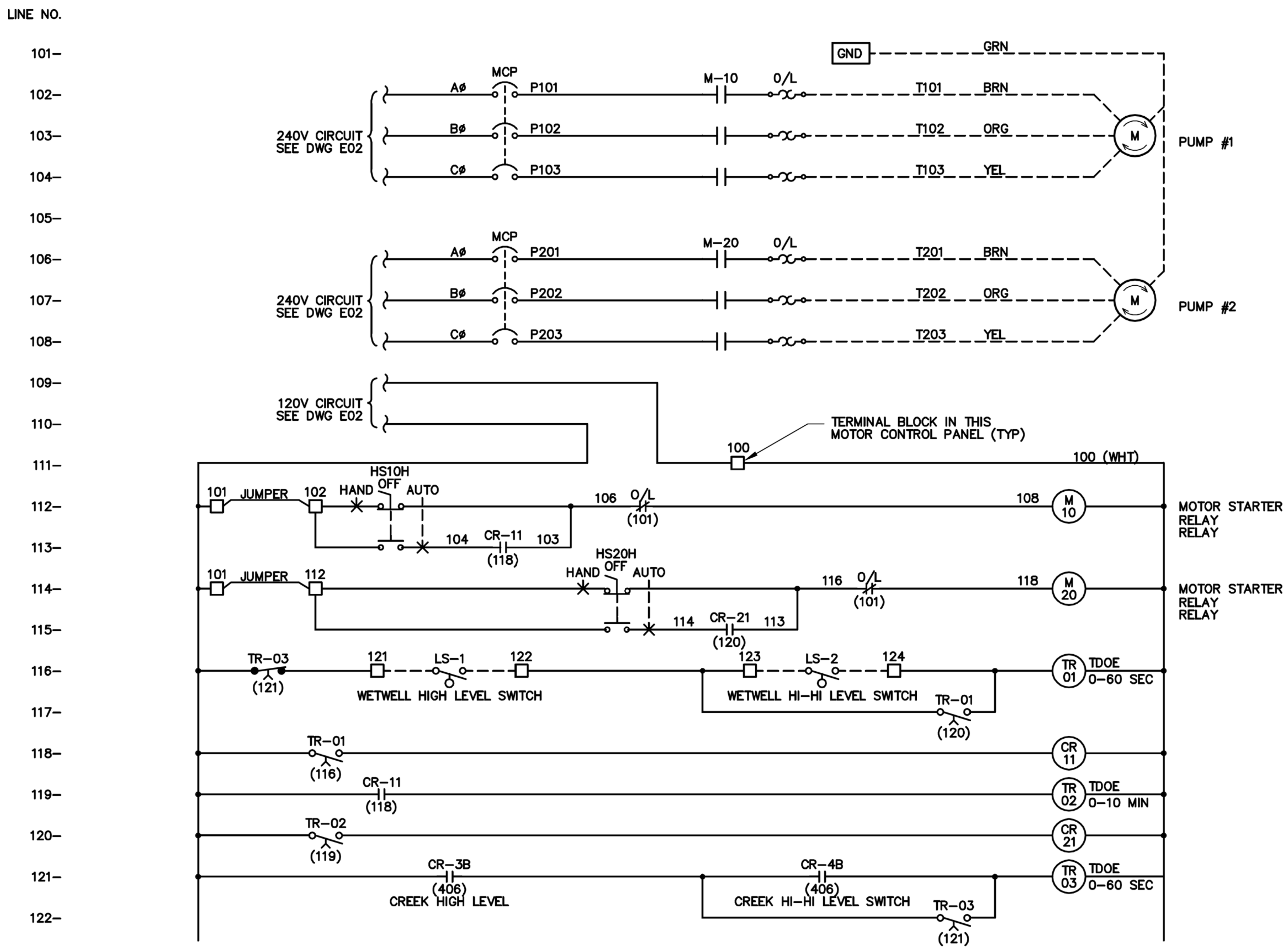
FLORIN CREEK MULTI-USE BASIN
ELECTRICAL
PEDESTAL ELEVATION DIAGRAM

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

HORIZ: 1"=40' VERT: 1"=4'

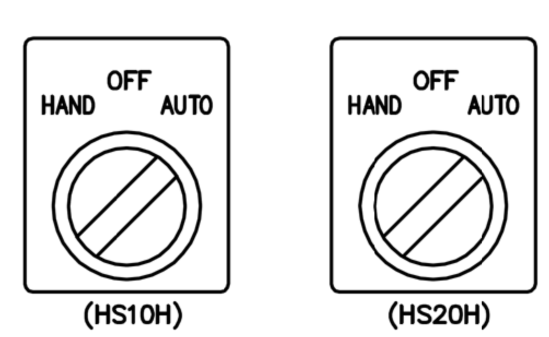
DRAWING NO. E03 SHEET

Attachment C - Project Drawings

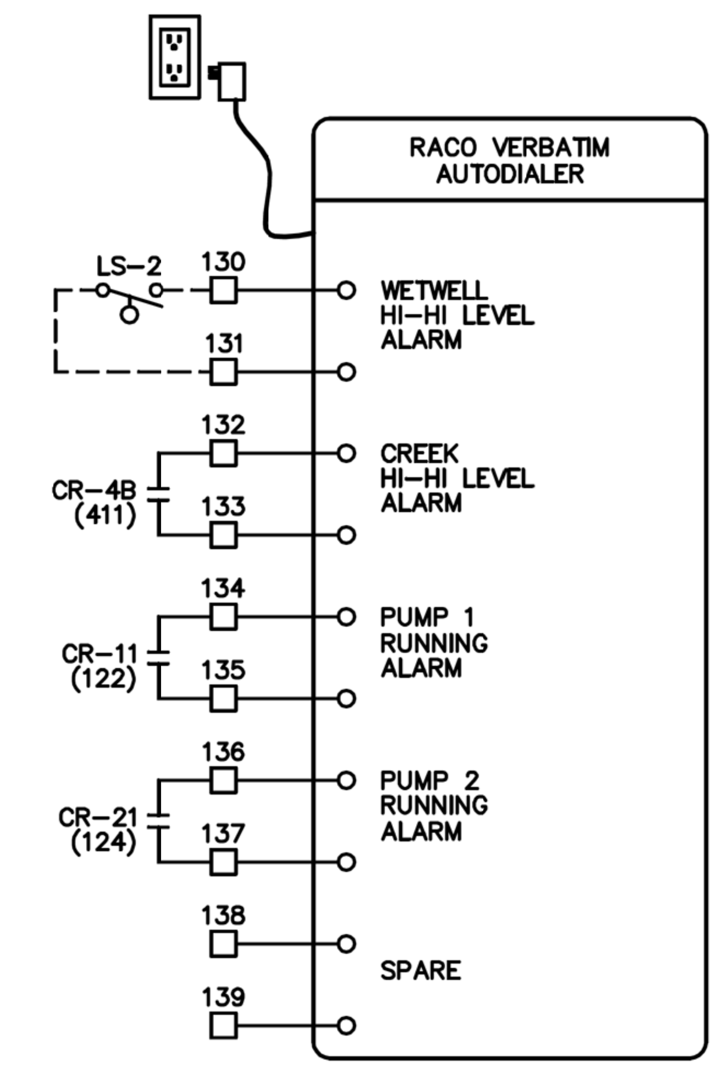


PUMP ELEMENTARY DIAGRAM

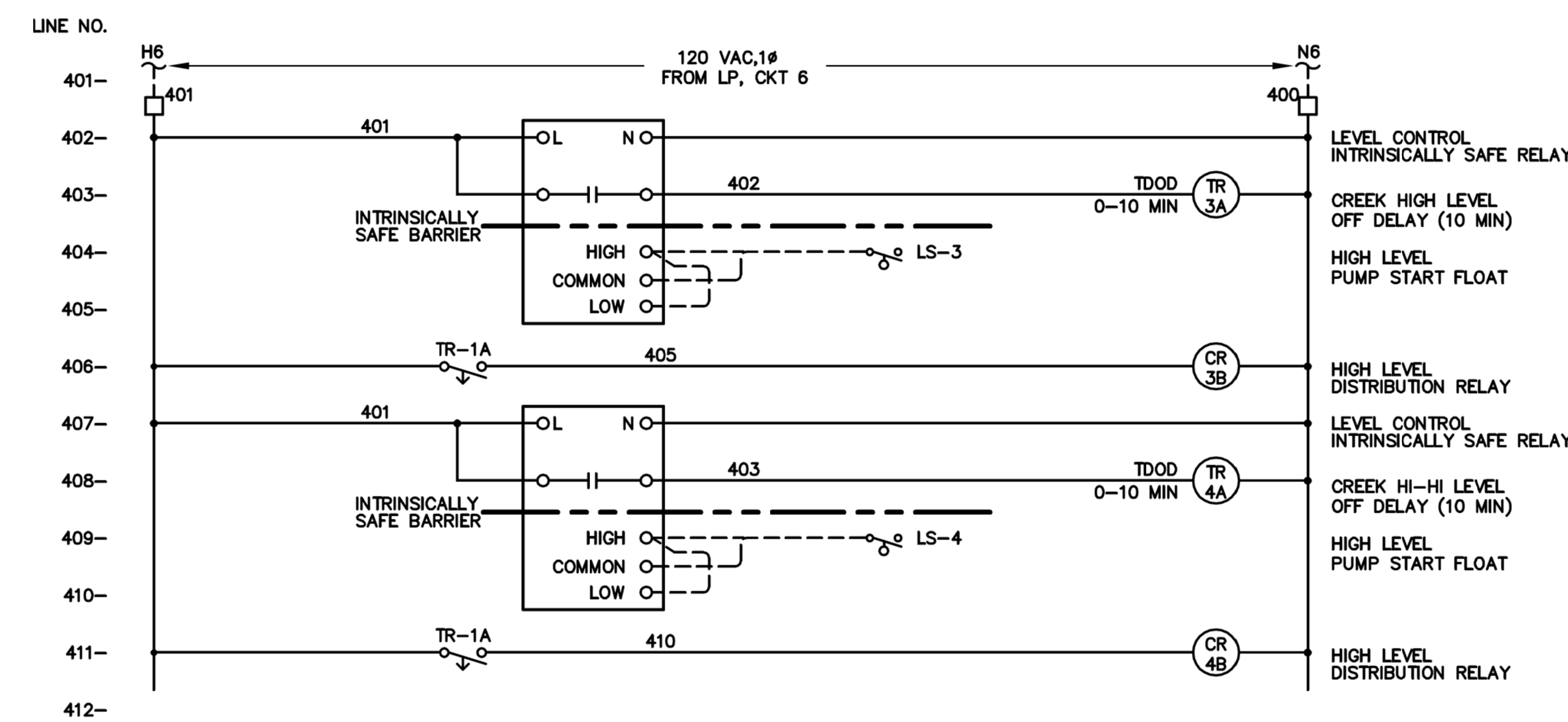
P10 P20



DOOR LAYOUT



AUTODIALER



CREEK LEVEL CONTROLS ELEMENTARY DIAGRAM

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FOLSOM, CA 95630 FX 916 353 1028

FILE:1504e-E04.dwg DATE: Aug 17, 2015 TIME: 1:46:24pm

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DATE: 04/13/2015

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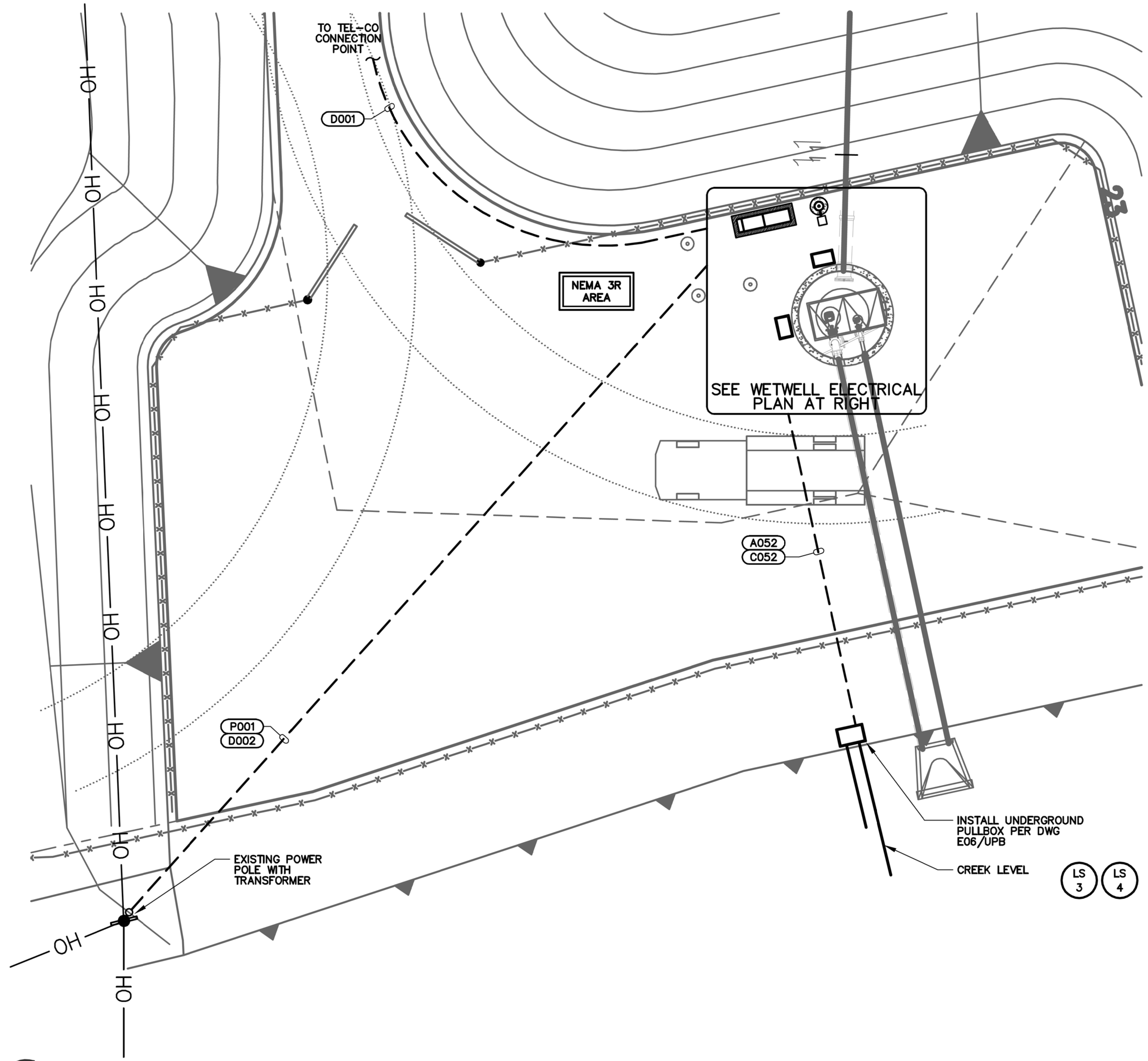
FLORIN CREEK MULTI-USE BASIN
PUMP ELEMENTARY DIAGRAM
—

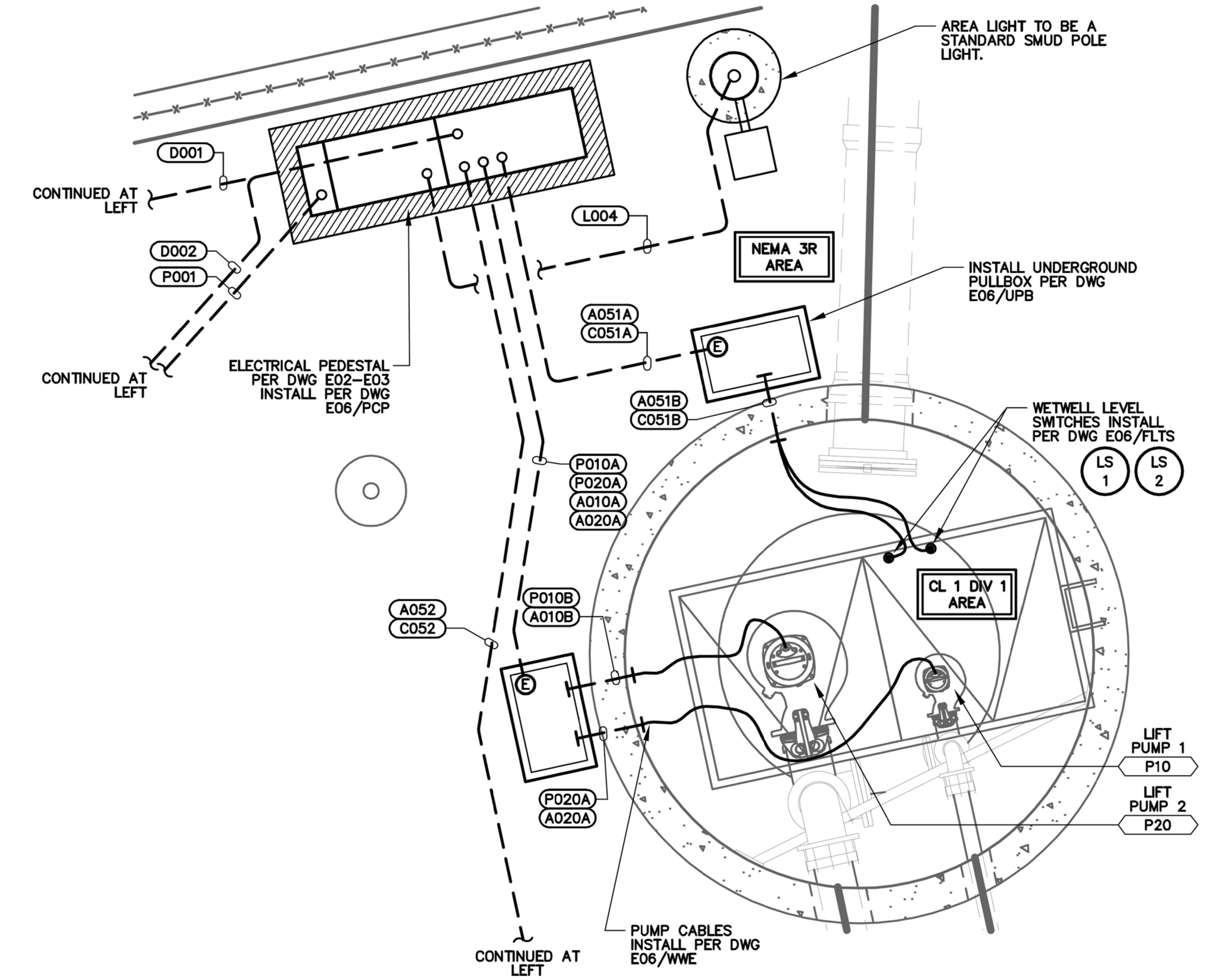
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
HORIZ: 1"=40' VERT: 1"=4'
DRAWING NO. E04
SHEET

ELECTRICAL PLAN NOTES:

1. SEE ELECTRICAL SYMBOLS AND ABBREVIATIONS DRAWING FOR SYMBOL DEFINITION.
2. ALL WORK SHALL CONFORM TO LOCAL CODES AND NATIONAL ELECTRIC CODE.
3. SITEPLAN ACCURATE FOR ELECTRICAL WORK ONLY. COORDINATE WITH OTHER DISCIPLINES.
4. CONFIRM HOOKUP REQUIREMENTS FOR ELECTRICAL AND MECHANICAL EQUIPMENT PRIOR TO INSTALLING UNDERGROUND CONDUIT AND STUB-UPS. MISSING CONDUITS, INCORRECT SIZING, OR OTHER ISSUES MUST BE BROUGHT TO THE ATTENTION OF ENGINEER PRIOR TO BACKFILL.
5. CONDUIT ROUTING IS SHOWN GENERALLY DIAGRAMMATIC AND DOES NOT INDICATE TRENCH WIDTH OR TRENCH LAYOUT. FOR CONDUITS OUTSIDE BUILDINGS, IF CONTRACTOR WANTS TO RUN CONDUITS IN ROUTES OTHER THAN THOSE SHOWN FOR ANY REASON, THEN HE SHALL SUBMIT THE PLAN FOR APPROVAL PRIOR TO INSTALLATION. SPECIFY REASON FOR CHANGE.
6. INSTALL ALL NON-UTILITY CONDUITS AT 24" DEPTH WITH 4" SAND BACKFILL UNLESS OTHERWISE SHOWN.
7. CONDUITS SIZE, TYPE AND FILL DEFINED BY TAG NAME IN CONDUIT AND WIRE ROUTING SCHEDULE.
8. INSTALL UNDERGROUND NON-DUCTBANK CONDUITS PER ELECTRICAL DETAIL LVC.
9. CONDUIT TRANSITIONS SHALL BE PER EXPOSED CONDUIT TRANSITION DETAIL ECT.
10. EXPOSED CONDUIT TYPE AND FITTINGS TO BE USED ABOVE TRANSITION SHALL BE PER AREA CLASSIFICATION DEFINED IN CONDUIT SPECIFICATIONS AND EQUIPMENT SPECIFIC DETAIL.
11. REPAIR SURFACE TO PREVIOUS CONDITION FOR ALL UNDERGROUND CONDUIT ROUTES. GROUT, CAULK, AND PAINT ANY PENETRATIONS INTO STRUCTURES FOR WATERTIGHT SEAL.
12. USE SS EXPANSION WEDGE ANCHORS OR EPOXY ANCHORS AS NECESSARY FOR EQUIPMENT MOUNTING.
13. UTILITY PRIMARY AND SECONDARY CONDUITS, TRANSFORMER PAD, PULL BOXES AND REMOVABLE BOLLARDS SHALL BE INSTALLED PER POWER UTILITY ENGINEERED DRAWINGS AND STANDARDS.
14. ASSUME 100 FT OF UNDERGROUND RUN BEYOND DRAWING FOR UTILITY CONNECTIONS. CONNECTION POINT SHALL BE AS DETERMINED BY UTILITY.



ELECTRICAL SITE PLAN
SCALE: 1/8" = 1'



WETWELL ELECTRICAL PLAN
SCALE: 1/2" = 1'

CONDUIT & WIRE ROUTING SCHEDULE											
CONDUIT DETAILS						POWER WIRE		CONTROL WIRE		GROUND	NOTES
TAG NO.	FROM	TO	QTY	SIZE	TYPE	QTY	SIZE	QTY	SIZE	SIZE	
A010 A	PEDESTAL	PUMP PULLBOX	1	1"	SPEC	– –		– –		–	
A010 B	PUMP PULLBOX	WETWELL	1	1-1/2"	SPEC	– –		– –		–	
A020A	PEDESTAL	PUMP PULLBOX	1	1"	SPEC	– –		– –		–	
A020B	PUMP PULLBOX	WETWELL	1	1-1/2"	SPEC	– –		– –		–	
A051 A	PEDESTAL	INST PULLBOX	1	1-1/2"	SPEC	– –		– –		–	
A051 B	INST PULLBOX	WETWELL	1	2"	SPEC	– –		– –		–	
A052	PEDESTAL	CREEK PULLBOX	1	1"	SPEC	– –		– –		–	
C051	PEDESTAL	FLOAT SWITCHES	1	2"	SPEC	– –		2	MFG CABLES	–	
C051 B	INST PULLBOX	WETWELL	1	1-1/2"	SPEC	– –		2	MFG CABLES	–	
C052	PEDESTAL	FLOAT SWITCHES	1	1-1/2"	SPEC	– –		2	MFG CABLES	–	
D001	TELEPHONE SERVICE	PEDESTAL	1	2"	SPEC	– –		– –		–	PULL ROPE
D002	UTILITY POLE	PEDESTAL	1	2"	SPEC	– –		– –		–	PULL ROPE
P001	UTILITY SERVICE	PEDESTAL	1	3"	SPEC	4	#3/0	– –		#2	PER UTILITY REQUIREMENTS
P010 A	PEDESTAL	PUMP PULLBOX	1	2"	SPEC	3	#10	– –		#12	
P010 B	PUMP PULLBOX	PUMP 1	1	2"	SPEC	1	MFG CABLE	– –		–	
P020A	PEDESTAL	PUMP PULLBOX	1	2"	SPEC	3	#2	– –		#8	
P020B	PUMP PULLBOX	PUMP 2	1	2"	SPEC	1	MFG CABLE	– –		–	

NOTES PERTAINING TO CONDUIT SCHEDULE:

1. CONDUIT TYPE "SPEC" IS AS DEFINED IN SPECIFICATIONS SECTION 16110 FOR NON-EXPOSED AND EXPOSED PORTIONS OF CONDUIT RUN.
2. SEE SPECIFICATIONS AND EXPOSED TRANSITION DETAIL OR EQUIPMENT SPECIFIC DETAIL FOR CONDUIT TRANSITION MATERIALS AND METHODS FROM BELOW GROUND TO EXPOSED PORTIONS OF RUN.
3. FITTINGS, CONDULETS, BOXES AND COVERS SHALL MATCH DUTY OF ADJACENT PIPE, SEE SPECIFICATIONS 16110.
4. SEE GENERAL NOTES ON LIGHTING AND RECEPTACLE PLAN FOR CONDUIT REQUIREMENTS FOR ELECTRICAL DEVICES WITHOUT CONDUITS SHOWN, CONDUIT NUMBERS, OR NOT LISTED IN SCHEDULE.

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DESIGNED BY: T. FRISCH
DRAWN BY: N. CONANT
CHECKED BY: M. FRISCH
IN CHARGE: J. KORS
DATE: 04/13/2015

PRELIMINARY

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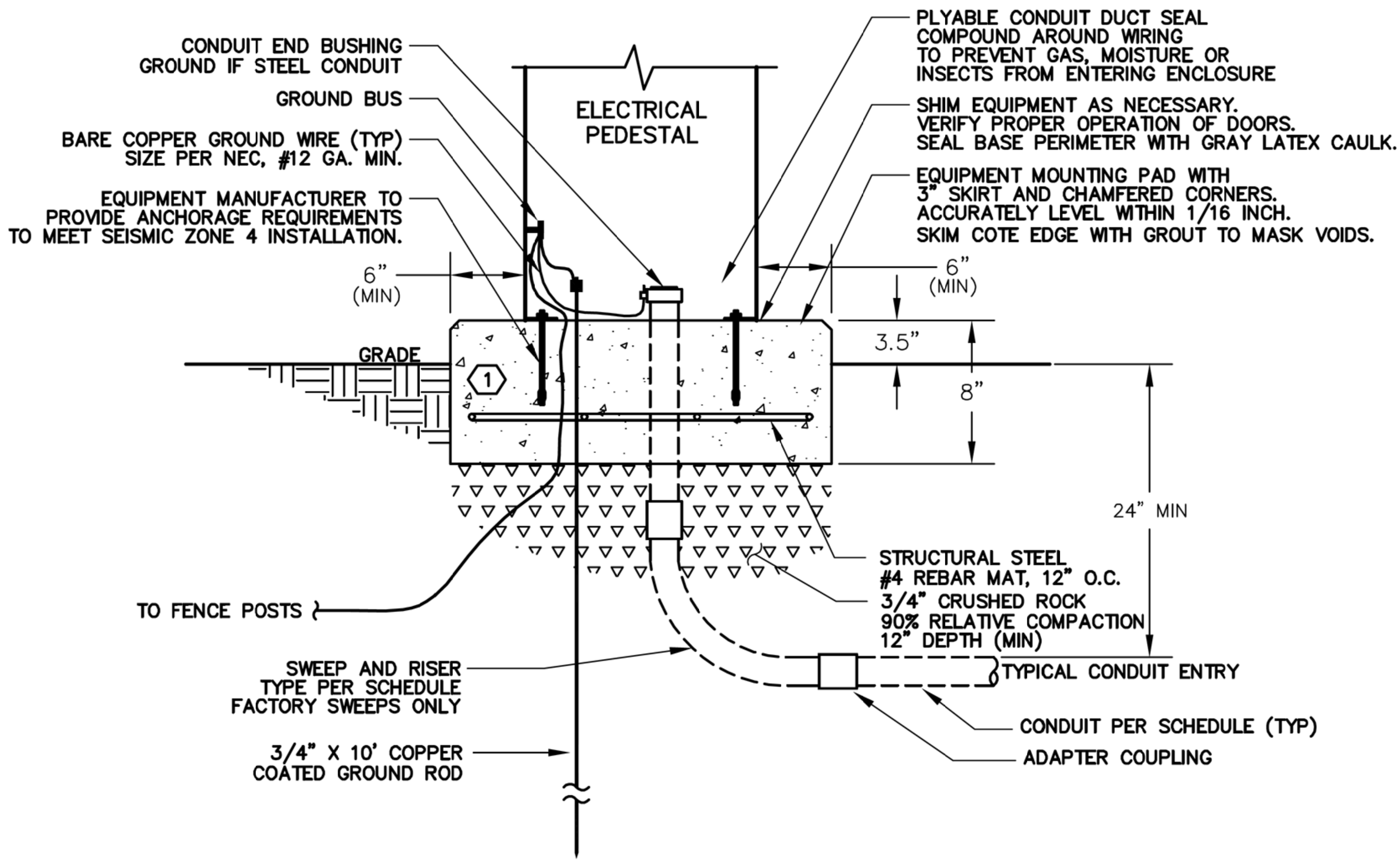
FLORIN CREEK MULTI-USE BASIN
ELECTRICAL
SITE PLANS

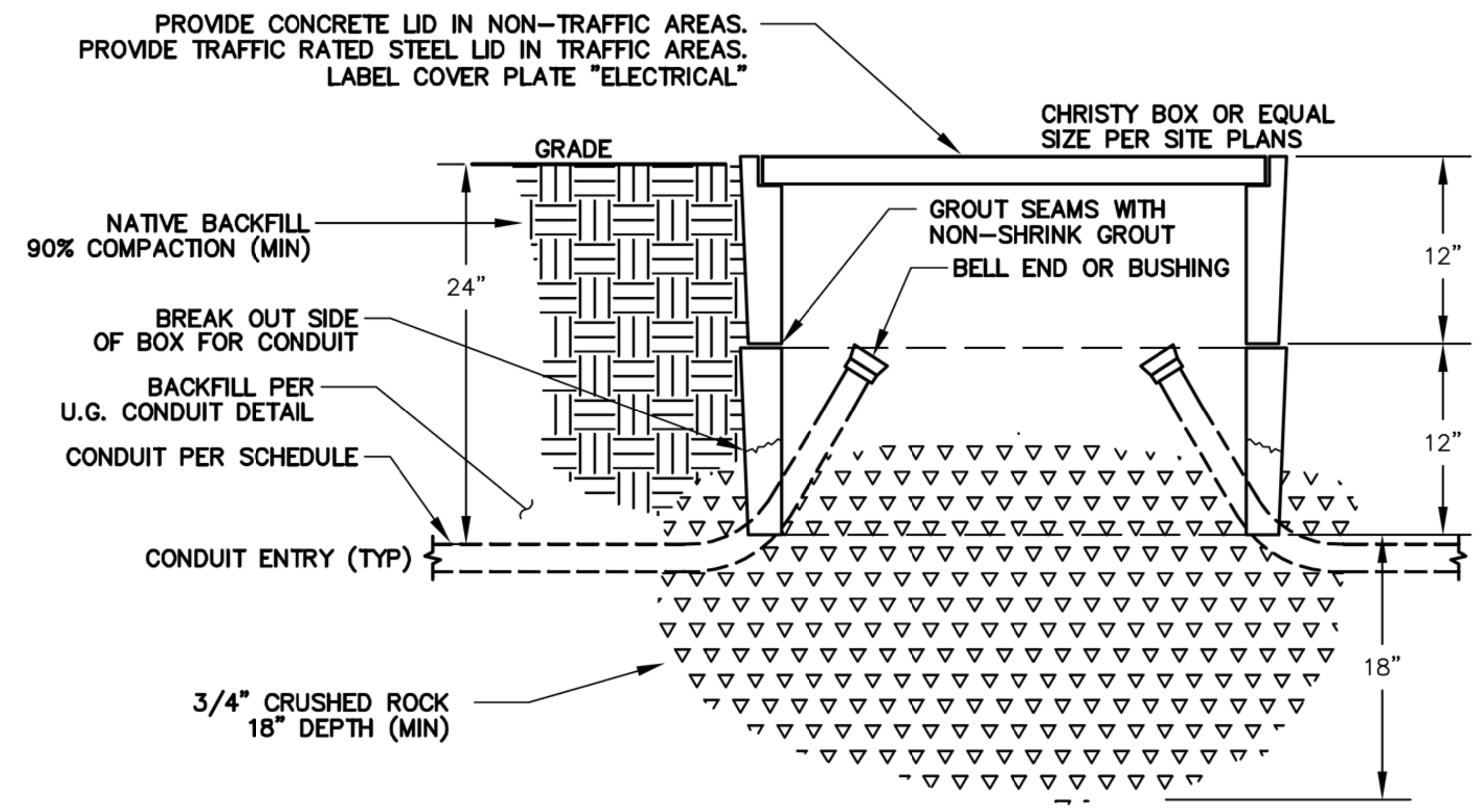
VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
HORIZ: 1"=40' VERT: 1"=4'
DRAWING NO. E05 SHEET

Attachment C - Project Drawings

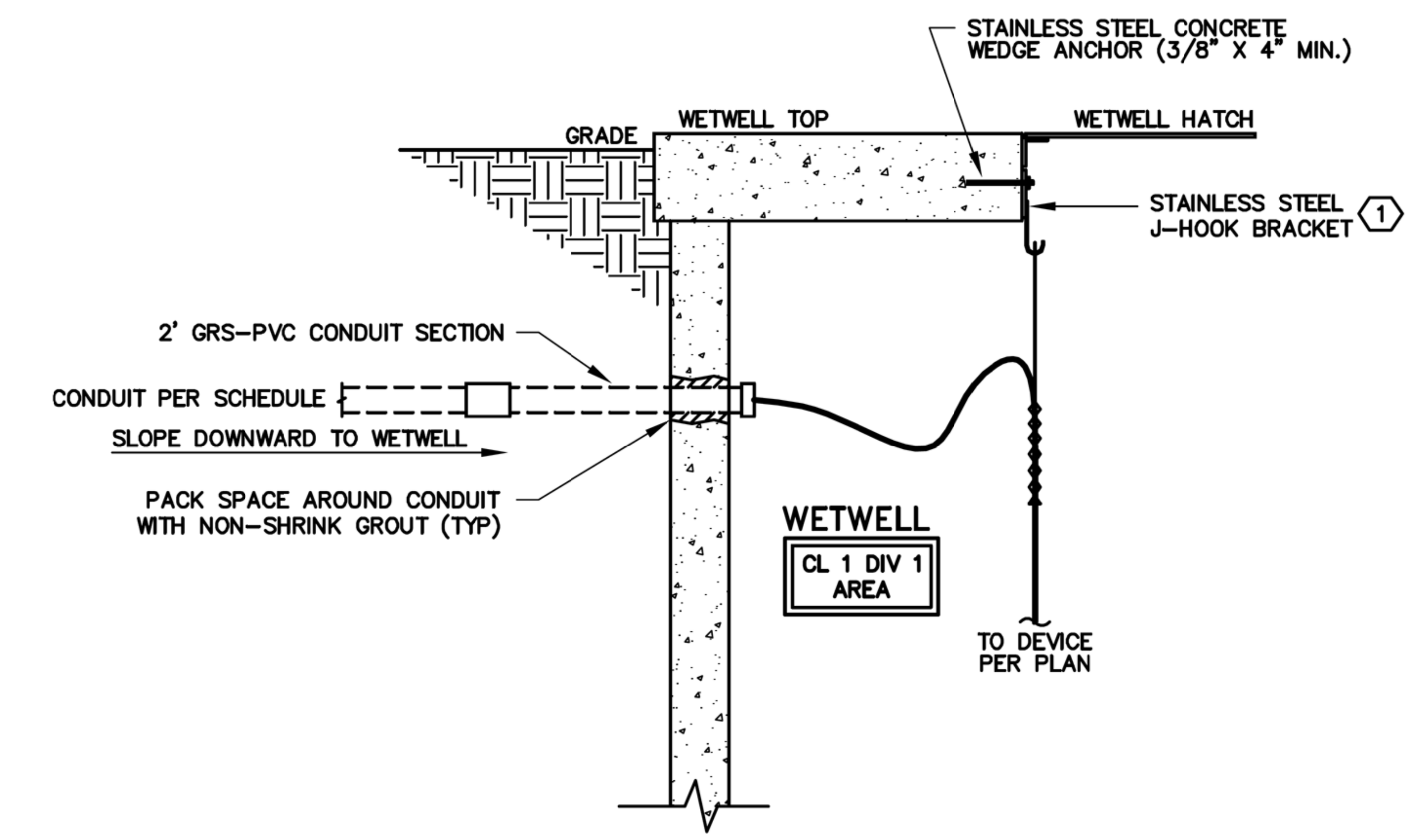


PCP — **PEDESTAL CONCRETE PAD DETAIL**
NOT TO SCALE

NOTES: (1) PEDESTAL PAD SIZE PER SITE PLANS

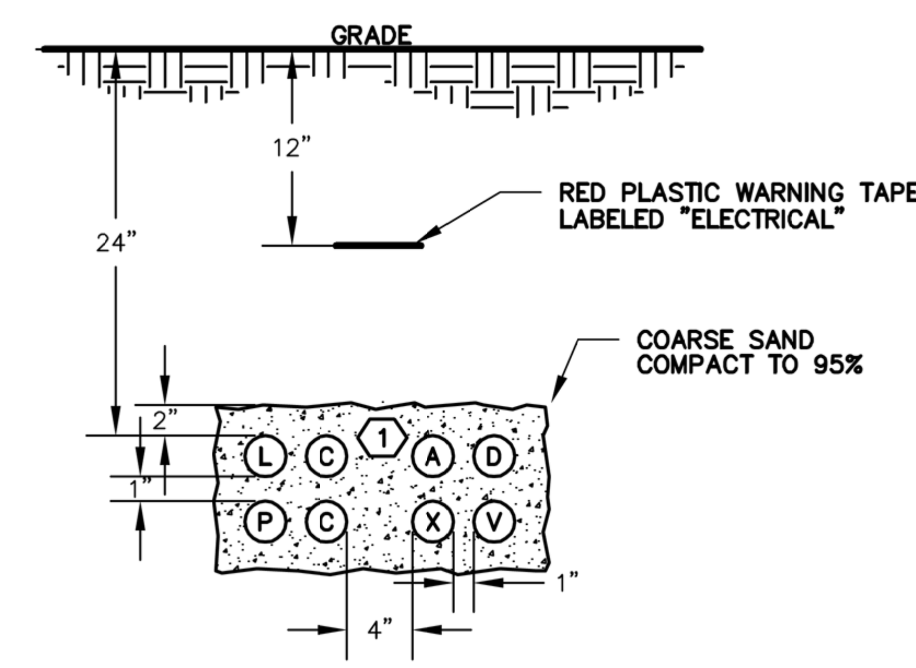


UPB — **UNDERGROUND PULL BOX DETAIL**
NOT TO SCALE



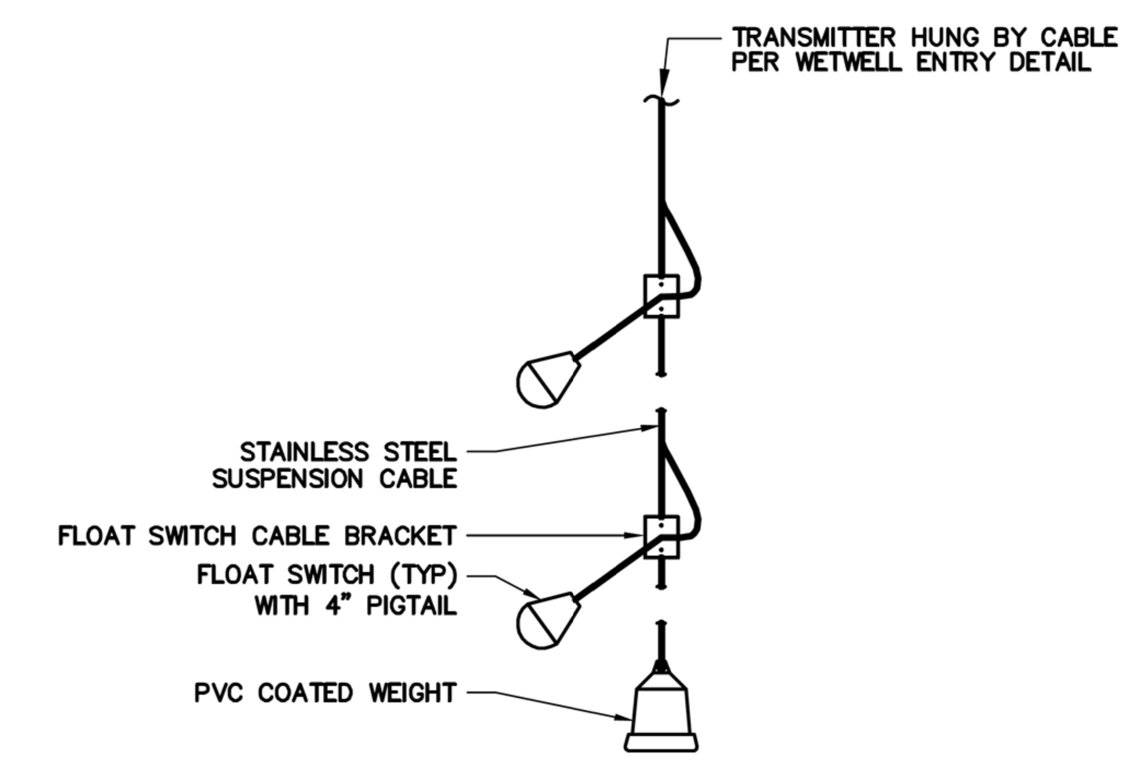
WWE — **WETWELL ENTRY DETAIL**
NOT TO SCALE

NOTES: (1) CUSTOM MANUFACTURERED J-HOOK ASSEMBLY CONSISTING OF STAINLESS STEEL PLATE WITH STAINLESS STEEL J-HOOKS WELDED TO PLATE. PROVIDE ONE HOOK PER WETWELL CABLE.

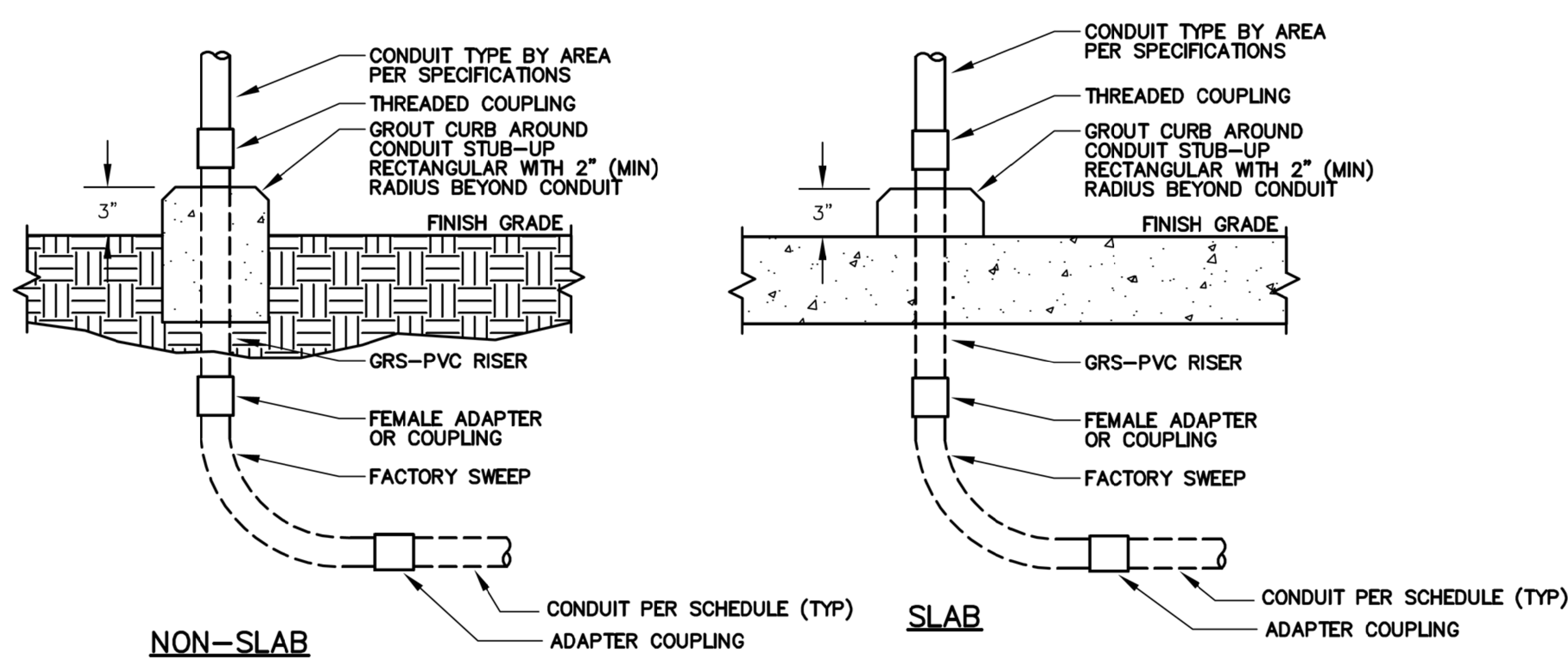


LVC — **LOW VOLTAGE NON-DUCT BANK SECTION**
NOT TO SCALE

NOTES:
(1) NUMBER OF CONDUITS PER PLANS AND SCHEDULE. MAXIMUM DEPTH OF TRENCH SHALL BE 42". DESIGN TRENCH DESIGN AND INSTALL TRENCH TO MAINTAIN 6" VERTICAL CLEARANCE AND 12" HORIZONTAL CLEARANCE FROM PIPES.
(2) P, L, OR C DESIGNATION FOR POWER OR CONTROL CONDUITS.
(3) A, D, V, OR X DESIGNATION FOR COMMUNICATION (TELEPHONE, DATA, VIDEO, OR INSTRUMENTATION) CONDUITS.
(4) USE CONDUIT SPACERS TO SUPPORT CONDUITS AND MAINTAIN SPACING (3' INTERVALS)



FLTS — **FLOAT SWITCH DETAIL**
NOT TO SCALE



ECT — **EXPOSED CONDUIT TRANSITION DETAIL**
NOT TO SCALE

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DESIGNED BY: T. FRISCH
DRAWN BY: N. CONANT
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SAFCA

FLORIN CREEK MULTI-USE BASIN
ELECTRICAL DETAILS
—

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
HORIZ: 1"=40' VERT: 1"=4'
DRAWING NO. SHEET
E06

Attachment C - Project Drawings

INTENT OF DRAWINGS

1. TYPICAL DETAILS AND GENERAL NOTES ON THESE DRAWINGS APPLY TO ALL PARTS OF THE JOB EXCEPT WHERE SPECIFICALLY DETAILED OR NOTED OTHERWISE ON THEIR SHEET.
2. RESOLVE ANY CONFLICTS ON THE DRAWINGS WITH THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. DIMENSIONS TAKE PRECEDENCE OVER SCALE OF DRAWINGS. HOWEVER, ANY SIGNIFICANT CONFLICTS SHOULD BE RESOLVED AS NOTED ABOVE.
3. VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB. RESOLVE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND INFORMATION SHOWN ON THESE DRAWINGS WITH THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

GENERAL

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND GENERAL NOTES AND SPECIFICATIONS.
2. ALL APPLICABLE REQUIREMENTS OF THE CALIFORNIA CONSTRUCTION AND GENERAL INDUSTRY SAFETY ORDERS, THE OCCUPATIONAL SAFETY AND HEALTH ACT AND THE CONSTRUCTION SAFETY ACT SHALL BE MET.
3. ALL ERECTION PROCEDURES SHALL CONFORM TO CAL OSHA STANDARDS. ANY DEVIATION MUST BE APPROVED BY THE ENGINEER PRIOR TO ERECTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE STRUCTURE DURING THE CONSTRUCTION PERIOD. ALL WALLS, FLOORS, AND ROOF MEMBERS SHALL BE SECURELY SHORED AND BRACED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL RETAIN A CALIFORNIA REGISTERED CIVIL ENGINEER TO DESIGN ALL TEMPORARY SHORING, BRACING AND GUYS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
7. SHOP DRAWINGS REQUIRED BY THE CONTRACT DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL. THE ENGINEER'S REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC.
8. ALL DETAILS DESIGNATED AS STANDARD OR TYPICAL SHALL APPLY TO ALL APPLICABLE CONDITIONS IN ADDITION TO OTHER SPECIFICALLY REFERENCED DETAILS AND SECTIONS.
9. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW BY THE ENGINEER.

TESTS AND INSPECTIONS

STRUCTURAL TESTS AND SPECIAL INSPECTIONS SHALL BE PROVIDED BY A QUALIFIED TESTING AND INSPECTION AGENCY AS REQUIRED BELOW AND SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 17 OF THE CBC.

TESTS:

- ☒ FILL COMPACTION
- ☒ REINFORCING STEEL
- ☒ CONCRETE
- ☐ STRUCTURAL STEEL
- ☐ MASONRY
- ☐ GROUT AND MORTAR
- ☒ EPOXY AND EXPANSION ANCHORS
- ☐ SHOTCRETE

INSPECTIONS:

- ☒ SPECIAL GRADING, EXCAVATION AND FILLING
- ☐ PILE/PIER INSTALLATION
- ☒ REINFORCEMENT PLACEMENT
- ☒ CONCRETE PLACEMENT
- ☐ SHOP WELDING
- ☐ FIELD WELDING
- ☐ HIGH STRENGTH BOLTING
- ☐ MASONRY PLACEMENT AND GROUTING

FOUNDATION

1. FOUNDATION WORK SHALL BE PERFORMED IN ACCORDANCE THE CALTRANS 2006 STANDARD SPECIFICATIONS.
2. FOUNDATION EXCAVATIONS SHALL BE EXAMINED AND CERTIFIED BY THE BUILDING AUTHORITY ENGINEER OR HIS REPRESENTATIVE PRIOR TO THE PLACEMENT OF ANY REINFORCING STEEL OR CONCRETE.
3. UNEXPECTED SOIL CONDITIONS:
ANY SUBSURFACE CONDITIONS NOT IN ACCORDANCE WITH THE ABOVE REFERENCED DOCUMENT SHALL BE REPORTED TO THE BUILDING AUTHORITY ENGINEER IMMEDIATELY FOR RESOLUTION PRIOR TO CONTINUING ANY WORK.

DESIGN CRITERIA

1. CODES AND STANDARDS:

   2013 CALIFORNIA BUILDING CODE (CBC)

   2012 INTERNATIONAL BUILDING CODE (IBC)

   ACI 318-11 ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

   ACI 250-06 CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES

2. THE GEOTECHNICAL DESIGN PARAMETERS ARE BASED ON THE MINIMUM RECOMMENDATIONS STATED IN CHAPTER 16 AND 18 OF THE 2013 CBC. REFER TO FOUNDATION NOTES FOR ADDITIONAL INFORMATION.

3. GEOTECHNICAL DESIGN PARAMETERS

   PRESUMPTIVE LOAD BEARING VALUES PER 2013 CBC TABLE 1806.2

   LATERAL SOIL LOAD VALUES PER 2013 CBC TABLE 1610.1 OR GREATER

   ALLOWABLE BEARING PRESSURES

   DEAD+LIVE = 1500 PSF

   LATERAL EARTH PRESSURES

   ACTIVE EARTH PRESSURE ABOVE GWT = 45 PSF/FT
   ACTIVE EARTH PRESSURE BELOW GWT = 60 PSF/FT
   PASSIVE EARTH PRESSURE = 100 PSF/FT
   COEFFICIENT OF FRICTION D+L = 0.25

4. WIND DESIGN CRITERIA;

   BASIC WIND SPEED = 85 MPH
   EXPOSURE CATEGORY = C
   IMPORTANCE FACTOR = 1.0

5. SEISMIC DESIGN CRITERIA:

   LATITUDE 38° 29' 16.52" N
   LONGITUDE 121° 26' 23.55" W

   SITE CLASS D
   SEISMIC DESIGN CATEGORY D
   OCCUPANCY CATEGORY II

   S_S = 0.672 Fo = 0.848 S_{DS} = 0.565
   S_1 = 0.291 Fv = 0.529 S_{D1} = 0.353
   I = 1.0

CONCRETE

1. ALL STRUCTURAL CONCRETE SHALL HAVE A DENSITY AFTER CURING BASED ON WEIGHT CLASSIFICATION AS SHOWN BELOW, UON:

   NORMAL WEIGHT: DENSITY = 145 PCF

2. ALL CONCRETE SHALL BE NORMAL WEIGHT UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
3. ALL STRUCTURAL CONCRETE SHALL BE MADE FROM AGGREGATES BASED ON WEIGHT CLASSIFICATION AS SHOWN BELOW, UON:

   NORMAL WEIGHT: ASTM C33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.05%

4. ALL CONCRETE SHALL CONFORM TO THE MINIMUM COMPRESSIVE STRENGTHS AND WATER/CEMENTITIOUS MATERIAL RATIOS TABULATED BELOW:

	f'c (28 DAY)	W/C RATIO
STRUCTURAL CONCRETE:	4000 P.S.I.	0.47-.053

5. ALL CEMENT SHALL CONFORM TO ASTM C150 TYPE I OR II, U.O.N.
6. CONCRETE MIX DESIGNS SHALL BE PREPARED BY AN INDEPENDENT LABORATORY AND REVIEWED BY THE STRUCTURAL ENGINEER.
7. ADMIXTURES SHALL COMPLY WITH ASTM C494 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT. CALCIUM CHLORIDE SHALL NOT BE USED.
8. PLACEMENT OF CONCRETE SHALL BE IN CONFORMANCE WITH ACI 301.
9. NON SHRINK GROUT: PREMANUFACTURED MIX WITH MINIMUM COMPRESSIVE STRENGTH AT THE END OF 28 DAYS OF 7000 P.S.I. WITH MINIMUM WATER CONSISTENT WITH PLACING REQUIREMENTS. GROUT SHALL BE MIXED AND PLACED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM STANDARD AS NOTED:

   TYPICAL REBAR: A615 GRADE 60
   REBAR WHERE SPECIFICALLY NOTED: A615 GRADE 40
   REBAR TO BE WELDED: A706 GRADE 60

2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. MINIMUM LAP AT SPLICES SHALL BE 12 INCHES.
3. ALL CONCRETE SHALL BE REINFORCED UNLESS SPECIFICALLY NOTED "NOT REINFORCED" IN THE DRAWINGS. IF REINFORCING BARS ARE NOT SHOWN OR NOTED, PROVIDE SAME REINFORCEMENT AS FOR SIMILAR CONDITIONS ELSEWHERE IN THE WORK, OR AS DIRECTED BY THE ENGINEER.
4. REINFORCEMENT BARS #5 AND LARGER SHALL NOT BE SPLICED EXCEPT AS DETAILED AND LOCATED ON DRAWINGS. #4 AND SMALLER BARS WITH LENGTH NOT SHOWN SHALL BE CONTINUOUS, LAPPING IN CONCRETE 1'-6" MINIMUM. WALL HORIZONTAL REINFORCEMENT SPLICES SHALL BE STAGGERED, VERTICAL REINFORCEMENT SHALL BE SPLICED ONLY AT HORIZONTAL SUPPORTS, SUCH AS ROOF OR FLOOR UNLESS OTHERWISE NOTED ON DRAWINGS. ALL SPLICES SHALL BE CLASS B UON.
5. ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS SHALL BE ACCURATELY SET IN PLACE AND FIRMLY SUPPORTED BEFORE CONCRETE IS POURED.
6. REINFORCEMENT BARS SHALL BE ACCURATELY PLACED AND FIRMLY SUPPORTED USING TIES AND SUPPORT BARS IN ADDITION TO REINFORCEMENT SHOWN WHERE FIRM AND ACCURATE PLACING IS NECESSARY AS SPECIFIED IN THE ACI STANDARDS. DOWELS SHOULD BE PROVIDED TO MATCH ALL REINFORCEMENT AT CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED.
7. NO REINFORCEMENT WELDING (TACK WELDING INCLUDED) SHALL BE DONE UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.
8. ALL DIMENSIONS SHOWN FOR LOCATION OF REINFORCING ARE TO THE FACE OF BARS AND DENOTE CLEAR COVERAGE UNLESS OTHERWISE NOTED.
9. MINIMUM CONCRETE COVERAGE OF REINFORCING STEEL SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON PLANS:

   CONCRETE CAST AGAINST EARTH 3"

   FORMED CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6-#18 BARS 2"
   #5 BAR AND SMALLER 1 1/2"

   FORMED CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
   BARS IN SLABS AND WALLS 3/4"
   BARS IN BEAMS AND COLUMNS 1 1/2"

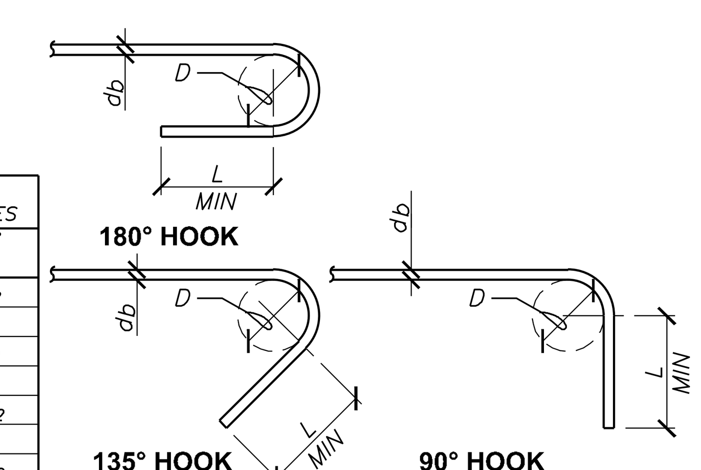
   EXTERIOR FACE OF TILT-UP WALLS EXPOSED TO WEATHER:
   #8 BARS AND SMALLER 1"
   SLABS ON GRADE: 3/4" (FROM TOP)

10. DRAWINGS SHOW TYPICAL REINFORCING CONDITIONS. CONTRACTOR SHALL PREPARE DETAILED PLACEMENT DRAWINGS OF ALL CONDITIONS SHOWING QUANTITY, SPACING, SIZES, CLEARANCE, LAPS, INTERSECTIONS AND COVERAGE REQUIRED BY STRUCTURAL DETAILS, APPLICABLE CODE AND TRADE STANDARDS. CONTRACTOR SHALL NOTIFY REINFORCING INSPECTOR OF ANY ADJUSTMENTS FROM TYPICAL CONDITIONS WHICH ARE PROPOSED IN PLACEMENT DRAWINGS TO FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.

TYPICAL BARS OTHER THAN STIRRUPS, TIES, HOOPS AND CROSS-TIES				
BAR SIZE	"D"	180° "L"	135° "L"	90° "L"
#3	2 1/4	2 1/2	2 1/2	4 1/2
#4	3	2 1/2	3	6
#5	3 3/4	2 1/2	3 3/4	7 1/2
#6	4 1/2	3	4 1/2	3
#7	5 1/4	3 1/2	5 1/4	10 1/2
#8	6	4	6	12
#9	9 1/2	4 1/2	6 3/4	13 1/2
#10	10 3/4	5 1/4	7 3/4	15 1/4
#11	12	5 3/4	8 1/2	17
#14	18 1/4	7	10 1/2	21
#18	24	9	13 1/2	27
STIRRUPS, TIES, HOOPS AND CROSS-TIES				
#3	1 1/2	–	4	4
#4	2	–	4	4
#5	2 1/2 (1)	–	4	4
#6	4 1/2	–	4 1/2	9
#7	5 1/4	–	5 1/4	10 1/2
#8	6	–	6	12
(1) USE 3 3/4" IN CONC. BLK. CONSTRUCTION				

NOTE:

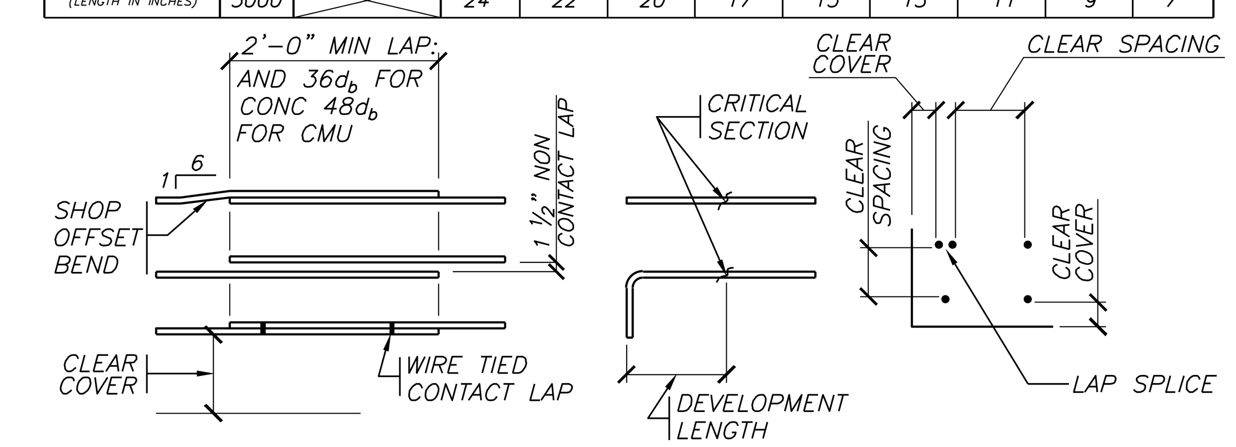
1. ALL DIMENSIONS GIVEN ARE IN INCHES.



LEGEND FOR REINF BENDS (N.T.S.)

- INDICATES 90° BEND IN PLANE OF DRAWING
- INDICATES 90° BEND PERPENDICULAR TO PLANE OF DRAWING
- INDICATES 135° BEND IN PLANE OF DRAWING
- INDICATES 180° BEND IN PLANE OF DRAWING
- INDICATES 135° OR 180° BEND PERPENDICULAR TO PLANE OF DRAWING
- INDICATES OFFSET IN PLANE OF DRAWING

			#11	#10	#9	#8	#7	#6	#5	#4	#3
REINFORCEMENT PROPERTIES	BAR SIZE		#11	#10	#9	#8	#7	#6	#5	#4	#3
	REINF GRADE (ksi)		60	60	60	60	60	60	60	60	60
	NOMINAL AREA (in)		1.56	1.27	1.00	0.79	0.60	0.44	0.31	0.20	0.11
	WEIGHT (lb/ft)		5.313	4.303	3.400	2.670	2.044	1.502	1.043	0.668	0.376
	NOMINAL DIA (in)"d"		1.410	1.270	1.128	1.000	0.875	0.750	0.625	.500	.375
DEVELOPMENT OR CLASS A TENSION LAP SPLICE (LENGTH IN INCHES)	3000	TYPICAL	78	70	62	55	48	33	28	22	17
		TOP REINF^2	101	91	81	72	63	43	36	29	22
	4000	TYPICAL	67	61	54	48	42	29	24	19	15
		TOP REINF^2	87	79	70	62	54	37	31	25	19
	≥5000	TYPICAL	60	54	48	43	38	26	22	17	13
		TOP REINF^2	78	70	63	56	49	34	28	23	17
CLASS B TENSION LAP SPLICE (LENGTH IN INCHES)	3000	TYPICAL	101	91	81	72	63	43	36	29	22
		TOP REINF^2	131	118	105	93	81	56	47	37	28
	4000	TYPICAL	87	79	70	62	54	37	31	25	19
		TOP REINF^2	113	102	91	81	71	49	41	33	24
	≥5000	TYPICAL	78	70	63	56	49	34	28	23	17
		TOP REINF^2	102	92	81	72	63	43	36	29	22
COMPRESSION LAP SPLICE WHERE NOTED (LENGTH IN INCHES)	<3000		55	50	44	39	35	30	25	20	15
	>3000		43	39	34	30	26	23	19	15	12
STANDARD HOOKED DEVELOPMENT (LENGTH IN INCHES)	3000		31	28	25	22	20	17	13	11	8
	4000		26	24	22	19	17	15	12	10	7
	5000		24	22	20	17	15	13	11	9	7



NOTES:

1. REINFORCEMENT TABLE IS BASED ON ACI THE CURRENT EDITION OF ACI 318.
2. "TOP REINF" IS HORIZONTAL REINFORCEMENT PLACED SUCH THAT 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE.
3. EMBEDMENT AND LAP LENGTH IS BASED ON NORMAL WEIGHT CONCRETE. FOR LIGHT WEIGHT CONCRETE MULTIPLY THE TENSION DEVELOPMENT AND SPLICE LENGTHS BY 1.3.
4. THE DEVELOPMENT AND LAP SPLICE SCHEDULE CAN BE USED FOR NON CONTACT LAP SPLICE WHEN BAR SPACING IS LESS THAN 6".
5. THE SCHEDULE ABOVE IS APPLICABLE FOR THE FOLLOWING CONDITIONS. IF THE FOLLOWING CONDITIONS ARE NOT MET MULTIPLY THE LENGTHS PROVIDED BY 1.5.

   BARS NOT CONFINED BY TIES:
   CLEAR SPACING OF DEVELOPED OR SPLICED BARS NOT LESS THAN d_b AND CLEAR COVER NOT LESS THAN d_b

   BARS CONFINED BY TIES:
   CLEAR SPACING OF DEVELOPED OR SPLICED BARS NOT LESS THAN $2d_b$ AND CLEAR COVER NOT LESS THAN d_b

6. ALL BAR TENSION LAP SPLICES ARE CLASS B UNLESS OTHERWISE NOTED.
7. FOR 3 BAR BUNDLE MULTIPLY THE TENSION LAP SPLICE BY 1.2.
FOR 4 BAR BUNDLE MULTIPLY THE TENSION LAP SPLICE BY 1.33.
8. FOR BAR SIZES #14 AND #18 USE MECHANICAL SPLICES.
9. TENSION LAP SPLICES MAY BE SUBSTITUTED WITH MECHANICAL SPLICES WITH APPROVAL BY THE ENGINEER.

6 S-01 **TYPICAL BAR BENDS AND HOOKS**
SCALE: 3/4" = 1'-0" XR_C_023_S001D06_FCB

3 S-01 **TYPICAL LAP SPLICE SCHEDULE**
SCALE: 1/2" = 1'-0" XR_C_023_S001D03_FCB

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: A. JOHNSON
DRAWN BY: A. JOHNSON
CHECKED BY: G. CALVILLO
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

WOOD RODGERS
DEVELOPING • INNOVATIVE • DESIGN • SOLUTIONS
3301 C STREET, BLDG. 100-B, SACRAMENTO, CA 95816
PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED APPROVED

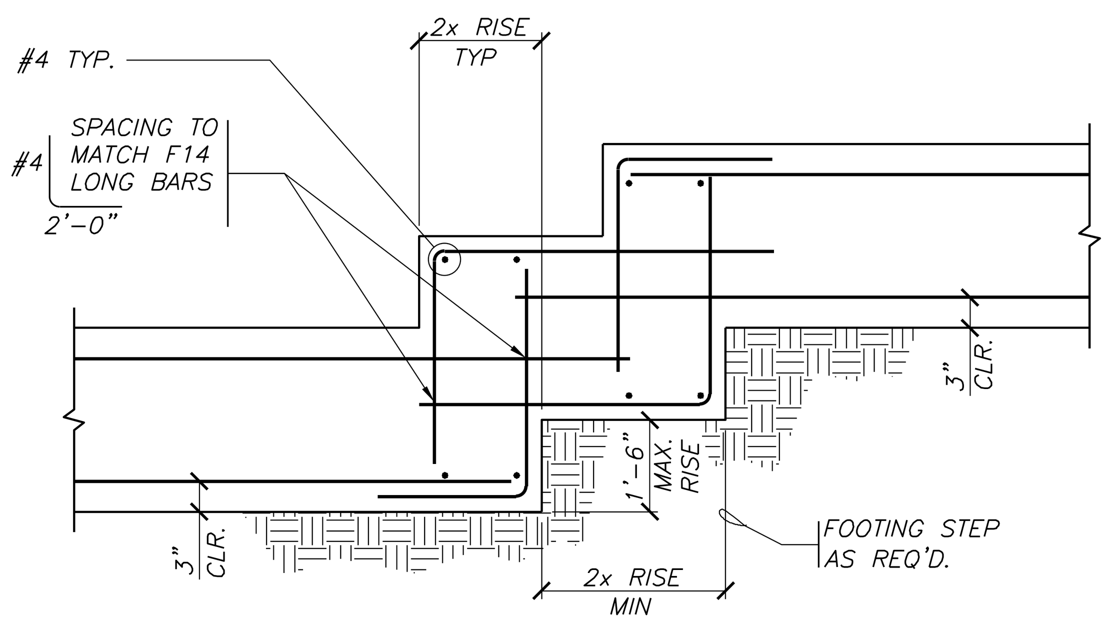
SAFCA

FLORIN CREEK MULTI-USE BASIN
STRUCTURAL NOTES AND TYPICAL DETAILS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

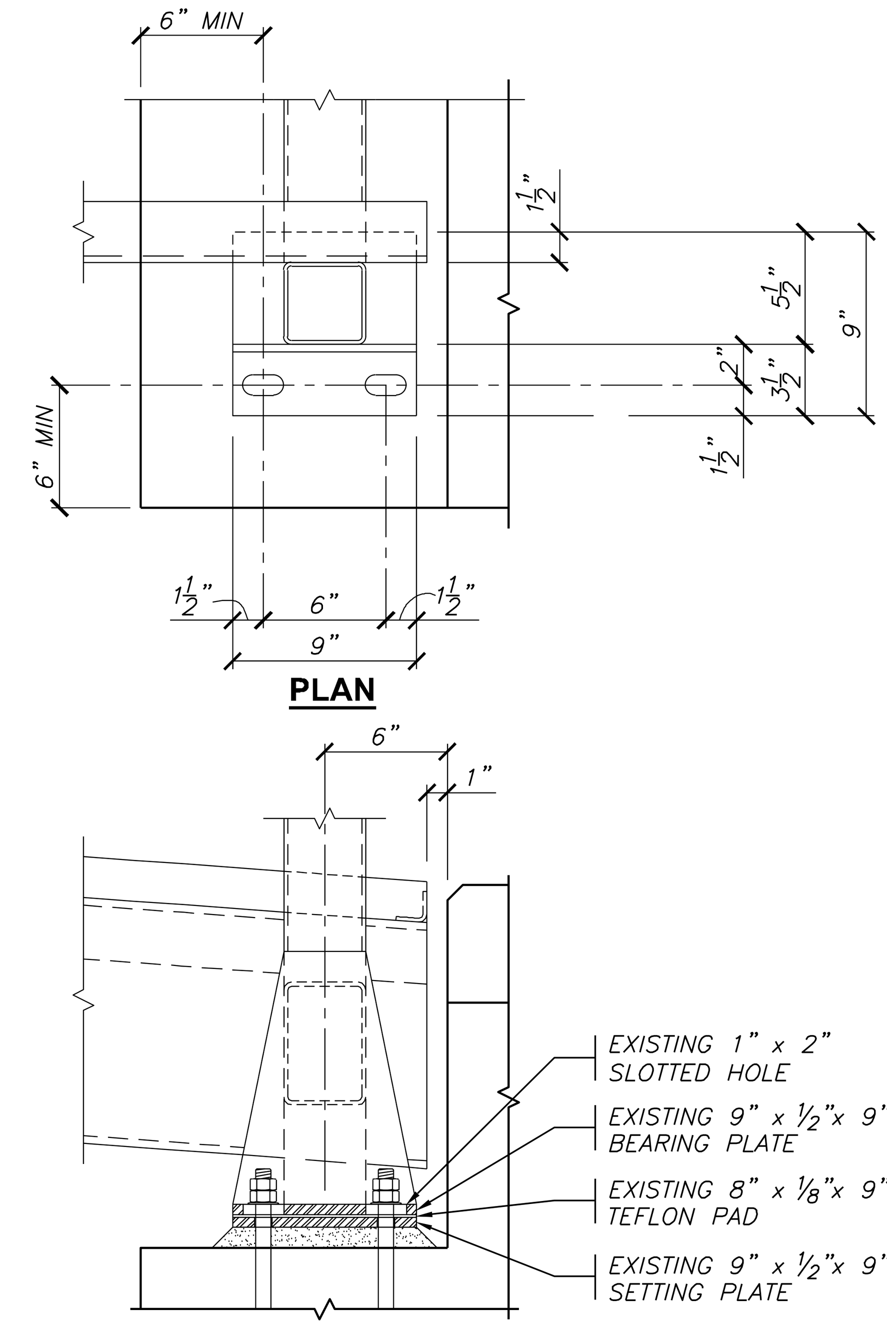
DRAWING NO. S-01
SHEET 50

Attachment C - Project Drawings



TYPICAL STEPPED FOOTING WITH STEPPED TOP BEARING

10 / S-02 SCALE: 3/4" = 1'-0" XR_C_024_S002D10_FCB

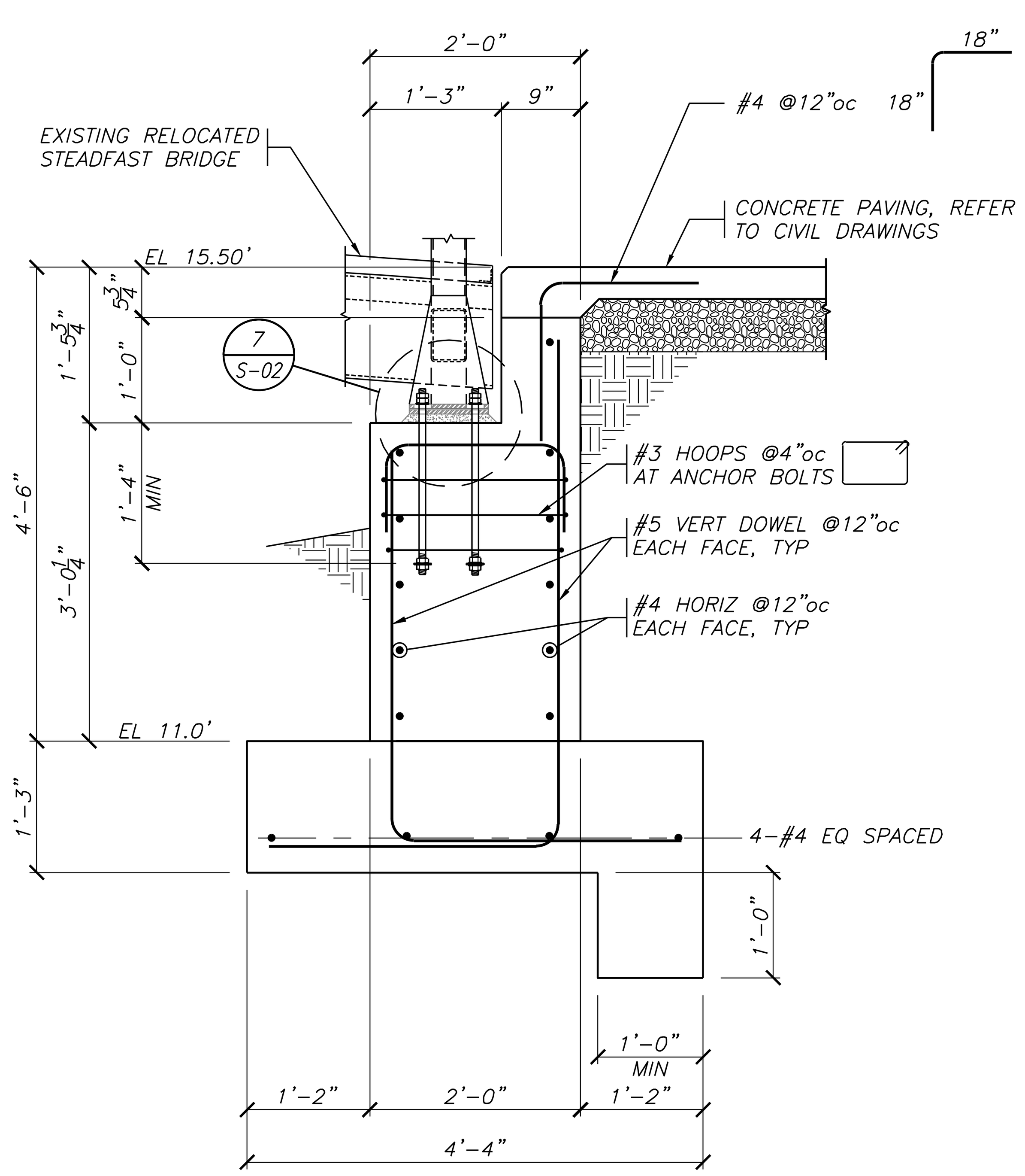


PLAN

SECTION

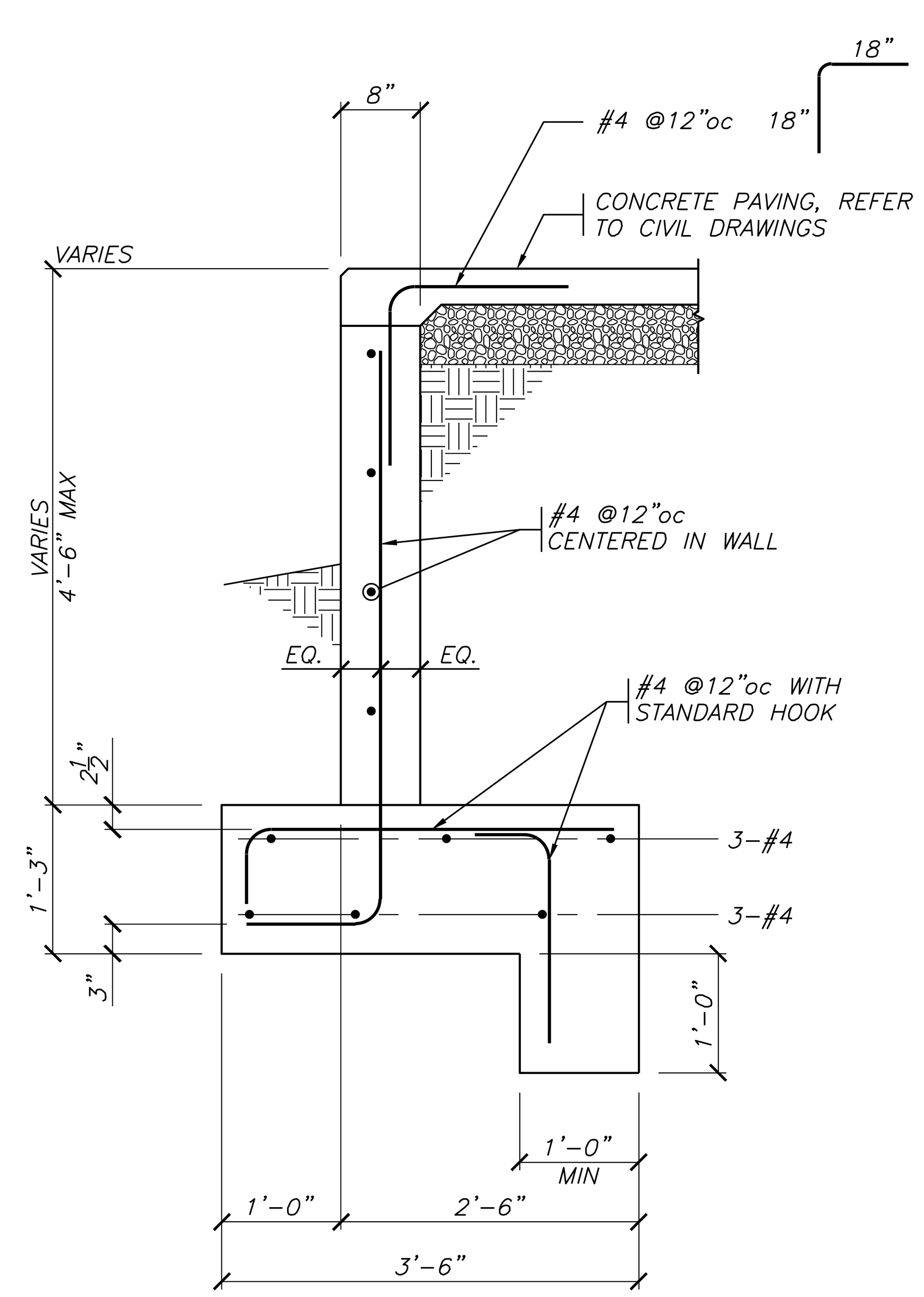
EXISTING BASE PLATE

7 / S-02 SCALE: 1 1/2" = 1'-0" XR_C_024_S002D07_FCB



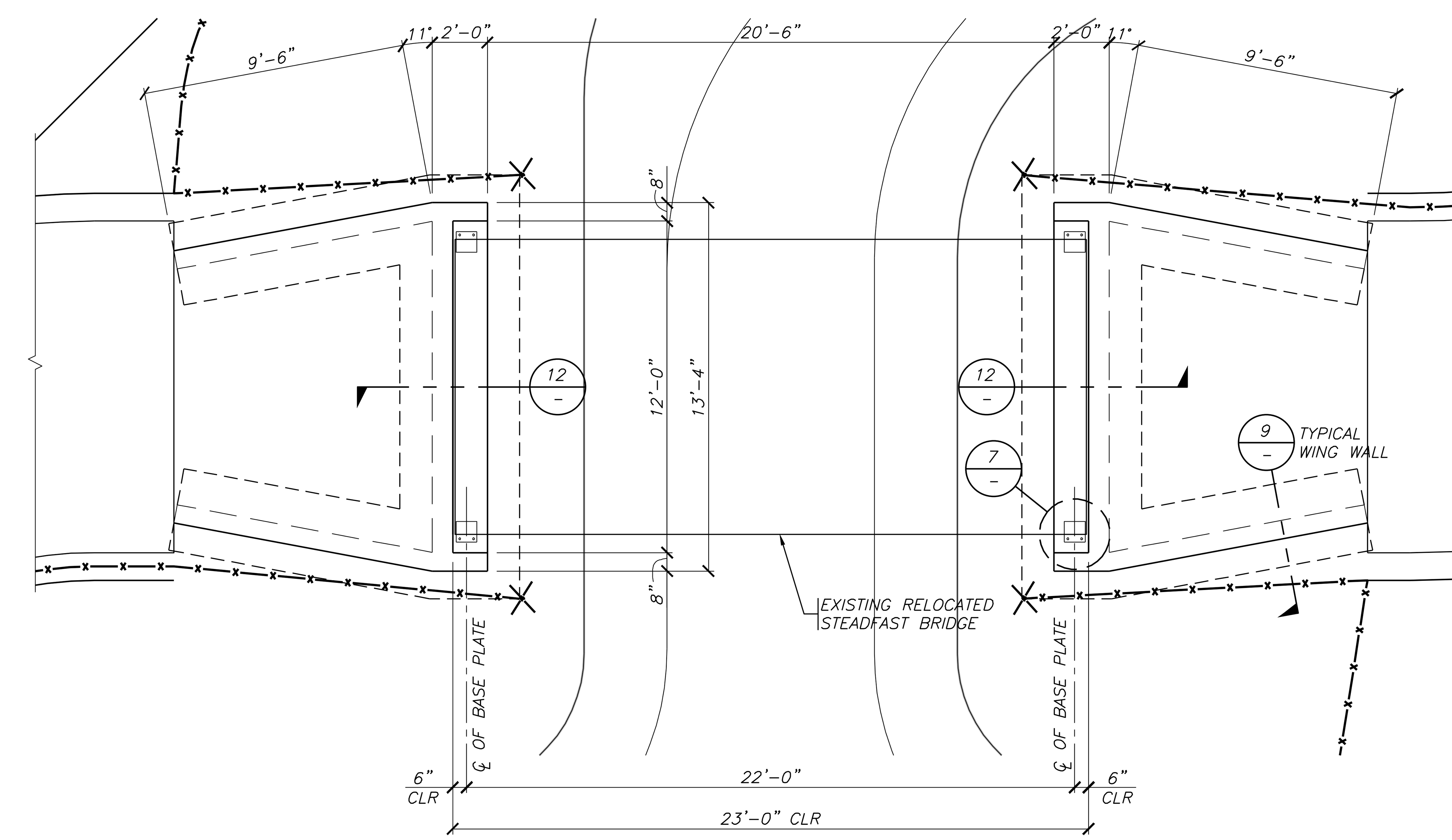
BRIDGE ABUTMENT DETAIL

12 / S-02 SCALE: 3/4" = 1'-0" XR_C_024_S002D12_FCB



WING WALL DETAIL

9 / S-02 SCALE: 3/4" = 1'-0" XR_C_024_S002D09_FCB



BRIDGE ABUTMENT PLAN

A / S-02 SCALE: 1/4" = 1'-0"

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: A. JOHNSON
DRAWN BY: A. JOHNSON
CHECKED BY: G. CALVILLO
IN CHARGE: J. KORS
DATE: 08/17/2015

PRELIMINARY

WOOD RODGERS
DEVELOPING • INNOVATIVE • DESIGN • SOLUTIONS
3301 C STREET, BLDG. 100-B, SACRAMENTO, CA 95816
PHONE: (916) 341-7760 FAX: (916) 341-7767

SUBMITTED
APPROVED

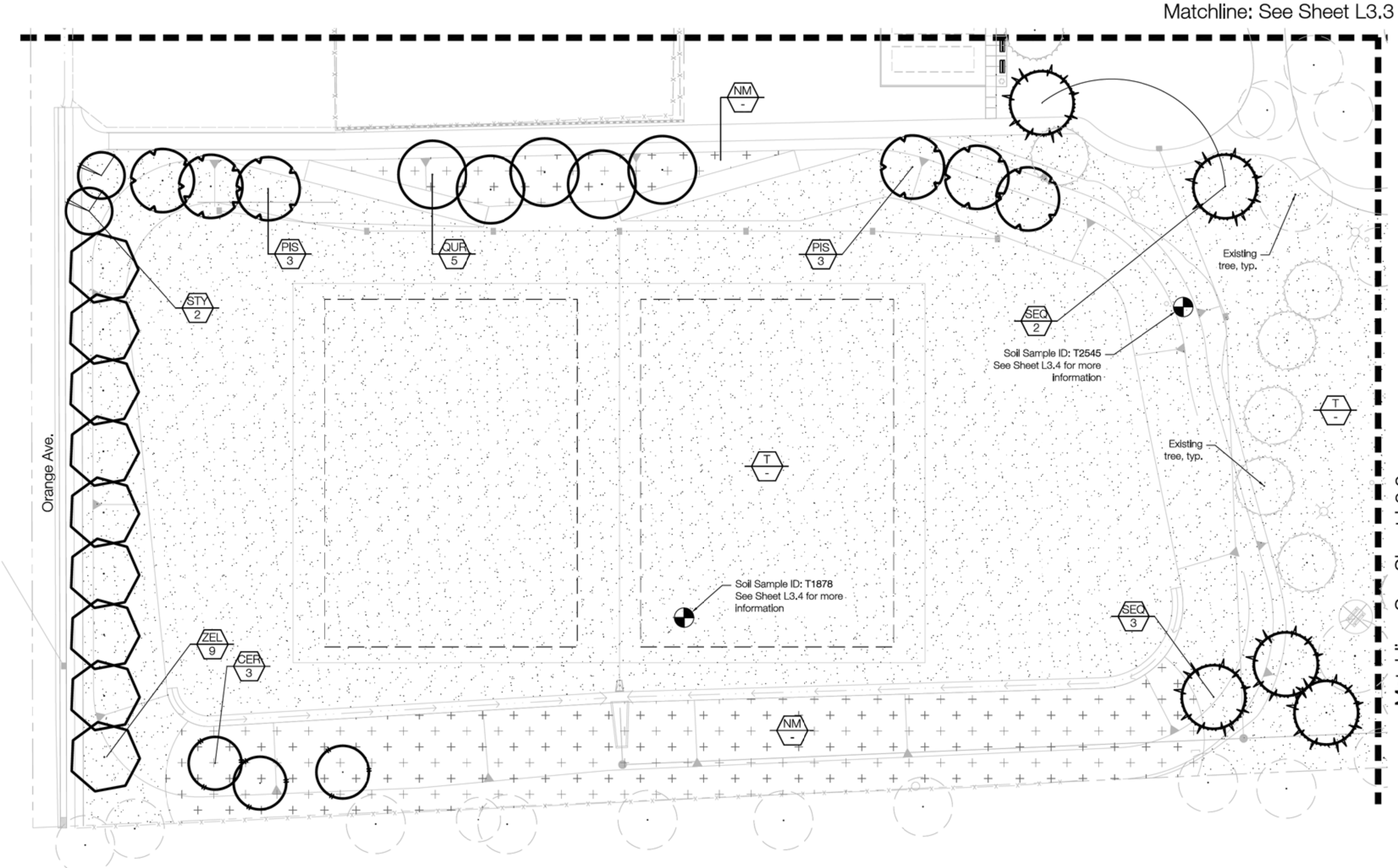
SAFCA

FLORIN CREEK MULTI-USE BASIN
BRIDGE ABUTMENT PLAN AND DETAILS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

DRAWING NO. S-02
SHEET 51

Attachment C - Project Drawings



Planting Legend

Trees

Symbol	Botanical Name	Common Name	Size	Remarks	Wat. Use
CER	Cercis canadensis	Eastern Redbud	15 gal	-	M
PIS	Pistacia chinensis 'Keith Davey'	Chinese Pistache	24" box	-	L
QUE	Quercus phellos	Willow Oak	15 gal	-	L
QUR	Quercus rubra	Red Oak	24" box	-	M
SEQ	Sequoia sempervirens 'Aptos Blue'	Coast Redwood	15 gal	-	M
STY	Styrax japonicus	Snowbell	15 gal	-	M
ZEL	Zelkova serrata 'Village Green'	Japanese Zelkova	24" box	-	L

Turf

Symbol		Wat. Use
T	90/10 Tall Fescue-Bluegrass Sodded Turf - Available from Delta Bluegrass - 800.637.8873	H
MF	'Mow Free' Fescue - Available from Delta Bluegrass - 800.637.8873	H

Planting Notes

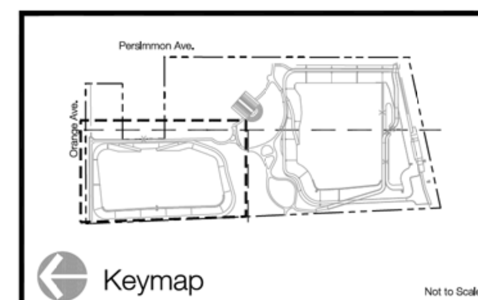
1. Plant material quantities shown on drawings are informational only. The Contractor is responsible for all plant material required.

   PC 3 — Plant key / Quantity

2. Immediately after award of contract, the Contractor shall notify the owner if specified plant material is available from commercial nurseries. In case a plant is not available, the owner will provide alternate plant material selections. Such changes will not alter the contractor's original bid price unless a credit is due to the owner.
3. Excavated plant pits shall have positive drainage. Plant pits when fully flooded with water shall drain within 2 hours of filling. The Contractor shall ensure all plant pits have positive drainage.
4. All plant materials shall comply with form and characteristic requirements as specified. All plant material will comply with ANSI Z601 "Standard for Nursery Stock".
5. The contractor is responsible for soil erosion control measures that may be required through the duration of the contract period. Should there be existing soil erosion conditions that require mitigation when the contractor initially accepts the site, the owner should be alerted to its existence. Failure of the contractor to notify the landscape architect or owner implies acceptance of the site by the contractor in its existing condition. All costs necessary to mitigate existing erosion problems shall be at the contractor's expense and at no extra cost to the owner or increase in original bid amount.
6. The contractor shall verify locations of all underground utility systems prior to beginning any phase of Construction that may cause damage to existing structures. Call U.S.A. at 811 to locate existing utilities, 48 hours prior to any excavation. The Contractor shall be responsible for the repair / replacement of damaged utilities, to the Satisfaction of the owner or governing agency and at no extra cost to the owner or increase in bid amount.
7. All landscaping is to be installed in substantial conformance with the approved plans, any changes shall be reviewed and approved by the Landscape Architect prior to implementation.
8. All trees to be planted in strict accordance with ANSI A300, Part 6 for Planting Standards and Details.
9. A 3" layer of walk-on bark mulch, as manufactured by Redi-Gro Corporation or equal, shall be applied to all shrub and groundcover planting areas.
10. See planting details and specifications for more information.
11. Following the completion of the site grading work the Landscape Contractor shall obtain a soils sample for fertility testing and amendment recommendations. The Landscape Contractor shall follow the testing lab recommendations as noted within this report prior to any landscape construction/installation. Analysis should include soil texture, infiltration rate, pH, total soluble salts, sodium and percentage of organic matter. Soils analysis shown on plans is for bid purposes only. Amendments to be verified and shall match new analysis provided by contractor.

Refer to Sheet L3.1 for Planting Notes & Legends, Sheet L3.3 for Planting Details, and Sheet L3.4 for Soil Analysis.

I have complied with the criteria of the County of Sacramento's Water Efficient Landscape Ordinance and applied them accordingly for the efficient use of water in this Landscape Design Plan.



0' 30' 60' 90'
Scale 1"=30'-0"
15413

75% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: GPH
DRAWN BY: HBH/AS
CHECKED BY: GPH
IN CHARGE: GPH
DATE: 04/10/2015

LICENSED LANDSCAPE ARCHITECT — GREGORY P. HASER — CRLA 3118 — STATE OF CALIFORNIA — PRELIMINARY

The HLA Group
Landscape Architects & Planners, Inc.
2600 Capitol Ave, Suite 120
Sacramento, California 95816
916.447.7400 | www.hlagroup.com

SUBMITTED | APPROVED

SAFCA

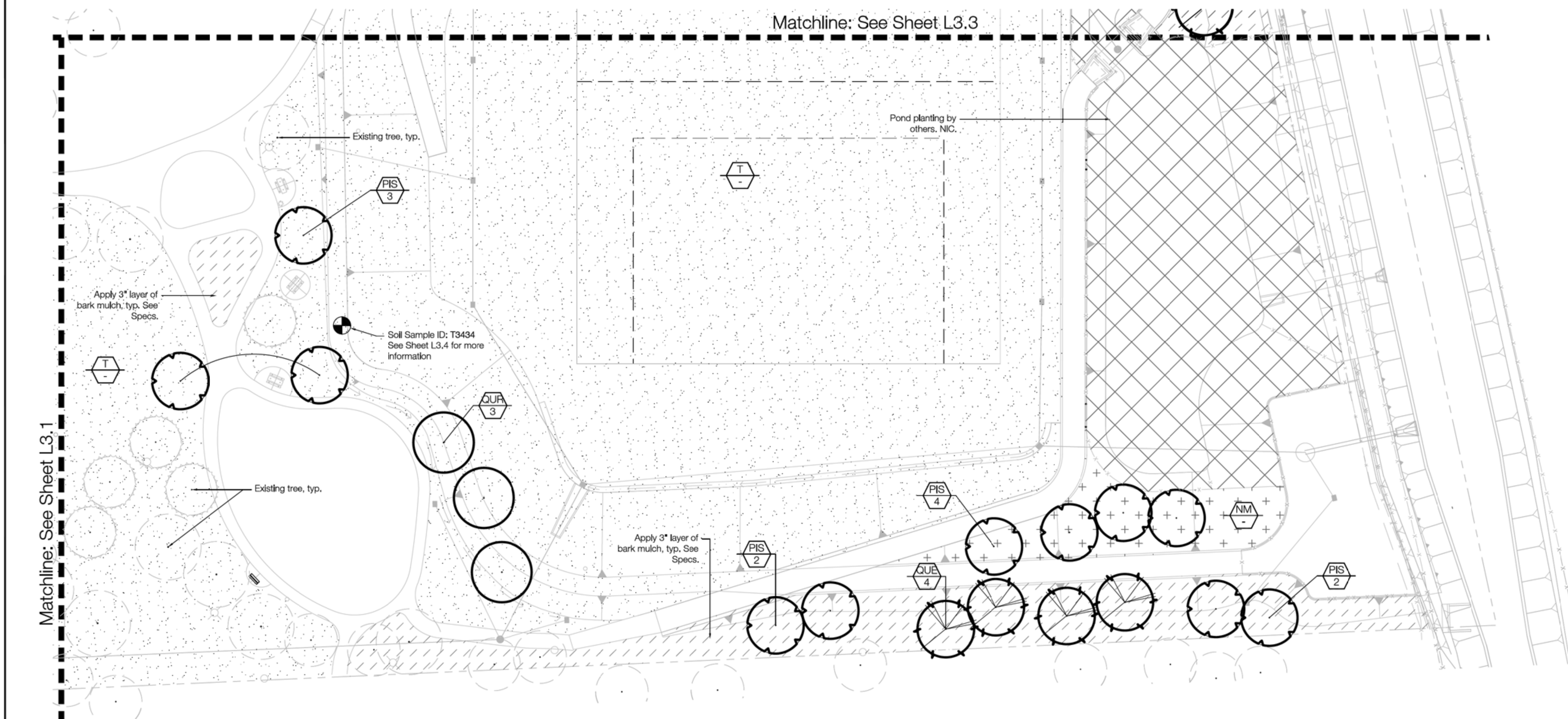
FLORIN CREEK PARK MULTI-USE BASIN

PLANTING PLAN, LEGEND, & NOTES

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
SCALE: AS SHOWN

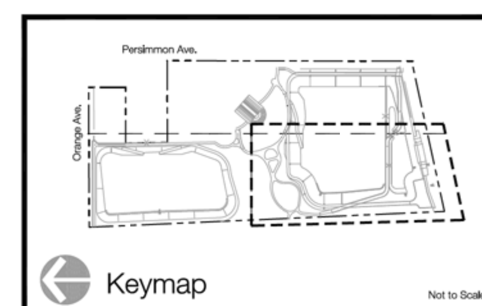
DRAWING NO. L3.1
SHEET

Attachment C - Project Drawings



Refer to Sheet L3.1 for Planting Notes & Legends, Sheet L3.3 for Planting Details, and Sheet L3.4 for Soil Analysis.

I have complied with the criteria of the County of Sacramento's Water Efficient Landscape Ordinance and applied them accordingly for the efficient use of water in this Landscape Design Plan.



0' 30' 60' 90'
Scale 1"=30'-0"
15413

75% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: GPH
DRAWN BY: HBH/AS
CHECKED BY: GPH
IN CHARGE: GPH
DATE: 04/10/2015

LICENSED LANDSCAPE ARCHITECT GREGORY P. HAUSER CRLA 3797 6.30.16 Renewal Date STATE OF CALIFORNIA PRELIMINARY

The HLA Group
Landscape Architects & Planners, Inc.
2600 Capitol Ave, Suite 120
Sacramento, California 95816
916.447.7400 | www.hlagroup.com

SUBMITTED
APPROVED

SAFCA

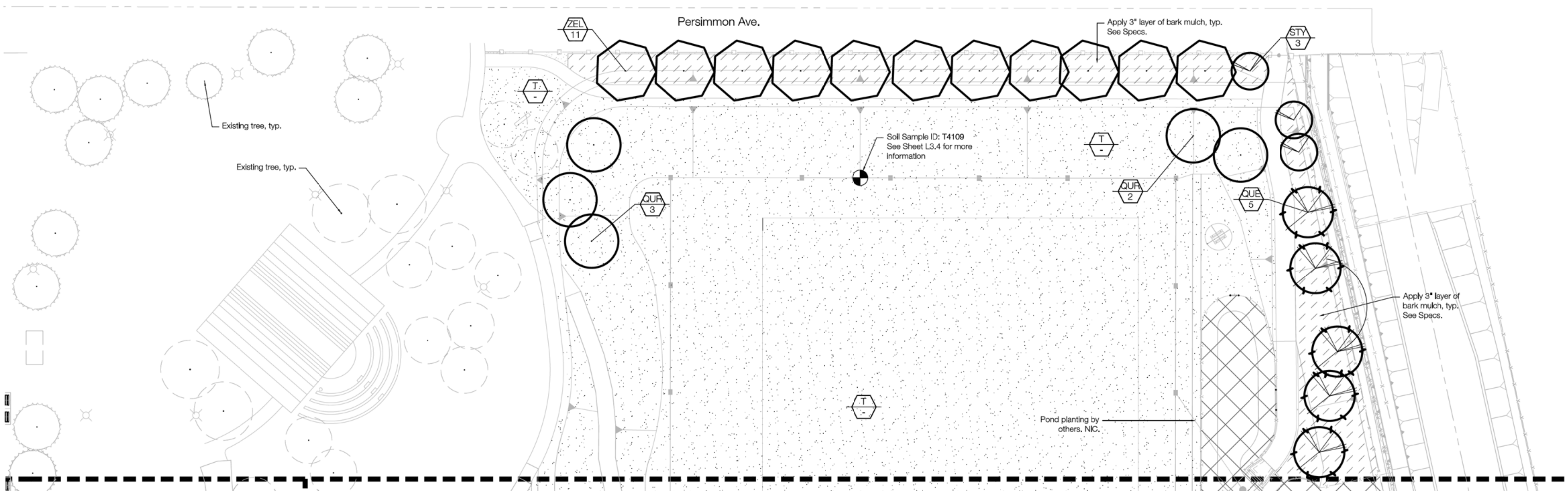
FLORIN CREEK PARK MULTI-USE BASIN

PLANTING PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"
SCALE: AS SHOWN

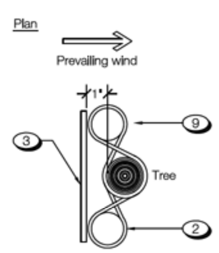
DRAWING NO. L3.2
SHEET

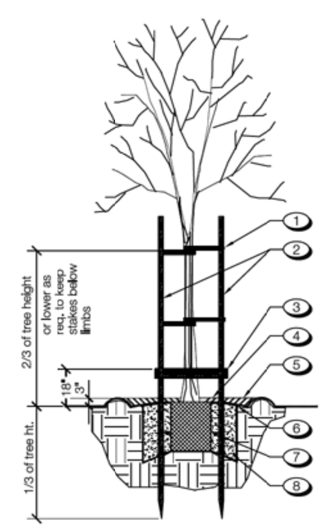
Attachment C - Project Drawings



Matchline: See Sheet L3.1

Matchline: See Sheet L3.2





Key:

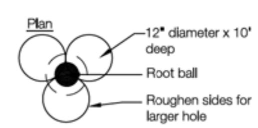
1. Tree ties at two locations, refer to specifications for type, (four total) typ. Provide 5"-6" of slack in ties to allow for tree movement in the wind.
2. (2) 2" dia. treated lodgepole tree stakes (set plumb) do not penetrate rootball
3. 1" x 4" redwood brace nailed to stakes with galvanized nails. 18" above finished grade.
4. Root ball, set crown 2" above finish grade. Provide positive drainage away from rootball.
5. Water retention berm (except in turf areas)
6. Bark mulch. Refer to specifications.
7. Fertilizer tablets, refer to specifications, typ.
8. Planting pit to be twice the diameter of root ball. For backfill mix, refer to specifications.
9. Secure tree tie w/ galv. fence staple

Notes:

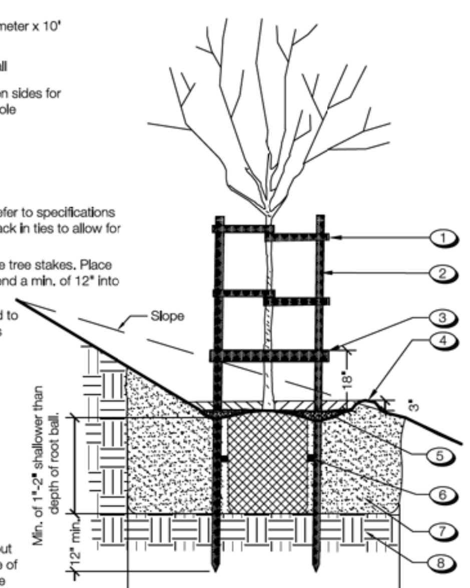
A) Refer to specifications and plan sheets for more information.

A | Tree Planting Detail

Not To Scale — Plan/Section



Boring Hole Procedure
(If hardpan is present)



Key:

1. Tree ties at two locations, refer to specifications for type. Provide 5"-6" of slack in ties to allow for tree movement in the wind
2. (2) 2" dia. treated Lodgepole tree stakes. Place outside of root ball and extend a min. of 12" into undisturbed soil
3. 1"x4" redwood brace nailed to stakes with galvanized nails 18" above finished grade
4. Water retention berm
5. Bark mulch. Refer to specifications
6. Fertilizer tablets, refer to specifications, typ
7. Amended backfill. Refer to specifications
8. Undisturbed native soil

Note:

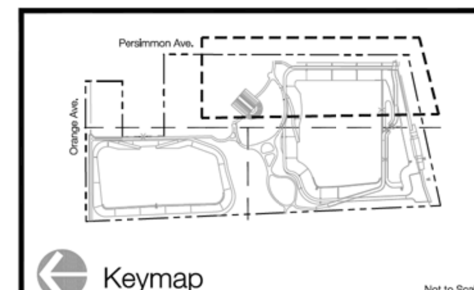
A) Maximum slope 2.5:1 without a bench, or maximum slope of 2:1 with a bench. Place jute mesh on slopes greater than 3:1.

B | Tree Planting On Slope

Not To Scale — Section

Refer to Sheet L3.1 for Planting Notes & Legends, Sheet L3.3 for Planting Details, and Sheet L3.4 for Soil Analysis.

I have complied with the criteria of the County of Sacramento's Water Efficient Landscape Ordinance and applied them accordingly for the efficient use of water in this Landscape Design Plan.



0' 30' 60' 90'

Scale 1"=30'-0" 15413

75% DESIGN

REV.	DATE	BY	CHK.	APPR.	DESCRIPTION	REV.	DATE	BY	CHK.	APPR.	DESCRIPTION

DESIGNED BY: GPH
DRAWN BY: HBH/AS
CHECKED BY: GPH
IN CHARGE: GPH
DATE: 04/10/2015

LICENSED LANDSCAPE ARCHITECT GREGORY P. HAUSER CRLA 3797 6.30.16 Renewal Date STATE OF CALIFORNIA — PRELIMINARY

The HLA Group
Landscape Architects & Planners, Inc.
2600 Capitol Ave, Suite 120
Sacramento, California 95816
916.447.7400 | www.hlagroup.com

SUBMITTED

APPROVED

SAFCA

FLORIN CREEK PARK MULTI-USE BASIN

PLANTING PLAN AND DETAILS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS
0 1"

SCALE: AS SHOWN

DRAWING NO. L3.3

SHEET

Attachment C - Project Drawings

APPLICATION FOR A CENTRAL VALLEY FLOOD PROTECTION BOARD
ENCROACHMENT PERMIT

Application No. ____________
(For Office Use Only)

1. Description of proposed work being specific to include all items that will be covered under the issued permit.

This application covers the work included to construct the Florin Creek Multi-Use Basin in Florin Creek Park which will increase flood protection and incorporate environmental and recreational enhancements. Work includes the excavation of the park; the installation of drainage, landscaping, lighting, and habitat features; finish grading of the park; and frontage improvements at Orange Ave. (Attachment A)

2. Project Location: Sacramento County (Attachment B - D) County, in Section 4

Township: 7 North (N) (S), Range: 5 East (E) (W), M. D. B. & M.

Latitude: 38°29'16.52"N Longitude: 121°26'23.55"W

Stream : Florin Creek , Levee : N/A Designated Floodway: ____________

APN: (See Attachment E)

3. Sacramento Area Flood Control Agency (Name of Applicant / Land *Owner*) of 1007 7th Street, 7th Floor (Address)

Sacramento (City) California (State) 95814 (Zip Code) 916-874-7606 (Telephone Number)

info@SAFCA.org (E-mail)

4. Jonathan Kors (Name of Applicant's Representative) of Wood Rodgers, Inc. (Company)

Sacramento (City) California (State) 95816 (Zip Code) 916-326-5294 (Telephone Number)

JKors@woodrodgers.com (E-mail)

5. Endorsement of the proposed project from the Local Maintaining Agency (LMA):

I, a representative of the Sacramento County Stormwater Utility
~~We, the Trustees of~~ ~~Sacramento County~~ (Name of LMA) approve this plan, subject to the following conditions:

☐ Conditions listed on back of this form ☑ Conditions Attached ☐ No Conditions

Todd [signature] 7/2/14
~~Trustee~~ Date
Principal Civil Engineer - Dept of Water Resources

______ Trustee Date

______ Trustee Date

______ Trustee Date

MP

Robert B. Leonard
Chief Deputy County Executive

Department of Water Resources
Michael L. Peterson, Director

Bradley J. Hudson
County Executive

County of Sacramento

July 2, 2014

Central Valley Flood Protection Board (CVFPB)
3310 El Camino Avenue Room 151
Sacramento, CA 95821

RE: Local Maintaining Agency (LMA) Endorsement Conditions for Florin Creek Multi-Use Basin Project CVFPB Encroachment Permit

To Whom It May Concern,

The County of Sacramento will endorse the proposed Florin Creek Multi-Use Basin project as the LMA under the following conditions:

1. The basin project plans and specifications are approved by the County of Sacramento and meet the design standards set forth in the latest version of the County of Sacramento Improvement Standards.
2. The basin project is constructed within the guidelines set forth in the latest version of the County of Sacramento Standard Construction Specifications
3. The basin project is inspected and accepted by the County of Sacramento
4. The County of Sacramento Stormwater Utility will only be responsible for maintaining the flood control component of the Florin Creek Multi-Use Basin Project. Park and recreation related maintenance will be provided under a separate agreement between the Southgate Park District and the County of Sacramento

If you have any questions please feel free to call me at 916-875-7164 or email me at petersont@saccounty.net

Sincerely,

Todd A. Peterson

Todd A. Peterson
Principal Civil Engineer, P.E.

cc: Michael L. Peterson, Cecilia Jensen - County Department of Water Resources

APPLICATION FOR A CENTRAL VALLEY FLOOD PROTECTION BOARD
ENCROACHMENT PERMIT

6. Names and addresses of adjacent property owners sharing a common boundary with the land upon which the contents of this application apply. If additional space is required, list names and addresses on back of the application form or an attached sheet.

Name	Address	Zip Code
(Attachment F)		

7. Has an environmental determination been made of the proposed work under the California Environmental Quality Act of 1970? ☐ Yes ☐ No ☑ Pending

If yes or pending, give the name and address of the lead agency and State Clearinghouse Number:
Sacramento Area Flood Control Agency (SAFCA)

SCH No. 2014032030

8. When is the project scheduled for construction? Summer 2014

9. Please check exhibits accompanying this application.

   A. ☑ Regional and vicinity maps showing the location of the proposed work. (Attachment B - D)

   B. ☑ Drawings showing plan view(s) of the proposed work to include map scale. (Attachment G)

   C. ☑ Drawings showing the cross section dimensions and elevations (vertical datum?) of levees, berms, stream banks, flood plain, (Attachment G)

   D. ☑ Drawings showing the profile elevations (vertical datum?) of levees, berms, flood plain, low flow, etc. (Attachment G)

   E. ☑ A minimum of four photographs depicting the project site. (Attachment H)

Richard M Johnson
Signature of Applicant Date

Include any additional information:

WOOD RODGERS

TECHNICAL MEMORANDUM

TO: Pete Ghelfi, P.E., SAFCA

FROM: Jonathan L. Kors, P.E., Wood Rodgers, Inc.
Carlos Contreras, P.E., Wood Rodgers, Inc.

DATE: January 15, 2015

SUBJECT: SAFCA, Florin Creek Multi-Use Basin – Incorporation of Post-Peak Drainage Pump Station

INTRODUCTION

In July of 2014, the Sacramento Area Flood Control Agency (SAFCA) submitted its Central Valley Flood Protection Board (CVFPB) Encroachment Permit Application for the Florin Creek Multi-Use Basin Project (Project). Attachment A of the application (**Reference 1**) contains a Project Description that describes the Project in general and its relation to the US Army Corps of Engineers (USACE), South Sacramento Streams Group (SSSG), Florin Creek Project (**Reference 2**), as well as basic operation of the Multi-Use Basin (basin) and its associated recreational and environmental amenities.

From its correspondence with CVFPB staff, Wood Rodgers understands that, based on recent design changes incorporated into the basin (specifically a post-peak drainage pump station), the CVFPB requires documentation demonstrating that the pump station will not impact the performance of Florin Creek, which is the watercourse that will receive the pumped discharge. The purpose of this Technical Memorandum is to document the hydraulic design of the Florin Creek Multi-Use Basin (Basin), including its interaction with flows in Florin Creek.

REFERENCES

1. Sacramento Area Flood Control Agency, Application For: Central Valley Flood Protection Board Encroachment Permit, Florin Creek Multi-Use Basin Project, July 2014.

2. Pacific Civil and Structural Engineers (PCSC), LLC, Final Construction Plans - USACE, SSSG, Florin Creek for Franklin Boulevard to Highway 99 (Contract 2D1), June 10, 2014.

3. PCSC, LLC, USACE – South Sacramento County Streams, Existing and Future Conditions Modeling Report, Draft Final, April 7, 2014.

DETENTION BASIN DESIGN

The Florin Multi-Use Basin completes flood risk reduction measures to be constructed as part of the USACE SSSG Florin Creek Project (**Reference 2**). The USACE project includes widening of Florin creek to the extents allowable by existing rights-of-way. Because the area of Florin Creek downstream of State Highway 99 is highly urbanized, sufficient rights-of-way were not able to be obtained in order to fully provide protection from the 100-year storm event. In order to provide this protection, the California Department of Water Resources (DWR) and SAFCA developed the Project to provide the remaining increment of flood damage reduction. The Project is being led by SAFCA and funded by way of a Stormwater Flood Management Grant from DWR, Proposition 1E, Round 2.

Hydraulic modeling was performed as described in **Reference 3**. As described within the Report, the Florin Creek Multi-Use Basin provides the 30 acre-feet of off-stream storage volume necessary to contain water surfaces below the channel top-of-bank between Persimmon Avenue and Franklin Boulevard. The Basin also assures appropriate freeboard is maintained on flood walls constructed downstream of Franklin Boulevard. The layout of the Florin Creek Multi-Use Basin is shown on **Figures 1-3.**

The Basin becomes inundated when the water surface elevation in Florin Creek exceeds 20.5 feet (NAVD 88) by passing the flow over a weir constructed in the southern edge of the southern pond. The weir crest is set at elevation 20.5, which corresponds to an approximate 25-year storm event on Florin Creek. The fully-excavated pond incorporates 30 acre-feet of storage beneath the elevation of the weir crest, as is required by the analysis of Reference 3.

During the course of the design, it was determined that the Basin is not able to incorporate 30-acre feet of detention storage below elevation 20.5 and still positively drain to Florin Creek. Therefore, the decision was made to incorporate a pump station that will evacuate the storage volume after the storm peak has passed. This operation has been coordinated with the City of Sacramento, who is aware of and in agreement with this operational requirement. The pump station will incorporate remote sensing and alarm capabilities to alert the City when the Basin is first inundated.

Because the system is operated so that the pump station is activated after the storm peak has passed, the pump system does not influence design flows and water surfaces within Florin Creek.

Transmitted with this Technical Memorandum is a DVD containing the USACE SSSG Existing Conditions and Future Conditions Hydraulic Model (as contained within Reference 3). A review of the future conditions model will indicate that a 30-acre foot basin is included as a system element for detention storage. Because the pump station operates post-peak as described above, it is not included as a system element in the future conditions model.

Enclosures:
Figures 1-3
DVD containing hydraulic modeling files

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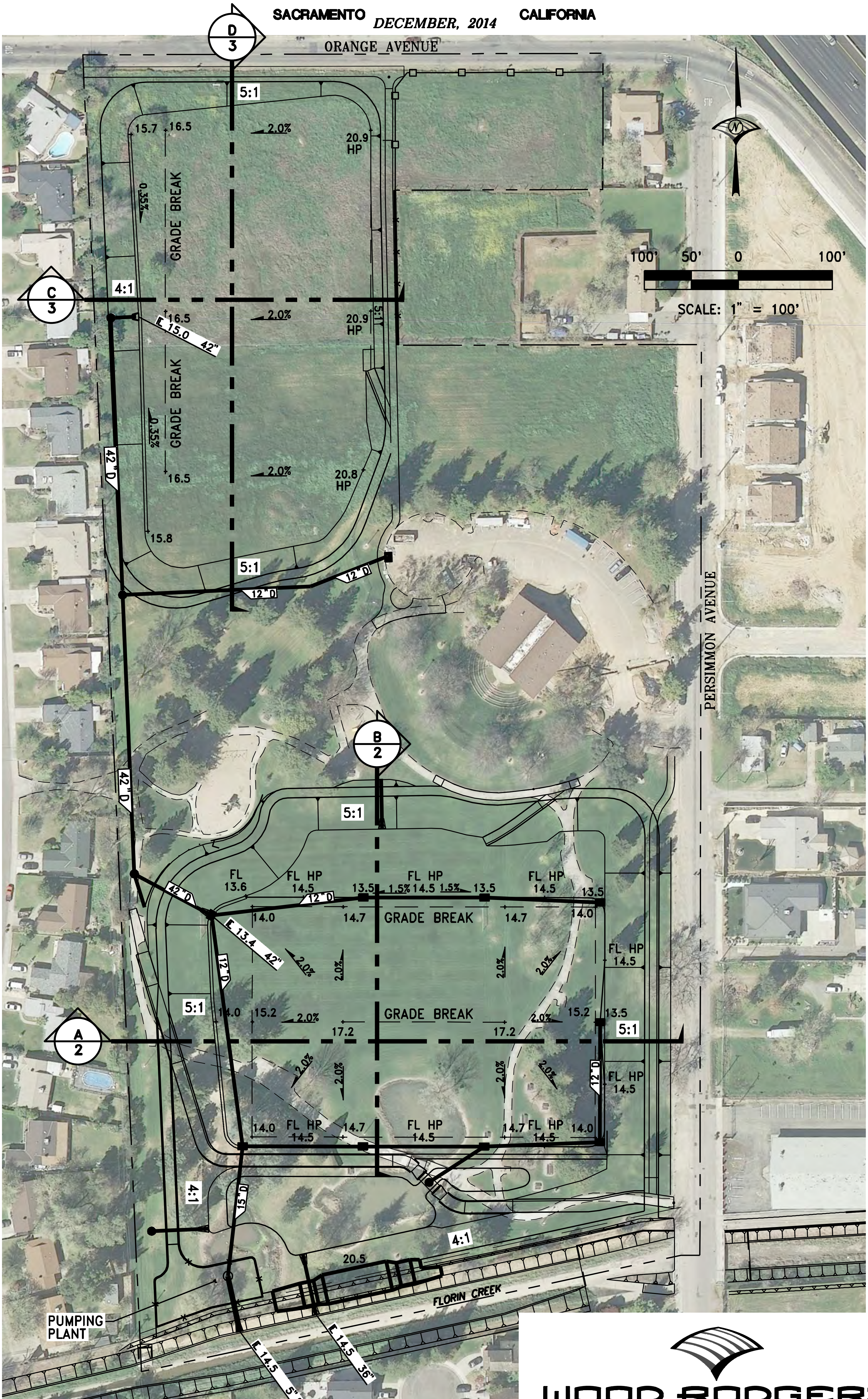
FIGURE 1

BASIN LAYOUT - 1 OF 3

SAFCA - FLORIN CREEK MULTI-USE BASIN PROJECT

SACRAMENTO CALIFORNIA

DECEMBER, 2014



WOOD RODGERS

DEVELOPING INNOVATIVE DESIGN SOLUTIONS

3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

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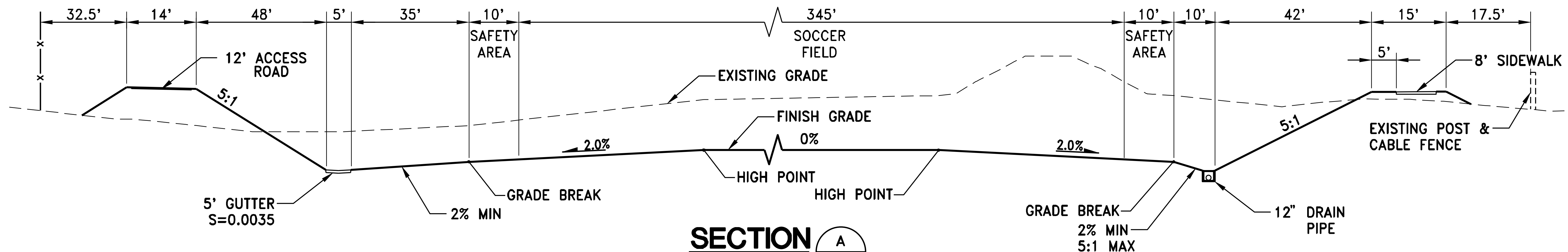
FIGURE 2

BASIN LAYOUT - 2 OF 3

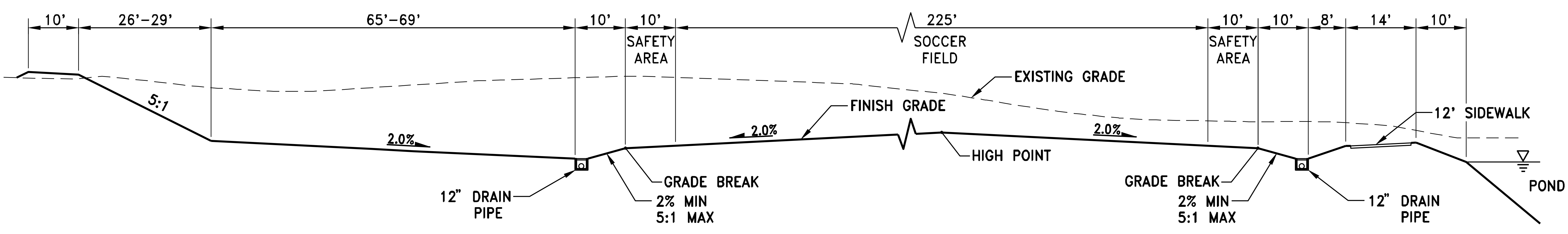
SAFCA - FLORIN CREEK MULTI-USE BASIN PROJECT

SACRAMENTO CALIFORNIA

DECEMBER, 2014



SECTION A / –
SCALE: NTS



SECTION B / –
SCALE: NTS

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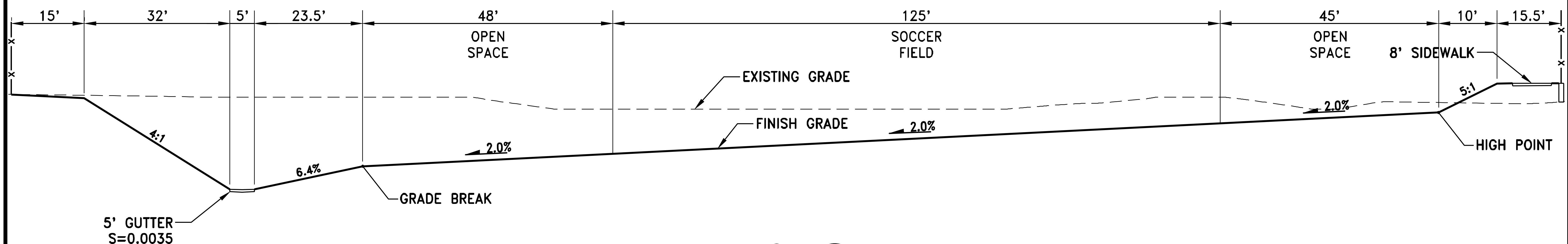
FIGURE 3

BASIN LAYOUT - 3 OF 3

SAFCA - FLORIN CREEK MULTI-USE BASIN PROJECT

SACRAMENTO CALIFORNIA

DECEMBER 2014



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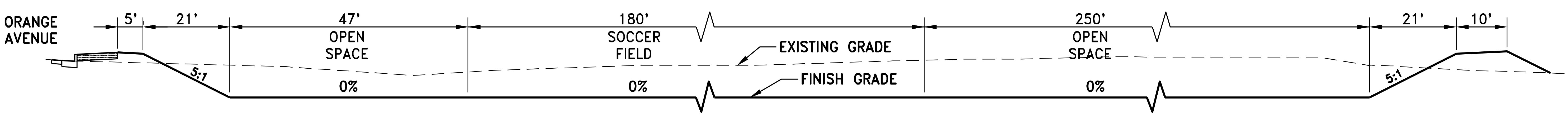

SECTION D/–
SCALE: NTS

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