

**Meeting of the Central Valley Flood Protection Board  
March 22, 2013**

**Staff Report – Encroachment Permit**

**Powerhouse Science Center  
Powerhouse Science Center, Sacramento County**

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**1.0 – ITEM**

Consider approval of Permit No. 18816 (Attachment B)

**2.0 – APPLICANT**

Powerhouse Science Center

**3.0 – LOCATION**

The project is located on the landside of the left levee of the Sacramento River, approximately 0.30 miles downstream of the confluence for the Sacramento and American Rivers.

(Sacramento River, Sacramento County, see Attachment A)

**4.0 – DESCRIPTION**

Applicant proposes to grade the levee slope and the area adjacent to the levee to facilitate construction of new landscaping, retaining walls and concrete walks proposed for the Powerhouse Science Center.

**5.0 – PROJECT ANALYSIS**

The project is basically to add fill to existing fill above the projected landward levee slope. The work includes placing imported fill for existing low spots after which the fill areas will be graded and terraced. Landscaping will be placed including trees. The proposed trees will be placed in the fill above the projected levee slope more than 15 feet from the landward levee shoulder. The irrigation system will be placed more than 15 landward of the landward levee toe.



## **5.1 – Hydraulic Analysis**

No hydraulic analysis needed for this project as all work is located landward of the levee crown.

## **5.2 – Geotechnical Analysis**

A geotechnical analysis has been provided but is not needed for this project as it is basically fill and landscaping. The geotechnical analysis was provided for work more than 15 feet landward levee toe and has no direct impact to the existing levee.

## **6.0 – AGENCY COMMENTS AND ENDORSEMENTS**

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

- The American River Flood Control District has endorsed this in a letter dated October 19, 2012, and is incorporated into the permit as Exhibit A.
- The U.S. Army Corps of Engineers 208.10 comment 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 B.

## **7.0 – CEQA ANALYSIS**

The Board, as a Responsible Agency under CEQA, has reviewed Initial Study/Mitigated Negative Declaration (IS/MND), Addendum, and Mitigation Monitoring Plan (SCH No. 2010032067, June 2010) for the Powerhouse Science Center, prepared by the lead agency, the City of Sacramento. These documents including project design and may be viewed or downloaded from the Central Valley Flood Protection Board website at <http://www.cvfpb.ca.gov/meetings/2013/3-22-2013> under a link for this agenda item. The documents are also available for review in hard copy at the Board and City offices.

The City of Sacramento determined that the project would not have a significant effect on the environment and adopted Resolution No. 2010-296 on June 1, 2010 and subsequently file a Notice of Determination with the State Clearinghouse on June 2, 2010. An Addendum to the Adopted Mitigated Negative Declaration was prepared on



August 23, 2011 to include within the Initial Study, the elimination of a surface parking lot and Education Center and Restaurant building from the proposed plans. The Addendum included the creation of a multi-deck parking structure and an additional 15,000 square feet in the Earth and Spaces Sciences Center.

Board staff finds that although the proposed project could have a potentially significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. The project proponent has incorporated mandatory mitigation measures 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 Mitigation Monitoring Plan and address impacts to biological resources, cultural resources, geology and soils, hydrology and water quality, and noise. The description of the mitigation measures are further described in the adopted Mitigation Monitoring Plan.

## **8.0 – SECTION 8610.5 CONSIDERATIONS**

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

The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on the entire State Plan of Flood Control:

The proposed project including plantings will have no adverse effect on the entire State Plan of Flood Control and is consistent with the Central Valley Flood Protection Plan.

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



There will be no effects from reasonable projected future events on the project.

## **9.0 – STAFF RECOMMENDATION**

Staff recommends that the Board adopt the CEQA findings and approve the permit, conditioned upon receipt of a U.S. Army Corps of Engineers comment letter indicating that the District Engineer has no objection to the project, subject to conditions, and direct staff to file a Notice of Determination with the State Clearinghouse.

## **10.0 – LIST OF ATTACHMENTS**

- A. Location Maps and Photos
- B. Draft Permit No. 18816
- C. Drawings

Design Review:	Steve Dawson
Geotechnical Review:	Steve Dawson
Environmental Review:	James Herota/Andrea Mauro
Document Review:	Mitra Emami P.E./Len Marino P.E.





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## Permit Conditions

Permit Application No.: (to be designated by the Central Valley Flood Protection Board)

Location: East Levee Sacramento River at 240 Jibboom Street, Sacramento CA

Applicant: Powerhouse Science Center

Description: Grading levee slope and area adjacent to levee to facilitate construction of new landscaping, retaining walls, and concrete walks proposed for a new science center building project

### CONDITIONS:

1. Maintenance of all encroaching facilities under this permit shall remain the responsibility of permittee.
2. Permittee shall adhere to all stipulations in the Agreement for Levee Maintenance between the American River Flood Control District and the Powerhouse Science Center (Attached)
3. Permittee shall obtain all necessary permits and regulatory approvals for the proposed work.
4. Permittee may be required, at permittee's sole cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted work 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 encroaching facilities are damaged by any cause.
5. Work shall be done outside of the flood season of November 1 to April 15 unless otherwise approved by the District and Central Valley Flood Protection Board.
6. Permittee shall notify the District one week in advance of the start of construction.
7. Permittee shall allow access of ARFCD levee maintenance personnel and equipment during the construction period.



8. That temporary staging, material stockpiles, and equipment shall not be placed or allowed to remain in the floodway during the flood season from November 1 to April 15.
9. Roadway drainage shall not be directed to flow water on the levee section without adequate protection from erosion.
10. The District reserves the right to review all final plans and specifications and request modifications to the project during construction as field conditions warrant.
11. Permittee may not use the levee crown for staging construction or storing materials without specific approval by the District. If approved by the District, the levee crown shall be fully restored to its pre-project condition to the satisfaction of the District. In addition, if adverse weather conditions are forecast or other emergency condition arises, the Permittee shall immediately remove any equipment or materials stored on the levee and restore the levee surface for all-weather access to the satisfaction of the District.



RECORDING REQUESTED BY  
REQUESTED BY AMERICAN RIVER FLOOD  
CONTROL DISTRICT

WHEN RECORDED MAIL TO

NAME TIM KERR, AMERICAN RIVER FLOOD  
CONTROL DISTRICT

MAILING ADDRESS 165 COMMERCE CIRCLE, STE D

CITY, STATE ZIP CODE SACRAMENTO, CA 95815

Exempt: Gov't Code §27383

(SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE)

## AGREEMENT FOR LEVEE MAINTENANCE

This Agreement for Levee Maintenance ("**Agreement**") is entered into by and between the American River Flood Control District ("**District**"), a political subdivision of the State of California, and Powerhouse Science Center, a California nonprofit corporation ("**Powerhouse**") (collectively referred to herein as the "**Parties**").

WHEREAS, the Powerhouse Science Center is a children's science center that is anticipated to be constructed along the Sacramento River between Discovery Park and Old Sacramento, at the site of and surrounding the old power station building; and

WHEREAS, Powerhouse will manage operations at the Powerhouse Science Center, including landscaping the grounds surrounding the museum buildings and at the toe of the levee; and

WHEREAS, District is responsible for the operation and maintenance of levees along portions of the American and Sacramento Rivers, including the levee adjacent to the site of the planned Powerhouse Science Center; and

WHEREAS, Powerhouse wishes to perform the landscaping and maintenance functions described in paragraph 3 below (the "**Functions**") for which the District is responsible along a



0.1-mile section of the levee as illustrated and described with specificity in the map attached hereto as **Exhibit A** (“Maintenance Area”); and

WHEREAS, as part of the required permitting for the Powerhouse Science Center, Powerhouse, in order to legally perform these functions, must both (i) obtain an encroachment permit from the Central Valley Flood Protection Board (“CVFPB”) and (ii) receive a written endorsement from District, as the Local Maintaining Agency, for that permit (the executed copy of the permit and endorsement are attached here to as **Exhibit B**). The CVFPB encroachment permit is conditioned on execution of this Agreement; and

WHEREAS, the Parties wish to enter into this Agreement to set forth the terms under which Powerhouse may perform the Functions and provide access to the District for operation and maintenance of the levee in the Maintenance Area.

NOW, THEREFORE, the Parties hereto agree as follows:

1. *Agreement to Operate and Maintain*

District hereby authorizes Powerhouse, and Powerhouse agrees, to perform the Functions in accordance with the terms of this Agreement, including allowing the District access to all areas within the Maintenance Area required for the District to perform its typical operation and maintenance of the levee. Nothing in this Agreement shall constitute a grant by the District of real property to the lands underlying the Sacramento River levee or to the levee itself to Powerhouse; instead, this Agreement merely authorizes Powerhouse to perform the Functions and provides access for the District to perform the operation and maintenance of that levee in the Maintenance Area.

2. *Effective Date and Term.* This Agreement shall become effective as of October 1, 2012. This Agreement shall continue in force and effect until terminated for cause by either of the Parties hereto. The District may terminate this agreement, with or without cause, upon thirty days’ written notice to Powerhouse.

3. *Standards of Maintenance.* Powerhouse agrees to perform the Functions along the levee in the Maintenance Area in a manner that: (a) is not inconsistent with any and all applicable local, state or Federal requirements for levee landscape maintenance, including, but not limited to: the State of California’s Urban Levee Design Criteria, the U.S. Army Corps of Engineers’ Engineering Technical Letter 1110-2-571 (vegetation on levees), the U.S. Army Corps of Engineers’ operation and maintenance manual for the Sacramento River Flood Control Project (as such manual may be modified from time to time), and all requirements of the CVFPB encroachment permit for the Powerhouse Science Center; and (b) satisfies the following requirements of the District, which may be more stringent than local, state or Federal requirements, to District’s reasonable satisfaction:



- (i) Maintenance Area must be accessible to the District for weekly inspections to determine the needed maintenance as well as to deter any authorized encroachments;
- (ii) Maintenance Area must be mowed multiple times during the growing season to facilitate inspection and rodent abatement and to maintain vegetation at a maximum height not to exceed 0.25 feet;
- (iii) Powerhouse shall control burrowing animals within the Maintenance Area and shall allow the District to grout all burrows in early fall;
- (iii) Storm and weather-related tree fall must be removed, the holes filled and compacted in a timely fashion, not to exceed 15 days from discovery;
- (v) In the event that the District or Powerhouse identify minor erosion areas (e.g. footpaths that are a result of public visitation) within the Maintenance Area, Powerhouse shall repair such minor erosion through the use of a licensed contractor. In the event that the District or Powerhouse identify major erosion areas, the District will be responsible for repair such areas;
- (iv) All access points must be checked for damage and repaired as needed to prevent unauthorized vehicle access to the levee;
- (v) Post emergent herbicide must be applied as needed to prevent noxious weed populations from establishing;
- (vi) Tree and brush must be trimmed to all applicable state and federal levee standards;
- (vii) Irrigation systems must be monitored for leaks and other damage, and must be repaired immediately. Shut-off valves must be clearly marked and accessible.
- (viii) Such other landscape maintenance requirements as the District, in its reasonable discretion, may deem to be in the public interest, either now or at any time in the future, *provided* that such additional requirements shall only become effective thirty days' after the District provides Powerhouse with written notice of such additional requirements.

4. *Failure to Meet Applicable Standards.* At all times during the term of this Agreement District maintains the right to enter the Maintenance Area and perform any operation and maintenance that the District in its sole discretion deems necessary. In the event of failure by Powerhouse to meet any standard listed in Paragraph 3, above, District has the right to perform repair work that the District in its sole discretion deems necessary, at Powerhouse's cost, consistent with Paragraph 5, below. District shall not be liable for any damage caused by Powerhouse's failure to correctly perform landscape maintenance of the levee or by District's response activities pursuant to this Paragraph 4.

5. *Emergency Actions.* District reserves the right to take any action it deems necessary, in the event of an emergency, to protect District levees and the lands within said levees, including the removal from the levee, or any adjacent areas, of any structures, equipment or materials located thereon and owner by Powerhouse, its employees, agents, or contractors. If reasonably possible under the circumstances, District will give 48 hours' advance notice to Powerhouse to enable the Powerhouse to remove said structures,



equipment or materials. If District is unable to give 48 hours' notice, it shall give as much advance notice as is reasonably possible under the circumstances. An emergency for purposes of this Agreement shall mean an unexpected occurrence involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property or essential public services. If made in good faith, the decision of District as to when an emergency exists shall be final and not appealable by Powerhouse. The District shall have no liability or responsibility to Powerhouse, its employees, agents, or contractors in the exercise of powers herein reserved.

6. *Notice.* Powerhouse agrees to provide immediate notice to District if Powerhouse becomes aware of any levee distress (boils, cracking or sloughing) or structural damage to the levee. The District, at its own cost, will provide Powerhouse personnel training each fall to be able to identify such signs of levee distress or structural damage.
7. *Insurance.* Powerhouse shall provide and maintain at its own expense during the term of this Agreement the following insurance coverages and provisions, and shall provide to District upon execution of this Agreement evidence of all required coverage:
  - (i) Comprehensive General Liability Insurance or Commercial General Liability Insurance for bodily injury (including death) and property damage which provides limits of not less than five million dollars (\$5,000,000) each occurrence and written on an occurrence basis. If the insurance has a General Aggregate it must be no less than five million dollars (\$5,000,000). Each type of insurance shall include coverage for premises/operations, products/completed operations, contractual liability, broad form property damage, and personal injury.
  - (ii) Automobile Liability Insurance for bodily injury (including death) and property damage which provides total limits of not less than one million dollars (\$1,000,000) combined single limit per occurrence applicable to all owned, non-owned, and hired vehicles.
  - (iii) To the extent required by California law, Workers' Compensation and Employer's Liability Insurance with statutory California Workers' Compensation coverage and Employer's Liability coverage of not less than one million dollars (\$1,000,000) per occurrence for all employees engaged in services or operations related to operation and maintenance under this Agreement.



8. *Liability and Indemnification.* District assumes no liability for loss or damage to property or injuries to or death of agents, contractors or employees of Powerhouse by reason of the exercise of Powerhouse's activities pursuant to this Agreement. Powerhouse hereby agrees to indemnify and hold harmless, save and defend District, its directors, officers, agents, and employees from any damages, costs or liability, including all costs of defense, which may arise as a result of the activities of Powerhouse.

9. *General Provisions*

- a. *Authority.* Each signatory of this Agreement represents that s/he is authorized to execute this Agreement on behalf of the Party for which s/he signs. Each Party represents that it has legal authority to enter into this Agreement and to perform all obligations under this Agreement.
- b. *Amendment.* This Agreement may be amended or modified only by a written instrument executed by each of the Parties to this Agreement.
- c. *Jurisdiction and Venue.* This Agreement shall be governed by and construed in accordance with the laws of the State of California, except for its conflicts of law rules. Any suit, action, or proceeding brought under the scope of this Agreement shall be brought and maintained to the extent allowed by law in the County of Sacramento, California.
- d. *Headings.* The paragraph headings used in this Agreement are intended for convenience only and shall not be used in interpreting this Agreement or in determining any of the rights or obligations of the Parties to this Agreement.
- e. *Entire Agreement.* This Agreement constitutes the entire agreement of the Parties with respect to the subject matter of this Agreement and supersedes any prior oral or written agreement, understanding, or representation relating to the subject matter of this Agreement.
- f. *Partial Invalidity.* If, after the date of execution of this Agreement, any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws effective during the term of this Agreement, such provision shall be fully severable. However, in lieu thereof, there shall be added a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible and be legal, valid and enforceable.
- g. *Successors and Assigns.* This Agreement shall be binding on and inure to the benefit of the successors and assigns of the respective Parties to this Agreement. No Party may assign its interests in or obligations under this Agreement without the written consent of the other Party, which consent shall not be unreasonably withheld or delayed.

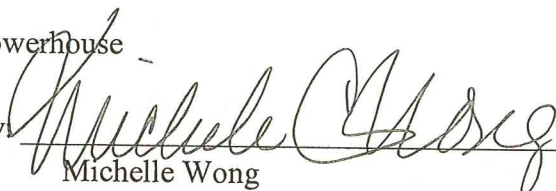


- h. *Waivers.* Waiver of any breach or default hereunder shall not constitute a continuing waiver or a waiver of any subsequent breach either of the same or of another provision of this Agreement and forbearance to enforce one or more of the remedies provided in this Agreement shall not be deemed to be a waiver of that remedy.
- i. *Attorneys' Fees and Costs.* The prevailing Party in any litigation or other action to enforce or interpret this Agreement shall be entitled to reasonable attorneys' fees, expert witnesses' fees, costs of suit, and other and necessary disbursements in addition to any other relief deemed appropriate by a court of competent jurisdiction.
- j. *Necessary Actions.* Each Party agrees to execute and deliver additional documents and instruments and to take any additional actions as may be reasonably required to carry out the purposes of this Agreement.

AMERICAN RIVER FLOOD CONTROL DISTRICT

By:   
Timothy R. Kerr  
General Manager

Date: 10/22/12

Powerhouse  
By:   
Michelle Wong  
Executive Director

Date: 10/19/2012



# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Sacramento

On 10/19/12 before me, Jacqueline Senf  
Date Here Insert Name and Title of the Officer

personally appeared Michele Wong  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Jacqueline Senf  
Signature of Notary Public



Place Notary Seal Above

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document: Agreement for Levee Maintenance

Document Date: \_\_\_\_\_ Number of Pages: 1

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer — Title(s): \_\_\_\_\_
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer — Title(s): \_\_\_\_\_
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
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## ACKNOWLEDGMENT

State of California

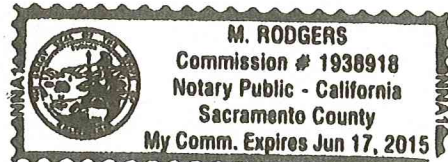
County of Sacramento

On 10/22/2012 before me, M. Rodgers  
(insert name and title of the officer)

personally appeared Timothy R. Kerr,  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.



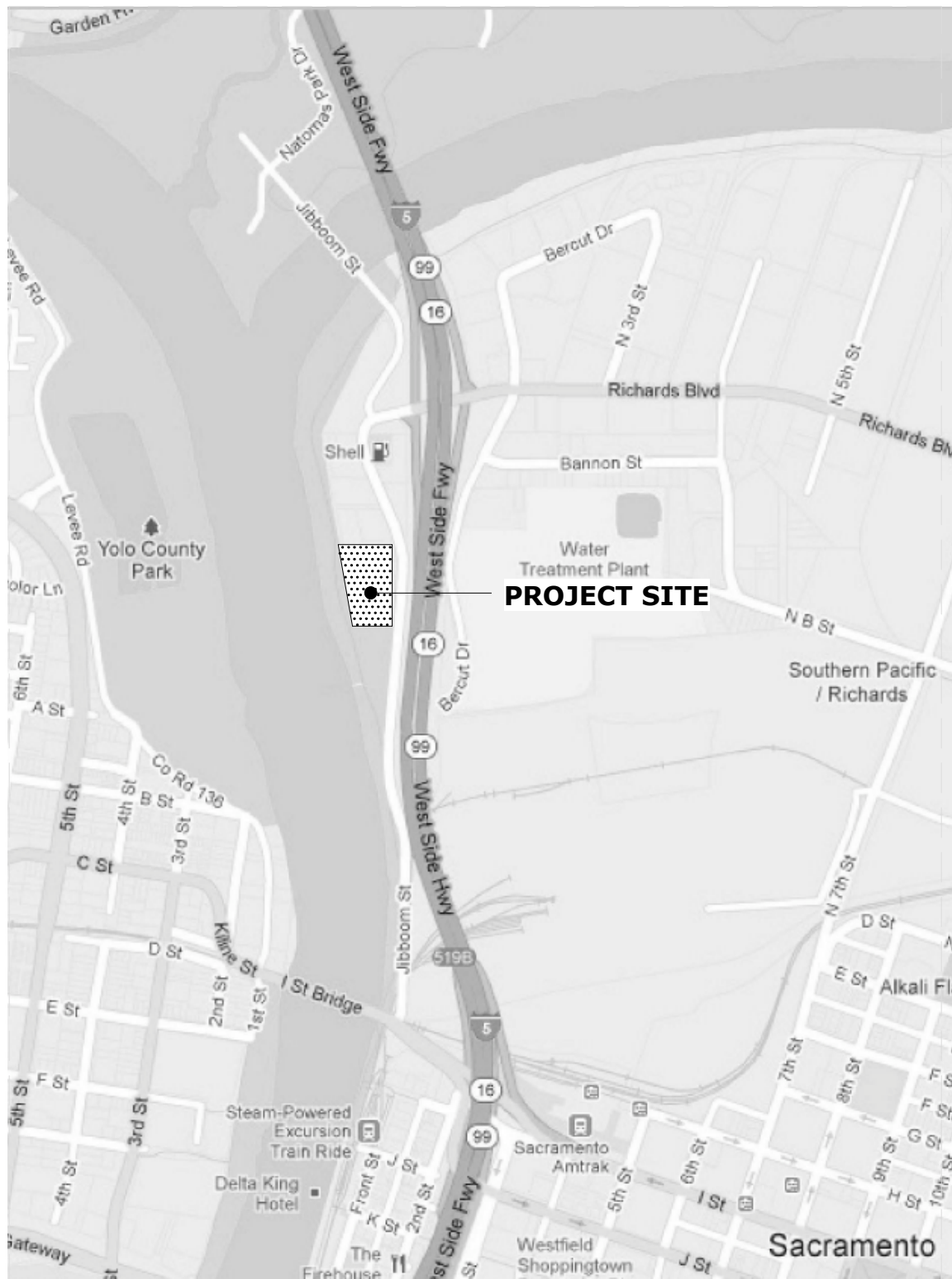
Signature

A handwritten signature in dark ink, appearing to be "TK", written over a horizontal line.

(Seal)



## VICINITY MAP













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**DRAFT**

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
**THE CENTRAL VALLEY FLOOD PROTECTION BOARD**

**PERMIT NO. 18816 BD**

**This Permit is issued to:**

Powerhouse Science Center  
3615 Auburn Blvd.  
Sacramento, California 95821

To grade the levee slope and area adjacent to the levee to facilitate construction of new landscaping, retaining walls and concrete walks proposed for the Powerhouse Science Center Project. The project is located on the landside of the left levee of the Sacramento River, approximately 0.30 miles downstream of the confluence for the Sacramento and American Rivers. (Section 35, T9N, R4E, MDB&M, American River Flood Control District, Sacramento River, 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. 18816 BD**

**THIRTEEN:** 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, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

**FOURTEEN:** The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources, American River Flood Control District or any other agency responsible for maintenance.

**FIFTEEN:** Upon receipt of a signed copy of the issued (not approved only) permit the permittee shall contact the Department of Water Resources by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

**SIXTEEN:** The Central Valley Flood Protection Board, Department of Water Resources and the American River Flood Control District shall not be held liable for any damages to the permitted encroachment(s) resulting from flood fight, operation, maintenance, inspection, or emergency repair.

**SEVENTEEN:** The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) 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 Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

**EIGHTEEN:** The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as



compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

NINETEEN: The permittee shall be responsible for repair of any damages to the project levee and other flood control facilities due to construction, operation, or maintenance of the proposed project.

TWENTY: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection 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 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.

TWENTY-ONE: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection 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 Central Valley Flood Protection 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.

TWENTY-TWO: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.

TWENTY-THREE: Upon completion of the project, the permittee shall submit as-built drawings to: Department of Water Resources, Flood Project Inspection Section, 3310 El Camino Avenue, Suite 256, Sacramento, California 95821.

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 Central Valley Flood Protection Board.

TWENTY-FIVE: The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, at permittee's cost and expense, to modify or remove the permitted encroachment(s) under direction of the Central Valley Flood Protection Board or Department of Water Resources. If the permittee does not comply, the Central Valley Flood Protection Board may modify or remove the encroachment(s) at the permittee's expense.

TWENTY-SIX: At all times during construction, at least one lane of the levee crown roadway shall be kept clear for vehicular access.

TWENTY-SEVEN: All fill material shall be imported impervious material with 20 percent or more passing the No. 200 sieve, a plasticity index of 8 or more, and a liquid limit of less than 50 and free of lumps or stones exceeding 3 inches in greatest dimension, vegetative matter, or other unsatisfactory material. Fill material shall be compacted in 4- to 6-inch layers to a minimum of 90 percent relative



compaction as measured by ASTM Method D1557-91.

TWENTY-EIGHT: The fill surface area shall be graded to direct drainage away from the toe of the levee.

TWENTY-NINE: Backfill material for excavations within the levee section and within 10 feet of the levee toes shall be placed in 4- to 6-inch layers, moisture conditioned above optimum moisture content, and compacted to a minimum of 90 percent relative compaction as measured by ASTM Method D1557-91.

THIRTY: Density tests by a certified materials laboratory will be required to verify compaction of backfill within the project works.

THIRTY-ONE: Landscaping, appurtenances, and maintenance practices shall conform to standards contained in Section 131 of the Central Valley Flood Protection Board's Regulations, unless a variance thereto is specifically granted by the Central Valley Flood Protection Board.

THIRTY-TWO: The permittee shall maintain the ground cover at a height of less than 1 foot. The maintaining agency reserves the right to mow the ground cover without prior notification if the height exceeds 1 foot.

THIRTY-THREE: Control valves for the sprinkler system with manual shut-off capabilities shall be located at least 15 feet landward of the landside levee toe and be clearly marked.

THIRTY-FOUR: Any vegetation which interferes with the successful execution, functioning, maintenance, or operation of the adopted plan of flood control must be removed by the owner at owner's expense upon request by the Central Valley Flood Protection Board, Department of Water Resources, or local maintaining agency. If the owner does not remove such vegetation upon request, the Central Valley Flood Protection Board reserves the right to remove the vegetation at the owner's expense.

THIRTY-FIVE: Any additional encroachment(s) on the levee section or on landward levee fill area require an approved permit from the Central Valley Flood Protection Board and shall be in compliance with the Central Valley Flood Protection Board's regulations (Title 23 California Code of Regulations).

THIRTY-SIX: All debris generated by this project shall be disposed of outside the project site.

THIRTY-SEVEN: During demolition of the project, any and all anticipated or unanticipated conditions encountered which may impact levee integrity or flood control shall be brought to the attention of the Flood Project Inspector immediately and prior to continuation. Any encountered abandoned encroachments shall be completely removed or properly abandoned under the direction of the Flood Project Integrity and Inspection Branch Inspector.

THIRTY-EIGHT: The permittee shall comply with all conditions set forth in the letter from the American River Flood Control District dated October 19, 2012, which is attached to this permit as Exhibit A and is incorporated by reference.



THIRTY-NINE: Upon receipt of a signed USACE letter the permittee shall comply with all conditions set forth in the letter from the Department of the Army (U.S. Army Corps of Engineers, Sacramento District) dated March XX, 2013 which will become attached to this permit as Exhibit B and is incorporated by reference. No construction work can begin until the letter is attached to the permit.



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C0.1

AB	AGGREGATE BASE	FLC	FLOW LINE	(P, PRO)	PROPOSED
AC	ASPHALT CONCRETE	FLO	FACE OF CURB	PVC	POLY VINYL CHLORIDE
AD	ANGLE POINT	FOP	FIBER OPTIC	PWR	POWER
AVE	AVENUE	G	GRADE	R	RADIUS
BLDG	BUILDING	G.B.	GRADE BREAK	RCP	REINFORCED CONC. PIPE
B	BACK OF CURB	G	GRATE	R	RADIUS
BOW	BACK OF WALK	GV	GRADE VALVE	RT	RIGHT
CAB	CABINET	HGP	HIGH PRESSURE GAS	R/W, ROW	RIGHT-OF-WAY
C	CATCH BASIN	HC	HANDICAP RAMP	S	SLOPE
C&G	CURB AND GUTTER	INV	PIPE INVERT	SD	STORM DRAIN
C&G	CURB, GUTTER AND SIDEWALK	J	JOINT POLE	SDMH	STORM DRAIN MH
CL	CENTRAL LINE	L	LENGTH OF CURVE	SDW	SIDEWALK
CH	CHORD	LF	LINEAR FEET	SECT.	SECTION
CHC	CHORD	L	LEFT	SH	SHEET
CH	CHORD	LH	LEFT	S	SANITARY SEWER
CHC	CHORD	M	MAINTENANCE HOLE	SS	SANITARY SEWER MH
CONST.	CONSTRUCT	M.A., MIN.	(FORMERLY MANHOLE)	ST	STANDARD
C	CABLE	N.A.	NOT APPLICABLE	STD	STANDARD
CTV	CURB RETURN	N.O.	NUMBER	T.O.N.	TELEPHONE
C	COMBINATION SEWER	N.T.S.	NOT TO SCALE	TOP	TOP OF RAIL
CSMH	COMBINATION SEWER MH	O.G.	ORIGINAL GRADE	TOB	TOP OF BANK
D.B.	DITCH BOX	OHE	OVERHEAD ELECTRIC	TYP.	TYPICAL
D	DITCH	OWE	OVERHEAD TELE. & ELEC.	W	WITH
DRY, DRWG.	DRAIN	P	PULL BOX	WKWY	WALKWAY
DWG	DRAWING	PI	POINT OF INTERSECTION	W	WITH
OR	OR	PL	PROPERTY LINE	WV	WATER VALVE
OR	OR	PP	POWER POLE	< or AP	ANGLE POINT
EP	ELEVATION	PCC	PORTLAND CONCRETE		
(E), EXIST.	EXISTING	POT	POINT ON TANGENT		
FUT.	FUTURE				
FA	FIRE ALARM				
FA	FIRE HYDRANT				



MAINTENANCE HOLE  
DRAIN INLET  
STORM DRAIN  
TRENCH DRAIN  
GRADE BREAK  
OVERLAND DRAINAGE FLOW

ARCHITECTS

3540 FOLSOM BOULEVARD  
SACRAMENTO, CALIFORNIA  
95816-6699  
TELEPHONE 916 453-123  
FACSIMILE 916 453-1236

N | V | D

**NOLTE VERTICAL FIVE**

2495 NATOMAS PARK DRIVE, FOURTH FLOOR SACRAMENTO, CA 95811  
916.641.9100 TEL 916.641.9222 FAX WWW.NOI.TE.CA



## KEY PLAN

50% CD COORDINATION

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USED FOR CONSTRUCTION UNTIL

A DISCOVERY MUSEUM PROJECT

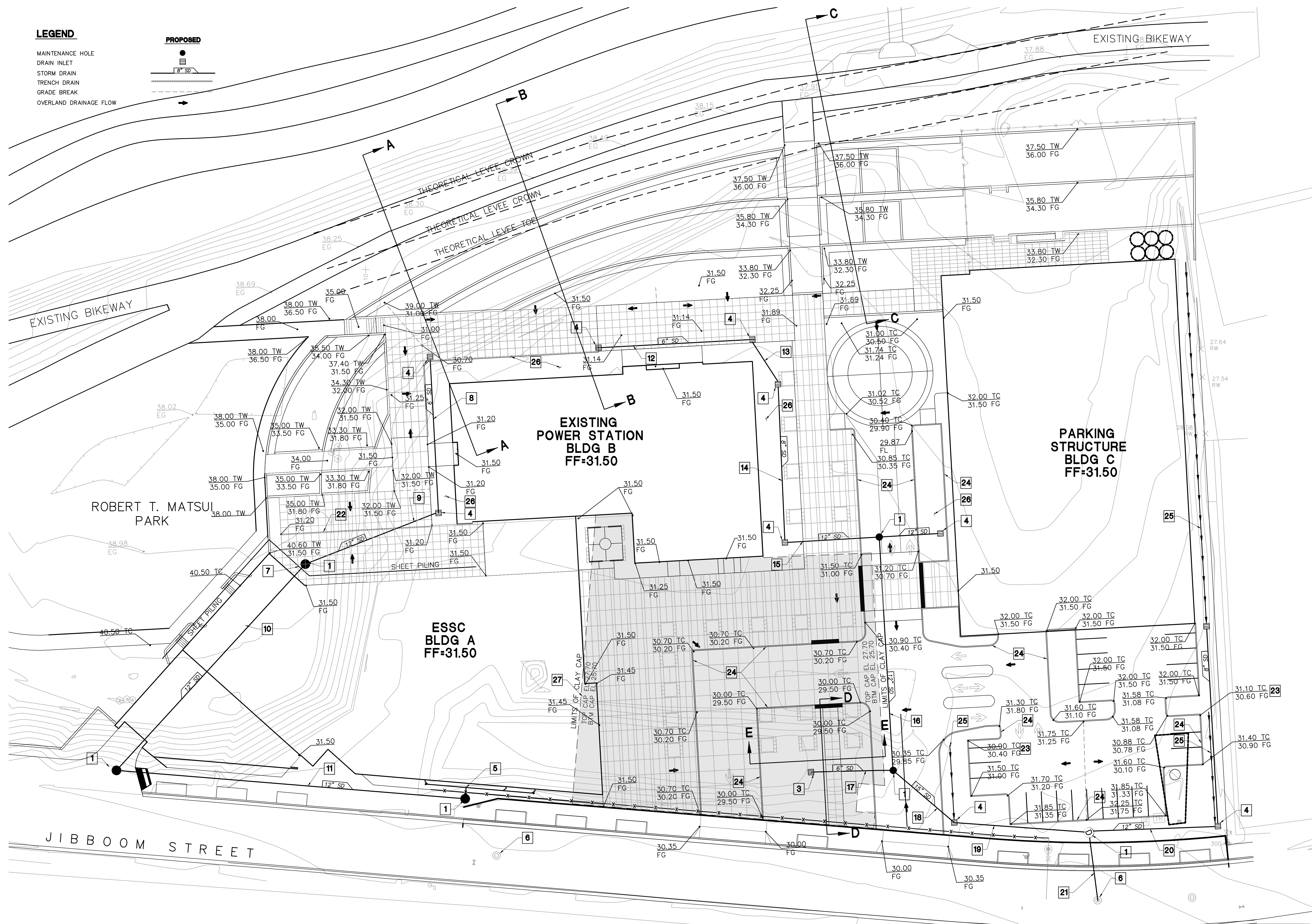
POWERHOUSE SCIENCE  
CENTER

## PRELIMINARY GRADING AND DRAINAGE PLAN



A9007  
1"=20'  
03 AUGUST 2012

## C1.1



SCALE 1"=20'

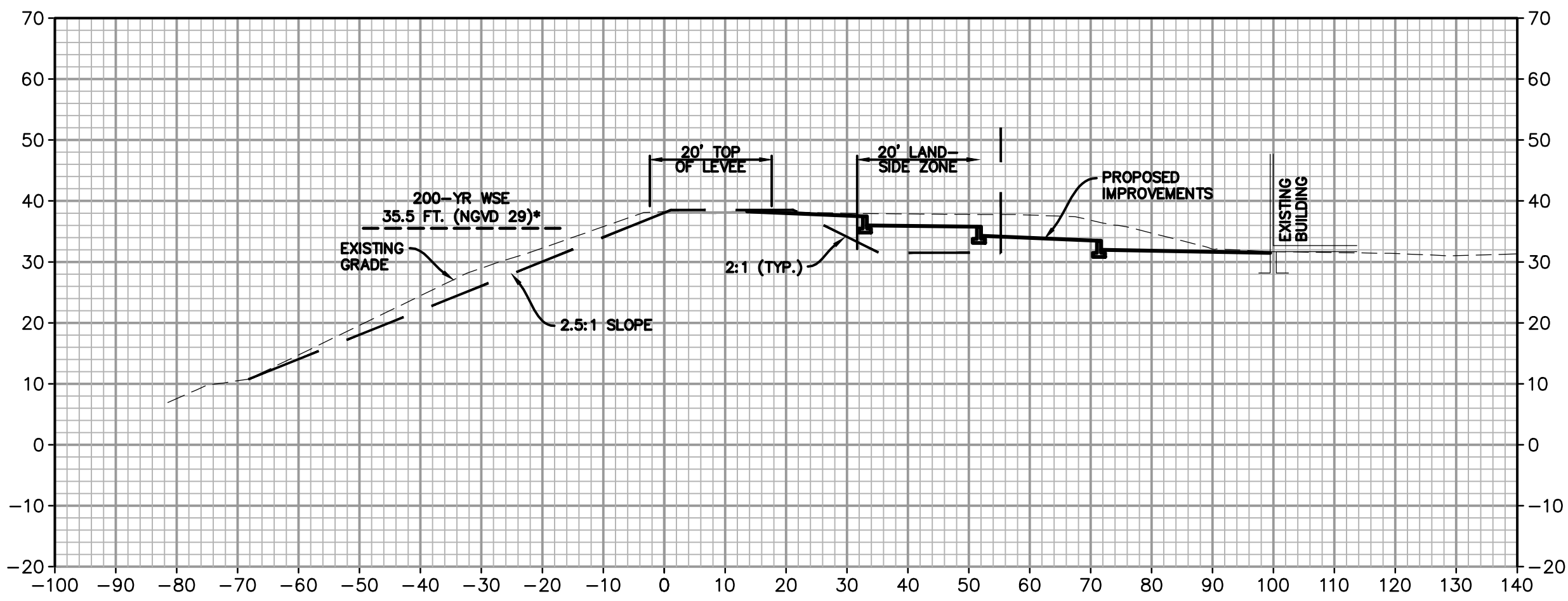
- SHEET NOTES:

- 1 CONSTRUCT SDMH PER CITY STD DWG S-70
- 2 CONSTRUCT CLEANOUT PER CITY STD DWG S-260
- 3 CONSTRUCT SD INLET WITHIN LIMITS OF CLAY CAP.  
BOTTOM OF DI NOT TO BE BELOW ELEV. 28.00
- 4 CONSTRUCT SD INLET IN WATER QUALITY AREA PER  
DETAIL SHEET C1.2
- 5 CONNECT ROOF DRAIN TO SD PER DETAIL SHEET C1.2
- 6 CONNECT TO EXISTING SDMH
- 7 INSTALL WATER PROOF BOOT FOR STORM DRAIN  
PENETRATION OF SHEET PILING PER APPROVAL OF  
GEOTECHNICAL ENGINEER

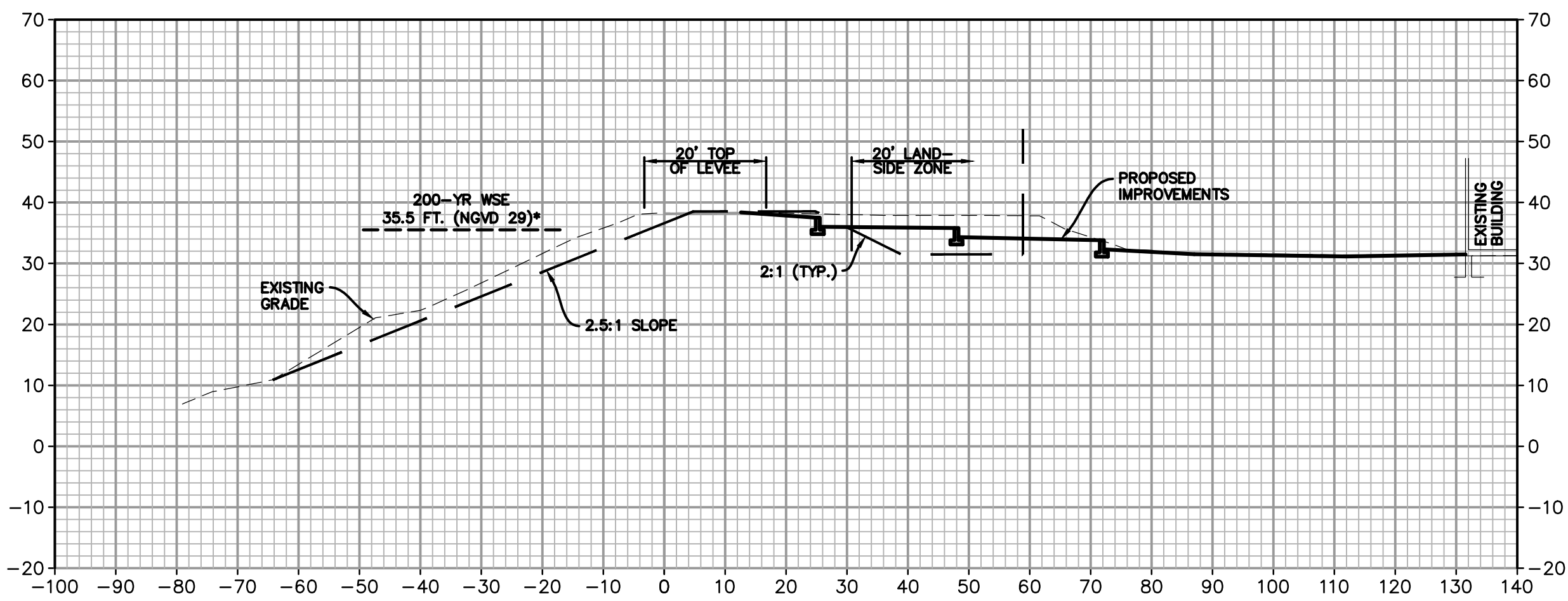
- |           |                                     |
|-----------|-------------------------------------|
| <b>8</b>  | CONSTRUCT 81 LF 6" SD (PVC SDR35)   |
| <b>9</b>  | CONSTRUCT 76 LF 12" SD (PVC SDR35)  |
| <b>10</b> | CONSTRUCT 149 LF 12" SD (PVC SDR35) |
| <b>11</b> | CONSTRUCT 187 LF 12" SD (PVC SDR35) |
| <b>12</b> | CONSTRUCT 81 LF 6" SD (PVC SDR35)   |
| <b>13</b> | CONSTRUCT 27 LF 6" SD (PVC SDR35)   |
| <b>14</b> | CONSTRUCT 84 LF 8" SD (PVC SDR35)   |
| <b>15</b> | CONSTRUCT 50 LF 12" SD (PVC SDR35)  |

- |           |   |           |  |
|-----------|---|-----------|--|
| <b>16</b> | CONSTRUCT 124 LF 12" SD (PVC SDR35)                                     | <b>24</b> | CONSTRUCT 6" CURB PER DETAIL SHEET C1.2  |
| <b>17</b> | CONSTRUCT 44 LF 6" SD (PVC SDR35)                                       | <b>25</b> | CONSTRUCT WATER QUALITY SWALE PER DETAIL SHEET C1.2  |
| <b>18</b> | CONSTRUCT 43 LF 15" SD (PVC SDR35)                                      | <b>26</b> | CONSTRUCT WATER QUALITY PLANTER PER DETAIL SHEET C1.2  |
| <b>19</b> | CONSTRUCT 71 LF 15" SD (PVC SDR35)                                      | <b>27</b> | CLAY CAP BOUNDARY. TOP OF CAP=27.70; BOTTOM OF CAP=25.70. A BUFFER IS TO BE PROVIDED IN THE AREA OF THE CLAY CAP. A 4' HIGH VISIBILITY FENCE WILL BE INSTALLED 2'-3' FROM THE PERIMETER OF THE CLAY CAP TO PREVENT ANY DIGGING IN THE CLAY CAP AREA. PRIOR TO CONSTRUCTION, MONUMENTS ARE TO BE INSTALLED AT ALL FOUR CORNERS OF THE CLAY CAP TO PREVENT DIGGING IN THIS AREA. |
| <b>20</b> | CONSTRUCT 68 LF 6" SD (PVC SDR35)                                       |           |  |
| <b>21</b> | CONSTRUCT 36 LF 18" SD (PVC SDR35)                                      |           |  |
| <b>22</b> | INSTALL 80 LF OF TRENCH DRAIN WITH OUTLET DRAINING DIRECTLY TO PLANTER. |           |  |
| <b>23</b> | CONSTRUCT 6" CURB CUT PER DETAIL SHEET C1.2                             |           |  |

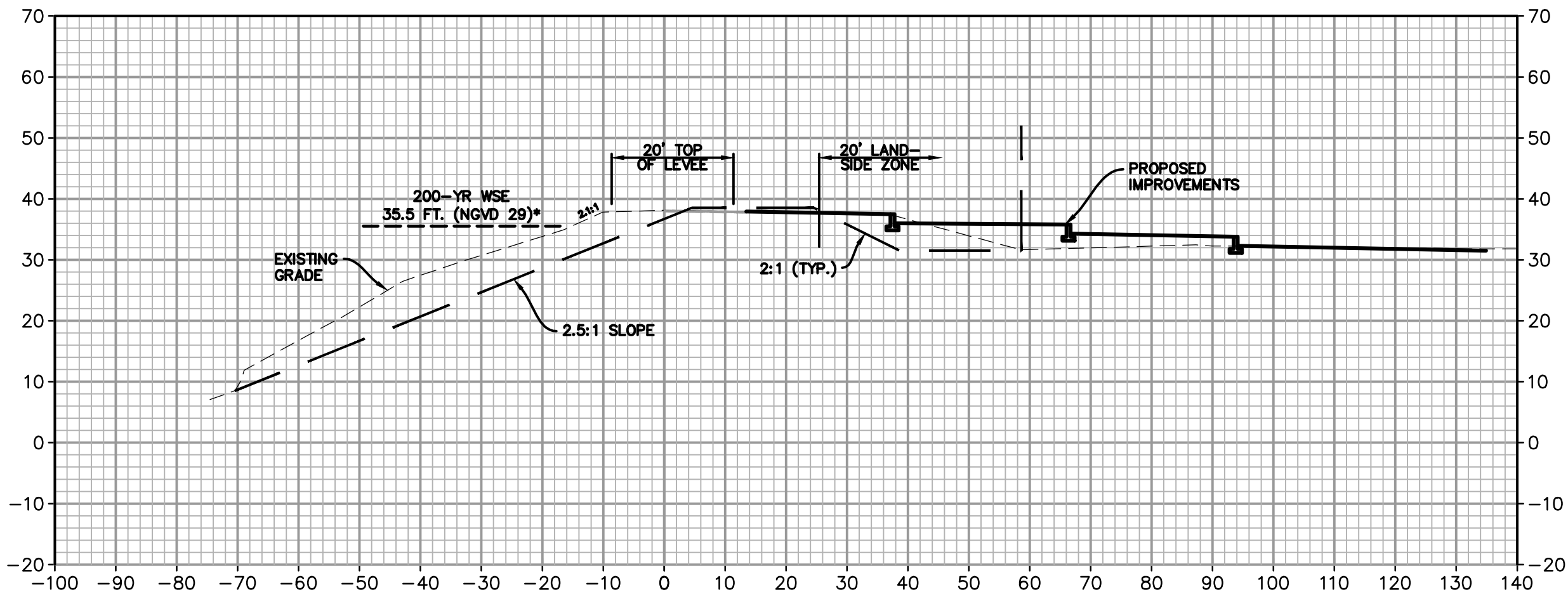




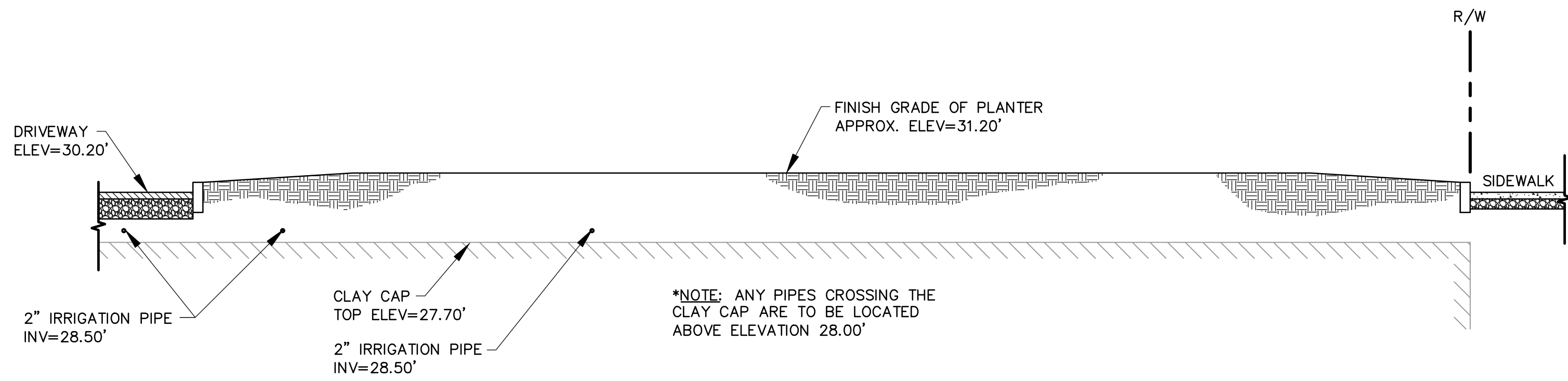
**SECTION A-A**  
SCALE 1"=20'



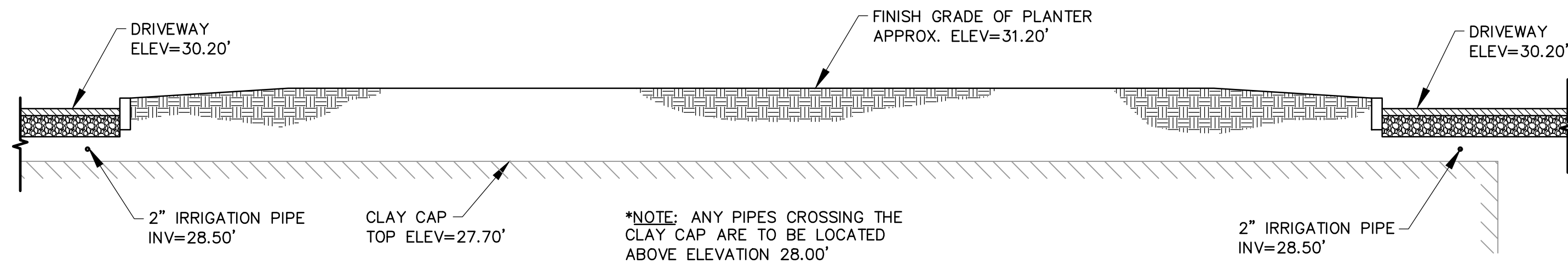
**SECTION B-B**  
SCALE 1"=20'



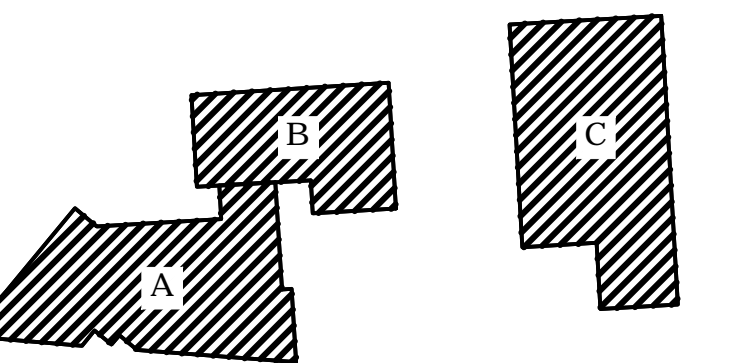
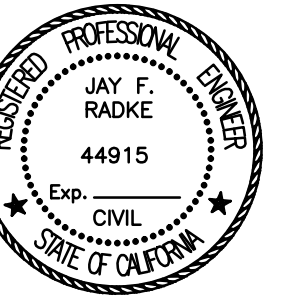
**SECTION C-C**  
SCALE 1"=20'



**SECTION D-D**  
SCALE 1"=5'



**SECTION E-E**  
SCALE 1"=5'



KEY PLAN

50% CD COORDINATION

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USED FOR CONSTRUCTION UNTIL IT IS  
SIGNED BY THE ARCHITECT/ENGINEER

A DISCOVERY MUSEUM PROJECT  
**POWERHOUSE SCIENCE  
CENTER**

**GRADING AND DRAINAGE  
DETAILS AND SECTIONS**

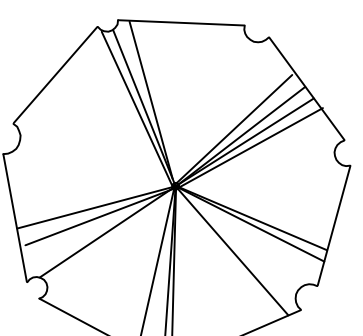
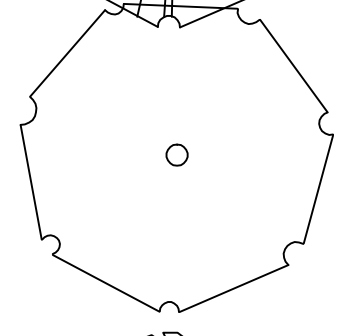
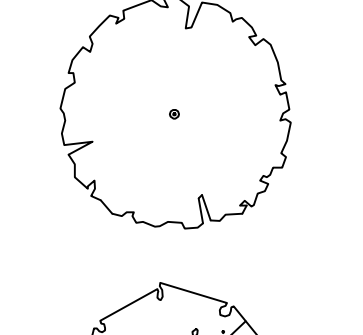
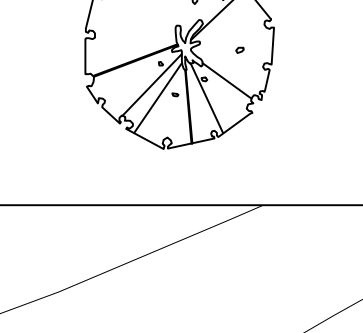
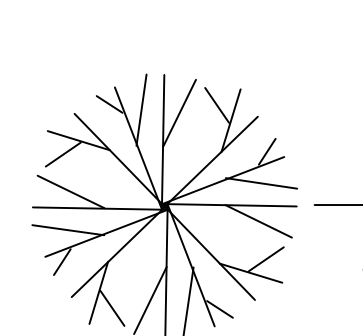
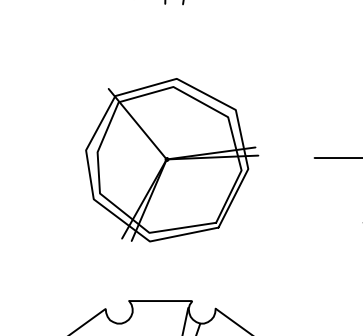
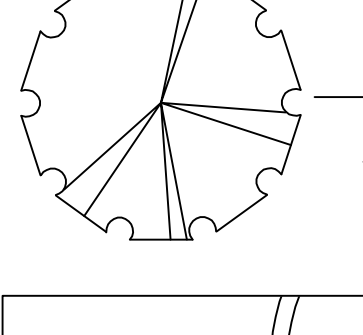


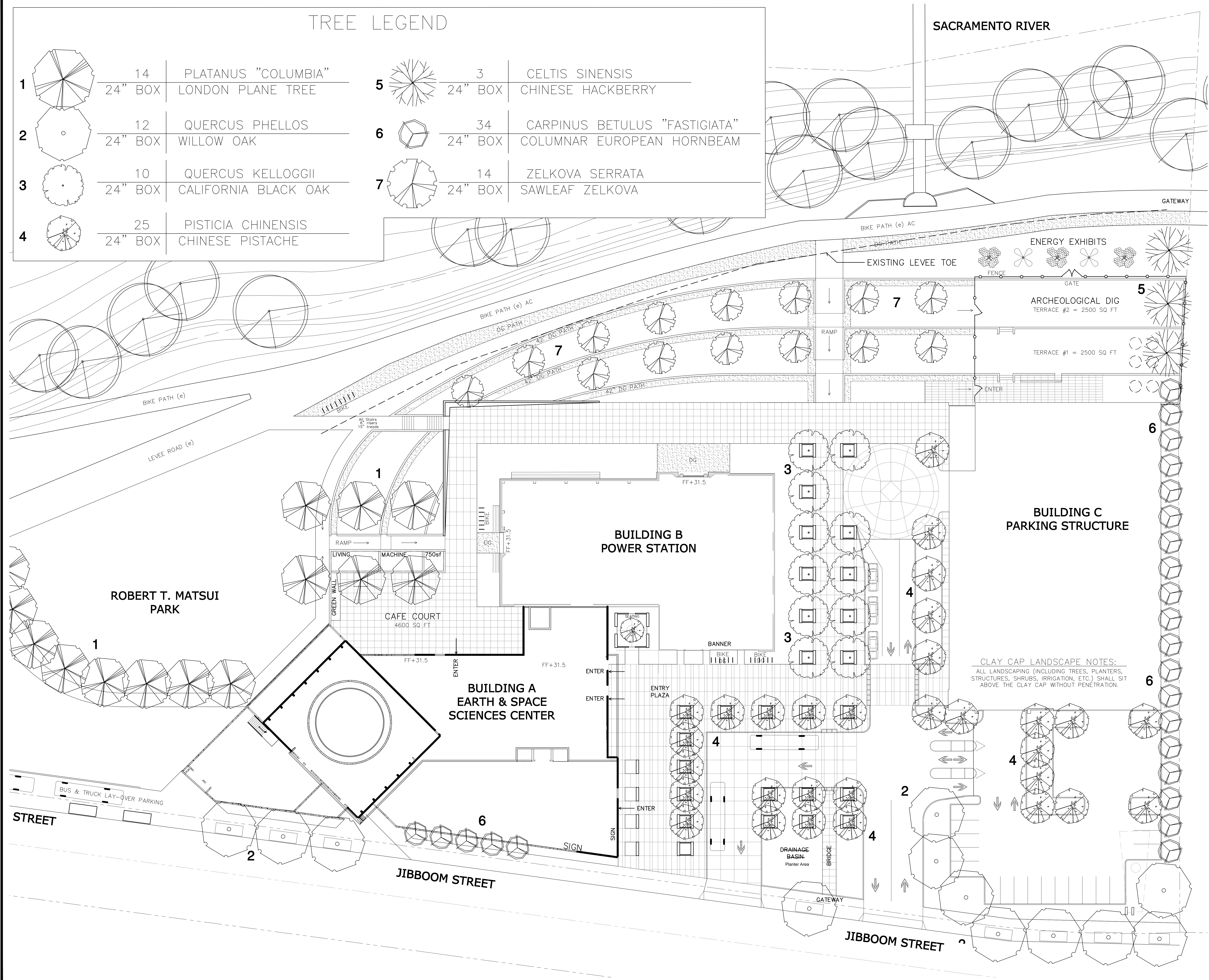
A9007  
1"= 20'  
03 AUGUST 2012

**C1.2**



# TREE LEGEND

1		14 24" BOX	PLATANUS "COLUMBIA" LONDON PLANE TREE
2		12 24" BOX	QUERCUS PHELLOS WILLOW OAK
3		10 24" BOX	QUERCUS KELLOGGII CALIFORNIA BLACK OAK
4		25 24" BOX	PISTIA CHINENSIS CHINESE PISTACHE
5		3 24" BOX	CELTIS SINENSIS CHINESE HACKBERRY
6		34 24" BOX	CARPINUS BETULUS "FASTIGIATA" COLUMNAR EUROPEAN HORNBEAM
7		14 24" BOX	ZELKOVA SERRATA SAWLEAF ZELKOVA



SACRAMENTO RIVER

GATEWAY

BIKE PATH (e) AC

BIKE PATH

EXISTING LEVEE TOE

ENERGY EXHIBITS

FENCE

GATE

ARCHEOLOGICAL DIG

TERRACE #2 = 2500 SQ. FT.

TERRACE #1 = 2500 SQ. FT.

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ROBERT T. MATSUI  
PARK

BUILDING B  
POWER STATION

BUILDING C  
PARKING STRUCTURE

BUILDING A  
EARTH & SPACE  
SCIENCES CENTER

CLAY CAP LANDSCAPE NOTES:  
ALL LANDSCAPING (INCLUDING TREES, PLANTERS,  
STRUCTURES, SHRUBS, IRRIGATION, ETC.) SHALL SIT  
ABOVE THE CLAY CAP WITHOUT PENETRATION.

BUS & TRUCK LAY-OVER PARKING

STREET

JIBBOOM STREET

JIBBOOM STREET

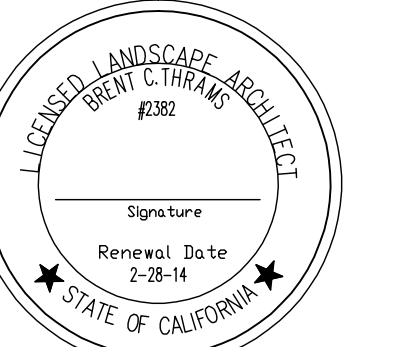
DREYFUSS & BLACKFORD

ARCHITECTS

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SACRAMENTO, CALIFORNIA  
95816-6699  
TELEPHONE 916 433-1234  
FACSIMILE 916 433-1235  
WWW.DREYFUSSBLACKFORD.COM



2542 Portola Way  
Sacramento  
Ca. 95818  
916 444 9020



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BE USED FOR CONSTRUCTION UNTIL IT IS  
SIGNED BY THE LANDSCAPE ARCHITECT.

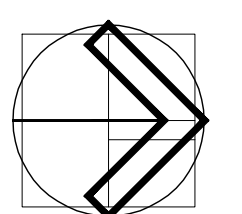
100% DESIGN DEVELOPMENT

REVISION  
LEVEE REVISIONS

BY DATE  
BCT 15 MAY 2012

A DISCOVERY MUSEUM PROJECT  
POWERHOUSE SCIENCE  
CENTER

LANDSCAPE PLAN  
TREE PLANTING PLAN



0 8'

A9007.00  
1"=20'-0"  
25 JUNE 2012

L1.1

FILE C:\ACTIVE PROJECTS\DISCOVERY MUSEUM\POWERHOUSE\LANDSCAPE\LANDSCAPE PLAN\TREE PLANTING PLAN.DWG DATE: 6/25/2012 9:47 AM PLOTTER: 6/25/2012 9:58 AM