



MEMO

To: Michael Bisch
From: John M. Lichter, M.S.
ASCA Registered Consulting Arborist #375, ISA Certified Master Arborist #863,
ISA Qualified Tree Risk Assessor
Date: February 29, 2016
Re: Tree Preservation, City of Davis Greenbelt Trees, Hyatt House Project

Introduction/Assignment:

The Hyatt House project, located at 2750 Cowell Boulevard in Davis is to be built north of the City's greenbelt. Twenty-one City-owned trees are located on the greenbelt adjacent to the northern boundary of the project. Due to their proximity to the project, the trees were included in an Arborist report concerning the property that I previously prepared (entitled Tree Evaluation, Appraisal and General Preservation Guidelines, Hyatt House Project, Davis, California), dated December 28, 2015.

In this report, I recommended that a development impact assessment be conducted and alternative designs considered within the protection zones of the greenbelt trees. On February 18, 2016, I attended a meeting with members of the design team, City representatives and you during which we discussed possible alternative designs to reduce potential impacts to the trees from construction of the proposed fire lane and parking north of the greenbelt trees.

During this meeting, we discussed a "tree friendly" parking detail installed on grade utilizing gravel and concrete strips, which the design team prepared for my review (Preliminary Grading and Drainage Plan and Detail Sheet, 2/26/16, attached). I indicated that I wanted to excavate to determine root locations adjacent to a portion of the fire lane to determine potential impacts to the roots of a few of the nearby trees. In addition, I was asked to evaluate pruning necessary to provide vehicle clearance for the fire lane and parking. The

following is a summary of my findings and recommendations to minimize development impacts to the subject trees.

Arborist Disclosure Statement:

The following statement concerns my work on this project.

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the Arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the Arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the Arborist. An Arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Fire Lane:

The fire lane is sufficiently far from the subject trees to pose no significant impact with the exception of trees #12, 14 and 16 (see attached grading plan). The distance between the fire lane and the trees is approximately 5, 4 and 6 feet, respectively. The design team has indicated that the total extent of excavation and soil disturbance (scarification) will be limited to 12 inches to install the fire lane.

A 15-inch deep hand excavation adjacent to trees #12 and 14 one foot from the northern edge of the proposed fire lane within 12 feet of the trunks revealed no roots larger than 0.5 inches. Within twelve feet of the trunk of tree #16, one foot from the northern edge of the fire lane, I tile-probed (with a sharpened steel rod) to a depth of greater than 15 inches. In one location, we found two 0.75" diameter roots.

Given the above, I rated the level of development impact to these trees as low/moderate.

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Parking:

The proposed parking, which is located adjacent to the remaining greenbelt trees, involves installing gravel surrounded by poured concrete strips. The gravel is to be installed on uncompacted native soil (2" of soil stripped) with no scarification. The intent of this design is to avoid root injury and provide adequate soil moisture and structure to allow continued root growth.

Pruning:

Assuming that 13.5 and 10 feet of clearance are needed over the fire lane and parking, respectively, I evaluated the pruning needs of the subject trees. Several of the trees required either no pruning or cuts of less than one-inch diameter: #1-7, 9, 17 and 21. The table below indicates the number and size of cuts required to provide the necessary clearance for the remaining trees (note trees 15 and 23 are on the project property and are to be removed to accommodate construction). None of the pruning will negatively impact the health or structure of the subject trees with the exception of tree #8, which currently has poor structure.

Tree #	Cuts Required (diameter, in inches)	% Foliage Removed
8	6	50%
10	4,4,3,3	<5%
11	4,3	5%
12	5	<5%
13	5	<5%
14	7,6,5,5,4,4	10%
16	3	<5%
18	2	<5%
19	11,6 (mostly burned foliage)	5%
20	6,4	<5%
22	6,4,2	<5%

Tree Preservation Recommendations:

The following recommendations should be followed to minimize development impacts to the subject trees.

- Revise parking lot detail to utilize drain rock rather than AB in between concrete strips.
- Specify on plans to excavate for curb installation with water or air under ISA Certified Arborist supervision. If roots greater than or equal to 2 inches in diameter are encountered, bridge curb over roots allowing space for roots to expand in girth.
- Conduct a meeting to discuss tree preservation guidelines with the Consulting Arborist and all contractors, subcontractors and project managers prior to the initiation of demolition and construction.
- Prior to any demolition activity on site, identify (tagged) trees to be preserved and install tree protection fencing in a circle centered at the tree trunk with a radius equal to the defined tree protection zone (see table) unless otherwise indicated in construction plans. Tree protection fences should be made of chain link with posts sunk into the ground. These fences should not be removed or moved until construction is complete. Avoid soil or above ground disturbances within the fenced area.
- Any pruning required for construction or recommended in this report should be performed by an ISA Certified Arborist or Tree Worker. Pruning for necessary clearance should be the minimum required to build the project and performed prior to demolition by an ISA Certified Arborist.
- Avoid grading, compaction, trenching, rototilling, vehicle traffic, material storage, spoil, waste or washout or any other disturbance within tree protection zones (TPZ's) outside of drive and parking areas.
- Any work that is to occur within the protection zones of the trees should be monitored by the Consulting Arborist.
- If roots larger than 1 inch or limbs larger than 3 inches in diameter are cut or damaged during construction, contact Consulting Arborist as soon as possible to inspect and recommend appropriate remedial treatments.
- All trees to be preserved should be irrigated once every week during non-Winter months to uniformly wet the soil to a depth of at least 18 inches under and beyond their canopies.

Please let me know if you have any questions regarding this report.



ASSUMPTIONS AND LIMITING CONDITIONS: John M. Lichter dba TREE ASSOCIATES

1. Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.
3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.
4. The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
5. Unless required by law otherwise, possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
6. Unless required by law otherwise, neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser -- particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant/appraiser as stated in his qualifications.
7. This report and any values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
8. Sketches, drawings, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys unless expressed otherwise. The reproduction of any information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is for the express purpose of coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by John M. Lichter or TREE ASSOCIATES as to the sufficiency or accuracy of said information.
9. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.
10. Loss or alteration of any part of this report invalidates the entire report.



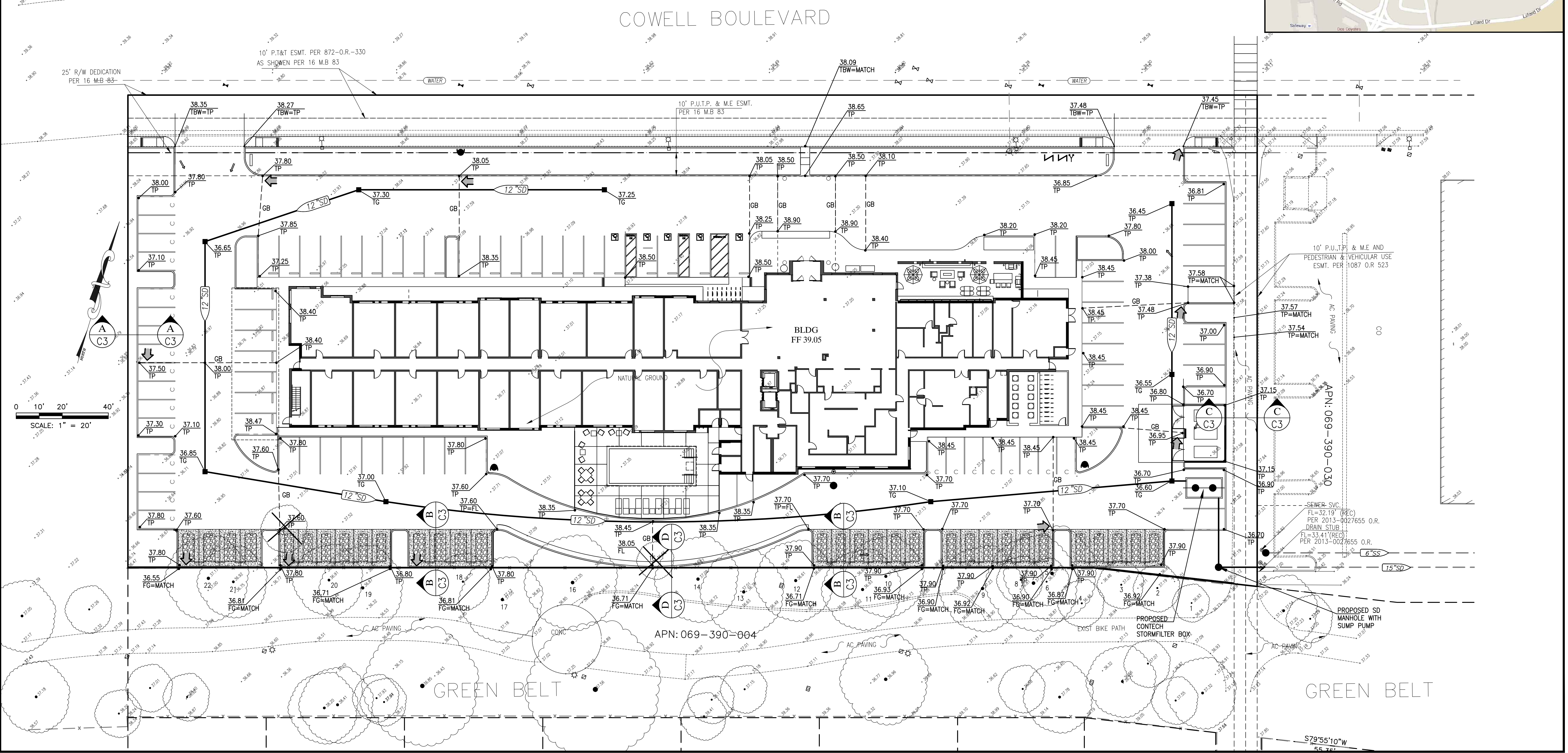
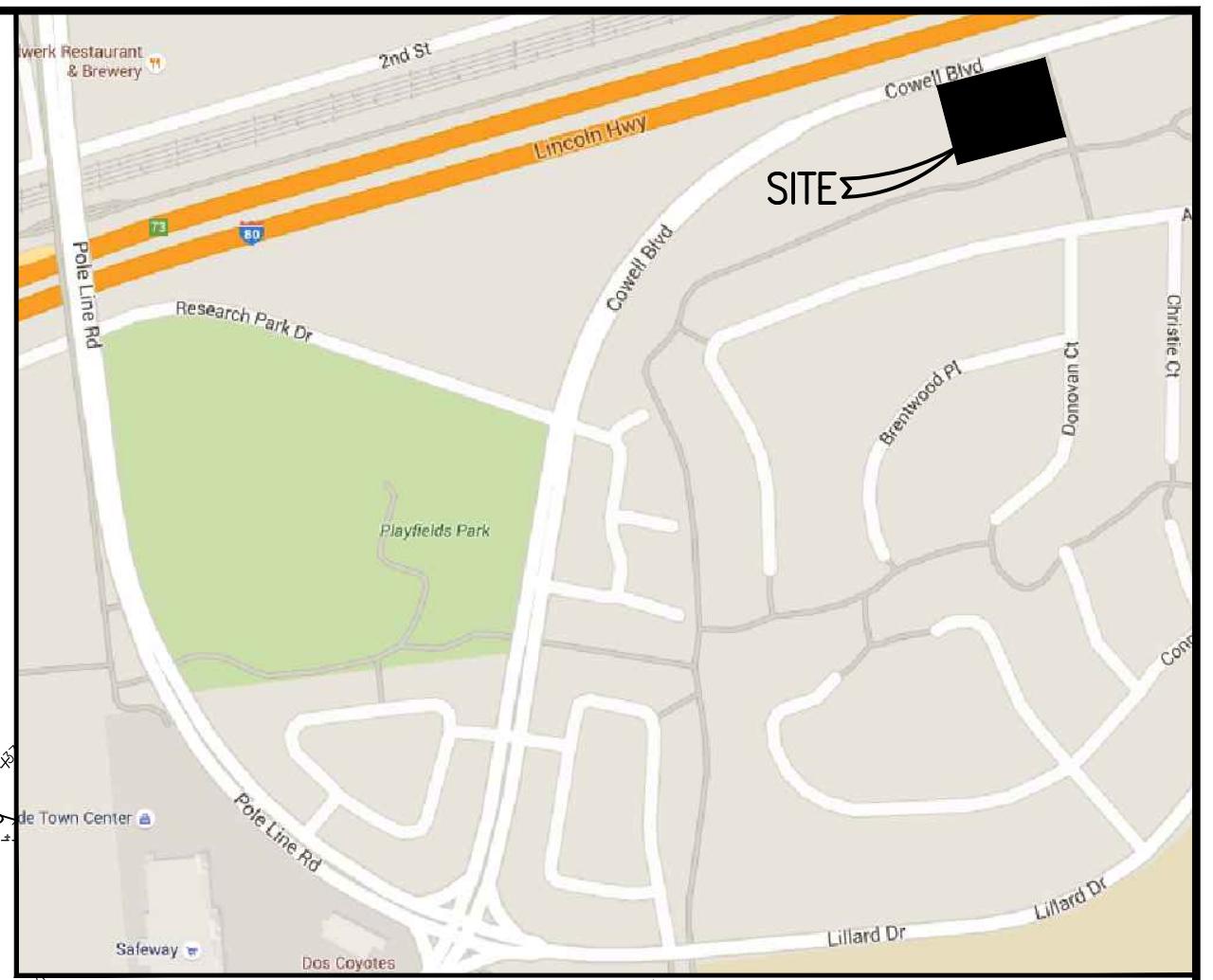
ABBREVIATIONS			
COTG	CLEANOUT (TO GRADE)	RP	REDUCED PRESSURE
DI	DRAIN INLET	S	SEWER
FDC	FIRE DEPT CONNECTION	S-	SLOPE
FF	FINISHED FLOOR	SD	STORM DRAIN
FG	FINISHED GRADE	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSCO	SANITARY SEWER CLEANOUT
FL	FLOWLINE	TBW	TOP BACK OF WALK
FS	FIRE SERVICE	TC	TOP OF CURB
GB	GRADE BREAK	TG	TOP OF GRATE
GR	GRATE	TP	TOP OF PAVEMENT
LF	LINEAL FEET	TS	TOP OF SIDEWALK
MH	MANHOLE	TW	TOP OF WALK
NTS	NOT TO SCALE	W	WATER
		WM	WATER METER
		WS	WATER SERVICE

GRADING NOTE:
1. MAXIMUM GRADING SLOPES SHALL BE 3:1.

FLOOD ZONE DESIGNATION:
FLOOD UNSHADED ZONE 'X' PER FEMA MAP PANEL NO. 06113C0612G DATED 06/18/2010

LEGAL DESCRIPTION:
PARCEL 2 AS SHOWN ON PARCEL MAP NO. 5023, FILED FOR RECORD JULY 23, 2013, IN BOOK 2013 OF MAPS, PAGES 59-60, YOLO COUNTY RECORDS.

➔ OVERLAND RELEASE POINT OF DISCHARGE



BENCHMARK ELEVATION: 38.00'
PROJECT BENCHMARK ASSUMED FF ELEVATION OF THE BLDG. LOCATED 2750 COWELL BLVD.
FIELD BOOK NUMBER: _____ PAGE: _____

JTS ENGINEERING CONSULTANTS, INC.
1808 J STREET
SACRAMENTO, CALIFORNIA 95811 (916) 441-6708

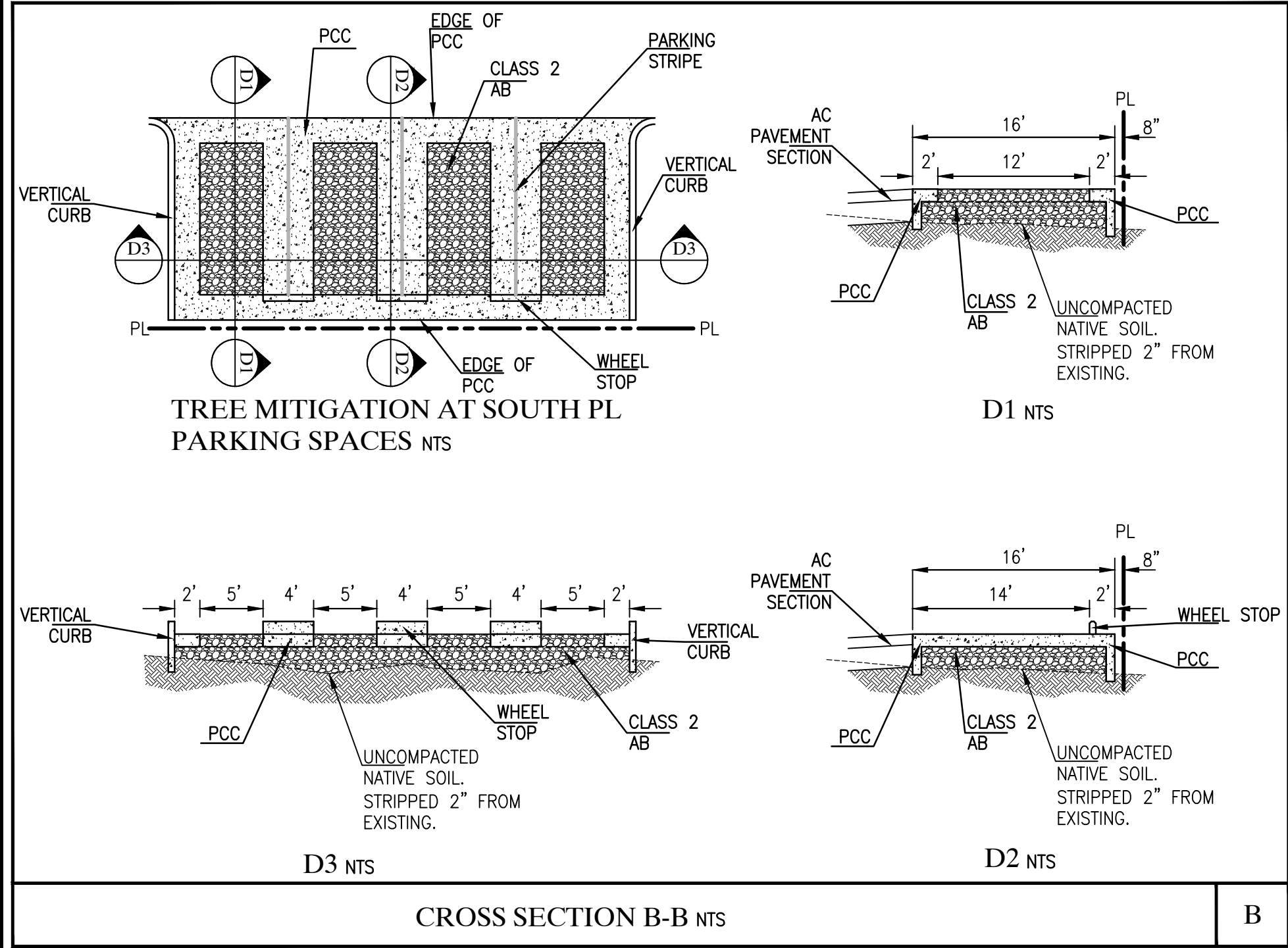
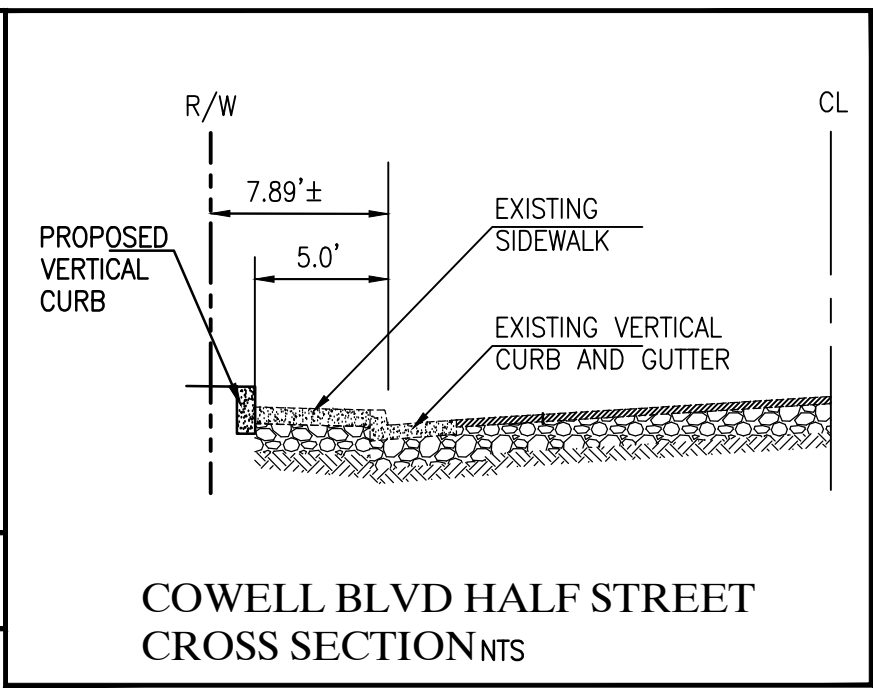
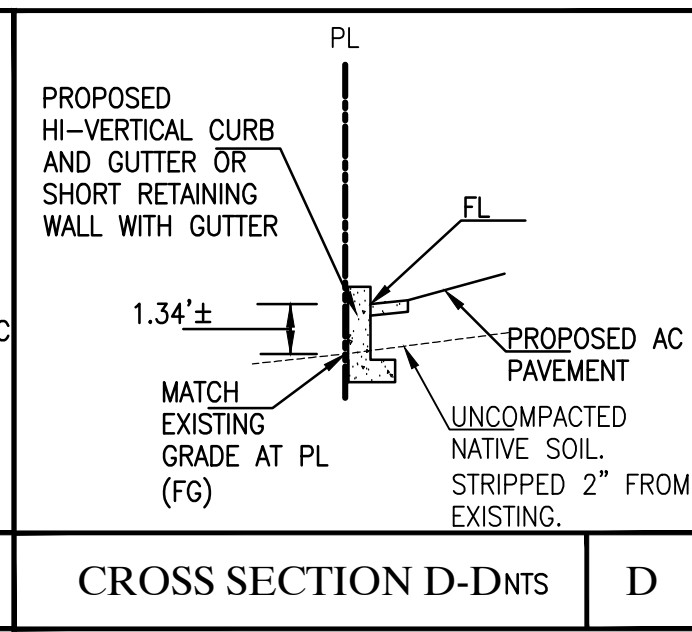
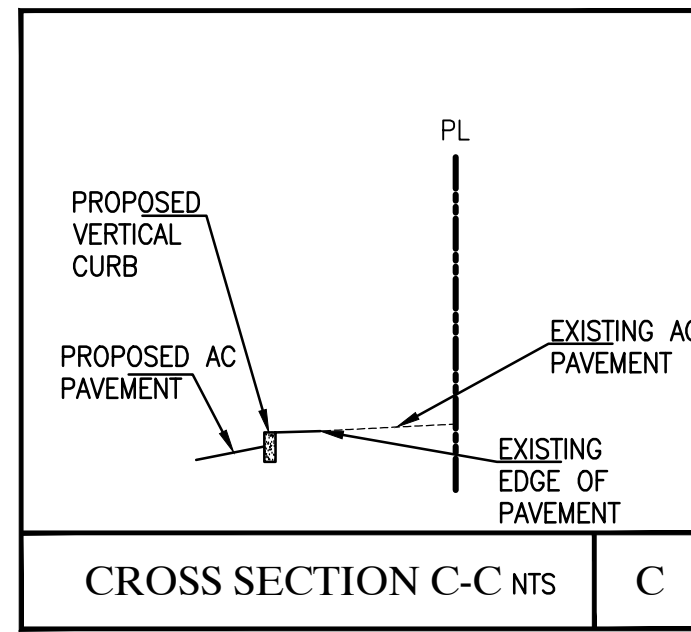
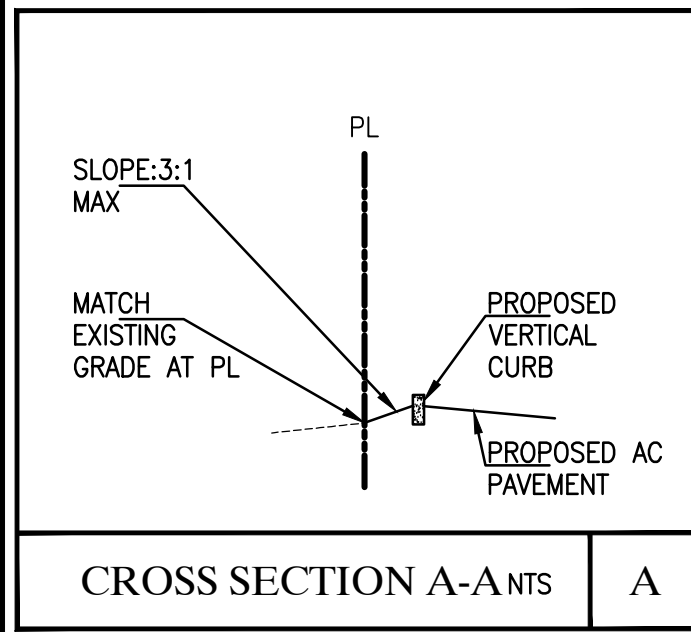
DESIGNED:	PHYA	SCALE:	H:1"=20'
DRAWN:	PHYA	CHECKED:	JTS
SUBMITTED:	JAVED T. SIDDIQUI	RCE:	25924



NO.	DESCRIPTION	ENGR INIT	APPROVAL BY	DATE
1	REVISED SITE PLAN - 11-13-15			
2	REVISED SITE PLAN - 2-26-16			

PRELIMINARY GRADING AND DRAINAGE PLAN
2750 COWELL BOULEVARD
HYATT HOUSE
CITY OF DAVIS
APN: 069-0390-031
CALIFORNIA

DATE: 2-26-16
SHEET **C1** OF **3**
JOB NO: 2015-086



BENCHMARK ELEVATION: 38.00'
 PROJECT BENCHMARK ASSUMED FF ELEVATION OF THE BLDG. LOCATED 2750 COWELL BLVD.
 FIELD BOOK NUMBER: _____ PAGE: _____

JTS ENGINEERING CONSULTANTS, INC.
 1808 J STREET
 SACRAMENTO, CALIFORNIA 95811 (916) 441-6708

DESIGNED: PHYA
 DRAWN: PHYA
 CHECKED: JTS
 SUBMITTED: JAVED T. SIDDIQUI
 SCALE: H:N/A
 V:
 RCE: 25924



NO.	DESCRIPTION	ENGR INIT	APPROVAL	
			BY	DATE
1	REVISED SITE PLAN - 11-13-15			
2	REVISED SITE PLAN - 11-13-15			

DETAILS SHEET
2750 COWELL BOULEVARD
 HYATT HOUSE
 CITY OF DAVIS
 APN: 069-0390-031
 CALIFORNIA

DATE: 2-26-16
 SHEET
C3
 OF 3