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COMMUNITY DEVELOPMENT AGENCY

DEVELOPMENT SERVICES DIVISION

http://www.edcgov.us/DevServices/

PC 9-26-13
11
(76 pages)

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TO:	Planning Commission	Agenda of:	September 26, 2013
FROM:	Tom Dougherty, Project Planner	Item No.:	11
DATE:	September 24, 2013		

RE: PD12-0003/Green Valley Convenience Center; Alternative Exhibits/Design Waiver Request (Revised Findings and Conditions of Approval)

The Planning Commission heard the proposed development plan for a gas station, car wash and drive-through restaurant on July 11, 2013. A number of issues were raised, including noise, aesthetics, traffic, and potential impacts to the intermittent stream. The Planning Commission continued the item to address these concerns. Planning staff identified the need to revise and recirculate the Mitigated Negative Declaration due to the identification of a new significant impact and mitigation measures. This was recirculated from August 12, 2013, and ending September 10, 2013. Comments on the Mitigated Negative Declaration were received from several members of the public. Responses to those comments are discussed below.

Alternative designs were received that were summarized in the memo dated August 7, 2013. Subsequently, the applicant submitted new alternative designs received September 3, 2013 to further address some of these issues. These latest designs are intended to replace those summarized in that August 7, 2013 Staff Memo. The most recent alternatives are identified as follows:

1. Sheet A.O1 - Site Sections dated August 28, 2013
2. Sheet A.02 - Drive-Thru Site Sections dated August 28, 2013
3. Sheet C1.O - Cover Sheet dated August 29, 2013
4. Sheet C2.0 - Site Plan (revised) dated August 29, 2013
5. Sheet C3.1 - TESC Plan (revised) dated August 29, 2013
6. Sheet C4.0 - Grading and Storm Drainage Plan (revised) dated August 29, 2013
7. Sheet C5.0 - Utility Plan (revised) dated August 29, 2013
8. Sheet L1 - Landscape Planting Plan (revised) dated August 28, 2013
9. Sheet SNA. 1 - Site Sign Plan and Elevations (revised) dated August 19, 2013
10. Sheet SNA.2 - Signage Details (revised) dated August 28, 2013
11. Sheet SNA.3 - Signage Details (revised) dated August 19, 2013
12. Sheet A2.1 - Building Exterior Elevations (revised) dated August 19, 2013
13. Sheet A2.2 - Building Exterior Elevations (revised) dated August 19, 2013
14. Sheet CW1 .I - Car Wash Floor Plan (revised) dated August 28, 2013
15. Sheet CW1.2 - Car Wash Roof Plan (revised) dated August 28, 2013
16. Sheet CW 2.1 - Car Wash Exterior Elevations (revised) dated August 28, 2013

17. Sheet CA.2 - Fuel Canopy Exterior Elevations (revised) dated August 28, 2013
18. Sheet CA.3 - Fuel Canopy Exterior Elevations (revised) dated August 28, 2013
19. Sheet TE.1 -Trash Enclosure (revised) dated August 28, 2013

The issue of encroachment into and out from the site from and onto Green Valley Road is a concern to the public. The latest alternative encroachment design, shown on Sheet C2.0 dated August 29, 2013, provides for a longer taper for the encroachment but is not a full acceleration/deceleration lane as suggested by some members of the public. Technically, this requires a Design Waiver request since it is a deviation from the Standard Plan for commercial encroachments onto an arterial road. Transportation Division staff finds the modified design to be acceptable, and provides somewhat greater turning ability into the development. Findings for Approval of the Design Waiver are included in the Revised Attachment 2. Additionally, the Transportation Division is recommending that Condition 23 be revised as follows:

23. **Encroachment Permit:** The applicant shall obtain an encroachment permit from ~~DOT~~ Transportation and shall construct the roadway encroachments from the access roadway onto Green Valley Road and Sophia Parkway to the ~~provisions of~~ County Design Standard 110 as shown on Sheet C2.0 – Site Plan dated August 29, 2013, and the change shall be reflected on the development plans submitted for the project.. The improvements shall be completed to the satisfaction of the Transportation Division or the applicant shall obtain an approved improvement agreement with security, prior to the issuance of an encroachment ~~building~~ permit.

    Accident data shall be collected and the operation of the driveway along Green Valley Road shall be observed periodically for a span of one year from the date of occupancy. The EDC Transportation Operations Unit will identify accidents related to the turning movements into or out-of the project encroachments and determine if a statistically significant increase in accidents has occurred. If Transportation quantifies information indicating the driveway is not functioning appropriately they will notify the owner of their observations in writing and request the owner propose an action plan to bring the driveway to proper function within 30 days. The criteria and measures needed to return the driveway to proper function shall be mutually agreed to by the applicant and the County and will be implemented within 90 days of agreement. If agreement cannot be reached the matter will be brought before the Planning Commission as an amendment to the Development Plan for resolution which will be deemed final unless appealed to the Board of Supervisors.

Other public comments raised concerns about noise impacts including: short-term construction noises; impacts to the closest residentially-zoned parcel (124-301-39), insufficient details and/or restrictions for potential noise impacts on the existing evening and nighttime ambient noise impacts, lack of a condition for the carwash doors to be lowered, and lack of analysis of reoccurring impulsive noises.

The applicant submitted an updated Environmental Noise Analysis dated September 24, 2013, as well as a Response to Noise Related public Comments letter dated September 25, 2013. Both address the concerns related to noise impacts.

Recommended Condition 34 addresses the permitted construction hours associated with short-term construction noise impacts. Planning recommends that the carwash and restaurant drive through hours of operation be limited to between 7 am to 10 pm, and the vacuums be limited to 7 am to 7 pm unless

additional noise analysis is submitted with the building permit that demonstrates to the Planning Director that noise levels measured at the parcel designated by APN 124-301-39 meet General Plan thresholds. It is also recommended that the carwash be limited to a 30 horse power or less blower placed in the same location that was analyzed in the Environmental Noise Analysis. (See Condition 11). It is further recommended that Mitigation Measure, NOISE-1 (Condition 8) be revised to add the requirement that the doors on the south entrance to the carwash be lowered during the operation of each carwash cycle.

There were also concerns raised about the possibility of the placement of excess signage occurring in the future. The allowed signs would be only those shown in Exhibits J-1 to J-3, (Sheets SNA.1 to SNA.3). These would become the "sign package." Planning recommends that the following language be added to Condition 14 to assure that excess signage would not be placed in the windows: "Window signs shall not exceed 25 percent coverage of any window pursuant to industry best practice for natural surveillance that serves to increase the risk of detection for offenders, enable evasive actions by potential victims, and facilitate intervention by police (Crime Prevention through Environmental Design and Defensible Space)."

The applicant is requesting consideration of the original proposal but has offered the alternative design if the Commission find that these modifications address concerns of the Commission. Planning staff finds that the alternatives received September 3, 2013 improve the aesthetic design of the project and, therefore, recommends the Planning Commission approve the project with these modifications. None of the changes increase potential environmental impacts.

An additional Finding has been added to specifically note the project has been found to be compliant with Policy 6.5.1.7 as conditioned and mitigated. Along with this additional finding, Planning believes the previous findings can be made, and that the additional Mitigation Measures reduce the impacts, and that no new significant impacts have been identified.

RECOMMENDATION: Staff recommends the Planning Commission take the following actions:

1. Adopt the Revised Mitigated Negative Declaration based on the Initial Study prepared by staff;

2. Adopt the Mitigation Monitoring Program in accordance with CEQA Guidelines, Section 15074(d), as incorporated in the Revised Conditions of Approval and Mitigation Measures in Attachment 1;

3. Conditionally approve Planned Development PD12-0003, based on the Revised Findings in Attachment 2 and subject to the Revised Conditions of Approval in Attachment 1;

4. Approve the Finding of Consistency with General Plan Policy 7.3.3.4 to allow a reduction of the wetland setback from 50 feet to 10 feet based on the Revised Findings in Attachment 2; and

5. Approve the request for a Design Waiver to allow the deviation from Standard Plan 103-D to allow a longer taper for the encroachment onto Green Valley Road based on the Revised Findings in Attachment 2.

ATTACHMENTS

Attachment 1.....Revised Conditions of Approval; Planning Commission/September 26, 2013
Attachment 2.....Revised Findings; Planning Commission/September 26, 2013
Attachment 3.....Revised Exhibits for Approval
Attachment 4.....Applicant's entire "Design Submission," dated August 30, 2013
Attachment 5.....Environmental Noise Analysis dated September 24, 2013
Attachment 6.....Response to Noise Related Public Comments dated September 25, 2013

Revised Exhibits F-M
Planning Commission September 26, 2013

Attachment 3

Exhibit F

ARCO AM/PM - ELDORADO HILLS, CALIFORNIA
COVER SHEET

GENERAL SITE DEVELOPMENT NOTES:

1. THE CONTRACTOR SHALL OBTAIN AND HAVE [illegible] COPIES OF THE APPLICABLE GOVERNING AGENCY STANDARDS AT THE JOB SITE DURING THE [illegible] CONSTRUCTION [illegible].
2. CONTRACTOR SHALL ASSURE THAT ALL [illegible] PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION WHETHER SHOWN ON THESE PLANS OR NOT. UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THE SITE. ONLY THOSE UTILITIES WITH EVIDENCE OF THEIR INSTALLATION VISIBLE AT GROUND SURFACE OR SHOWN ON RECORD DRAWINGS PROVIDED BY OTHERS ARE SHOWN. [illegible] LOCATIONS SHOWN ARE [illegible] AND ARE SUBJECT TO A DEGREE OF UNKNOWN VARIATION. SOME UNDERGROUND LOCATIONS SHOWN HEREON MAY HAVE BEEN TAKEN FROM PUBLIC RECORDS. BARGHAUSEN CONSULTING ENGINEERS, INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF PUBLIC RECORDS OR RECORDS OF OTHERS. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE APPROPRIATE UTILITIES INVOLVED PRIOR TO CONSTRUCTION.
6. INSPECTION OF SITE WORK WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE GOVERNING JURISDICTION. INSPECTION OF PRIVATE FACILITIES WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE INSPECTOR 24 HOURS IN ADVANCE OF BACKFILLING ALL CONSTRUCTION.
7. PRIOR TO ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY THE CONTRACTOR SHALL CONTACT THE AGENCY [illegible] PERSONNEL, AND ARRANGE ANY REQUIRED PRE-CONSTRUCTION MEETINGS. CONTRACTOR SHALL PROVIDE 72 HRS MIN. ADVANCE NOTIFICATION TO OWNER, FIELD ENGINEER AND ENGINEER OF PRE-CONSTRUCTION MEETINGS.
8. THE CONTRACTOR IS RESPONSIBLE FOR WORKER AND SITE SAFETY AND SHALL COMPLY WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED.
10. PROTECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT ALL ADJACENT PUBLIC AND PRIVATE PROPERTIES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITY SERVICES THAT ARE TO REMAIN OPERATIONAL WITHIN THE CONSTRUCTION AREA WHETHER SHOWN OR NOT SHOWN ON THE PLANS.
11. TWO (2) COPIES OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS. ONE (1) SET WITH RECORDS OF AS-BUILT INFORMATION SHALL BE SUBMITTED TO BARGHAUSEN CONSULTING ENGINEERS, INC. AT COMPLETION OF PROJECT.
12. CONTRACTOR SHALL OBTAIN SERVICES OF A LICENSED LAND SURVEYOR TO STAKE HORIZONTAL CONTROL FOR ALL NEW IMPROVEMENTS. STAKING CONTROL SHALL BE TAKEN FROM ELECTRONIC PLAN FILES PROVIDED BY BCE.

EX. LEGEND AND ABREVIATIONS

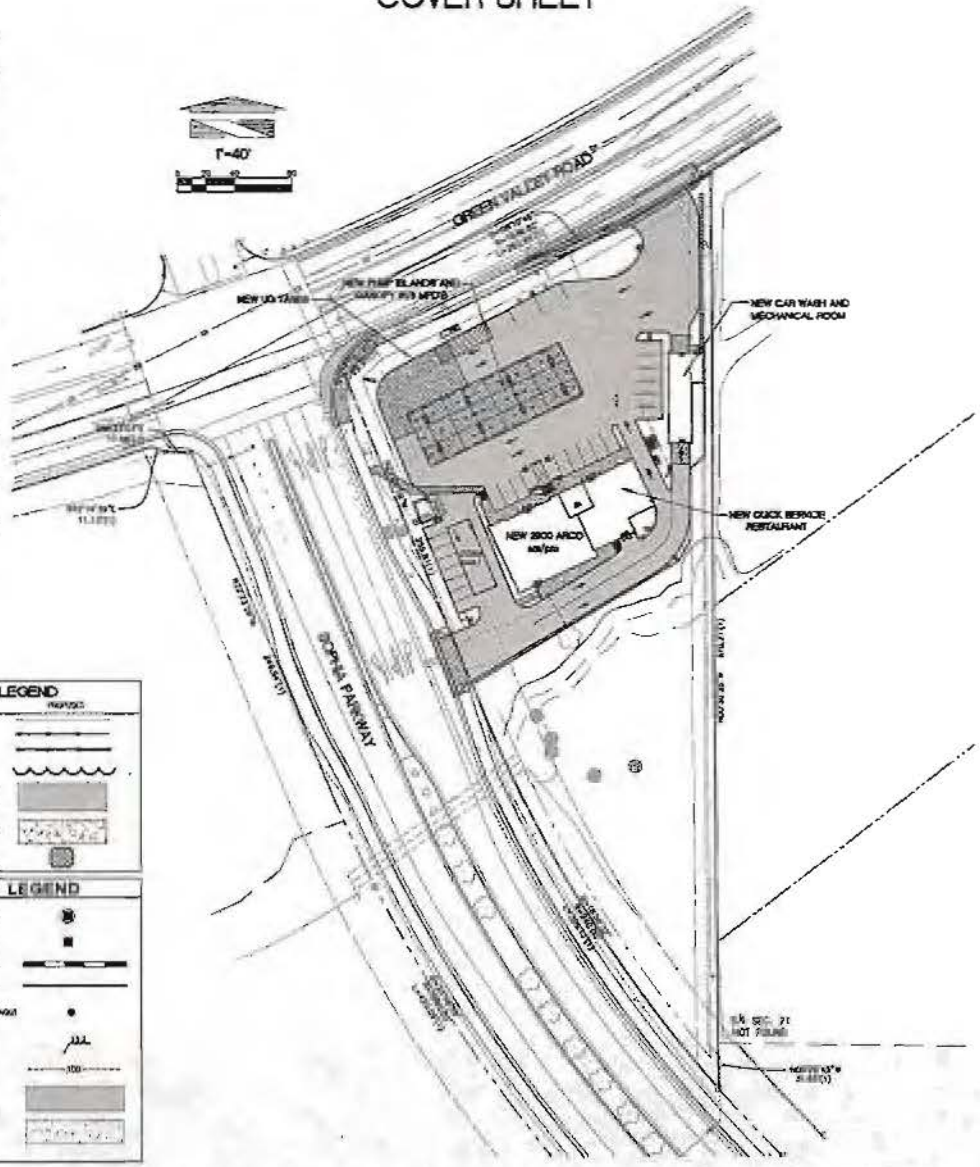
•	FOUND 5/8" REBAR W/PLUG "L.S. 8378"
•	FOUND EL DORADO [illegible] MONUMENT
	[illegible] FOUND/NOTHING SET
SDMH	STORM DRAIN MANHOLE
	DRAIN INLET
	SEWER MANHOLE
	FIRE HYDRANT
	WATER VALVE
•	POWER POLE
	TRAFFIC SIGNAL
	SIGN
	ELECTROLIER
E.I.D.	EL DORADO IRRIGATION DISTRICT
OH	OVERHEAD
	PARCEL MAP REFERENCE (CORNER)
P.S.E.	PUBLIC SERVICE EASEMENT
	[illegible] FENCE
	PACIFIC GAS & ELECTRIC
	GUY ANCHOR
CONC.	CONCRETE
T.S.P.	TRAFFIC SIGNAL POLE
	PEDESTRIAN PUSH BUTTON POLE
TSB	TRAFFIC SIGNAL BOX
	[illegible] PULL BOX
EM	ELECTRIC METER
	IRRIGATION VALVE
	SPEED LIMIT SIGN
P.U.E.	PUBLIC UTILITY EASEMENT
	PROPERTY LINE
	FENCE LINE
	[illegible]
	RIGHT OF WAY LINE
	OVERHEAD ELECTRIC
	[illegible] (TOP OF CURB ELEVATION) [illegible] (LIP OF GUTTER ELEVATION)

T.E.S.C. LEGEND

DESCRIPTION	PROPOSED
SAWCUT LINE	
CONSTRUCTION FENCE	
FILTER FABRIC FENCE	
LIMITS OF CLEARING	
DEMOLISHED ASPHALT PAVEMENT	▨
DEMOLISHED CONCRETE PAVEMENT	▨
TEMPORARY BMP - CATCH BASIN INLET PROTECTION	▨

PROPOSED LEGEND

PROPOSED TYPE II CATCH BASIN	⊠
PROPOSED TYPE I CATCH BASIN	■
PROPOSED STORM DRAINAGE LINE	
PROPOSED SANITARY SEWER LINE	
PROPOSED SANITARY SEWER CLEANOUT	●
PROPOSED SPOT ELEVATIONS	
PROPOSED CONTOURS	100
PROPOSED ASPHALT	▨
PROPOSED CONCRETE	▨



VICINITY MAP

SURVEYOR'S NOTES:

1. BASIS OF BEARINGS: THE BEARING OF THIS SURVEY IS BASED ON PARCEL MAP FILED IN BOOK [illegible] PAGE [illegible], EL DORADO COUNTY RECORDS AND BASED UPON PROPERTY CORNERS SHOWN AS FOUND.
2. BASIS OF ELEVATION: ELEVATIONS ARE BASED UPON INFORMATION SUPPLIED BY EL DORADO COUNTY D.O.T. THE BENCHMARK USED IS A [illegible] LOCATED [illegible] FEET EAST OF THE INTERSECTION OF GREEN VALLEY ROAD AND SHADOWFAX, ON THE SOUTH SIDE OF GREEN VALLEY ROAD AND [illegible] ELEVATION=[illegible] OR [illegible] FEET.
3. TOPOGRAPHIC INFORMATION WAS DERIVED FROM AERIAL TOPOGRAPHY COMPILED ON MAY 31, 2005 SUPPLEMENTED WITH FIELD SURVEYS FOR HARD SURFACE FEATURES AND TOPO CHECKS PERFORMED IN [illegible].
4. AN A.L.T.A. SURVEY OF THE SITE IS BEING PREPARED CONCURRENTLY WITH THIS TOPOGRAPHY AND MAY CONTAIN OTHER INFORMATION PERTINENT TO THE DEVELOPMENT OF THE PARCEL. A COPY OF THE A.L.T.A. SURVEY WILL BE DELIVERED TO THE CIVIL ENGINEER CONSULTANT WHEN COMPLETED BY THIS FIRM.
5. THE HARD PAVEMENT SURFACES WERE CONTOURED AS A PART OF THE ORIGINAL AERIAL SURVEY. THOSE CONTOURS ARE CONTAINED WITHIN THIS DRAWING, BUT ARE FROZEN, SINCE THEY WILL NOT AGREE WITH THE HARD PAVEMENT SURVEY. THEY ARE ON LAYERS "CONTOUR-INTERMEDIATE-ROAD" AND "CONTOUR-INDEX-ROAD".

CONTACTS:

OWNER/APPLICANT

BP WEST COAST PRODUCTS, LLC
P.O. BOX 5015
BUENA PARK, CA 90622
PHONE: (915) 792-3142

CIVIL ENGINEERING CONSULTANT:

BARGHAUSEN CONSULTING ENGINEERS
18215 72ND AVENUE SOUTH
KENT, WA [illegible]
(425) 251-[illegible]
(425) 251-[illegible] (FAX)
CONTACT PERSON: [illegible]
email: [illegible].COM

CIVIL SHEET INDEX

C1.0	CIVIL-COVER SHEET
C2.0	CIVIL-SITE PLAN
C3.0	CIVIL-DEMOLITION PLAN
C3.1	CIVIL-TEMPORARY EROSION AND SEDIMENT CONTROL PLAN
C4.0	CIVIL-GRADING AND STORM DRAINAGE PLAN
C5.0	CIVIL-UTILITY PLAN

CALL USA
UNDERGROUND SERVICE ALERT
48 HOURS PRIOR TO CONSTRUCTION
CALL TOLL FREE: 1-800-227-2600

EX. TOPOGRAPHY/SURVEY INFORMATION NOTE:

NOTE:
BARGHAUSEN CONSULTING ENGINEERS, INC. DID NOT CONDUCT ANY PORTION OF THE TOPOGRAPHIC SURVEY AND THEREFORE DOES NOT WARRANT THAT THE TOPOGRAPHY SHOWN ON THESE DRAWINGS IS REPRESENTATIVE OF WHAT IS CONSTRUCTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE OWNER TO HAVE ALL IMPROVEMENTS FIELD VERIFIED PRIOR TO CONSTRUCTION. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF BARGHAUSEN CONSULTING ENGINEERS, INC. PRIOR TO WORK. UTILITIES AND UTILITY EASEMENTS FOR THIS SITE HAVE NOT BEEN RESEARCHED OR CONFIRMED.

UTILITY [illegible] NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, ELEVATION, AND DEPTH [illegible] CONSTRUCTION.

bp

ARCO

BARGHAUSEN CONSULTING ENGINEERS, INC.

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX

CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

THIS SHEET IS FOR INFORMATION ONLY

ARCO NTI
2900 am/pm
w/ 17'x65' CAR WASH
FUEL CANOPY w/ 8 MPD's
AND 1,900 SF Q.S.R.

GREEN VALLEY ROAD
@ SOPHIA PARKWAY
EL DORADO HILLS, CA

FACILITY # TBD

15593

COVER SHEET

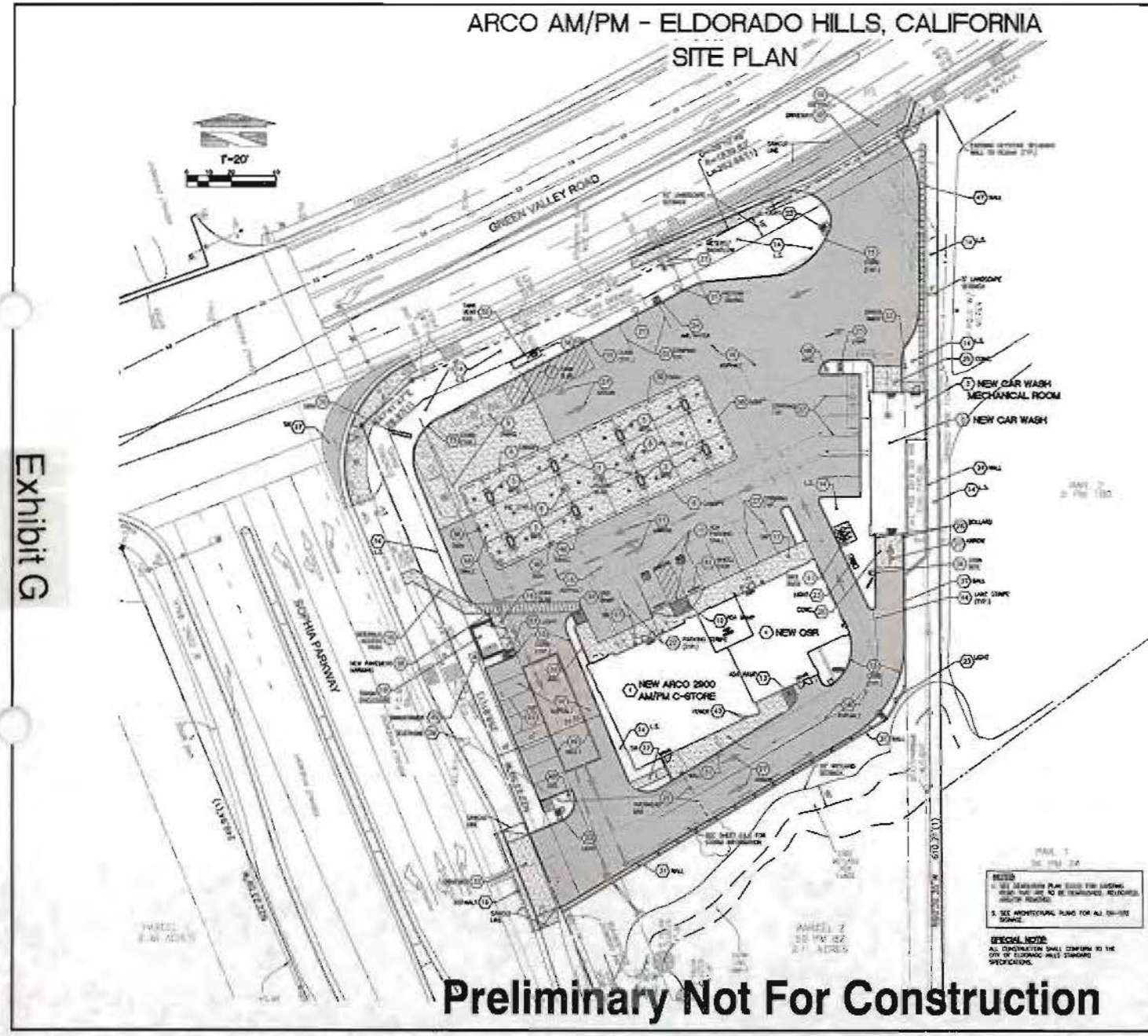
C1.0 OF 6

Preliminary Not For Construction

Exhibit G

ARCO AM/PM - ELDORADO HILLS, CALIFORNIA

SITE PLAN



SITE DEVELOPMENT NOTES:

1. NEW 2900 ARCO AM/PM CONVENIENCE STORE 2775 S.F. SEE ARCHITECTURAL PLANS
2. NEW CARWASH BUILDING, SEE ARCHITECTURAL AND CAR WASH PLANS.
3. NEW MECHANICAL ROOM. SEE ARCHITECTURAL AND CAR WASH PLANS.
4. NEW RESTAURANT SEE ARCHITECTURAL PLANS.
5. NEW 8 SOLO-PRODUCT DISPENSERS, DIRECT WITH ISLAND END BOLLARD PROTECTION. SEE TANK DRAWING FOR DESIGN.
6. NEW 38'x16' FUELING ISLAND CANOPY PER ARCHITECTURAL PLANS.
7. NEW CONCRETE FUELING ISLAND SLAB AND UNDERGROUND STORAGE TANK SLAB. 6 INCH REINFORCED CONCRETE SLAB.
8. NEW SINGLE SIDED PREMIER ISLAND DISPENSER (PDC) UNIT ON A CONC. RAISED ISLAND.
9. NEW UNDERGROUND GASOLINE & DIESEL STORAGE TANKS.
10. NEW ACCESSIBLE PATH FROM EX. SIDEWALK ON SOPHIA PARKWAY TO STORE ENTRANCE. 5 FOOT WIDE MINIMUM 4 INCH THICK CONCRETE WALKWAY CLEARED ABOVE PAVEMENT SURFACE. MAXIMUM 5.0% SLOPE IN THE DIRECTION OF TRAVEL, MAXIMUM 2.0% CROSS SLOPE.
11. NEW ACCESSIBLE PARKING STALL WITH VAN LOADING SPACE INCLUDING SIGNS AND PAVEMENT MARKING.
12. NEW ACCESSIBLE CURB RAMP. WIDE RAMP IS 8 FEET WIDE AT VAN SPACE.
13. NEW ACCESSIBLE CURB RAMP.
14. LANDSCAPE PLANTING AREAS WITH IRRIGATION. SEE LANDSCAPE PLANS.
15. NEW CONCRETE SWINGER CURB.
16. NEW ASPHALT PAVEMENT.
17. NEW MINIMUM 4 INCH THICK CONCRETE SIDEWALK, MAX. 2.0% CROSS SLOPE.
18. NEW TRASH ENCLOSURE FOR JURISDICTIONAL REQUIREMENTS OR PURVEYOR SANITARY. FINISHED 6 INCH THICK REINFORCED CONCRETE APRON.
19. NEW TRASH ENCLOSURE 6 INCH THICK REINFORCED CONCRETE SLAB.
20. NEW OVERHEAD BANNER SALE/ENTRANCE SIGN BY GC.
21. NEW VACUUM ISLANDS AND TRASH RECEPTACLES.
22. NEW PARKING SQUARE STRIPING 4 INCHES THICK PAINTED WHITE.
23. NEW LOT LIGHT.
24. NEW AIR/WATER STATION. GC TO PROVIDE CONC. PAD, WATER AND ELECTRICAL PROVISIONS.
25. NEW CONCRETE PAVEMENT.
26. NEW BOLLARD.
27. NEW DIRECTIONAL ARROW.
28. NEW PAVEMENT MARKING CONC 4 INCH THICK AND 3 FEET ON CENTER AT 45 DEGREE ANGLES AS SHOWN.
29. NEW TELEPHONE LINE PER ELDORADO COUNTY REQUIREMENTS. COORDINATE WITH LOCAL REQUIREMENTS STARTING FOR INSTALLATION.
30. NEW ACCESSIBLE END RAMP.
31. NEW RETAINING WALL DESIGN BY OWNER.
32. NEW DRIVEWAY PER ELDORADO COUNTY STDS.
33. DRYER VENT AND PAD PER CARWASH PLANS.
34. CONC BOX AND REMOTE BOWER PER CARWASH PLANS.
35. NEW TANK VENTS AND CLEAN AIR SEPARATOR PER TANK PLANS.
36. EMERGENCY SHUTOFF SWITCH PER TANK PLANS.
37. NEW WATER METERS AND BACKFLOW PREVENTORS FOR DOMESTIC AND IRRIGATION WATER SERVICE. SEE UTILITY PLAN SHEET C1.0.
38. NEW ARCO CANOPY SIGN. SIGNS UNDER SEPARATE PERMIT.
39. NEW ARCO LED SIGN PER ARCHITECTURAL PLANS. SIGN UNDER SEPARATE PERMIT.
40. NEW ICE MERCHANDISER PER ARCHITECTURAL PLANS (NOT SHOWN).
41. NEW BIKE RACK PER ARCHITECTURAL PLANS.
42. NEW WHEEL STOP.
43. NEW BUILDING POWER METER AND PANEL PER LOCATION PER PG&E REQUIREMENTS. REFER TO PG&E ENGINEERING REQUIREMENTS FOR INSTALLATION REQUIRED BY GC. COORDINATE WITH PG&E FOR INSTALLATION.
44. NEW 4 INCHES THICK LANE STRIPING PAINTED WHITE.
45. NEW TRANSFORMER AND POWER LINE PER PG&E REQUIREMENTS REFER TO PG&E ENGINEERING REQUIREMENTS FOR INSTALLATION REQUIRED BY GC. COORDINATE WITH PG&E FOR INSTALLATION.
46. NEW CONCRETE SWALE.
47. NEW MODULAR BLOCK RETAINING WALL. DESIGN BY OWNER.
48. NEW FIRE HYDRANT PER EL DORADO STDS.
49. NEW UNDERGROUND CONCRETE STORAGE VAULT FOR DETENTION (14' WIDE X 50' LONG X 8' DEEP).

NOTES:
1. SEE SIGNAGE PLAN FOR LOCATIONS FOR EXISTING SIGNS THAT ARE TO BE TEMPORARILY RELOCATED, AND/OR REMOVED.
2. SEE ARCHITECTURAL PLANS FOR ALL ON-SITE SIGNAGE.

SPECIAL NOTE:
ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF ELDORADO HILLS STANDARD SPECIFICATIONS.

CALL USA
UNDERGROUND SERVICE ALERT
48 HOURS PRIOR TO CONSTRUCTION
CALL TOLL FREE: 1-800-227-2600

UTILITY CONFLICT NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, VERTICAL AND BOTTOM OF ALL EXISTING UTILITIES WHICH COULD CONFLICT WITH THE PROPOSED PIPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS RELATED TO THE REPAIR OF ANY UTILITIES DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY UTILITY CONFLICTS PRIOR TO PROCEEDING WITH CONSTRUCTION.

bp

ARCO

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-6782 FAX
CIVIL ENGINEERING AND PLANNING
SURVEYING, ENVIRONMENTAL SERVICES

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2900 am/pm
w/ 17'x63' CAR WASH
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GREEN VALLEY ROAD
@ SOPHIA PARKWAY
EL DORADO HILLS, CA

FACILITY # TBD

15393

SITE PLAN

C2.0 OF 6

Exhibit H-1

1 NORTH ELEVATION

2 WEST ELEVATION

EXTERIOR FINISHES:

EXTERIOR PAINTS:

GENERAL NOTES:

KEYED NOTES:

bp

ARCO

BARGHAUSEN CONSULTING ENGINEERS, INC.

THIS SHEET IS FOR INFORMATION ONLY

ARCO NTI
2900 am/pm
w/ 17'x65' CAR WASH
FUEL CANOPY w/ 8 MPD's
AND 1,900 SF G.S.R.

GREEN VALLEY ROAD
& NOVA PARKWAY
IN CORAL HILLS, CA

FACILITY # TBD

EVR

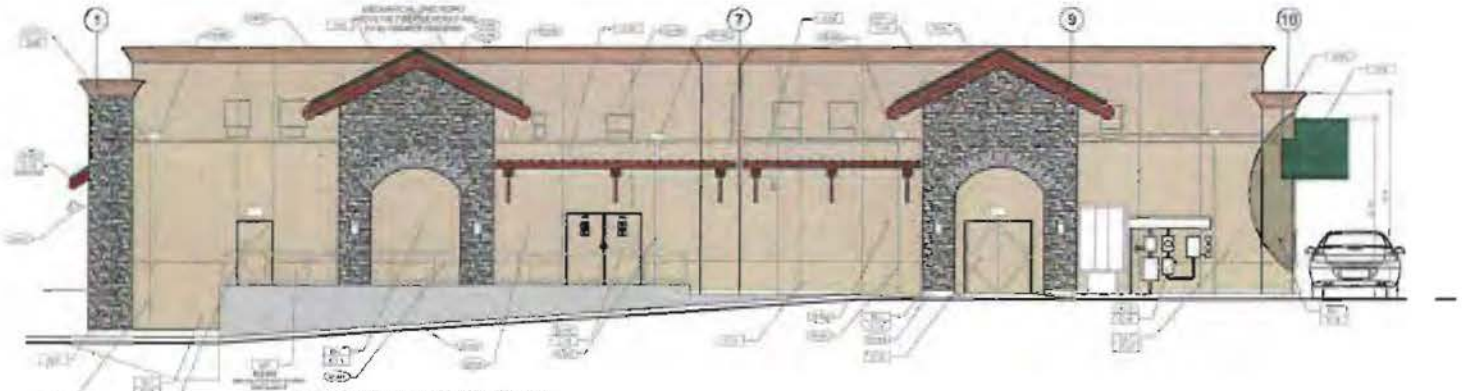
16593

COMPOSITE ELEVATIONS

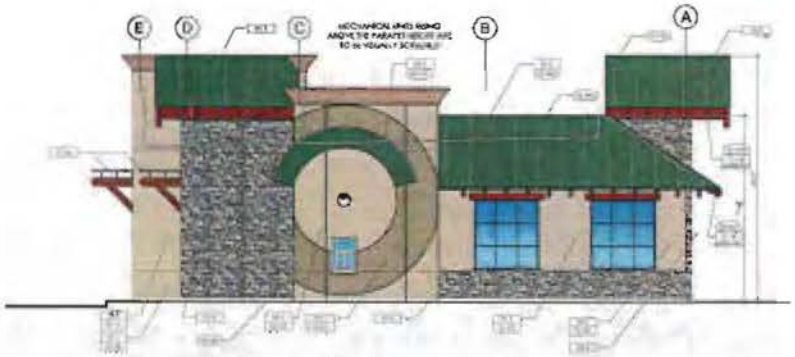
A2.1

Preliminary Not For Construction

Exhibit H-2



1 SOUTH ELEVATION
1/8"=1'-0"



2 EAST ELEVATION
1/4"=1'-0"

EXTERIOR FINISHES:

EXTERIOR PAINTS:

GENERAL NOTES:

KEYED NOTES:

bp

ARCO

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ARCO NT!
2909 am/pm
w/ 17'x65' CAR WASH
FUEL CANOPY w/ 6 MPD's
AND 1,900 SF O.S.R.

GREEN VALLEY ROAD

FACILITY # TBD

10592

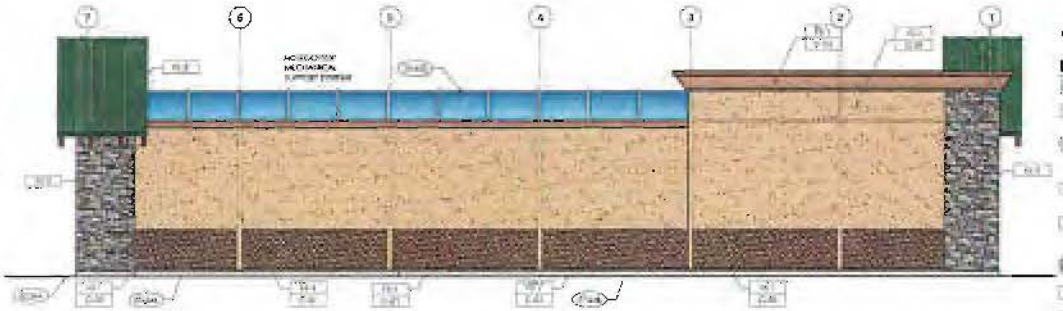
COMPOSITE ELEVATIONS

A2.2

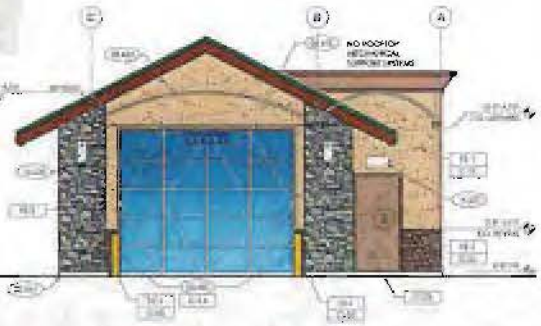
Preliminary Not For Construction

Exhibit H-3

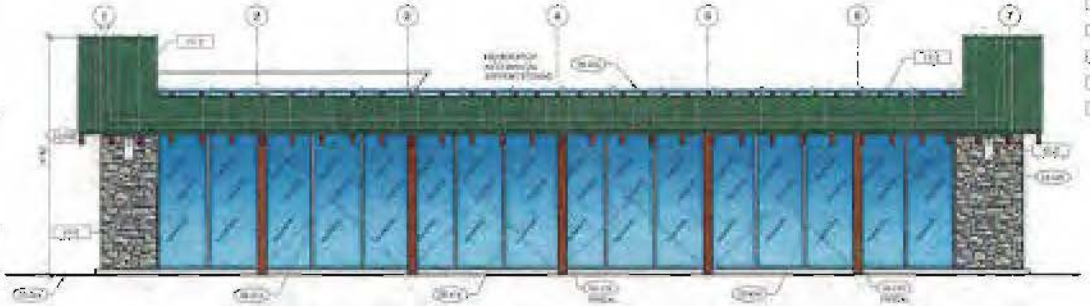
1 NORTH ELEVATION
1/4"=1'-0"



2 EAST ELEVATION
1/4"=1'-0"



3 SOUTH ELEVATION
1/4"=1'-0"



4 WEST ELEVATION
1/4"=1'-0"

GENERAL NOTES:

KEYED NOTES:

EXTERIOR FINISHES:

EXTERIOR PAINTS:

bp

ARCO

BARGHAUSEN CONSULTING ENGINEERS, INC.

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX

CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

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w/ 17'x65' CAR WASH
FUEL CANOPY w/ 8 MPD's
AND 1,900 SF G.S.R.

GREEN VALLEY ROAD

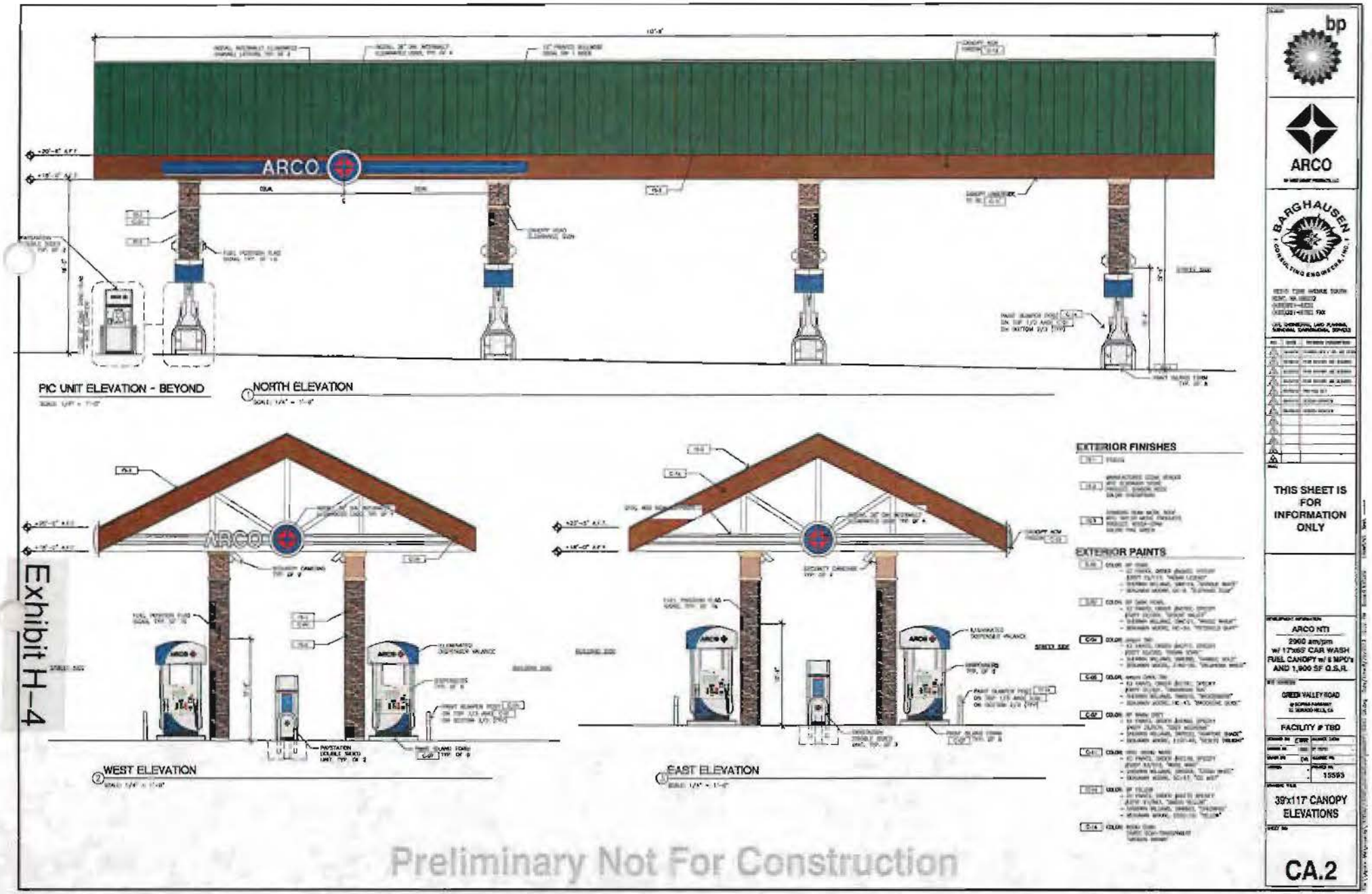
FACILITY # TBD

15525

CARWASH EXTERIOR ELEVATIONS

CW2.1

Preliminary Not For Construction


ARCO
PIC UNIT ELEVATION - BEYOND
NORTH ELEVATION
WEST ELEVATION
EAST ELEVATION
EXTERIOR FINISHES
EXTERIOR PAINTS
bp
ARCO
BARGHAUSEN CONSULTING ENGINEERS, INC.
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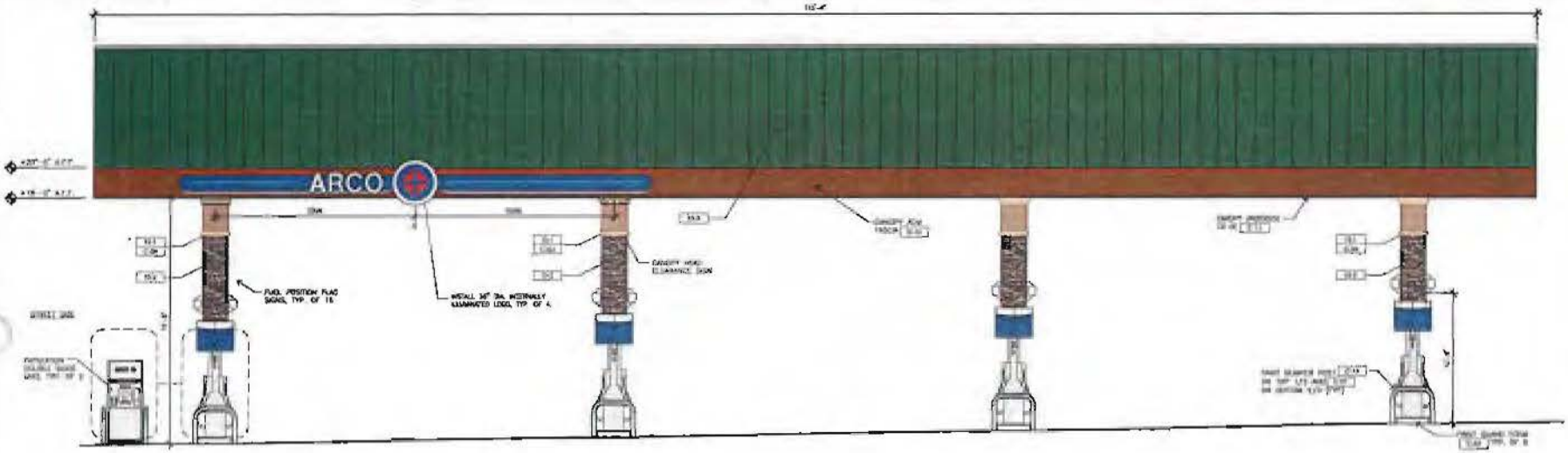
ARCO NTI
2960 am/pm
w/ 17'x65' CAR WASH
FUEL CANOPY w/ 8 MPD's
AND 1,900 SF G.S.R.
GREEN VALLEY ROAD
FACILITY # TBD
39'x117' CANOPY ELEVATIONS
CA.2
Preliminary Not For Construction

Exhibit H–4



PIC UNIT ELEVATION - BEYOND

SCALE: 1/8" = 1'-0"

1 SOUTH ELEVATION

SCALE: 1/4" = 1'-0"

Exhibit H-5

EXTERIOR FINISHES

EXTERIOR PAINTS

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ARCO NTI

2900 sm/pm w/ 17'x85' CAR WASH FUEL CANOPY w/ 8 MPD's AND 1,900 SF Q.S.R.

GREEN VALLEY ROAD

FACILITY # TBD

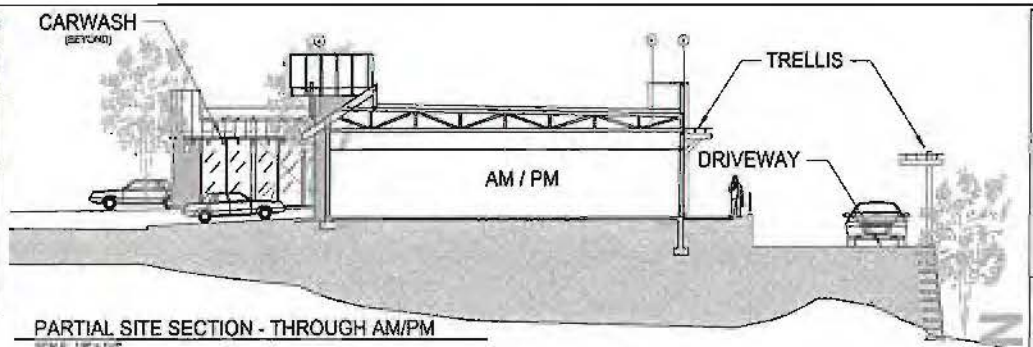
15593

39'x117' CANOPY ELEVATIONS

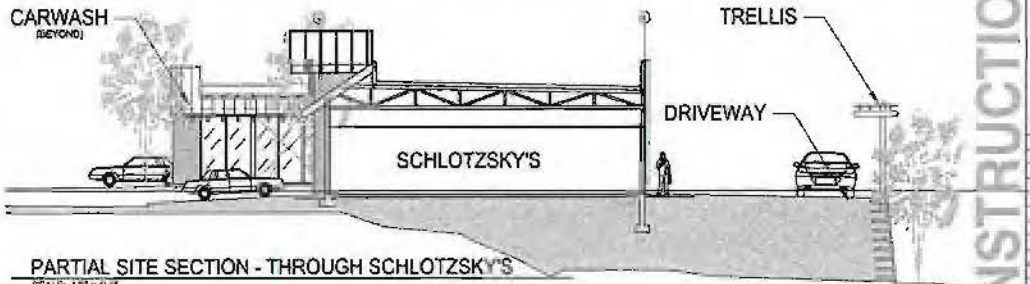
CA.3

RETAINING WALL
NO SCALE

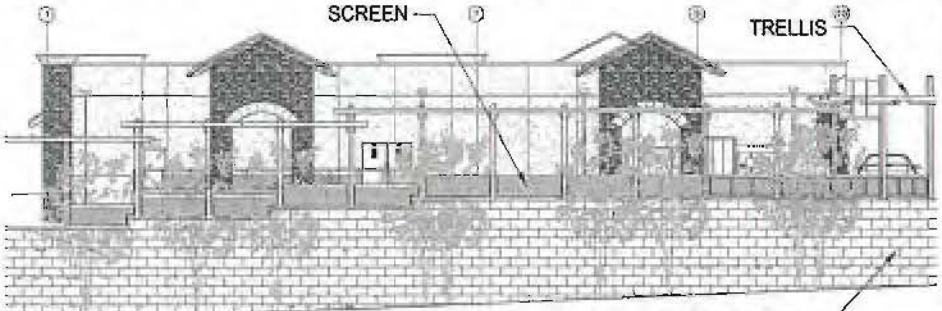
RETAINING WALL
NO SCALE



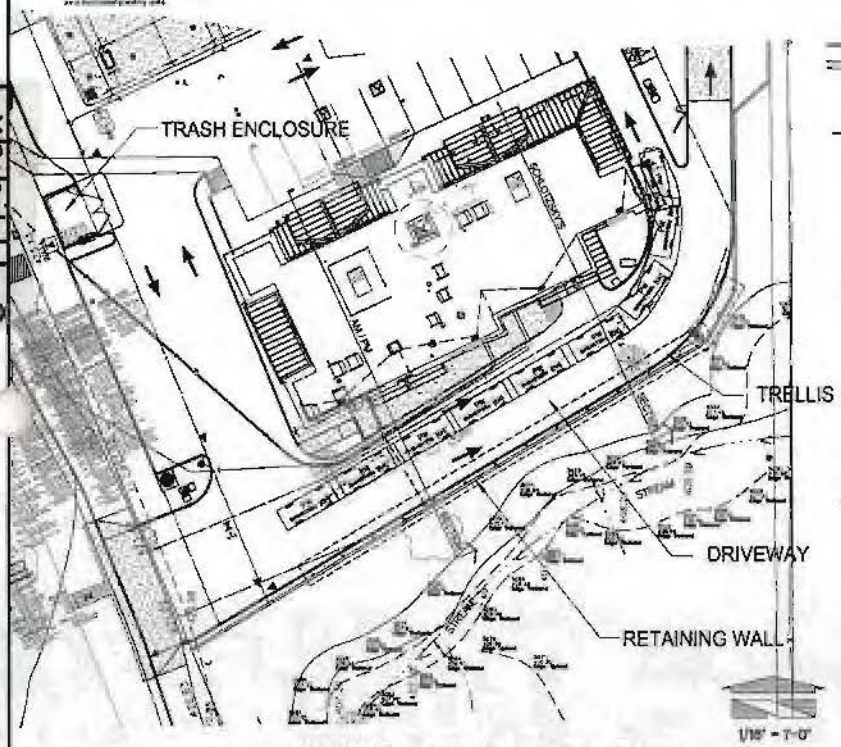
PARTIAL SITE SECTION - THROUGH AM/PM



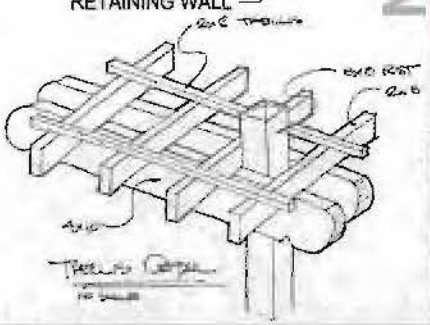
PARTIAL SITE SECTION - THROUGH SCHLOTZSKY'S



BUILDING ELEVATION - FROM SOUTH FACING NORTH



PARTIAL SITE PLAN OF DRIVE-THROUGH



NOT FOR CONSTRUCTION

bp

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2900 am/pm
w/ 17'x65' CAR WASH
FUEL CANOPY w/ 8 NPD's
AND 1,900 SF Q.S.R.

GREEN VALLEY ROAD
@ SONNA'S CROSSING
EL DORADO HILLS, CA

FACILITY # TBD

EVR

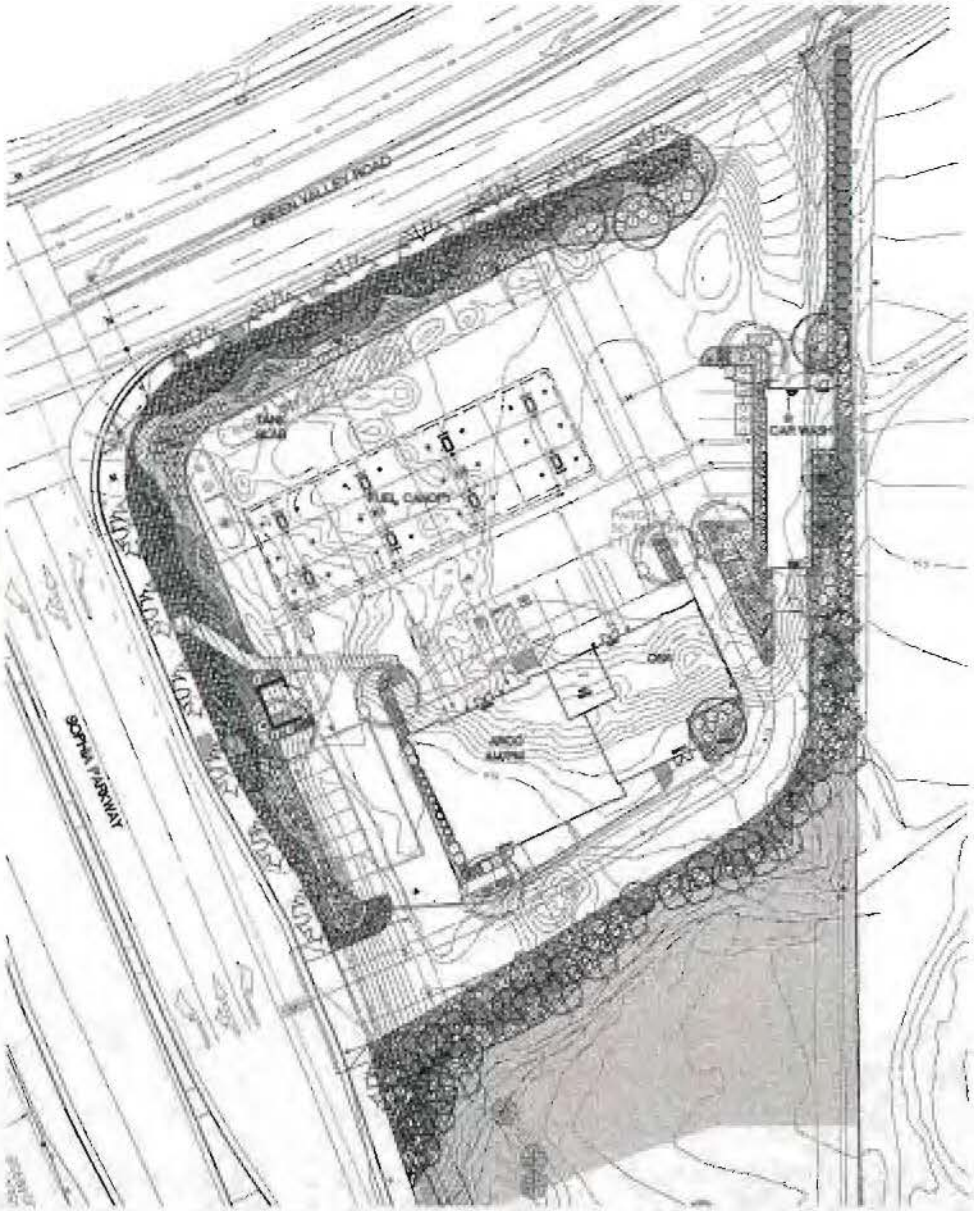
15593

DRIVE-THROUGH SITE SECTIONS

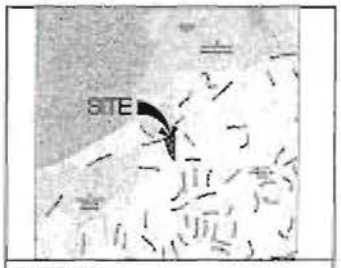
A.02

Exhibit H-6

ARCO AM/PM - ELDORADO HILLS, CALIFORNIA
LANDSCAPE PLANTING PLAN



1"=20'



VICINITY MAP

LANDSCAPE PLANT MATERIAL LEGEND

SYMBOL	BOTANICAL / COMMON NAME	SIZE CONTAINER	SPACING	QUANTITY	REMARKS
	TREES				
	[illegible]	5 GALLON	AS SHOWN	[illegible]	[illegible]
	[illegible]	15 GALLON	AS SHOWN	[illegible]	[illegible]
	[illegible]	15 GALLON	AS SHOWN	[illegible]	[illegible]
	[illegible]	5 GALLON	AS SHOWN	15	[illegible]
	[illegible]	15 GALLON	AS SHOWN	7	[illegible]
	[illegible]	24" BOX	[illegible]	14	[illegible]
	[illegible]	5 GALLON	30" O.C.	18	[illegible]
	SHRUBS				
	[illegible]	1 GALLON	2' O.C.	[illegible]	FILL
	[illegible]	5 GALLON	3' O.C.	[illegible]	FILL AND BURP
	[illegible]	5 GALLON	6' O.C.	26	FILL AND BURP
	[illegible]	1 GALLON	2.5' O.C.	191	FILL AND BURP
	[illegible]	5 GALLON	4' O.C.	44	FILL AND BURP
	[illegible]	1 GALLON	3' O.C.	85	FILL
	[illegible]	5 GALLON	4' O.C.	24	FILL AND BURP
	[illegible]	5 GALLON	5' O.C.	[illegible]	FILL AND BURP
	[illegible]	5 GALLON	5' O.C.	44	FILL AND BURP
	[illegible]	5 GALLON	4' O.C.	5	3 CANES ANNUAL FILL AND BURP
	[illegible]	5 GALLON	5' O.C.	31	3 CANES ANNUAL FILL AND BURP
	[illegible]	5 GALLON	4' O.C.	31	FILL AND BURP
	GROUNDCOVERS				
	[illegible]	[illegible]	12" O.C.	AS NEEDED	[illegible]
	[illegible]	[illegible]	12" O.C.	AS NEEDED	[illegible]
	[illegible]	[illegible]	12" O.C.	AS NEEDED	[illegible]
	[illegible]	[illegible]	12" O.C.	AS NEEDED	[illegible]
	[illegible]	1 GALLON	12" O.C.	AS NEEDED	[illegible]
	[illegible]			[illegible]	[illegible]
	[illegible]				[illegible]
	[illegible]				

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ARCO AM/PM
2800 square
w/ 17'wide CAR WASH
FUEL CANOPY w/ 8 MPD's
AND 1,900 S.F. G.S.R.

GREEN VALLEY ROAD
SOPHIA PARKWAY
ELDORADO HILLS, CA

FACILITY # TBD

13693

LANDSCAPE PLANTING PLAN

L1 OF 5

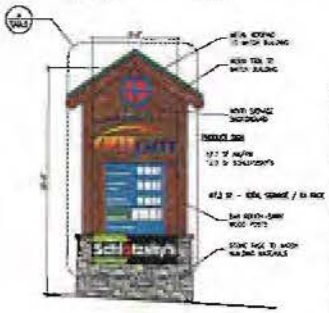
Exhibit I

Exhibit J-1

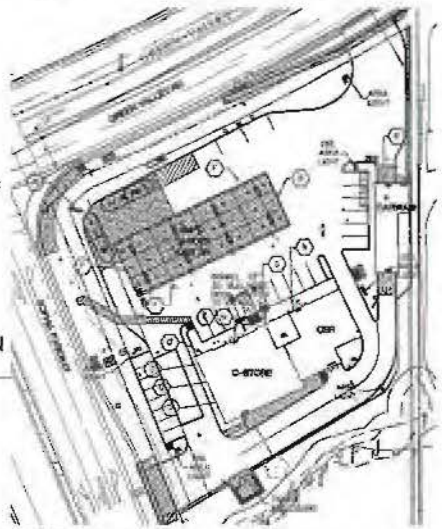
1 PROPOSED NORTH ELEVATION
SCALE: 3/16"=1'-0"

4 AM/PM DECAL ON ACM BACKING
SCALE: NTS

B CANOPY SPARK 7.1 S.F. LOGO w/ DECAL
SCALE: NTS



A SITE IDENTIFICATION SIGN
SCALE: 3/4" = 1'-0"



SIGNAGE SITE PLAN
SCALE: NTS

SIGNAGE COMPUTATION

MONUMENT & WALL SIGNAGE

ONE (1) SIGN NOT EXCEEDING 50 SQFT OF ANY DISPLAY SURFACE

WALL SIGNS

NOT TO EXCEED 20% OF TOTAL WALL AREA

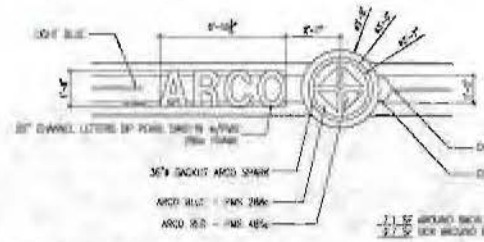
BUILDING	SIGN	ALLOWED	TOTAL
MCDONALD'S	NORTH ELEVATION (PRIMARY)	435.1 SQFT	
	WEST ELEVATION	211.1 SQFT	
	SOUTH ELEVATION	123.3 SQFT	
	EAST ELEVATION	188.6 SQFT	
C-STORE	NORTH ELEVATION (PRIMARY)		127.9 SQFT
FAST FOOD	NORTH ELEVATION		38.0 SQFT
CANOPY	NORTH ELEVATION		16.8 SQFT
			183.3 SQFT
C-STORE	WEST ELEVATION		66.2 SQFT
FAST FOOD	WEST ELEVATION		31.3 SQFT
CANOPY	WEST ELEVATION		16.8 SQFT
			114.3 SQFT
C-STORE	SOUTH ELEVATION		0.0 SQFT
FAST FOOD	SOUTH ELEVATION		0.0 SQFT
CANOPY	SOUTH ELEVATION		16.8 SQFT
			16.8 SQFT
FAST FOOD	EAST ELEVATION		0.0 SQFT
CANOPY	EAST ELEVATION		7.1 SQFT
			7.1 SQFT
CARWASH			
CARWASH	NORTH ELEVATION		12.6 SQFT
			25.2 SQFT
MONUMENT	SITE ID SIGN	150.0 SQFT	134.3 SQFT
		1,274.7 SQFT	458.6 SQFT

SITE SIGNAGE TABLE

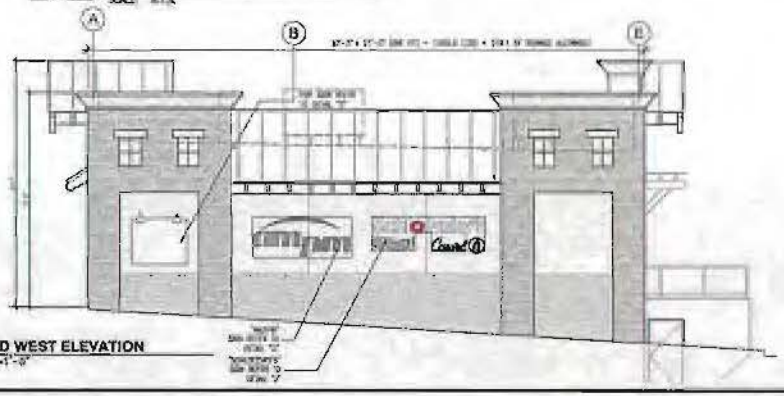
KEY	SIGN	QTY.	AREA
A	MAIN I.D. SIGN/PYLON SIGN (TWO FACES)	1	134.3 sf
B	CANOPY SIGN (SPARK) (7.1 sf ea.)	1	7.1 sf
C	20" AM/PM CHANNEL LETTERS (33.6 sf ea.)	1	33.6 sf
F	CANOPY SIGN (SPARK + LETTERS; 16.8 SF)	3	50.4 sf
G	POP SIGN (22.2sf)	3	[illegible] sf
H	C-STORE ENTRY COLOR STRIPS (6.8 ea.)	2	[illegible] sf
I	SCHILDZSKY'S SIGN (18") 21.2 ea.	1	21.2 sf
K	CARWASH SIGN (12.6 ea.	1	12.6 sf
N	SCHILDZSKY'S SIGN (30") 38.6 ea.	1	38.6 sf
Q	17" AM/PM CHANNEL LETTERS (43.9 sf ea.)	1	43.9 sf
	TOTAL:		448.8 sf

C 20" AM/PM CHANNEL LETTERS
SCALE: NTS
(MEC G/WALL FOR AREAS)

Q am/pm 17" CHANNEL LETTER SIGN
SCALE: 3/8" = 1'-0"



F 36" DIA SPARK + 20" LETTERS
SCALE: 3/8" = 1'-0"



6 PROPOSED WEST ELEVATION
SCALE: 3/16"=1'-0"

bp

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ARCO NTI
2960 sq/pm
w/ 17'x65' CAR WASH
FUEL CANOPY w/ 6 MPDs
AND 1,900 SF Q.S.R.

GREEN VALLEY ROAD
& SONGA PARKWAY
SUISUN CITY, CA

FACILITY # TBD

15593

SIGN SITE PLAN AND ELEVATIONS

SNA.1

Exhibit J-2

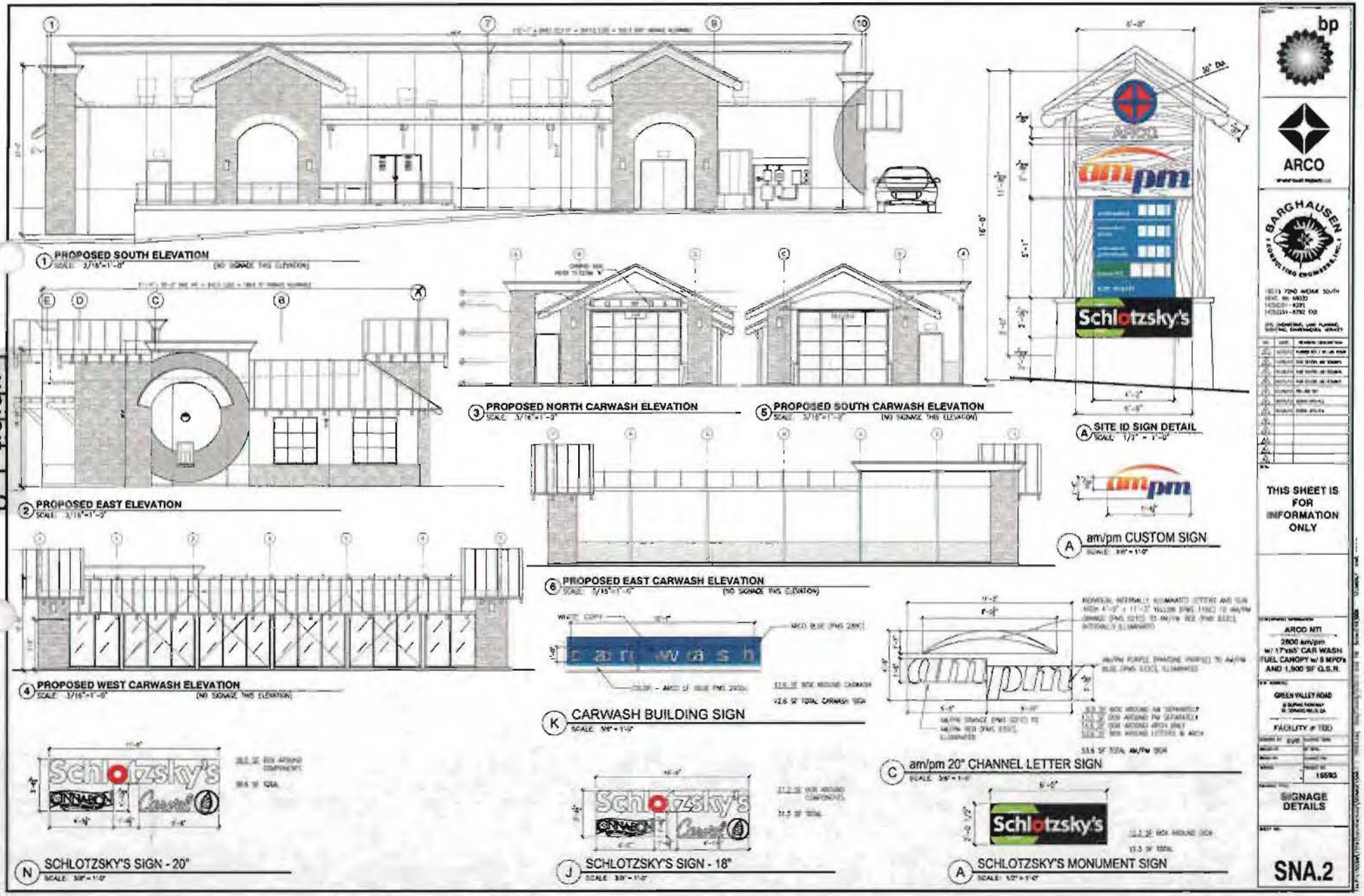
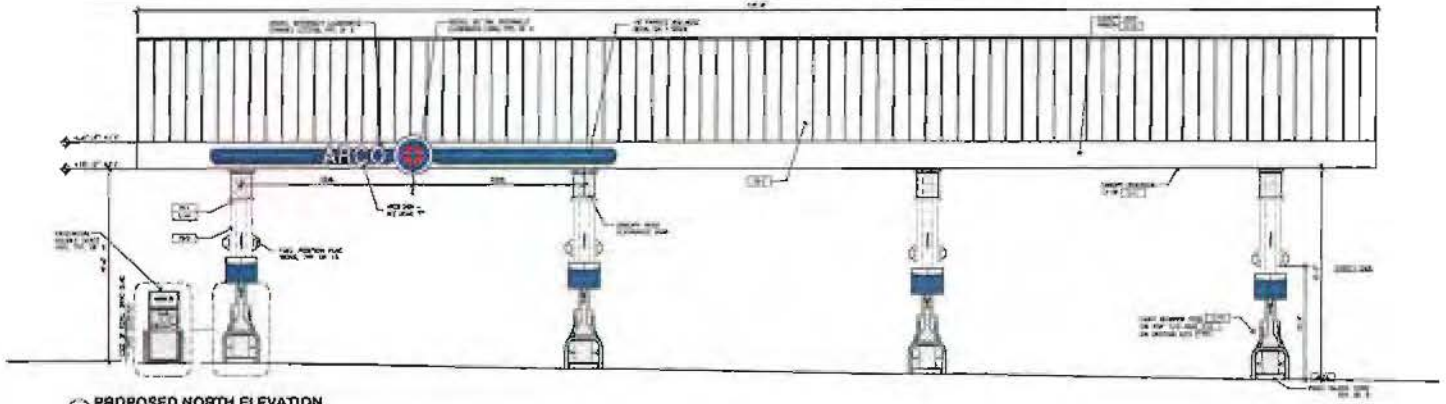
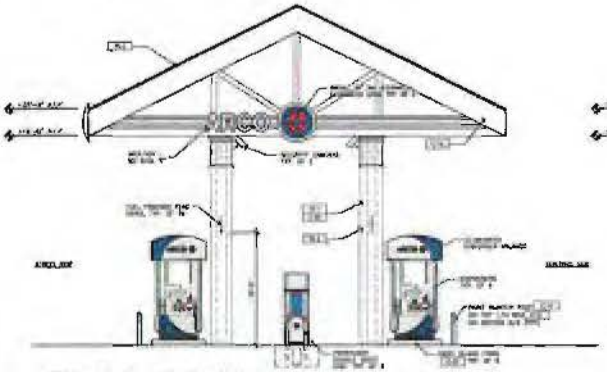

1 PROPOSED SOUTH ELEVATION
(NO SIGNAGE THIS ELEVATION)
2 PROPOSED EAST ELEVATION
3 PROPOSED NORTH CARWASH ELEVATION
5 PROPOSED SOUTH CARWASH ELEVATION
(NO SIGNAGE THIS ELEVATION)
6 PROPOSED EAST CARWASH ELEVATION
(NO SIGNAGE THIS ELEVATION)
4 PROPOSED WEST CARWASH ELEVATION
(NO SIGNAGE THIS ELEVATION)
A SITE ID SIGN DETAIL
A am/pm CUSTOM SIGN
K CARWASH BUILDING SIGN
C am/pm 20" CHANNEL LETTER SIGN
N SCHLOTZSKY'S SIGN - 20"
J SCHLOTZSKY'S SIGN - 18"
A SCHLOTZSKY'S MONUMENT SIGN
bp
ARCO
BARGHAUSEN CONSULTING ENGINEERS, INC.
THIS SHEET IS FOR INFORMATION ONLY
ARCO NTI
2800 am/pm
w/ 17'x65' CAR WASH
FUEL CANOPY w/ 8 MPD's
AND 1,900 SF Q.S.R.
GREEN VALLEY ROAD
FACILITY # TBD
16593
SIGNAGE DETAILS
SNA.2

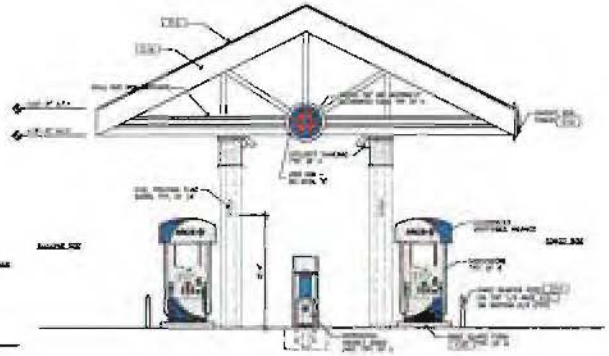
Exhibit J-3



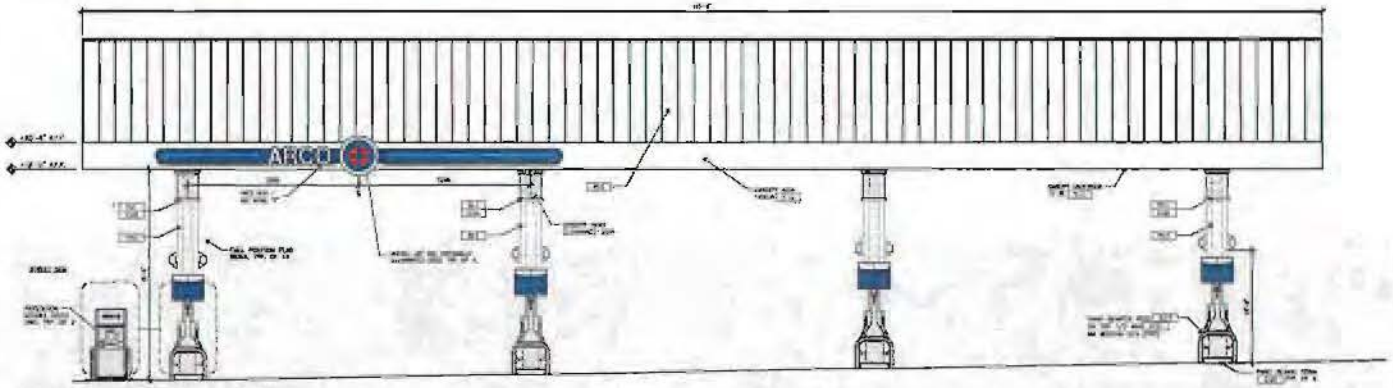
1 PROPOSED NORTH ELEVATION
SCALE: 3/16"=1'-0"



2 PROPOSED WEST ELEVATION
SCALE: 3/16"=1'-0"



3 PROPOSED EAST ELEVATION
SCALE: 3/16"=1'-0"



4 PROPOSED SOUTH ELEVATION
SCALE: 3/16"=1'-0"

bp

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ARCO NTI
2900 sim/pm
w/ 17'x65' CAR WASH
FUEL CANOPY w/ 6 MPD's
AND 1,900 SF Q.S.R.

GREEN VALLEY ROAD

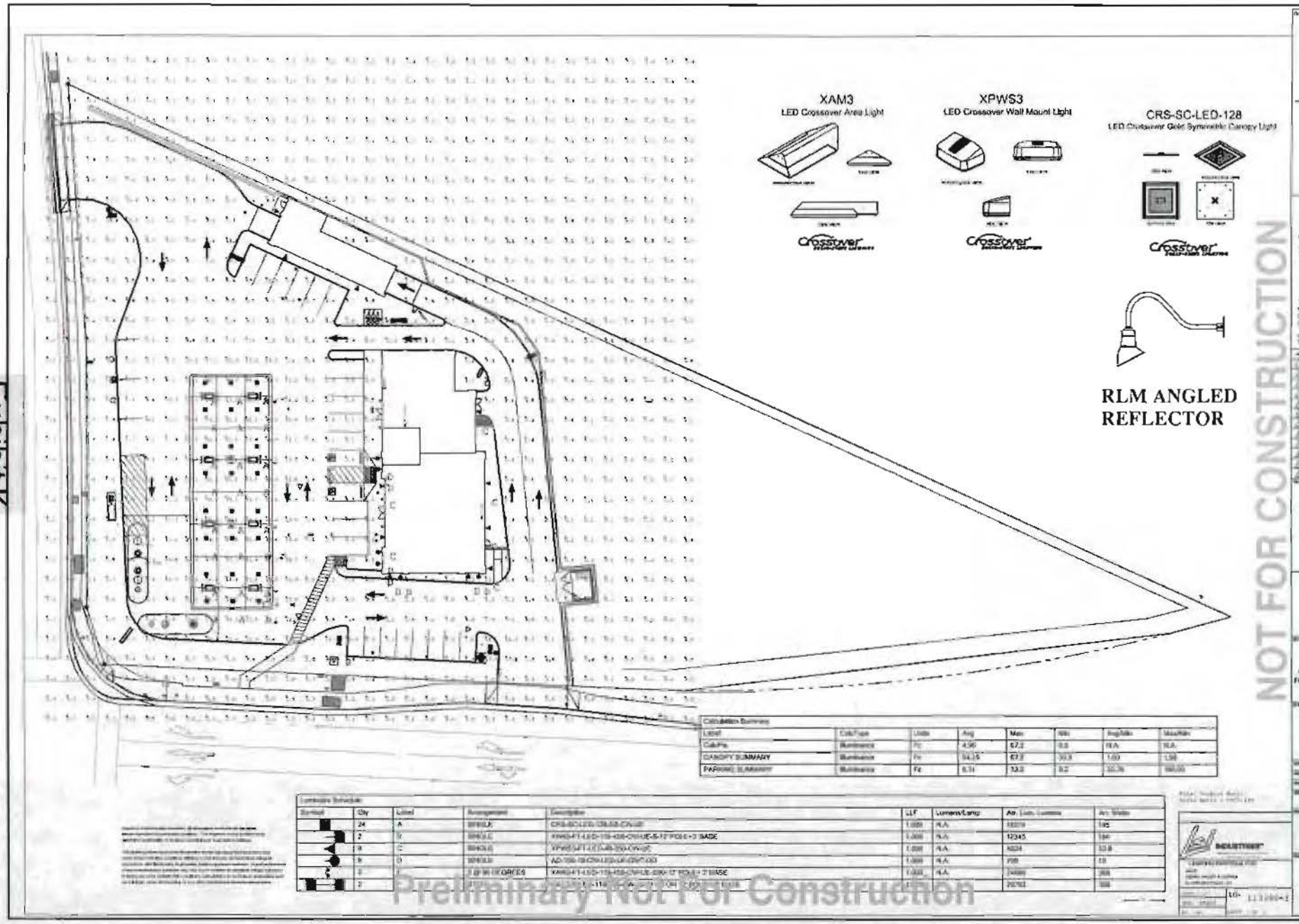
FACILITY # TBD

15593

CANOPY SIGNAGE

SNA.3

Exhibit K


XAM3
LED Crossover Area Light
XPWS3
LED Crossover Wall Mount Light
CRS-SC-LED-128
LED Crossover Gold Symmetric Canopy Light
RLM ANGLED REFLECTOR
bp
ARCO
BARGHAUSEN
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NOT FOR CONSTRUCTION
GREEN VALLEY ROAD
FACILITY # TBD
ES1.2
Preliminary Not For Construction

Exhibit L

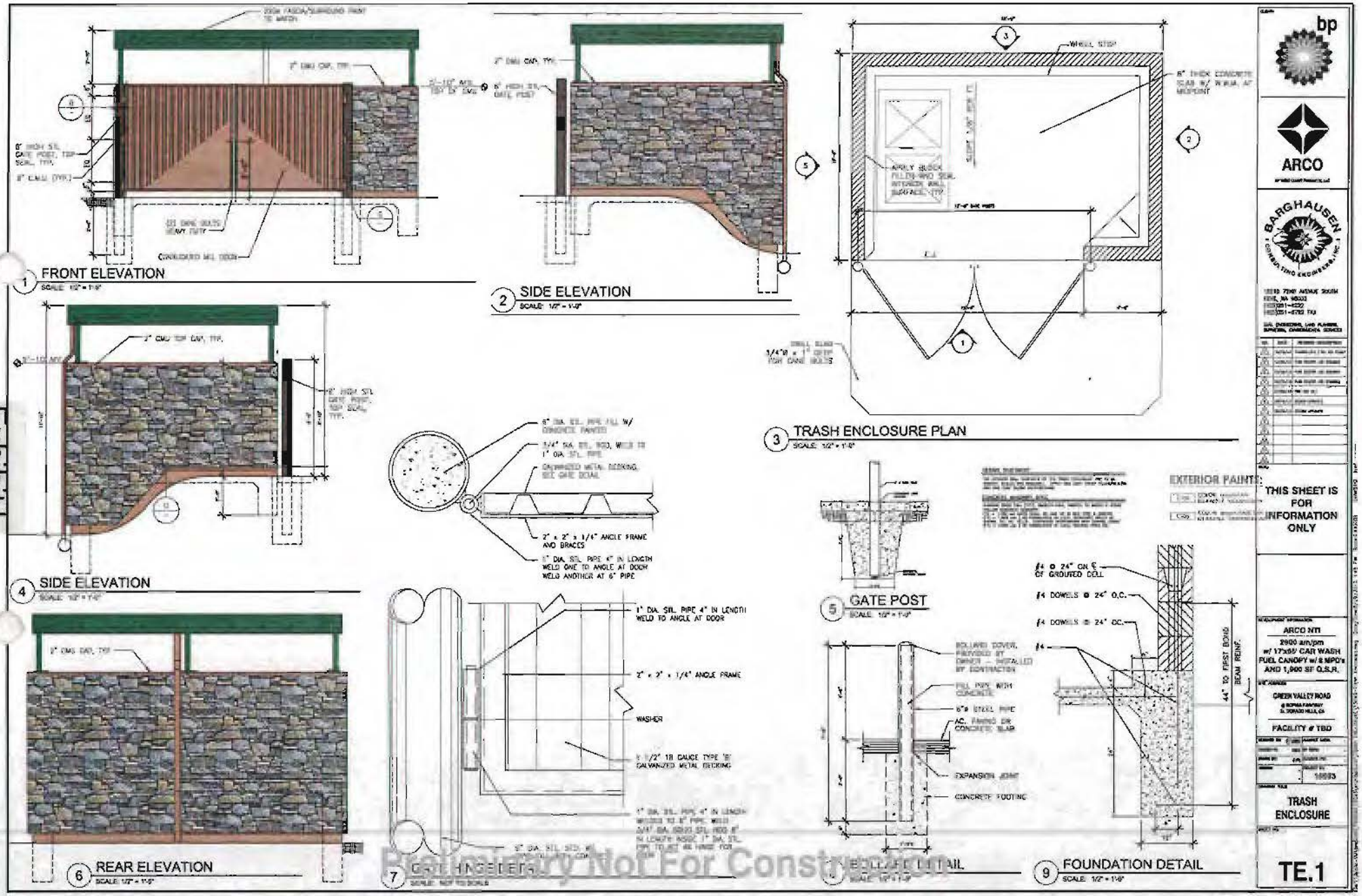


Exhibit M

PS-2
STONE: Eldorado Stone
Shadow Rock
COLOR: "Chesapeake"

PS-3
STANDING SEAM METAL ROOF
TAYLOR MET PROD. - "VERSA-SPAN"
COLOR: PINE GREEN

WEST BUILDING ELEVATION

NORTH BUILDING ELEVATION

bp

ARCO

BP WEST COAST PRODUCTS, LLC

GREEN VALLEY ROAD
@ SOPHIA PARKWAY
EL DORADO HILLS, CA

FACILITY # TBD

ARCO NTI

2900 am/pm
w/ 17'x65' CAR WASH
FUEL CANOPY w/ 8 MPD's
AND 1,900 SF Q.S.R.

BARGHAUSEN CONSULTING ENGINEERS, INC.

Environmental Noise Analysis

ARCO AM/PM Car Wash at Green Valley Road & Sophia Parkway

El Dorado Hills, California

BAC Job # 2012-063

Prepared For:

Barghausen Consulting Engineers, Inc.

Attn: Mr. Eric Ramsing

Prepared By:

Bollard Acoustical Consultants, Inc.

Paul Bollard, President

September 24, 2013

BOLLARD
Acoustical Consultants

Attachment 4

3551 Bankhead Road • Loomis, CA 95650 • Phone: (916) 663-0500 • Fax: (916) 663-0501 • BACNOISE.COM

Introduction

The proposed ARCO AM/PM gas station, convenience store, carwash, and drive-through (project) is located at the southeast corner of the Green Valley Road and Sophia Parkway intersection in El Dorado Hills, California. Existing land uses in the immediate project vicinity include commercial uses to the east, future commercial uses to the west, existing residential to the south and southeast, and future residential to the southwest. The project site area and nearest noise-sensitive receivers are identified on Figure 1. The project site plan is provided as Figure 2.

Due to the proximity of the proposed project to the future residential uses, the project applicant has retained Bollard Acoustical Consultants, Inc. (BAC) to prepare an acoustical analysis for this project. The purposes of this analysis are to quantify noise levels associated with the proposed project, to assess the state of compliance of those noise levels with applicable noise standards, and if necessary, to recommend measures to reduce those noise levels to acceptable limits at the nearest noise sensitive uses.

This report is a revision to the July 18, 2013 analysis prepared for the project by BAC. This revision was prepared to provide additional data and information regarding specific equipment to be used at the project site and clarification regarding proposed hours of operation of the various project components.

Background on Noise and Acoustical Terminology

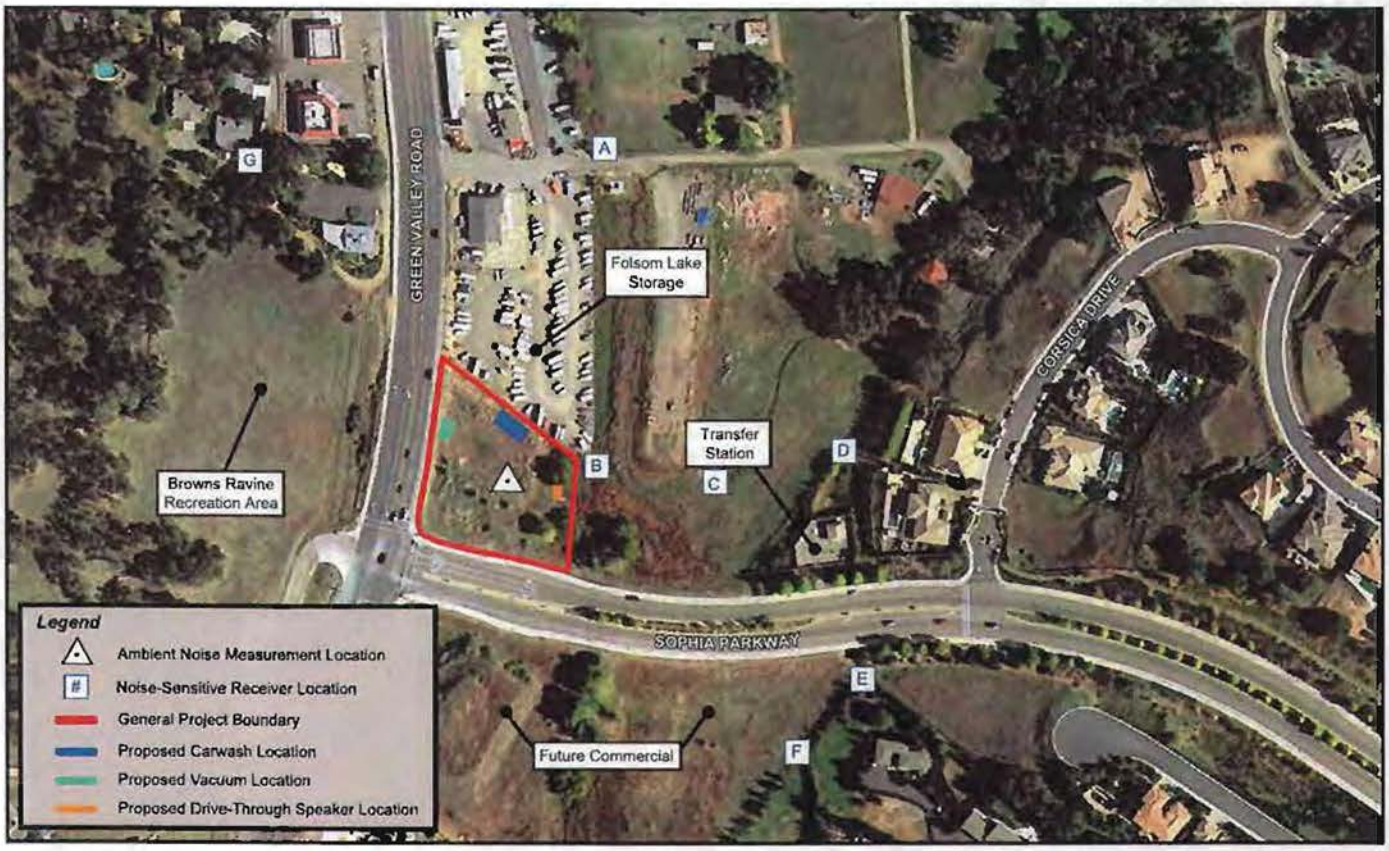
Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Figure 3 illustrates common noise levels associated with various sources.

The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighing network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels. Please see Appendix A for definitions of acoustical terminology used in this report.

Figure 1

ARCO AM/PM at Green Valley Road and Sophia Parkway - El Dorado Hills, California
Project Area, Ambient Noise Measurement Location and Noise-Sensitive Receiver Locations



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Scale (feet)
0 150 300

Figure 2

ARCO AM/PM at Green Valley Road and Sophia Parkway - El Dorado Hills, California

Project Site Plan

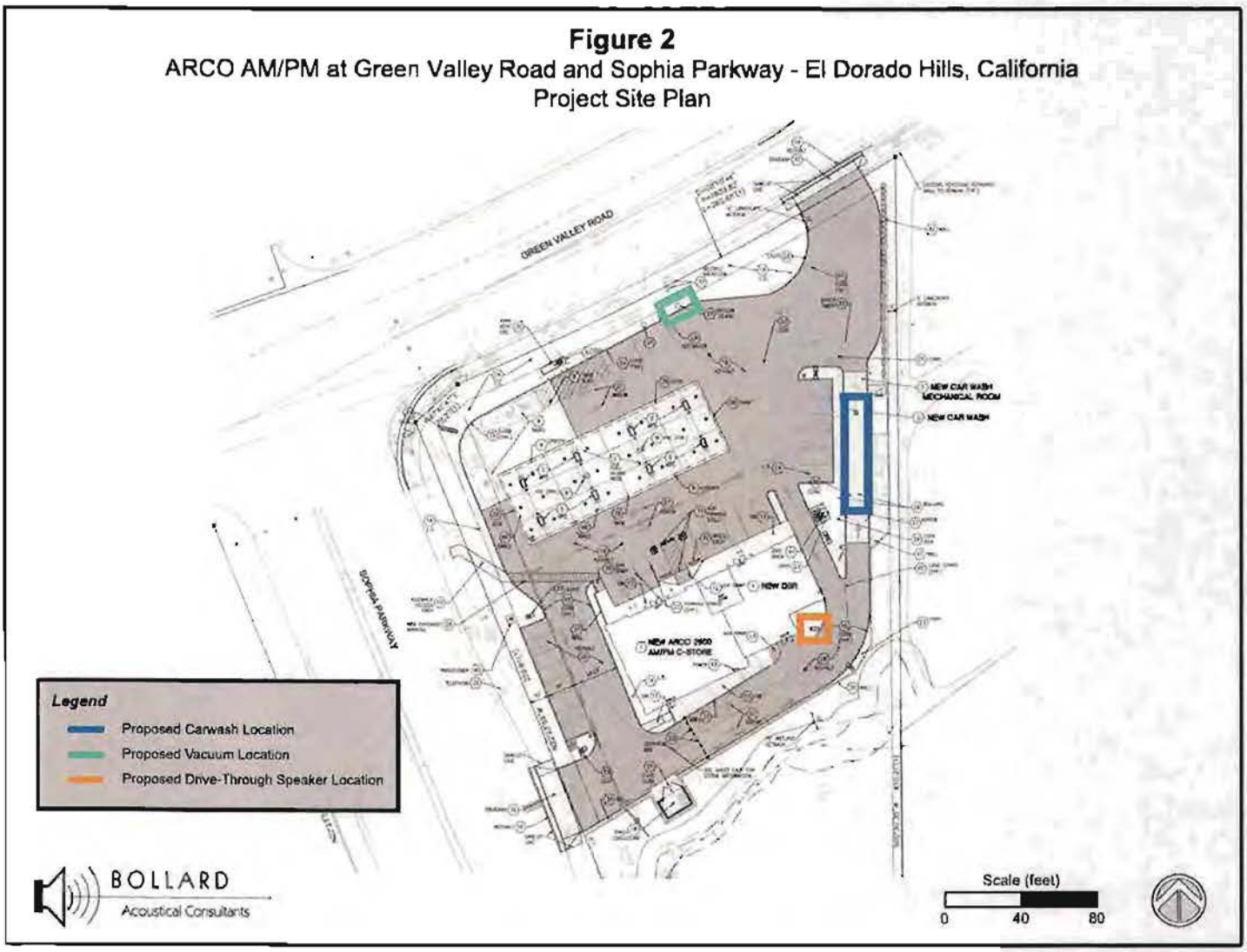
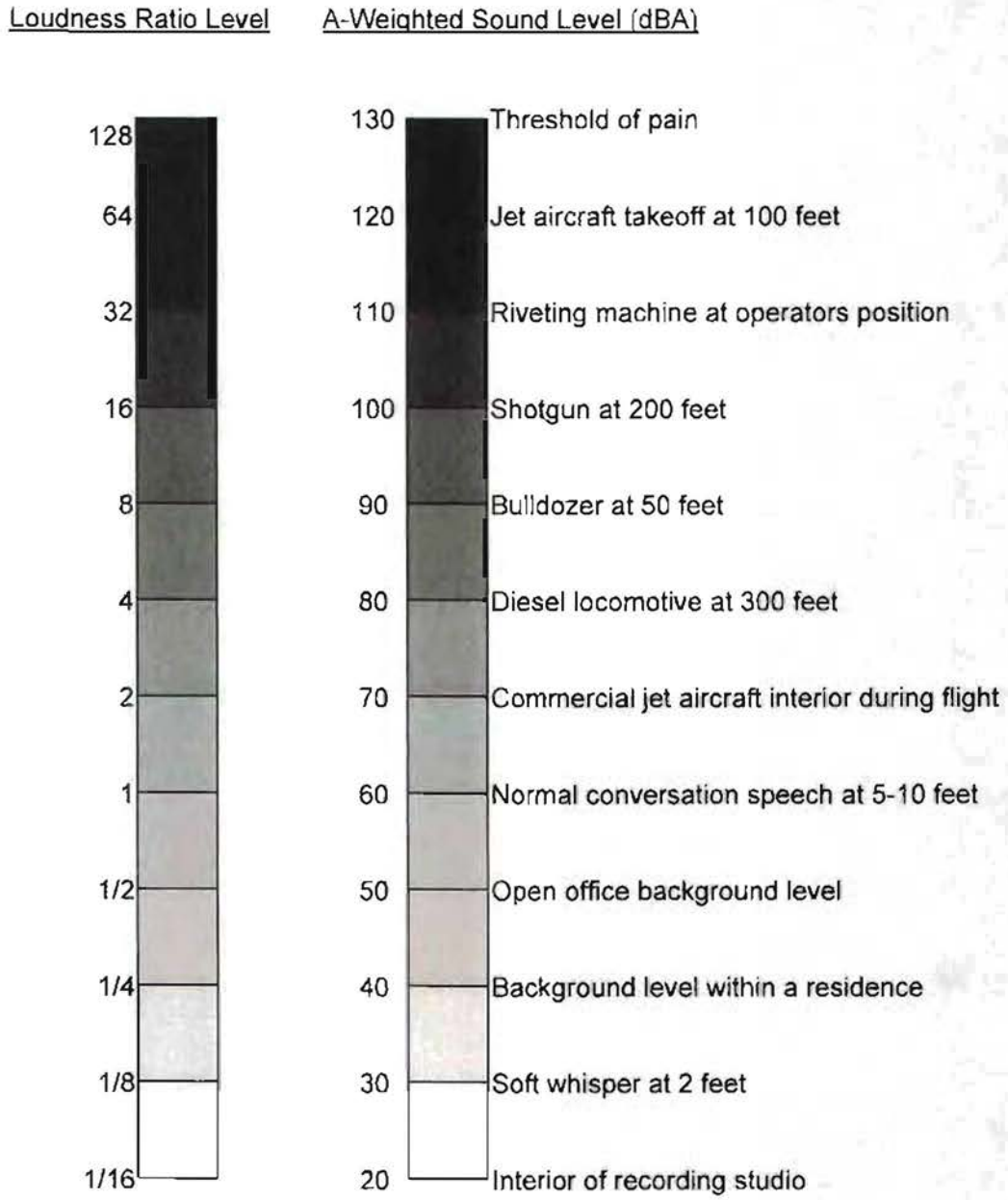


Figure 3
Typical A-Weighted Sound Levels of Common Noise Sources



Criteria for Acceptable Noise Exposure

El Dorado County General Plan Noise Element

The traffic study prepared for the project indicates that the project would result in increases in off-site AM peak hour traffic volumes of approximately 9% on Green Valley Road west of Sophia Parkway, 2% on Green Valley Road east of Sophia Parkway, and 3.5% on Sophia Parkway south of Green Valley Road. The corresponding increase in traffic noise levels on these roadways would be 0.4 dB, 0.1 dB, and 0.15 dB Leq, respectively. Due to the considerable volume of existing traffic relative to new trips which would be generated by the project, the increase in off-site traffic noise levels is predicted to be imperceptible and therefore insignificant.

Because noise generated by project-generated off-site traffic would be insignificant, the primary noise sources associated with this project are the proposed carwash tunnel dryers, the carwash vacuums, and the proposed drive-through (speakers and idling cars in the drive-through lane). Each of these sources are considered to be "non-transportation" noise sources according to the El Dorado County General Plan. "Transportation" noise sources are defined as traffic on public roadways, railroad operations and aircraft in flight.

For non-transportation noise sources such as those proposed for this project, the El Dorado County General Plan Noise Element establishes noise level criteria for acceptable noise exposure at residential uses.

Noise Element Policy 6.5.1.7 states that noise created by new non-transportation noise sources shall be mitigated so as not to exceed any of the noise level standards of Table 1, as measured immediately within the property line of the receiving property.

Policy 6.5.1.2 states that where proposed non-transportation noise sources are likely to produce noise levels exceeding the performance standards of Table 1 at existing or planned residential uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.

A footnote to Table 1 specifically states that the "standards shall be measured only on property containing a noise sensitive land use as defined in Objective 6.5.1 of the Noise Element. Objective 6.5.1 is as follows:

> *Protect existing noise-sensitive developments (e.g., hospitals, schools, churches and residential) from new uses that would generate noise levels incompatible with those uses and, conversely, discourage noise-sensitive uses from locating near sources of high noise levels.*

Because there is no residence or other noise-sensitive land uses on the property identified as Receptor "B" on Figure 1, it is unlikely that the noise standards would be applicable to this property at this time, even though it is zoned for residential uses. At such a time as a residence is constructed on property B, the standards would be applicable. Nonetheless, to provide a conservative assessment of project noise impacts, noise levels are evaluated at the property line of Receptor B in this assessment.

Table 1
Performance Standards for Non-Transportation Noise Sources
El Dorado County Noise Element – Community Areas

Noise Level Descriptor	Daytime (7 a.m. - 7 p.m.)	Evening (7 p.m. - 10 p.m.)	Nighttime (10 p.m. - 7 a.m.)
Hourly L_{eq}, dB	55 dB	50 dB	45 dB
Maximum Level, dB	70 dB	60 dB	55 dB

Note: Each of the noise levels specified above should be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

It should be noted that the County's noise policies for transportation noise sources are provided in terms of Ldn and CNEL for outdoor activity areas of residential uses. Both CNEL and Ldn are 24-hour averages of noise, with penalties applied to noise occurring during nighttime hours. The only difference between CNEL and Ldn is that CNEL also applies a penalty to noise generated during evening hours. There is very little difference between CNEL and Ldn, typically less than a decibel, which is why the County standards can be expressed in either CNEL or Ldn.

Existing Ambient Noise Environment

The noise environment in the project vicinity is defined primarily by traffic noise emanating from Green Valley Road and Sophia Parkway. To generally quantify background noise levels in the project vicinity, BAC staff performed short-term ambient noise level measurements on October 9, 2012 at the location shown in Figure 1. The noise level meter was programmed to record the average noise level (L_{eq}) and the maximum noise level (L_{max}) descriptors. Table 2 shows a summary of the short-term noise measurement results.

Table 2
Summary of Short-Term Ambient Noise Level Measurements
ARCO AM/PM at Green Valley Road & Sophia Parkway – October 9, 2012

Location	Time of Day	L_{eq}	L_{max}
Project Site (See Figure 1)	10:00 am	54	66

Source: Bollard Acoustical Consultants, Inc.

Since the original analysis was prepared for this project, the owner has requested an expanded study of ambient conditions during nighttime hours to support nighttime operations and to consider residentially-zoned but vacant lands to the southeast of the project site as a sensitive receptor. This report has been updated to match the current and General Plan residential zones surrounding the project site regardless of current use.

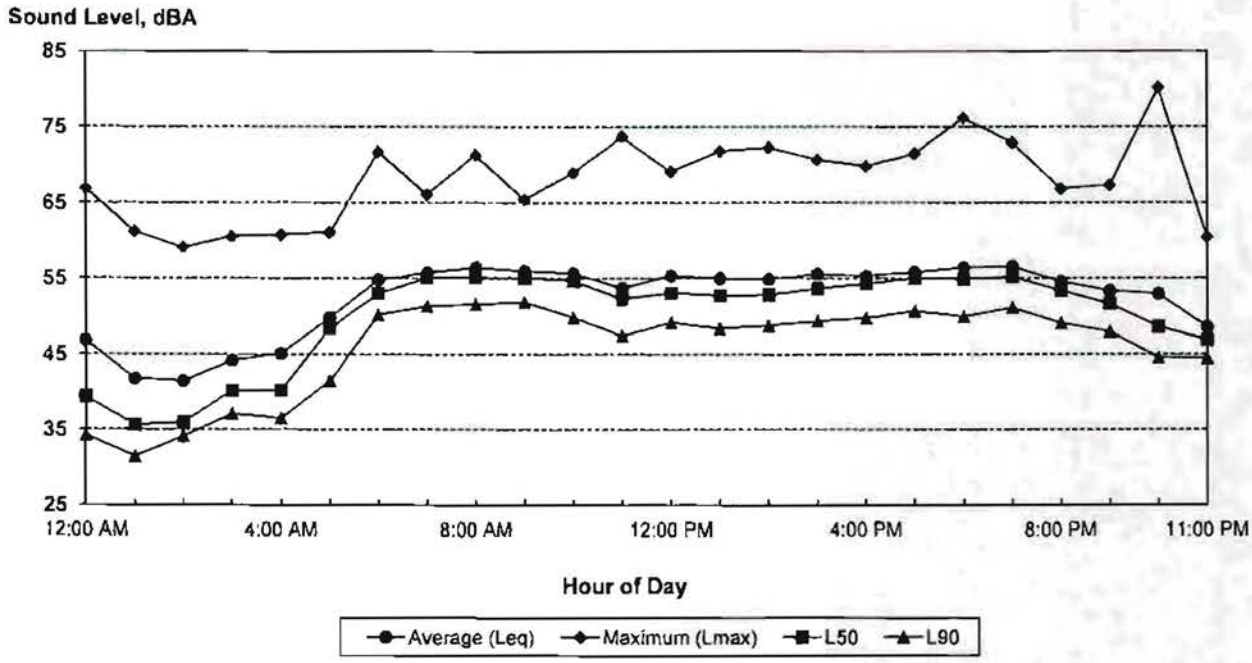
To quantify nighttime noise exposure, BAC returned to the site on September 17, 2013 to conduct continuous noise measurements over a 24-hour period. The measurements were conducted at the same location as described above for the short-term monitoring, which is approximately 100 feet from the nearest residential property line. The results of the 24-hour monitoring are summarized below in Table 3. Figure 4 shows a graphical representation of the ambient noise conditions over the entire 24-hour period.

Table 3
Summary of Continuous Ambient Noise Level Measurements
ARCO AM/PM at Green Valley Road & Sophia Parkway – September 20, 2013

Noise Descriptor	Daytime	Evening	Nighttime
Average (Leq)	56	55	50
Maximum (Lmax)	71	69	65

Source: Bollard Acoustical Consultants, Inc.

Figure 4
Car Wash at Green Valley Road & Sophia Parkway
24hr Continuous Noise Monitoring at Site A
Tuesday, September 17, 2013



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The background noise level data provided in Table 3 indicates that, while nighttime noise levels are lower than average daytime noise levels, they are only 6 dB lower in terms of both Leq and Lmax. Furthermore, the measured nighttime noise levels of 50 dB Leq and 65 dB Lmax both exceed the County nighttime noise standard of 45 dB Leq and 55 dB Lmax (see Table 1). As a result, the project area is already exposed to elevated nighttime noise levels, so compliance with the County's noise standards shown in Table 1 will ensure that project noise exposure at the nearest residences would be at or below existing ambient conditions.

Evaluation of Project-Related Noise Levels

This report contains more specific information regarding the manufacturer of the proposed vacuums, carwash dryers, and fast food drive-through window speakers. In addition, the proposed hours of operation for the various project components have been clarified as indicated below.

Proposed Hours of Operation

- Carwash: 24-hour operations
- Vacuums: 24-hour operations
- Drive –Thru: 7 am – 10 pm (worst case – likely 10 am start)

BAC previously used reference noise level data believed to be conservatively representative of the noise emissions of the various project components, as the exact equipment was not known to BAC at the time the noise study was prepared. For this revised study, the applicant has provided BAC with the exact manufacturer and model type of the equipment which is proposed for this project. The manufacturer's data sheets, including noise measurement results, are attached as appendices to this report. The specific noise generation of each of the main project noise sources (carwash, vacuums, and drive-through lane), are evaluated below.

Vacuum Noise

The project applicant has indicated that the proposed carwash vacuums will be the Super-Vac Motor (2) with Steel Insulated dome. Figure 1 illustrates the proposed location of the vacuums relative to the nearest noise-sensitive receivers. The manufacturer's specifications provided in the appendices indicate that the reference sound level at a distance of 20 feet from the proposed vacuum is 67 dBA.

For the purpose of this analysis it was assumed that, between the two vacuums, there could be continuous operation of a vacuum system for an entire hour (worst-case). This is considered worst-case because it is highly unlikely that vacuums would be utilized for an entire hour during nighttime hours. But since the vacuums were assumed to operate continuously for an entire hour, average hourly noise levels (L_{eq}) and maximum noise levels (L_{max}) would be essentially the same. A sound attenuation rate of 6 dB per doubling of distance was used for vacuum noise propagation. Table 4 shows the predicted vacuum noise levels at the nearest noise-sensitive receiver locations (residential property lines). Appendix B illustrates the 45, 50, and 55 dB L_{eq} vacuum noise contours.

Table 4
Unmitigated Vacuum Noise Levels
ARCO AM/PM at Green Valley Road and Sophia Parkway

		Predicted Level, dB	
Receiver Location	**Distance (feet)**	L_{eq}	L_{max}
A	510	39	39
B	260	45	45
C	510	39	39
D	660	37	37
E	800	35	35
F	810	35	35
G	500	39	39

Source: Bollard Acoustical Consultants, Inc. (2013)

As shown in Table 4, vacuum noise levels are predicted to be approximately 35-45 dB L_{eq}/L_{max} at the nearest noise-sensitive receiver locations. These levels would be in compliance with the applicable El Dorado County daytime, evening and nighttime noise level criteria presented in Table 1. As a result, no mitigation measures are warranted for this aspect of the project.

Carwash Noise

Based on the experience of Bollard Acoustical Consultants, Inc., noise levels generated by carwashes are primarily due to the drying portion of carwash operations. The project applicant has indicated that the proposed carwash dryers will be the Proto-Vest Inc. Windshear 30-Horsepower Dryer with the "Silencer Package". The manufacturer's specifications provided in the appendices indicate that the reference sound level at a distance of 20 feet from the dryer is 71 dBA Lmax (70.9 dBA). Figure 1 illustrates the proposed location of the carwash relative to the nearest noise-sensitive receivers.

Because the drying cycle represents a small portion of the overall wash, the dryers are anticipated to operate for no more than 15 minutes during any given hour. As a result, the calculated Hourly L_{eq} given 15 minute usage of the dryer cycle per hour would be 6 dB lower than the reference L_{max} of 71 dBA at 20 feet for continuous operation of the dryers. The resulting reference level, adjusted for time of usage, is 65 dBA L_{eq} at a reference distance of 20 feet. Table 5 shows the predicted carwash noise levels at the nearest noise-sensitive receiver locations (residential property lines).

Table 5
Unmitigated Carwash Noise Levels
ARCO AM/PM at Green Valley Road and Sophia Parkway

		Predicted Level, dB	
Receiver Location	**Distance (feet)**	**L_{eq}**	**L_{max}**
A	470	38	44
B	120	49	55
C	380	39	45
D	520	37	43
E	670	34	40
F	700	34	40
G	600	35	41

Source: Bollard Acoustical Consultants, Inc. (2013)

As shown in Table 5, carwash noise levels are predicted to be approximately 34-49 dB L_{eq} and 40-55 dB L_{max} at the nearest residential property lines. These levels would satisfy the County's daytime and evening noise standards at all noise-sensitive receptors without the need for additional noise mitigation. However, the Table 5 data indicates that the predicted level of 49 dB Leq at Receptor B (where there is no residence currently), could exceed the County's 45 dB Leq noise standard by 4 dB during nighttime hours. Because the applicant is proposing nighttime operations of the carwash component of the project, consideration of additional noise mitigation measures would be warranted for the carwash dryers during nighttime hours.

Drive-Through Noise

Figure 1 illustrates the proposed location of the drive-through relative to the nearest noise-sensitive receivers. The project applicant has indicated that the proposed drive-through speaker system will be a typical HM Electronics (HME) SPP2 Speaker Post. This system incorporates automatic volume control (AVC), which adjusts the speaker volume based on the outdoor ambient noise level. As ambient noise levels decrease during late evening hours, the AVC system will automatically reduce the drive-through speaker volume. The manufacturer's specifications provided in the appendices indicate that the reference sound level at a distance of 16 feet from the speaker is 60 dBA L_{max}.

Average hourly noise levels for drive-through speaker usage depends on the duration of the hour that the speaker is actually in use. Based on the very conservative assumption that the speakers would be in use for 10% of a busy hour, average levels would be 10 dB lower than the reported maximum noise levels, or approximately 50 dB L_{eq}. Based on these average and maximum reference levels at the 16-foot distance, the predicted drive-through noise levels at the nearest noise-sensitive receiver locations are shown in Table 6. Appendix C illustrates the 45, 50, and 55 dB L_{eq} drive-through speaker noise contours.

BAC file data for idling vehicles in drive-through lanes indicates that a maximum noise level of approximately 55 dB L_{max} can be assumed as a reference noise level at a distance of 50 feet. Average hourly noise levels (L_{eq}) for idling vehicles are essentially the same as maximum levels under the assumption that cars could be present in the drive-through for the entire duration of an hour because the sound is steady-state. Based on an average and maximum noise level of 55 dB Lmax/Leq at this reference distance, the predicted drive-through noise levels at the nearest residential property lines were computed and are shown in Table 6. It should be noted that Receptor B, which is zoned residential but which does not currently contain a residence on the property, is depressed relative to the drive-through lane by approximately 10 feet. As a result, the tires and exhaust of the vehicles in the drive-through lane would not be visible from the property line of Receptor B. This topographic shielding is expected to reduce noise generated by vehicles in the drive-through lane by at least 5 dB. As a result, a -5 dB offset was applied to Receptor B in the Table 6 calculations.

Table 6
Unmitigated Drive-Through Noise Levels
ARCO AM/PM at Green Valley Road and Sophia Parkway

Receiver Location	Distance (feet)	Predicted Vehicle Noise Level, dB		Predicted Speaker Noise Level, dB	
		L_{eq}	L_{max}	L_{eq}	L_{max}
A	510	35	35	20	30
B	70	47	47	37	47
C	320	39	39	24	34
D	480	35	35	20	30
E	600	33	33	19	29
F	630	33	33	18	28
G	660	33	33	18	28

Source: Bollard Acoustical Consultants, Inc. (2013)

As shown in Table 6, vehicle idling noise levels are predicted to be approximately 33-47 dB L_{eq}/L_{max} at the nearest noise-sensitive receiver locations. These levels would be in compliance with the applicable daytime and evening noise level standards (55 and 50 dB L_{eq}), but would exceed the County's nighttime noise level standard (45 dB L_{eq}). However, because the drive-through lane is not proposed for use during nighttime hours, the nighttime noise standard would not apply, and consideration of additional noise mitigation measures would be not be warranted for this aspect of the project.

Noise Mitigation Measures

Carwash Noise

Based on the data in Table 5, proposed carwash noise levels would exceed the County's noise level standards at the nearest residential property line (Receptor B) during nighttime hours. Specifically, carwash dryer noise levels could exceed the County's 45 dB Leq nighttime noise level standard by 4 dB at Receptor B. Due to the elevation difference of the residentially-zoned property represented by Receptor "B" (it is depressed approximately 10 feet relative to the project site), actual carwash dryer levels are likely to be lower. Nonetheless, because carwash operations are proposed during nighttime hours, and because those operations could exceed 45 dB Leq at the property line of Receptor "B", consideration of noise mitigation measures is warranted for this aspect of the project.

The equipment supplier has indicated that an automatic door can be added to the carwash entrance to shield dryer noise in the southerly direction. The noise reduction provided by this door is predicted to be approximately 15 dB. As a result, carwash dryer noise levels at the residences to the south of the opening would be 15 dB lower than the levels reported in Table 5, and all resulting noise levels would be well within compliance with El Dorado County daytime, evening and nighttime noise standards. No additional noise mitigation measures would be required for the nighttime carwash operations other than utilization of such an entrance door while the dryer cycle is active.

Conclusions and Recommendations

Noise levels associated with daily operation of the proposed ARCO AM/PM carwash at Green Valley Road and Sophia Parkway in El Dorado Hills, California are expected to satisfy the applicable El Dorado County General Plan Noise Element noise level criteria provided the following noise mitigation measures are incorporated in the project design:

1. Ensure the inclusion of a carwash entrance door that reduces dryer noise levels by at least 5 dB (the anticipated noise reduction of the door is 15 dB).

2. Drive-Through operations should be limited to the daytime and evening hours of 7 am to 10 pm, with no nighttime hours of operation.

3. The equipment used for this project shall be that proposed as described above, or equipment of similar or lower noise generation than the reference levels cited herein.

The above mentioned mitigation measures would result in compliance with the El Dorado County noise level criteria. These conclusions are based on the site plan shown in Figure 2 and on the reference noise level data cited herein. Deviations from these plans or data could cause noise levels to differ from those predicted in this assessment.

Appendix A

Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Masking	The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.
Noise	Unwanted sound.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the Maximum level, which is the highest RMS level.
RT_{60}	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.
SEL	A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy of the event into a 1-s time period.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.

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Appendix B

ARCO AM/PM at Green Valley Road and Sophia Parkway - El Dorado Hills, California
Vacuum Noise Contours (Unmitigated)

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Note. Vacuum noise contours based on reference noise level of 68 dB Leq/Lmax at 20 feet.

Scale (feet)
0 150 300

Appendix C

ARCO AM/PM at Green Valley Road and Sophia Parkway - El Dorado Hills, California
Drive-Through Speaker Noise Contours (Unmitigated)

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Note: Speaker noise contours based on reference noise level of 50 dB Leq at 50 feet.

Scale (feet)
0 150 300

Appendix D

ARCO AM/PM at Green Valley Road and Sophia Parkway - El Dorado Hills, California
Carwash Noise Contours (Mitigated)

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Note Carwash noise contours based on reference noise level of 66 dB Leq at 20 feet.

Scale (feet)
0 150 300

SUPER VAC WITH BILL VALIDATOR & DIGITAL DISPLAY

MODEL #	VACUUM	MOTORS	VAULT READY	STAINLESS STEEL DOME	LIGHTED DOME	BILL ACCEPTOR	COIN ACCEPTOR	ETL APPROVED	OPTIONAL DECAL PKG.	WEIGHT	AMPS REQ.	VOLTAGE
9200-1	•	2		Small		•	•	•	•	139	20	120
9200-1VR	•	2	•	Small		•	•	•	•	139	20	120
9200-1LD	•	2			•	•	•	•	•	139	20	120
9200-1VRLD	•	2	•		•	•	•	•	•	139	20	120
9200-3	•	3		Large		•	•	•	•	155	30	120
9200-3VR	•	3	•	Large		•	•	•	•	155	30	120
9200-3LD	•	3			•	•	•	•	•	155	30	120
9200-3VRLD	•	3	•		•	•	•	•	•	155	30	120

FEATURES

- Double service doors offer easy access to clean out compartment and 4 filter bag system (Replacement Item #8076)
- Digital display timer with built-in coin counter, scrolls messages, prices for service and counts down remaining time (Replacement Item #8000-10)
- Visual and audible last coin alarm
- Coin box secured with pin lock (Replacement Item #8638)
- Faceplate secured with 2 Medeco cam locks (Replacement Item #8953)
- Hose: 2" x 15', swivel cuff and nozzle included (15', 25', and 50' available in 1 1/2" or 2")
- Coinco bill acceptor takes $1.00 and $5.00 bills (Replacement Item #8130-6)
- Imonex coin acceptor takes quarters (Replacement Item #8149)
- Lighted dome available in red, blue, yellow, dark green, light green, purple and white
- Optional coin mechs, motors, colored hoses, extra security, and clean-out containers are available

PROGRAMMER

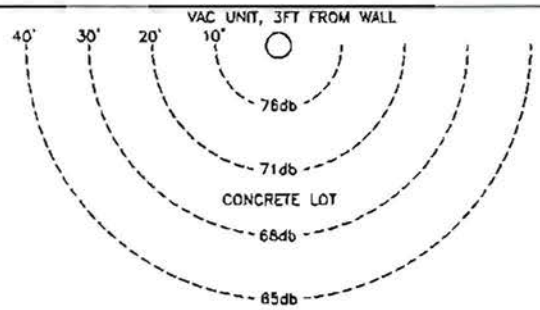
8000-30 Remote control programmer for digital display, 8 oz.

DECALS

9200-11 Yellow decals
9200-12 Blue decals
9200-13 Violet decals
9200-14 Black decals (standard)

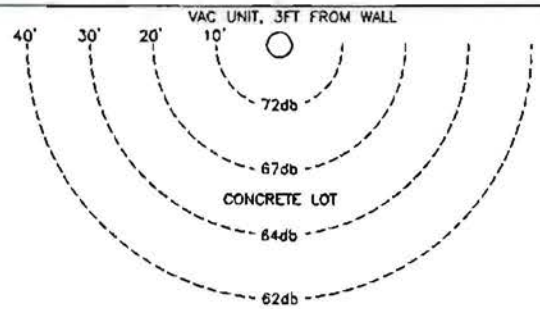
SUPER VAC 9200-1LD SHOWN WITH OPTIONAL BLUE DOME, BLUE HOSE, BLUE DECAL PACKAGE, SERVICE DOORS SECURITY COVER, AND COIN BOX SECURITY PACKAGE

STEEL WALL, 18FT HIGH, 150FT LONG



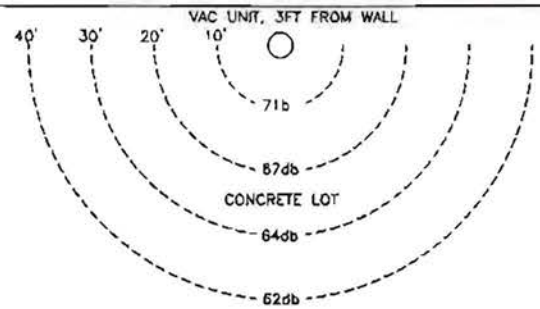
REGULAR VAC MOTOR (2)
PLASTIC DOME

STEEL WALL, 18FT HIGH, 150FT LONG



REGULAR VAC MOTOR (2)
STEEL INSULATED DOME

STEEL WALL, 18FT HIGH, 150FT LONG



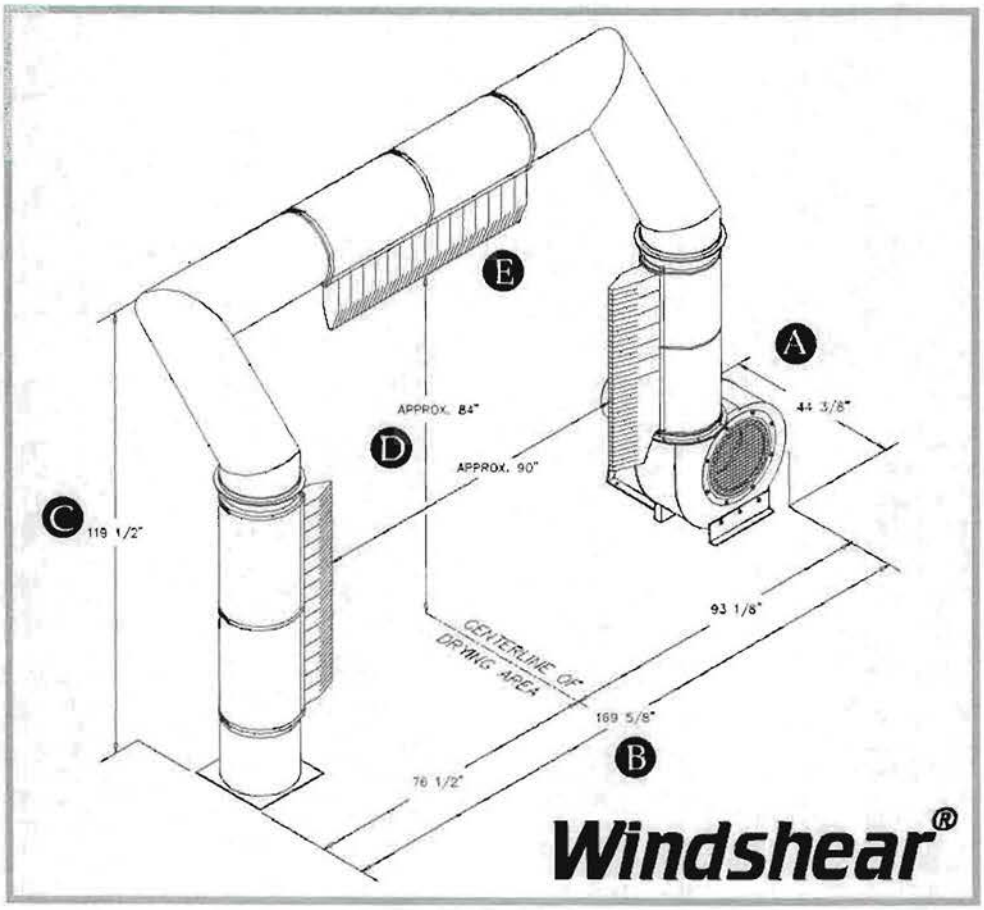
QUIET VAC MOTOR (2)
STEEL INSULATED DOME

The Windshear®

PROTO-VEST INC.

- Touch-less
- Low Maintenance
- Stand Alone or Modular System
- Compact Design
- 30hp Magnum Blowers

Proto-Vest Inc.®



EQUIPMENT

- **A** OVERALL LENGTH 44 ⅜ in.
- **B** OVERALL WIDTH 169 5/8 in.
- **C** OVERALL HEIGHT 119 ½ in.
- **D** BAG HEIGHT 84 in.
- **E** VERTICAL OPENING 60 in.

Machine Operating Requirements*

MOTORS

- 30 hp, 3600 RPM's
- 208-230 / 460 volts
- 1.15 service factor
- Frame: 286TS
- 3 Phase
- Fan-cooled, totally enclosed

NOTE: Wiring and controls to be provided by the purchaser. Additional motor specifications available upon request. Additional voltages available on special order.

EQUIPMENT OPTIONS

- Green, Red, Blue or Custom Bag Colors
- The Silencer Package
- Vehicle Recognition System (VRS)

Weight: 1250 lbs. (approximate)

GENERAL DESCRIPTION

The Proto-Vest "Windshear®" is designed as a stand alone drying system that is ideal for tunnels with a variety of line speeds. This patented system utilizes one (1) 30 hp Magnum blower, plenum and three (3) Proto-Duck™ air delivery bags designed to direct air around the vehicle as it passes under the equipment arch. Proto-Vest's blower/motor assemblies are engineered for both maximum efficiency and cost effectiveness allowing the system to operate with only one 30hp Magnum blower. With the improved performance of the Magnum blower assembly the Windshear® s drying quality far surpasses any comparable horsepower dryer in its class.

Proto-Vest's stringent standards in material selection for dryers result in extended equipment life and reduced maintenance. The blower assembly is manufactured from steel that is powder coated while the impeller is electroplated. The blower is AMCA Class IV certified. The plenum is made from 5052-H32 aluminum, while the bags are produced from Proto-Duck™ materials. These materials resist corrosion and tearing.

FEATURES / BENEFITS

Patented Touchless Design: Pressurized air flows through three (3) patented bags which direct the air to the vehicle's horizontal and vertical surfaces. It dries the hood, roof, deck, windows, and sides of the vehicle without touching.

Low Maintenance: Other than the blower / impeller assemblies, there are no moving parts to wear-out or break down. (Please note that Proto-Vest recommends routine maintenance in order to maximize product life.)

Line Speed Efficiency: As a stand alone unit the "Windshear" will provide an effectively dried car at a wide variety of line speeds.

Compact / Modular design: Designed to fit into limited space as a stand alone or supplemental dryer.

DECIBEL READINGS

With Silencer / Without Silencer

	(WS)	(WOS)
Windshear® - (1) 30hp dryer:		
	WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
	WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
	WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
	WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
	WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa

(The above decibel readings are interpolated.)

SERVICE / SUPPORT

Proto-Vest recognizes that support after the sale of equipment is critical to the success of our customers. Our company offers its customers access to a wide range of services including: field service technicians, factory direct aftermarket parts, and an engineering staff for custom designed applications.

Proto-Vest Patents:
U.S.: 3,942,430; 4,161,801; 4,409,035; 4,418,442; 4,433,450; 4,445,251; 4,446,592; 4,589,160; 4,700,426; 5,027,714; 5,184,369; 5,187,881; 5,195,207; 5,280,665; 5,421,102; 5,553,346; 5,886,648; 5,901,461; 5,950,324; 5,960,564; 6,038,781; 6,176,024; 6,519,872; others pending.
Canada: 1,021,996; 1,111,328; 1,190,453; 1,201,040; 1,197,439; 1,219,195; 1,219,192; 1,219,194; 1,258,026; 1,219,193; 2,013,749; 2,071,568; 2,071,239; 2,071,388; others pending.

*Specifications subject to change without notice.
**If starting motor over 10-12 times an hour it may be more efficient to leave blower on.

Proto-Vest, Inc., 7400 N. Glen Harbor Blvd., Glendale, AZ 85307 • 800-521-8218 • 623-872-8300 • Fax 623-872-6150
www.proto-vest.com

Silencer Package

GENERAL DESCRIPTION

The Proto-Vest "Silencer Package" was developed to enable our dryers to meet OSHA, federal, state and local noise reduction standards. The OSHA permissible noise exposure is 85 dB for an 8-hour shift. By reducing noise levels into the 70 dB to 80 dB range, you can be assured of a pleasant environment for both your employees and customers. The Silencing Package is a standard feature on all Untouchable dryers, while the Stripper and Windshear drying systems can be equipped with the Silencing Package as an option. Using state-of-the-art materials, which require virtually no maintenance, Proto-Vest has designed three components to comprise the Silencer Package.

- **Blower Inlet**: reduces the noise generated by rapidly moving air being drawn into the blower assembly.
- **Blower-motor Cover**: houses the blower and motor completely to absorb noise emitted from the motor and impeller while providing the assembly additional protection.
- **Riser Can**: absorbs the noise created by the blower, impeller and the movement of the air as it leaves the blower by advancing through the dryer's plenum.

The Silencer Package reduces decibel levels on Proto-Vest dryers on an average of 10 decibels making them approximately 10 times quieter than the un-silenced models!

DECIBEL LEVEL READINGS

With Silencer (WS)	Without Silencer (WOS)
Windshear InBay - (2) 25hp Dryer:	
WS: 10 ft=88 dBa;	WOS: 10 ft=94 dBa
WS: 20 ft=82 dBa;	WOS: 20 ft=88 dBa
WS: 30 ft=78.4 dBa;	WOS: 30 ft=84.5 dBa
WS: 40 ft=76 dBa;	WOS: 40 ft=82 dBa
WS: 50 ft=74 dBa;	WOS: 50 ft=80 dBa
WS: 60 ft=72.4 dBa;	WOS: 60 ft=78.4 dBa
Windshear - 30hp Dryer:	
WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa
Windshear II - (2) 30hp Dryer:	
WS: 10 ft=88 dBa;	WOS: 10 ft=99 dBa
WS: 20 ft=81.9 dBa;	WOS: 20 ft=92.9 dBa
WS: 30 ft=78.4 dBa;	WOS: 30 ft=89.4 dBa
WS: 40 ft=75.4 dBa;	WOS: 40 ft=86.9 dBa
WS: 50 ft=74 dBa;	WOS: 50 ft=85 dBa
TopShot - 30hp Dryer:	
WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa
TopShot II - (2) 30hp Dryer:	
WS: 10 ft=88 dBa;	WOS: 10 ft=99 dBa
WS: 20 ft=81.9 dBa;	WOS: 20 ft=92.9 dBa
WS: 30 ft=78.4 dBa;	WOS: 30 ft=89.4 dBa
WS: 40 ft=75.9 dBa;	WOS: 40 ft=86.9 dBa
WS: 50 ft=74 dBa;	WOS: 50 ft=85 dBa
TailWind - (1) 25hp Dryer:	
WS: 10 ft=85 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=79 dBa;	WOS: 20 ft=85 dBa
WS: 30 ft=75.5 dBa;	WOS: 30 ft=81.5 dBa
WS: 40 ft=73 dBa;	WOS: 40 ft=79 dBa
WS: 50 ft=71 dBa;	WOS: 50 ft=77 dBa
SideShot - 15hp Dryer:	
WS: 10 ft=74.5 dBa;	WOS: 10 ft=82.9 dBa
WS: 20 ft=68.5 dBa;	WOS: 20 ft=76.9 dBa
WS: 30 ft=64.9 dBa;	WOS: 30 ft=73.4 dBa
WS: 40 ft=62.4 dBa;	WOS: 40 ft=70.9 dBa
WS: 50 ft=60.5 dBa;	WOS: 50 ft=69 dBa
SideShot II - 30hp Dryer:	
WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa
90N/90XS - 15hp Dryers:	
WS: 10 ft=74.5 dBa;	WOS: 10 ft=82.9 dBa
WS: 20 ft=68.5 dBa;	WOS: 20 ft=76.9 dBa
WS: 30 ft=64.9 dBa;	WOS: 30 ft=73.4 dBa
WS: 40 ft=62.4 dBa;	WOS: 40 ft=70.9 dBa
WS: 50 ft=60.5 dBa;	WOS: 50 ft=69 dBa
IP330 - 30hp Dryers:	
WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa
(Proto-Vest's Silencing Package is standard on all of the Untouchable series.)	
IP345 - 45hp Dryers:	
WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa
(Proto-Vest's Silencing Package is standard on all of the Untouchable series.)	

*Specifications subject to change without notice.
NOTE: Proto-Vest dryer's dimensions will vary with the Silencer Package.

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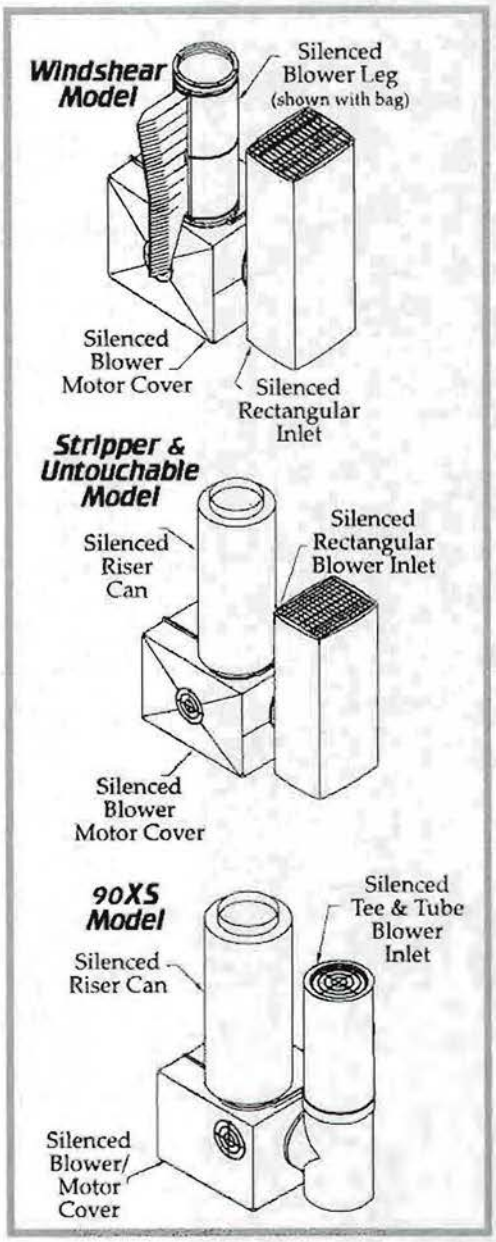
Fax 623-872-6150
www.protovest.com



Proto-Vest Inc.

HME

Customer Driven

Memo

Re: Drive-Thru Sound Pressure Levels From the Menu Board or Speaker Post

The sound pressure levels from the menu board or speaker post are as follows:

1. Sound pressure level (SPL) contours (A weighted) were measured on a typical HME SPP2 speaker post. The test condition was for pink noise set to 84 dBA at 1 foot in front of the speaker. All measurements were conducted outside with the speaker post placed 8 feet from a non-absorbing building wall and at an oblique angle to the wall. These measurements should not be construed to guarantee performance with any particular speaker post in any particular environment. They are typical results obtained under the conditions described above.

2. The SPL levels are presented for different distances from the speaker post:

Distance from the Speaker (Feet)	SPL (dBA)
1 foot	84 dBA
2 feet	78 dBA
4 feet	72 dBA
8 feet	66 dBA
16 feet	60 dBA
32 feet	54 dBA

3. The above levels are based on factory recommended operating levels, which are preset for HME components and represent the optimum level for drive-thru operations in the majority of the installations.

Also, HME incorporates automatic volume control (AVC) into many of our Systems. AVC will adjust the outbound volume based on the outdoor, ambient noise level. When ambient noise levels naturally decrease at night, AVC will reduce the outbound volume on the system. See below for example:

Distance from Outside Speaker	Decibel Level of standard system with 45 dB of outside noise <u>without</u> AVC	Decibel level of standard system with 45 dB of outside noise <u>with</u> AVC active
1 foot	84 dBA	60 dBA
2 feet	78 dBA	54 dBA
4 feet	72 dBA	48 dBA
8 feet	66 dBA	42 dBA
16 feet	60 dBA	36 dBA

If there are any further questions regarding this issue please contact HME customer service at 1-800-848-4468.

Thank you for your interest in HME's products.

HM Electronics, Inc. | 14110 Stowe Drive | Poway, CA 92064
phone: 800.848.4468 | *fax:* 858.452.7207 | www.hme.com

BOLLARD ACOUSTICAL CONSULTANTS, INC.
Acoustics ▸ Vibration ▸ Noise Control Engineering

September 25, 2013

Mr. Marc Strauch
C/O Barghausen Consulting, Inc.
18215 72nd Ave South
Kent, WA 98032

Subject: Response to noise-related public comments on the Green Valley Convenience Center project.

Dear Mr. Strauch:

Pursuant to your request, Bollard Acoustical Consultants, Inc. (BAC) has prepared this letter to respond to public comments on the above-reference project which pertain to noise. This letter includes responses to three letters from the public. Responses to the noise-related comments from each letter follow:

Letter #1
Development Advisory Services (DAS)
David Storer
September 11, 2013

Comment 1a: Findings (in Attachment 2 of the MND) that the project is consistent with CEQA and the Policies in the General Plan cannot be made as there is sufficient evidence in the record to the contrary. Further, there is no Finding in the record relating specifically to, or addresses the Noise Element.

Response: The noise study prepared by BAC makes specific reference to the El Dorado County General Plan Noise Element and the noise standards contained therein. Although the MND findings do not mention the Noise Element, the specific General Plan noise policies and standards applicable to this project are included in item (a) of the MND prepared by the County.

Comment 1b: The Initial Study at Section XII – Noise, uses the CNEL noise metric in two of its discussion points. The Environmental Noise Analysis, dated July 18, 2013, incorrectly uses Day-Night average (Ldn) as the measurement tool. The Community Noise Equivalent (CNEL) metric should be used consistently throughout the environmental record to enable a meaningful assessment of long-term operational noise in the vicinity, which is more sensitive to "evening" and "nighttime" noise impacts.

Response: The BAC analysis referenced in this comment did *not* use the Day-Night Average Level (Ldn) anywhere in the analysis, as that descriptor is used with transportation noise sources only. For non-transportation noise sources, such as the proposed carwash, vacuums, and drive-through, the non-transportation noise source standards of the County's Noise Element are used, and those standards are provided in terms of average (Leq) and maximum (Lmax) descriptors. In addition, the DAS statement that "The Community Noise Equivalent Level (CNEL) metric

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Attachment 5

should be used consistently throughout the environmental record...", is also incorrect, as the County Noise Element standards applicable to the project's non-transportation noise sources are not specified in terms of CNEL. The MND does reference CNEL in the discussion section but correctly provides the performance standards of the General Plan which are applicable to non-transportation noise standards in the very next section of the MND.

Comment 1c: The Initial Study identifies that measurements of noise exposure must be taken at "the adjoining property line of a noise sensitive land use". However, the Environmental Noise Analysis (see Figure 1) does not do this and places the measurement locations in rear yards or at the residential structure – or rather, in places it is determined by the analyst to be the "nearest noise-sensitive receiver". This is not consistent with the directives of the General Plan, Table 6-2, bullet No. 3, which states, in part, " In Community areas the exterior noise level standard shall be applied to the property line of the receiving property". The nearest residential property line (zoned R2A) is approximately 30-50 feet away from the proposed car wash facility on the subject site. It may be even closer!

Response: This comment is noted. In the revised acoustical study dated September 25, 2013, noise impacts were analyzed at the property lines of the nearby properties, rather than in the rear yards. It should be noted, however, that bullet #3 goes beyond the quote provided by DAS. The next sentence of bullet #3 states, *"The above standards shall be measured only on property containing a noise sensitive land use as defined in Objective 6.5.1."*

The nearest residentially-zoned property line to the project site is, if fact, within 50 feet of the project site, but there is no residence constructed on that parcel at this time, and it was formerly used for a commercial enterprise. As a result, bullet #3 could be interpreted to mean that the County noise standards are not applicable to that property since there is no current noise-sensitivity (i.e. no residence). Nonetheless, because a residence could be constructed on that property in the future, BAC analyzed impacts at that nearest residential property line (Receptor B in the BAC analysis dated September 24, 2013).

Comment 1d: The Environmental Noise Analysis was conducted in October of 2012. Eleven months has now passed since that data was collected. This information can be considered stale and may not be an accurate representation of the environmental conditions in the area and also on a cumulative basis. A more recent study should be provided and one with "evening" and "nighttime" ambient levels recorded.

Response: Because the decibel scale is logarithmic, a considerable change in traffic volumes on Green Valley Road and Sophia Parkway would need to have occurred in the last 11 months in order for the data to no longer be considered applicable. Specifically, a doubling of traffic volume correlates to a 3 dB change in noise levels, and a 3 dB change is considered a barely perceptible. Because it is highly unlikely that traffic volumes have doubled in the last 11 months, the data collected in 2012 is still considered to be relevant. Nonetheless, because the applicant requested that nighttime operations be considered in the noise analysis, BAC returned to the project site in September of 2013 to conduct additional noise monitoring. The

results of that monitoring, which are provided in detail in the revised noise study, indicate that daytime noise levels did not change appreciably over the past 11 months. Regardless, the data collected in 2013 was used in the updated noise study.

Comment 1e: As presently constituted, the study only provides "daytime" ambient information. This is important as the General Plan at Table 6-2 allows the County to "impose noise level standards which are up to 5 dB less than those specified...based upon determination of existing low ambient noise levels in the vicinity of the project site." A determination as to why the analysis does not address this must be included in the environmental record. Data that I have collected demonstrates that the vicinity has an existing low ambient noise level, especially in the "evening" and "nighttime" periods, averaging in the range of 39 – 39.2 dBA – as measured, not at the nearest property line, as required by the General Plan, but at the nearest (existing) sensitive receptor location, which is quite a long distance away.

Response: As noted in the previous response, BAC returned to the project site in September of 2013 to conduct additional noise monitoring over a complete 24-hour period containing daytime, evening and nighttime periods. The results of that monitoring, which are provided in detail in the revised noise study, indicate that the measured ambient conditions are not sufficiently low as to warrant decreasing the County's noise standards. In fact, the ambient noise measurement results indicate that the opposite is true, that measured evening and nighttime noise levels actually exceeded the County's noise standards.

Regarding the ambient noise levels collected by DAS, it is stated in the comment that the ambient levels were measured at the residence, not at the property line as required by the General Plan. However, in comment 1c, DAS correctly points out that the measurements are to be conducted at the property line, not at the residence. As a result, this comment contradicts the earlier DAS comment pertaining to the appropriate noise measurement location. If the noise standards are to be applied at the property line, then the ambient noise measurements should similarly be conducted in the vicinity of the property line, as was done in the BAC analyses.

Comment 1f: The Environmental Noise Analysis states that the proposed car wash "is not proposed" to operate in the "nighttime". For the study of noise impacts, this is the time period of 10 pm to 7 am. The Initial Study does not address the impact should the car wash operate during these hours and no Condition of Approval exists to ensure that the car wash will not operate during these specific (sensitive) times. Further, no analysis is provided (for "daytime", "evening" and "nighttime") in the Environmental Noise Analysis to address the impact of noise relating to deliveries to the proposed project.

Response: The project applicant is proposing to operate the car wash during nighttime hours provided he can meet the County's noise standards. The MND should be revised to reflect the proposed hours of operation. The revised noise analysis prepared by BAC indicates that, with appropriate noise mitigation, the car wash can operate during nighttime hours in compliance with the County noise standards.

Comment 1g: The Initial Study (Section XII. D), states that there would be Standard Conditions of Approval to address short-term noises that would "potentially exceed the thresholds established by the General Plan". The Environmental Noise Analysis does not identify when these exceedances may occur nor is there a Condition of Approval (of the 69 total) that imposes limits on construction times. Therefore, the environmental analysis is flawed and the project as proposed and evaluated is inconsistent with the General Plan.

Response: The original noise analysis did include adequate information to determine whether project noise impacts would occur during daytime, evening or nighttime periods. However, the revised environmental noise analysis provides additional clarification regarding the hours of operation of each source, when impacts are (or are not) expected to occur, and recommends specific noise mitigation measures which are being incorporated into the project conditions of approval.

Comment 1h: The Environmental Noise Analysis must analyze environmental conditions consistent with General Plan Policy 6.5.1.2, which is designed to protect sensitive land uses from noise impacts associated with noise generating projects. Such is the case with the proposed car wash facility and restaurant drive-through. Table 6-2 of the General Plan directs that the noise standards are applicable at the property line of the sensitive land use. As stated previously, the noise standards in the General Plan may even be increased to provide for more sensitivity. The "evening" and "nighttime" ambient levels have not been included in the environmental record as measured at the required locations.

Response: This comment is similar to previous comments pertaining to application of the County noise standards at the property line and comments pertaining to evening and nighttime ambient noise conditions. Please refer to the responses to comments 1c and 1e of this letter for responses to this comment.

Comment 1i: There is no noise standard in the County General Plan or Zoning Ordinance that prescribes the amount of noise that can be emitted beyond ones property line from a commercial project (zone) to an adjacent residential zone (at the property line), nor is there any metric that limits peak impulsive noise over any given period of time. For instance, if there is a noise of 75 db generated on-site, how long can that impulsive sound last for before it is in violation of General Plan Policy? What if the noise was generated for 15 seconds, 5 seconds or for 30 minutes in any given hour? The definition of "recurring impulsive noises "per table 6-2 of the General Plan must be defined and analyzed in the environmental record in order for the potential environmental impacts to have been adequately addr essed.

Response: This comment is incorrect at the General Plan Noise Element Table 6-2 standards specifically pertain to individual peak noises (L_{max}), and the length of time different noise levels can be present in any given hour is captured in the noise standards pertaining to hourly average noise levels (L_{eq}). Each of these standards, average and maximum, are addressed in the original and revised BAC analysis of project noise impacts. Recurring impulsive noises are commonly considered to be sources which generate repetitive banging, such as a jack hammer or punch-press. The noise sources associated with the project are steady state in nature (dryers and

vacuums which generate steady noise levels for several minutes at a time are considered broad-band noise, not impulsive sources). For the drive-through window speaker, impacts were evaluated relative to a 5-dB reduction in the noise standards because the noise source clearly consists of speech. Such penalties are not appropriate for the other project sources, however.

Comment 1j: The Environmental Noise Analysis does not include any prohibition on the use of vacuums during the "evening" or "nighttime" hours. The noise study should analyze the impact of vacuums being used during these hours as the ambient drops from 7 pm -7 am and again, the CNEL metric must be used. A Condition of Approval must be created to prohibit the use of the vacuums from 7 pm to 7 am.

Response: The CNEL metric is not used for non-transportation noise sources in the County's General Plan, as its use is specified as being applicable only to traffic, railroad and aircraft noise sources. BAC's noise analyses, and the project MND prepared by the County, correctly applies the hourly performance standards prescribed in terms of Leq and Lmax for the project's non-transportation noise sources.

Comment 1k: The proponent must be limited to using a 30 hp blower system at the car wash otherwise the environmental analysis is flawed. A Condition of Approval must be created to require the blower to be 30hp or less and placed in the same location that the noise study evaluated it.

Response: The revised noise analysis specifies the exact equipment manufacturer and model numbers being proposed for this project, and makes use of manufacturer's noise level data specific to that equipment in the assessment of project noise impacts. The project conditions of approval have been revised to include language specifying that the equipment used must be identical to, or quieter than, the equipment used in the noise study to evaluate noise impacts.

Comment 1l: The Environmental Noise Analysis does not evaluate the operation of the speaker system in the "nighttime" period from 10 pm to 7am. This is a critical piece of information that is missing and must be evaluated. The existing ambient noise level is much lower in the "nighttime" than the "evening" and "daytime" periods. Impacts on residential uses at the units themselves and at the property lines of the sensitive uses have not been evaluated during this timeframe. Additionally, no technical information for the proposed speaker system has been provided by the applicant to ensure an accurate assessment. A Condition of Approval must be created to ensure that residential uses are not negatively impacted by drive-through (loud/amplified speaker) operations. Again, the noise levels should be studied at the property lines of the residential use and not the "outdoor activity area" regarding same, per the General Plan.

Response: The drive-through speaker is not proposed for use during nighttime hours. The revised analysis includes technical data for the specific speaker system proposed for this project, and noise impacts were evaluated based on that technical data.

Comment 1m: There is no Condition of Approval or Mitigation Measure that requires the doors to be lowered during the operation of the car wash. As presently constituted, the environmental record is inconsistent with CEQA and the General Plan.

Response: The specific car wash dryers being proposed for this project are considerably quieter than the dryers used in the original noise analysis to assess car wash noise impacts. As a result, an entrance door is required during the nighttime hours, but not during daytime and evening hours, and no exit door is required during any hour of the day or night. A project condition of approval stating that the car wash entrance door must be closed while the car was is in operation during nighttime hours has been added.

Comment 1n: The administrative record does not include measures or procedures consistent with General Plan Policy 6.5.1.10 (A) and (B) which states:

To provide a comprehensive approach to noise control, the County shall:

A. Develop and employ procedures to ensure that noise mitigation measures required pursuant to an acoustical analysis are implemented in the project review process and, as may be determined necessary, through the building permit process.

B. Develop and employ procedures to monitor compliance with the standards of the Noise Element after completion

Response: Noise mitigation measures for all identified project noise impacts have been identified and the project conditions of approval have been updated to reflect those mitigation measures. In addition, a condition is included requiring testing of noise levels within 90 days of project startup to verify that the project noise generation is within compliance with County noise standards.

Letter #2
Darrin and Joelle Bobrowsky
September 11, 2013

Comments:

Noise

For the reasons outlined in the September 11, 2013 letter from Development Advisory Services (DAS), the revised noise study does not appropriately document all of the environmental impacts from the car wash, drive-through, and vacuum at the proposed project and an Environmental Impact Report must be prepared to fully document all of the environmental impact created by this project. Some additional points in addition to those in the DAS letter is that the Noise Study analyzes a specific car wash dryer and vacuum which has not been specified by the project applicant or conditioned by County staff to be installed, the study states the car wash will be closed in the overnight hours which is not included in the Conditions of Approval but must be included, and the vacuum was not analyzed. Additionally, the applicant stated in the July 11th, 2013, Planning Commission meeting that the

Schlotzsky's would close at 10 pm and therefore there a condition must be included in the Conditions of Approval which restricts the hours of operation to 6 am and 10 pm for both the drive-through and car wash. Finally, a Condition of Approval should be included that the car wash doors must be operational at all times and if they are not then the car wash shall be closed until they are operational.

Response: Responses to each comment contained in the DAS letter are provided above, Because this letter largely references the DAS comments, no additional responses the DAS comments beyond those included above are warranted.

Regarding the additional points made in this letter, BAC routinely prepares EIR noise sections and the level of analysis included in the evaluation of this project's noise impacts is consistent with what is normally included in an EIR. Impacts have been reevaluated using the most recent and specific data pertaining to the exact equipment to be used at the project site, and noise mitigation measures have been specified and included in the revised project conditions of approval.

Letter #3
Amy L. Anders
September 10, 2013

Comments: Noise/Aesthetics

As a resident who will be directly affected by any commercial business constructed on the subject property, I am seriously annoyed by the cavalier approach taken in producing the Environmental Noise Analysis (ENA). I find it unconscionable that anyone would submit professional conclusions and recommendations based upon fabricated information, especially when it impacts the ability of established residents to quietly enjoy the use of their homes.

As most residents of the neighborhood do, I enjoy entertaining guests on my patio in the afternoon and evening hours throughout most of the year. Aside from an occasional motorcycle passing by on Green Valley Road or Sophia Parkway, this is a very quiet, peaceful location. Existing commercial businesses are all very good neighbors who have zero impact on ambient noise and are virtually transparent to residents of this community.

My residential property borders the ARCO AMPM property. The proposed ARCO AMPM plan includes a high-volume gas station with a car wash, outside vacuums, and a popular fast-food drive through. The new ENA still does not address how each of these commercial uses will "realistically" impact homeowners in the area. Instead, the ENA is based solely upon hypothetical data and extrapolation for car wash dryers, vacuums and drive through speakers that may or may not be the equipment purchased and installed by the developer. In reality, the new ENA does not provide sufficient factual data and/or product information to support a decision to approve the ARCO AMPM project as planned.

Response: The original environmental noise analysis, and the revised analysis dated September 24, 2013 fully disclose the equipment types used to model the noise impacts of the project for all project noise sources (car wash, vacuums, drive through), and provide the reference noise level data provided by the equipment manufacturer to that equipment. As such, the comment that hypothetical or fabricated noise level data was used to model noise impacts of the project is incorrect.

Because there is no carwash equipment on site which can be directly measured at this time from each residential property to evaluate noise impacts, impacts must be based on modeling results out of necessity. This is standard engineering practice when evaluating impacts of a new project. It should be noted that the noise level data used to model noise impacts in the original study was considerably louder than the manufacturers' data provided for the specific equipment which is to be used at the site. When the impacts were re-evaluated using the actual data, not conservative data from equipment used at other similar facilities, noise impacts of the project were diminished. Nonetheless, noise mitigation measures were identified for any and all potentially significant noise impacts of the project, and those mitigation measures have been incorporated into the project conditions of approval.

The comment in the second paragraph that, "existing commercial businesses are all very good neighbors who have zero impact on ambient noise and are virtually transparent to residents of this community", appears to be inconsistent with the comment in the first paragraph which states, "As a resident who will be directly affected by ***any*** commercial business constructed on the subject property".

This concludes BAC's responses to public comments on this project. Please call BAC at 916-663-0500 or contact Paul Bollard by email at paulb@bacnoise.com with any questions pertaining to this letter.

Sincerely,

Bollard Acoustical Consultants, Inc.

Paul Bollard
President