



TOWN OF PORTOLA VALLEY

7:00 PM – Regular Meeting of the Planning Commission
Wednesday, September 19, 2018
Historic Schoolhouse
765 Portola Road, Portola Valley, CA 94028

REGULAR MEETING AGENDA

7:00 PM - CALL TO ORDER AND ROLL CALL

Commissioners Hasko, Kopf-Sill, Taylor, Vice-Chair Goulden, Chair Targ

ORAL COMMUNICATIONS

Persons wishing to address the Planning Commission on any subject may do so now. Please note, however, that the Planning Commission is not able to undertake extended discussion or action tonight on items not on the agenda.

PUBLIC HEARING

1. [Architectural Review and Site Development Permit for a New Pool Cabana and Undergrounding of an Existing Seasonal Creek, File # 40-2017,199 Mapache Drive, Mainzer Residence \(Staff: A. Cassidy\)](#)

COMMISSION, STAFF, COMMITTEE REPORTS AND RECOMMENDATIONS

2. Commission Reports
3. Staff Report
4. [News Digest: Planning Issues of the Day](#)

APPROVAL OF MINUTES

5. [Planning Commission Meeting of July 18, 2018](#)
6. [Planning Commission Meeting of August 1, 2018](#)
7. [Planning Commission Meeting of September 5, 2018](#)

ADJOURNMENT

ASSISTANCE FOR PEOPLE WITH DISABILITIES

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Planning Department at (650) 851-1700. Notification 48 hours prior to the meeting will enable the Town to make reasonable arrangements to ensure accessibility to this meeting.

AVAILABILITY OF INFORMATION

Any writing or documents provided to a majority of the Town Council or Commissions regarding any item on this agenda will be made available for public inspection at Town Hall located 765 Portola Road, Portola Valley, CA during normal business hours. Copies of all agenda reports and supporting data are available for viewing and inspection at Town Hall and at the Portola Valley Library located adjacent to Town Hall.

PUBLIC HEARINGS

Public Hearings provide the general public and interested parties an opportunity to provide testimony on these items. If you challenge any proposed action(s) in court, you may be limited to raising only issues you or someone else raised at the Public Hearing(s) described in this agenda, or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing(s).



MEMORANDUM

TOWN OF PORTOLA VALLEY

TO: Planning Commission

FROM: Arly Cassidy, Associate Planner

DATE: September 19, 2018

RE: Architectural Review and Site Development Permit for a New Pool Cabana and Undergrounding of an Existing Seasonal Creek, File # 40-2017, 199 Mapache Drive, Mainzer Residence

RECOMMENDATION

Staff recommends that the Planning Commission act separately on the two proposed elements of the application. Staff recommends that the Planning Commission:

1. Move to approve the proposed new pool cabana, subject to the conditions in Attachment 1; and
2. Move to deny the proposed culvert for the existing seasonal creek.

PROJECT DATA

Lot Size	2.52 acres			
Average Slope	8.67%			
	Code Requirements	Existing (2016 Approval)	Proposed	Remaining
Max Floor Area	7,770	7,290	7,714	56
85% of MFA	6,604	6,228	6,228	376
Max Impervious Surface	12,762	9,697	10,371	2,301
Height	28'/34'	18'/20'	18'/20'	-
Front Setback	50'	31'	31'	-
Side Setbacks	20'/20'	19'/35'	19'/35'	-
Rear Setback	20'	248'	198'	-
Parking Spaces	2 covered, 2 guest	5 covered, 5 guest	5 covered, 5 guest	-

*()-basement square footage

BACKGROUND

The proposal is for a new 424 square foot pool cabana and a new 288 foot 36" underground culvert for an existing seasonal creek at 199 Mapache Drive. The property gained previous approvals for a new house, garage, ADU and carport from the ASCC on July 11, 2016, which are now under construction.

The current proposal is for two additions to the approved project: 1) a new pool cabana; and 2) a new culvert to underground the seasonal creek running across the property. Each element involves grading levels that trigger site development review at the Planning Commission level. Grading for the previous approval was a total of 990 cubic yards (CY); the new proposal would require an additional 985 CY, for a sum of 1,975 CY. The previous and current applications are for elements of the same construction project; grading numbers are therefore summed.

The two components of the current review are fairly separate from one another; therefore, this staff report will review each of these proposal elements separately. The project is described in detail in the staff report presented to the ASCC on May 14, 2018 and the Planning Commission on May 16, 2018 (Staff Report, Attachment 2; Minutes, Attachments 3 and 4, respectively). At these two meetings, both bodies reviewed the project and found that the cabana could be approved with minor conditions, while the culvert required more research and modifications before it could be approved. The applicant was charged with researching the status of the water way and possible engineering solutions that did not involve undergrounding the existing creek.

Since those preliminary reviews, work on the approved house has progressed. Recently, a member of the construction crew accidentally drove a mini excavator into a trench they were constructing on site for drainage facilities. The trench he fell into is not the seasonal creek in question; the trench was excavated as part of the construction project and will be filled upon completion. However, the incident increased the property owners' concerns around the seasonal creek. The applicant team is now asking the Planning Commission to review the project with no changes. A letter describing their position was submitted in the place of revised plans (Attachment 5).

CODE REQUIREMENTS

As required by sections 18.64.010.1 and 15.12.100.B of the Zoning and Site Development Codes, this application for a 424 square foot pool cabana and culvert requiring a total site grading of 1,975 cubic yards has been forwarded to the Planning Commission for review. In addition to the Municipal Code, the Design Guidelines and General Plan are used to evaluate the project.

DISCUSSION

Pool Cabana

Project Design and Exterior Materials

A 424 square foot pool cabana is proposed at the west side of the approved pool. The location would be well-shielded from view from the road by the house (now under construction) and surrounded by oak trees. The cabana would consist of two small buildings connected by a single ridged roof, with roofed open space in between. The proposed cabana room is a 256

square foot open plan building measuring 16' x 16'. The other proposed building is 168 square feet and contains a bathroom, sauna, pool equipment and storage, as well as an outdoor fireplace facing into the covered area. The peak of the roof is proposed at 13' 2 1/2" high. Materials would match the approved house, including a standing seam metal roof, redwood/cedar siding with weathered brown stain, and aluminum windows, doors and trim painted a medium bronze color.

Lighting

Three types of lighting fixtures are proposed for the cabana. Eight wall sconces are proposed, two on each side of the three sliding doors of the cabana, and one each adjacent to the bathroom/sauna and the pool equipment doors. Four sloped downlights and two pendant lights are shown within the roofed open space between the two buildings (Sheet A-2.7, Cabana EM Plan).

At the May 14, 2018 ASCC meeting, Committee members voiced their general approval of the cabana, with some concern around the lighting. Members agreed that less lighting would improve the project. In its May 16, 2018 review of the project, Planning Commissioners stated that they were in favor of the cabana, and that they would defer to the ASCC in matters of lighting. Since their last reviews, the applicant submitted fixture cut sheets for all three types of lighting, showing that they are dark sky compliant (Attachment 6). Staff has therefore proposed a condition of approval (Condition 3) requiring that all light fixture cut sheets and a Lighting Plan be reviewed by an ASCC member at time of building permit submittal.

Grading

Earthwork approved for the main house was 990 CY. The current proposal is for an additional 985 CY (245 CY cut and 740 CY fill), for a total of 1,985 CY of soil movement. The Planning Commission previously requested separate grading numbers for the cabana, in case of its approval and the culvert's denial. The table below shows proposed grading for the cabana, culvert, and additional improvements, meant for the southeast side of the site.

(in cubic yards)	Cut	Fill	Total
House - Building Pad	1,380	10	1,390
House - Site Work	785	205	990
Cabana	15	65	80
Culvert	0	400	400
Additional Improvements	230	275	505
Soil Movement Total	2,410	955	3,365
Site Development Permit	1,030	955	1,985

Total fill proposed for the cabana is 65 cubic yards, which brings the total cumulative grading proposed for the site over the 1,000 CY trigger for Planning Commission review. Therefore, Planning Commission review is required for the Site Development Permit for the cabana. No Site Development Committee issues have been raised regarding the cabana.

Environmental Review

The project is categorically exempt per Section 15301, Class 1 of the State CEQA Guidelines which includes an exemption for minor alteration of existing public or private structures.

Architectural Review – Cabana

Both the Planning Commission and the ASCC have completed a preliminary review of the project, and the applicant is now requesting final action on the application. Typically, architectural improvements such as the cabana would require only one ASCC review; in this case, the grading involved with the cabana requires that it be reviewed by the Planning Commission as well. The May 14, 2018 Minutes show that all members of the ASCC were supportive of the cabana, with some minor concerns around lighting, which staff has addressed with a condition of approval. Staff therefore recommends that the Planning Commission take final action on the cabana at this time.

The proposed cabana is in compliance with the General Plan and Design Guidelines based on the following findings:

1. The size, siting and design of buildings, individually and collectively, tend to be subservient to the natural setting and serve to retain and enhance the rural qualities of the town. (Siting and Scale)

The cabana would be 424 square feet, only slightly larger than a structure that does not require ASCC review. The massing would be divided between two structures and connected by a gabled roof with a height of 13' 2½". The building is proposed at the rear of the main house, well shielded from view by the house and surrounding trees.

2. The proposed project will blend in with the natural environment in terms of materials, form and color. (Architectural Design)

Proposed materials consist of a standing seam metal roof, redwood/cedar siding with weathered brown stain, and aluminum trim painted bronze. The proposed design, materials and color palette would match the existing house and blend into the surrounding wooded area.

3. The location, design and construction of the development project will minimize disturbances to the natural terrain and scenic vistas. (Grading)

A moderate amount of grading is proposed in association with the cabana. Fifteen cubic yards of cut and 65 cubic yards of fill are proposed at and around the cabana, in an area already modified by development of the house, using soil already dug out from the basement area of the main house.

4. The proposed project utilizes minimal lighting so that the presence of development at night is difficult to determine. (Lighting)

The cabana proposal includes three light fixture types. The wall sconce is dark sky compliant. Lighting is currently proposed above levels recommended by the Design Guidelines. However, staff has included a condition of approval requiring review of the ceiling and pendant fixture cut sheets and a final Lighting Plan by an ASCC member.

5. The proposed landscape plan will preserve the qualities of the natural environment through the use of native plant materials and provide a blended transition to adjacent open areas. (Landscaping)

No landscape plan has been submitted; however, the applicant is proposing that all graded areas be hydro seeded with a woodland grass/wild flower seed mix selected by the project Landscape Architect.

Culvert

The location for the proposed culvert is currently a low linear area connecting the existing culvert under the project's new driveway with the western end of the property, where it empties into Corte Madera Creek beyond the property line. The May 14 & 16, 2018 Staff Report outlines the history of the area and improvements/modifications. The current situation has been evolving through the Town's history and is due to a number of factors created by various parties.

The applicant refers to the feature in question as a ditch, while the Conservation Committee calls it an ephemeral stream. Staff has included a printout of the United States Environmental Protection Agency's webpage on Streams (Attachment 7). The page includes definitions on various types of streams and their benefits, including the difference between year-round (perennial), seasonal (intermittent), and rain-dependent (ephemeral) streams. In evaluating the amount of water observed in the ditch, it is staff's conclusion that the area can be considered a seasonal stream, as there is water present even when there have not been recent rains.

Grading

As discussed above, the grading numbers show that both the cabana and culvert would push the cumulative grading over 1,000 CY on their own, and thus either one would require Planning Commission review of the associated Site Development Permit. The culvert itself would involve 400 CY of fill.

Landscaping

No new tree removals are proposed and no landscaping plans were submitted with the application. The applicant has stated in an email that they plan to use a hydro seed with a woodland grass/wild flower seed mix selected by our Landscape Architect, Bob Cleaver. This mix would be applied to all newly graded areas.

Outstanding Site Development Comments

The Town Engineer requires further information and plan updates before he can recommend approval of the culvert (Attachment 8), and the Conservation Committee has voiced a number of strong objections to the current culvert proposal (Attachment 9). The applicant is following up with the Westridge Architectural Supervising Committee (WASC) to discuss their proposal of moving forward with the culvert as originally proposed.

Review - Culvert

During the Planning Commission's preliminary review of the project, a number of possible solutions were suggested which the Commission asked the applicant to consider:

- A slight filling of the stream bed, to make it less steep but still able to handle the necessary water flow
- A softening of the bank slope
- A drainage swale
- Additional analysis of legal implications

The applicant's resubmittal letter states than a number of different solutions were considered, but none were considered viable, and so they have returned to the original proposal, stating that the applicant seeks to mitigate a situation which they did not create. However, as stated in the preliminary staff reports, Town documents used to guide such decisions unanimously argue against putting the stream underground.

It is difficult to review the culvert on its own. No specific findings are required by a Site Development Permit, and no visible architectural elements trigger an architectural review of the culvert as proposed, which consists of a metal pipe buried under the ground. Since no specific findings are required, it is appropriate to look to other Town policy documents. The following are quotes from applicable Town documents.

General Plan, Conservation Element, Principle 5:

The town shall require that there be no significant alterations of stream channels or obstructions to the natural flow of water. Creeks should be maintained in their naturally meandering channels consistent with geomorphic processes. Where channels are damaged or property threatened, bank stabilization by biotechnical methods are preferable to engineered solutions such as concrete walls and similar structures.

Design Guidelines, Grading:

- Use contour grading to blend into landforms rather than severe cutting, filling, padding or terracing.
- Control grading and site preparation to reduce erosion and soil exposure and minimize impacts on natural drainage systems.
- Revegetate cuts, fills, and other earth modification with appropriate native plant material.

Understanding Site Grading and Permitting handout (Approved by Planning Commission)

The principles of site design in the Town of Portola Valley:

- Preserve and enhance the natural features of the Town, including natural drainage swales and creeks
- Have structures designed to integrate with the natural topography of the site
- Minimize site disturbance and tree/vegetation removal, especially in areas where intact native habitat exists – earthwork and heavy equipment harms native plants and allows the introduction of non-native invasive weeds that reduce the overall habitat quality of the property.
- Avoid severe cutting, filling, padding, or terracing of the landform
- Limit grading to the minimum amount necessary to accommodate development
- Have site grading blend into landforms

The guidelines clearly state that water ways should be protected and grading kept to a minimum. The last sentence from the Conservation Element of the General Plan most clearly states the Town's position: *Where channels are damaged or property threatened, bank stabilization by biotechnical methods are preferable to engineered solutions such as concrete walls and similar structures.*

The applicant argues that similar culverts and undergrounding has been approved in the past. However, staff finds that these instances were in the case of existing flooding issues. In the situation at hand, it is staff's understanding that the ditch itself was dug to mitigate flooding from an existing stream, thus solving the flooding issue. The applicant now seeks to mitigate unpleasant outcomes created by the ditch.

Given the clear guidance of Town documents, staff recommends that the Planning Commission move to deny the culvert element of this application.

PUBLIC COMMENTS

No public comments have been received as of the writing of this report.

CONCLUSION

Staff recommends that the Planning Commission:

1. Move to approve the proposed new pool cabana, subject to the conditions in Attachment 1; and
2. Move to deny the proposed culvert for the existing seasonal creek.

ATTACHMENTS

1. Conditions of Approval for the Pool Cabana
2. ASCC and Planning Commission Staff Report, dated May 14 & 16, 2018, with original attachments
3. ASCC Minutes dated May 14, 2018
4. Planning Commission Minutes dated May 16, 2018
5. Email from Carter Warr requesting final review of project, dated September 7, 2018
6. Lighting Fixture Cut Sheets, Received September 12, 2018
7. US Environmental Protection Agency: Streams website, accessed 9/11/18
8. Comments from Town Engineer, dated March 17, 2016
9. Comments from Conservation Committee, dated March 14, 2016, November 5, 2017 and April 24, 2018
10. Project plans, dated April 10, 2018

Report approved by: Laura Russell, Planning and Building Director



Conditions of Approval
for a Pool Cabana

199 Mapache Drive, Mainzer Residence, File # PLN ARCH 40-2017

A. PLANNING DEPARTMENT:

1. No other modifications to the approved plans are allowed except as otherwise first reviewed and approved by the Planning Director, the ASCC, or the Planning Commission, depending on the scope of the changes.
2. At no time shall the space between the two buildings of the Cabana be joined or enclosed with walls or glass.
3. An ASCC member shall review light fixture cut sheets for the down light and pendant light and an updated outdoor lighting plan for the Cabana, showing a reduction in lighting at the Cabana.
4. No landscaping is approved as part of this project. The existing landscape plan approved with the New Residence on July 11, 2016 shall be installed.
5. A detailed construction logistics plan shall be submitted prior to building permit issuance.
6. A construction staging and tree protection plan for the construction shall be submitted to the satisfaction of the Public Works Director prior to building permit issuance. Special attention shall be taken to keep invasive plant materials from entering the project site on construction equipment. Existing invasive plants shall be removed from the project site prior to final inspection.
7. *Once the building or demolition permit has been issued, prior to beginning grading, demolition, or construction, tree protection measures shall be installed per the Arborist Report dated March 7, 2017 prepared by McClenahan Consulting, LLC. A certified arborist shall inspect the tree protection measures, including fencing and mulching, and submit a letter to the Planning Department summarizing the findings of the inspection. The tree protection measures shall be implemented throughout the course of construction. Town staff shall inspect the tree fencing after receipt and approval of the arborist letter noted above prior to commencement of grading, demolition, or construction. The project general contractor shall call for said inspection at least three days in advance of the inspection. No storage of equipment, vehicles or debris shall be allowed within the drip lines of these trees.*
8. This approval shall automatically expire two years from the date of issuance, if within such time period, a Building Permit has not been obtained or the use has not commenced.
9. To the extent permitted by law, the Applicant shall indemnify and hold harmless the City, its City Council, its officers, employees and agents (the "indemnified parties") from and against any claim, action, or proceeding brought by a third party against the indemnified parties and the applicant to attack, set aside or void, any permit or approval authorized hereby for the Project, including (without limitation) reimbursing the City for its actual attorneys' fees and costs incurred in defense of the litigation. The City may, in its sole discretion, elect to defend any such action with attorneys of its own choice.

B. ENGINEERING/PUBLIC WORKS DEPARTMENT:

10. All items listed in the most current "Public Works & Engineering Department Site Development Standard Guidelines and Checklist" shall be reviewed and met. Completed and signed checklists by the project architect or engineer will be submitted with building plans. This document is available on the Town website.
11. All items listed in the most current "Public works & Engineering Department Pre-Construction Meeting for Site Development" shall be reviewed and understood. Document is available on the Town website.
12. Any revisions to the Site Development plan permit set shall be resubmitted for review. The revised items must be highlighted on the plans and each item listed on letterhead.
13. Comply with the current San Mateo County stormwater quality control requirements.
14. All utilities shall be shown on the building permit plan set.

C. GEOLOGY REVIEW:

15. Geotechnical Review - Development Plans - Structural plans for the residence shall be generated that incorporate the recommendations of the geotechnical consultant.
16. Geotechnical Plan Review - The applicant's geotechnical consultant shall review and approve all geotechnical aspects of the project building plans (i.e., site preparation and grading, site drainage improvements and design parameters for foundations, and retaining walls) to ensure that their recommendations have been properly incorporated. The structural plans and Geotechnical Plan Review shall be submitted to the Town for review and approval by the Town Staff prior to approval of building permits.
17. Geotechnical Construction Inspections – The Project Geotechnical Consultant shall inspect, test (as needed), and approve all geotechnical aspects of the project construction. The inspections shall include, but not necessarily be limited to: site preparation and grading, site surface and subsurface drainage improvements and excavations for foundations prior to the placement of steel and concrete.

The results of these inspections and the as-built conditions of the project shall be described by the Project Geotechnical Consultant in a letter and submitted to the Town Engineer for review prior to final project (as-built) approval.

D. FIRE DEPARTMENT:

18. A 100 foot defensible space around the proposed new structures shall be required prior to start of construction.
19. Upon final inspection a 30 foot perimeter defensible space shall be required per WFPD ordinance section 304.1.2.A.
20. The applicant shall provide an approved spark arrestor on all chimneys including outside fireplaces.

21. The applicant shall install smoke and CO detectors per 2016 CBC.

22. NFPA 13D Fire Sprinkler System shall be installed. Sprinkler plans/calculations to be submitted under separate cover WFPD. See WFPD standards (www.woodsidefire.org).

The permit(s) granted by this approval may be appealed if done so in writing within 15 days of the date of approval. The building permit cannot be issued until the appeal period has lapsed. The applicant may submit construction plans to the Building Department provided the applicant has completed all conditions of approval required prior to acceptance of plans for building plan check.



MEMORANDUM

TOWN OF PORTOLA VALLEY

TO: ASCC and Planning Commission

FROM: Arly Cassidy, Interim Planning Director

DATE: May 14, 2018 and May 16, 2018

RE: Preliminary Architectural Review and Site Development Permit for a New Pool Cabana and Undergrounding of an Existing Seasonal Creek, File # 40-2017, 199 Mapache Drive, Mainzer Residence

RECOMMENDATION

Staff recommends that the ASCC and Planning Commission offer comments, reactions and directions to assist the applicant and project architect make any plan adjustments or clarifications that members conclude are needed before the commissions consider final action on the application.

PROJECT DATA

Lot Size	2.52 acres			
Average Slope	8.67%			
	Code Requirements	Existing	Proposed	Remaining
Max Floor Area	7,770	7,290	7,714	56
85% of MFA	6,604	6,228	6,228	376
Max Impervious Surface	12,762	9,697	10,371	2,301
Height	28'/34'	18'/20'	18'/20'	-
Front Setback	50'	31'	31'	-
Side Setbacks	20'/20'	19'/35'	19'/35'	-
Rear Setback	20'	248'	198'	-
Parking Spaces	2 covered, 2 guest	5 covered, 5 guest	5 covered, 5 guest	-

*()-basement square footage

BACKGROUND

The proposal is for a new 424 square foot pool cabana and a new 288 foot 36" underground culvert for an existing seasonal creek at 199 Mapache Drive, which has previous approvals for a new house, garage, ADU and carport.

The 2.52 acre parcel is located on the west side of Mapache Drive, across from Zapata Way (Vicinity Map, Attachment 1). The lot was created as part of the Westridge Subdivision in 1958 and the house was built in 1962. Surrounding uses include one and two story homes on abutting lots to the north, west, and south and across Mapache Drive to the east. The site is relatively level with a small slope down to Corte Madera Creek along the west (rear) property line. Top of bank is approximately 200' away from the proposed structure. A drainage channel approximately 3 feet deep flows under Mapache Drive, across the northern portion of the property, and out to Corte Madera Creek. The channel runs in an east-west direction north of the building site.

The applicant previously proposed and gained approval for a 6,356 sq. ft. single story residence with an attached three car garage, a 3,249 sq. ft. basement, a 750 sq. ft. detached ADU, a 410 sq. ft. carport, and a 728 sq. ft. swimming pool. Site grading for the project totaled 990 cubic yards which includes 780 cubic yards of cut and 210 cubic yards of fill. The ASCC reviewed the earlier project on May 23, 2016 and approved it on July 11, 2016 (Staff Reports and Minutes, Attachments 2-5).

This project is currently under construction. The detached second unit and carport at the north side of the property have been constructed and are the living quarters of the owners. The main house is under construction, with the basement in place and the house coming out of the ground. An approved culvert is in place, connecting from the culvert under the public road and running under the new driveway. The culvert empties into the channel in question.

The current proposal under review is for two additions to the approved project: a new pool cabana which requires architectural review, and a new culvert to underground the water channel running across the property, which involves grading levels that trigger site development review at the Planning Commission level. Grading for the previous approval was a total of 990 cubic yards (CY); the new proposal would require an additional 985 CY, for a sum of 1,975 CY. The two submittals are for elements of the same construction project; grading numbers are therefore summed.

These two components of the current review are fairly separate from one another; therefore, this staff report will review each of these proposal elements separately. The project is further described in the set of architectural, civil, and landscape plans received on April 10, 2018. In addition, the project submittal includes the information listed below (Attachments 6-10):

- Color and Materials Board from the original house, which will be matched (available at the meeting)
- Light Fixture Cut Sheet
- Build It Green Checklist
- Email from Nancy Ayers, previous property owner
- Lea & Braze Comment Letter
- Lea & Braze Supplementary Hydrology Study

CODE REQUIREMENTS

As required by sections 18.64.010.1 and 15.12.100.B of the Zoning and Site Development Codes, this application for a new residence has been forwarded to the ASCC for review. In addition to the Municipal Code, the Design Guidelines and General Plan are used to evaluate the project.

DISCUSSION

Pool Cabana

Project Design and Exterior Materials.

A 424 square foot pool cabana is proposed at the west side of the approved pool. The pad for the structure is tucked against two 10' setback lines from proposed septic leach fields, but sits outside of any required setbacks. (The approved house protrudes into the side and front setbacks but conforms to the setback averaging code at PVMC Section 18.52.050). The location will be well-shielded from view from the road by the house (now under construction) and is surrounded by oak trees.

The cabana consists of two small buildings connected by a single ridged roof, with roofed open space in between. The cabana room is a 256 square foot open plan building measuring 16' x 16'. The other building is 168 square feet and contains a bathroom, sauna, pool equipment and storage, as well as an outdoor fireplace facing into the covered area. The peak of the roof is 13' 2 ½" in height. Materials will match the approved house, including a standing seam metal roof, redwood/cedar siding with weathered brown stain, and aluminum windows, doors and trim painted a medium bronze color.

Lighting

Three types of lighting fixtures are proposed for the cabana. Eight wall sconces are proposed, two on each side of the three sliding doors of the cabana, and one each adjacent to the bathroom/sauna and the pool equipment doors. Four sloped downlights and two pendant lights are shown within the roofed open space between the two buildings (Sheet A-2.7, Cabana EM Plan). A fixture cut sheet is provided for the wall sconce, but not the down or pendant lights (Attachment 6).

Sustainability Aspects of Project. The project architect has provided the enclosed Build-It-Green checklist showing 60 points. The project qualifies as a Small Addition project over 400 square feet, which requires a minimum of 25 points and self-certification at time of building permit final. The project is therefore compliant.

Culvert

The location for the proposed culvert is currently a low line connecting the existing culverts under Mapache Drive and the project's new driveway with the western property line, where it runs into Corte Madera Creek. The applicant refers to this feature as a ditch, while the Conservation Committee calls it an ephemeral stream. Various actions throughout the history of this corner of Portola Valley are used as justification for supporting or opposing the proposal to underground the water flow. In order to establish a full understanding and agreement on the issues, staff has outlined the main points and relevant images.

- September 1948 aerial photograph (Google Earth) shows bare hillsides with cattle paths running through. “Zapata Way” runs up the gulch (single dark bush), which channels water from the local micro-watershed down across 199 Mapache and toward Corte Madera Creek (Attachment 9).
- June 1970 Portola Valley Master Storm Drainage Report shows Zapata Gulch as having regular water flow, with a 36” culvert under Mapache Drive where it crosses onto 199 Mapache (left of culvert). Corte Madera Creek is the hard black line on the bottom left (Attachment 11).
- County records show that this portion of the Westridge Subdivision was recorded in 1958. Mapache Road and the culvert under it followed, and served to concentrate water from upper Zapata Gulch into a narrow flow across the lower property.
- The house at 199 Mapache was built in 1962, on the south side of the stream. Previous owner Ruth Ayers states in an email that her parents “found it necessary to direct the winter runoff to the creek” in 1963 or 1964 (Attachment 8). The applicant has also stated that the ditch now in place was created by previous owners in order to direct water away from the house, due to winter floods.
- The road culvert was expanded farther into 199 Mapache in order to accommodate a driveway which crosses the stream, and now runs approximately 125’ from the east side of the road to the west discharge, approximately 80’ into the property.
- The applicant states that the current ditch is steep-sided and dangerous, divides the property (which now holds an ADU and carport on the north side), and breeds mosquitos. The Conservation Committee states that the stream was flowing on April 24, 2018 and therefore cannot breed mosquitos; when staff visited on May 9, 2018 the stream was sluggish but moving.

It is clear from the above outline that the situation has been evolving through the Town’s history, and that the current situation is due to a number of factors created by various parties. The applicant seeks to mitigate a situation which they did not create. Unfortunately, Town documents used to guide such decisions unanimously argue against putting the stream underground. The following are quotes from various Town documents.

General Plan, Conservation Element, Principle 5:

The town shall require that there be no significant alterations of stream channels or obstructions to the natural flow of water. Creeks should be maintained in their naturally meandering channels consistent with geomorphic processes. Where channels are damaged or property threatened, bank stabilization by biotechnical methods are preferable to engineered solutions such as concrete walls and similar structures.

Design Guidelines, Grading:

- Use contour grading to blend into landforms rather than severe cutting, filling, padding or terracing.
- Control grading and site preparation to reduce erosion and soil exposure and minimize impacts on natural drainage systems.
- Revegetate cuts, fills, and other earth modification with appropriate native plant material.

Understanding Site Grading and Permitting handout (Approved by Planning Commission)

The principles of site design in the Town of Portola Valley:

- Preserve and enhance the natural features of the Town, including natural drainage swales and creeks

- Have structures designed to integrate with the natural topography of the site
- Minimize site disturbance and tree/vegetation removal, especially in areas where intact native habitat exists – earthwork and heavy equipment harms native plants and allows the introduction of non-native invasive weeds that reduce the overall habitat quality of the property.
- Avoid severe cutting, filling, padding, or terracing of the landform
- Limit grading to the minimum amount necessary to accommodate development
- Have site grading blend into landforms

The guidelines clearly state that water ways should be protected and grading kept to a minimum.

Grading

Earthwork approved for the main house was 990 CY, primarily to accommodate the new driveway, parking, and fire truck turnaround area and to create level yard areas south and southeast of the house. The current proposal is for an additional 985 CY (245 CY cut and 740 CY fill), for a total of 1,975 CY of soil movement.

(in cubic yards)	Cut	Fill	Total
House - Building Pad	1,380	10	1,390
House - Site Work	785	205	990
Cabana & Culvert	245	740	985
Soil Movement Total	2,410	955	3,365
Site Development Permit	1,030	955	1,975

Landscaping.

No new tree removals are proposed and no landscaping plans were submitted with the application. In order to approve the proposed culvert, a landscape plan for the area is required.

Committee Recommendations

San Mateo County Environmental Health Department. The Environmental Health Department had no comments on the proposed culvert and approved the site development permit for the cabana, with additional requirements at time of building permit submittal (Attachment 12).

Fire Marshal. The Fire Marshal has reviewed the proposal and provided recommended standard conditions of approval for the project (Attachment 13).

Town Geologist. The Town Geologist has no geologic or geotechnical objections to the general concept for the cabana and culvert and recommends approval of the proposed plans with conditions (Attachment 14).

Town Engineer. The Town Engineer has reviewed the grading, drainage, and erosion control plan for the project and provided comments regarding the culvert, some of which must be addressed prior to ASCC approval (Attachment 15).

Conservation Committee. The committee has visited the site three times and has color coded their comments. Red type indicates the first visit for the house, on March 10, 2016. The committee visited twice for the current review: green indicates November 5, 2017, and blue April 24, 2018. The committee had no issues with the cabana, but raised several concerns regarding the culvert and general site layout. The committee stated that the ephemeral stream

should not be undergrounded and instead should be repaired, and also pointed out issues with a well at the rear of the property and invasive plants along the stream (Attachment 16).

Westridge Architectural Supervising Committee (WASC). The Westridge Committee is attempting to schedule an on-site review of the proposal in the next week; comments will be made available before the next ASCC meeting.

No unresolvable Site Development Committee issues have been raised regarding the cabana. The Town Engineer requires further information and plan updates before he can recommend ASCC approval, and the Conservation Committee has voiced a number of strong objections to the current culvert proposal. Staff recommends that further modifications be made to reflect and resolve these concerns before the item return to the ASCC and Planning Commission for final review.

Public Comments

No public comments have been received as of the writing of this report.

SUMMARY OF UNRESOLVED ISSUES

The following table outlines the unresolved project issues where the applicant and staff disagree and which require a decision by the ASCC.

Planning Issue	Proposed by Applicant	Staff Recommendation
Undergrounding of ephemeral stream	Place existing stream into underground culvert across the majority of the property.	Find an above-ground solution to the drainage, slope, and mosquito issues.
Landscaping	No landscaping plan submitted.	Provide landscaping submittal with WELO checklist to show plans for filled area around culvert.
Lighting	Eight wall sconces, with three pairs around three doors. Down and pendant lights at breezeway.	Reduction in wall sconces to one per door, no light at pool equipment door. Provide cut sheet for down light and pendant light.

These unresolved issues represent a large range of outstanding matters which need to be addressed before the project can move forward. Staff requests that the ASCC and Planning Commission discuss these and any other issues in its preliminary review of the project, and offer the applicant clear direction on how to move the project forward.

In regards to the culvert, it is staff's hope that a creative solution can be arrived at. The applicant seeks to mitigate the effects of a ditch dug by previous owners, including property division and mosquito nuisance. The ditch was created before the Town was incorporated and is not in keeping with the Town's goals and principles; it likely would not be approved if reviewed today. The proposed culvert is equally out of step with Town

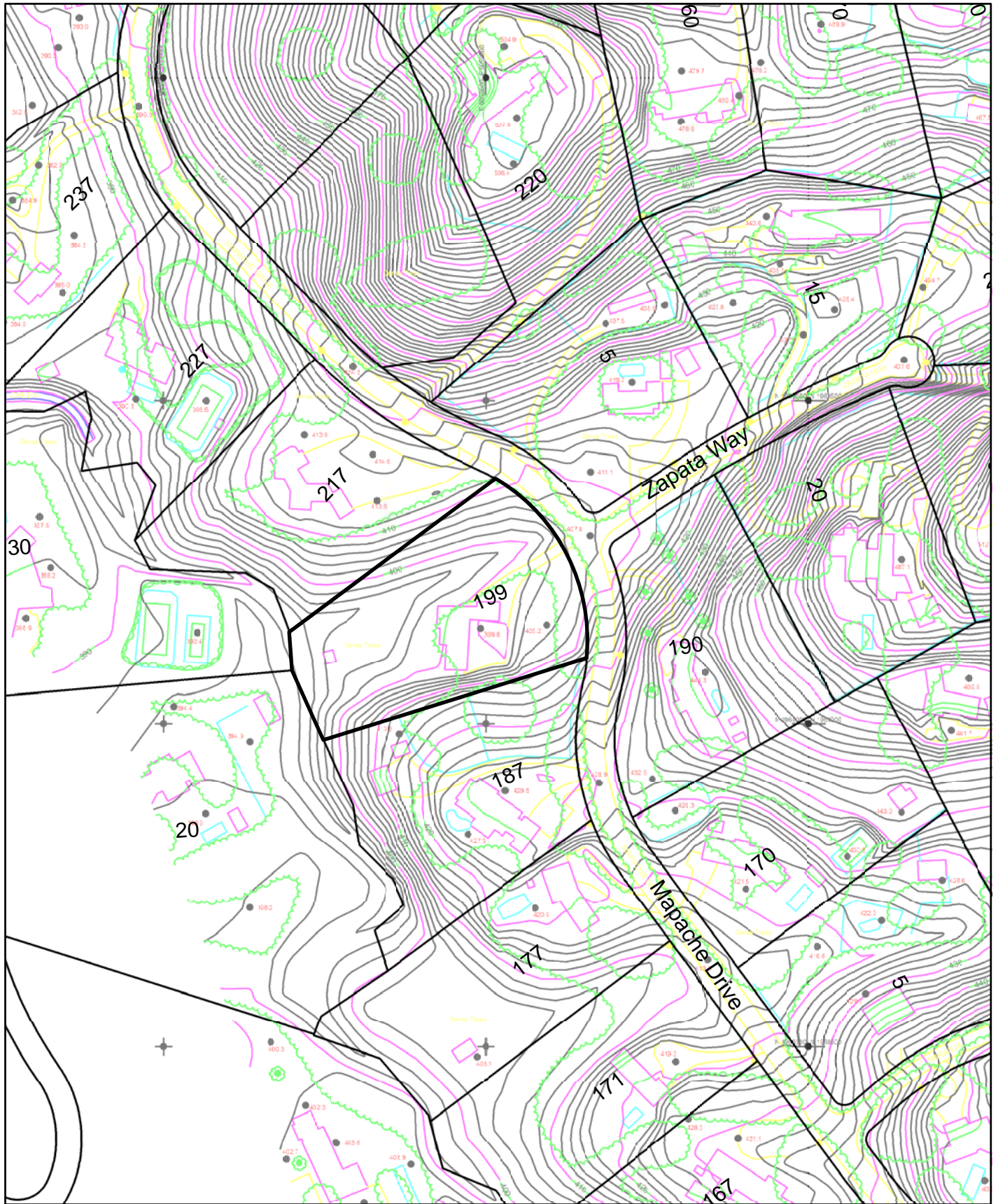
guidelines, and is not a solution to all partys' concerns. That does not mean, however, that a new solution cannot be arrived at; one that mitigates the property owner's concerns while also restoring the water flow to a more natural condition. If the ASCC and Planning Commission find this idea favorable, staff recommends specific direction be given to the applicant as to the qualities of an approvable project.

CONCLUSION

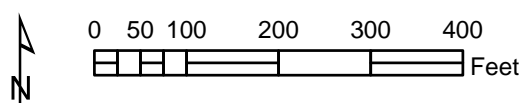
Staff recommends that the ASCC and Planning Commission conduct the preliminary review of this project, offer comments and directions to the applicant and architect to make any plan adjustments or clarifications before the ASCC considers final action on the application.

ATTACHMENTS

1. Vicinity Map for 199 Mapache
2. ASCC Preliminary Staff Report dated May 23, 2016
3. ASCC Minutes dated May 23, 2016
4. ASCC Staff Report dated July 11, 2016
5. ASCC Minutes dated July 11, 2016
6. Light Fixture Cut Sheet, received April 10, 2018
7. Build It Green Checklist, dated October 19, 2017
8. Email from Nancy Ayers, received November 6, 2017
9. Lea & Braze Comment Letter, received April 10, 2018
10. Lea & Braze Supplementary Hydrology Study, received April 10, 2018
11. Portola Valley Master Storm Drainage Report, Plates 3 & 5, dated June 1970
12. Comments from San Mateo County Environmental Health, dated November 13, 2017 and May 7, 2018
13. Comments from Fire Marshal, dated November 13, 2017
14. Comments from Town Geologist, dated November 21, 2017
15. Comments from Town Engineer, dated March 17, 2016
16. Comments from Conservation Committee, dated March 14, 2016, November 5, 2017 and April 24, 2018
17. Project plans, dated April 10, 2018



Vicinity Map



199 Mapache Dr



MEMORANDUM

TOWN OF PORTOLA VALLEY

TO: ASCC

FROM: Debbie Pedro, Planning Director

DATE: May 23, 2016

RE: Preliminary Architectural Review and Site Development Permit for a New Residence, Second Unit, and Swimming Pool, File # 06-2016, APN: 077-050-010. 199 Mapache Drive, Mainzer Residence

BACKGROUND

The 2.52 acre parcel is located on the west side of Mapache Drive, across from Zapata Way. The lot was created as part of the Westridge Subdivision No. 7 (Tract No. 759, April 8, 1958). Surrounding uses include one and two story homes on abutting lots to the north, west, and south and across Mapache Drive to the east. The site is relatively level with an average slope of 8.67%. Corte Madera Creek is located along the west (rear) property line with the top of bank approximately 200' away from the nearest development. A drainage channel approximately 3 feet deep flows under Mapache Drive, across the northern portion of the property, and out to Corte Madera Creek. The channel runs in an east-west direction north of the building site.

A 10' wide parkway and bridle path easement is located within the property along the Mapache Drive frontage and a 5' public utility easement (PUE) continues around the perimeter of the lot along the side and rear property lines. An approximately 2' wide trail is located in front of the property within the Mapache Drive right of way.

An existing one-story house and a guest house is situated over a level graded pad near the center of the property. A small detached studio is located to the north of the house and a stable is located near the rear property line approximately 30' away from the top of bank of Corte Madera Creek. According to San Mateo County Assessor's records, the house was built in 1962. As the property was developed prior to Town incorporation, there are no permit records on file for the existing buildings. All buildings on the property will be removed as part of this project except for the 200 sq. ft. stable which is proposed to be remodeled into a pavilion.

The applicant is proposing to build a 6,356 sq. ft. single story residence with an attached three car garage, a 3,249 sq. ft. basement, a 750 sq. ft. detached second unit, a 410 sq. ft. carport, and a 728 sq. ft. swimming pool. Site grading for the project totals 990 cubic yards which includes 780 cubic yards of cut and 210 cubic yards of fill. The proposal is further described

in the set of architectural, civil, and landscape plans received on April 5, 2016. In addition to the plans, the project submittal includes the information listed below:

- Color and Materials Board which includes samples of the wood siding, standing seam metal roof, and doors, windows, and trim color. The board will be available at the meeting.
- Completed Outdoor Water Use Efficiency Checklist. (Attachment 1)
- Completed "Build-It-Green Green Point Rated Project Checklist". (Attachment 2)

CODE REQUIREMENTS

As required by sections 18.64.010.1 and 15.12.100.B of the Zoning and Site Development Codes, this application for a new residence has been forwarded to the ASCC for review. In addition to the Municipal Code, the Design Guidelines are used to evaluate the project.

DISCUSSION

The following comments are offered for ASCC consideration:

Project Design and Exterior Materials. The owner is proposing to build a 6,356 sq. ft. single story residence with an attached three car garage, a 3,249 sq. ft. basement, a 750 sq. ft. detached second unit, a 410 sq. ft. carport, and a 728 sq. ft. swimming pool. The new house will be sited over the general location of the existing building pad. The existing driveway will be relocated approximately 90' to the north which will necessitate the removal of six non-significant oak trees. The farm house style building has a standing seam metal roof, redwood/cedar siding, and painted aluminum windows, doors and trim. A total of 8 skylights are proposed with 6 over the kitchen area and two over the stair well near the center of the house. A 750 sq. ft. second unit is located near the northeast corner of the lot with an attached carport and a small 120 sq. ft. storage room. According to the applicant, the colors, materials, and architecture of the one bedroom second unit is similar to that of the main residence. Elevation drawings of the second unit will be included in the revised plan set when the project returns to the ASCC for final review. Other than the 728 sq. ft. swimming pool, decking, and patios around the house, no new structures are proposed in the rear yard due to the 100' creek setback requirement and the location of the septic system leach fields.

The proposed exterior material and finishes include:

- Redwood/cedar siding with weathered brown stain.
- Aluminum window doors and trim painted in a medium bronze color
- Standing seam metal roof.

A 420 sq. ft. (21'l x 20'w) stable is located in the rear of the property approximately 30' from the top of the bank of Corte Madera Creek. As noted earlier in the report, the applicant is proposing to remodel the structure into a pavilion. Pursuant to Section 18.59.060 of the Zoning Code, "existing buildings, decks, driveways, impervious surfaces, and other structures that are within a required creek setback may be maintained and repaired as necessary to keep them useable or improve their condition or quality pursuant to any required building/site development permit..." While the code allows the repair and maintenance of existing structures within creek setbacks, it does not allow for the conversion of nonconforming structures for adaptive reuse. The ASCC should consider the request and provide guidance to the applicant on this matter.

Floor Area (FA), Impervious Surface Area (IS). The maximum allowable FA for the site is 7,770 sq. ft.. The total proposed floor area of the project is 7,226 sq. ft. and includes the 6,356 sq. ft. house, the 750 sq. ft. second unit and a 120 sq. ft. of accessory building. The proposed floor area of the main house with the attached garage is 6,356 sq. ft. which is under the 85% floor area limit (6,604 sq. ft.).

The maximum allowable impervious surface (IS) area is 12,762 sq. ft. The proposed IS shown on the plans is 9,830 sq. ft. The bulk of the IS area is for the driveway, parking, fire truck turnaround, patios, and swimming pool areas.

Basement and Lightwell

The 3,249 sq. ft. basement, located under the north wing of the house, would house a media room, billiard room, wine cellar, sauna/steam room, and a mechanical/storage room. The basement design includes a 138 sq. ft. (6' W x 23' L) expanded light well and a set of 14' wide stairs that leads to the ground level above on the north side of the house. Pursuant to Section 18.04.065.B of the Portola Valley Municipal Code, light wells are subject to the minimum requirements of the building code but per Section 18.04.065.C, an exception may be allowed which permits additional light, ventilation and access for basements when the ASCC finds that "such provisions will not be visible from adjoining or nearby properties." The proposed expanded light well will be partially exposed due to the width of the stairs but the area would be screened from neighboring properties because of the existing and proposed landscaping in the area.

Height and yard setback limits. The proposed one story home has a maximum vertical height of 18' and maximum overall height of 20'. The second unit, sited at an elevation that is 5' higher than the main house at 406.67EL, has a maximum vertical height 14.5' and a maximum overall building height of 16.5'. All proposed buildings are in compliance with the Town's height limits.

Parking. Required parking in the R-E/2.5A zoning district is 2 covered spaces and 2 guest spaces plus 1 addition guest space for the second unit. The applicant is proposing 3 covered spaces in the garage and 2 in the carport.

Grading. Total earthwork volume is 990 cubic yards and include 780 cubic yards of cut, primarily to accommodate the new driveway, parking, and fire truck turnaround area and to create level yard areas south and southeast of the house. 160 cubic yards of fill within the building footprint shown on sheet C-1, originally proposed under the deck on the east side of the house, has been eliminated and the ground below the deck will remain at natural grade. The applicant will submit revised plans to reflect the change. Grading within the building footprint and excavation for the basement and swimming pool do not count towards the grading threshold of 1,000 cubic yards that triggers Planning Commission review of the project.

Landscaping. The site is covered by numerous trees and shrubs including oaks, pines, redwoods, and junipers. The pine trees at the southeast corner of the property will be removed as are the junipers lining the left side of the existing driveway. A cluster of six non-significant oak trees that vary in sizes from 6"-9" in trunk diameter as well as four protected trees (three valley oaks and one coast live oak) will be removed to accommodate the new driveway. The applicant has submitted an arborist report evaluating the condition of the trees within the project area. (Attachment 3) The Conservation Committee noted that redwood trees are not suitable on this property and suggested their removal.

The landscape plan Sheet L-1 shows the preliminary landscape design and a detailed plant list. No turf is proposed on this project. The Conservation Committee found the plant list acceptable but recommended against planting non-natives on this property due to its proximity to Jasper Ridge. The committee also recommends the removal of invasive plants near the guest house and on the southwest side of the property.

Lighting. Proposed exterior lighting includes 9 recessed ceiling lights under the porches, 12 path lights, and 24 recessed step lights around the buildings and retaining walls. There are 2 lights in the pool and 1 in the spa. In addition, 24 downshielded wall lights are proposed on the exterior of the main house and second unit. Specifications of the light fixtures are included on Sheet A-1.2 of the plans set. While the fixtures selected generally comply with the Town's requirement for minimal light spillage, the ASCC should consider whether further efforts should be made to reduce the number of proposed exterior lights, particularly the number of path lights and recessed wall lights in the front yard.

Fences and Gates. The property is surrounded by perimeter fencing that comprises of 4'-6' tall wood wire and rail fences as well as a wrought iron entry gate with columns at the front property line. In the R-E/2.5 acre zoning district, a driveway entry gate must be placed away from the front property line at least one-half the distance of the required 50-foot front yard setback (PVMC Section 18.42.016.A). The applicant is proposing a new driveway entry gate 25' back from the front property line which complies with this requirement. Per the fence ordinance, the opacity limit for gates within the front yard is 50% and the maximum height shall not exceed 4'. The applicant will need to provide design details for the entry gate to demonstrate compliance with the fence ordinance.

In addition to the entry gate, the plan proposes to maintain the existing perimeter fencing that will extend out from the gate to the side and rear property lines. Within the 2.5-acre zoning district, only horse fencing is permitted within the required yard setback areas. Furthermore, per Section 18.43.020 of the PVMC, fences shall be set back a minimum of twenty feet from the top of a creek bank. The existing 5' wire fence along the rear property line shall be removed or relocated to conform with the setback requirement.

Sustainability Aspects of Project. The project architect has provided the enclosed Build-It-Green checklist. The Town's Green Building Ordinance is currently not in effect due to the adoption of the Cal Green Code 2013 that superseded it as of January 1, 2014. In the meantime, staff is requesting that all ASCC applications include a completed Build-It-Green checklist.

COMMITTEE REVIEW

San Mateo County Environmental Health Department. The Environmental Health Department approved the site development permit with the condition that the horizontal setback to the existing well be delineated on the grading/drainage and septic plans. In addition, the percolation test data and a cross section of the septic system shall be affixed to the septic plans. (Attachment 4)

Fire Marshal. The fire marshal has reviewed the proposal and provided recommended standard conditions of approval for the project. (Attachment 5)

Town Geologist. The Town geologist has no geologic or geotechnical objections to the general concept for the residential layout and design and recommends approval of the proposed plans with conditions. (Attachment 6)

Public Works. The public works director has reviewed the grading, drainage, and erosion control plan for the project and provided standard conditions for site development permit approval. (Attachment 7)

Conservation Committee. The committee's preliminary comments on the proposed landscape plan were generally positive. The committee strongly recommends that the undeveloped oak woodland over the western portion of the property be preserved and restored by removing the invasive plants in the area. (Attachment 8)

Trails Committee. The Trails Committee recommends a condition that construction vehicles not park on the trail along the Mapache Drive frontage and all damages to the trail as a result of the construction project shall be repaired and restored prior to final. In addition, where the new driveway and trail intersects, the surface of the driveway should be textured for safe equestrian passage. (Attachment 9)

Westridge Architectural Supervising Committee (WASC) review. The Westridge Committee has informed staff that comments will be made available before the next ASCC meeting.

NEIGHBOR COMMENTS

No public comments have been received as of the writing of this report.

CONCLUSION

Staff recommends that the ASCC conduct the preliminary review of this project with a site meeting and then continue the review to the regular evening meeting. The ASCC should then offer comments and directions to the applicant and architect to make any plan adjustments or clarifications before the ASCC considers final action on the application at the next available regular ASCC meeting.

ATTACHMENTS

1. Outdoor Water Use Efficiency Checklist
2. Build It Green GreenPoint Rated Checklist
3. Arborist report prepared by McClenahan Consulting, LLC dated November 21, 2015
4. Comments from San Mateo County Environmental Health dated March 15, 2016
5. Comments from Fire Marshal dated March 2, 2016
6. Comments from Town Geologist dated March 21, 2016
7. Comments from Public Works Director dated March 17, 2016
8. Comments from Conservation Committee dated March 14, 2016
9. Comments from Trails Committee dated February 25 and 26, 2016
10. Project plans

cc: Town Council Liaison
Applicant

ARCHITECTURAL AND SITE CONTROL COMMISSION **MAY 23, 2016**
Special ASCC Field Meeting, 199 Mapache Drive, Preliminary Architectural Review and Site Development Permit Review for a New Residence, Second Unit, and Swimming Pool.

Chair Ross called the special meeting to order at 4:00 p.m.

ROLL CALL:

ASCC: Commissioners Koch, Sill and Wilson; and Vice Chair Breen, Chair Ross
Planning Commission Liaison: None
Town Council Liaison: Jeff Aalfs
Town Staff: Planning Director Debbie Pedro

Others present relative to the proposal for 199 Mapache Drive

Bill Mainzer, property owner
Bob Pleau and Carter Warr, project architects
George Andreini, 187 Mapache Drive
Loverine Taylor, 35 Naranja Way
Jane Bourne, Conservation Committee
Judy Murphy, Conservation Committee

Planning Director Debbie Pedro presented the report regarding the project which consists of a new 6,356-square-foot single-story residence with an attached three-car garage, a 3,249-square-foot basement, a 750-square-foot detached second unit, a 410-square-foot carport, and a 728-square-foot swimming pool. She said the applicant was proposing to remove all the existing structures on the property except for a 400-square-foot stable. She said approximately 990 cubic yards of grading would be necessary to accommodate the driveway and the firetruck turnaround area. She said there is a 138-square-foot expanded light well at the basement which would require approval by the ASCC.

The group walked around the site and viewed the story poles for the house, the barn and water tank near the creek, and the existing trees and landscaping around the perimeter of the property.

Commissioner Breen asked about the orientation of the skylights.

Commissioner Wilson asked for clarification on the location of the expanded lightwell so that the group can assess its visibility from the road.

After the site discussions, ASCC members agreed that they would offer comments on the proposal at the regular evening ASCC meeting. Members thanked the applicants and neighbors for participation in the site meeting.

The field meeting adjourned at 4:55 p.m.

Vice Chair Breen asked if the chain-link fence with three layers of barb wire was a Mid-Pen fence. Project architect Bill McIntosh said he believes the fence belongs to Mid-Pen.

With no other questions, Chair Ross invited the applicant to comment. Mr. McIntosh described details of the project and materials choices, and their efforts to comply with Town guidelines.

Chair Ross called for questions from the Commissioners. Hearing none, Chair Ross called for questions or comments from the public. Hearing none, Chair Ross closed the public hearing and invited discussion from the Commissioners.

Commissioner Sill was supportive of the project. He was supportive the addition using the same color as the existing siding. He said the light fixtures should be replaced to conform to Town guidelines.

Commissioner Koch was supportive of the project. She was supportive of the house color and repainting of the white trellis in a warmer tone. She said the light fixtures should be brought into conformance.

Commissioner Wilson concurred with her fellow commissioners regarding the house color and said the trellis should be painted a dark brown so it would look more natural.

Vice Chair Breen was supportive of the project and the proposed house color. She said the light fixture should be changed including those at the entry gate.

Chair Ross was supportive of the project. He was supportive of the existing color. He said since they are relocating the trellis, there is the opportunity to reduce its reflectivity and use a warmer color, which would enhance the project. He said he would be supportive of the lights being modified to be made compliant but not necessarily replaced.

Commissioner Sill moved to approve the project with the staff recommendations, with the clarification that the lights on the house and at the entry gate may be modified to be brought to compliance and do not need to be removed. Seconded by Vice Chair Breen; the motion carried 5-0.

(b) Preliminary Architectural Review and Site Development Permit Review for a New Residence, Second Unit, and Swimming Pool. File #6-2016, 199 Apache Drive, Mainzer Residence.

Planning Director Pedro said the ASCC conducted a field meeting at the site this afternoon to view the story poles. She presented the staff report regarding the project. She said this afternoon the Commission discussed additional screening that may be needed to mitigate the view of the exposed light well. She said the stable located within the creek setback is an existing structure that predates the Town's incorporation, and which the applicant is proposing to convert to a covered patio.

She noted that there are four significant trees proposed to be removed to accommodate the new driveway. She said at the field visit today, the Commission identified additional trees that may also need to be removed. She said the ASCC should discuss if the number of lights in the front yard area should be reduced. She shared the Westridge Architectural Supervising Committee comment letter.

Chair Ross called for questions from the Commissioners. Hearing none, Chair Ross invited the applicant to comment.

Architect Carter Warr thanked the Commissioners for attending the field meeting. He said the design had been created with the goal of preserving the creekside and oak woodland setting. He said they are proposing to keep the existing perimeter fencing, but were supportive of removal of the redwoods and phasing out the privets.

Chair Ross called for questions from the Commissioners.

Commissioner Koch asked regarding the anticipated usage of the guest house. Mr. Warr said the guest house will be built first and the owners will live in it during the rest of the construction.

Commissioner Wilson asked if there had been a problem with animals getting trapped along the creek because of the fence, noting that it was quite high at the side. Mr. Warr said he examined the fence more closely after the field visit and it appeared to have been there since before the barn was built. He said they would like to preserve the rustic character of the post and wire fence along the front, extending it back to the gate with a matching fence rather than changing the character.

In response to Vice Chair Breen's question, Mr. Warr said the rear fence was in the creek setback.

Vice Chair Breen asked if there was a way to reconfigure the firetruck turnaround to preserve the small meadow. Mr. Warr said they explored many different ways to create the access. He said the small grassland in the front wasn't natural and had been graded. He said the proposed paved area is less than what currently exists.

Commissioner Sill asked the applicant to describe the plan for the stable. Mr. Warr said their intent is to maintain the footprint of the structure, the roof structure, and most of the supporting elements. He said they want to open the walls and provide a place at the back edge of the property for use by the homeowner.

Vice Chair Breen asked if a deed restriction would be necessary to prevent a future owner from converting it to another structure. Mr. Warr said they would be fine with a deed restriction similar to how the Town has dealt with guesthouse conversions.

Planning Director Pedro said the stable is within the creek setback, which would not be allowed under current regulations. She said the code specifies that "Existing buildings, decks, driveway, impervious surface or other structures that are within a required creek setback may be maintained and repaired as necessary to keep them usable or improve their condition or quality." She said ideally the Town would like to remove all nonconforming structures from the setbacks. She said there may be another location on the property to build a pavilion that would serve the same purpose.

In response to Chair Ross's question, Mr. Warr said the metal roofing would be standing seam, with 14- or 16-inch spacing.

With no further questions, Chair Ross called for comments from the public.

Bill Dewes of the WASC said the redwoods and pines at the front and side of the property were likely originally planted for screening, but they have grown significantly and are now impeding the views of the neighbor's across-the-street and they recommend removal. He said because there is lot of grading to be done for the basement and some of the front area, they suggested using more of the soil on the property rather than exporting it, perhaps by using some to level the swale slightly or added to the outside of the property. He said they would like to see less hauling activity on Mapache, particularly in light of the extensive construction work that has been going on for the last few years on that street. He said they want clear demarcation of the trees proposed to be removed along the entire driveway patch and clear demarcation of the parking areas for review by the neighbors. He said they also want to see details of the phased construction staging plan.

Judith Murphy of the Conservation Committee expressed concern that the weed control on the property needs to be extensive and frequent. She said there is concern regarding the well and the water tables.

With no further comment, Chair Ross closed the public hearing and called for comments from the Commissioners.

Commissioner Wilson expressed concern about the swale that goes through the property and how it was going to look after the construction and the driveway has gone over it. She would also like to see a deed restriction on the barn in the creek setback. She said the lighting was excessive around the building. She was supportive of the removal of the pines and redwoods at the front. She said it was a magnificent property.

Commissioner Sill said it was a great start to the project. He was supportive of the single-story design of the house. He was supportive of the thought put into the landscaping plan and that the only new landscaping was to provide some screening while keeping the back very natural. He was undecided at this time about the stable in the back of the property. He was supportive of the light well with a little more screening. He would not be in favor of filling in the drainage swale. He said there appeared to be excessive lighting, and the applicant should reduce it by approximately one-third.

Commissioner Koch agreed it was a great start to the project. She was supportive of the reorientation of the property entrance. She was supportive of the siting of the house and the opening up of the oak woodland area. She said the invasives were a big concern. She said there was excessive lighting and said it should be reduced by more than a third. She was supportive of the light well with the sufficient screening. She would like to keep the drainage swale as is and would not support filling it in. She said she didn't see how turning the barn into something else was allowed because it would not be considered maintenance or repair. Commissioner Koch said she liked the idea of having a pavilion, but the structure is quite far from the pool area and a pavilion would be more logical and usable closer to the main house.

Mr. Warr said he was on the Commission when this ordinance was adopted and recalls clearly that the ordinance was intended so that people could maintain existing structures. He said his understanding is that the intent of the code allows for the proposed change to the barn on this property.

Vice Chair Breen said it was a wonderful, exciting project on a gorgeous property. She was supportive of the reorientation of the driveway. She was supportive of retaining the swale and would not support filling it in. She said the invasives must be cleaned up and controlled, which

will take years. She said the arborist should examine the crowns of some of the trees to be sure they are healthy. She said she was more concerned about the fence in the creek than the barn being there. She was supportive of keeping the water tank. She was concerned about the possible future additions of lighted pathways to get to the barn area. She said she supported a deed restriction on the barn. She supported the removal of all of the pines and redwoods. She said half of the privet hedge could come out now and then do a staged removal over the course of five years for the rest of it.

Chair Ross said he agreed with a lot of what had already been said and said it was a wonderful project. He said with a little bit of attention to preserving/restoring the nature of the site, it is gorgeous with the magnificent oaks. He agreed that the site lighting closest to Mapache is excessive. He was supportive of the removal of the redwoods, pines, and privets. He was supportive of keeping the swale as is and said the project would lose some character if it was filled in. He was supportive of keeping the existing fencing as is. He said the old fencing along the creek does not serve as a true barrier to most wildlife. He was also supportive of the barn but would not want to see it redeveloped in the future into something more grand. He said if they could improve it into a gazebo and clean up the water tank and plumbing, it will be as beneficial to the site as removal because he not anticipate that the barn/gazebo would have intensive usage. He was supportive of the light well since it is mostly screened by the guest house and would not be visible from neighboring properties. He said the construction logistics plan will be scrutinized. He said the soil off-haul will probably happen over a short period of time, possibly a 10-day operation, with perhaps seven trucks a day, which would be much preferable to filling in the swale to mitigate the short-term impact of the trucking.

(6) COMMISSION AND STAFF REPORTS:

Planning Director Pedro said the Zapata Way landscape screening/tree replacement inspection has been scheduled for June 1.

Commissioner Sill said he did a lighting and landscape review for 127 Ash with Vice Chair Breen.

Chair Ross said the tan color the ASCC had approved for the Priory track several years ago is no longer available. He said he and Vice Chair Breen looked at the available colors and decided that dark gray was more appropriate.

Commissioner Breen reviewed the landscape screening plan for the sewer grinder pump at 3 Grove Court with Public Works Director Young. Planning Director Pedro said because several neighbors were concerned about potential noise and odors coming from the facility, staff coordinated a site meeting with the neighbors to view the proposed location and inspected a another underground sewer pump nearby.

Planning Director Pedro said a booth has been reserved for the ASCC at the Town Picnic. She said staff would prepare an ASCC sign and handouts. Vice Chair Breen and Commissioner Koch volunteered to work the first shift from 11:00 a.m. to 12:00 p.m. Chair Ross, Commissioner Sill, and Commissioner Wilson will work the shift from 1:00 p.m. to 2:00 p.m.

(7) APPROVAL OF MINUTES: May 9, 2016. Vice Chair Breen moved to approve the May 9, 2016, minutes as amended. Seconded by Commissioner Koch, the motion passed 3-0, with Chair Ross and Commissioner Wilson abstaining.



MEMORANDUM

TOWN OF PORTOLA VALLEY

TO: ASCC

FROM: Debbie Pedro, Planning Director

DATE: July 11, 2016

RE: Architectural Review and Site Development Permit for a New Residence, Second Unit, and Swimming Pool, File # 06-2016, APN: 077-050-010, 199 Mapache Drive, Mainzer Residence

RECOMMENDATION

Staff recommends that the ASCC review the revised plans, consider comments in this staff report and any additional comments which may be offered at the meeting, and approve the proposed new residence and accessory structures subject to the conditions in Attachment 1 and any additional conditions which may be necessary based on the ASCC's review.

BACKGROUND

The applicant is proposing to build a 6,228 sq. ft. single story residence with an attached three car garage, a 3,121 sq. ft. basement, a detached 1,000 sq. ft. second unit, a carport, and a swimming pool on this relatively flat 2.52 acre property. 990 cubic yards of grading is proposed which includes 785 cubic yards of cut and 205 cubic yards of fill.

On May 23, 2016, the ASCC conducted a preliminary review of the proposed new residence and accessory structures and provided feedback to the applicant regarding lighting, landscaping, fences, a stable within the creek setback, and the expanded lightwell. The staff report with additional background on the project and minutes from the meeting are included in Attachment 2.

DISCUSSION

In response to ASCC preliminary review comments, the applicant has submitted revised plans on July 1, 2016 with the following changes to the project:

Lighting. At the preliminary review meeting, the ASCC noted that the number of exterior lights, particularly in the front yard, were excessive and should be reduced. In response to ASCC comments, the revised lighting plan on Sheet A-1.1 shows the removal of 11 lights. The remaining lights appear to be necessary for safety and code compliance and the downshielded fixture designs comply with the Town's requirement for minimal light spillage

Landscaping. The applicant is proposing to remove 5 large pine trees at the southeast corner of the property along the Mapache Drive frontage. A row of junipers lining the existing driveway and a cluster of oak trees will also be removed to accommodate the new driveway. The Conservation Committee and the ASCC have noted that redwoods, pines, and privets are not suitable on this property and suggested their removal. Based on this feedback, the applicant will be removing 2 additional 50' tall redwood trees (tree #s 53 and 54) east of the outdoor parking area adjacent to the Mapache Drive right of way. (Sheet A-1.6)

Stable renovation. A 420 sq. ft. dilapidated stable is located within the creek setback approximately 30' from the top of the bank of Corte Madera Creek. The applicant is proposing to remodel the structure into a pavilion by removing three of the four walls, brace the structure, replace the rotten framing, replace the roof with corrugated rusting iron, and place gravel over the dirt floor.

Pursuant to Section 18.59.060 of the Zoning Code, *“existing buildings, decks, driveways, impervious surfaces, and other structures that are within a required creek setback may be maintained and repaired as necessary to keep them useable or improve their condition or quality pursuant to any required building/site development permit...”* The code further states that *“Existing buildings, decks, driveways, impervious surfaces, and other structures that are within a required creek setback may be reconstructed or replaced following voluntary demolition when such demolition affects less than fifty percent of the floor area of a building, deck, other structure or less than fifty percent of the surface area of a driveway or other impervious surface. If voluntary demolition affects fifty percent or more of the total floor or total surface area, such replacement or reconstruction shall conform to the required creek setback unless there is no alternate site that is completely or partially outside of the required creek setback.”* (Section 18.59.070.B of the PVMC)

The ASCC has expressed mixed opinions regarding the conversion of the structure from a barn to a pavilion. Some commissioners are concerned about the intensified use of the area while others thought it would be beneficial to maintain the structure in its current location. According to the Creek Setback ordinance, if the renovation of the stable would affect less than 50 percent of the floor area of the building or less than fifty percent of the surface area of other impervious surface, reconstruction or replacement of the structure would be allowed. If the Commission decides to allow the stable to be renovated, a deed restriction can be required stating that renovation of the structure shall comply with Section 18.59.070.B of the Zoning Code and be maintained as an open pavilion. (Condition #8)

Fences and Gates. The property is surrounded by perimeter fencing that comprises of 4'-6' tall wood wire and rail fences as well as a wrought iron entry gate with columns at the front property line. Within the 2.5-acre zoning district, only horse fencing is permitted within the required yard setback areas. In addition, per Section 18.43.020 of the PVMC, fences shall be set back a minimum of twenty feet from the top of a creek bank. The ASCC discussed the existing wood and wire fencing around the perimeter of the property and was generally in support of allowing the nonconforming fence to be left in place.

In the R-E/2.5 acre zoning district, a driveway entry gate must be placed away from the front property line at least one-half the distance of the required 50-foot front yard setback (PVMC Section 18.42.016.A). Furthermore, the opacity limit for gates within the front yard is 50% and the maximum height shall not exceed 4'. The applicant is proposing a new driveway entry gate 25' back from the front property line and has provided design details of the entry gate (Sheet A-1.2). The 4-foot high x 14-foot wide wood entry gate is a double “swing out” style

that will be supported by two stone columns. The design of the gate will not exceed the 50% opacity limit. However, the location of the call box and key pad is not shown on the site plan and specifications for the call box will need to be submitted with the building permit. (Condition #3)

Floor Area (FA) and Impervious Surface Area (IS) Adjustments. The maximum allowable FA for this property is 7,770 sq. ft.. The original proposed floor area of the project was 7,226 sq. ft. and included the 6,356 sq. ft. main house, a 750 sq. ft. second unit and a 120 sq. ft. accessory building. The applicant has since made minor adjustments to the house by shifting the living area 4' south by compressing the living room and reducing the house size by 128 sq. ft.. The second unit has been redesigned to a 2 bedroom 2 bathroom unit with the floor area increased to 1,000 sq. ft. The total proposed floor area is now 7,290 sq. ft. which is below the maximum floor area limit of 7,770 sq. ft..

The maximum allowable impervious surface (IS) area is 12,762 sq. ft. The proposed IS shown on the plans is 10,105 sq. ft. The bulk of the IS area is for the driveway, parking, fire truck turnaround, patios, and swimming pool areas.

Basement and Lightwell. Because the size of the house was reduced by compressing the living room, the square footage of the proposed basement has also been reduced from 3,249 sq. ft. to 3,121 sq. ft. As noted in the May 23rd staff report, the basement design includes a 138 sq. ft. (6' W x 23' L) expanded light well and a set of 14' wide stairs that leads to the ground level above on the north side of the house. Pursuant to Section 18.04.065.B of the Portola Valley Municipal Code, light wells are subject to the minimum requirements of the building code but per Section 18.04.065.C, an exception may be allowed which permits additional light, ventilation and access for basements when the ASCC finds that "such provisions will not be visible from adjoining or nearby properties."

At the preliminary view meeting, the ASCC expressed support for the expanded light well design because it will be mostly screened from neighbors' views by the second unit, carport, and landscaping. The applicant has added two more manzanitas to the grouping of new plantings at the northeast corner of the house to help further screen the stairwell. (Sheet L-1)

PUBLIC COMMENTS

No public comments have been received as of the writing of this report.

CONCLUSION

The applicant has made design changes in response to directions provided by the ASCC. Prior to taking final action, the ASCC should consider the above comments and any new information presented at the July 11, 2016 meeting.

ATTACHMENTS

1. Recommended conditions of approval
2. ASCC staff report and minutes dated May 23, 2016
3. Comments from San Mateo County Environmental Health dated March 15, 2016
4. Comments from Fire Marshal dated March 2, 2016
5. Comments from Town Geologist dated March 21, 2016
6. Comments from Public Works Director dated March 17, 2016

7. Comments from Conservation Committee dated March 14, 2016
8. Comments from Trails Committee dated February 25 and 26, 2016
9. Project plans received on July 1, 2016

cc: Town Council Liaison
Applicant

Attachment 1

Recommended Conditions of Approval for
a New Residence, Second Unit, and Swimming Pool,
199 Mapache Drive, Mainzer Residence, File # 06-2016

The following conditions are recommended if the ASCC finds it can act to approve the project:

1. No other modifications to the approved plans are allowed except as otherwise first reviewed and approved by the Planning Director or the ASCC, depending on the scope of the changes.
2. A final detailed landscape plan shall be submitted for review and approval by a designated ASCC member, prior to issuance of the building permit.
3. The site plan shall be modified to identify the entry gate call box location, prior to issuance of the building permit.
4. All new driveways shall be asphalt or standard brushed concrete between the street and the property line. If there is a horse trail that crosses the driveway, a 4' wide section of the asphalt surface will be roughened or grinded ¼" to provide a non-slip surface so that horses shall not slip. Other non-slip surface can be presented to Town for approval.
5. The applicant shall comply with the conditions of the Health Officer as set forth in the email dated March 15, 2016.
6. The applicant shall comply with the conditions of the Fire Marshal as set forth in the memorandum dated March 2, 2016.
7. The applicant shall comply with the conditions of the Town Geologist as set forth in the letter dated March 21, 2016.
8. The applicant shall comply with the conditions of the Public Works Director as set forth in the memorandum dated March 17, 2016.
9. A deed restriction shall be recorded to the satisfaction of the Town Attorney stating that the renovation of the stable shall comply with Section 18.59.070.B of the Zoning Code and the renovated structure shall be maintained as an open pavilion.

Chair Ross expressed appreciation for the applicant's response with the lowered ridge height and site lighting. He said it was a good project to start with and is better now.

Vice Chair Breen moved to approve the project with the findings in Attachment 1 and the conditions in Attachment 2, with the added conditions of submission of a final detailed irrigation plan to be reviewed by a planning staff member and an ASCC member, submission of a final lighting plan indicating the existing pool lights and no further lights in the rear yard, and adding the 24-inch box swan hill olive tree to the final landscape plan. Seconded by Commissioner Wilson, the motion carried 5-0.

(b) Architectural Review and Site Development Permit for a New Residence, Second Unit, and Swimming Pool. File #: 6-2016, 199 Mapache Drive, Mainzer Residence.

Planning Director Pedro presented the staff report regarding the proposed project, which came before the ASCC in a preliminary review on May 23, 2016. She said the proposed second unit has increased from 750 to 1,000 square feet to accommodate two bedrooms and two bathrooms. She said the main house has been reduced in size by 128 square feet on the first floor and 128 square feet in the basement. She said the lighting plan was revised, removing 11 front yard light fixtures. The applicant is removing two additional large redwood trees from the front. She said the only additional new proposed plantings are a couple of Manzanitas to supplement the screening at the expanded light well coming out from the basement. She said the applicant was proposing to remodel the stable into a pavilion. The architect provided a sketch of the proposed conversion, which consists of removing the existing walls, replacing rotted wood, changing the wood roof to corrugated metal, and adding gravel where there is currently no flooring. She said staff recommended that if the Commission allows this structure to remain in the creekside setback, they may want to consider a deed restriction making sure the structure is maintained as an open pavilion in the future.

Chair Ross invited the applicant to speak regarding the project. The applicant said after a conversation with the Westridge Committee a few days ago, they will be adding more screening along the driveway edge further toward the street. The applicant further described the changes made to the project plans that address the Commission's concerns, as noted in the staff report.

Chair Ross called for questions from the Commissioners.

Commissioner Koch asked if the front gate had an illuminated call box. The project architect said they haven't decided on that yet.

Vice Chair Breen asked what, if any, light fixture was in the barn. The project architect said it has not been decided. Vice Chair Breen said it is important to know how that structure will be lit, particularly since there are no walls.

With no further questions, Chair Ross invited speakers from the public.

Jane Bourne, Conservation Committee, said the Committee is not supportive of structures in the creek setback. She said there is also concern about the well that is close to the creek. She said if it is used for irrigation, the creek, over time, can be impacted.

Bill Dewes, Westridge Committee, said they did the final walkthrough last weekend and were supportive of most of the plan. He advised they recommended that screening be improved

across the front of the property, broadening the palette of some of the plantings, in particular along the driveway.

With no additional comments, Chair Ross closed the public hearing and brought the item back to the Commission for discussion.

Commissioner Wilson was supportive of a deed restriction of the stable in the creek setback. She said there were already a lot of plants planned for the front and was concerned about adding even more. She would support watering and encouraging the growth of the existing plants, but she would not support additional plantings. She was supportive of the design.

Commissioner Koch was supportive of the project. She expressed appreciation for increasing the size of the guest house while also removing square footage from the main house. She wants to see the details of the gate lighting, keypads, etc., as well as the lighting plan for the stable. She was supportive of a deed restriction for the stable. She said she thought there would be more discussion regarding the landscaping along the north neighbor's side, where there are privets and redwoods. The project architect said there is intent to remove some of the privets over time and replant.

Commissioner Sill was supportive of the design and said that it utilized the property well. He was supportive of converting the stable to a pavilion with a deed restriction. He also supported the light well.

Vice Chair Breen said she has been enthusiastic about this project from the beginning and likes it a lot. She said her concern is about the lighting in the barn, access to the barn, and the area at the top beyond the pool with the cutout. She said she wants to make sure that the ASCC is seeing plans for the total development. Vice Chair Breen said if there is a pathway or access to the barn, the ASCC needs to see it and know if it will be lit. She was not supportive of adding more plantings to the front. She said the heavy, chunky gate does not fit with the architecture of the house and suggested changing it to better match the style of the more contemporary house. She said the applicants should get other plantings started before the removal of the privets and redwoods, which should be removed over time. She said those details should be included in the landscape plan. The applicant said the camellias would be removed. The applicant said the swale, which was dug by the former owners, is a problem in that it divides the property and draws mosquitoes. The applicant said other property owners have used pipes and they would like to do the same if possible. Vice Chair Breen said at the preliminary review there was a lot of support for retaining the swale, and the Commission would need to review any other plan for the swale.

Chair Ross was supportive of the project. He said there is a danger of over-landscaping the front and suggested more carefully considering plant placement instead of adding plantings.

Bill Dewes of the Westridge HOA said they were suggesting broadening the variety of plants and not suggesting adding more plants.

Chair Ross said the applicant should provide a plan that shows the replacement of the privets. The applicant said they will be collaborating with the neighbor on the plan. Chair Ross said they also needed to provide more detail regarding lighting. In response to Chair Ross's question, the applicant said the well was active and used for irrigation.

Commissioner Koch moved to approve the project with the conditions as stated in the staff

report, adding that prior to issuance of building permits the applicant must submit a complete landscape, hardscape and lighting plan, including details of planting materials for the front yard and along the north fence line, hardscape improvements in the rear yard including paths and lighting at the pavilion, and the design of the front gate call box. A deed restriction shall also be recorded to ensure that the renovated stable be maintained as an open pavilion. Seconded by Vice Chair Breen, the motion carried 5-0.

(c) Review for a General Plan and Zoning Ordinance Amendment, Conditional Use Permit, Variance, Architectural Review and Site Development Permit for the Windmill School and Family Education Master Plan. File #: 32-2015.

Planner Cynthia Richardson presented the staff report and described the application details. She said the ASCC had reviewed the preliminary plans on April 25 and held a joint field meeting with the Planning Commission. She said they visited the site again today to view the story poles. She said the proposed rezoning and General Plan designation of the property will go before the Planning Commission next week. She described the changes made to the parking lot and turnaround. She said tandem teacher parking spaces were proposed and said there may need to be some reworking of the parking layout. She said since the last meeting, the applicant has enclosed the hallways to be part of the structure. She described the revised landscape plan, which incorporated recommendations by the Conservation Committee for a reduction of oaks and adding some native planting between the oaks. She described the fence that requires a variance. She said the Planning Commission requested that it not be considered an ornamental garden structure and said it is actually an 8-foot-tall sound wall that runs approximately 100 feet along the property next to the Wyndham Drive neighbors. She said the applicant submitted an example of a play yard; however, the play yards have not yet been fully designed by the company so there is a condition in the Conditional Use Permit that if the design includes any hardscape, it must return to ASCC for final review. She said the applicant has also asked the Planning Commission for modification of Condition #5 of the Conditional Use Permit regarding the 85 percent enrollment requirement. She said they received a letter at the field meeting today from the neighbors at 303 Wyndham Drive, who are concerned about the noise and weekend operations outlined in the Conditional Use Permit, specifically the hours of operation and the outdoor use. She said tonight, the ASCC will review the aesthetics, the lighting, building bulk, mass, and layout; approve or modify the site development conditions; and provide any comments or recommendations to the Planning Commission regarding the General Plan and Zoning Map Amendments, Conditional Use Permit conditions, and the variance request.

Chair Ross called for questions for staff. Hearing none, he invited the applicants to comment. Hearing none, Chair Ross called for questions for the applicant.

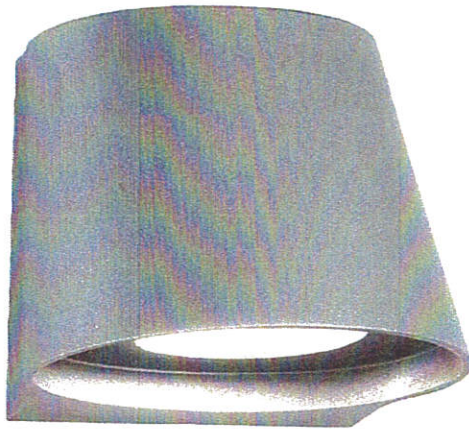
Commissioner Koch asked why there were so many recessed lights in the outdoor terraces since they would not be used for evening events outside the classroom. The applicant said they did not anticipate the lights being on very often.

In response to Chair Ross's question, the applicant confirmed that the lowest roof is at the back toward the play area. The applicant said all the can lights are in the lowest roof.

In response to Vice Chair Breen's question, the applicant said each room in each area will be switched separately. He said that there will probably be a master switch to shut everything down.

Vice Chair Breen said the placement of an air conditioning unit would be important and should

MOD – model: WS-W65607
 dweLED™ Outdoor Sconce

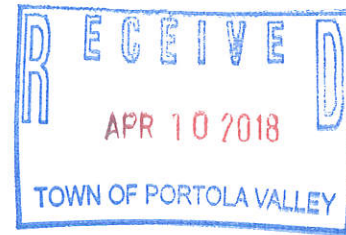


Fixture Type: **LIGHT "C"**

Catalog Number:

Project: _____

Location: _____



PRODUCT DESCRIPTION

Expertly crafted from die cast aluminum. The Mod family features a smooth curved modern shape. ADA compliant and Dark Sky friendly. Ideal for exterior residential, hospitality and commercial applications.

FEATURES

- Diecast aluminum construction
- Dark Sky friendly
- Luminaire may be rotated 180° when mounting
- ETL & cETL wet location listed, IP65
- ADA compliant, low profile design
- 100%-10% electronic low voltage (ELV) dimming
- Driver located inside the fixture
- Universal driver (120V-220V-277V)
- CRI: 90
- Color Temp: 3000K
- Rated Life: 70,000
- 5 year warranty

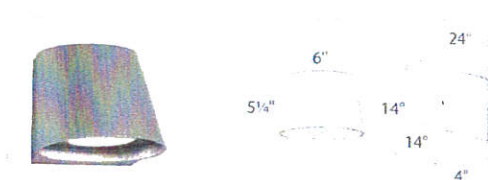
SPECIFICATIONS

Construction: Diecast aluminum construction

Light Source: LED

Dimming: 100%-10% Electronic Low Voltage (ELV)

Standards: ETL & cETL wet location listed, IP65, ADA compliant, Dark Sky Friendly



		Watt	LED Lumens	Delivered Lumens	Finish
6"	WS-W65607	16.5W	1165	850	BZ Bronze GH Granite

WS - **W65607** -

Example: **WS-W65607-BZ**

wacighting.com
 Phone (800) 526.2588
 Fax (800) 526.2585

Headquarters/Eastern Distribution Center
 44 Harbor Park Drive
 Port Washington, NY 11050

Central Distribution Center
 1600 Distribution Ct
 Lithia Springs, GA 30122

Western Distribution Center
 1750 Archibald Avenue
 Ontario, CA 91760

Attachment 7



NEW HOME RATING SYSTEM, VERSION 6.0

SINGLE FAMILY CHECKLIST

10.19.2017
Same values as House

The GreenPoint Rated checklist tracks green features incorporated into the home. GreenPoint Rated is administered by Build It Green, a non-profit whose mission is to promote healthy, energy and resource efficient buildings in California.

Points Achieved: **60**

The minimum requirements of GreenPoint Rated are: verification of 50 or more points; Earn the following minimum points per category: Community (2), Energy (25), Indoor Air Quality/Health (6), Resources (6) and Water (6), and meet the prerequisites CALGreen Mandatory, H6 1 JS.1.01, 07.

Certification Level: **Certified**

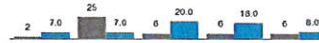
The criteria for the green building practices listed below are described in the GreenPoint Rated Single Family Rating Manual. For more information please visit www.builditgreen.org/greenpointrated. Build It Green is not a code enforcement agency.

POINTS REQUIRED

■ Minimum Points
■ Achieved Points

A home is only GreenPoint Rated if all features are verified by a Certified GreenPoint Rater through Build It Green.

Single Family New Home Version 6.0.2



PROJECT NAME		Points Achieved	Community	Energy	IAQ/Health	Resources	Water	Notes
MEASURES		Possible Points						Notes
Category	Measure	0	1	1	1	1		
CALGreen								
TBD		CALGreen Res (REQUIRED)						
A. SITE								
TBD	A1. Construction Footprint						1	
Yes	A2. Job Site Construction Waste Diversion						1	
TBD	A2.1 65% C&D Waste Diversion (Including Alternative Daily Cover)	2					2	
Yes	A2.2 65% C&D Waste Diversion (Excluding Alternative Daily Cover)						1	
Yes	A2.3 Recycling Rates from Third-Party Verified Mixed-Use Waste Facility	1					2	
TBD	A3. Recycled Content Base Material	1					1	
TBD	A4. Heat Island Effect Reduction (Non-Roof)		1					
TBD	A5. Construction Environmental Quality Management Plan Including Flush-Out				1			
A6. Stormwater Control: Prescriptive Path								
TBD	A6.1 Permeable Paving Material						1	
TBD	A6.2 Filtration and/or Bio-Retention Features						1	
Yes	A6.3 Non-Leaching Roofing Materials	1					1	
TBD	A6.4 Smart Stormwater Street Design							
TBD	A7. Stormwater Control: Performance Path		1				3	
B. FOUNDATION								
TBD	B1. Fly Ash and/or Slag In Concrete						1	
No	B2. Radon-Resistant Construction	0			2			
Yes	B3. Foundation Drainage System	2					2	
Yes	B4. Moisture Controlled Crawlspace	1			1			
B5. Structural Pest Controls								
Yes	B5.1 Termite Shields and Separated Exterior Wood-to-Concrete Connections	1					1	
Yes	B5.2 Plant Trunks, Bases, or Stems at Least 36 Inches from the Foundation	1					1	
C. LANDSCAPE								
Enter the landscape area percentage								
Yes	C1. Plants Grouped by Water Needs (Hydrozoning)	1					1	
Yes	C2. Three Inches of Mulch in Planting Beds	1					1	
C3. Resource Efficient Landscapes								
Yes	C3.1 No Invasive Species Listed by Cal-IPC	1					1	
Yes	C3.2 Plants Chosen and Located to Grow to Natural Size	1					1	
Yes	C3.3 Drought Tolerant, California Native, Mediterranean Species, or Other Appropriate Species	2					3	
C4. Minimal Turf In Landscape								
Yes	C4.1 No Turf on Slopes Exceeding 10% and No Overhead Sprinklers Installed in Areas Less Than Eight Feet Wide	0					2	
≤10%	C4.2 Turf on a Small Percentage of Landscaped Area	0					2	
Yes	C5. Trees to Moderate Building Temperature	0	1	1			1	
Yes	C6. High-Efficiency Irrigation System	0					2	
Yes	C7. One Inch of Compost in the Top Six to Twelve Inches of Soil	0					2	
TBD	C8. Rainwater Harvesting System						3	
TBD	C9. Recycled Wastewater Irrigation System						1	
TBD	C10. Submeter or Dedicated Meter for Landscape Irrigation						2	
TBD	C11. Landscape Meets Water Budget						2	
C12. Environmentally Preferable Materials for Site								
Yes	C12.1 Environmentally Preferable Materials for 70% of Non-Plant Landscape Elements and Fencing	1					1	
Yes	C13. Reduced Light Pollution	1	1					
Yes	C14. Large Stature Tree(s)	1	1					
TBD	C15. Third Party Landscape Program Certification						1	
TBD	C16. Maintenance Contract with Certified Professional						1	
D. STRUCTURAL FRAME AND BUILDING ENVELOPE								
D1. Optimal Value Engineering								
TBD	D1.1 Joists, Rafters, and Studs at 24 Inches on Center			1			2	
Yes	D1.2 Non-Load Bearing Door and Window Headers Sized for Load	1					1	
TBD	D1.3 Advanced Framing Measures						2	
TBD	D2. Construction Material Efficiencies						1	
D3. Engineered Lumber								
TBD	D3.1 Engineered Beams and Headers						1	
Yes	D3.2 Wood Joists or Web Trusses for Floors	1					1	
TBD	D3.3 Engineered Lumber for Roof Rafters						1	
TBD	D3.4 Engineered or Finger-Jointed Studs for Vertical Applications						1	
TBD	D3.5 OSB for Subfloor						0.5	
TBD	D3.6 OSB for Wall and Roof Sheathing						0.5	
TBD	D4. Insulated Headers		1					

Requirement	Compliance	Points	Weight	Subtotal	Weighted Points
D5. FSC-Certified Wood					
TBD	D5.1 Dimensional Lumber, Studs, and Timber	6			
TBD	D5.2 Panel Products	3			
D6. Solid Wall Systems					
TBD	D6.1 At Least 90% of Floors	1			
TBD	D6.2 At Least 90% of Exterior Walls	1			
TBD	D6.3 At Least 90% of Roofs	1			
TBD	D7. Energy Heels on Roof Trusses	1			
TBD	D8. Overhangs and Gutters	1			
D9. Reduced Pollution Entering the Home from the Garage					
No	D9.1 Detached Garage	2			
Yes	D9.2 Mitigation Strategies for Attached Garage	1			
D10. Structural Pest and Rot Controls					
TBD	D10.1 All Wood Located At Least 12 Inches Above the Soil	1			
TBD	D10.2 Wood Framing Treated With Borates or Factory-Impregnated, or Wall Materials Other Than Wood	1			
TBD	D11. Moisture-Resistant Materials in Wet Areas (such as Kitchen, Bathrooms, Utility Rooms, and Basements)	1			
E. EXTERIOR					
TBD	E1. Environmentally Preferable Decking	1			
TBD	E2. Flashing Installation Third-Party Verified	2			
TBD	E3. Rain Screen Wall System	2			
TBD	E4. Durable and Non-Combustible Cladding Materials	1			
TBD	E5. Durable Roofing Materials	1			
No	E5.1 Durable and Fire Resistant Roofing Materials or Assembly	1			
No	E6. Vegetated Roof	0	2	2	
F. INSULATION					
F1. Insulation with 30% Post-Consumer or 60% Post-Industrial Recycled Content					
TBD	F1.1 Walls and Floors	1			
TBD	F1.2 Ceilings	1			
F2. Insulation that Meets the CDPH Standard Method—Residential for Low Emissions					
TBD	F2.1 Walls and Floors	1			
TBD	F2.2 Ceilings	1			
F3. Insulation That Does Not Contain Fire Retardants					
TBD	F3.1 Ceiling Walls and Floors	1			
TBD	F3.2 Ceilings	1			
TBD	F3.3 Interior and Exterior	1			
G. PLUMBING					
G1. Efficient Distribution of Domestic Hot Water					
TBD	G1.1 Insulated Hot Water Pipes	1			
TBD	G1.2 WaterSense Volume Limit for Hot Water Distribution	1			
TBD	G1.3 Increased Efficiency in Hot Water Distribution	2			
G2. Install Water-Efficient Fixtures					
TBD	G2.1 WaterSense Showerheads with Matching Compensation Valve	2			
TBD	G2.2 WaterSense Bathroom Faucets	1			
TBD	G2.3 WaterSense Toilets with a Maximum Performance (MaP) Threshold of No Less Than 500 Grams	1			
TBD	G3. Pre-Plumbing for Greywater System	1			
TBD	G4. Operational Graywater System	3			
H. HEATING, VENTILATION, AND AIR CONDITIONING					
H1. Sealed Combustion Units					
TBD	H1.1 Sealed Combustion Furnace	1			
Yes	H1.2 Sealed Combustion Water Heater	2			
TBD	H2. High Performing Zoned Hydronic Radiant Heating System	1			
H3. Effective Ductwork					
Yes	H3.1 Duct Mastic on Duct Joints and Seams	1			
Yes	H3.2 Pressure Balance the Ductwork System	1			
Yes	H4. ENERGY STAR® Bathroom Fans Per HVI Standards with Air Flow Verified	1			
H5. Advanced Practices for Cooling					
Yes	H5.1 ENERGY STAR Ceiling Fans in Living Areas and Bedrooms	1			
H6. Whole House Mechanical Ventilation Practices to Improve Indoor Air Quality					
Yes	H6.1 Meet ASHRAE 62.2-2010 Ventilation Residential Standards	Y	R	R	R
TBD	H6.2 Advanced Ventilation Standards	1			
TBD	H6.3 Outdoor Air Ducted to Bedroom and Living Areas	2			
H7. Effective Range Hood Design and Installation					
TBD	H7.1 Effective Range Hood Ducting and Design	1			
TBD	H7.2 Automatic Range Hood Control	1			
TBD	H8. No Fireplace or Sealed Gas Fireplace	1			
TBD	H9. Humidity Control Systems	1			
TBD	H10. Register Design Per ACCA Manual T	1			
TBD	H11. High Efficiency HVAC Filter (MERV 8+)	1			
I. RENEWABLE ENERGY					
TBD	I1. Pre-Plumbing for Solar Water Heating	1			
TBD	I2. Preparation for Future Photovoltaic Installation	1			
TBD	I3. Onsite Renewable Generation (Solar PV, Solar Thermal, and Wind)	25			
I4. Net Zero Energy Home					
TBD	I4.1 Near Zero Energy Home	2			
TBD	I4.2 Net Zero Electric	4			

J. BUILDING PERFORMANCE AND TESTING								
TBD	J1. Third-Party Verification of Quality of Insulation Installation			1	1			
TBD	J2. Supply and Return Air Flow Testing			1	1			
TBD	J3. Mechanical Ventilation Testing and Low Leakage			1	1			
TBD	J4. Combustion Appliance Safety Testing			1	1			
2008	J5. Building Performance Exceeds Title 24 Part 6							
0.00%	J5.1 Home Outperforms Title 24 Part 6	0	60					
TBD	J6. Title 24 Prepared and Signed by a CABEC Certified Energy Analyst			1	1			
TBD	J7. Participation in Utility Program with Third-Party Plan Review			1	1			
TBD	J8. ENERGY STAR for Homes			1	1			
No	J9. EPA Indoor airPlus Certification	0		1	1			
TBD	J10. Blower Door Testing			2	2			
K. FINISHES								
TBD	K1. Entryways Designed to Reduce Tracked-In Contaminants					1		
Yes	K1.1 Individual Entryways					1		
Yes	K2. Zero-VOC Interior Wall and Ceiling Paints	2				2		
Yes	K3. Low-VOC Caulks and Adhesives	1				1		
TBD	K4. Environmentally Preferable Materials for Interior Finish						2	
TBD	K4.1 Cabinets						2	
TBD	K4.2 Interior Trim						2	
TBD	K4.3 Shelving						2	
TBD	K4.4 Doors						2	
TBD	K4.5 Countertops						1	
Yes	K5. Formaldehyde Emissions in Interior Finish Exceed CARB							
Yes	K5.1 Doors	1				1		
Yes	K5.2 Cabinets and Countertops	2				2		
Yes	K5.3 Interior Trim and Shelving	2				2		
Yes	K6. Products That Comply With the Health Product Declaration Open Standard	2				2		
Yes	K7. Indoor Air Formaldehyde Level Less Than 27 Parts Per Billion	2				2		
No	K8. Comprehensive Inclusion of Low Emitting Finishes	0				1		
L. FLOORING								
275%	L1. Environmentally Preferable Flooring	3				3		
275%	L2. Low-Emitting Flooring Meets CDPH 2010 Standard Method –Residential	3				3		
Yes	L3. Durable Flooring	1				1		
TBD	L4. Thermal Mass Flooring					1		
M. APPLIANCES AND LIGHTING								
Yes	M1. ENERGY STAR® Dishwasher	1				1		
CEE Tier 3	M2. CEE-Rated Clothes Washer	3		1		2		
<25 cubic feet	M3. Size-Efficient ENERGY STAR Refrigerator	1		2				
Yes	M4. Permanent Centers for Waste Reduction Strategies						1	
TBD	M4.1 Built-In Recycling Center						1	
TBD	M4.2 Built-In Composting Center						1	
Yes	M5. Lighting Efficiency							
Yes	M5.1 High Efficacy Lighting	2		2				
TBD	M5.2 Lighting System Designed to IESNA Footcandle Standards or Designed by Lighting Consultant					2		
N. COMMUNITY								
No	N1. Smart Development	0	1			1		
No	N1.1 Infill Site	0	1			1		
No	N1.2 Designated Brownfield Site	0	1		1			
No	N1.3 Conserve Resources by Increasing Density	0		2		2		
No	N1.4 Cluster Homes for Land Preservation	0	1			1		
No	N1.5 Home Size Efficiency	0				9		
547	Enter the area of the home, in square feet							
3	Enter the number of bedrooms							
TBD	N2. Home(s) Development Located Within 1/2 Mile of a Major Transit Stop			2				
TBD	N3. Pedestrian and Bicycle Access							
TBD	N3.1 Pedestrian Access to Services Within 1/2 Mile of Community Services			2				
TBD	Enter the number of Tier 1 services							
Yes	Enter the number of Tier 2 services	1	1					
TBD	N3.2 Connection to Pedestrian Pathways			2				
TBD	N3.3 Traffic Calming Strategies							
Yes	N4. Outdoor Gathering Places	1	1					
TBD	N4.1 Public or Semi-Public Outdoor Gathering Places for Residents							
TBD	N4.2 Public Outdoor Gathering Places with Direct Access to Tier 1 Community Services			1				
No	N5. Social Interaction	0	1					
No	N5.1 Residence Entries with Views to Centers	0	1					
No	N5.2 Entrances Visible from Street and/or Other Front Doors	0	1					
No	N5.3 Porches Oriented to Street and Public Space	0	1					
Yes	N5.4 Social Gathering Space	1	1					
TBD	N6. Passive Solar Design					2		
TBD	N6.1 Heating Load					2		
TBD	N6.2 Cooling Load							
TBD	N7. Adaptable Building							
TBD	N7.1 Universal Design Principles in Units			1		1		
TBD	N7.2 Full-Function Independent Rental Unit			1				
O. OTHER								
TBD	O1. GreenPoint Rated Checklist in Blueprints	N	R	R	R	R	R	
TBD	O2. Pre-Construction Kickoff Meeting with Rater and Subcontractors			0.5		1	0.5	
TBD	O3. Orientation and Training to Occupants—Conduct Educational Walkthroughs			0.5	0.5	0.5	0.5	
TBD	O4. Builder's or Developer's Management Staff are Certified Green Building Professionals			0.5	0.5	0.5	0.5	
TBD	O5. Home System Monitors			1			1	
Yes	O6. Green Building Education	2	2					
TBD	O6.1 Marketing Green Building							
TBD	O6.2 Green Building Signage			0.5			0.5	
TBD	O7. Green Appraisal Addendum	N	R	R	R	R	R	
TBD	O8. Detailed Durability Plan and Third-Party Verification of Plan Implementation						1	
Summary								
Total Available Points in Specific Categories		342	26	131	54	83	48	
Minimum Points Required in Specific Categories		50	2	25	6	6	6	
Total Points Achieved		60.0	7.0	7.0	20.0	18.0	8.0	

Attachment 8

From: **John Ayers** jayers@yahoo.com
Subject: **Re: 199 Mapache**
Date: **July 10, 2016 at 7:36 PM**
To: **Ruth Gelbart** rgelbart@comcast.net

Hi Ruth, Below I have put some information about our previous home at 199 Mapache Drive. My parents, Mr. & Mrs. Boland had the barn built on the back of their property in 1963 or 1964. I was living with them at the time.

There is also a culvert that runs under the street and empties onto the property. My parents found it necessary to direct the winter runoff to the creek. This happened around the same time they had the barn built about 1963 or 1964.

Please feel free to contact me if you have any questions.

Nancy (Boland) Ayers
661-287-1726

26847 Chaucer Place
Stevenson Ranch
CA. 91381

On Sunday, July 10, 2016 7:21 AM, Ruth Gelbart <rgelbart@comcast.net> wrote:

Hello Nancy,

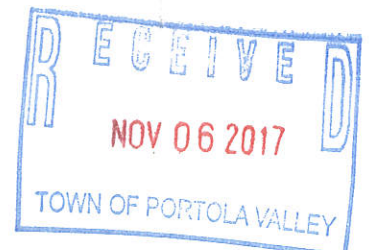
Thank you for taking the time to talk to me yesterday. Below is my contact info just in case.....

Our meeting with the Town is tomorrow evening and I would love to include the information you shared with me.

You and John are always welcome to come by when you are up this way!

Ruth
Ruth Gelbart
rgelbart@comcast.net
199 Mapache Drive
Portola Valley, CA 94028

650 530-2700
650 224-2723





Main Office:
2495 Industrial Pkwy. West
Hayward, CA 94545
Ph: 510.887.4086
Fx: 510.887.3019

Sacramento Region:
3017 Douglas Blvd., Ste. 300
Roseville, CA 95661
Ph: 916.966.1338
Fx: 916.797.7363

January 23, 2018

Town of Portola Valley
765 Portola Road
Portola Valley, CA 94028

Attn: Planning Department
Subject: **Mainzer Residence – 199 Mapache, Portola Valley**
Job No. 2151024 CI

To the Department:

In response to the Town's concerns of the proposed underground culvert is not meeting the "principals of the of site design in Portola Valley", we have been reviewing the Town's policies, and reviewing historical records to better determine how this swale does or does not meet these principals. In our review of the project and the Town's criteria, it is clear that the intent of the Town's policy is to protect "natural" drainage features. While the Town's 1970's maps do show and name this as Zapata Gulch (which also follows Zapata Rd), our review of historic aerial photography we do not find a drainage swale in this location. We contend that the swale is manmade and created after the streets and subdivision for Mapache were created in 1958. To support this theory, we looked into the existing drainage pattern of the tributary area that feeds the existing "manmade" swale. The swale itself actually only starts on the subject property, just on the downstream side of Mapache Dr. Upstream, the drainage flows in a sheet flow pattern, mainly along Zapata Road. The historical photo (see page 2) shows no signs of an existing swale prior to the development of the neighborhood. The swale appears to have been created by the concentrated flow that occurred downstream of the outflowing pipe under Mapache Dr and later expanded upon by previous home owners due to the amount of runoff that runs through the property. IN addition, there is an existing pipe located farther down swale towards the rear of the site and another new pipe that flows under the driveway that was recently approved, permitted and built under the proposed driveway. In addition, the current home owner has also spoken with the previous home owner of the property who indicated that there was no original swale, but one was dug due to flooding issues. He has a letter stipulating to this effect.

We contend that due to the lack of any swale in the 1948 photos, the three pipes that already transfer runoff on the property and the previous home owner's stipulation that the swale was created after development of the property that the project as proposed with the new pipe does not violate the Town's policies and should be allowed to be built.

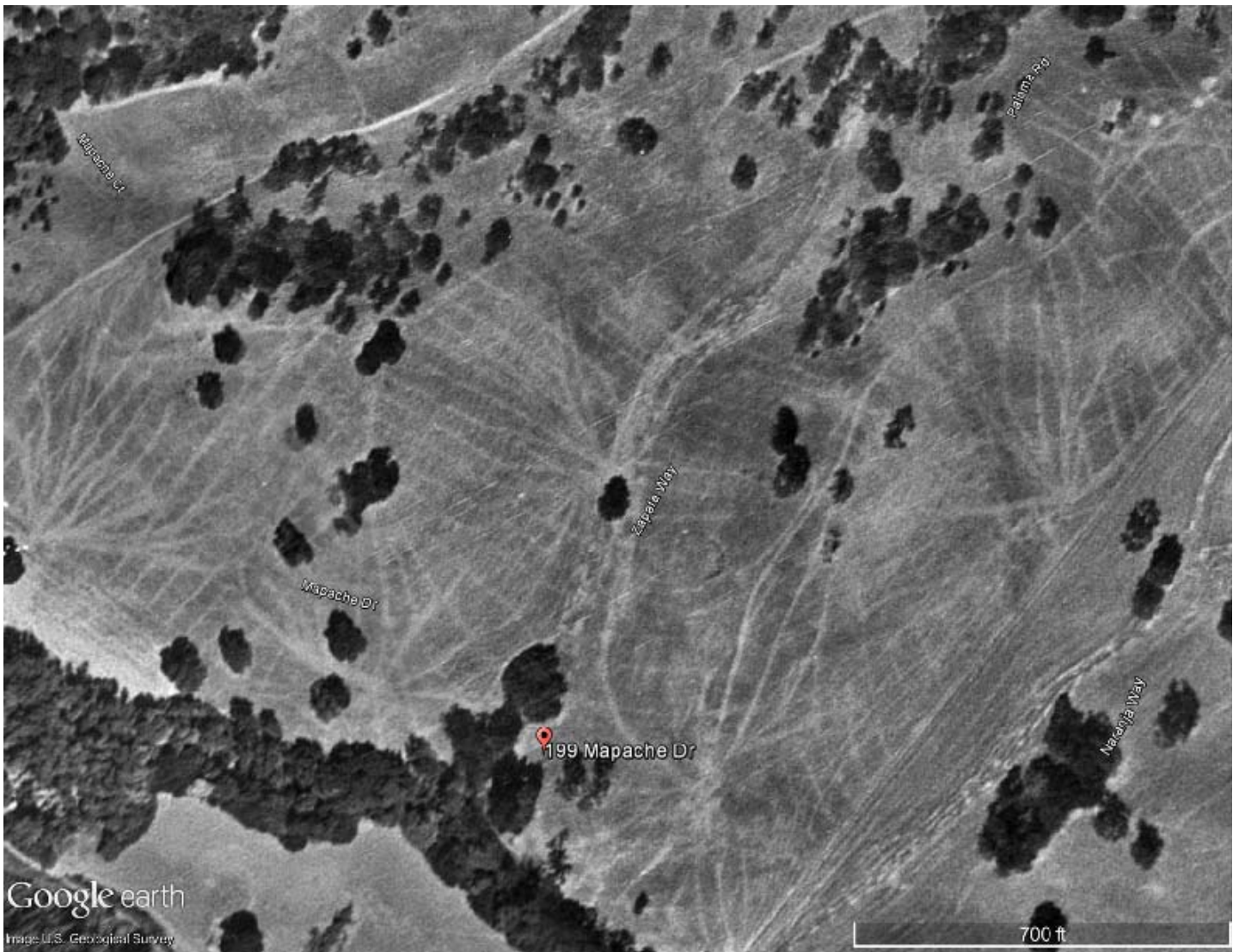
This new pipe will help to reduce the possibility for erosion of the manmade channel due to the concentrated flows caused by the pipes laid under Mapache Dr and help to improve the drainage on the subject property and the neighborhood in general. Along with our design, we are providing hydraulic and hydrology calculations.

We urge you to approve the design as proposed.

Please let me know if you have any questions.

Very truly yours,

Jim Toby, P.E., P.L.S.
Principal



1948 aerial photo from Google Earth



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Sacramento Region:
3017 Douglas Blvd., Ste. 300
Roseville, CA 95661
Ph: 916.966.1338
Fx: 916.797.7363

Job: 2151024 CI
Dated: January 30, 2018

**SUPPLEMENTARY
HYDROLOGY STUDY
For
New Culvert
199 Mapache Drive
Portola Valley, California**



This package includes:

- Information Sheet
- Drainage Basin Hydrology Calculations
- Culvert Calculations
- Overflow Swale Calculations

References:

- Topographic Survey by Lea & Braze Engineering, Inc.
- Grading & Drainage Plan by Lea & Braze Engineering, Inc.
- Portola Valley Master Storm Drainage Report (Jones – Tillson & Associates)
- NOAA Rainfall Intensity Web Site

Project Location:

199 Mapache Drive
Portola Valley, CA.
APN: 077-050-010



Drainage Basin Information:

Drainage Basin:	Zapata Gulch
Drainage Basin Area (A):	40.67 acre
Flow Line Length:	2,398 ft
Flow Line Slope:	0.0608 ft/ft
Runoff Coefficient (C):	0.35
Time of Concentration (Tc)	19.18 min (15 minutes used for calculations)

Hydrology Information:

Storm Interval:	25 Year Return & 100 Year Return
Rainfall Intensity (I):	25 Year = 2.68 in/hour (From NOAA Web Site)
	100 Year = 3.37 in/hour (From NOAA Web Site)

Runoff Flow Rate (Q):	25 Year = 38.14 cfs
	100 Year = 47.97 cfs

Introduction:

The approximately 2.52 acre, roughly rectangular-shaped lot is located on the west side of Mapache Drive, in a rural, residential area of Portola Valley. The property is bounded by Mapache Drive to the east, Corte Madera Creek to the west and developed residential properties on the north and south.

The property straddles a broad, west-trending Arroyo with a small seasonal drainage channel across the northern portion of the property from Mapache Drive out to Corte Madera Creek. The drainage channel is heavily scoured and eroded. The project proposes to replace the eroded channel with approximately 334 linear feet of new 36” diameter corrugated metal pipe culvert.

Culvert Design:

Culvert Design: The bottom of the existing drainage channel will be excavated, as required, to install a new 36” diameter, corrugated metal pipe culvert, sloped at 1% from Mapache Drive to a new concrete headwall, near the northwest corner of the site, where the culvert will outfall to the existing seasonal drainage channel. The proposed culvert is designed to have the capacity to convey the 25 year return storm runoff from the Zapata Gulch drainage basin.

Overflow Swale Design: After the culvert is installed, the eroded channel will be backfilled. To provide overland drainage for the subject site and to provide emergency overland release for the Zapata Gulch drainage basin, the area above the culvert will be graded to provide a shallow channel to contain and divert overland runoff. The overflow swale is designed to provide additional flow capacity so that the proposed culvert and overflow swale, working together, have the capacity to convey the 100 year return storm runoff from the Zapata Gulch drainage basin.

Drainage Basin Runoff Summary:

Hydrology Calculation Method: A review of the site survey and the Portola Valley Master Storm Drainage Report by Jones – Tillson & Associates, indicate that runoff from the Zapata Gulch drainage basin drains to a 36” diameter culvert on the east side of Mapache Drive that releases the runoff onto the subject property on the west side of Mapache Drive. Refer to the included exhibit CVT-1 for drainage basin information.

Based on the topographic map provided in the master storm drainage report, the drainage basin encompasses 40.67 acres of lightly developed hillside residential land. The flow line of Zapata Gulch was calculated to be 2,398 feet long with an average slope of 5.96% (0.0596) from the high point of the drainage basin to the subject site. This information was used to calculate a Time of Concentration at the site of 19.18 minutes. To provide conservative calculations, the time of concentration was rounded down to 15 minutes.

The site specific NOAA rainfall intensity map indicates that at a Time of Concentration of 15 minutes, the rainfall intensity for a 25 year return storm is 2.68 inches per hour and for a 100 year return storm the intensity is 3.37 inches per hour.

Using a runoff coefficient of 0.35 lightly improved and suburban residential areas, the rational method was used to calculate a drainage basin runoff rate of 38.14 cubic feet per second for a 25 year storm event and 47.97 cubic feet per second for a 100 year storm event at the culvert entry to the subject site.

Culvert & Overflow Swale Hydrology Calculations:

Culvert Capacity Calculations: Manning’s Equation was used to calculate the capacity of the proposed culvert. Using a slope of 1% (0.0100) for a 36” diameter pipe and a roughness coefficient of 0.022 for a large diameter corrugated metal pipe, the calculations indicate that the proposed culvert will have a flow capacity of 39.52 cubic feet per second. This provides 103% of the required capacity of 38.14 cubic feet per second for a 25 year return storm event.

Overflow Swale Capacity Calculations: To determine the required flow capacity of the overflow swale, the culvert capacity of 39.52 cubic feet per second was subtracted from the 100 year return storm flow of 47.97 cubic feet per second providing a required design capacity of 8.45 cubic feet per second for the overflow swale.

To determine the limit of runoff in the overflow swale for a 100 year storm event in relation to the site development improvements, three sections were chosen between the residence and guest house. Refer to the included exhibits CVT-2 & CVT-3 for culvert and swale information.

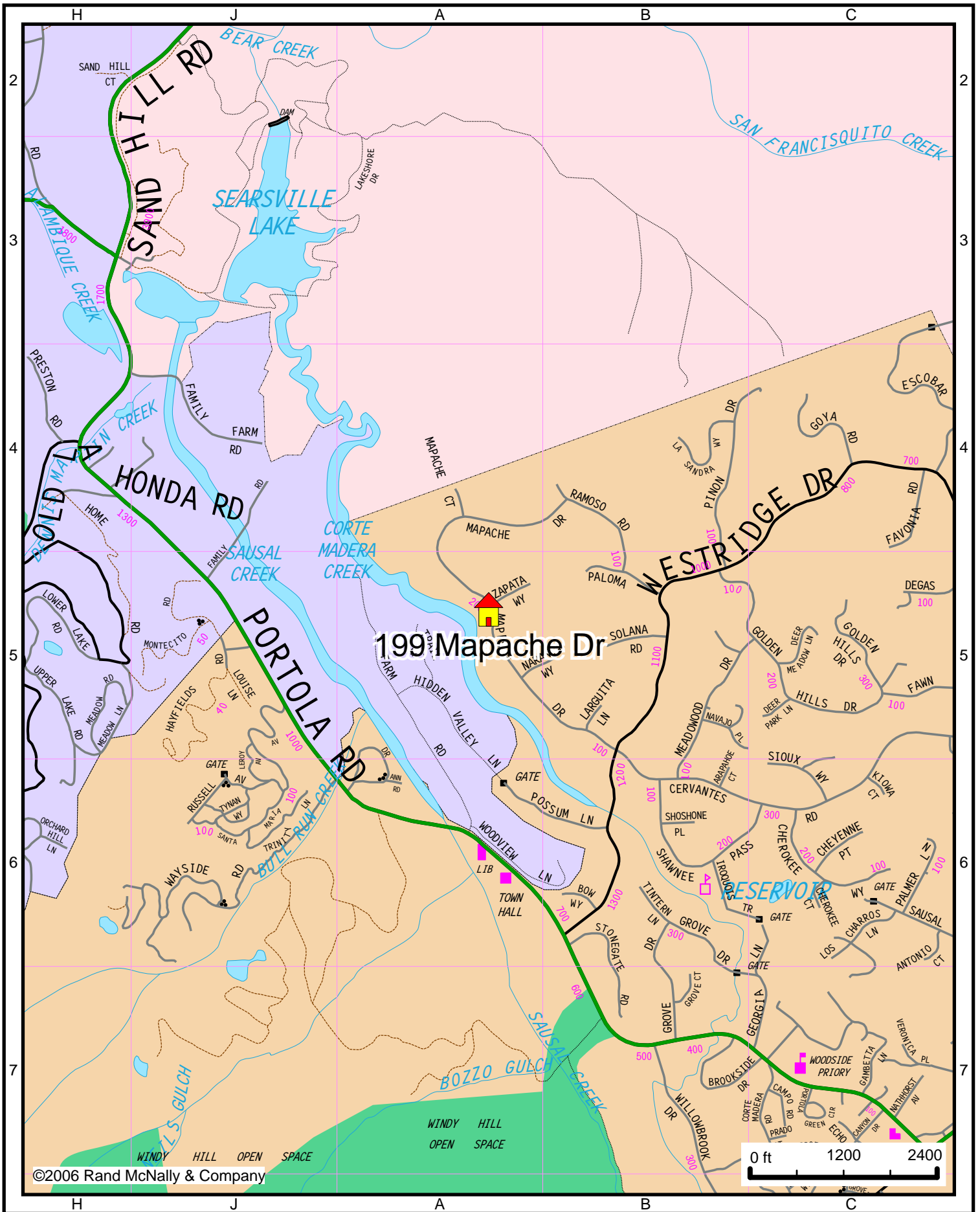
At each section, calculations were performed using computer modeling based on a trapezoidal swale using the required flow capacity of 8.45 cubic feet per second, the slope of the swale at the section and the side slopes of the swale at the section with a zero bottom width to determine the depth and the extent of the 100 year storm flow within the swale.

The calculations indicate that for a 100 year storm event, the flow depth varies from between 3 inches at Section A-A and 5 inches at Section C-C, and the width of the flow within the swale vary from 23 feet at Section A-A to 20 feet at Section C-C.

The attached exhibit CVT-2 indicates that no vertical obstructions are proposed within the limit of the 100 year storm flood event.

Based on our calculations, Lea & Braze Engineering, Inc. believes that the proposed culvert provides sufficient capacity to convey a 25 year return storm event. We further believe that the combination of the proposed culvert and overflow swale provide sufficient capacity to convey the 100 year return storm event.

Based on the proposed design and calculations, the culvert and overflow swale are adequate to perform their intended function and are in conformance with the Town of Portola Valley storm water drainage design requirements.



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- General Information
 - Homepage
 - Progress Reports
 - FAQ
 - Glossary

Precipitation Frequency

- Data Server
- GIS Grids
- Maps
- Time Series
- Temporals
- Documents
- Performance

Probable Maximum Precipitation

- Documents

Miscellaneous

- Publications
- Storm Analysis
- Record Precipitation

Contact Us

- Inquiries
- List-server



NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: CA

Data description

Data type: Units: Time series type:

Select location

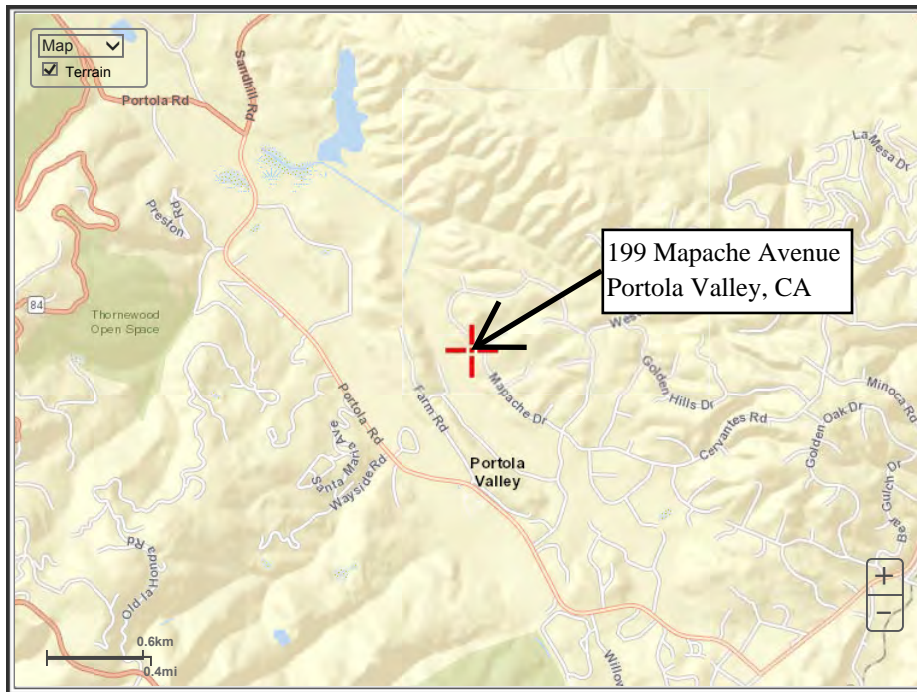
1) Manually:

a) By location (decimal degrees, use "-" for S and W): Latitude: Longitude:

b) By station (list of CA stations):

c) By address

2) Use map (if ESRI interactive map is not loading, try adding the host: <https://js.arcgis.com/> to the firewall, or contact us at hdsc.questions@noaa.gov):



- a) Select location
 - Move crosshair or double click
- b) Click on station icon
 - Show stations on map

Location information:
 Name: Portola Valley, California, US
 Latitude: 37.3901°
 Longitude: -122.2288°
 Elevation: 400.28 ft **

* Source: ESRI Maps
 ** Source: USGS

POINT PRECIPITATION FREQUENCY (PF) ESTIMATES WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION NOAA Atlas 14, Volume 6, Version 2

PF tabular

PF graphical

Supplementary information

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	2.06 (1.79-2.41)	2.59 (2.24-3.04)	3.29 (2.83-3.86)	3.86 (3.29-4.57)	4.63 (3.78-5.72)	5.23 (4.15-6.64)	5.83 (4.50-7.64)	6.46 (4.81-8.76)	7.31 (5.17-10.4)	7.98 (5.41-11.9)
10-min	1.48 (1.28-1.73)	1.86 (1.61-2.18)	2.36 (2.03-2.77)	2.77 (2.36-3.28)	3.32 (2.71-4.10)	3.74 (2.98-4.76)	4.18 (3.22-5.47)	4.63 (3.45-6.28)	5.24 (3.71-7.48)	5.72 (3.88-8.51)
15-min	1.19 (1.03-1.39)	1.50 (1.30-1.75)	1.90 (1.64-2.23)	2.23 (1.90-2.64)	2.68 (2.18-3.31)	3.02 (2.40-3.84)	3.37 (2.60-4.41)	3.73 (2.78-5.06)	4.22 (2.99-6.03)	4.61 (3.12-6.86)
30-min	0.834 (0.722-0.974)	1.05 (0.904-1.22)	1.33 (1.14-1.56)	1.56 (1.33-1.85)	1.87 (1.53-2.31)	2.11 (1.68-2.68)	2.35 (1.82-3.08)	2.61 (1.94-3.53)	2.95 (2.09-4.21)	3.22 (2.18-4.79)
60-min	0.589 (0.509-0.687)	0.740 (0.639-0.865)	0.938 (0.808-1.10)	1.10 (0.937-1.30)	1.32 (1.08-1.63)	1.49 (1.19-1.89)	1.66 (1.28-2.18)	1.84 (1.37-2.50)	2.08 (1.48-2.97)	2.27 (1.54-3.38)
2-hr	0.432 (0.373-0.504)	0.539 (0.466-0.630)	0.680 (0.586-0.798)	0.796 (0.678-0.943)	0.952 (0.778-1.18)	1.07 (0.854-1.36)	1.20 (0.922-1.57)	1.32 (0.985-1.79)	1.49 (1.06-2.13)	1.63 (1.11-2.42)
3-hr	0.364 (0.314-0.424)	0.454 (0.393-0.531)	0.573 (0.494-0.673)	0.671 (0.571-0.795)	0.803 (0.656-0.993)	0.905 (0.720-1.15)	1.01 (0.778-1.32)	1.12 (0.831-1.51)	1.26 (0.892-1.80)	1.37 (0.932-2.05)
6-hr	0.261 (0.226-0.305)	0.328 (0.284-0.384)	0.417 (0.359-0.489)	0.489 (0.416-0.579)	0.587 (0.479-0.726)	0.662 (0.527-0.841)	0.739 (0.570-0.968)	0.819 (0.610-1.11)	0.927 (0.656-1.32)	1.01 (0.686-1.51)
12-hr	0.171	0.218	0.281	0.333	0.403	0.457	0.513	0.570	0.648	0.709

Runoff Coefficient (C) Fact Sheet

What is It?

The runoff coefficient (C) is a dimensionless coefficient relating the amount of runoff to the amount of precipitation received. It is a larger value for areas with low infiltration and high runoff (pavement, steep gradient), and lower for permeable, well vegetated areas (forest, flat land).

Why is It Important?

It is important for flood control channel construction and for possible flood zone hazard delineation. A high runoff coefficient (C) value may indicate flash flooding areas during storms as water moves fast overland on its way to a river channel or a valley floor.

How is It Measured?

It is measured by determining the soil type, gradient, permeability and land use. The values are taken from the table below. The larger values correspond to higher runoff and lower infiltration.

Land Use	C	Land Use	C
Business: Downtown areas Neighborhood areas	0.70 - 0.95 0.50 - 0.70	Lawns:	
		Sandy soil, flat, 2%	0.05 - 0.10
		Sandy soil, avg., 2-7%	0.10 - 0.15
		Sandy soil, steep, 7%	0.15 - 0.20
		Heavy soil, flat, 2%	0.13 - 0.17
		Heavy soil, avg., 2-7%	0.18 - 0.22
		Heavy soil, steep, 7%	0.25 - 0.35
Residential: Single-family areas Multi units, detached Munti units, attached Suburban	0.30 - 0.50 0.40 - 0.60 0.60 - 0.75 0.25 - 0.40	Agricultural land:	
		<i>Bare packed soil</i>	
		*Smooth	0.30 - 0.60
		*Rough	0.20 - 0.50
		<i>Cultivated rows</i>	
		*Heavy soil, no crop	0.30 - 0.60
		*Heavy soil, with crop	0.20 - 0.50
		*Sandy soil, no crop	0.20 - 0.40
		*Sandy soil, with crop	0.10 - 0.25
		<i>Pasture</i>	
		*Heavy soil	0.15 - 0.45
*Sandy soil	0.05 - 0.25		
		Woodlands	0.05 - 0.25

<i>Industrial:</i> Light areas Heavy areas	0.50 - 0.80 0.60 - 0.90	<i>Streets:</i> Asphaltic Concrete Brick	0.70 - 0.95 0.80 - 0.95 0.70 - 0.85
Parks, cemeteries	0.10 - 0.25	Unimproved areas	0.10 - 0.30
Playgrounds	0.20 - 0.35	Drives and walks	0.75 - 0.85
Railroad yard areas	0.20 - 0.40	Roofs	0.75 - 0.95

Note: The designer must use judgment to select the appropriate "C" value within the range. Generally, larger areas with permeable soils, flat slopes and dense vegetation should have the lowest "C" values. Smaller areas with dense soils, moderate to steep slopes, and sparse vegetation should assigned the highest "C" values.

<http://water.me.vccs.edu/courses/CIV246/table2b.htm> accessed 11/19/09

Values of the Roughness Coefficient N

TYPE OF CHANNEL AND DESCRIPTION	MIN.	NOR.	MAX.
CLOSED CONDUITS FLOWING PARTLY FULL			
METAL			
Brass, Smooth	0.009	0.010	0.013
Steel			
1. Lockbar and Welded	0.010	0.012	0.014
2. Riveted and Spiral	0.013	0.016	0.017
Cast Iron			
1. Coated	0.010	0.013	0.014
2. Uncoated	0.011	0.014	0.016
Wrought Iron			
1. Black	0.012	0.014	0.015
2. Galvanized	0.013	0.016	0.017
Corrugated Metal			
1. Subdrain	0.017	0.019	0.021
2. Storm Drain	0.021	0.024	0.030
NONMETAL			
Lucite	0.008	0.009	0.010
Glass	0.009	0.010	0.013
Polyethylene	0.009	0.009	—
PVC (polyvinyl chloride)	0.009	0.009	—
Cement			
1. Neat, Surface	0.010	0.011	0.013
2. Mortar	0.011	0.013	0.015
Concrete			
1. Culvert, Straight and Free of Debris	0.010	0.011	0.013
2. Culvert w/Bends, Connections, Some Debris	0.011	0.013	0.014
3. Finished	0.011	0.012	0.014
4. Sewer w/Manholes, Inlet, etc., Straight	0.013	0.015	0.017
5. Unfinished, Steel Forms	0.012	0.013	0.014
6. Unfinished, Smooth Wood Form	0.012	0.014	0.016
7. Unfinished, Rough Wood Form	0.015	0.017	0.020
Wood			
1. Stave	0.010	0.012	0.014
2. Laminated, Treated	0.015	0.017	0.020
Clay			
1. Common Drainage Tile	0.011	0.013	0.017
2. Vitrified Sewer	0.011	0.014	0.017
3. Vitrified Sewer w/Manholes, Inlet, etc.	0.013	0.015	0.017
4. Vitrified Subdrain w/Open Joint	0.014	0.016	0.018
Brickwork			
1. Glazed	0.011	0.013	0.015
2. Lined w/Cement Mortar	0.012	0.015	0.017
3. Sanitary Sewers Coated w/Sewage Slimes, w/Bends and Connections	0.012	0.013	0.016
4. Paved Invert, Sewer, Smooth Bottom	0.016	0.019	0.020
5. Rubble Masonry, Cemented	0.018	0.025	0.030

- Min = Minimum
- Nor = Normal
- Max = Maximum

Manning's Equation

Used for open channel flow (natural or man-made).

$$V = \frac{K}{N} R^{2/3} S_e^{1/2} \text{ or } Q = \frac{K}{N} A R^{2/3} S_e^{1/2}$$

Where:

V= Average velocity of pipe in channel [ft./sec.].

K= 1.49 for U.S. units; 1 for metric units.

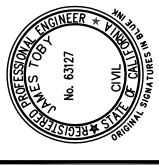
A= Area of channel [ft.²].

R= Hydraulic radius (area ÷ perimeter) [ft.].

S_e= Slope of energy grade line [ft./ft.].

N= Manning's roughness coefficient from table (non-dimensional).

Q= Flow in cu. ft./sec.



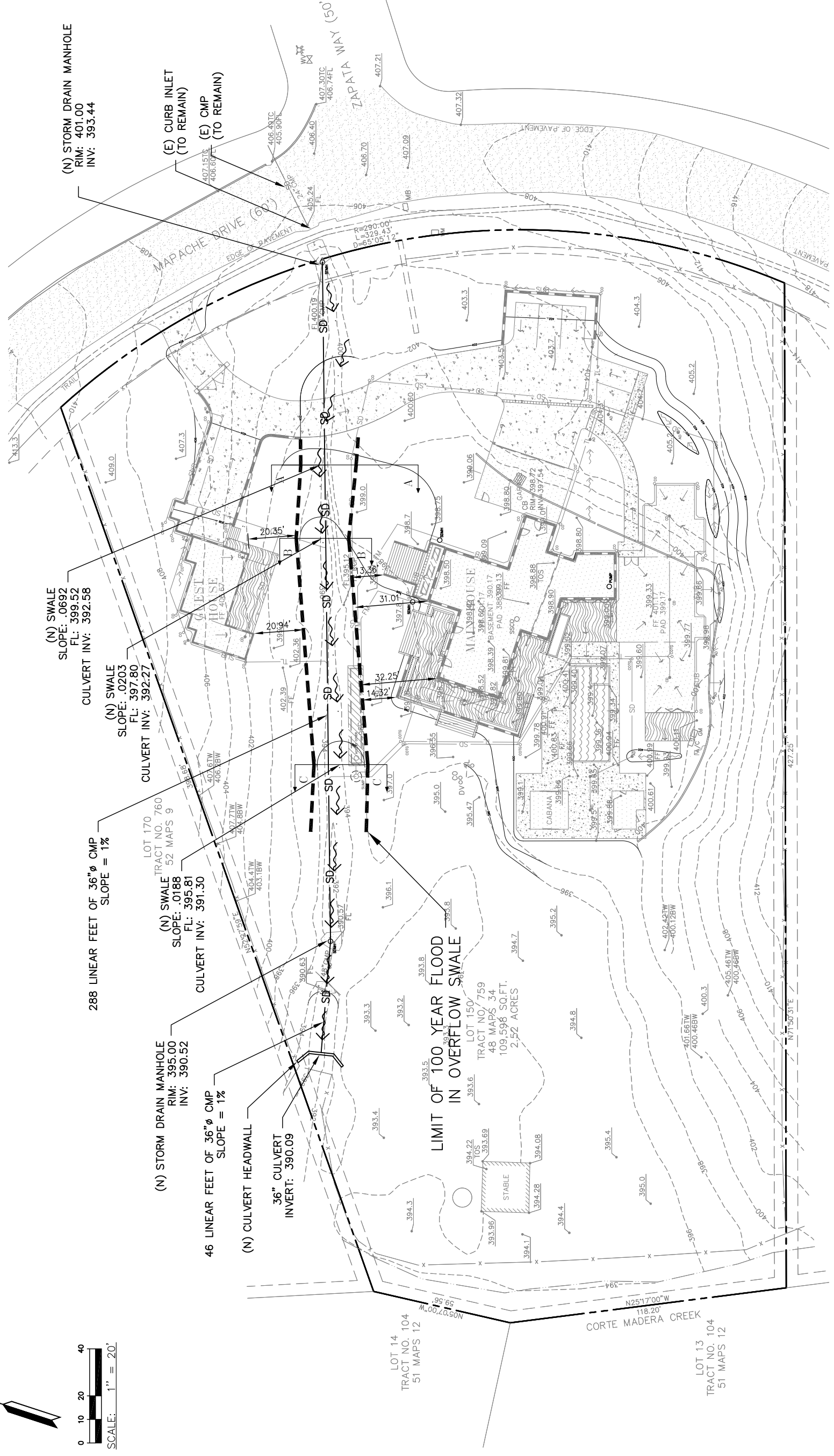
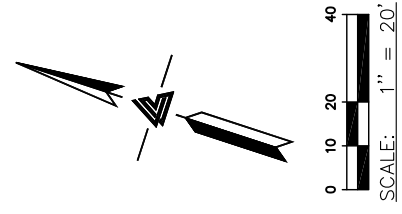
LEA & BRAZE ENGINEERING,
 REG. ENGINEERS - LAND SURVEYORS
 BAY AREA REGION
 2495 INDUSTRIAL PKWY WEST
 HAYWARD, CALIFORNIA 94545
 (F) (510) 887-4086
 (F) (510) 887-3019
 WWW.LEABRAZE.COM

199 MAPACHE DRIVE
 PORTOLA VALLEY
 CALIFORNIA
 SAN MATEO COUNTY
 APN: 077-050-010

PROPOSED
 CULVERT &
 OVERFLOW SWALE
 EXHIBIT

REVISIONS	BY

JOB NO: 2151024
 DATE: 8-29-16
 SCALE: 1" = 20'
 DESIGN BY: RK/CP
 DRAWN BY: RK
 SHEET NO:



LOT 14
 TRACT NO. 104
 51 MAPS 12

LOT 13
 TRACT NO. 104
 51 MAPS 12

LIMIT OF 100 YEAR FLOOD
 IN OVERFLOW SWALE

LOT 150
 TRACT NO. 759
 48 MAPS 34
 109,598 SQ.FT.
 2.52 ACRES

STABLE

CORTE MADERA CREEK



LEA & BRAZE ENGINEERING, INC.

CIVIL ENGINEERS - LAND SURVEYORS
2495 Industrial Parkway West
Hayward, California 94545
(510) 887-4086
Fax (510) 887-3019
WWW.LEABRAZE.COM

PROJECT 199 Mapache Drive	DATE January 30, 2018
JOB NO. 2151024	BY R. West

DRAINAGE BASIN HYDROLOGY CALCULATIONS

CALCULATION BASE VALUES

DRAINAGE BASIN AREA (A) = 1,771,408 ft. = 40.67 acre
DISTANCE FROM HIGH POINT TO SITE (L) = 2,398 ft.
(Taken along longest flow line)
HIGH POINT ELEVATION = 551.00 ft.
ELEVATION AT SITE = 405.25 ft.
RUNOFF COEFFICIENT (C) = 0.35 General Unimproved Areas &
Suburban Residential

CALCULATED VALUES

CHANGE IN ELEVATION (H) = 145.75 ft.
Slope (S) = 0.0608
Tc = 19.18 min. Use 15 minutes for Intensity

STORM INTENSITY

25 Year Storm Intensity (I_{25}) = 2.68 in/hr (From NOAA Web Site)
100 Year Storm Intensity (I_{100}) = 3.37 in/hr (From NOAA Web Site)

Flow Rate

Q_{25} = 38.14 cfs
 Q_{100} = 47.97 cfs



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PROJECT 199 Mapache Drive	DATE January 30, 2018
JOB NO. 2151024	BY R. West

CULVERT CAPACITY CALCULATIONS

DRAINAGE BASIN RUNOFF FOR A 25 YEAR STORM EVENT

Drainage Basin Runoff = 38.140 cfs

Culvert Inlet invert = 393.44 ft.
Culvert Outfall Invert = 390.09 ft.
Culvert Length = 334 ft.

Pipe Slope (%) = 1.00%
Pipe Diameter (D) = 36 in.
Pipe Area (A) = 7.07 sf.
Hydraulic Radius (R_H) = D/4
Hydraulic Radius (R_H) = 0.75 ft.
Manning's Coefficient (n) = 0.022 (Large Diameter CMP)
Manning's Equation = $(1.49/n) * R_H^{2/3} * S^{1/2} * A$
Pipe capacity, Manning's Equation (Q) = 39.519 cfs.



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PROJECT 199 Mapache Drive	DATE January 30, 2018
JOB NO. 2151024	BY R. West

OVERFLOW SWALE CALCULATIONS - SECTION A-A

STORM INTENSITY

25 Year Storm Intensity (I_{25}) = 2.68 in/hr (From NOAA Web Site)
 100 Year Storm Intensity (I_{100}) = 3.37 in/hr (From NOAA Web Site)

Flow Rate

Q_{100} = 47.97 cfs
 36" Diameter Culvert Capacity = 39.52 cfs

Required Capacity for Overflow Swale = 8.45 cfs

Trapezoidal Channel Calculations Perpendicular to Flow Line

Calculations based on Site Survey

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	8.45 cfs
Slope	0.0692 ft/ft
Manning's n	0.0300
Bottom width	0.00 ft
Left slope	0.0154 ft/ft (V/H)
Right slope	0.0304 ft/ft (V/H)
Flow Line @ Section	399.52 ft

Computed Results:

100 Year Flood Depth	2.82 in	0.24 ft.
100 Year Flood Elevation	399.76 ft	



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WWW.LEABRAZE.COM

PROJECT 199 Mapache Drive	DATE January 30, 2018
JOB NO. 2151024	BY R. West

OVERFLOW SWALE CALCULATIONS - SECTION B-B

STORM INTENSITY

25 Year Storm Intensity (I_{25}) = 2.68 in/hr (From NOAA Web Site)
 100 Year Storm Intensity (I_{100}) = 3.37 in/hr (From NOAA Web Site)

Flow Rate

Q_{100} = 47.97 cfs
 36" Diameter Culvert Capacity = 39.52 cfs

Required Capacity for Overflow Swale = 8.45 cfs

Trapezoidal Channel Calculations Perpendicular to Flow Line

Calculations based on Site Survey

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	8.45 cfs
Slope	0.0203 ft/ft
Manning's n	0.0300
Bottom width	0.00 ft
Left slope	0.0321 ft/ft (V/H)
Right slope	0.0374 ft/ft (V/H)
Flow Line @ Section	397.80 ft

Computed Results:

100 Year Flood Depth	4.30 in	0.36 ft.
100 Year Flood Elevation	398.16 ft	



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WWW.LEABRAZE.COM

PROJECT 199 Mapache Drive	DATE January 30, 2018
JOB NO. 2151024	BY R. West

OVERFLOW SWALE CALCULATIONS - SECTION B-B

STORM INTENSITY

25 Year Storm Intensity (I_{25}) = 2.68 in/hr (From NOAA Web Site)
 100 Year Storm Intensity (I_{100}) = 3.37 in/hr (From NOAA Web Site)

Flow Rate

Q_{100} = 47.97 cfs
 36" Diameter Culvert Capacity = 39.52 cfs

Required Capacity for Overflow Swale = 8.45 cfs

Trapezoidal Channel Calculations Perpendicular to Flow Line

Calculations based on Site Survey

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	8.45 cfs
Slope	0.0188 ft/ft
Manning's n	0.0300
Bottom width	0.00 ft
Left slope	0.0387 ft/ft (V/H)
Right slope	0.0422 ft/ft (V/H)
Flow Line @ Section	395.81 ft

Computed Results:

100 Year Flood Depth	4.65 in	0.39 ft.
100 Year Flood Elevation	396.20 ft	

Section A-A

Channel Calculator

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	8.4500 cfs
Slope	0.0692 ft/ft
Manning's n	0.0300
Height	6.0000 in
Bottom width	0.0000 in
Left slope	0.0154 ft/ft (V/H)
Right slope	0.0304 ft/ft (V/H)

Computed Results:

Depth	2.8209 in
Velocity	3.1261 fps
Full Flowrate	63.2253 cfs
Flow area	2.7031 ft ²
Flow perimeter	276.0332 in
Hydraulic radius	1.4101 in
Top width	275.9686 in
Area	12.2287 ft ²
Perimeter	587.1162 in
Percent full	47.0151 %

Critical Information

Critical depth	3.4108 in
Critical slope	0.0251 ft/ft
Critical velocity	2.1383 fps
Critical area	3.9517 ft ²
Critical perimeter	333.7531 in
Critical hydraulic radius	1.7050 in
Critical top width	333.6750 in
Specific energy	0.3869 ft
Minimum energy	0.4263 ft
Froude number	1.6075
Flow condition	Supercritical

Section B-B

Channel Calculator

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	8.4500 cfs
Slope	0.0203 ft/ft
Manning's n	0.0300
Height	6.0000 in
Bottom width	0.0000 in
Left slope	0.0312 ft/ft (V/H)
Right slope	0.0374 ft/ft (V/H)

Computed Results:

Depth	4.2976 in
Velocity	2.2412 fps
Full Flowrate	20.5737 cfs
Flow area	3.7702 ft ²
Flow perimeter	252.8028 in
Hydraulic radius	2.1476 in
Top width	252.6555 in
Area	7.3487 ft ²
Perimeter	352.9412 in
Percent full	71.6275 %

Critical Information

Critical depth	4.1814 in
Critical slope	0.0235 ft/ft
Critical velocity	2.3676 fps
Critical area	3.5690 ft ²
Critical perimeter	245.9648 in
Critical hydraulic radius	2.0895 in
Critical top width	245.8214 in
Specific energy	0.4362 ft
Minimum energy	0.5227 ft
Froude number	0.9337
Flow condition	Subcritical

Section C-C

Channel Calculator

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	8.4500 cfs
Slope	0.0188 ft/ft
Manning's n	0.0300
Height	6.0000 in
Bottom width	0.0000 in
Left slope	0.0387 ft/ft (V/H)
Right slope	0.0422 ft/ft (V/H)

Computed Results:

Depth	4.6494 in
Velocity	2.2726 fps
Full Flowrate	16.6802 cfs
Flow area	3.7181 ft ²
Flow perimeter	230.5028 in
Hydraulic radius	2.3228 in
Top width	230.3148 in
Area	6.1921 ft ²
Perimeter	297.4615 in
Percent full	77.4900 %

Critical Information

Critical depth	4.4779 in
Critical slope	0.0230 ft/ft
Critical velocity	2.4501 fps
Critical area	3.4489 ft ²
Critical perimeter	221.9986 in
Critical hydraulic radius	2.2371 in
Critical top width	221.8176 in
Specific energy	0.4677 ft
Minimum energy	0.5597 ft
Froude number	0.9103
Flow condition	Subcritical

A MASTER STORM DRAINAGE REPORT

FOR THE

TOWN OF PORTOLA VALLEY

JUNE 1970

JONES - TILLSON & ASSOCIATES
Civil Engineers

445 Sherman Avenue
Palo Alto, California

LEGEND

- BOUNDARY TOWN OF PORTOLA VALLEY
- NATURAL WATERWAY
- - - - - DITCH
- CATCH BASIN
- DD DOWN DRAIN
- MANHOLE
- 18" PIPE, SIZE & TYPE AS NOTED
- RCP REINFORCED CONCRETE PIPE
- CMP CORRUGATED METAL PIPE
- PMP PERFORATED METAL PIPE
- RCB REINFORCED CONCRETE BOX



TOWN OF PORTOLA VALLEY
 SAN MATEO COUNTY, CALIFORNIA

MASTER DRAINAGE PLAN

JONES · TILLSON & ASSOCIATES
 CIVIL ENGINEERS

Mapping by WALTER H. CHAMBERS, Civil Eng. No. 2
 From Aerial Photography Taken August 22, 1968
 File Control No. 3503, USC & GS, CALIFORNIA
 DIVISION OF HIGHWAYS and T.V. TRIMOFF, CE
 Map Grid Based on California Coordinate System
 Zone 5 DATUM 1955 MEAN SEA LEVEL
 MAP 9 OF 32

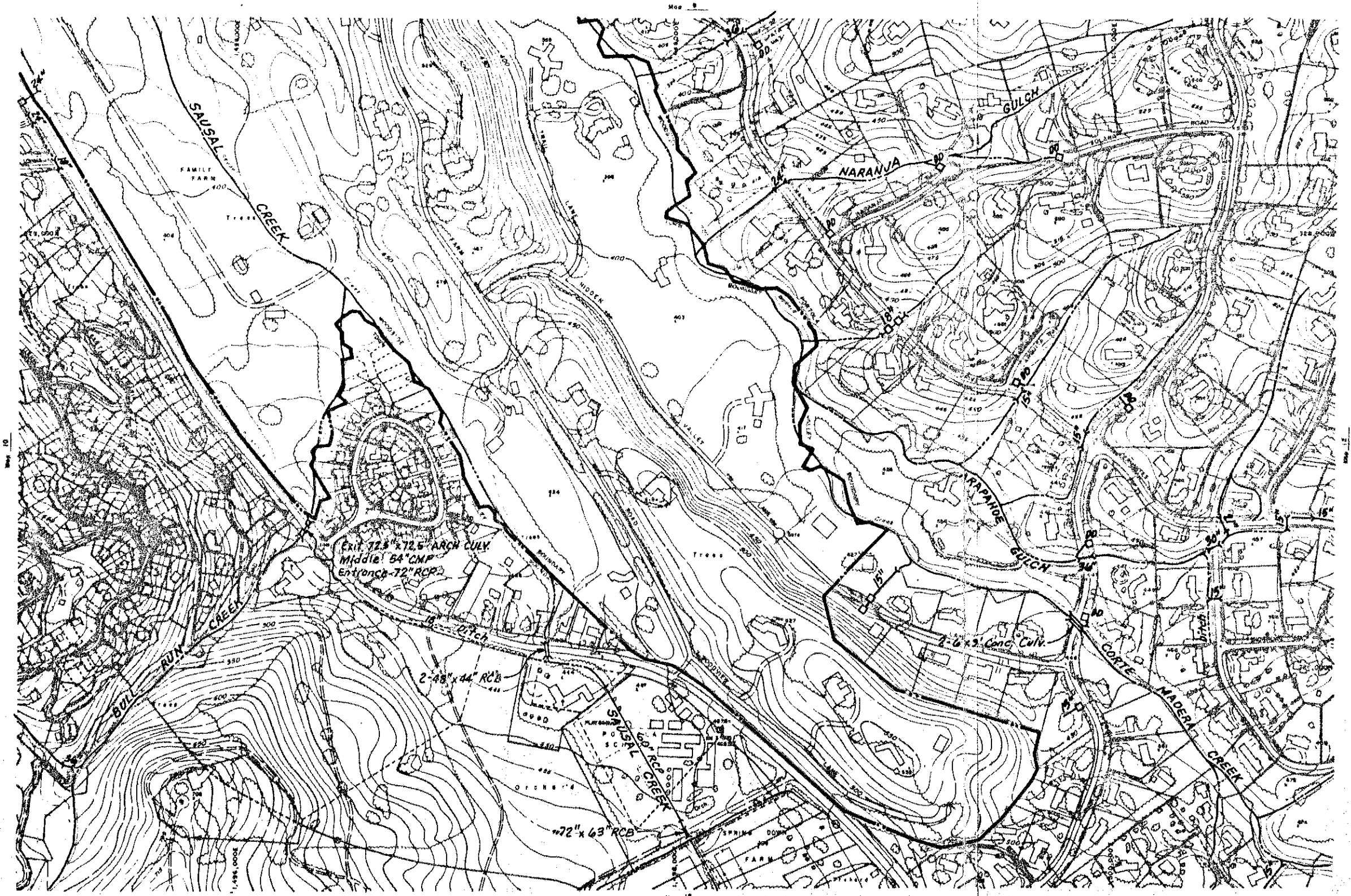
SCALE 1" = 500'

PLATE III

EXISTING DRAINAGE FACILITIES

LEGEND

- BOUNDARY TOWN OF PORTOLA VALLEY
- NATURAL WATERWAY
- - - DITCH
- CATCH BASIN
- DD DOWN DRAIN
- MANHOLE
- 18" PIPE, SIZE & TYPE AS NOTED
- RCP REINFORCED CONCRETE PIPE
- CMP CORRUGATED METAL PIPE
- PMP PERFORATED METAL PIPE
- RCB REINFORCED CONCRETE BOX



TOWN OF PORTOLA VALLEY

SAN MATEO COUNTY, CALIFORNIA

MASTER DRAINAGE PLAN

JONES · TILLSON & ASSOCIATES
CIVIL ENGINEERS

Mapping by WAYNE R. CHAMBERG, Calif. Reg. P.S.-2
From Aerial Photography Flown August 22, 1968
From Control by USGS, USC & OR, CALIFORNIA
DIVISION OF HIGHWAYS and T. V. TROKHOFF, CE
Map Grid Based on California Coordinate System -
Zone 3. DATUM IS MEAN SEA LEVEL.
MAP 11 OF 32

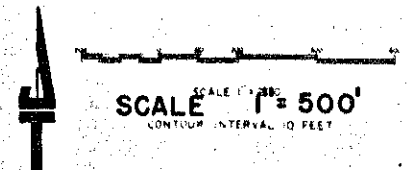
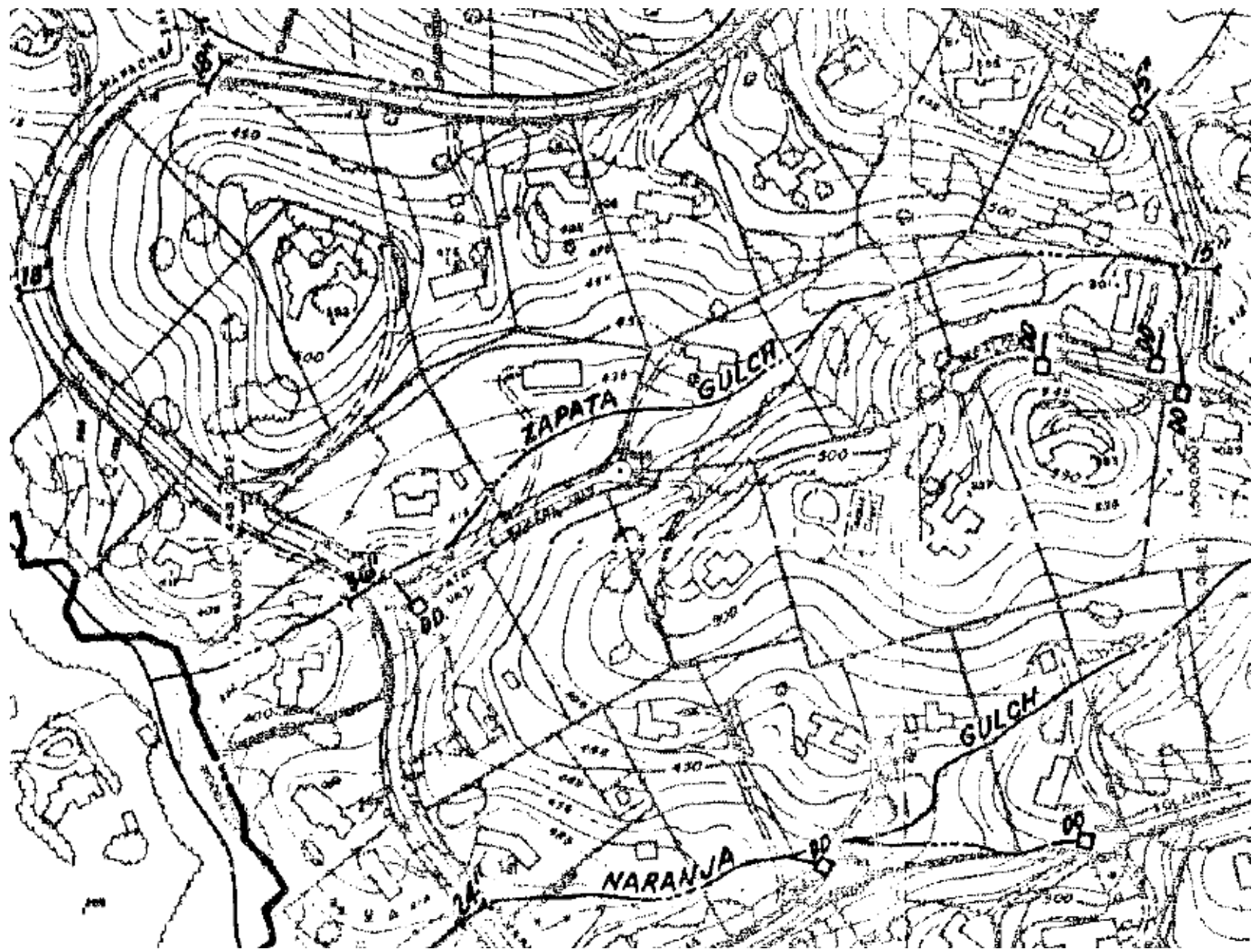


PLATE V

EXISTING DRAINAGE FACILITIES



Attachment 12

Arly Cassidy

From: CheyAnne Brown
Sent: Monday, May 07, 2018 9:01 AM
To: Arly Cassidy
Subject: FW: 199 Mapache Drive, Portola Valley: PLN_ARCH 40-2017

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Arly,

Health comments regarding 199 Mapache.

Chey

From: Edgardo Diaz [mailto:egdiaz@smcgov.org]
Sent: Tuesday, May 01, 2018 10:16 AM
To: CheyAnne Brown
Subject: 199 Mapache Drive, Portola Valley: PLN_ARCH 40-2017

CheyAnne,

San Mateo County Environmental Health has no comments regarding the proposed underground culvert. If you have any questions, I may be reached at (650) 464-0613.

Regards,

Edgardo Diaz
EHS IV, Land Use Program
San Mateo County Environmental Health
2000 Alameda de las Pulgas, Suite 100
San Mateo, CA 94403
Direct Phone 650-464-0613
Fax 650-627-8244
mailto: egdiaz@smcgov.org
<http://smchealth.org/landuse>

Arly Cassidy

From: Carol Borck
Sent: Monday, November 13, 2017 11:46 AM
To: Arly Cassidy
Subject: FW: 199 Mapache Drive, Portola Valley; PLN ARCH 40-2017

Follow Up Flag: Follow up
Flag Status: Completed

Arly,

I did not forward to the applicant.

Carol

From: Edgardo Diaz [mailto:egdiaz@smcgov.org]
Sent: Monday, November 13, 2017 11:43 AM
To: Carol Borck
Cc: Allison Fang; CheyAnne Brown; bmainzer@comcast.net
Subject: 199 Mapache Drive, Portola Valley; PLN ARCH 40-2017

Carol,

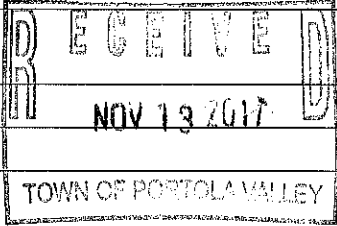
San Mateo County Environmental Health (Environmental Health) has completed the review of the Site Development Permit (received 10/26/2017) for 199 Mapache Drive, Portola Valley to construct a pool cabana. Environmental Health approves the site development permit for the pool cabana only. At the building application stage, the applicant will need to delineate all components of the Onsite Wastewater Treatment System (OWTS) serving the main residence and the guest house on all relevant plan sheets calling out all required setbacks specified in the OWTS Ordinance 4.84.120 and Section 3 (B) of the Onsite Systems Manual (OSM).

I may be reached by phone (650) 464-0613 or email if you have any questions.

Sincerely,

Edgardo Diaz
EHS IV, Land Use Program
San Mateo County Environmental Health
2000 Alameda de las Pulgas, Suite 100
San Mateo, CA 94403
Direct Phone 650-464-0613
Fax 650-627-8244
mailto: egdiaz@smcgov.org
<http://smchealth.org/landuse>

WOODSIDE FIRE PROTECTION DISTRICT**Prevention Division**808 Portola Rd. Portola Valley, CA ~ www.woodsidefire.org ~ Fire Marshal Denise Enea 650-851-6206ALL CONDITIONS MUST MEET WFPD SPECIFICATIONS – go to www.woodsidefire.org for more info**BDLG & SPRINKLER PLAN CHECK AND INSPECTIONS**

PROJECT LOCATION: 199 Mapache	Jurisdiction: PV	
Owner/Architect/Project Manager: Mainzer-650-245-1522	Permit#: PLN ARCH 40-2017	
PROJECT DESCRIPTION: New House		
Fees Paid: <input checked="" type="checkbox"/> \$YES <input checked="" type="checkbox"/> See Fee Comments Date: 10/23/17		
Fee Comments: CH#2028....\$90.00 (plan review fee) paid by: Mainzer CH#....\$180.00 (plan check fee) paid by: not yet paid		
BUILDING PLAN CHECK COMMENTS/CONDITIONS: THE FOLLOWING REQUIREMENTS MUST BE MET IN ORDER TO PASS FINAL FIRE INSPECTION: <ol style="list-style-type: none"> 1. At start of construction a 2' x 3' address sign will be posted in front of project. 2. At time of final the permanent address will be mounted and clearly visible from street w/minimum of 4" numbers on contrasting background. 3. 100' defensible space required prior to start of construction. 4. Upon final inspection 30' perimeter defensible space will be required per WFPD ordinance section 304.1.2.A 5. Approved spark arrestor will be required on all installed chimneys including outside fireplaces. 6. Install Smoke and CO detectors per 2016 CBC. 7. NFPA 13D Fire Sprinkler System to be installed. Sprinkler plans/calculations to be submitted under separate cover to WFPD. 8. Driveway as proposed meets WFPD standards. If driveway dimensions are revised during construction it must maintain compliance with WFPD standards (see www.woodsidefire.org) 9. Driveway is over 150' and will require fire truck turnaround. 10. Fire Hydrant- Shows on WFD maps at the corner of Zapata and Mapache. Show on permit drawings the closets fire hydrant. The minimum fire flow shall be 1000 gallons per minute. A water supply for fire protection shall mean a fire hydrant within 500' from the building, capable of the required flow. Distance from hydrant to structure shall be measured via an approved roadway in which the engine can safely drive from the fire hydrant to front door of structure. 		
Reviewed by: M. Hird	Date: 11/13/17	
<input type="checkbox"/> Resubmit	<input checked="" type="checkbox"/> Approved with Conditions	<input type="checkbox"/> Approved without conditions
Sprinkler Plans Approved: NO	Date:	Fees Paid: <input type="checkbox"/> \$390 <input checked="" type="checkbox"/> See Fee Comments
As Builts Submitted: -----	Date:	As Builts Approved Date:
Fee Comments: CH#....\$350.00 (fire sprinkler plan review) paid by: not yet paid		
Rough/Hydro Sprinkler Inspection By: -----	Date:	
Sprinkler Inspection Comments:		
Final Bldg and/or Sprinkler Insp By: -----	Date:	
Comments:		



November 21, 2017
V5086C

TO: CheyAnne Brown
Planning Technician
TOWN OF PORTOLA VALLEY
765 Portola Road
Portola Valley, California 94028

SUBJECT: **Geotechnical Peer Review**
RE: Mainzer, Cabana and Buried Storm Drain
199 Mapache Dr., Portola Valley
PLAN_ARCH 40-2017

At your request, we have completed a geologic and geotechnical peer review of the Site Development Permit application for the new cabana and culvert using the following documents:

- Geotechnical Investigation (report) prepared by Redwood Geotechnical Engineering Inc., dated March 28, 2016;
- Updated Architectural Plans (5 sheets) prepared by CJW Architecture, dated June 13, 2017;
- Updated Civil Plans (15 sheets) prepared by Lea and Braze Engineering Inc., dated July 17, 2017; and
- Pool Plan Review (letter) prepared by Redwood Geotechnical Engineering, dated December 8, 2016.

In addition, we have reviewed pertinent technical documents from our office files and performed a recent site reconnaissance.

DISCUSSION

Based on our review of the referenced documents, we understand that the applicant proposes to convert an existing drainage ditch into a buried storm drain line to

route surface runoff to nearby Corte Madera Creek. A new pool cabana is also proposed near the swimming pool. Grading for the proposed cabana and culvert will include approximately 245 cubic yards of cut and 740 cubic yards of fill.

SITE CONDITIONS

The site of the proposed culvert is characterized by an east-west-trending drainage ditch that extends from an existing culvert beneath Mapache Drive to Corte Madera Creek. The ditch is a maximum of approximately 4 feet deep, and extends through the northern portion of the property. The proposed cabana will be along the northwest side of the swimming pool, west of the residence, where exploratory borings indicate that up to approximately eight feet of unconsolidated earth material overlies weathered bedrock. Drainage at the site is characterized by partially controlled sheetflow directed westward towards Corte Madera Creek, which is located at the western property boundary approximately 90 feet from the proposed cabana.

Town Geologic Map reveals that the site is underlain, at depth, by bedrock materials of the Santa Clara Formation (i.e., conglomerate, sandstone and potentially expansive claystone). Thick alluvial deposits overlie the bedrock material at the site and are likely associated with ancestral alluvial deposits of Corte Madera Creek. The Town Movement Potential Map shows that the proposed cabana and culvert sites are located within a "Sun" zone, which is defined as: "*Unconsolidated granular material on level ground subject to settlement and soil creep; liquefaction possible at valley floor sites during strong earthquakes.*" The active San Andreas fault is mapped approximately 1,600 feet west of the property.

CONCLUSIONS AND RECOMMENDED ACTION

The proposed project is constrained by the potential for settlement associated with existing undocumented artificial fill materials, alluvium and colluvium, seasonal shallow or perched groundwater conditions, and the potential for very strong to violent seismic ground shaking. The Geotechnical Consultant performed an investigation of the site and provided geotechnical design recommendations for the residential development that, in general, appear consistent with industry standards. These recommendations include supporting the cabana on a pier and grade beam foundation system. Specific recommendations for the culvert have not been provided by the Project Geotechnical Consultant. We do not have geologic or geotechnical objections to the proposed cabana and culvert, and recommend Site Development Permit approval from a geotechnical standpoint. Prior to issuance of building permits for cabana construction, or grading/building permits for the buried storm drain, the following should be provided:

1. **Supplemental Civil Engineering Details** – The Project Civil Engineer should provide details that illustrate the outfall bulkhead wall

construction, the energy dissipater design for the pipe outfall, the connection to the existing storm drain pipe, and details depicting the pipe backfill. The civil engineer should also discuss the advantages of using HDPE pipe with the homeowner (if not already done so), and the long-term advantages of this type of pipe over corrugated metal.

2. Geotechnical Plan Review and Updated Geotechnical Design Criteria -

The applicant's geotechnical consultant should review and approve all geotechnical aspects of the development plans (i.e., site preparation and grading, site surface and subsurface drainage improvements, and design parameters for the storm drain and cabana foundation) to ensure that their recommendations have properly incorporated. The following should specifically be addressed:

- Geotechnical design criteria for the buried storm drain should be provided (as deemed necessary) to assure that the Project Civil Engineer incorporates appropriate pipe backfill, foundation, and compaction criteria.

The results of the Civil Engineering Details and Geotechnical Plan Review should be submitted to the Town for review and approval by Town staff and Town Geotechnical Consultant prior to issuance of building or grading permits. The following should be performed prior to final (as-built) project approval.

3. Geotechnical Construction Inspections -

The geotechnical consultant should inspect, test (as needed), and approve all geotechnical aspects of the project construction. The inspections should include, but not necessarily be limited to: site preparation and grading, site surface and subsurface drainage improvements, and excavations for foundations prior to the placement of steel and concrete.

The results of these inspections and the as-built conditions of the project should be described by the geotechnical consultant in a letter and submitted to the Town Engineer for review prior to final project approval.

LIMITATIONS

This geotechnical peer review has been performed to provide technical advice to assist the Town in its discretionary permit decisions. Our services have been limited to review of the documents previously identified, and a visual review of the

property. Our opinions and conclusions are made in accordance with generally accepted principles and practices of the geotechnical profession. This warranty is in lieu of all other warranties, either expressed or implied.

Respectfully submitted,

**COTTON, SHIRES AND ASSOCIATES, INC.
TOWN GEOTECHNICAL CONSULTANT**

A handwritten signature in blue ink, appearing to read "John Wallace".

John Wallace
Principal Engineering Geologist
CEG 1923

A handwritten signature in blue ink, appearing to read "Patrick O. Shires".

Patrick O. Shires
Senior Principal Geotechnical Engineer
GE 770

POS:JMW:cs



MEMORANDUM

DATE: April 23, 2018

TO: Ary Cassidy and Howard Young , Town of Portola Valley

FROM: David M. (Mike) McNeely & Nona Espinosa, NV5

PROJECT: 199 Mapache Drive # PLN_ARCH 40-2017

PROJECT #: SJ00717-106

SUBJECT: Review Comments for Lea and Braze Site Development Plans Dated Jan 13, 2018 (Delta 2).

NV5 has completed the review of the Site Development Application for the subject plans. Please address the following prior to ASCC approval:

1. Provide additional calculations to address whether the existing culvert under the Mapache Drive can convey the 25-year flow and how the site will be graded so that the 100-year overflow can be directed to the proposed overflow swale without flooding the proposed structures. Show the hydraulic grade line (HGL) for the existing and proposed culverts. The HGL upstream of the existing 24" pipe should be equal or below existing condition. The analysis should also address the effect of the FEMA 100-year flood elevation of 394.5' on the hydraulics of the culverts.
2. Please check that all storm drain connections, especially the discharge pipe of the detention system, can drain when the HGL is high. Make sure to address the backflow into the detention basin.
3. The n-value of 0.022 used for the new pipe was less than the normal value per Sheet R-15 in the submittal package. Please use the normal value or submit justification for using the lesser value.

Address the following comments in the building permit submittal:

1. Provide rock slope protection (RSP) at the outlet structure for the 36' pipe and provide calculations for the sizing and length. Also, it appears that there may not be sufficient room for the RSP on the subject property and the outlet headwall may have to be relocated upstream.
2. The main house basement should be flood proofed since its floor elevation is 390.17' and the FEMA 100-year level in Corte Madera Creek is 394.5'.

3. Submit calculations supporting the sizing of the detention basin system.
4. Provide documentation of the total overall impervious area for pre-condition and post-development and evaluate if the project increases peak flows into creeks and can cause erosion (referred to as hydromodification) which requires mitigation. Provide a summary table providing the previous and proposed impervious area.

DMW
4/23/18

NFE
4/23/18

Preliminary Conservation Committee Comments

Address **199 Mapache**

Date **March 14, 2016**

Nov. 5, 2017

Apr. 24, 2018

Committee members at site visit: **March 10, 2016 , Oct. 30, 2017 & April 17, 2018**

Paul Heiple Jane Bourne

Volume of Grading 990cy, Is the new Cabana grading included with the original plan? The quantity of soil piled around the site seems quite large, what are the plans for this material?

House appearance

Does the proposed house fit with the surroundings? **Yes**

Light spillage from windows **Dwelling is well screened** 10/17 guest house walled in and near completion. Proposed location of cabana no problem. The cabana is still no problem as before.

Landscape Plan:

We appreciate and encourage areas left open and native

We appreciate limited amount of turf – suggest use only lowest water use varieties...

We appreciate that no turf in included in this plan.

Redwoods planted in the fog belt or in riparian areas are local treasures. The redwoods on this property will never do well without copious irrigation, and will rapidly grow to create unwanted shade and problematic surface roots. **One Redwood near Mapache, could be removed**

Planting in Right of Way should be minimal and low maintenance. Native grasses and wildflowers are appreciated here.

Swales that drain to seasonal tributaries of creeks should be protected from animal waste runoff.

Plants List

Are the plants mostly native? **Yes, all are native except for fruit trees and one that is likely miss named. Carex divulsa is listed as Berkeley sedge, that is not accurate and it is not native. Carex tomulicola is Berkeley sedge and is native. Since 175 of these plants are proposed and this property is along a creek above Jasper Ridge, it is not wise to plant a non-native. We recommend checking with the nursery that the carex tumulicola is really what they provide. We see nurseries sell completely different plants under this name.**

If not native, are the species chosen non invasive? **Unknown**

Are the non native plants chosen ones that require little water? **A few fruit trees will be added to an area that already has fruit tree. These older tree might be replaced. Native grasses and forbs are found in this area so minimum disturbance is recommended during planting.** 10/17 The native plants and fruit trees have been completely eliminated against our recommendation for no disturbance of this area. No new planting plans to show what is proposed for this now devastated area. The old plans may have had planting plans for this area that we considered but did not approve due to the existing native plant community.

This property is in a riparian area. Due to the spreading of Sudden oak death (SOD) through bay trees and the lack of natural water, the committee discourages planting a bay tree on this property.

Do the plants chosen for an area have the same water and light requirements? The planting seem to be in line with the conditions found.

Is enough room allowed for the plants to grow and mature? **yes**

Will the native trees on the property receive too much summer water to maintain their health? **No**

Is the proposed care of the plants in line with best practices? **Yes**

The “draining ditch” is actually an ephemeral stream that was modified by the previous owners. We noted that the construction already done had put more of the stream in a pipe underground. We can not recommend or approve of further undergrounding of more of this stream.

We continue to hold the opinion that the ephemeral stream is an important part of a rural setting. Undergrounding will destroy the wildlife and hydrologic value of a surface creek as well as disconnect the flow from the groundwater. We observed that the stream was flowing and therefore not a mosquito breeding habitat and had wildlife such as Pacific Chorus Frogs and Golden-Crowned Sparrows.

The argument that changing the stream course in the past negates all function and allows the continuation of the destruction of the natural system is not a valid one. The 1948 air photo was taken in August. The photo also shows the area upstream is highly altered to enhance grassland for grazing. Any riparian vegetation that existed would have been removed. Riparian plants retain water that keeps the stream flowing longer in the dry season. Portola Valley is attempting to undo as many of these storm damaging actions from the past as possible, not build new ones.

1. Massive infestation of French Broom in the area of Guest House. No large plants but lots of seedling, many mowed short. Massive infestation of Oblong Spurge *Euphorbia oblongata* SW side of property. 10/17 The broom infestation is largely gone for now due to the construction of the Guest House on the site of the infestation. It is likely the infestation is going to return with the seeds sprouting throughout the site. In the ephemeral creek, the broom is still present and appears to be untouched. The Oblong Spurge infestation is larger than before. The French Broom is once again a major infestation along the ephemeral creek, Oblong Spurge is also abundant. These infestations should be dealt with as soon as possible.

Other considerations

1. Well found down by the horse stable. This well is very close to Corte Madera Creek and is likely to impact the creek if used for irrigation. 10/17 The well has new plumbing and a large tank. It is obvious the intent is to use this well, most likely for irrigation. The proximity to the creek will very likely have a major impact on the creek. Drawing from this well will reduce summer flows in the creek and the runoff from landscape irrigation will pollute the creek. The conservation committee strongly recommends this use not be permitted.

The Committee would like to accompany ASCC on any future site visit to see if additional comments from us are warranted.

Submitted by [Paul Heiple](#)

homeowner's association for removal of trees.

Commissioner Ross said the idea of raising the grade behind the pool and bringing it around toward Buck Meadow is attractive. He said at Buck Meadow, the grade could be raised possibly 2 to 3 feet, replanted, and use more modest planting materials for screening, such as shrubs instead of trees. He was less supportive of losing dirt on the other side of the driveway and said it might be more difficult to get permission because of POSE rules. Mr. Warr said that during the subdivision, it was dug up badly in order to find the San Andreas faults and what is there now is not natural. Commissioner Ross said he would be supportive of spreading the soil around the area as long as it was returned to a meadow look with appropriate grasses. He said the other benefit is reduced truck trips.

Vice Chair Koch asked if the POSE area could be used for construction staging, as they did with 5 Blue Oaks. She said on one hand, she would suggest leaving that area alone, adding soil throughout the site where it's already disturbed, but not if this is where the staging will occur anyway. She suggested a portion to hide the pool wall and some of the garage, nothing on the side of the entry master wing, and the rest on the already disturbed construction staging site.

Interim Planning Director Cassidy asked Mr. Warr if there was a preliminary construction plan. Mr. Warr said they did not have a plan yet, but agreed it would make the construction more efficient and effective to have access to that area. He said it would be easy to replace and even improved.

Commissioner Breen recommended feathering the grading so that nothing looked bermed and it was all natural. She was not supportive of all the oaks at the front of the property and wants to see meadow. Mr. Warr said if they get the approval for grading, he thinks they can come back to shrubs closer to the building.

Chair Sill was supportive of moving the dirt to soften the pool retaining wall and then bringing it around. He also would prefer none or as few oak trees as possible.

Mr. Warr thanked the Commission for their guidance.

Chair Sill called for a five-minute break.

(2) Preliminary Architectural Review and Site Development Permit for a New Pool Cabana and Undergrounding of an Existing Seasonal Creek, File # PLN ARCH 40-2017, 199 Mapache Drive, Mainzer Residence

Interim Planning Director Cassidy described the background and details of the project. She explained the property has already been approved for a new residence with an attached three-car garage, a basement, a detached ADU, a carport, and a swimming pool. She requested the Commission offer comments, reactions, and direction to assist the applicant and project architect in making plan adjustments or clarifications to the pool cabana and undergrounding of the existing seasonal creek, as detailed in the staff report.

She said there has been some discussion between the engineers, the Conservation Committee, and staff. She said the staff report attempts to lay out the agreed upon facts. She said the hope is that a solution can be found regarding some of the problems.

Chair Sill invited questions from the Commissioners.

Vice Chair Koch asked about the barn. Mr. Warr said the barn goes away as floor area and is being converted to impervious surface by opening it up into a pavilion. He said the roof structure provides nice screening from the neighbor across the creek in Woodside.

Vice Chair Koch asked if the culvert, as it exists now, at the end of the property line goes into the creek or goes into another culvert. Interim Planning Director Cassidy said the culvert does not join the creek on the subject property.

Vice Chair Koch asked if there was a bridge between the guest house and the main house. Mr. Warr said they did not propose a bridge. Interim Planning Director Cassidy said there is currently a bridge further down the property. She said the current culvert is under a road-width crossing. She said when the structure was a functional barn, there was a dirt road that connected the driveway to the barn.

With no further questions, Chair Sill invited comments from the applicant.

Mr. Warr said filling in the ditch was always a part of their original proposal, and they pulled it when they didn't feel they had support of the ASCC and because they had not done their research about the history and hydrology in the area. He said the pool house was a new element that came later as the design matured and was going to be an application when the permit was issued. He said the paved area around that is not much bigger, and the pool has been shortened by approximately 20 feet in order to accomplish that. He said the relatively simple building is hidden from offsite views by the massing of the house and the existing mature trees and screening.

Mr. Warr said tonight's issue is mainly about the ditch. He said the County approved the subdivision and the introduction of the catch basin and culvert. He said the previous owners felt it necessary to do something with the concentration of water this created, so they created the ditch in the early 1960s. He described the current owners' goal to put back what they imagine was original so there will be a relatively natural swale over the top of the culvert pipe that blends with the existing trees and takes out the incised ditch. He said attempts to simply make the ditch look more natural will end up with a very large ditch which is not desirable. He said they will be able to use excavated material onsite, eliminating the need to cart it away. He said the homeowner's association is supportive of the ditch project and associated filling. He said they are asking for fairness to help them solve what is a manmade condition and not a natural condition.

In response to Vice Chair Koch's question, Mr. Warr said there were not any skylights in the roofline of the cabana.

The owner said that there is a serious mosquito problem with the standing water at the ditch. He said San Mateo County Abatement comes out every couple of weeks trying to do something about it. Commissioner Breen said everyone on Mapache has mosquitos and suggested they get bat boxes. The owner said the San Mateo Abatement representative told him if the ditch were encapsulated, the mosquito problem would be reduced, and he would like to try it.

With no further questions, Chair Sill invited public comment. Hearing none, Chair Sill brought the item back to the Commission for discussion.

Commissioner Breen was supportive of the pool house with the staff conditions regarding lighting. She suggested if the applicant wanted matching lights, one could be inoperable. She

suggested the Commission think about a deed restriction for the space in between the two cabanas to make sure that never gets glassed in or doored in.

Regarding the ditch/ephemeral stream, Commissioner Breen said there was resounding response from the Commission the first time around that they did not want to see it encapsulated. She said she would support it being reworked. She said it is habitat and, whether or not it was changed at some point, the water has still moved through that property. She said it could be a lovely feature. She said whatever names are put on the creek – tributary, watershed, gulch – it is an important habitat, and there is opportunity to work with it and improve it without putting it in a pipe.

Commissioner Ross was supportive of the cabana. He said it is well protected, and he could support additional fixtures on the outside if the lumens were relatively low. He said he is moving away from strict fixture counts and considering total lumens more.

Regarding the ditch/ephemeral creek, Commissioner Ross tried to imagine what it would look like if the profile of the land itself were returned to how it had been before the 1970s drainage effort, which both deepened and focused the water flow from what had been more of a watershed down into a narrow channel. He said the previous property owners responded to those improvements, probably because they needed to, by digging out the intense ditch. He said his sense is that it does not get improved by widening it in order to soften what's there now. He said it would be a net benefit to try to restore the profile of the land to more of the way it was in the 1948 satellite view and deal with the drainage imposition that was placed on the property in the '70s by putting that water flow into a culvert, improving the outfall so it is gentler when it hits the black rocky area before flowing into Corte Madera Creek. He said he walked around the area fairly recently, after the construction of the ADU, and he no longer has reservations about putting it in a culvert. He said he now thinks it would be a net positive thing to do. He said it needs to be handled sensitively as far as how the land over the top is restored. He said as far as it being a habitat, perhaps some creatures have adapted to it, but it is mostly a mosquito habitat now. He was supportive of the culvert.

Vice Chair Koch said she could be supportive of the two fixtures if the lumens were not distracting glaring lights causing light pollution. She said the cabana and sauna could not be joined and converted to living space because it would exceed the allowable floor area for the site.

Vice Chair Koch said she loved the idea of open creeks, but also loved the idea of reverting back to what was meant to be. She said, however, given that restoration is not possible, she would prefer to open up the creek and let it have a life. She said some kind of pedestrian bridge could be a unique experience and celebration of this property. She was supportive of keeping the creek open and said putting in a culvert is not restoration.

Chair Sill was supportive of the cabana. He would like to see fewer lights or less lumens.

Chair Sill said he was not in favor of putting the creek in a culvert and burying it. He said he could not find any justification that it would fit within the General Plan or Design Guidelines. He said he would support keeping the open creek, ditch, or drainage swale. He said the discussion should be about improving its appearance, cleaning it up, removing broom, and maybe adding rocks.

Commissioner Breen asked how the Commission felt about requiring a deed restriction.

Commissioner Ross said he would not object to a deed restriction, but pointed out that requiring a deed restriction in order to prevent something that is already prohibited by code seemed to be over the top. Commissioner Breen she has seen a lot of instances where people have glassed in spaces between two spaces. Mr. Warr said there have been many changes throughout the years that make deed restrictions very complex. For example, a lot of homes have deed restrictions limiting guest houses to 750 square feet on properties that are now allowed larger guest houses. He said there is a cost associated with those owners abating those deed restrictions so they can actually do what the Town wants – building larger guest houses for more variety of housing. He said unless there's a nexus between some visual effect or parking impact, it would be best to leave this be. He said no one at this point, with this approved project, would be legally able to enclose that.

The Commission agreed with Mr. Warr's point. Commissioner Ross said it would be appropriate to do a deed restriction if there was a reason to do it that went beyond making sure there was compliance with the Zoning requirement. He agreed with Commissioner Breen that there is very little enforcement of violations regardless of if there are deed restrictions.

Bill Mainzer, the owner, said 5 Naranja had a very similar ditch running through the property that was changed to a culvert with the approval of the ASCC. He said his property is split in two by the ditch, and they cannot cross it except at the top or bottom. He said it would look more natural if it was put into a culvert and covered. He said he does not understand how the Commission can tell him what to do on his own property, especially when they've approved a similar project a block away from him.

Commissioner Ross related what he recalled about the 5 Naranja property, where there was flooding occurring on properties on Mapache.

Commissioner Breen said every gulch is different. Mr. Mainzer said he is the recipient of the same water that those neighbors were. He said water comes down from both sides of Mapache, and it comes down Zapata, funnels right into the culvert, comes out the other side, and because there was so much water, the previous owner dug the ditch. He said all they're asking is to restore it to where it was and be able to deal with that water. He said there is standing water that is a problem; it is dangerous, and it is not attractive.

Commissioner Ross said it would require a lot of excavation to smooth out the ditch to make it more like a deep swale and does not think it would be feasible. He said it is not possible to restore it to how it was before the drainage improvements were done in the '70s because the water flow has been deepened. He said he agrees that a covered culvert would look more natural, but it raises a dilemma about what principle to violate. He said he originally wanted to leave the ditch alone because it's a natural feature, but it turns out it is not a natural feature unless it is decided that since it was done 40 years ago, it is now natural.

Vice Chair Koch said what was natural was water running down there, not hidden in a tube underground. She said the owners are blessed to have the exposed water on their site.

Mr. Warr said it would be very difficult to lay the banks back and soften them, particularly on the ADU side, and they would need to remove trees.

PLANNING COMMISSION REGULAR MEETING, TOWN OF PORTOLA VALLEY, MAY 16, 2018, SCHOOLHOUSE, TOWN CENTER, 765 PORTOLA ROAD, PORTOLA VALLEY, CA 94028

Chair Targ called the Planning Commission regular meeting to order at 7:00 p.m. Interim Planning Director Cassidy called the roll.

Present: Commissioners Hasko, Kopf-Sill, and Taylor; Vice Chair Goulden; Chair Targ

Absent: None

Staff Present: Arly Cassidy, Associate Planner

ORAL COMMUNICATIONS

None.

NEW BUSINESS

1. Preliminary Architectural and Site Development Permit Review for a New Pool Cabana and Undergrounding of an Existing Seasonal Creek, File #PLN ARCH 40-2017, 199 Mapache Drive, Mainzer Residence

Interim Planning Director Cassidy described the background and details of the project. This item was presented at the ASCC meeting on May 14. She explained that the property has already been approved for a new residence with an attached three-car garage, a basement, a detached ADU, a carport, and a swimming pool. She requested the Commission offer comments, reactions, and direction to assist the applicant and project architect in making plan adjustments or clarifications to the pool cabana and undergrounding of the existing seasonal creek, as detailed in the staff report.

She said the main tension in the application revolves around what the waterway is and what it serves. She said the ditch that exists on the property was dug by the previous owners before the Town was incorporated. She said it is a deep cut into the soil to channel water that was previously flooding onto the house and property.

Interim Planning Director Cassidy said the ASCC was in general support of the cabana. She said there are more light fixtures than recommended in the Design Guidelines; however, the general direction of the ASCC is to restrict lumens rather than the number of fixtures.

Interim Planning Director Cassidy said there were four members present at the ASCC meeting – one was supportive of the culvert and three were not. She said the comments in opposition to the culvert were that the stream was a tributary with habitat that supports wildlife and should be left open and restored if possible. The Commissioners were open to improvements of the appearance of the stream, suggesting broom be removed and rocks be used to stabilize the bank. They also stated that when the culvert was proposed in the previous application, the ASCC did not approve it, and that element had been withdrawn from the final application. The Commissioner in support of the culvert said the existing ditch is not a natural form of the waterway and breeds mosquitos. He felt the culvert would improve the appearance. She said the current proposal for the culvert includes an additional emergency flooding area above the culvert at the swale, which could be the restoration of the waterway. It was noted that restoring the ditch to the natural flowing pattern would require a lot of additional grading because it is quite deep and the culvert that currently exits under the driveway is low.

Interim Planning Director Cassidy said the ASCC did not feel they would be able to approve the culvert at a future meeting. Interim Planning Director Cassidy said staff also cannot support the culvert. She asked for Planning Commission guidance or advice for the applicants.

Chair Targ invited questions from the Commissioners.

In response to Commissioner Hasko's question, Interim Planning Director Cassidy said the proposal is for a 36-inch corrugated underground pipe that would connect to the culvert. She said the form of the ground on top of the culvert would be depressed in order to accept water greater than a 25-year flood and up to the 100-year flood amounts. She said any of those additional waters would spill on top of the swale across the property without spilling completely across. She said it was noted that long ago, the water likely traveled across all of the area, mostly in sheet flow.

Vice Chair Goulden asked how the culvert under the street was approved. Interim Planning Director Cassidy said she believed the Westridge subdivision began before the Town was incorporated. She did not know when the Town's guidelines around grading were created. She said the 1970 storm drainage report is reporting on culverts that were already installed under the roadway within the Westridge subdivision. She said that culvert serves to collect and channel most of the water that drains from the Zapata gulch area.

Vice Chair Goulden said that would mean the water flow is more concentrated than it would have been historically. Interim Planning Director Cassidy said that is also the applicant's argument, and she would presume that the ditch was created in response to that.

Chair Targ asked if there were any kind of plants along the ditch such as what one would expect to see along the creek. Interim Planning Director Cassidy read the Conservation Committee report's comments regarding the ditch, which they refer to as an ephemeral stream. The report did not include a lot of details about the existing plants.

Chair Targ said the Conservation Committee comments are quite significant with specific determination that this is an ephemeral stream. He said he would not know how to approve culverting an ephemeral stream without a streambed alteration permit. He asked if there had been a determination about these issues. Interim Planning Director Cassidy said staff has not completed enough research to make such a determination. She added that she was not clear that the Conservation Committee was using the term ephemeral stream in their descriptions with the clear intent to indicate that such a determination had been made. Chair Targ said the Conservation Committee has its heart in the right place and is a very knowledgeable organization, but he does not have an opinion as to the credentialing that goes with that. He asked the applicant to comment.

Carter Warr, project architect, said it is very clear by the history that the pattern of water flow through the area was sheet flow without any channeling. He said the manmade creation of Zapata and Mapache has precipitated this problem. He said it was a big problem, and the owners at that time went to a lot of effort to dig a ditch more than 4 feet deep and 6 to 8 feet wide to control that flow of water that had been concentrated as a consequence of the subdivision. He said if these properties were subdivided today, the line where the drainage is would have been a property line and would not have bifurcated 70 percent of the lot from 30 percent of the lot. He said when the subdivision was built, it did not anticipate what has happened. He said their position is that this is a manmade problem they are trying to abate, trying to replace in appearance and surface function this smooth connection across the two sides of the property so that they can be unified in both appearance and function. He said the words used by the Conservation Committee are well intended, but are a complete overstep of their expertise. He said the words are hot buttons that require the expertise of hydrologists and biologists to define. He said it is identified as a ditch on the drainage map, not as an ephemeral stream. He said the

ditch continues to be a nuisance and does not follow any of the identified guidelines. He said the General Plan is specific in that creeks should be maintained in their natural meandering channels, but does not say anything about ditches. In response to Commissioner Taylor's comment, Mr. Warr said the General Plan does not talk about drainage swales. He said swales are described in site grading and permitting, which are recommendations and not an ordinance or the General Plan. He said this applicant is asking for this because they think it's reasonable and is a fair and rational use of the property, for which they have a right. He said they should be allowed to abate the nuisance created by influences that were beyond their control and approved by a public agency, in this case San Mateo County.

Chair Targ asked if the applicant had a hydrologist or a riparian expert analysis. Mr. Warr said the hydrology has been studied in great detail as a consequence of the application and the civil engineer is present to answer questions. Chair Targ asked if there has been anything that would approach even an informal jurisdictional analysis of the site – if it was a Water of the State or Water of the U.S. Mr. Warr said it had not been studied to that degree.

In response to Commissioner Taylor's question, Mr. Warr said the proposal was to put a swale on top of the culvert. Commissioner Taylor asked regarding the elevation. He said it appeared that with the installation of a 36-inch culvert, there would not be a lot of room to put in a swale.

Mr. Warr introduced Christopher Phan, a Civil Engineer with Lea & Braze Engineering. Mr. Phan said their firm did a study of the tributary drainage that goes into the ditch. He said the 36-inch culvert would be able to handle a 25-year storm. He said above the culvert would be a depression which would be able to handle a 100-year storm overflow a safe distance from the house.

Commissioner Taylor asked about depth of the depression. Mr. Warr said it was about 3/10 of a foot. He said the landscape result would be a smooth continuity of the slope coming down from the guest house, coming across to the main house, so that it would be much more like it would have been before the ditch was dug. He said currently, particularly on the house side, there are a lot of spoils from when the ditch was dug because it wasn't removed or even spread out, further exacerbating the apparent depth of the ditch.

Chair Targ invited public comment.

Jane Bourne, Sequoias, member of the Conservation Committee. Ms. Bourne said Paul Heiple wrote the Conservation Committee report, and he is a geologist and knowledgeable with plants. She said when he stood at the bottom of the property, he could see a flood plain where in the past Corte Madera Creek had a completely different path. She said he pointed out that the photograph was taken at the time of year when there was no water flowing, so it is difficult to see what the stream was doing.

Judy Murphy, 8 Portola Green Circle, member of the Conservation Committee. Ms. Murphy said it is clear from the vertical tree line that the water came down the hills and ran along that depression into the creek, the natural water drainage for that area before anything else was done. She said there is historically water flow through there. She said it is true they turned it into a ditch at some point, probably trying to constrain it thinking that if they made it deeper they could make it less narrow and less in the way, which was not entirely successful. She said whether it's a stream or a ditch or a drainage swale, it falls between those because a lot has been done to it. She said the Town in general discourages closing over these natural waterways, or in this case what once was a natural waterway. She said just because it's been disturbed doesn't necessarily mean it no longer should be considered what it once was. She said there are obvious exceptions made for roads, so the fact there is another culvert under the road is not a persuasive argument that there should be an extension to culvert all the way down to the creek. She said this was discussed at length and denied in the first round of

applications. She said it seems the reason they want to close it over now, in addition to the problems they've had due to the way it's currently constructed, is to use what was once a natural drainage for water as a place to fill with their cut, which is the worst possible reason. She said there may be other reasons, but that's not a good one in her opinion. She said this is not permanently standing water and dries completely in the summer and is not breeding mosquitos. She said the Town has recently changed rules encouraging people to let water percolate down on their property rather than being sheeted off by impermeable surfaces. She said for the long length of that drainage, if it is culverted, all the water coming from the roads and the other properties will shoot into the creek and not have the chance to percolate into the ground. She said because it is a weedy mess now is not relevant because it is a construction site that hasn't been maintained for a long time. She said she understands the desire to moderate it to have it not be quite so channeled, but they should moderate it in a way that makes it more like its original state rather than moving even further from the original state. She said there is also an issue of parity in Town. She said there have been a number of applicants in the last couple of years who wanted to close these types of things or culvert them, and they have been denied permission. She said it is not clear to her that there should be an exception in this case.

Ruth Mainzer, the applicant, said they are not the first to ask for the culvert. She said their neighbor across the street on Naranja asked for and was approved for the culvert, and it has been installed. Chair Targ asked when that was done. Mr. Warr said it was two years ago, at 5 Naranja. Ms. Murphy said the Conservation Committee was also involved in the approval of the culverting on that property. She said the rationale for that approval was that the property had significant flooding issues.

Bill Mainzer, the applicant, said they also have flooding, which is why the ditch was dug. He said if they restore it to what it was, they can fill the ditch in and have the water flow over the top. He said the ditch was not natural. He said his understanding is the Town wants it to be natural as it was originally. He said they could take the soil along the edge of the ditch, push it back into the ditch, and make a nice swale out of it, and the water would go across the top. He asked if that would be acceptable. Chair Targ said that will be discussed, with input from staff and advice from Counsel.

With no additional public comment, Chair Targ invited comment by the applicant.

Mr. Warr said he wanted to make a correction to a matter of fact. He said with the original application for the house and guest house they did propose putting the ditch in a culvert. He said it was not denied. He said during the preliminary design meeting, the ASCC was not comfortable with it, so they withdrew the application for expediency. He said later, once they had the building permit, they had time to do further research to show the history of the creation of the ditch and the causation that precipitated that response. He said they don't want their application prejudiced by any history that says any part of what they were doing was denied.

Chair Targ brought the item back to the Commission for discussion. He suggested the discussion be broken up into two pieces – the cabana and the ditch.

Commissioner Hasko asked if the only thing the Commission was supposed to review was the amount of fill and cut. Chair Targ said the Commission has jurisdiction over any aspect of the application because of the amount of fill. He said they generally give a lot of deference to the ASCC because of their expertise. Interim Planning Director Cassidy said there are considerations listed and encompassed within the site development permit that pertain to impacts of the development. She said light spill, nuisance, and similar considerations fall under the site development permit itself.

Vice Chair Goulden was supportive of the cabana.

Commissioner Taylor said it would be nice to know the amount of cut and fill that the cabana represents, but it is not crucial for making a decision.

Commissioner Hasko was supportive of the cabana. She said she would like some thought given to the amount of lighting, but would defer that to the ASCC.

Chair Targ invited discussion regarding the ditch/ephemeral stream.

Vice Chair Goulden said he is quite conflicted on this issue. He said it comes down to where the line is drawn between natural and artificial. He said the old map appears to show there was drainage that went down that direction, and it is also clear that the amount of water that is now collected and sent down there is much larger than it ever was before. He wondered if that changed it from natural to unnatural because the environment has been changed along the way for the subdivision. He said per the General Plan, if it were natural, they would have to deny the culvert.

Commissioner Taylor said he visited the site today. He said the ditch, which is obviously manmade, is clearly at the low point on the property. He said in that sense, it is the natural part of the drainage. He said with the hard surfaces and streets gathering water, there is less water being dissipated into the ground along the way. Commissioner Taylor said he does not know how much of that water is from hard surfaces or how much is runoff from the hills into a gulley. He said the water is now being channeled to this rough location, and the question is how much was absorbed before and how much has been channeled directly down to the culvert.

Commissioner Kopf-Sill asked the civil engineer if there was any option to fill the ditch in slightly so it is not so sharp and deep. Mr. Chan said more calculations would need to be done to answer that question. He said they recommended a small depression above the culvert, which would mimic the condition as shown in the old photograph. He said that would match the condition better than what it is now. He said the ditch is just a deep cut that is not smooth. He said there was talk that there was no standing water, but he pointed out it is not a smooth channel. He said they are proposing a much nicer surface by giving the swale a depression and giving the applicant more usable space. He said it is the applicant's right to use his property. Commissioner Kopf-Sill said she is trying to keep the open water because she is struck by how the pictures clearly depict that the water came down there. She asked if they could create something more open that would carry the water and not feel so manmade as it is currently. He said they can do further calculations to answer her question.

Mr. Warr said the 100-year flow is approximately 48 cubic feet per second, more than the 36-inch pipe can carry. He said the 36-inch pipe is nearly at capacity at the 25-year flow, which is 38 cubic feet per second. He said if they are trying to create a long low swale to get the feeling of the site being connected as the historical photos indicate, there will need to be some depth, and unifying the property will not be accomplished. He said this is a preliminary hearing, and they can look at the options, taking into account the Commission's desires.

Vice Chair Goulden said while he can understand why unifying the property would be desirable to the applicant, the Commission cannot take that into consideration. Mr. Warr said the design team that designed the Westridge subdivision did a good job and paid a lot of attention to trees and drainage, and if that incision had been there they would have likely put a property line on one side or the other or along it, rather than having it be a 70/30 breakdown of the parcel. He said the fact they didn't do that is more evidence that at that time, it was smooth and there was not a recognizable incision.

Commissioner Hasko said she is sympathetic with the property owners because of the ditch that was created. She said the Commission is trying to implement policies that achieve a balance. She said she has questions about the legal ramifications about ditch, swale, etc. She said she does not fully

understand the implications of what a culvert does to the habitat currently there and the implication of the increased flow where it comes out into the creek. She said if erosion is being increased, it should be a factor to consider. She said having a culvert and a swale on top is an odd outcome - a culvert that the Town would, in principle, like to avoid having and then a swale that may still present a lot of the weeds and other issues in terms of dividing the property. She said she would like to know if there is a way to modify the bank. She said she understood that severe cuts might not be safe and are certainly aesthetically unpleasant. She asked if there was a different way to address the issue. She said if the Commission approves a culvert, they are unnecessarily drying up a stream that does have some potential of preserving habitat. She would want to know what the impact is before she could support it.

Commissioner Taylor said he would like to see a proposal for a drainage swale rather than a culvert. He appreciated the point that it would have been more natural to subdivide it at that line. He said the applicants have done a good job of building around it, with the ADU on one side and the house on the other side. He asked if there could be a drainage swale built through there that would channel the water down, and give it more infiltration and more habitat, because it is wet all during winter and spring.

Chair Targ pointed out that staff expressed hope that a creative solution could be found. He said whether it's a culvert with a swale on top or just a swale, it goes to an issue of restoration of what was there before, which is consistent with the policies staff has presented. He said he is sympathetic to the notion there are some legal and technical issues that need to be resolved. He said he has no opinion of whether it is an ephemeral stream in a technical sense or a jurisdictional stream of the state or of the U.S. or a Fish and Wildlife 1601 stream, all of which would require permitting in one form or another and all of which would require mitigation that is not likely available under a Categorical Exemption, the CEQA compliance that approves this project. He said there is a technical issue that plays into a legal issue that isn't resolved. He said it may not be appropriate to have an opinion until that work has been done. He said there was a previous situation where someone wanted to culvert a stream to put a driveway over it instead of a bridge, and the issue was put forward to the Fish and Game Commission, who said it would require a streambed alteration permit. The applicant in that case decided to go with the bridge. He said he recognized that somebody else culverted another portion of the same flow without that kind of permitting, but if something comes before the Commission and they see it, they've got to call it. Chair Targ said there needs to be additional analysis with legal implications in order to move forward. He said the cabana project and the ditch project are not dependent on each other. He said it may make sense to bifurcate them and figure out a solution for the one while letting the other go along.

Commissioner Taylor agreed that if the cabana were separate it would be easier to deal with. He said he looked at the property and, while he's not an expert, he would call it a stream. He said, however, that he does not know the definition of an ephemeral stream. He said, while it may be helpful, asking for a huge study may be overkill.

Commissioner Hasko said she would like to know if there were easily applied principles that could be technically and legally combined and obtained without undue burden. She said she is not clear that the ditch wasn't just a rough justice way of trying to redirect the stream and was a natural feature or if it was creating something that would have run a different way. She said to the extent they can take principles that are easily available would be helpful.

Chair Targ said there is a history of the application to culvert the ditch previously which should be reviewed. He said it would be helpful to understand what the practice has been of addressing flows that pass through people's properties and the circumstances of the culverting that took place up gradient of this property. He wanted to see if there was a pattern of practice that this is what the Town is doing and if they are subjecting this applicant to differential treatment. He said although this would not be dispositive in any way, it would be an issue to take under advisement.

Commissioner Kopf-Sill said she was the liaison at the ASCC meeting on Monday. She said Commissioner Ross spoke about the 5 Naranja project and the special conditions that it had that were different.

Chair Targ asked the applicant if this discussion was useful and if there was additional information from the Commission that would be helpful to them.

Mr. Warr asked for confirmation that it is the Commission's desire and feeling that the two items can be dealt with separately, that the items to be resolved on the pool house are about lighting, that the Commission has asked staff to research some history, has asked legal counsel for opinions regarding their questions, and has asked the design team to look for alternative solutions. Chair Targ said he did not mean that legal counsel could make any determination. He said potentially counsel would require additional information from the applicant in order for her to provide guidance to the Planning Commission. He does not know what she would need in order to make that determination. Mr. Warr said the input of hyperbole without the support of fact is disturbing – indicating that this is an ephemeral stream when there isn't opinion from an expert to identify it. He said the Town documents are clear that it's drainage and not an ephemeral stream. Chair Targ said he appreciates Mr. Warr's views regarding the expertise that's been presented, but said the Town documents are also not determinative. and he does not believe they have the information to make the determination as to its legal status or how it would be viewed by various agencies. He said that is exactly the kind of information they need and those are the kind of determinations they are going to look to counsel to make. Mr. Warr said the applicants would be happy to apply to California Fish and Game, U.S. Fish and Wildlife, and the Army Corps for this project. He said in his experience, they get immediate response from the Army Corps on these kinds of projects identifying that they're not interested. He said they get no response from Fish and Wildlife or Fish and Game for these kinds of projects because it's beyond what they're interested in protecting. Chair Targ said that would be an interesting outcome, but they don't have that before them right now.

Commissioner Taylor said he'd like to see the cut and fill numbers for the cabana alone. He said he is looking at the ditch as a drainage swale, independent of the discussion of an ephemeral stream. He said the planning documents that the Planning Commission approved two years ago had guidance and guidelines that talk about drainage swales and not just creeks. Chair Targ said one is a legal issue and the other is a policy issue. Commissioner Taylor agreed with that distinction.

Mr. Warr asked if there was a specific date of continuance or if they needed to have all their ducks in a row before being re-agendized.

Interim Planning Director Cassidy said there are two separate applications – one for ASCC and one for Site Development. She said if the grading required for the cabana alone is more than 10 cubic yards, then it would still need to proceed to the Planning Commission for final approval. She said because the ASCC also did a preliminary hearing, it needs to go through both bodies again, even if it's split. She said that if less than 10 cubic yards of grading is associated with the cabana, she would suggest it go only to the ASCC for final approval, which would be the normal process if it had been applied for separately. However, she said that if more than 10 cubic yards of soil movement is associated with the cabana, then that will also have to come to the Planning Commission for final approval. She said it would be up to the applicant if they wanted to split and move that forward alone or bring both together.

Mr. Warr said they could respond with the requested information in short order and asked if this could be continued to a specific date to avoid having to re-notice. Interim Planning Director Cassidy said a continuation can only occur if it's noticed as a final decision. She said both the ASCC and Planning Commission meetings this week were noticed as preliminary review. If it is continued without re-noticing, and a final decision is made, it could be argued that they did not notice for a final decision.

Arly Cassidy

From: Carter Warr <carter@cjwarchitecture.com>
Sent: Friday, September 07, 2018 11:34 AM
To: Arly Cassidy
Cc: Laura Russell; Bill Mainzer; Jim Toby; Eden Licup; Bob Pleau; Kevin Schwarckopf
Subject: RE: Mainzer - Ditch

Dear Arly,

Below is a brief explanation of the investigation and conclusions in response to the Planning Commission comments associated with culverting the on site ditch. Below that are a set of bullet points listing the ditches' negative impacts and the resultant positive impacts on the site by its elimination.

The Mainzers and their design team investigated several alternative designs to maintain the over land flow of the uphill drainage while integrating the landscape as suggested by the Planning Commission. These designs were evaluated for their performance and impacts. It became clear that the designs could solve for some many of the drainage and issues, but that there were consequential impacts that were more unacceptable.

The basic problem that is insurmountable when attempting to redesign the deeply incised ditch into an open wide flattish depression or swale is that the ditch was cut into the existing oak woodland floor in order to contain the concentrated flow from up hill. Many of the large trees existed before the ditch was incised. Widening and flattening the ditch into a wide flattened swale would be very destructive to the root systems of the pre-existing trees and to the trees that have grown up accustomed to the ditch incision. All for the alternative designs would have caused the destruction of many significant trees. This problem deemed unacceptable making a redesign as suggested by the Planning Commission untenable.

The Mainzers originally desired the culvert to replace the ditch for many for the same reasons they have reverted.

The ditch is a manmade intrusion on the landscape implemented to attend to the nuisance caused by the Westridge Subdivision that created the parcels. The investigation and report prepared and provided by Lea and Braze clearly shows these facts. The previous owners explained to the Mainzers that they dug the ditch to deal with the drainage flow that had been concentrated with the up hill collection on each side of Zapata and the dumping of the drainage on to their property with the culvert under Mapache. The ditch has many negative impacts. The elimination of the ditch will have many positive impacts while having no negative off-site impacts.

Negative impacts as a result of the Ditch;

- The manmade ditch has proven to be a safety problem. On more than a few occasions family, guests, and workers have been injured or nearly injured by the depth and steepness of the ditch banks.
- The manmade ditch has proven to be a nuisance by supporting the breeding of mosquitos on other problematic insects
- The ditch creates an artificial and undesirable separation across the property.
- The manmade ditch is a foreign element in a grassland to oak woodland landscape.

Positive impacts provided be eliminating the Ditch;

- Removal of the deeply incised and dangerous ditch eliminates the potential for injury by falling into this landscape anomaly.
- Remove the ponding of drainage water the has become haven for dangerous mosquito habitat.
- Return the site to a more natural landscape reminiscent of the grassland/woodland interface that existed prior to the construction of Zapata and Mapache.

- The site will be reintegrated by the elimination for the divisive ditch normalizing the landscape relationship between the main house and the guesthouse.
- There was no acceptable solution to the drainage, safety, and landscape issues the preserved the existing trees.
- The culvert solution solves for all of the drainage, safety, and landscape issues while preserving the trees, and improving the opportunity to retain soil spoils for the home project on site.

Finally, the owner feels they and a private property right to exchange one manmade drainage improvement for another that appropriately solves for the public's need for drainage while solving for the owners' private needs for safety, welfare, aesthetics, and enjoyment.

We hope this clarifies the response to the Planning Commission's comments and the reasons we are reactivating our request. Please call me if you need further clarification.

The separation of the grading numbers into those associated with the Cabana and those associated with the Ditch will be transmitted to the directly by the Civil Engineer.

Carter J. Warr, AIA, CSI, NCARB lic. no. C19397
CJW Architecture
130 Portola Road
Portola Valley, CA 94028
(650) 851-9335
www.cjwarchitecture.com

From: Arly Cassidy <acassidy@portolavalley.net>
Sent: Thursday, September 6, 2018 12:11 PM
To: Carter Warr <carter@cjwarchitecture.com>
Cc: Laura Russell <lrussell@portolavalley.net>; Bill Mainzer <bmainzer@comcast.net>; Jim Toby <jtoby@leabraze.com>; Eden Licup <Eden@cjwarchitecture.com>; Bob Pleau <bob@cjwarchitecture.com>; Kevin Schwarckopf <kevin@cjwarchitecture.com>
Subject: RE: Mainzer - Ditch

Hi Carter,

Thank you for your email.

As you know, noticing for the September 19th Planning Commission meeting goes out tomorrow. In order to put this item on that agenda, we will need the following additional submittals from you by noon tomorrow:

- A letter or narrative explaining the request. Specifically, why you are not making any changes to the project as requested by the ASCC and PC, and any documentation of the safety problems you report.
- Grading for the Cabana. As you recall, both bodies had no problems with the cabana, which can be approved at ASCC level if it has less than 10 CY of Site Development Permit grading. Please separate out grading for the cabana and culvert so, if the culvert does not move forward, the cabana can be separated out. The cabana WILL need to go back to the ASCC for approval.

Let me know if this will be possible. I'll have the notice ready to go out Friday afternoon if you can make the deadlines.

Thanks,
Arly

From: Carter Warr [<mailto:carter@cjwarchitecture.com>]

Sent: Wednesday, September 05, 2018 3:21 PM

To: Arly Cassidy <acassidy@portolavalley.net>

Cc: Laura Russell <lrussell@portolavalley.net>; Bill Mainzer <bmainzer@comcast.net>; Jim Toby <jtoby@leabraze.com>; Eden Licup <Eden@cjwarchitecture.com>; Bob Pleau <bob@cjwarchitecture.com>; Kevin Schwarckopf <kevin@cjwarchitecture.com>

Subject: Mainzer - Ditch

Dear Arly,

Thank you and the Planning Commission for your preliminary review of our Ditch Culvert proposal. We have reviewed the Planning Commission comments and recommendations. We have considered alternative design solutions and grading opportunities. Our assessment has caused the project team to revert back the the applied for project. The latest on-site incident yesterday has further amplified the Owners' resolve to fill and make safe the man made ditch on their property.

I met this afternoon with the Mainzers. They have decided that putting the ditch in a pipe than regrading over the pipe is in the best interest of their property, the safety of their family and guests, and in the best interest of the safety of their construction team. They hope the Planning Commission shares their concerns and assessment.

Please agendize the previously applied for project before the Planning Commission without revisions. Since there is no additional information we hope to be on the September 19th agenda. The Owners' are highly concerned about the safety of their project and property. They feel extraordinary time pressure to get the ditch culverted and regraded before this fall's rainy season.

Carter J. Warr, AIA, CSI, NCARB lic. no. C19397

CJW Architecture

130 Portola Road

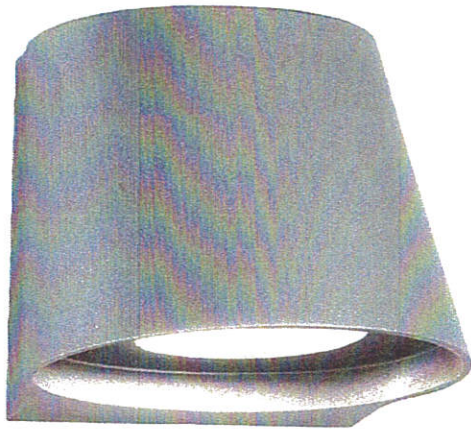
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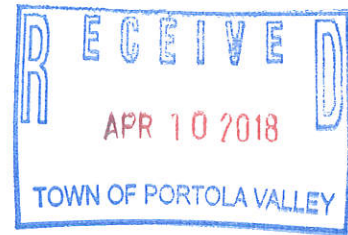
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Catalog Number:

Project:

Location:



PRODUCT DESCRIPTION

Expertly crafted from die cast aluminum. The Mod family features a smooth curved modern shape. ADA compliant and Dark Sky friendly. Ideal for exterior residential, hospitality and commercial applications.

FEATURES

- Diecast aluminum construction
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- 100%-10% electronic low voltage (ELV) dimming
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- Universal driver (120V-220V-277V)
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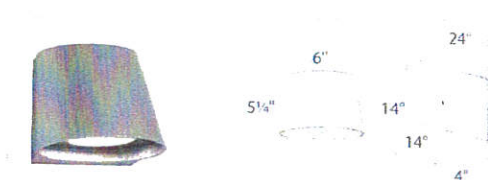
SPECIFICATIONS

Construction: Diecast aluminum construction

Light Source: LED

Dimming: 100%-10% Electronic Low Voltage (ELV)

Standards: ETL & cETL wet location listed, IP65, ADA compliant, Dark Sky Friendly



		Watt	LED Lumens	Delivered Lumens	Finish
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Dimensions

Canopy Depth	?	5 in.	Canopy Height	?	0.35
Canopy Width	?	5 in.	Cord Length	?	96 in.
Depth	?	18 in.	Height	?	7.52 in.
Pendant Size	?	Full Sized	Product Weight	?	2.25 lbs.
Shade Depth	?	18 in.	Shade Height	?	7.52 in.
Shade Width	?	18 in.	Width	?	18 in.

Physical Characteristics

Bulb Base	?	Medium (E26)	Characteristics	?	Mixed Metals
Dimmable	?	Yes	Field Cuttable	?	Yes
Light Direction	?	Down Lighting	Material	?	Aluminum
Number of Bulbs	?	1	Pendant Type	?	Single Pendant
Shade Material	?	Metal	Shade Shape	?	Warehouse

Other Features

Country Of Origin	?	China
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Electrical Information

Voltage	?	120	Wattage	?	75
Watts Per Bulb	?	75			

Included Components

Bulb Included	?	No	Shade	?	Yes
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Style and Color

Collection	?	Zevo, New 2017	Design Style	?	Contemporary / Modern
Genre	?	Modern	Hanging Options	?	Cords
Series	?	Zevo	Shade Color	?	Black, Grey, White

Standards and Codes

ETL Listed <input type="checkbox"/>	Yes	Location Rating <input type="checkbox"/>	Damp Location
Manufacturer Warranty <input type="checkbox"/>	1 Year	Title 24 <input type="checkbox"/>	Yes

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Catalog #		Type
Project		
Comments		Date
Prepared by		

Design Features

1. Housing

- Single wall square aluminum housing construction
- Sealed and gasketed for airtight ASTM-E283 compliance
- Shipped with overspray protector installed
- Mechanism can be removed from the plaster frame to provide access to the junction box.

Plaster Frame

- Galvanized steel frame. Housing adjusts in plaster frame to accommodate up to 1-3/8" ceiling thickness.
- Regressed locking screw for securing hanger bars.
- Cutouts included for easily crimping hanger bars in position.
- Bar hangers can be repositioned at 90°.

Aiming Mechanism

- Exclusive socket aiming mechanism tilts and rotates to properly align the LED light engine.
- LED light engine may be tilted and locked to accommodate 2/12 to 12/12 pitch
- LED light engine and trim may be rotated laterally up to 20 degrees for compound slope ceilings or to compensate off-axis aiming

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- Positioned to accommodate straight conduit runs.
- Seven 1/2" trade size conduit knockouts with true pry-out slots.
- Three Slide-N-Side wire traps allow non-metallic sheathed cable to be without removing knockouts.
- Allows wiring connections to be made outside the box.
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- Accommodates the following standard non-metallic sheathed cable type:
 - U.S. #14/2, #14/3, #12/2, #12/3
 - Canada: #14/2, #14/3, #12/2
- Push-wire quick connectors included for field connections.

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- Bar Hanger features include:
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 - Housing can be positioned at any point within 24" span
 - Pre-installed nail easily installs in regular lumber, engineered lumber and laminated beams.

- Safety and Guidance system prevents snagging, ensures smooth, straight nail penetration and allows bar hangers to be easily removed if necessary
- Automatic leveling flange aligns the housing and allows holding the housing in place with one hand while driving nails.
- Score lines allow tool-free shortening in narrow joists and bar hangers do not need to be removed for shortening.
- Bar hangers may be repositioned 90° on plaster frame
- Integral T-bar clip snaps onto T-bars; no additional clips are required.

LED Driver

- Integral to the housing, 120V-277V 50/60 Hz universal voltage, constant current dimmable driver provides high-efficiency operation.
- Driver meets FCC 47CFR Part 15 EMI/RFI consumer limits for use in residential and commercial installations.
- Driver features high power factor and low THD and has integral thermal protection in the event of over temperature or internal failure.
- Driver is specifically designed for compatibility with HLM6 LED light engines.
- If dimming is not required the fixture can be operated from a standard wall switch.

Dimming - Phase Control

- Designed for continuous dimming capability to nominally 5% with many 120V Leading Edge (LE) and Trailing Edge (TE) Phase Control dimmers. (Dimmers with low end trim adjustment offer greater assurance of achieving 5% level.)
- Consult dimmer manufacturer for compatibility and conditions of use. (Note some dimmers require a neutral in the wallbox.)

Dimming - 0-10V

- Dimmable to 10% in typical operation with compatible 0-10V DC low voltage dimmers.
- 0-10V DC dimmers operate using two low voltage dimming wires (color coded violet and gray). The low voltage dimming wires are separate from the 120V AC or 277V AC power.
- Switching on/off is controlled via the line voltage (120V AC or 277V AC) power, and dimming is controlled via the 2-wire 0-10V DC low voltage wiring.

2. Optical

LED Light Engines (Order Separately)

- Exclusively designed for the HL6 slope system, the form-factor and performance replicate expected PAR lamp qualities in a high lumen LED light engine
- Turn-to-lock base provides secure retention of the LED light engine to the aiming mechanism, and provides a low-voltage electrical quick-connector.
- Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation.
- See ordering information for available CCT options.
- Passive thermal management achieves L70 at 50,000 hours in IC applications.

LED Chromaticity

- A tight chromaticity specification ensures LED color uniformity, sustainable Color Rendering Index (CRI) and Correlated Color Temperature (CCT) over the useful life of the LED
- High color performance with 90 CRI minimum, and R9 greater than 50.
- LED color uniformity of 3 SDCM exceeds ENERGY STAR® color standards per ANSI C78.377-2008.
- Every Halo LED is quality tested, measured, and serialized in a permanent record to register lumens, wattage, CRI and CCT.
- Halo LED serialized testing and measurement ensures color and lumen consistency on a per-unit basis, and validates long-term product consistency over time.

3. Beam Forming Lenses (Interchangeable)

- HLM6 LED light engines are designed to accept HL6 series lens optics
- The 40-degree Flood (FL) lens is included with the LED light engine, and may be ordered separately as a replacement
- Alternate beam options are offered in 25-degree Narrow Flood (NFL) and 55-degree Wide Flood (WFL), ordered separately
- The interchangeable lenses feature beam distributions with refined visual shielding to control beam angle and lumen delivery in accommodating various ceiling heights.



HL612ICAT

1200 Lumen Slope Ceiling LED 6" Insulated Ceiling Air-Tite™ Recessed Housing System

Compatible with HLM6 LED Modules, HL6 Beam-Forming Lens Optics & Designated Trims

High Efficacy LED Housing 20W Maximum

FOR DIRECT CONTACT WITH INSULATION*



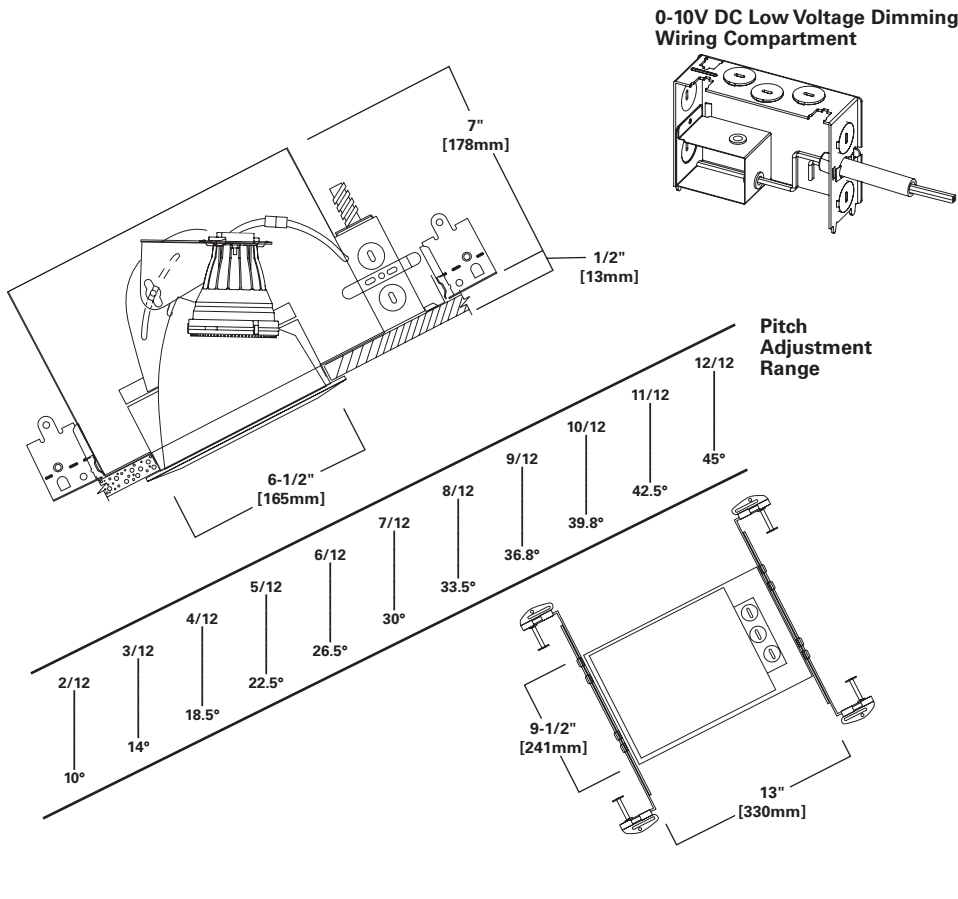
Refer to ENERGY STAR® Certified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

*Not to be used in direct contact with spray foam insulation

Code Compliance

- cULus 1598 Type IC, suitable for direct contact with insulation*
 - Listed for damp locations.
 - Wet location listed with designated lens trims
- AIR-TITE™
 - Certified per ASTM E283; not exceeding 2.0 CFM under 75 Pascals pressure difference
- Energy Code compliant
 - ENERGY STAR® certified luminaire - consult ENERGY STAR® Certified Product List
- Can be used for California Title 24 residential or non-residential compliance - Title 20 certified
- Can be used for International Energy Conservation Code (IECC) compliance
- Can be used for Washington State Energy Code compliance
- EMI/RFI per FCC 47CFR Part 15 Class B Consumer limits (residential and commercial compliant)
- Contains no mercury or lead and RoHS compliant
- Junction box features a separate compartment for 0-10V DC low voltage dimming connections, to comply with NEC.

Dimensional Information



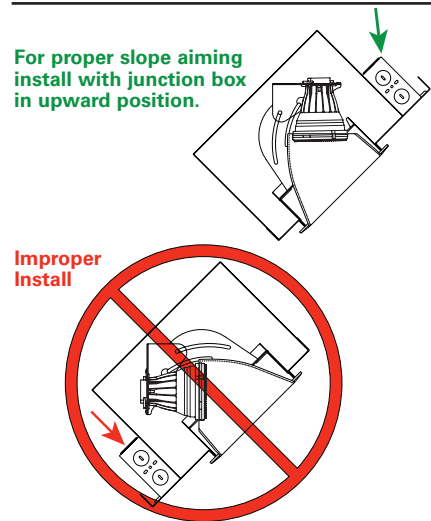
Energy Data

HL612ICAT (1200 Series)

Min. operating temperature	-30C/-22F	
Input Voltage	120V	277V
Input Current (A)	0.16	0.07
Input Power (W)	19.1	20.0
Input Frequency	50/60Hz	
FCC 47CFR Part 15 EMI/RFI	Consumer Limits (Residential & Commercial)	
THD	≤ 20%	
Power Factor	≥ 0.9	
Sound Rating	Class A	

Installation Details

For proper slope aiming install with junction box in upward position.



Lighting Facts

lighting facts
A Program of the U.S. DOE

Light Output (Lumens) **1443**
Watts **19.1**
Lumens per Watt (Efficacy) **75.55**

Color Accuracy
Color Rendering Index (CRI) **92**

Light Color
Correlated Color Temperature (CCT) **2700 (Warm White)**

Warm White 2700K | Bright White 3000K | Daylight 4500K | 6500K

Visit www.lightingfacts.com for the Label Reference Guide.

Registration Number: F4QJ-TCT7EC (2/9/2015)
Model Number: HL612ICAT-HLM6927-HL6FL-455H
Type: Luminaire - Downlight

HL612ICAT-HLM6927-HL6FL-455H

lighting facts
A Program of the U.S. DOE

Light Output (Lumens) **1527**
Watts **19.1**
Lumens per Watt (Efficacy) **79.95**

Color Accuracy
Color Rendering Index (CRI) **93**

Light Color
Correlated Color Temperature (CCT) **3000 (Bright White)**

Warm White 2700K | Bright White 3000K | Daylight 4500K | 6500K

Visit www.lightingfacts.com for the Label Reference Guide.

Registration Number: F4QJ-UL4F2Y (2/9/2015)
Model Number: HL612ICAT-HLM6930-HL6FL-455H
Type: Luminaire - Downlight

HL612ICAT-HLM6930-HL6FL-455H

lighting facts
A Program of the U.S. DOE

Light Output (Lumens) **1616**
Watts **19.1**
Lumens per Watt (Efficacy) **84.61**

Color Accuracy
Color Rendering Index (CRI) **94**

Light Color
Correlated Color Temperature (CCT) **3500 (Bright White)**

Warm White 2700K | Bright White 3000K | Daylight 4500K | 6500K

Visit www.lightingfacts.com for the Label Reference Guide.

Registration Number: F4QJ-YD7VFJ (2/9/2015)
Model Number: HL612ICAT-HLM6935-HL6FL-455H
Type: Luminaire - Downlight

HL612ICAT-HLM6935-HL6FL-455H

lighting facts
A Program of the U.S. DOE

Light Output (Lumens) **1672**
Watts **19.1**
Lumens per Watt (Efficacy) **87.54**

Color Accuracy
Color Rendering Index (CRI) **94**

Light Color
Correlated Color Temperature (CCT) **4000 (Bright White)**

Warm White 2700K | Bright White 3000K | Daylight 4500K | 6500K

Visit www.lightingfacts.com for the Label Reference Guide.

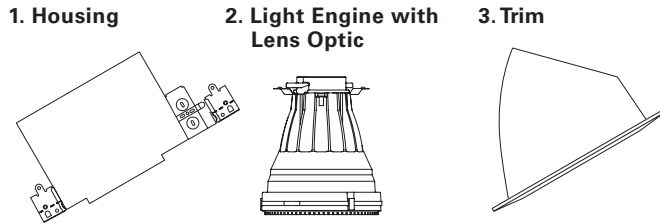
Registration Number: F4QJ-AB6RKL (2/9/2015)
Model Number: HL612ICAT-HLM6940-HL6FL-455H
Type: Luminaire - Downlight

HL612ICAT-HLM6940-HL6FL-455H

Ordering Information

Sample Number: HL612ICAT - HLM6930 - 455W
 Order LED housing, LED engine with lens optic, and trim separately for a complete luminaire.

1. Housing	2. LED Light Engines	2. Lens Optics Beam Forming	3. LED Trims	System Accessories
HL612ICAT = 6" slope ceiling, insulated ceiling rated, Air-Tight, recessed housing, UNV 120V/277V	HLM6927 = 90CRI, 2700K 40° Flood Lens HLM6930 = 90CRI, 3000K 40° Flood Lens HLM6935 = 90CRI, 3500K 40° Flood Lens HLM6940 = 90CRI, 4000K 40° Flood Lens	HL6NFL = 25° Narrow Flood HL6FL = 40° Flood (1 Included with LED light engine) HL6WFL = 55° Wide Flood HL6LHRPK = Replacement lens holder ring	Reflector - OD: 7-1/4" [184mm] 455SC = Specular Clear Reflector, White Metal Trim Ring 455H = Semi-Specular Haze Reflector, White Metal Trim Ring 455SN = Satin Nickel Reflector, Satin Nickel Metal Trim Ring 455TBZ = Tuscan Bronze Reflector, Tuscan Bronze Metal Trim Ring Baffles - OD: 7-1/4" [184mm] 456W = White Coilex Baffle, White Metal Trim Ring 456P = Black Coilex Baffle, White Metal Trim Ring Lenses and Diffusers "Dead Front" - OD: 8" [203mm] 70P = Albalite Glass Lens, White Polymer Trim Ring 70PS = Albalite Glass Lens, White Polymer Trim Ring, Wet Location - Showerlight 70SNS = Albalite Glass Lens, Satin Nickel Polymer Trim Ring, Wet Location - Showerlight 71P = Drop Opal Glass Lens, White Polymer Trim Ring 71PS = Drop Opal Glass Lens, White Polymer Trim Ring, Wet Location - Showerlight 73P = Fresnel Glass Lens, White Polymer Trim Ring 73PS = Fresnel Glass Lens, White Polymer Trim Ring, Wet Location - Showerlight ERT702 = Drop Opal Plastic Lens, Gloss White Polymer Trim Ring, Wet Location - Showerlight	System Accessories Enlarge Trim Rings OT400P = Oversize White Metal Trim Ring, for use with 6" trims (to be used behind standard trim ring) 6.0" I.D., 9.25" O.D. OT403P = Oversize gloss white polymer trim ring, replaces standard ring included with 455 and 456 trims 6.0" I.D., 8.0" O.D. TRM690WH = 6" LED oversize trim ring, white 6.9" I.D., 9.5" O.D. Ring slips over LED trim. Inset design allows 6" trim to fit into oversize ring surface Designer Trim Rings (O.D. 7-1/4" 184mm) TRM6C = Chrome Metal TRM6MB = Black Metal TRM6P = White Metal TRM6SN = Satin Nickel Metal TRM6TBZ = Tuscan Bronze Metal TRM7MB = Black Polymer



(6" Designer trim rings, for 455 and 456 trims)

Lumen & Energy Code Compliance Summary – HL612ICAT (1200 Series)

Trims	HL612ICAT - HLM6927			HL612ICAT - HLM6930			HL612ICAT - HLM6935			HL612ICAT - HLM6940		
	Lumens	LpW	Compliance	Lumens	LpW	Compliance	Lumens	LpW	Compliance	Lumens	LpW	Compliance
70PS	743	38		804	42	ES, IECC, WSEC	853	44	ES, IECC, WSEC	883	46	ES, IECC, WSEC
71PS	764	40		826	43	ES, IECC, WSEC	877	45	ES, IECC, WSEC	907	47	ES, IECC, WSEC
ERT702	1010	52	ES, IECC, WSEC	1093	57	ES, IECC, WSEC	1159	60	ES, T24, IECC, WSEC	1200	62	ES, T24, IECC, WSEC
73PS	1068	55	ES, IECC, WSEC	1155	60	ES, T24, IECC, WSEC	1225	64	ES, T24, IECC, WSEC	1268	66	ES, T24, IECC, WSEC
456P	1355	70	ES, T24, IECC, WSEC	1465	76	ES, T24, IECC, WSEC	1555	81	ES, T24, IECC, WSEC	1609	84	ES, T24, IECC, WSEC
455TBZ	1366	71	ES, T24, IECC, WSEC	1477	77	ES, T24, IECC, WSEC	1567	82	ES, T24, IECC, WSEC	1622	84	ES, T24, IECC, WSEC
455SN	1399	73	ES, T24, IECC, WSEC	1513	79	ES, T24, IECC, WSEC	1606	84	ES, T24, IECC, WSEC	1662	87	ES, T24, IECC, WSEC
455H	1443	75	ES, T24, IECC, WSEC	1527	79	ES, T24, IECC, WSEC	1616	89	ES, T24, IECC, WSEC	1672	87	ES, T24, IECC, WSEC
456W	1461	76	ES, T24, IECC, WSEC	1580	82	ES, T24, IECC, WSEC	1676	87	ES, T24, IECC, WSEC	1735	90	ES, T24, IECC, WSEC
455SC	1475	77	ES, T24, IECC, WSEC	1595	83	ES, T24, IECC, WSEC	1692	88	ES, T24, IECC, WSEC	1751	92	ES, T24, IECC, WSEC

Wattage 19.1

LpW = Lumens per Watt

ES: Refer to the ENERGY STAR® Certified Products List

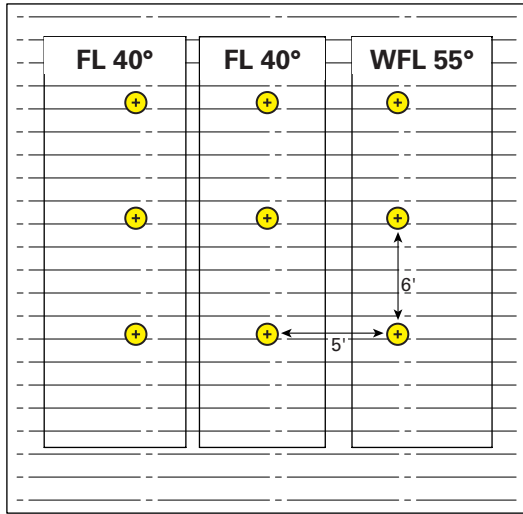
T24: Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

IECC: Can be used to comply with International Energy Conservation Code Residential Energy Efficiency, High Efficacy Luminaire

WSEC - Washington State Energy Code Residential Energy Efficiency, High Efficacy Luminaire

Tested in accordance with IES LM-79 Photometric Measurement Standards. Field results may vary.

Application Modeling – (2/12 Pitch – 1200 Series)



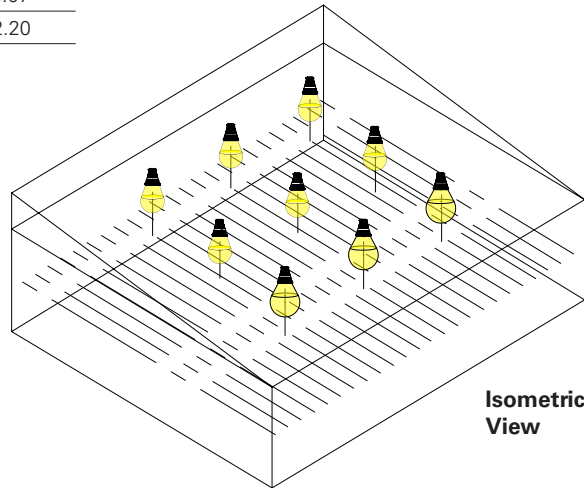
Floor Plan View

Steep 2/12 pitch slope ceiling

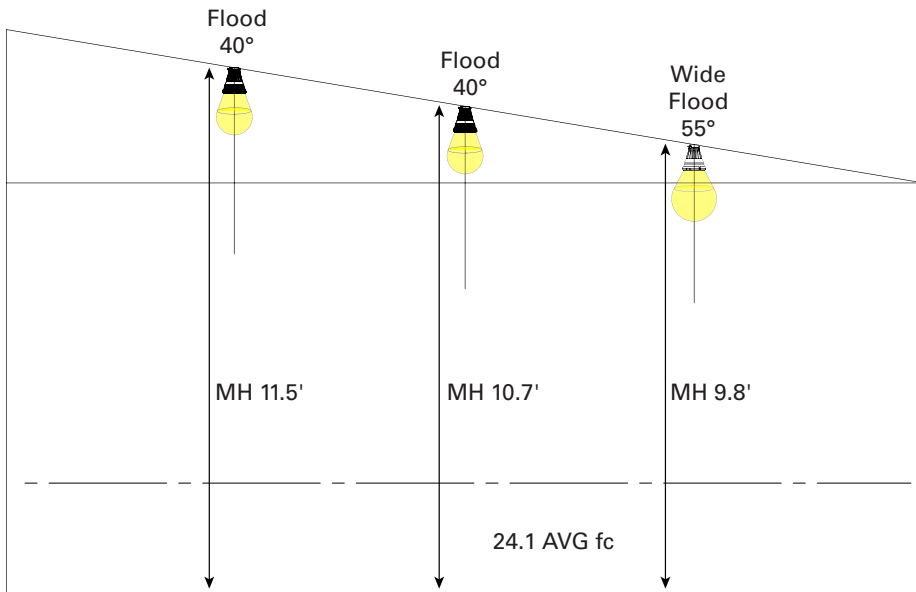
Room Data
 2/12 Pitch (10° angle)
 5' x 6' Spacing
 20' X 24' Room

Luminaire Data
HL612ICAT (1200 Series)
 2700K HLM6927
 Haze trim 455H

2/12 Pitch	Value
Avg. fc	24.10
Max. fc	48.30
Min. fc	1.50
Avg/Min	19.07
Max/Min	32.20



Isometric View



Side View 2/12 Pitch

6/12 Pitch • 1200 Series • 90 CRI

Multiplier Table

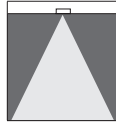
CCT Option	2700 K	3000 K	3500 K	4000 K
CCT Multiplier	0.925	1.000	1.061	1.120

Table based upon testing with 3000°K color temperature, 90CRI.

Multipliers may be used to determine relative lumen values with other color temperatures.

HL612ICAT - HLM6930 - HL6NFL - 455H

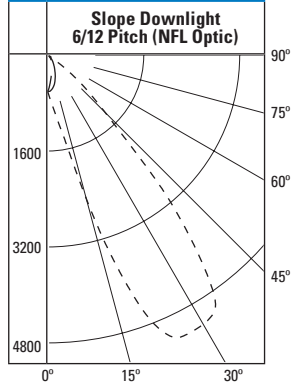
Test Number	P130198
Light Module	1200 Series, 90CRI
Lens Optic	25° Narrow Flood
Trim	6" Aperture, Haze Trim
Lumens	1535 Lm
Efficacy	80.4 Lm/W
CCT	3000K
SC (0/90/45)	1.94 / 0.73 / 1.15



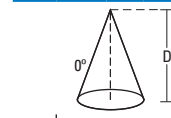
Legend

0-deg:	---
90-deg:	---
180-deg:	---

Candlepower Distribution



Cone of Light



D	FC	L	W
5.5'	129.9	2.8	2.6
7'	80.2	3.6	3.2
8'	61.4	4.1	3.8
9'	48.5	4.6	4.2
10'	39.3	5.2	4.6
12'	27.3	6.2	5.6

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30	761	49.6
0-40	1241	80.8
0-60	1521	99.1
0-90	1535	100
90-180	0	0
0-180	1535	100

HL612ICAT - HLM6930 - HL6FL - 455H

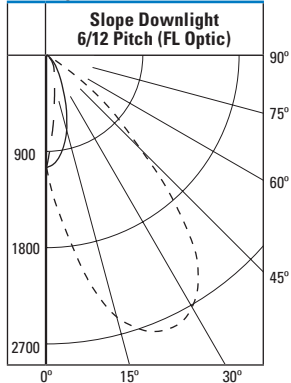
Test Number	P130162
Light Module	1200 Series, 90CRI
Lens Optic	40° Flood
Trim	6" Aperture, Haze Trim
Lumens	1556 Lm
Efficacy	81.5 Lm/W
CCT	3000K
SC (0/90/45)	1.6 / 0.65 / 1.06



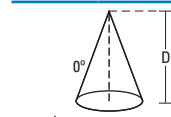
Legend

0-deg:	---
90-deg:	---
180-deg:	---

Candlepower Distribution



Cone of Light



D	FC	L	W
5.5'	76.1	4	3.6
7'	47	5.1	4.6
8'	36	5.8	5.4
9'	28.4	6.6	6
10'	23	7.4	6.6
12'	16	8.8	8

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30	814	52.3
0-40	1219	78.3
0-60	1537	98.8
0-90	1556	100
90-180	0	0
0-180	1556	100

HL612ICAT - HLM6930 - HL6WFL - 455H

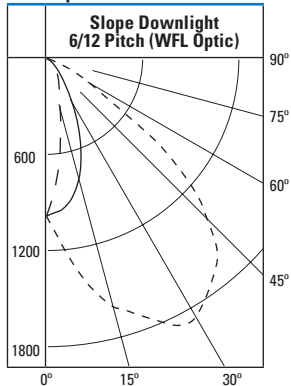
Test Number	P130235
Light Module	1200 Series, 90CRI
Lens Optic	55° Wide Flood
Trim	6" Aperture, Haze Trim
Lumens	1535 Lm
Efficacy	80.4 Lm/W
CCT	3000K
SC (0/90/45)	1.45 / 0.76 / 1.17



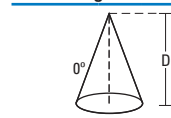
Legend

0-deg:	---
90-deg:	---
180-deg:	---

Candlepower Distribution



Cone of Light



D	FC	L	W
5.5'	47.8	5.1	5
7'	29.5	6.5	6.4
8'	22.6	7.5	7.2
9'	17.9	8.4	8.2
10'	14.5	9.4	9
12'	10	11.3	11

Zonal Lumen Summary

Zone	Lumens	%Fixture
0-30	689	44.9
0-40	1070	69.7
0-60	1502	97.8
0-90	1535	100
90-180	0	0
0-180	1535	100

Photometric tests are per IES measurement standards. Tests represent typical fixture performance. Field results may vary.



Water: Rivers & Streams

You are here: [Water](#) » [Our Waters](#) » [Rivers & Streams](#) » Streams

Streams

Small streams, including those that don't flow all of the time, make up the majority of the country's waters. They could be a drizzle of snowmelt that runs down a mountainside crease, a small spring-fed pond, or a depression in the ground that fills with water after every rain and overflows into the creek below. These water sources, which scientists refer to as headwater streams, are often unnamed and rarely appear on maps. Yet the health of small streams is critical to the health of the entire river network and downstream communities. These small streams often appear insignificant, but in fact are very important, as they feed into and create our big rivers.

On this page:

- [Types of streams](#)
- [Importance of streams and headwaters](#)
- [Additional resources](#)

Types of Streams

Headwater streams are the beginnings of rivers, the uppermost streams in the river network furthest from the river's endpoint or confluence with another stream. Headwater streams trap floodwaters, recharge groundwater supplies, remove pollution, provide fish and wildlife habitat, and sustain the health of downstream rivers, lakes and bays. Because small streams and streams that flow for only part of the year are the source of the nation's fresh waters, changes that harm these headwaters affect streams, lakes and rivers downstream.

Like the photos on this page? Visit [our Flickr Gallery](#) to see more streams. [EXIT Disclaimer](#)

Headwaters can be streams that flow briefly when snow melts or after rain, but shrink in dry times to become individual pools filled with water. Desert headwater streams can arise from a spring and run above ground only a few hundred yards before disappearing into the sand. Other spring-fed headwaters contain clear water with steady temperature and flow. Yet other headwaters originate in marshy meadows filled with sluggish tea-colored water.

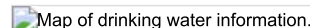


Headwater streams are the smallest parts of river and stream networks, but make up the majority of river miles in the United States.

Headwater streams and streams that only flow for part of the year make up the majority of river miles in the United States. About 53 percent of the total stream miles in the continental U.S. are headwater streams. Almost 60 percent of stream miles in the continental U.S. only flow seasonally or after storms. The very foundation of our nation's great rivers is a vast network of unknown, unnamed and underappreciated streams. Flow in a headwater may be year-round, seasonal, or rain-dependent.

Year-round streams (perennial) typically have water flowing in them year-round. Most of the water comes from smaller upstream waters or groundwater while runoff from rainfall or other precipitation is supplemental.

Seasonal streams (intermittent) flow during certain times of the year when smaller upstream waters are flowing and when groundwater provides enough water for stream flow. Runoff from rainfall or other precipitation supplements the flow of seasonal stream. During dry periods, seasonal streams may not have flowing surface water. Larger seasonal streams are more common in dry areas.



Click on the map above to see the percentage of people in your county that gets some of their drinking water directly or indirectly from streams that are seasonal, rain-dependent or headwaters.

Rain-dependent streams (ephemeral) flow only after precipitation. Runoff from rainfall is the primary source of water for these streams. Like seasonal streams, they can be found anywhere but are most prevalent in arid areas.

Despite their seasonal or temporary appearance on the landscape, seasonal and rain-dependent streams are critical to the health of river systems, are hydrologically and biologically connected to the downstream waters, and provide many of the same functions and values as rivers and larger streams. The arid Southwest and Midwest portions of the country have the highest number of seasonal and rain-dependent streams. For example, more than 95 percent of the streams in Arizona are seasonal.

Channels are natural or artificial open areas that connect two bodies of water and may have water flowing in them continuously or periodically.

Arroyos are small, deep, flat-floored channels of a seasonal or rain-dependent stream, usually with nearly vertical banks cut into soil and sediment, rather than rock. Arroyos are most often found in the arid and semiarid regions of the United States.

Sloughs are small, marshy stretches in a swale or shallow undrained depression, or slow-moving creeks or channels in a wetland.

Importance of Streams

Streams, headwaters and streams that flow only part of the year provide many upstream and downstream benefits. They protect against floods, filter pollutants, recycle potentially-harmful nutrients, and provide food and habitat for many types of fish. These streams also play a critical role in maintaining the quality and supply of our drinking water, ensure a continual flow of water to surface waters, and help recharge underground aquifers.

Clean drinking water:

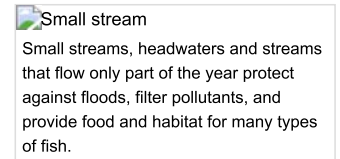
Streams play a critical role in the quality and supply of our drinking water by ensuring a continuous flow of clean water to surface waters and helping recharge underground aquifers. In the continental United States, 357,000 miles of streams provide water for public drinking water systems. Of that total, 58 percent (more than 207,000 miles) are

headwater streams. Approximately 117 million people— over one-third of the total U.S. population – get some or all of their drinking water from public drinking water systems that rely in part on these streams.

See: [geographic analysis of surface drinking water provided by headwater streams](#).

Flood and erosion protection:

Headwaters, seasonal streams and rain-dependent streams absorb significant amounts of rainwater, runoff and snowmelt before flooding. These streams have significant storage ability and play a critical role in protecting downstream communities by moderating flooding during heavy flow and by maintaining flow during dry weather. Over the last 30 years, freshwater flooding has cost an average of \$7.8 billion in direct damage to property and crops each year.¹



Groundwater recharge:

Streams are also vital for recharging the nation's groundwater supply. Water enters the groundwater through the stream bed. Even during dry periods, groundwater replenishes flow in the stream to feed downstream waterways. In arid regions, water from rain-dependent and seasonal streams supports springs, [wetlands](#) and plants far from the recharge areas. A major source of water in rivers in the Southwest is from groundwater released into streams that only flow part of the year.

Pollution reduction:

Streams can reduce the pollution that flows to downstream rivers, lakes, bays, and coastal waters. They are able to retain sediments and excess nutrients, such as nitrogen and phosphorus, and prevent these pollutants from traveling further downstream where they could cause algal blooms or dead zones.

Wildlife habitat:

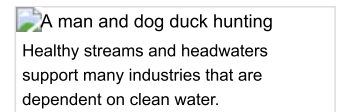
Streams that only flow for part of the year are unique and diverse habitats that can support thousands of species, including plants, fish, amphibians, birds and mammals. These streams are important as spawning and nursery habitats, seasonal feeding areas, refuge from predators and competitors, shelter from extreme weather and travel corridors. Many stream species, including fish, snails, crayfish, insects and salamanders, are now in danger of extinction as a result of human actions. A few dozen species are already listed under the U.S. Endangered Species Act; hundreds of others are rare enough to be considered for listing.

Streams that flow for only part of the year provide crucial habitat, food and water for plants and wildlife. In the arid West, vegetation and wildlife near these streams – which often have water flowing just below the surface even when the surface looks dry – is significantly higher than in the surrounding uplands.

Economic importance:

Protecting streams is important for the economy, particularly for their key role in fishing, hunting, agriculture, and recreation.

- **Fishing:** About 33 million anglers spend \$41.8 billion annually on trips, equipment, licenses, and other items to support their fishing activities. The commercial salmon fishery, worth an estimated \$555 million in 2010, depends on small streams- and streams that do not flow year round- which serve as spawning areas for salmon as far as 900 miles inland.²
- **Hunting:** About 2.6 million people per year hunt migratory birds, which depend on healthy wetlands, spending more than \$1.8 billion dollars per year in the process.³
See: [how wetlands support fishing and hunting](#).
- **Manufacturing:** Industries use fresh water to process, wash, cool, dilute, and manufacture products. Manufacturing used more than 6.6 trillion gallons of fresh water in 2005.⁴
- **Agriculture:** Farmers depend on clean water to irrigate farm crops across the country. Irrigation accounts for 37 percent of all surface freshwater withdrawals in the U.S.⁵



[\[View sources\]](#)

Additional Resources:

- [EPA Field Operations Manual for Assessing the Hydrologic Permanence and Ecological Condition of Headwater Streams](#)
- [The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest \(PDF\)](#) (116 pp, 2.6MB, [About PDF](#))
- [EPA Office of Research and Development Headwater Streams page](#)

You will need Adobe Reader to view some of the files on this page. See [EPA's PDF page](#) to learn more.

Last updated on Wednesday, October 30, 2013

**MEMORANDUM**

DATE: April 23, 2018

TO: Ary Cassidy and Howard Young , Town of Portola Valley

FROM: David M. (Mike) McNeely & Nona Espinosa, NV5

PROJECT: 199 Mapache Drive # PLN_ARCH 40-2017

PROJECT #: SJ00717-106

SUBJECT: Review Comments for Lea and Braze Site Development Plans Dated Jan 13, 2018 (Delta 2).

NV5 has completed the review of the Site Development Application for the subject plans. Please address the following prior to ASCC approval:

1. Provide additional calculations to address whether the existing culvert under the Mapache Drive can convey the 25-year flow and how the site will be graded so that the 100-year overflow can be directed to the proposed overflow swale without flooding the proposed structures. Show the hydraulic grade line (HGL) for the existing and proposed culverts. The HGL upstream of the existing 24" pipe should be equal or below existing condition. The analysis should also address the effect of the FEMA 100-year flood elevation of 394.5' on the hydraulics of the culverts.
2. Please check that all storm drain connections, especially the discharge pipe of the detention system, can drain when the HGL is high. Make sure to address the backflow into the detention basin.
3. The n-value of 0.022 used for the new pipe was less than the normal value per Sheet R-15 in the submittal package. Please use the normal value or submit justification for using the lesser value.

Address the following comments in the building permit submittal:

1. Provide rock slope protection (RSP) at the outlet structure for the 36' pipe and provide calculations for the sizing and length. Also, it appears that there may not be sufficient room for the RSP on the subject property and the outlet headwall may have to be relocated upstream.
2. The main house basement should be flood proofed since its floor elevation is 390.17' and the FEMA 100-year level in Corte Madera Creek is 394.5'.

3. Submit calculations supporting the sizing of the detention basin system.
4. Provide documentation of the total overall impervious area for pre-condition and post-development and evaluate if the project increases peak flows into creeks and can cause erosion (referred to as hydromodification) which requires mitigation. Provide a summary table providing the previous and proposed impervious area.

DMW
4/23/18

NFE
4/23/18

Preliminary Conservation Committee Comments

Address **199 Mapache**

Date **March 14, 2016**

Nov. 5, 2017

Apr. 24, 2018

Committee members at site visit: **March 10, 2016 , Oct. 30, 2017 & April 17, 2018**

Paul Heiple Jane Bourne

Volume of Grading 990cy, Is the new Cabana grading included with the original plan? The quantity of soil piled around the site seems quite large, what are the plans for this material?

House appearance

Does the proposed house fit with the surroundings? **Yes**

Light spillage from windows **Dwelling is well screened** 10/17 guest house walled in and near completion. Proposed location of cabana no problem. The cabana is still no problem as before.

Landscape Plan:

We appreciate and encourage areas left open and native

We appreciate limited amount of turf – suggest use only lowest water use varieties...

We appreciate that no turf in included in this plan.

Redwoods planted in the fog belt or in riparian areas are local treasures. The redwoods on this property will never do well without copious irrigation, and will rapidly grow to create unwanted shade and problematic surface roots. **One Redwood near Mapache, could be removed**

Planting in Right of Way should be minimal and low maintenance. Native grasses and wildflowers are appreciated here.

Swales that drain to seasonal tributaries of creeks should be protected from animal waste runoff.

Plants List

Are the plants mostly native? **Yes, all are native except for fruit trees and one that is likely miss named. Carex divulsa is listed as Berkeley sedge, that is not accurate and it is not native. Carex tomulicola is Berkeley sedge and is native. Since 175 of these plants are proposed and this property is along a creek above Jasper Ridge, it is not wise to plant a non-native. We recommend checking with the nursery that the carex tumulicola is really what they provide. We see nurseries sell completely different plants under this name.**

If not native, are the species chosen non invasive? **Unknown**

Are the non native plants chosen ones that require little water? **A few fruit trees will be added to an area that already has fruit tree. These older tree might be replaced. Native grasses and forbs are found in this area so minimum disturbance is recommended during planting.** 10/17 The native plants and fruit trees have been completely eliminated against our recommendation for no disturbance of this area. No new planting plans to show what is proposed for this now devastated area. The old plans may have had planting plans for this area that we considered but did not approve due to the existing native plant community.

This property is in a riparian area. Due to the spreading of Sudden oak death (SOD) through bay trees and the lack of natural water, the committee discourages planting a bay tree on this property.

Do the plants chosen for an area have the same water and light requirements? The planting seem to be in line with the conditions found.

Is enough room allowed for the plants to grow and mature? **yes**

Will the native trees on the property receive too much summer water to maintain their health? **No**

Is the proposed care of the plants in line with best practices? **Yes**

The “draining ditch” is actually an ephemeral stream that was modified by the previous owners. We noted that the construction already done had put more of the stream in a pipe underground. We can not recommend or approve of further undergrounding of more of this stream.

We continue to hold the opinion that the ephemeral stream is an important part of a rural setting. Undergrounding will destroy the wildlife and hydrologic value of a surface creek as well as disconnect the flow from the groundwater. We observed that the stream was flowing and therefore not a mosquito breeding habitat and had wildlife such as Pacific Chorus Frogs and Golden-Crowned Sparrows.

The argument that changing the stream course in the past negates all function and allows the continuation of the destruction of the natural system is not a valid one. The 1948 air photo was taken in August. The photo also shows the area upstream is highly altered to enhance grassland for grazing. Any riparian vegetation that existed would have been removed. Riparian plants retain water that keeps the stream flowing longer in the dry season. Portola Valley is attempting to undo as many of these storm damaging actions from the past as possible, not build new ones.

1. Massive infestation of French Broom in the area of Guest House. No large plants but lots of seedling, many mowed short. Massive infestation of Oblong Spurge *Euphorbia oblongata* SW side of property. 10/17 The broom infestation is largely gone for now due to the construction of the Guest House on the site of the infestation. It is likely the infestation is going to return with the seeds sprouting throughout the site. In the ephemeral creek, the broom is still present and appears to be untouched. The Oblong Spurge infestation is larger than before. The French Broom is once again a major infestation along the ephemeral creek, Oblong Spurge is also abundant. These infestations should be dealt with as soon as possible.

Other considerations

1. Well found down by the horse stable. This well is very close to Corte Madera Creek and is likely to impact the creek if used for irrigation. 10/17 The well has new plumbing and a large tank. It is obvious the intent is to use this well, most likely for irrigation. The proximity to the creek will very likely have a major impact on the creek. Drawing from this well will reduce summer flows in the creek and the runoff from landscape irrigation will pollute the creek. The conservation committee strongly recommends this use not be permitted.

The Committee would like to accompany ASCC on any future site visit to see if additional comments from us are warranted.

Submitted by [Paul Heiple](#)

CityLab University: Induced Demand

BENJAMIN SCHNEIDER SEP 6, 2018

SHARE

TWEET



It's time again for "CityLab University," a resource for understanding some of the most important concepts related to cities and urban policy. If you like this feature, have constructive feedback, or would like to see a similar explainer on other topics, drop us a line at editors@citylab.com.



With 26 lanes at its widest point, the Katy Freeway in the Houston metro is the Mississippi River of car infrastructure. Its current girth, which by some measures makes it the widest freeway in North America, was the result of an expansion project that took place between 2008 and 2011 at a cost of \$2.8 billion. The primary reason for this mega-project was to alleviate severe traffic congestion.

And yet, after the freeway was widened, congestion got worse. An analysis by Joe Cortright of *City Observatory* used data from Houston's official traffic monitoring agency to find that travel times increased by 30 percent during the morning commute and 55 percent during the evening commute between 2011 and 2014. A local TV station found similar increases.

The Sisyphean saga of the Katy Freeway is a textbook example of a counterintuitive urban transportation phenomenon that has vexed drivers, planners, and politicians since the dawn of the automobile age: *induced demand*.

KEY POINTS

- In urbanism, “induced demand” refers to the idea that increasing roadway capacity encourages more people to drive, thus failing to improve congestion.
- Since the concept was introduced in the 1960s, numerous academic studies have demonstrated the existence of ID.
- But some economists argue that the effects of ID are overstated, or outweighed by the benefits of greater automobility.
- Few federal, state, and local departments of transportation are thought to adequately account for ID in their long-term planning.

SUMMARY

Nearly all freeway expansions and new highways are sold to the public as a means of reducing traffic congestion. It’s a logical enough proposition, one that certainly makes plenty of sense to anyone who’s stuck in traffic: Small communities served by small roads grow bigger, and their highways need to grow with them. More lanes creates more capacity, meaning cars should be able to pass through faster. But that’s not what always happens once these projects are completed.

Just as with the Katy Freeway expansion, adding new roadway capacity also creates new demand for those lanes or roads, maintaining a similar rate of congestion, if not worsening it. Economists call this phenomenon **induced demand**: When you provide more of something, or provide it for a cheaper price, people are more likely to use it. Rather than thinking of traffic as a liquid, which requires a certain volume of space to pass through at a given rate, induced demand demonstrates that traffic is more like a gas, expanding to fill up all the space it is allowed.

Transportation researchers have been observing induced demand since at least the 1960s, when the economist Anthony Downs coined his Law of Peak Hour Traffic Congestion, which states that “on urban commuter expressways, peak-hour traffic congestion rises to meet maximum capacity.”





Maybe make this wider? Downtown traffic in Shanghai, China. (Joe White/Reuters)

Many academic studies have since demonstrated a similar effect, although different methods have found widely varying degrees of it. The complex sets of inputs required for quantifying induced demand—including local economic and demographic conditions, the quality and availability of alternative transportation options, and the decision-making processes of thousands of individual actors—leave plenty of room for interpretation. Some advocates for highway projects insist that induced demand is not as significant as many economists say, or else that its existence is no reason not to increase road capacity.

This has also been the de-facto stance of most public officials and departments of transportation in the United States and much of the world, which have largely avoided reckoning with induced demand in their long-term planning. But the public and their elected representatives could be starting to see the writing on the sound barriers. Many departments of transportation are instead touting the benefits of **toll lanes**, a more *au courant* form of roadway capacity expansion.

Such pricing tools can help mitigate induced demand, but these, too, come with their own negative externalities. Tolls, and ever-elusive **congestion pricing** schemes have been criticized for being a regressive form of taxation that is spread among high- and low-income drivers alike. The real solution to induced demand could be freeway removal—call it **reduced demand**—which has been shown to reduce auto traffic while also stimulating new development.

HOW IT WORKS

Induced demand is often used as a catch-all term for a variety of interconnected effects that cause new roads to quickly fill up to capacity. In rapidly growing areas where roads were not designed for the current population, there may be a great deal of **latent demand** for new road capacity, which causes a flood of new drivers to immediately take to the freeway once the new lanes are open, quickly clogging them up again.

But these individuals were presumably already living nearby; how did they get around before the expansion? They may have taken alternative modes of transport, traveled at off hours, or not made those trips at all. That's why latent demand can be difficult to disentangle from **generated demand**—the new traffic that is a direct result of the new capacity. (Some researchers try to isolate generated demand as the sole effect of induced demand).

Initially, faster travel times (or the perception of faster travel times) encourage behavioral changes among drivers. An individual may choose to take the new highway to a more distant grocery store that has cheaper prices. Trips that may have been accomplished by bike or public transportation might now be more attractive by car. More distant leisure and business opportunities might suddenly seem worth the trip. In aggregate, these choices put more cars than ever before on the newly expanded road, increasing net **vehicle miles traveled (VMT)** (and greenhouse gas emissions).

In the longer term, roadway expansions make an impact on the human and economic geography of an urbanized area. Businesses that rely on trucking are more likely to locate near these new roads. With those new jobs, and access to countless more via the higher capacity road, housing developments and shopping centers spring up nearby. Urban form responds to existing infrastructure: Roadway capacity expansions spawn autocentric development patterns that utilize the new roads.

These short- and long-term effects eventually bring the expanded road back to its **self-limiting equilibrium**—in other words, back to capacity, fulfilling Downs' Law of Peak Hour Traffic Congestion.

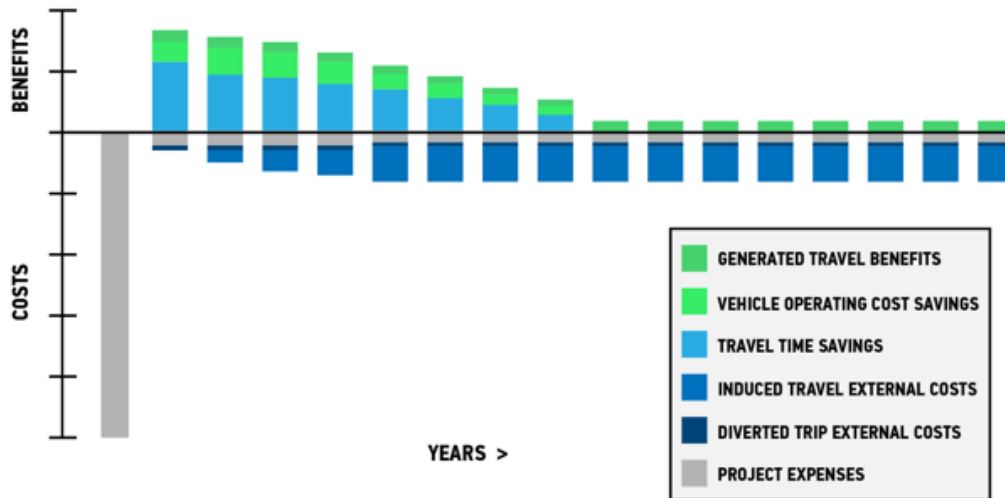
How quickly does new road capacity get filled up?

Once again, it's important to note that measuring induced demand is a somewhat inexact science. Most studies provide ranges that estimate the amount of road capacity that is filled by induced demand over a given period of time. One [literature review](#), conducted by Susan Handy of UC Davis for Caltrans, California's Department of Transportation, found that a 10 percent increase in road capacity yields a 3 to 6 percent increase in vehicle miles travelled in the short term and 6 to 10 percent in the long term.

In [this paper](#) from the Victoria Transport Policy Institute, author Todd Litman looks at multiple studies showing a range of induced demand effects. Over the long term (three years or more), induced traffic fills all or nearly all of the new capacity. Litman also modeled the costs and benefits for a \$25

million line-widening project on a hypothetical 10-kilometer stretch of highway over time. The initial benefits from congestion relief fade within a decade.

Estimated Cost and Benefits, Considering Generated Traffic



This figure illustrates benefits and costs when generated traffic is considered, using medium assumptions. Benefits are bars above the baseline, costs are bars below the baseline. It includes consumer benefits and external costs associated with generated traffic. Travel time and vehicle operating cost saving end after about 10 years, when traffic volumes per lane return to pre-project levels resulting in no congestion reduction benefits after that time.

(Credit: Todd Litman/VTPI. Adapted by Madison McVeigh/CityLab)

What do public officials say?

Freeway projects undertaken in the name of “traffic relief” have historically been political winners, especially for local leaders with suburban constituents. But some leaders are beginning to shift the discourse. In 2016, Houston Mayor Sylvester Turner said the Katy Freeway expansion “clearly demonstrated that the traditional strategy of adding capacity ... exacerbates urban congestion problems. These types of projects are not creating the kind of vibrant, economically strong cities that we all desire.”

In Los Angeles, where memories of the 405 widening and subsequent re-clogging are still fresh, the city’s transportation agency, L.A. Metro, recently voted against another major freeway expansion. “Widening freeways, we should be past that time unless we are putting vehicles that don’t emit into those lanes,” Mayor Eric Garcetti said of that decision.

“You can’t build your way out of congestion.” Tom Maziarz, chief of planning at the Connecticut DOT, told reporters in 2015. These statements are corroborated by econometric studies showing that freeway widenings often do not pencil out from a financial perspective.

So why are highways still being expanded today?

Some states and cities are charging ahead with roadway expansions, induced demand be damned. Despite the advice above, Connecticut is proceeding with an expansion of the I-84 freeway in Danbury, where rates of traffic have remained steady for the past 15 years. Other local leaders fundamentally resist the ID principle. During a public meeting this year about a new tolled interstate expansion in Florida that's encroaching on the Everglades, Miami-Dade Mayor Carlos Gimenez was asked about concerns that the new route would increase congestion. "That's one of the dumbest things I've ever heard," the mayor replied.

Rudeness aside, the fact that Florida's Dolphin Expressway expansion is a toll road does complicate the induced demand equation. Due to budgetary concerns, a large number of planned roadway expansions in the U.S. are slated to be toll roads. Because they offer increased mobility for a greater price, toll roads should mitigate the effects of induced demand. But it's a tricky business: Price the road too low and risk generating new traffic, or price it too high and create "Lexus Lanes" that only the wealthy can afford.

Some researchers have expressed concern that the public-private partnerships that build many of today's toll roads will end being a bad deal for local governments. If revenues are lower than expected for the private toll road operator, the government is often expected to pay the difference.

But I'm stuck in traffic *now*. Who's got a better idea?

In cities, many experts tout the benefits of adding congestion charges to existing public rights of way as a means of discouraging non-essential driving. London's well-known congestion charging scheme reduced VMT in the charging zone by 10 percent between 2000 and 2015 (it's since crept up again); Stockholm's newer scheme has reduced traffic in the congestion cordon by 20 percent since it was initiated. But congestion charges are politically challenging to undertake and can only impact limited areas. Critics also say that, without special exemptions, they harm families, low-income people, and those with disabilities.





A sign reminding motorists to pony up for London's congestion charge. (Toby Melville/Reuters)

What about charging for parking? That can also help discourage driving: The next big frontier for getting cars off the road and increasing funding for alternative modes of transport could be large-scale parking charges like those being proposed by Donald Shoup.

Perhaps the most effective strategy for solving the conundrum of induced demand: Instead of adding road capacity, remove it. San Francisco's Central Freeway carried around 100,000 passengers per day before it was damaged by the 1989 Loma Prieta Earthquake. The surface-level boulevard that replaced it carries about 45,000 cars. Far from decreasing economic activity, the freeway removal turned the surrounding blocks into one of the city's most desirable (and unaffordable) neighborhoods. Other freeway removals—typically undertaken in dense, central city areas—have been shown to produce similar results. (Bonus: Removing a freeway is often cheaper than repairing it.)

The hard part—and the bigger expense—is coupling highway removals with improved pedestrian and bike infrastructure and robust public transportation that allow commuters and residents to get around without a car.

CASE STUDY: Los Angeles

The 405 is one of the most congested freeways in the country, providing virtually the only north-south link between Los Angeles's west side and the San Fernando Valley. A project to add a northbound carpool lane and a few new on-ramps and off-ramps to the road lasted from 2009 to 2014 and cost \$1.6 billion—\$600 million over budget—and caused severe disruption to motorists along the route, including two weekend-long total shutdowns, or “carmageddons,” in Angeleno parlance.



Demand under control! The empty 405 during 2012's "carmageddon." (Dan Krauss/Reuters)

Once completed, the project's effect on traffic congestion was mixed. A 2015 [report](#) from L.A. Metro revealed that travel times during the afternoon rush hour increased slightly in the northbound direction with the new lane, although the duration of peak hour traffic shrunk (it lasts from 3 to 8 p.m., rather than 2 to 9 p.m.), and travel times have become more predictable. "There's a lot of bad taste in my mouth about this," [said](#) former L.A. County Supervisor Zev Yaroslovsky of the project's cost overruns, and its net benefits.

Still, it would be unfair to say the project was all for naught: L.A. Metro's report noted 15 percent fewer accidents reported in 2015 than in 2009. When transportation officials need to disrupt traffic flow to make important safety improvements, it can be easier to sell to the public if they throw in a capacity expansion as well.

VIEWPOINTS

Most transportation researchers believe induced demand is a real phenomenon, based upon decades of literature on the subject. But there's plenty of debate about the extent of its effects, and where it is most severe. Highly populous areas, like Houston and Los Angeles, tend to see more severe induced demand than sparsely populated areas.

But many conservative and libertarian-leaning analysts have a different interpretation. Cato Institute Fellow Randal O'Toole [argues](#) that the effects of induced demand are complicated by the fact that historically, in the U.S., vehicle miles traveled has tended to go up regardless of new roadway

capacity. In metro Boston, VMT increased by 35 percent between 1983 and 1993, while road capacity increased by only 1 percent; meanwhile in metro Madison, Wisconsin, VMT increased by 20 percent, while road capacity increased by 35 percent over the same span.

Recommended



CityLab University: Inclusionary Zoning

BENJAMIN SCHNEIDER
JUL 17, 2018



Traffic's Mind-Boggling Economic Toll

BENJAMIN SCHNEIDER
FEB 7, 2018



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Even while acknowledging some induced demand effect, O'Toole and like-minded observers say that increased automobility leads to greater economic activity. "We know that every car on the road has someone in it who is going somewhere that is important to them," O'Toole writes. "[I]ncreasing highway capacity leads to net economic benefits because it generates travel that wouldn't have taken place otherwise."

Handy's study for Caltrans contradicts this point, however, finding, "most studies of the impact of capacity expansion on development in a metropolitan region find no net increase in employment or other economic activity."

PLANNING COMMISSION
Regular Evening Meeting, 765 Portola Road

July 18, 2018

CALL TO ORDER AND ROLL CALL

Chair Targ called the Planning Commission regular meeting to order at 7:00 p.m. Planning & Building Director Laura Russell called the roll.

Present: Planning Commissioners: Hasko and Taylor; Chair Targ
Absent: Vice Chair Goulden; Commissioner Kopf-Sill
Town Staff: Laura Russell, Planning & Building Director; Cynthia Richardson, Planner; Arly Cassidy, Associate Planner

ORAL COMMUNICATIONS

None.

OLD BUSINESS

- (1) **Hearing of Proposed Lot Line Adjustment for Parcel A, owned by Ralph & Renee Lewis, identified as APN: 079-074- 010 and Parcel B, owned by Michael & Susan McLaughlin, identified as APN: 079-074-020. Project located at 88 and 96 Hillbrook Drive, File # LLA 1-2018**

Planner Cynthia Richardson described the project data and the background of the project, as detailed in the staff report. Staff recommended approval of the lot line adjustment and proposed resolution.

Chair Targ asked if there were any material changes to the project as originally presented. Planner Richardson said there were no changes.

In response to Commissioner Taylor's question, Planner Richardson said the ASCC had no issues with the project.

Chair Targ invited the applicants to comment. Susan McLaughlin said they look forward to making the lot line adjustment.

Chair Targ again disclosed that he previously spoke with Michael McLaughlin regarding this matter.

Chair Targ invited public comment. Hearing none, Chair Targ closed the public hearing and brought the item back to the Commission for discussion.

The Commission was in support of the proposal. Chair Targ said the neighbors coming together to find a solution and resolve a potential land use and property line dispute was laudable.

Commissioner Hasko moved to approve the Resolution of the Planning Commission Approving a Lot Line adjustment for 96 Hillbrook Drive and 88 Hillbrook Drive. Seconded by Commissioner Taylor, the motion carried 3-0.

COMMISSION, STAFF, COMMITTEE REPORTS AND RECOMMENDATIONS

- (2) **Priory Conditional Use Permit Annual Report**

DRAFT MINUTES

Associate Planner Cassidy presented the Woodside Priory School's Annual Report, as detailed in the staff report. Staff recommended the Planning Commission review the Woodside Priory School CUP Annual Report for 2017-2018 and offer any comments, reactions, and directions.

Chair Targ invited questions from the Commissioners.

Chair Targ asked if the CUP defined how population/enrollment at the school is established. Associate Planner Cassidy said the CUP does not specifically address whether average daily attendance or total enrollment is the number used.

Chair Targ asked if projections were made, for example, looking at average parking for other entities. Associate Planner Cassidy said that is often used in other cities, but Portola Valley typically does not have enough commercial or industrial uses where average attendance is looked at, such as holiday parking versus regular day parking at a church.

Planning & Building Director Russell said it would be customary to use the standard of practice in a particular field, in terms of how it would be categorized in that specialty. She said in a larger municipality with many different types of CUPs, there would be more standard practices. She said an applicant saying this is a common practice within their field could be an acceptable answer.

Chair Targ asked staff to research how this issue is addressed in other municipalities and how the CEQA document analyzed it. He said he did not see a problem one way or the other but suggested it might be codified whether the ADA [average daily attendance] or enrollment numbers are used.

Mr. Molak said, regarding the BMR, he only recalled ever needing one deed restricted housing unit so he would have to go back and research that. He said almost all public schools operate using the ADA because that's how they're paid. He said there was a conversation many years back regarding the 350 number versus how many children are actually on campus daily.

Vice Chair Targ invited public comment.

Maryann Moise Derwin, 148 Ramoso Road, Portola Valley. Ms. Moise-Derwin said many years ago, when Tom Vlastic and George Mader were the Town Planners, there were discussions about total enrollment numbers and the number of children coming from Portola Valley. She said she felt that over the years, the Town has let that slide. She said although 21 percent is better than 18 percent, it's still not good. She said her concern is that when children are enrolled from San Jose and Hillsborough, that means more cars on the road versus Portola Valley children who can bike, walk, and scooter to school and hence, take cars off the road. She said she is less concerned about the total enrollment but wants to see more kids coming from Portola Valley.

Mr. Molak said the Priory CUP has a goal of 20 percent of their enrollment being Portola Valley children. He said their acceptance rate for Portola Valley children is higher, and they make every effort to accept every qualified student from Portola Valley, but the take rate could be only 50 percent.

Ms. Derwin asked what would cause a Portola Valley child to be rejected. Mr. Molak said there could be a number of reasons, but it is usually that the child is not academically qualified, teacher recommendations, etc. He said being a Portola Valley resident gives an additional point in the scoring system and being Catholic earns a point.

Commissioner Hasko said the chart showing the number of Portola Valley applications and take rates is helpful. She suggested the chart should be included on a rolling basis going forward. Mr. Molak said they provided that in September and will also provide it at the end of the school year.

DRAFT MINUTES

Chair Targ suggested it would be helpful if Mr. Molak could put together the previously created Portola Valley enrollment charts and submit it as a supplement to the Annual Report. He also suggested an additional meeting be rescheduled to discuss the BMR issue, the ADA number, and the acceptance percentages of Portola Valley students. Commissioner Hasko agreed.

Commissioner Hasko asked for clarification of Condition 9(c) concerning the number of BMR units required. Mr. Molak said they have one BMR based on the seven (Moss Family Commons) built in 2003. He said they will add another BMR with the six they will build. He said if they build all 12 units, there will be a total of three BMR units. Associate Planner Cassidy said staff will research this paragraph further and provide more clarity.

Commissioner Taylor said there was a recent post on PV Forum regarding the summer camp that claimed they had rented fields and no one else could use them, even before or after the summer camp hours. Mr. Molak said it must have been a unique situation because they often have people on the track. He said the camp was there from 9:00 a.m. until 4:00 or 5:00 p.m., and they did lease almost the entire campus, including the athletic facilities and fields. Commissioner Taylor suggested Mr. Molak respond to the post to clarify that anyone can use the fields outside of the summer camp hours.

Mr. Molak said he would bring another report in September.

(3) ADU Survey – Request for Input

Associate Planner Cassidy presented the proposed ADU Survey and requested input from the Commission. She also shared ADU surveys created by Hillsborough and Sausalito. Associate Planner Cassidy said staff does not have email addresses of all ADU owners, but they will mail copies of the survey and promote it on all the social media outlets. She said the mailed copy of the survey will also include a link that people can use to complete the survey online. She said it will likely be an anonymous survey in order to encourage participation.

Commissioner Taylor said the questionnaire should be limited to one page in length. He suggested rather than asking for the specific dollar amount of rent, it should be a series of buckets to check so that it does not feel quite so invasive. He suggested an “other” category for comments. He recommended providing context to explain why the Town is asking for this information. He supported the option of remaining anonymous but would prefer to mail the surveys directly to known ADUs, with the address printed on them, and offer the option of not answering all the questions, such as amount of rent collected, or adding additional information, such as email addresses, if desired. He suggested the survey be made available generally for those that perhaps are not registered as official ADUs.

Commissioner Hasko said she is skeptical that people would want to be on the record by providing answers to some of the questions, and some may be skeptical about how the information will be used. She said the option to remain anonymous may increase the participation. She said she would be more interested in how the units are being used rather than how much rent is being collected. She would be interested to know if the ADUs were catering to an older population or to younger people who work locally. She was not in favor of printing the addresses on the survey.

Chair Targ asked if the response rates were known for Sausalito and Hillsborough. Associate Planner Cassidy said she did not think the Hillsborough survey was sent out to the population at large to retroactively capture data regarding existing ADUs, but was just a part of their building permit application package. She said she could get the response rate information from Sausalito.

Chair Targ said he would be curious about how many of the ADUs have pools associated with them, perhaps indicating people were just building larger cabanas and calling them ADUs.

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Chair Targ said the information regarding distribution may be helpful if it was learned that a particular area was underrepresented and could be targeted for more outreach. Associate Planner Cassidy said a lot of useful information can be gathered from mapping, for example, considering amnesty for existing non-conforming ADUs that have had no objections.

Commissioner Hasko asked if staff included any kind of survey, as Hillsborough does, with building permits. Associate Planner Cassidy said the applicants are asked informally how they plan to use their ADUs. She said the applicants are often hesitant to respond, asking “Why do you want to know?” Commissioner Taylor reiterated his suggestion to provide context for the question, explaining that the Town is trying to update data and meet their quotas and general obligations and not trying to pry into private business.

Chair Targ suggested questions 6 and 7 and questions 8 and 9 could be collapsed, making room for additional questions about ADU size, but still keeping the survey to 10 questions.

Commissioner Taylor said a general question about collecting rent could be optional, without asking specifically how much is paid, if it is exchanged for household services, etc.

Associate Planner Cassidy said staff had thought about asking if the respondent would be willing to be contacted by the Town to speak about their ADU or share their experience. She said staff is hoping to create a network and resource out of existing ADU owners. She said they’ve discussed walking tours or open houses for people who are curious.

Chair Targ said he is interested in the amount of rent paid. He said the Town and the State are keen on ADUs as a housing provision generally, but also as a means to provide affordable housing. He said he would be interested to know if the Town has 200 cabanas or 200 market rate ADUs. Commissioner Taylor said he did not disagree, but his concern was that asking the rent question may result in fewer responses.

Associate Planner Cassidy suggested a sentence in the introduction such as “Please answer to your comfort level. We’d rather have some answers than none.” Commissioner Taylor said that may work, but he felt that if he was reading through the questions and started seeing several that were too personal for his comfort level, he might throw the whole thing out.

Commissioner Hasko suggested questions concerning rent could be presented as a friendly and optional request, rather than asking specific questions that people may be hesitant to answer for fear of some unknown consequence.

Chair Targ suggested the response to the rent question could be presented as checkboxes for ranges of rent rather than specific amounts, including domestic help as a proxy. He said an introductory explanation of how the information is being used will be helpful to set the tone. He suggested rather than asking for a specific address, the survey could ask for a more general location – such as Central, Western Hill, etc.

Staff will bring the revised survey back to the Commission for review.

(4) News Digest: Planning Issues of the Day

Associate Planner Cassidy shared articles of interest with the Commissioners – “What Makes Walkable Communities Work” and a Bay Area Council article about affordable housing units.

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Reports

Chair Targ introduced the new Planning & Building Director, Laura Russell. She said she was excited to join the Town's efforts to preserve the great things about this community. She said public service has always been an important commitment to her, and she looks forward to serving this community. She said she most recently worked for the City of San Carlos and the Town of Atherton as a consultant planner. Prior to that, she worked for the City of San Bruno for a number of years in a number of different positions. She said she was with San Bruno at the time of the PG&E pipeline explosion and has experience responding to a disaster and the rebuilding of the community afterwards. She previously worked for the City of Palo Alto, working with BMR housing, and before that in the Central Valley, where she was involved in redevelopment and economic development. She was a teacher at San Jose State in the Master's Program, teaching communications skills for planners.

Commissioner Taylor invited Planning & Building Director Russell to accompany him on some walks around the different neighborhoods to get a feel for Portola Valley.

APPROVAL OF MINUTES:

(6) Planning Commission Meeting of June 20, 2018

The Commission discussed whether or not the minutes should be verbatim or summarized more with less details of the discussions, particularly in the case of this meeting where a member of the public spoke at length about issues that were not related to the item being discussed. Planning & Building Director Russell suggested that since it has been standard practice to provide verbatim minutes, staff could remove the specific name references in this case and allow staff to review internally the practice of doing verbatim minutes, reporting back to the Commission on the practice. Maryann Moise Derwin pointed out that the speaker had already put the same information out in public in many different ways.

Commissioner Taylor moved to approve the minutes of the June 20, 2018, meeting, as submitted. Seconded by Commissioner Hasko, the motion carried 3-0.

Chair Targ expressed thanks on behalf of the Planning Commission to Associate Planner Cassidy for her service as Interim Planning Director, serving the role admirably.

ADJOURNMENT [8:13 p.m.]

PLANNING COMMISSION
Regular Evening Meeting, 765 Portola Road

August 1, 2018

CALL TO ORDER AND ROLL CALL

Chair Targ called the Planning Commission regular meeting to order at 7:00 p.m. Planning & Building Director Laura Russell called the roll.

Present: Planning Commissioners: Kopf-Sill and Taylor; Vice Chair Goulden; Chair Targ
Absent: Commissioner Hasko
Town Staff: Laura Russell, Planning & Building Director; Cynthia Richardson, Planner; Arly Cassidy, Associate Planner

ORAL COMMUNICATIONS

None.

PUBLIC HEARING

- (1) **Review of a Proposal to Amend a Conditional Use Permit to Extend the Construction Schedule for Previously Approved Buildings by Ten Years, Spring Ridge LLC, 555 Portola Road, File # PLN USE 1-2018**

Associate Planner Cassidy presented the proposal to amend the Spring Ridge LLC CUP, as detailed in the staff report. Staff recommended the Planning Commission approve Resolution No. 2018-9, making the required findings and approving the requested amendment to Spring Ridge LLC Conditional Use Permit and Conditions of Approval.

Chair Targ invited questions from the Commission.

Commissioner Kopf-Sill asked for confirmation that the CUP in general allows the buildings, but the applicant must still come before the ASCC and conform with the rules that apply at the time of the application. Associate Planner Cassidy said if a specific piece of the building were discussed and described in the Use Permit, the rules that applied when the Planning discretionary permit was granted will still apply. She said at this point, the CUP describes the buildings to some extent, mostly with floor area, but if there was any mention of any other specific attribute within the Use Permit, that would stand as approved, even if the Planning rules have since changed. She said a new building permit submission must conform to whatever building permit rules apply at the time of application.

Commissioner Kopf-Sill asked if there was anything in the CUP that would not be allowed now, such as sprinklers. Associate Planner Cassidy said to her knowledge there were none that would affect life safety.

In response to Commissioner Taylor's question, Associate Planner Cassidy said there was, for example, no specific mention of lighting requirements; therefore, the current rules would apply regarding lighting upon submission of an application.

In response to Vice Chair Goulden's question, the last amendment to the CUP was five years ago and upon current review of the CUP, staff did not find anything objectionable.

Chair Targ asked if there was anything in the Portola Road Scenic Corridor Plan that would raise issues with respect to this matter if it were presented anew. He also disclosed that he had previously

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spoken with the applicant. Associate Planner Cassidy said, to her knowledge, there were no issues. She said the lower ag building, the building that is closest to the Scenic Corridor, has already been constructed. The stable is the next nearest building to be built and is hundreds of feet away with no impact to the Scenic Corridor.

In response to Chair Targ's question, Associate Planner Cassidy confirmed there had not been any changes to zoning or other Town plans that would create new or different obligations or use of the property if it were to come to the Commission fresh now.

Vice Chair Goulden asked regarding the normal length of time a new Conditional Use Permit is valid. Associate Planner Cassidy said technically a Use Permit does not expire, it generally runs with the land. She said the Commission may occasionally request a subsequent review of the CUP; however, the usual trigger for an additional review is if the applicant lapses in their conditions, a complaint is made, or there has been some kind of violation.

Vice Chair Goulden asked if there was precedent for granting a 10-year versus a 5-year Conditional Use Permit. Associate Planner Cassidy said she researched old staff reports to determine why there was a five-year timeline. She said it appeared that staff who handled the initial Use Permit wanted a hard timeline and suggested the applicant come back with one and from that, the term of five years was chosen. She said there is no code relationship to that term of five years and nothing that would prevent it from being extended to 10 years.

Planning & Building Director Russell said a CUP runs with the land, but something is usually done to activate them. The applicants have done that by starting the construction of some the buildings, so they've been using the CUP, and it seems reasonable to allow the extension. She said the timeline of that extension is at the Planning Commission's discretion.

Chair Targ asked if there had been any issues that would trigger a review of this CUP. Associate Planner Cassidy said there have been no complaints, notices of violation, public comment, or response from noticing on the project.

With no further questions, Chair Targ invited the applicant to comment. The applicant said Tom Vlasic gave them the five-year timeline which he just accepted and did not question. He said they've been slower than anticipated with building. He said they hope to get going in a couple of years and are currently just finishing up two of the projects. He said they had ASCC approval on all the projects.

Chair Targ invited questions from the Commission.

Commissioner Taylor asked the applicant if there were approved design plans for the three buildings in question – the stable, the guest house, and the art studio. The applicant said the initial approval for the CUP was from the ASCC and then subsequently approved by the Planning Commission. He said they have not submitted full building plans yet. He said they would not have to go back to the ASCC if there were no changes to the already-approved plans, but said there will likely be changes that will need to go before the ASCC.

Commissioner Taylor asked staff if it is appropriate that the applicant can pull a building permit, for example, nine years and nine months from now based on the ASCC approval that is almost 15 years old. Associate Planner Cassidy said that is a legal possibility with this extension. She said, however, if this extension isn't granted, the building permits will be pulled in a timely manner in order to complete the construction as proposed, and the building would be the same. She said staff feels this proposal is limited just to the timeline. She said the applicants can apply to modify that application, whether it comes now or in 10 years. Commissioner Taylor said giving the applicant 10 years for the opportunity

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to build is reasonable, but using old design guidelines many years from now does not sound reasonable. He suggested that it be discussed more about extending the timeline but making sure the plans are approved by ASCC in a timely manner. The applicant said he does not know how the design guidelines have migrated over the past five years let alone predicting how they will change in the next five years.

Vice Chair Goulden asked if the buildings were visible from other properties. The applicant said the buildings are extremely well-sited to be completely invisible from just about every area, which was a laborious process. He said approximately 6-1/2 years ago, the original CUP was approved. He said they came back a year later, and it was amended for the vineyards and the meadow.

Commissioner Taylor said it sounded like the applicant was saying that all of the current guidelines would apply upon submission; however, it sounded like staff was saying it's already been through ASCC, and only the Building Code would be reviewed. Associate Planner Cassidy said if the applicant brings revisions, it will go back to the ASCC. Commissioner Taylor asked if the applicants would be grandfathered into the lighting design plans from five years ago if this CUP is approved as-is. Associate Planner Cassidy said that was correct, that whatever had been already approved will be directly applied to the building, and it will only go before the ASCC if revised.

In response to Chair Targ's question, Associate Planner Cassidy said issues of life, health, and safety would be subject to the code in place at the time of application for the building permit.

With no further questions, Chair Targ invited public comment.

Carter Warr, the project architect at the time the Spring Ridge project came before the Commission. Mr. Warr said all of the buildings were story poled during the CUP review process. He said any issues regarding offsite impact were reviewed and resolved by the ASCC and Planning Commission at that time. He said the Planning Commission and ASCC required that the applicants develop very specific designs for each of the buildings, and they were story poled and reviewed at the time.

Hearing no further public comment, Chair Targ closed the public hearing and brought the item back to the Commission for discussion.

Vice Chair Goulden said there may be some slight risk of changes to how the ASCC Design Guidelines would view things over time, but given that these buildings are not visible to other sites, it will not likely be an issue. He said it is unusual to have a timeframe on a CUP, and if that timeframe had not been set, the Commission would not be reviewing this. He was supportive of the proposal.

Commissioner Taylor was supportive of the 10-year timeline. He was concerned the proposal did not need to conform to the current Design Guidelines. He would prefer a requirement to bring the project back to the ASCC, which would not incur burden to the applicant since it sounded like they would be making revisions anyway.

Commissioner Kopf-Sill was supportive of the proposal. She said while she would prefer the project come back for current design review standards, she would not disapprove the proposal for that reason.

Chair Targ said if the proposed structures were more visible and prominent, he may feel differently, but could support this proposal as presented because the buildings are remote and because he has confidence in the ASCC rigorous design review process of five years ago. He said the changes in the Portola Road Scenic Corridor Land Use Plan have not affected this application.

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Commissioner Kopf-Sill moved to approve Resolution No. 2018-9, making the required findings and approving the requested amendment to Spring Ridge LLC Conditional Use Permit and Exhibit "A" Conditional Use Permit Conditions of Approval. Seconded by Vice Chair Goulden, the motion carried 3-1; with Commissioner Taylor opposing.

NEW BUSINESS

- (2) **Review of a proposal to apply the R-1 Zoning Regulations to a .19 acre lot in the A-P Zone District to allow for a 2,316 square foot single family home with an 833 square foot basement and an attached 784 square foot Accessory Dwelling Unit (ADU) by using a Conditional Use Permit and Planned Unit Development process. The property is owned by Pacific States Capital Group and is located at 846 Portola Road and identified as APN: 050-282-150, File 8-2017**

Planner Richardson presented the history of the parcels and the project description, as detailed in the staff report. She said there was a field meeting scheduled at the property today, but there was no quorum so it was not held. She said the Planning Commission may decide to reschedule the site visit. Staff recommended the Planning Commission direct the applicant to return with a conforming project using the A-P Zone District regulations.

Vice Chair Goulden asked if there were any guidelines around why zoning would be changed. Planner Richardson said the zoning was not being changed. She said the applicant was using the measurable aspects of the R-1 Zone District in the PUD [Planned Unit Development] process to create a project of this size.

Commissioner Kopf-Sill said she also thought they were being asked to approve a zoning change. Planner Richardson said the A-P Zoning allows for single family residential, and the applicant has not requested a zoning change.

Commissioner Taylor clarified that the applicants were not asking for a zoning change. He said the application was also not in compliance with the R-1 Zoning regulations.

In response to Vice Chair Goulden's question, Planner Richardson said the PUD is not considered multi-family. She said it is a single-family residence with an ADU; however, an ADU is not allowed in this zoning district or on a lot this small.

With no further questions from staff, Chair Targ invited the applicant to comment.

Carter Warr said he was acting as an advisor to John Hansen, the property owner. He said the architect, Tim Peterson, was also present. Mr. Warr said they had hoped for a more informal setting when it was agendaized in November of last year so the issues could be discussed before they spent a lot of time developing detailed plans. He said they wanted to come before the Commission to discuss some anomalies in the Zoning Ordinance. He said only two Districts in Town use a floor area ratio directly proportional to the size the lot – the A-P and the C-C Zoning Districts, at 13 and 15 percent respectively. He described historical parity issues between homes on larger properties and smaller properties. He said that during his 21 years on the ASCC, they worked at creating parity so that if you had a small property next to a big property, the homes and their relative improvements would be more in keeping with each other. He said, as a consequence, the R-1 Zoning District was completely revamped in the way those numbers were created so that the smaller properties were not disadvantaged as much and bigger properties were substantially reduced in their opportunity. He said the residential use is calculated completely different from office use, which would be the normal way to use this property, and it presents a problem. He said the General Plan has identified this land as best

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used as residential, which is what the owner desires. He said, however, the difficulty is in using the A-P numbers, where on a 10,000-square-foot lot, you can only build an 1,100 square-foot building, which makes for a very small residence. If the lot were residentially zoned, for example, in the Wyndham or Brookside neighborhoods, the home could be approximately 3,100 square feet on a lot of this size. He said the need for offices in town is very low. He said this proposal is in conformance with the General Plan and the way the Town has governed residential development, both in numbers and use. He said they anticipate the Town will be moving to allow ADUs on properties of less than one acre. He said while the development may not be compliance with the zoning, it could be found to be in compliance with the spirit of the Town and the way the parity was developed in the 1990s for residential use.

Mr. Warr said he also served on the ASCC when the Area Specific Plan was developed for this property. He said there was a lot of discussion by both the ASCC and Planning Commission regarding the appropriate uses for this property, and it was decided and recommended that residential use was appropriate. He said the Planned Unit Development that was previously approved, but abandoned with the lot line adjustment, allowed for five single-family homes of about 3,200 square feet. He said the Planning Commission arrived at that figure by figuring the balance of the back of the property divided equally among five properties and compared the numbers to the R-1 Zoning District. He said the setbacks between those buildings were similarly defined to be in compliance with the spirit of the R-1 Zoning District. He said this is now a single property inside of that overall property, and it is logical that development under the R-1 Zoning District would make sense.

Mr. Warr pointed out that since that time, there has been ever-growing pressure for affordable housing. He said one unit of 1,100 square feet versus a 2,300 square-foot home plus a 700- or 800 square foot home would do substantially more to improve the opportunity for housing in Portola Valley on a property that wouldn't normally have been developed. He said the issues of higher quality, better design, diversification, and providing amenities can be found, although not in the way the Town has traditionally looked at PUD use. He said they feel that providing additional housing stock in an affordable way on a property that otherwise would not ever have it is a substantial reason to support this effort.

Chair Targ disclosed that Warr Associates is helping his family with an unrelated project.

Chair Targ invited questions from the Commissioners.

Chair Targ asked who owned the adjacent properties that were formally part of the subdivision. John Hansen said he owns Lot 4 and the office building under an LLC. He said the owners of the back two lots are also present – Fred Krefetz and Tom Lodato. In response to Chair Targ's question, Mr. Hansen said there is no operating agreement or partnership among the three of them. He said the other two gentlemen initially owned all four parcels, and he purchased two of them in November 2016.

Commissioner Kopf-Sill asked why the previous owner abandoned the attempts to develop. Mr. Warr said the previous project suffered from poor economy, timing, costs associated with the creek rehabilitation, and the need for additional studies for the bank stabilization. It was decided that a similar economic return could be developed by using the existing four lots that were previously on record, realigning them into a more rational use pattern. Commissioner Kopf-Sill said rezoning seemed much more to the heart of the issue. Mr. Warr said this was one of the reasons he wanted a study session in November, before they spent so much time and money, so they could have the opportunity for the Planning Commission to opine about their preferences. If the Planning Commission preferred rezoning the back three lots, a consortium could be developed to apply for that. Mr. Warr said a PUD can be found approvable, even on this small property, as an A-P Zoned property.

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Commissioner Taylor asked if the square footage of the main house included the basement. Planner Richardson said the main house is 2,316 square feet, not including the 830 square-foot basement, plus the 784 square-foot ADU. Mr. Warr said the proposal is 175 square feet bigger than the R-1 Zoning District will allow, including the ADU, but not including the basement, which doesn't count in the R-1 Zoning District. He said if the Planning Commission could find that the R-1 Zoning District makes sense, the applicants could reduce the size by 175 square feet. Mr. Warr said the ASCC has the opportunity, in all cases on small properties, to allow 100 percent concentration.

Planner Richardson said garage spaces counted toward floor area in the R-1 District, but not in the A-P Zoning District.

Commissioner Taylor asked what were the smallest, largest, and average setbacks. Mr. Warr said 17 feet is the minimum, and the average is in excess of 20. He said 16 feet is allowed in that Zoning District. Planner Richardson showed the setbacks where the averaging provision was used.

In response to Commissioner Kopf-Sill's question, Planner Richardson said the building envelope under the A-P Zoning District is roughly 1,000 square feet. Mr. Warr said the building would require a basement and a second story.

Chair Targ invited public comment.

Georgia Bennicas, owner of 838 Portola Road, the small adjoining parcel. She said any buyer of this property was aware of all of the restrictions involved going in. She said she actually looked at the property before she bought hers, but chose not to get it because of the restrictions. She said she already feels like the store has somehow expanded and grown and feels very crowded. She said the amount of coverage this project is proposing is very out of the spirit of what Portola Valley is supposed to be about. She said they can build 1,000 square feet with a 1,000 square-foot second story and an 800 square foot basement, and she does not want to see it a lot larger than that as an adjoining neighbor. She said that's what she assumed would be there when she bought her property, and a bigger building would never be allowed there. She said the buildings on the properties behind her represent 13 percent of the coverage, and hers is at 10 percent. She said if a variance is allowed for the subject property, she will apply to do the same thing on her parcel.

Bud Eisberg, 233 Wyndham. Mr. Eisberg was on the ASCC during many of the iterations on this property. He said he has also been part of the affordable housing ad hoc committee and attended the recent affordable housing meetings. He said, understanding that the Town may be going toward allowing ADUs on smaller than one-acre properties, he found the design very interesting and creative – with a garage between the attached ADU and the main structure. He said he does not find the project to be out of character. He said it is an odd parcel, and something creative can be done there. Chair Targ asked Mr. Eisberg to speak to the issue of the character of the massing and of the floor area ratio of this particular structure. Mr. Eisberg said the massing is mainly influenced by the views from offsite. He said although there has been an objection to this from one neighbor, from Village Square he did not think there would be any particular problem.

Fred Krefetz said he owns the rear two lots in partnership with Tom Lodato. He said it is a unique situation, but they, as the rear property owners, have no objections to the proposed project. Chair Targ asked Mr. Krefetz if he had plans for development of their site. Mr. Krefetz said they do, and if this variance is approved, it would perhaps have an impact on what can be approved for his property. As of right now, he said they are in design conceptualization and working with staff for a project that will fully conform to the current Zoning Guidelines.

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With no further public comment, Chair Targ brought the item back to the Commission for discussion. Chair Targ apologized for not attending the site walk this afternoon. Chair Targ reminded the Commission of the preliminary nature of the issue and suggested looking at the project in general terms as well as in terms of the findings that need to be made.

Vice Chair Goulden said he is not comfortable with the proposed approach in dealing with this property. He said there are too many exceptions and attempts to make things fit that do not fit. He said if the Town does approve it, a precedent will be set for other properties in the vicinity. He would have preferred to consider a zoning change for the entire area.

Commissioner Kopf-Sill said she shared Vice Chair Goulden's discomfort. She said she was not sure she would approve the R-1 Zoning, but felt that discussion would address the question more directly. She was not supportive of an ADU on parcels smaller than one acre, although she acknowledged the Town does appear to be moving that way.

Commissioner Taylor agreed with the other Commissioners and said he was not sure the ASCC would be able to make the findings to support the 85 percent rule. He said this will impact the neighbors. He said there is an expectation that if you buy in a certain zone there are specific rules for that zone. He said either the zoning should be changed to avoid having so many exceptions or the applicants should stay within the rules of that zone.

Chair Targ said he is more sympathetic to the idea of adding density in general. He said the form of the ADU and the connection to the primary residential structure is an interesting path. He was not supportive of a PUD, which felt like a spot zone by another name. He said he thinks of a PUD for preservation of space to gain particular efficiencies. He said the idea of a tiny PUD for the sole purpose of generating additional density is something that bears some thought. He said he would feel more comfortable, even with the different ownership structure, with a PUD for this area encompassing the different lots. He said he would also be comfortable in thinking about a change in zoning more generally. He said a .19-acre PUD is unusual. He said looking at the upcoming development also raises questions. He said it is a difficult site, and flexibility and thought about it is useful. He said real intentionality has gone into the design. He said the ADU issues are not even pending before Council yet.

Commissioner Taylor said this would potentially set precedent for R-1 and A-P. While he appreciates it is a special lot in an odd place, he said there are too many exceptions to be made across multiple zones, and he would like to find a cleaner way to get through it.

Chair Targ invited comment by the applicant.

Mr. Warr asked if there was a consensus amongst the four Commissions present that they would prefer to see this as a rezone.

Commissioner Kopf-Sill said she did not want to leave the impression she would be in favor of rezoning. She would have to look at it as a package, and she doesn't know much about rezoning. She said she was only commenting that rezoning felt like a more direct path to address the question.

Vice Chair Goulden said he is not sure he would approve a change in zoning, but it appeared to be what is going on here. He said it would be more effective to rezone the whole area. He said all of the historical discussion appeared to show it was clearly the intent to it being an A-P Zone. He said this appears to be a request for a different zoning designation.

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Mr. Warr referred to the Area Specific Plan. He said the recommendation for Parcel 5, of which his project and the two rear lots are a majority, is that rezoning would not require a change to the General Plan. He said he had hoped for a study session versus an application review. He said they're trying to head toward a rational solution. He said the reason an ADU became part of the application was to sweeten the deal and the improvement, providing a 2,300 square-foot house and a below market rate house at the same time – two housing units more affordable than anything else in town. He said this was the mechanism to rationally use the residential use and the Town's and State's desire to improve the housing stock.

Mr. Warr asked if there was a consensus with the Planning Commission that improving the housing stock is a valuable effort. Chair Targ said generally, it would hopefully be the policy of any jurisdiction to improve the housing stock and achieve affordable housing goals. He said that's not the issue before the Commission. He said one of the issues is character, and there has been some concern about the size and intensity of the use in this location. He said they've heard issues of potential precedential effect of the decision made, both for the two properties under consideration as well as, more broadly, in R-1 and A-P, as well as potentially getting ahead of Council's ADU decisions. He said there would likely be affirmative responses to the questions Mr. Warr asked as individual pieces – if the property should be put to a good and beneficial use and if there should be more quality and affordable housing in Town. He said the answer of whether or not findings could be made that this is a conceivable land use tool to allow the applicants to do what they're proposing is less clear. Chair Targ said he would rather see an application for a PUD than a rezone of this little nub of property, and it would be more consistent with the General Plan.

Mr. Warr asked if there was any specific direction from any individual Planning Commissioner or a consensus for what they should do next.

Commissioner Taylor said the simplest thing to do would be to provide something to fit in the A-P Zoning designation. He said they could look at what would be required to rezone this to R-1. He said the ADU will be problematic until the ADU discussion is held. He said putting 3,200 square feet on .19 acres is going to raise serious discussions. Mr. Warr said a design without an ADU would be easy to do, but they were providing it hoping the Planning Commission saw it as something of value. He said if it was .19 acre elsewhere in town that was residentially zoned, it would be allowed, such as on Wyndham. He said the ASCC would have to make a finding to collapse that much floor area in one building, but it would be allowed. Commissioner Taylor said in the Woodside Highlands, there was a slightly larger property, and the ASCC didn't make the findings to allow going over the 85 percent, and the applicant could not rely on the presumption that the finding can be made. He pointed out there was a dissenting neighbor who would oppose that finding.

Vice Chair Goulden said he has a hard time answering Mr. Warr's question because there are so many exceptions to consider.

Mr. Warr said adding a couple of smaller residences in this location will do more for the Town than any 1,100 square-foot office building ever would. He said he's argued for a couple of decades with the Planning Commissioners and the Town Council that if housing is desired, something must be zoned for it. He said there is no property in town zoned for it and, consequently, none has ever been built because none has ever been proposed. He said until the Governor demanded that ADUs could be approved by right, the Town didn't do anything. He said there needs to be consensus developed around the concept, and then something done about it. He said he had an owner who thought this was a good idea, something he might like to live in, that meets his lifestyle, and maybe his kids or helpers could live in the guest house. He said previously, the Planning Commission saw fit to approve more than 16,000 square feet of residential use on a combined 33,000 square feet of space, asking for only one below market rate unit. He said he's providing a below market rate unit for only 2,300 square feet.

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He said he was hoping for a little more encouragement because this is a property that has fumbled and stumbled for 30 years, and something good needs to come out of it. He said even if all three properties were rezoned, it would result in only 10,000 square feet of residential use, versus the 16,000 that had been previously approved.

Commissioner Taylor said there will be three separate projects that aren't related to each other, except for in historical reference. He said if it was a PUD, it would be looked at differently, but it is a single piece of property.

Mr. Warr said he appreciated the opportunity to discuss and have what was essentially a study session today. He said they will take the comments and go back and see what needs to be retooled and bring it back before the Commission.

Chair Targ and Commissioner Taylor asked to take a site tour. Mr. Warr said he would lead a site tour. Mr. Warr said he was hoping to truncate the time. He said if it was continued to a date specific to a field meeting, they can avoid re-noticing and avoid another 10-day delay. Chair Targ said while he understands the burden, it can't happen right now without giving the absent Planning Commissioner the opportunity to participate. Mr. Warr pointed out they have been waiting since November just to have this meeting. He added there were three units of affordable housing on this property that were torn down as a consequence of the lot line adjustment.

Commissioner Taylor asked Mr. Warr how he makes sure an ADU gets used for that purpose and doesn't just become additional living space. Chair Targ suggested that issue be discussed at another time.

COMMISSION, STAFF, COMMITTEE REPORTS AND RECOMMENDATIONS

(3) News Digest: Planning Issues of the Day

Associate Planner Cassidy shared articles of interest with the Commissioners – “California Achieved its Climate Goal; How the Hard Part Begins” and “CityLab University: Inclusionary Zoning.”

In response to Chair Targ's question, Planning & Building Director Russell said there were no minutes included for review in this staff packet but that they would be available for review at the next meeting.

ADJOURNMENT [8:35 p.m.]

PLANNING COMMISSION
Regular Evening Meeting, 765 Portola Road

SEPTEMBER 5, 2018

CALL TO ORDER AND ROLL CALL

Chair Targ called the Planning Commission regular meeting to order at 7:00 p.m. Planning & Building Director Russell called the roll.

Present: Planning Commissioners: Hasko and Kopf-Sill; Chair Targ
Absent: Commissioner Taylor and Vice Chair Goulden
Town Staff: Laura Russell, Planning & Building Director; Cynthia Richardson, Planner; Arly Cassidy, Associate Planner

ORAL COMMUNICATIONS

None.

PUBLIC HEARING

- (1) **Architectural, Site Development Review for a New Residence, Removal of Significant Trees and Landscaping, and Variance Review for Uncovered Parking, File # 43-2017, 5588 Alpine Road, Ross Residence**

Associate Planner Cassidy described the project data, background, and discussion items regarding the proposed project, as detailed in the staff report. She reported that the applicants and architect resubmitted plans with modifications addressing all comments made by both the Planning Commission and ASCC. The ASCC completed a preliminary and final review of the project and recommended approval of the project as modified. Staff recommended approval of the project subject to the recommended conditions.

Chair Targ invited questions from the Commissioners.

Commissioner Hasko asked for clarification regarding the spring box. The applicant explained that a spring box is a 2'x5' redwood plank box sunk at grade level, basically a French drain that allows water to flow into the box, which is then pumped out. He said the water meets County potable requirements, but they will probably further treat it.

Commissioner Hasko asked for clarification regarding the statement "... did not allow for any improvements which would prevent use of the easement." Associate Planner Cassidy said because the easement is for a road and vehicular access, things that would prevent the road being used cannot be installed, but the fire truck turnaround and widening of the road is allowable because that does not prevent other use of the road as a path of travel.

Commissioner Kopf-Sill said she appreciated the lighting reduction but asked if the firefighters would need light. Associate Planner Cassidy said the ASCC commented that firefighters have their own lighting, including headlamps.

Chair Targ asked if the applicant would prefer to have their lights on a timer. The applicant said they thought it was reasonable to remove the lights because they don't anticipate using those stairs very often as their primary access will be from the parking and up the path. He said the stairs are only for intermittent use.

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Chair Targ asked why excavation would be necessary to provide covered parking. The applicant said that because of the nature of the soil and the fact it is a slide area, extensive foundations would be required, which would be excessive for a parking area and not economically feasible.

Chair Targ asked staff why the Town requires covered parking areas. Associate Planner Cassidy said this topic has come up previously in other projects. She said her understanding is that it originates from the desire to feel rural and to not see other people's cars. Chair Targ asked if the ASCC could consider whether this is something that should be modified. Planning & Building Director Russell said there will be a meeting between the Mayor, the Vice Mayor, and the Chairs of the Planning Commission and ASCC, and she will agendize this issue for that meeting.

Chair Targ invited comment by the applicant. The applicant said it has been a pleasure working with Associate Planner Cassidy.

Chair Targ invited public comment. Hearing none, Chair Targ brought the item back to the Commissioners for discussion.

Commissioner Hasko said it has been obvious that the applicants have responded to all of the feedback provided by the Town. She was supportive of the project.

Commissioner Kopf-Sill was supportive of the project.

Chair Targ said he was supportive of this very bold project.

Commissioner Hasko reviewed the reasons the Commission was able to make each of findings required to grant the variance. Finding #1 – the steepness, heavy forestation, and remote location meet the requirement for special circumstances. Finding #2 – the site and soil quality would support the finding of a special circumstance, and the literal requirement of covered parking would cause the applicant to incur extraordinary expense not incurred in similar areas under identical zoning. Finding #3 – no special privilege is being granted as there will be the same number of parking spaces and parking is necessary to develop the site. Finding #4 – there is no obvious detriment to the public welfare and the neighbors have supported the project. Finding #5 – there is no use prohibited by zoning regulations. Finding #6 – the plans for development of the site reflect the General Plan priorities, respecting natural conditions on the site, and developing in a minimally invasive manner.

Commissioner Hasko moved to find the project categorically exempt per Section 15303, Class 3, of the State CEQA Guidelines. Seconded by Commissioner Kopf-Sill; the motion carried 3-0.

Commissioner Hasko moved to adopt Resolution 2018-10 approving the Variance for Uncovered Parking. Seconded by Commissioner Kopf-Sill; the motion carried 3-0.

Commissioner Kopf-Sill moved to approve the Architectural and Site Development Review, Removal of Significant Trees, and Landscaping, including the conditions of approval in the staff report. Seconded by Commissioner Hasko; the motion carried 3-0.

NEW BUSINESS

- (2) **Preliminary Review of a Conditional Use Permit Modification and Variance Request to:**
- **Exceed the maximum allowable floor area to construct 2,910 sf 1,715 sf is allowed;**
 - **Allow a 7-foot-9-inch side setback where 20 feet is required; and,**
 - **Allow a 16-foot rear setback where 20 feet is required;**

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For Pacific States Capital/John Hansen (Hallett Store) 844 Portola Road. File #1-2018 and X7D-178.

Planner Richardson described the background, project description, and discussion items regarding the proposed project, as detailed in the staff report. There was a field meeting at the site earlier today. Staff concluded that the findings for a variance could not be made and recommended that the Planning Commission direct the applicant to return with a conforming project by reducing the project to that portion of the structure that is conforming according to Section 18.58.020.3.c.

Chair Targ invited questions from the Commissioners.

Commissioner Hasko asked for clarification regarding Finding #3. Planner Richardson said that the analysis done for the Town Center area discusses other properties in the vicinity and the square footage as it relates to the floor area ratio. She said there are several other properties in the area that are smaller or have less intense coverage. She said this project, as it was approved, was a 22% floor area ratio and was compared to other Town Center properties. Planning & Building Director Russell said, from a staff perspective, that finding could potentially be made in either direction. Planning & Building Director Russell said staff could not make the findings for Finding #1 and #2, but were looking for the Planning Commissions interpretation and discretion regarding Findings #3 through #6.

Commissioner Kopf-Sill said this project brought up general questions regarding zoning, why there are rules about the 50% calculation, what other communities do, and how the Town has dealt with this type of problem in the past.

Chair Targ asked if there were other issues pertaining to the project other than the problematic variance issues. Planning & Building Director Russell said the remaining aspects of the project were all part of the package approved in 2017. She said the loss of the nonconforming status is what is at issue. She said if the Planning Commission finds it cannot approve the variance, then design work will be required.

Chair Targ asked, from an overall policy standpoint, if there were other striking inconsistencies with the General Plan, such as issues of lack of harmony to the surrounding community. Planning & Building Director Russell said that was not evaluated previously because of the nonconforming status, but the review of the variance now raises those questions.

Commissioner Hasko asked about the tree with multiple trunks, which was originally going to be preserved; was the tree trimming allowed? Planner Richardson said the tree was to remain per the last approval process. When the applicant dug around the tree to remove the existing foundation and create some new foundation, the on-site arborist discovered that the tree's root system was not adequate for the size of the tree. The applicant requested to be able to trim the tree. Staff met with the arborist and Mr. Carter Warr. The arborist wrote a letter to the effect that the root system was not adequate and there was a lot of weight at the top of the tree that needed to be reduced as a safety issue. Planner Richardson said the Town does not regulate trimming of trees.

Mr. Carter Warr said the desire to protect the tree was very clear from the beginning. He said that during the construction staging, the arborist was rescheduled to come out and map the roots so the pier locations could be arranged. During the probe for the roots, it was discovered there weren't many roots. They researched and reviewed the photographs with the company that did the sewer line work on the other side of the tree to identify if they had cut any significant roots. He said there was a significant pause because there wasn't enough supporting structure for a tree of that size. They worked with the arborist and staff to try to mitigate the danger associated with the tree while still preserving the majority of the effect the tree had from the Portola Road corridor. The owner said a backhoe operator

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came and dug around the tree underneath the building site, and they could not find any root system. According to the arborist, 90% of a redwood tree's roots are within 5 feet from the surface, and the arborist could not identify where any support was coming from. The arborist concluded that it was a clearly dangerous situation, one that was not anticipated. He said the higher branches were trimmed to eliminate the sail effect.

Mr. Warr said they believe that allowing the front of the building within the 50-foot setback to be rebuilt is consistent with the intent of the ordinance writers to allow these kinds of buildings to remain and to encourage them to be rebuilt. He said it is a disconnect and unfair to not allow the building to be rebuilt, and he feels it is a hardship as a consequence of an error in the way the ordinance is constructed. He said other things outside of the front yard setback are governed by a separate section in the ordinance. He said the founders, if confronted with this same condition, would find that the balance of the building is as important as the amount of building that is in front of the front yard setback. He said, because of that, they believe they have extraordinary special circumstances and that they are being deprived of the ability to maintain that building as the founders intended. He said because of that, Findings #1 and #2 can be found affirmatively, as can the other findings. Mr. Warr said in 1951, the front yard was taken away from this building when Alpine Road was straightened out. He said the building survived because people considered it valuable. He said the intent is to rebuild a safe building that lasts longer than the original building. He said the Planning Commission and ASCC and Town Historian were happy the property was being rebuilt. He said there were no issues with any of the other subjective or objective elements of the ordinance or the General Plan, and they believe it is unfair that they cannot use the same set of approval processes. He said in the early part of this process, they were given permission to completely replace the toilet room portion of the building, which included the foundation. He said they are now only asking to replace a portion of the building above the foundation which is significantly less costly than it was for the toilet rooms. He said the planner and building official at the time found that to be compliant.

The owner said he became involved with the project in 2015. He said in 2016, the lot line adjustment was approved by the Town, and the encroachment into the rear yard was taken into consideration and considered acceptable in order to preserve that building. He said it took a year to get the building permit, and they negotiated moving part of the building from the redwood tree to the other side. He said at that time, he thought the Planning Commission was supportive about the materials, design, and the building exactly with all the potential flaws in terms of the setback and coverage. He said it does not seem consistent that now the Town is considering changing that support or tearing it down. He acknowledged that a procedural mistake was made. He said he has dealt with the builder for 20 years and found him to be upstanding, working in Santa Clara Valley and San Mateo County for a long time, and did not think he was doing anything inappropriate. The owner said he would like to keep the building the way it is because it's in better shape, will fit better with what is wanted in the back, and is more visually aesthetic from the front. He said the ordinance is in conflict with the State codes in terms of requirements for a structure.

Mr. Warr said he studied the drawings for 808 Portola, and it was clear that more than 50% of that building was taken down, and it was allowed to preserve the non-compliant setback. He said the planners and the community were happy that building was preserved. He said if pushed, they will study the history of every one of the buildings and find out how they were reconstructed and how much they were reconstructed. He said the community will be disappointed if the Town does not allow this building to be reconstructed.

Chair Targ said the Commission is dealing with the reality and perception of fair play and equal treatment. He said Ms. Bennicas wrote a letter expressing that she will feel aggrieved because she was not able to obtain a variance for an addition to her property which had to be removed because of

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its location with the setback. He said the Commission will need to differentiate Ms. Bennicas' situation from the applicant's situation.

Mr. Warr said in their situation a building exists. In Ms. Bennicas' situation, it was a new construction that was built within the setback. It was not the preservation or reconstruction of an existing building.

Chair Targ asked the applicant to explain the special circumstance or hardship, given the tension between Title 24 and the ordinance. Mr. Warr said the building code requires that the building, foundation, electrical, plumbing, mechanical systems, access, and fire protection system be completely brought up to the current code when you exceed 50% of the building. He said the blue part [referring to the graphic in the staff report] is more than 50 percent of the building, and they're attached. He said there was no way to keep it without disconnecting it. He said the building permit drawings approved for the building do not match the building that is currently constructed. He said they would have had to take it apart stick by stick. He said the assertion in the staff report is that the contractor should have known how bad it was, but a lot of the damage was behind finishes and structures. He said if it was broken apart they would have voided the existing nonconforming condition so they had to go completely through the process to preserve the building before they could take it apart. He said the framing contractor was taking it apart and putting it together repeatedly to do the individual repairs and asked the general contractor to ask if they could do it like they did the bathroom, and the general contractor made the mistake of authorizing it without getting Town permission. Mr. Warr said he thinks there is some retribution being placed upon them for that error. He said he believes if they would have asked, it would have been allowed. Chair Targ said that is an after-the-fact variance request. Mr. Warr asked the Commission to consider whether, in the absence of the misbehavior and the conditions as they exist, the Planning Commission would have approved the complete replacement of the buildings. Mr. Warr said he thought they would have approved it.

Chair Targ said his concern is about granting a do-over kind of variance. He said a variance is based upon specific findings and is an adjudication. He said relative equities can be taken into consideration, to which he is personally very sympathetic. He said he does not disagree that the Planning Commission, the ASCC, and staff gave a lot of thought to the applicant's project and voted unanimously for it. He said he is also concerned regarding potential precedential effects and said the basis of a do-over doesn't fit with the findings of a variance. He said there could be an argument made of a tension between Title 24, the building code, and the requirements of the nonconforming use. He said if the Commission is going to contemplate granting a variance, they need to understand the long-term effect and also make sure they can address Ms. Bennicas' concerns and differentiate her property from the applicant's. Chair Targ said he would like to know if the applicant can provide a better basis for a variance as a matter of law or as a matter of the property.

In response to Commissioner Kopf-Sill's question, Planning & Building Director Russell said the percentage rule for reconstructing a non-conforming structure is very common and is a reflection of State law and case law that says that cities and towns are required to have zoning and that zoning should be enforced. She said one of the ways they do that is through nonconforming sections and codes, which have a lot of similarities. She said Portola Valley has the valuation provision while some other cities have physical provisions such as 50% of exterior walls or 50% of the nonconforming wall. She said how much definition is around the nonconforming section varies by community. She said there is inherent tension with the building code and Title 24 in rebuilding legal nonconforming structures. She said, in general, the intention of zoning codes is to bring projects into compliance with today's code. She said in Portola Valley, they have an exception in the setback area that specifically allows something to be rebuilt in that area. In staff's interpretation, that is an expressed value of the decisionmakers in saying we value those structures in that setback area and maintaining that historic fabric along that section.

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Commissioner Kopf-Sill asked if requests to rebuild nonconforming structures comes up very often. She asked how many projects in the last 10 years have had to comply with the 50% calculation. Planning & Building Director Russell said staff discussed this at length and have found this is not a common occurrence. She said most of the projects are single family homes which usually include a demolition and rebuild to current standards. She said the nonconforming situation is sometimes seen in additions to smaller single-family homes on smaller lots. She said those would not even get to the level of ASCC or Planning Commission but are approved at the building permit level. She said staff would receive the valuations for those and ensure they are less than 50 percent in order to maintain their nonconforming status. She said for larger projects, there have been perhaps three that today's staff can remember that would have come before the ASCC or Planning Commission. She said she could not speak to whether the contractors in the community are very familiar with this issue. She said although the issue does not come up in Portola Valley very often, it does come up in other communities fairly regularly.

Commissioner Kopf-Sill asked if there were any other instances in town where someone was approved for a project as long as they kept a certain percentage of walls or foundation and then accidentally removed too much or had to make a different decision once they got into the tear down. Planning & Building Director Russell said she reviewed the file that Mr. Warr referenced at 808 Portola, doing a cursory review of the last two building permits, including the tenant improvement and the investigative demolition that preceded it. She said there was nothing in the record that said they went beyond the scope of what was approved in the plans and also did not find the analysis of the 50% evaluation. She said that doesn't mean it wasn't done, it just means it is not currently in the file. She said they did not research other properties on the corridor alluded to by Mr. Warr.

Commissioner Hasko said this project has been pursued incrementally for quite a while. She said she personally would like to see this area of the corridor be robust. She noted that the Commissioners read every word in the staff packet, and the order of any documents in the staff report should not be taken as a diminution of their importance. She said in this situation, there is a balance between the 50% valuation rule triggering allowing the retention of floor area not otherwise enjoyed and Title 24. She said she would want Title 24 explained in a future packet. She would be interested in the intent behind the applicant being allowed to completely tear down and rebuild within the front portion. She said there is a balance in the 50% rule and trying to move zoning toward being more conforming, drawing a line at which point the benefit of additional nonconforming floor area is lost, and perhaps an intent to allow preservation and rebuilding of the front area in order to have a continual similar treatment of the façade of the buildings in the front. She said these imperfect rules are causing tension, but it is the Planning Commission's job to apply the facts as they see them to make variance findings they can support, particularly, in this case, Findings #1 and #2. She said she is also not clear on Finding #3. Commissioner Hasko was also concerned regarding the precedential value. She said there may well be the new construction distinction regarding Ms. Bennicas' property, but the Commission needs to be aware of how this might play out and how they can fairly apply the findings for other properties. She said she understood that mistakes happen in life, but this 50% rule is well known. She said it is part of what new applicants have to adhere to, and it's difficult to just disregard that and grant a redo because there was a mistake made. She said the Town is trying to encourage people to gradually come into conformance and allowing do-overs is not going to achieve that. She said there's a policy issue that should be examined in future discussions. She said she would like to understand the toilet room replacement at a more granular level in a future discussion. She said knowing a little more about the history and the intent of these two tension-filled provisions in the code will be important. She said the Commission must do their best to apply these principles fairly. She said she is willing to hear that there are special circumstances. She said when an old building is taken apart, dry rot and termite infestation is predictable and part of what one should expect to find. She said the fact that remodeling is less efficient than building new is not the point. She said the point is more what these rules are trying to achieve and how to most fairly achieve a balance. She said she understands the applicant is making

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efforts to bring the building to something that's really usable and valuable to the community. She said she would love to hear more and be more educated and see if there is a way to make the findings.

Chair Targ said it is well-stated that the project was previously approved with a lot of support from the ASCC and Planning Commission. He said he is not hearing any objection in principle to the project. He said they are trying to achieve harmony to the existing laws to be able to document the variance findings in an adjudicative manner; trying to apply the facts and the hardship that can be imposed by the law. He said the hardship does not need to be imposed by an outcropping or a tree, but it can be a conflict that becomes unworkable for one reason or another into the facts that would support the findings and in a way that can reflect parity to the neighbors. He said they can have a robust conversation when this project is brought back and dig deeper into that. He said, given the nature of the decision being made, although it is not required, it would be helpful to have the full complement of Commissioners.

Mr. Warr asked for a continuation date. Chair Targ suggested that a specific date be schedule at the earliest opportunity.

Planning & Building Director Russell asked if the Commission was asking for an additional preliminary review or a full package for final review. She said staff's position up to this time is that the findings cannot be made, and they would presumably be preparing findings for denial and the applicant would be preparing more in-depth findings of approval for consideration.

Mr. Warr said building has been stopped for three months now. He said when they found they needed to apply for a variance, they expected that the existing documents would be accepted but were confronted with a lot of rework of the documents and another application and fee. He said they believe what they're asking for is fair. He said he understands that is it is their responsibility to do a better job of helping the Planning Commission find a path to those findings. He said they appreciate the Planning staff's difficulty with the project, the process, and making the findings.

In response to Chair Targ's question, Mr. Warr said they would like to schedule a decision on the variance.

Commissioner Kopf-Sill said it would be very simple for a town to only require a nonconforming structure to be rebuilt to the same footprint in the same building envelope without regard to the how much of it is torn down. She said all towns and cities have implemented a percentage rule because they want the building stock to drift to the new zoning rules. She said she wants to know what is special about this building that would allow for an exception. She said it can't be allowed just because somebody made a mistake or that the conditions of the building were poor, which would be true of every old building.

Mr. Warr said the difference here is that this project is subject to the special Portola Road requirements. If that were not the case, he said this building would have received minor remodeling, would not have needed the use permit process, would not have required a variance to exchange square footage, and would not have asked for a tree removal permit in order to repair the building, and they would have done it one stick at a time over several years, never to exceed the 50%, and the existing building would still be there but the tree wouldn't. He said the special exception for the Portola Road area was because the Town wants to preserve these beloved buildings, vestiges of where the Town came from. He cited the building at 808 Portola, which was completely rebuilt and far exceeded the 50% rule, but was accepted by the Town and required no evaluation. He said the architectural integrity of their project is far better than what it would be if made compliant. He said it would be more strip mall like with parking in front instead of hidden along the side and in back. He said he believes in

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and supports the 50% rule but does not think it is fair to impose it on this project because 70% to 80% of the building is exempted because the Town wants it to be rebuilt there.

Commissioner Kopf-Sill asked why, if the Town's intention was to preserve buildings along Portola Road, they would not allow old buildings close to Portola Road to be grandfathered in. Mr. Warr said he thinks that was the intention. He said the issues here are not regarding compliance but are because of the odd side yard and rear yard setback that was created as a consequence of the lot line adjustment. Commissioner Kopf-Sill said the big nonconformance is the AP designation. Mr. Warr said the Planning Commission has accepted that nonconformance. He said in the CUP that was previously approved for the five homes in the rear, Sausal Creek Associates got approval to rebuild the entire building further over from the tree with the access easement in the same place.

Planning & Building Director Russell said staff understands the Planning Commission's request for additional information, and they will do their best to provide as much as possible. She said they look forward to receiving the applicant's revised findings, and staff will reanalyze it. She said, based on what was heard this evening, as well as additional information provided, they will revisit their own analysis and confirm whether or not they think the findings can be made and will present that to the Planning Commission for consideration. She said if the Planning Commission wants to approve it, they will have to work on the fly a bit, but will anticipate that as a possible step in the process.

COMMISSION, STAFF, COMMITTEE REPORTS AND RECOMMENDATIONS

(3) News Digest: Planning Issues of the Day

Planning & Building Director Russell shared articles of interest with the Commissioners – “The Fair Housing Act, CRT, Department of Justice” and “HUD Files Housing Discrimination Complaint Against Facebook.”

APPROVAL OF MINUTES:

(4) Planning Commission Meeting of July 18, 2018

(5) Planning Commission Meeting of August 1, 2018

Commissioners preferred to abstain from voting on minutes from meetings when they were not present, so the Commission agreed by consensus that the minutes should be brought back to a future meeting.

ADJOURNMENT [8:40 p.m.]