



# Planning Commission Staff Report

Meeting Date: November 7, 2023

Agenda Item: 8A

ABANDONMENT CASE NUMBER:	WAB23-0003 (Waterman)
BRIEF SUMMARY OF REQUEST:	Abandonment of the southern forty (40) feet of a drainage easement
STAFF PLANNER:	Tim Evans, Planner Phone Number: 775.328.2314 E-mail: TEvans@washoecounty.gov

### CASE DESCRIPTION

For hearing, discussion, and possible action to approve an abandonment of Washoe County's interest in the southern forty (40) feet (southern easement boundary to be aligned with the 5458-foot contour line) of the existing drainage easement encompassing the northern portion (rear) of the property located at 211 Waterman Court.

Applicant:	Stephen Packer
Property Owner:	Stephen Packer
Location:	211 Waterman Court, Reno, NV
APN:	156-061-14
Parcel Size:	1.16 acres
Master Plan:	Suburban Residential (SR)
Regulatory Zone:	Low Density Suburban (LDS)
Area Plan:	Forest
Development Code:	Authorized in Article 806, Vacations and Abandonments of Easements or Streets
Commission District:	2 – Commissioner Clark



**Vicinity Map**

### STAFF RECOMMENDATION

APPROVE

**APPROVE WITH CONDITIONS**

DENY

### POSSIBLE MOTION

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Planning Commission approve Abandonment Case Number WAB23-0003 for Steve Packer, with the conditions included as Exhibit A to this matter, having made all three findings in accordance with Washoe County Code Section 110.806.20.

*(Motion with Findings on Page 7)*

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Agency Comments..... Exhibit B

Public Notice ..... Exhibit C

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Hydrology Study for Abandonment dated September 5, 2023..... Exhibit E

Project Application ..... Exhibit F

### **Abandonment Definition**

The purpose of an abandonment is to allow for the vacation or abandonment of easements or streets. If the Planning Commission grants an approval of the abandonment, that approval is subject to Conditions of Approval. Conditions of Approval are requirements that need to be completed prior to the recordation of the Resolution and Order of Abandonment.

The Resolution and Order of Abandonment is the legal record, prepared by the Engineering and Capital Projects Division which is recorded to complete the abandonment process. The Engineering and Capital Projects Division completes a technical review of the legal description, exhibit maps and any new easements, submitted by the applicant's surveyor, that are required by the Conditions of Approval. When the Engineering and Capital Projects Division is satisfied that all Conditions of Approval have been met, then the Engineering and Capital Projects Division will record the Resolution and Order of Abandonment with the County Recorder. The abandonment is complete upon the recordation of the Resolution and Order of Abandonment with the County Recorder.

The Conditions of Approval for Abandonment Case Number WAB23-0003 are attached to this staff report and will be included with the Action Order if granted approval.

- All Conditions of Approval are required to be completed before the abandonment can be recorded and finalized.
- The abandonment will be effective after the approval of a Resolution and Order of Abandonment by the Engineering and Capital Projects Division and after the recordation of the Resolution and Order of Abandonment by the County Recorder.

The subject property has a regulatory zone of Low-Density Suburban (LDS). The front and rear yard setbacks are thirty (30) feet, and the side yard setbacks are twelve (12) feet from their respective property lines. In order to construct the future dwelling and remain compliant with the required setbacks, the applicant, Stephen Packer, is requesting abandonment of a portion of the drainage easement encompassing the rear (northern) portion of the parcel.



**Project Evaluation**

The subject property located at 211 Waterman Road, in the Forest planning area, is 1.16 acres and, per the portion of Tract Map 3404A on page 6, is shown as lot 414 of St. James Village Unit 1D. Lot 414 contains multiple easements, including a private drainage easement (Easement) that encompasses the northern (rear) portion of the property. As shown in the figure below, the applicant is requesting the abandonment of an approximate 40-foot southern portion, which follows the 5458-foot elevation contour of the Easement.



The parcel is currently undeveloped, but the applicant’s intention in the future is to construct a dwelling unit which is shown on the site plan (page 4).

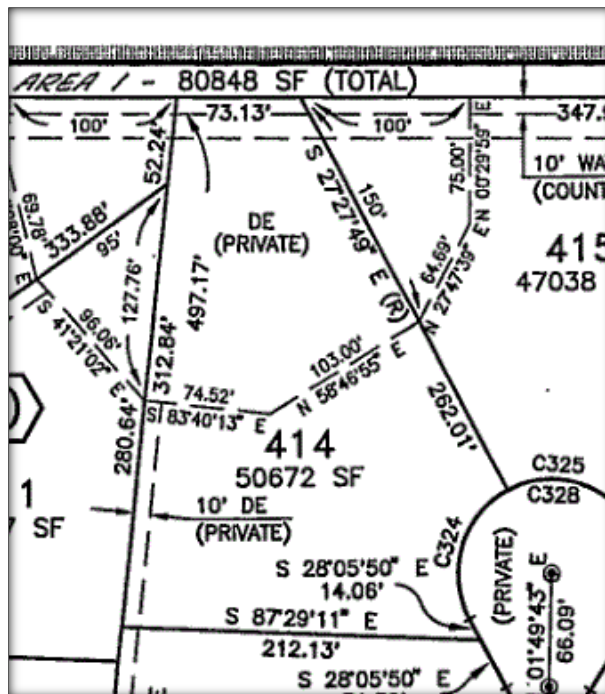
The property is zoned LDS, and pursuant to Washoe County Code (WCC) Sec. 110.406.05, *General*, Table 110.406.05.1, *Standards*, Part Three, *Yard and Setback Dimensions*, the dwelling must meet front and rear yard setbacks of thirty (30) feet and side yard setbacks of twelve (12) feet from the property lines. Setbacks are measured from the property lines and the proposed

dwelling may be built up to the edge of the Easement. As evidenced by the site plan on page 4, the dwelling will be in conformance with the required setbacks for the proposed dwelling.

**Drainage Easement**

The Easement was created as part of Document No. 2110182 (Tract Map 3404) on June 20, 1997, to serve as a drainage area for the parcels within St. James Village Unit 1D. Per the hydrology report dated April 15, 1997, (Exhibit D) prepared by CFA, Inc., for the St. James Village subdivision, there are multiple drainage easements throughout the subdivision to serve as detention ponds for stormwater drainage. A portion of one of those detention basins is located on lot 414 and is the reason that the subject Easement was created and shown on Tract Map 3404A.

The hydrology study (Exhibit E), dated September 5, 2023, was completed by a Nevada licensed civil engineer from CFA, Inc., for the adequacy of the drainage easement after abandonment and it was found that the remaining drainage easement will adequately serve the subdivision after abandonment. The project information was also reviewed by Washoe County Engineering and, after a minor adjustment to have the southern boundary of the proposed abandonment align with the 5458-foot contour line, the drainage easement, after abandonment, was found to be adequate to serve the subdivision. None of the parcels within the subdivision that utilize the drainage easement will be impacted by the removal of this portion of the Easement.



**Lot 414 as shown on Tract Map 3404A**

**Forest Area Plan**

The subject parcel is located within the Forest Area Plan. Staff was unable to find any relevant policies for the proposed drainage easement abandonment.

**Reviewing Agencies**

The following agencies/individuals received a copy of the project application for review and evaluation.

Agencies	Sent to Review	Responded	Provided Conditions	Contact
NDOW (Wildlife)	X			
Washoe County Building & Safety	X			
Washoe County District Attorney, Civil Division	X			
Washoe County Parks & Open Space	X			
Washoe County Water Resource Planning	X			
Washoe County Water Rights Manager (All Apps)	X			
Washoe County Engineering (Land Development) (All Apps)	X			
WCHD Air Quality	X			
WCHD Environmental Health	X			
TMFPD	X			
AT&T	X			
NV Energy	X			
Truckee Meadows Water Authority	X			

Additionally, no comment was received from Truckee Meadows Fire Protection District (TMFPD) and Reno Fire Protection District provided a response of “no comment” for the project.

All conditions required by the contacted agencies can be found in Exhibit A, Conditions of Approval.

**Staff Comment on Required Findings**

WCC Section 110.806.20 requires that all of the following findings be made to the satisfaction of the Washoe County Planning Commission before granting approval of the abandonment request. Staff has completed an analysis of the application and has determined that the proposal is in compliance with the required findings as follows.

- (a) Master Plan. The abandonment or vacation is consistent with the policies, action programs, standards and maps of the Master Plan and the Forest Area Plan.

*Staff Comments: The abandonment is consistent with the policies, action programs, standards, and maps of the Master Plan and the Forest Area Plan, as staff has not found any applicable policies, action programs, standards, or maps related to this abandonment request.*

- (b) No Detriment. The abandonment or vacation does not result in material injury to the public.

*Staff Comments: The proposed abandonment does not result in material injury to the public. The abandonment is only for a portion of the existing drainage easement and the remaining portion of the drainage easement will be preserved to adequately serve the subdivision.*

- (c) Existing Easements. Existing public utility easements in the area to be abandoned or vacated can be reasonably relocated to provide similar or enhanced service.

*Staff Comments: AT&T, NV Energy, and Truckee Meadows Water Authority (TMWA) were sent the project description and application for evaluation. Staff received a response from AT&T of “no comment” and no responses were received from NV Energy or TMWA. All existing public utility easements on the property will remain intact and won’t be impacted by the abandonment of a portion of the drainage easement.*

**Recommendation**

After a thorough analysis and review, Abandonment Case Number WAB23-0003 is being recommended for approval with conditions. Staff offers the following motion for the Commission’s consideration.

**Motion**

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Planning Commission approve Abandonment Case Number WAB23-0003 for Stephen Packer, with the conditions included as Exhibit A to this matter, having made all three findings in accordance with Washoe County Code Section 110.806.20:

- (a) Master Plan. The abandonment or vacation is consistent with the policies, action programs, standards and maps of the Master Plan and the Forest Area Plan; and
- (b) No Detriment. The abandonment or vacation does not result in a material injury to the public; and
- (c) Existing Easements. Existing public utility easements in the area to be abandoned or vacated can be reasonably relocated to provide similar or enhanced service.

**Appeal Process**

Planning Commission action will be effective 10 calendar days after the written decision is filed with the Secretary to the Planning Commission and mailed to the applicant(s), unless the action is appealed to the Washoe County Board of County Commissioners, in which case the outcome of the appeal shall be determined by the Washoe County Board of County Commissioners. Any appeal must be filed in writing with the Planning and Building Division within 10 calendar days from the date the written decision is filed with the Secretary to the Planning Commission and mailed to the applicant(s).

Applicant/Owner: Stephen Packer; StevePacker@sbcglobal.net

Representative: CJ Price; ardhomes@yahoo.com





# Conditions of Approval

Abandonment Case Number WAB23-0003

The project approved under Abandonment Case Number WAB23-0003 shall be carried out in accordance with the conditions of approval granted by the Planning Commission on November 7, 2023. Conditions of approval are requirements placed on a permit or development by each reviewing agency. These conditions of approval may require submittal of documents, applications, fees, inspections, amendments to plans, and more. These conditions do not relieve the applicant of the obligation to obtain any other approvals and licenses from relevant authorities required under any other act or to abide by all other generally applicable Codes, and neither these conditions nor the approval by the County of this project/use override or negate any other applicable restrictions on uses or development on the property. Furthermore, to the extent that Washoe County does not own the easements in question, it cannot abandon them. Therefore, this request is in effect a “quitclaim” by the County of whatever interest it might have in the easements in favor of the owners who applied for the abandonment. Nothing in this abandonment should be construed as an assertion by the County of ownership over the easements in question. To the extent other property owners nearby or other entities might have any ownership interests in these easements, this abandonment does not affect those interests and the property owners associated with this abandonment are responsible for utilizing whatever legal mechanisms are necessary to address those interests on their own.

**Unless otherwise specified**, all conditions related to the approval of this Abandonment shall be met prior to recordation of the Resolution and Order of Abandonment. Prior to recordation of the Resolution and Order of Abandonment, each agency shall determine when compliance of their specific conditions is met by the applicant as set forth in the Conditions of Approval. All agreements, easements, or other documentation required by these conditions shall have a copy filed with the County Engineer and the Community Services Department – Planning and Building Division.

Compliance with the conditions of approval related to this abandonment is the responsibility of the applicant, his/her successor in interest, and all owners, assignees, and occupants of the property and their successors in interest. All conditions of approval must be met prior to the Engineering and Capital Projects Division recording the required Resolution and Order of Abandonment.

For the purpose of conditions imposed by Washoe County, “may” is permissive and “shall” or “must” is mandatory.

- All conditions of approval are required to be completed before the Abandonment can be recorded and finalized.
- The abandonment will be effective after the approval of a Resolution and Order of Abandonment by the Engineering and Capital Projects and after the recordation of the Resolution and Order of Abandonment by the County Recorder.

FOLLOWING ARE CONDITIONS OF APPROVAL REQUIRED BY THE REVIEWING AGENCIES. EACH CONDITION MUST BE MET TO THE SATISFACTION OF THE ISSUING AGENCY.

## **Washoe County Planning and Building Division**

1. The following conditions are requirements of CSD – Planning and Building Division, which shall be responsible for determining compliance with these conditions.

**Contact Name – Tim Evans, Planner, 775.328.2314 , TEvans@washoecounty.gov**

- a. **The applicant shall attach a copy of the action order approving this project to all permits and applications (including building permits) applied for as part of this abandonment.**
- b. The applicant shall demonstrate substantial conformance to the plans approved as part of this abandonment action. The County Engineer shall determine compliance with this condition.
- c. The applicant shall comply with all conditions necessary to affect the Resolution and Order of Abandonment within two (2) years from the date of the action by the Washoe County Planning Commission or this conditional abandonment will be null and void.
- d. This Abandonment will be effective upon recordation of the Resolution and Order of Abandonment by the County Recorder.

### **Washoe County Engineering and Capital Projects**

2. The following conditions are requirements of Engineering and Capital Projects, which shall be responsible for determining compliance with these conditions.

**Contact Name – Robert Wimer, P.E., 775.328.2059 , RWimer@washoecounty.gov**

- a. Prior to recordation of the Order of Abandonment, the applicant shall submit legal descriptions and exhibit maps for the areas of abandonment, any new easements and any easement reservations that are required, to the Engineering and Capital Projects Division for review and approval. Legal descriptions and exhibit maps shall be prepared by a Nevada professional land surveyor.
- b. Retention or relocation of all public utility easements is required to the satisfaction of and at no expense to Washoe County or the existing public utilities that originally accepted and approved said easements, as well as any other public utilities now in existence that currently utilize said easements. Said relocations shall be evidenced by the recordation of properly executed documents reflecting the grant of new easements (if required) to said public utilities and the relinquishment by said public utilities of their former easements.
- c. This abandonment approval is for the elimination of the Offer of Dedication of any County rights to drainage and utility easements. Public Utility Easements remain unless relinquished by the Public Utility Company holding the easement right.
- d. The applicant shall comply with conditions necessary to affect the Resolution and Order of Abandonment within two (2) years from the date of the action by the Planning Commission or this conditional abandonment will be null and void.
- e. To accommodate the full detention area required with the remaining drainage easement, the northern border of the proposed abandonment shall align with the 5458-foot elevation contour in the hydrology report dated September 5, 2023, and submitted with the application on September 8, 2023.

\*\*\* End of Conditions \*\*\*

Date: September 15, 2023

To: Tim Evans, Planner

From: Timber Weiss, P.E., Licensed Engineer

Re: Abandonment Case Number WAB23-0003 (Waterman)  
APN 156-061-14

**GENERAL PROJECT DISCUSSION**

For hearing, discussion, and possible action to approve an abandonment of the existing drainage easement encompassing the northern portion (rear) of the property located at 211 Waterman Court, Reno, NV: APN 156-061-14.

***The Community Services Department (CSD) recommends approval of this project with the following Water Rights conditions:***

No water rights conditions for this abandonment.

## Evans, Timothy

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**From:** COOPER, CLIFFORD E <cc2132@att.com>  
**Sent:** Monday, September 18, 2023 6:28 AM  
**To:** Evans, Timothy  
**Subject:** RE: Abandonment Conditions Case Number WAB23-0003 (Waterman)

[NOTICE: This message originated outside of Washoe County -- **DO NOT CLICK** on links or open **attachments** unless you are sure the content is safe.]

Tim,  
AT&T does not have any adverse comments regarding this project.

CLIFF COOPER  
SR SPECIALIST-OSP DESIGN ENGINEER  
AT&T NEVADA  
1375 Capital Blvd rm 115  
Reno, NV 89502  
ROW Office: 775-453-7578  
Email: [cc2132@att.com](mailto:cc2132@att.com)  
*TEXTING and DRIVING...It Can Wait*

**From:** [Tray Palmer](#)  
**To:** [Evans, Timothy](#)  
**Cc:** [John Beck](#)  
**Subject:** WAB23-0003  
**Date:** Wednesday, September 20, 2023 9:47:28 AM

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[**NOTICE:** This message originated outside of Washoe County -- **DO NOT CLICK** on **links** or open **attachments** unless you are sure the content is safe.]

In Regards to the below case, The Reno Fire Department has no comments regarding the proposed project.

1. Abandonment Conditions Case Number WAB23-0003 (Waterman) - For hearing, discussion, and possible action to approve an abandonment of the southern forty (40) feet of the existing drainage easement encompassing the northern portion (rear) of the property located at 211 Waterman Court, Reno, NV; APN 156-061-14.

--

**Tray Palmer, Fire Marshal**

Division of Fire Prevention

Reno Fire Department

1 E. 1st Street 4th floor

Reno, NV 89501

o: 334-2377

c: 813-8599

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Date: September 28, 2023

To: Tim Evans, Planner

From: Janelle K. Thomas, P.E., C.F.M., Senior Licensed Engineer  
Robert Wimer, P.E., Licensed Engineer

Re: Abandonment Case for **WAB23-0003 Waterman**  
APN 156-061-14

## GENERAL PROJECT DISCUSSION

### GENERAL PROJECT DISCUSSION

Washoe County Engineering and Capital Project staff have reviewed the above referenced application. The application is for the abandonment of a portion of the existing drainage easement encompassing the northern portion (rear) of the property located at 211 Waterman Court, Reno, NV: APN 156-061-14. The Engineering and Capital Projects Division recommends approval with the following comments which supplement the applicable County Code and are based upon our review of the application prepared by the owner.

For questions related to sections below, please see the staff's name provided.

### GENERAL COMMENTS

Contact Information: Robert Wimer, P.E. (775) 328-2059

1. To accommodate the full detention area required with the remaining drainage easement, the northern border of the proposed abandonment should align with the 5458-foot elevation contour in the hydrology report dated September 5, 2023, and submitted with the application on September 8, 2023.

## Evans, Timothy

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**From:** Pekar, Faye-Marie L.  
**Sent:** Tuesday, October 3, 2023 3:37 PM  
**To:** Evans, Timothy  
**Subject:** RE: Abandonment Case Number WAB23-0003 (Waterman)

Hi Tim,

I saw that the Waterman abandonment is on this month's agency reviews for September. Confirming that's Parks does not have comments for the abandonment.

Thank you,



**Faye-Marie L. Pekar, MPA**

**Park Planner, Planning & Building Division | Community Services Department**

[fpekar@washoecounty.gov](mailto:fpekar@washoecounty.gov) |

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Planning Division: 775.328.6100 | [Planning@washoecounty.gov](mailto:Planning@washoecounty.gov)

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1001 East Ninth Street, Reno, NV 89512



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**From:** Evans, Timothy <TEvans@washoecounty.gov>  
**Sent:** Friday, August 25, 2023 12:34 PM  
**To:** Pekar, Faye-Marie L. <FPekar@washoecounty.gov>  
**Subject:** RE: Abandonment Case Number WAB23-0003 (Waterman)

Hi Faye-Marie,

Thank you for the comments.

Best,



**Tim Evans**

**Planner, Planning & Building Division | Community Services Department**

CSD Main Phone: 775-328-3600 Direct Line: 775-328-2314

Visit us first online: [www.washoecounty.gov/csd](http://www.washoecounty.gov/csd)

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**From:** Pekar, Faye-Marie L. <[FPEkar@washoecounty.gov](mailto:FPEkar@washoecounty.gov)>  
**Sent:** Friday, August 25, 2023 10:38 AM  
**To:** Evans, Timothy <[TEvans@washoecounty.gov](mailto:TEvans@washoecounty.gov)>  
**Subject:** Abandonment Case Number WAB23-0003 (Waterman)

Hi Tim,

I have reviewed the Abandonment Case Number WAB23-0003 (Waterman) on behalf of parks and do not have any comments.

Thank you,



**Faye-Marie L. Pekar, MPA**  
**Park Planner, Planning & Building Division | Community Services Department**  
[fpekar@washoecounty.gov](mailto:fpekar@washoecounty.gov) |

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## Evans, Timothy

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**From:** Thomas, Janelle K.  
**Sent:** Thursday, October 5, 2023 8:43 AM  
**To:** Evans, Timothy  
**Cc:** Wimer, Robert; Fink, Mitchell; Mayorga, Alexander R.; Weiss, Timber A.; Pascual, Katrina A.  
**Subject:** RE: WAB23-0003 Waterman Engineering Memo

Tim,

Sorry for the delay to my response since I have been out with the flu all week. It appears that the revised exhibit conforms with the requirement to limit the abandonment of the drainage easement to the existing ground contour elevation of 5458. Please let us know if you require a revised engineering memo or if this email will provide sufficient documentation.

Janelle



**Janelle K. Thomas, P.E., C.F.M. (she/her)**  
**Senior Licensed Engineer | Community Services Department**  
[jkthomas@washoecounty.gov](mailto:jkthomas@washoecounty.gov) | Office: 775.328-3603 | Cell: 775.813.3894  
1001 E. Ninth Street, Building A, Reno, NV 89512



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**From:** Evans, Timothy <TEvans@washoecounty.gov>  
**Sent:** Monday, October 2, 2023 6:32 AM  
**To:** Thomas, Janelle K. <JKThomas@washoecounty.gov>  
**Cc:** Wimer, Robert <RWimer@washoecounty.gov>; Fink, Mitchell <MFink@washoecounty.gov>; Mayorga, Alexander R. <AMayorga@washoecounty.gov>; Weiss, Timber A. <TWeiss@washoecounty.gov>; Pascual, Katrina A. <KPascual@washoecounty.gov>  
**Subject:** RE: WAB23-0003 Waterman Engineering Memo

Good Morning,

The applicant has revised their site plan and application map to address the comment from Engineering. Please review the attached site plan and application map and let me know if the following comment from Engineering is satisfied:

1. To accommodate the full detention area required with the remaining drainage easement, the northern border of the proposed abandonment should align with the 5458-foot elevation contour in the hydrology report dated September 5, 2023, and submitted with the application on September 8, 2023.

Please let me know if Engineering's comment is satisfied prior to the end of business on Friday, October 6, 2023.

Thanks,



**Tim Evans**  
Planner, Planning & Building Division | Community Services Department  
CSD Main Phone: 775-328-3600 Direct Line: 775-328-2314  
Visit us first online: [www.washoecounty.gov/csd](http://www.washoecounty.gov/csd)

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**From:** Thomas, Janelle K. <[JKThomas@washoecounty.gov](mailto:JKThomas@washoecounty.gov)>  
**Sent:** Thursday, September 28, 2023 4:20 PM  
**To:** Evans, Timothy <[TEvans@washoecounty.gov](mailto:TEvans@washoecounty.gov)>  
**Cc:** Wimer, Robert <[RWimer@washoecounty.gov](mailto:RWimer@washoecounty.gov)>; Fink, Mitchell <[MFink@washoecounty.gov](mailto:MFink@washoecounty.gov)>; Mayorga, Alexander R. <[AMayorga@washoecounty.gov](mailto:AMayorga@washoecounty.gov)>; Weiss, Timber A. <[TWeiss@washoecounty.gov](mailto:TWeiss@washoecounty.gov)>; Pascual, Katrina A. <[KPascual@washoecounty.gov](mailto:KPascual@washoecounty.gov)>  
**Subject:** WAB23-0003 Waterman Engineering Memo

Kat,

Please see attached Engineering comments and conditions related to the above referenced entitlement application. Please let us know if you have any questions or need any additional information.

Janelle



**Janelle K. Thomas, P.E., C.F.M. (she/her)**  
Senior Licensed Engineer | Community Services Department  
[jkthomas@washoecounty.gov](mailto:jkthomas@washoecounty.gov) | Office: 775.328-3603 | Cell: 775.813.3894  
1001 E. Ninth Street, Building A, Reno, NV 89512

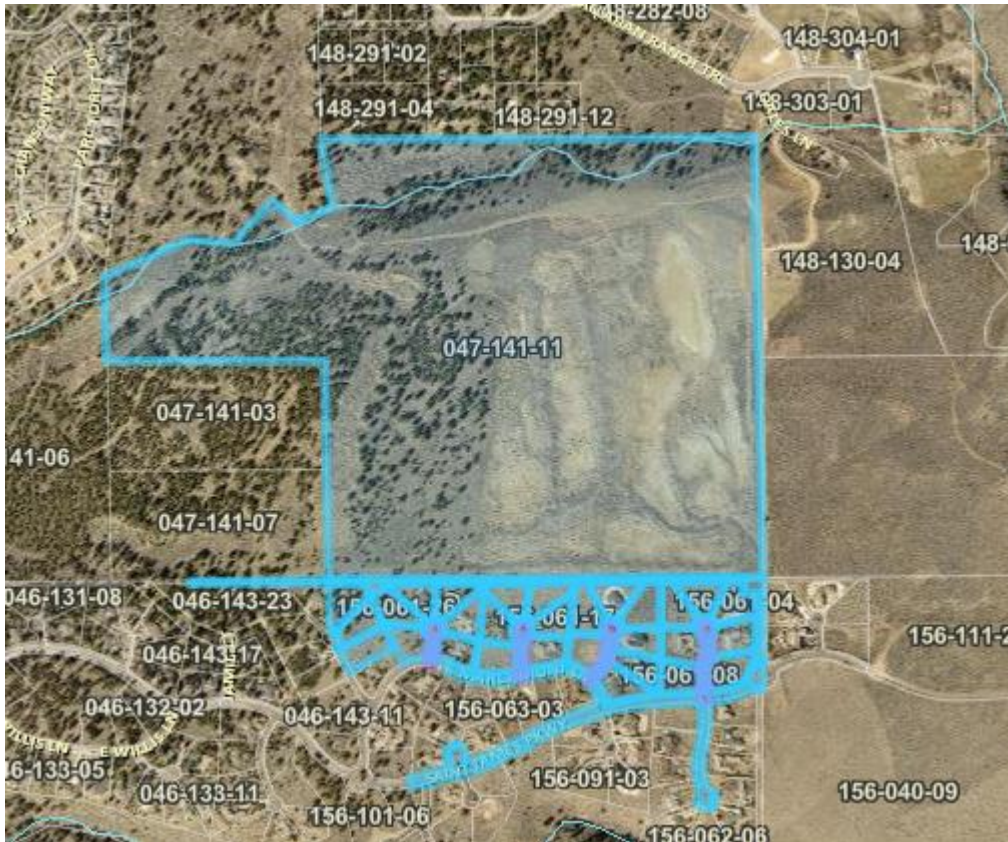


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**Public Notice**

Washoe County Code requires that public notification for an abandonment must be mailed to abutting property owners of the subject property a minimum of 10 days prior to the public hearing date. A notice setting forth the time, place, purpose of hearing, a description of the request and the land involved was sent to a total of 34 separate property owners who were noticed a minimum of 10 days prior to the public hearing date.



**Public Notice Map**

**Abandonment Case Number WAB23-0004**

Hydrology Report  
for  
St. James's Village - Unit 1D

Washoe County, Nevada

Prepared for:

St. James's Village, Inc.  
241 Ridge St., Suite 305  
Reno NV 89501

15 April 1997



PLANNERS      ENGINEERS      SURVEYORS      LANDSCAPE ARCHITECTS

1150 CORPORATE BLVD RENO NV 89502      (702) 856-1150      FAX (702) 856-1160

## **INTRODUCTION**

This report presents hydrologic and hydraulic calculations and the storm drainage plan for St. James's Village - Unit 1D (46 lots) in Washoe County, Nevada. The 63-acre site is located north of Browns Creek. The proposed lots lie outside the FEMA flood zone. Roads will be privately maintained and drained by a system of ditches and culverts sized for the 100-year peak runoff. Three detention ponds (privately maintained) reduce peak flows to pre-development levels in the 100-year storm.

## **SITE DESCRIPTION**

The project site consists of about 63 acres located north of Browns Creek, a tributary to Steamboat Creek. The site is bounded by sparsely developed land on the north, undeveloped land to the east, Browns Creek to the south, and St. James's Village Unit 1C to the west.

The site is presently undeveloped except for a haul road. The existing ground slopes downhill to the north and east at approximately 5 - 15 percent. Vegetation consists of sparse pine trees and sagebrush. According to the geotechnical investigation by Kleinfelder, Inc., surface soils consist generally of silty and clayey sands with numerous cobbles and boulders.

## **PROJECT DESCRIPTION**

St. James's Village Unit 1D consists of 46 custom residential lots (1-acre minimum) and 2 common area parcels on 63 acres. Primary residential access will be via the extension of Woods Park Drive from the present terminus in Unit 1C. Only the streets and utilities will be constructed, leaving the lots in their natural condition. The CC&R's restrict cover to a maximum of 20% of the lot. Streets and storm drains will be privately owned and maintained.

## **FLOOD POTENTIAL**

According to the FEMA Flood Insurance Rate Map, Panel 3250, dated September 30, 1994, St. James's Village Unit 1D lies in Flood Zone X unshaded (outside the limits of the 500-year flood). The 100-year flood limits for Browns Creek have not been mapped in detail. Browns Creek flows in a well-defined canyon and the lots are at or above the rim. For the purposes of the official plat the floodplain limits were approximated as the base of the canyon slope.

## **EXISTING DRAINAGE**

Most of the site drains to the north and east, leaving the site as sheet flow or shallow concentrated flow at several locations. Portions of the site drain southerly to Browns Creek. Browns Creek has a 100-year flow of about 450 CFS, per Nimbus Engineers.

## **PROPOSED DRAINAGE**

The proposed on-site storm drain system consists of roadside swales, culverts, and lot line drainage ditches sized for the peak runoff from the 100-year storm. The majority of the drainage is routed through one of the three detention ponds. Roadway drainage will be treated for petrochemicals and silts. Erosion control measures include interceptor swales at the top of all cut slopes and rock rip-rap at areas of concentrated flow.

## **HYDROLOGY**

The site was analyzed using the SCS TR-55 method. The computer program Quick TR-55 was used to generate hydrographs for on-site and off-site drainage basins in the 10-year and 100-year storms. Drainage basins are delineated on the Hydrology Map and are labeled to conform to the Master Hydrology Report. (Unit 1D covers Watershed G and parts of Watersheds H and I.) The original CN of 51 (sagebrush with grass understory, fair condition) was considered to be too low and was revised to 59 (sagebrush, fair to poor condition). The 10-year

and 100-year flows were computed for existing and developed conditions at the three detention pond locations and at Browns Creek. Flows at critical design points on-site were also calculated using TR-55. To obtain hydrographs with 0.1-CFS resolution, TR-55 was run with watershed areas multiplied by ten and the resulting hydrographs were then divided by ten. All flows are shown on the Hydrology Map and on the improvement plans. Hydrologic computations are presented in Appendix B and the results are summarized in Table 1 below:

**Table 1 - Peak Flow Summary (without detention)**

Exist Watershed(s)	Developed Watershed(s)	Event	Existing Peak (cfs)	Developed Peak (cfs)
G1-G7, H4-H5, H8	G1-G7 (Pond 5)	Q10 Q100	2.7 21.3	8.0 35.0
H1-H3	H1-H3 (Pond 6)	Q10 Q100	0.6 4.9	2.7 10.4
H6-H7, H9-H10, I1	H4-H10 (Pond 7T)	Q10 Q100	1.2 9.3	7.2 26.1
I2	I1-I2 (Browns Ck)	Q10 Q100	0.2 1.8	1.6 6.0

## **DETENTION**

All drainage to the north is intercepted by one of the three proposed detention ponds. Pond 5 is located north of Waterman Court, Pond 6 is sited just outside the northeast corner of Unit 1D, and the temporary Pond 7T is situated east of Unit 1D at the proposed terminus of Woods Park Drive. With future development, flows reaching Pond 7T will be conveyed down Woods Park Drive to the ultimate planned location of Pond 7 about 2000 feet easterly (see Master Hydrology). These ponds will be maintained by the St. James's Village Homeowners Association.

Detention pond data and routing computations are presented in Appendix C and are summarized in Table 2 below.

**Table 2 - Detention Pond Summary**

<u>Watershed</u>	<u>Pond</u>	<u>Spill WS</u>	<u>10-Year Storm</u>				<u>100-Year Storm</u>			
			<u>Qin</u>	<u>WS</u>	<u>Qout</u>	<u>Qexist</u>	<u>Qin</u>	<u>WS</u>	<u>Qout</u>	<u>Qexist</u>
G	P5	5453.00	8.0	5451.20	0.7	2.7	35.0	5452.83	14.6	21.3
H	P6	5410.00	2.7	5408.44	0.4	0.6	10.4	5409.38	5.0	4.9
H	P7T	5415.00	7.2	5412.27	3.2	1.2	26.1	5414.77	7.8	9.3
<b>Total G+H</b>			<b>17.9</b>		<b>4.3</b>	<b>4.5</b>	<b>71.5</b>		<b>27.4</b>	<b>35.5</b>
I	---		1.6		1.6	0.2	6.0		6.0	1.8
<b>Project Total</b>			<b>19.5</b>		<b>5.9</b>	<b>4.7</b>	<b>77.5</b>		<b>33.4</b>	<b>37.3</b>

"Total G + H" represents the flow discharged to TMS property to the north. This flow is held to existing levels in the 10-year and 100-year event. The "Project Total" includes the flows to Browns Creek, which are increased somewhat due to development. However, the increase will not significantly affect the peak flows in Browns Creek because the on-site peak will occur much sooner than the off-site peak.

## CONCLUSIONS

1. St. James's Village Unit 1D (46 lots) can be developed as planned without adverse impact to downstream properties.
2. The project will be drained by a storm drain system sized for the 100-year storm.
3. Detention facilities as proposed will maintain the 10-year and 100-year flows at pre-development levels with respect to downstream properties.



## **REFERENCES**

CFA, Inc., Hydrology Report - St. James's Village Unit 1B, April 1994.

CFA, Inc., Master Hydrology Report - St. James's Village, April 1994.

# **APPENDIX A**

## **PIPE HYDRAULICS**

# **APPENDIX B**

## **TR-55 HYDROGRAPHS**

# **APPENDIX C**

## **DETENTION POND ROUTING**



**LAND SURVEYORS**  
**CIVIL ENGINEERS**  
**LAND USE PLANNERS**

September 5, 2023

Steve Packer  
211 Waterman Court  
Washoe County, NV

**Subject: Abandonment Application WAB23-0003, 211 Waterman Court, APN 156-061-14**

Mr. Packer

This memo has been prepared at your request to review the findings in the 1997 approved drainage report, titled "Hydrology Report for St. James's Village – Unit 1D" in order to potentially reduce an easement on the subject lot. This report assumed development of only the roads and utilities and preliminarily sized three detention ponds. Pond 5 (per the report) is the focus of this memorandum. We understand you desire to reduce the limits of the existing easement to facilitate construction of a single family residence that fits the existing topography and existing roads.

The approved Q100 runoff quantities from the 1997 report were used for this study review. Contours based on 2017 LIDAR data (as utilized by Washoe County and provided by Nevada Bureau of Mines) were used to model the current basin extents. Field measurements were taken on the existing outlet structure, a 24-inch concrete riser, with a single 3-inch diameter orifice. These measurements show that the orifice is approximately 0.5' above the bottom of the basin. The top of the riser is approximately 4 feet above the basin bottom. It should be noted that the design drawings for this development were reviewed but not used due to datum differences between the 1997 elevations and the 2017 LIDAR data. Based on the 2017 Lidar data, the basin bottom is at approximately 5452.5 and the top of the riser is at approximately 5456.5. Overflow relief from the basin occurs towards the northeast, at approximately elevation 5457.5.

The first basin model run reflects the performance of the existing basin and outlet structure. The 100-yr water surface elevation is approximately 5456.5, with an outflow of 1.1 cfs (Q100). With a 12-inch freeboard, it was estimate the easement could be moved towards the basin by approximately 35 feet. The storage volume required for this model is approximately 48,000 s.f., which is significantly less than the 54,000 cu.ft. available in the existing basin, before it spills northerly. The outflow from this basin is 1.1 cfs (Q100) plus/minus.

The second model run was performed using a modified riser with its top elevation cut down to elevation 5455 (2017 datum). This second model shows a ponded Q100 water surface of approximately 5455.8, with an outflow of approximately 20.7 cfs. The 1997 report states an undeveloped Q100 of 21.3 cfs from the area served by Pond 5. The proposed modifications meet the requirements for reducing developed flows to undeveloped levels.

With the modified outlet structure it should be feasible to adjust the existing southerly easement limits 40-feet northerly. The revised easement will still contain the 100-year storage extents (with a 12-inch vertical freeboard) while desired development of the lot. It is understood that the new residence will be constructed with finished floor elevation of 5459.5, which is 3.7 feet above the revised 100-year water surface elevation in Pond 5. It will also be 2 feet above the overflow elevation of 5457.5.

**WAB23-0003**  
**EXHIBIT E**

Based on this memo, we feel you have adequate justification to request a relinquishment of the southerly 40 feet of the existing drainage easement. Please see the enclosed exhibits showing the hydraulic modeling results and the revised easement.

Regards,



Kathleen Meyer, P.E.  
Engineering Manager



9/5/23

# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

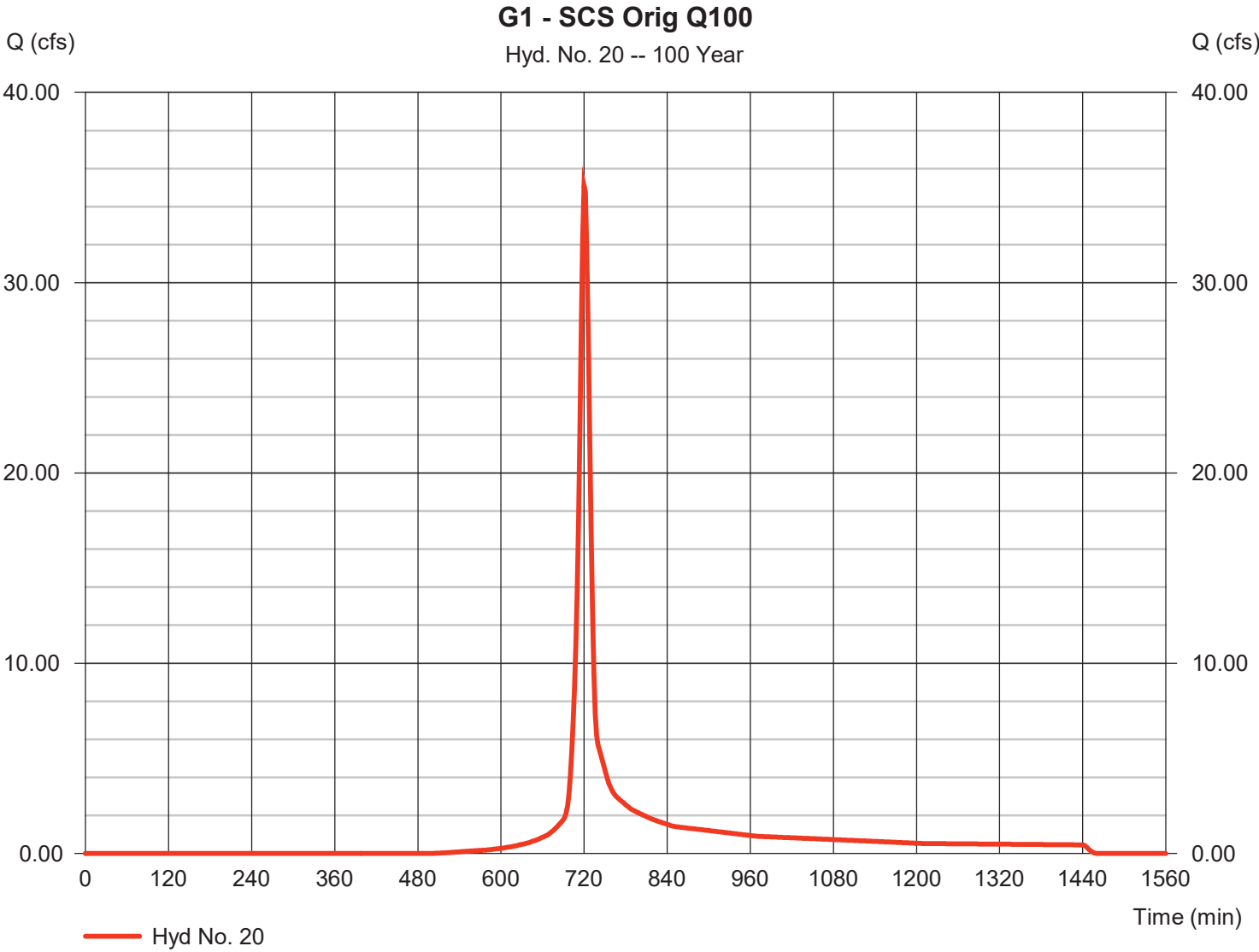
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	Rational	13.55	1	12	9,759	-----	-----	-----	Tc calc using G1	
2	Rational	22.30	1	30	40,140	-----	-----	-----	Pond 5 Und Q10	
3	Rational	39.03	1	30	70,245	-----	-----	-----	Pond 5 Dev Q10	
5	Rational	44.60	1	30	80,280	-----	-----	-----	Pond 5 Und Q100	
6	Rational	55.75	1	30	100,350	-----	-----	-----	Pond 5 Dev Q100	
11	Rational	75.01	1	12	54,007	-----	-----	-----	Pond 5 Und Q10 Tc 12min	
12	Rational	93.76	1	12	67,509	-----	-----	-----	Pond 5 Dev Q10 Tc 12	
14	Rational	56.26	1	12	40,505	-----	-----	-----	Pond 5 Und Q100 Tc 12	
15	Rational	93.76	1	12	67,509	-----	-----	-----	Pond 5 Dev Q100 Tc 12	
17	Reservoir	0.000	1	n/a	0	15	0.00	0.000	100yr	
18	Reservoir	45.78	1	18	66,178	15	5456.32	45,398	100 Yr Lidar	
20	SCS Runoff	35.08	2	720	90,978	-----	-----	-----	G1 - SCS Orig Q100	
21	Reservoir	20.71	2	728	90,491	20	5455.77	31,385	Orig Q100 - Lidar Cons	
22	Reservoir	1.122	2	942	89,984	21	5456.54	45,291	Orig Q100 - Orig Basin	
Waterman - upd.gpw					Return Period: 100 Year			Saturday, 09 / 2 / 2023		<b>WAB23-0003 EXHIBIT E</b>

# Hydrograph Report

## Hyd. No. 20

G1 - SCS Orig Q100

Hydrograph type	= SCS Runoff	Peak discharge	= 35.08 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 90,978 cuft
Drainage area	= 5.957 ac	Curve number	= 67
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 13.00 min
Total precip.	= 7.95 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484





# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

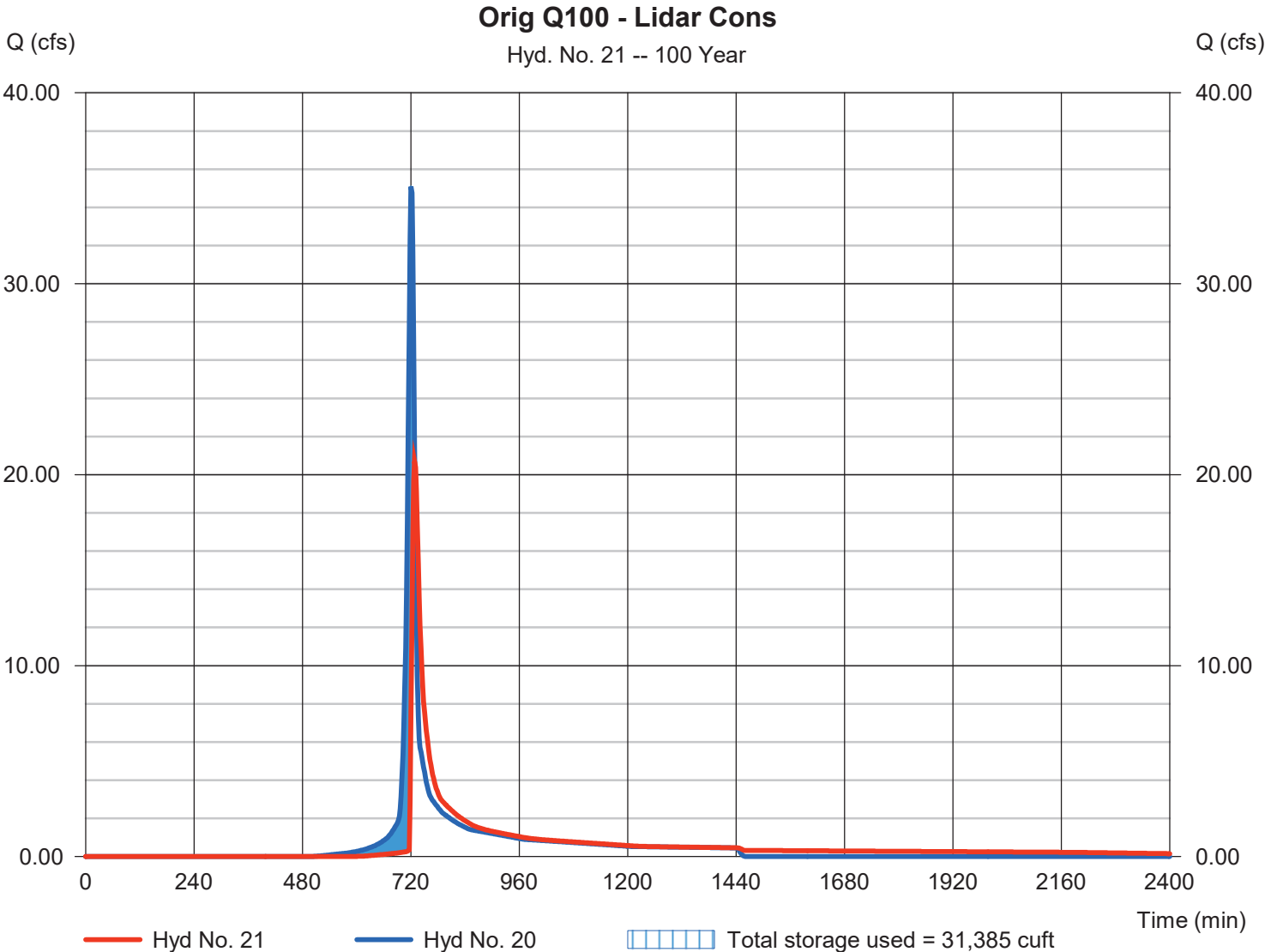
Saturday, 09 / 2 / 2023

## Hyd. No. 21

Orig Q100 - Lidar Cons

Hydrograph type	= Reservoir	Peak discharge	= 20.71 cfs
Storm frequency	= 100 yrs	Time to peak	= 728 min
Time interval	= 2 min	Hyd. volume	= 90,491 cuft
Inflow hyd. No.	= 20 - G1 - SCS Orig Q100	Max. Elevation	= 5455.77 ft
Reservoir name	= Pond 5A Lidar	Max. Storage	= 31,385 cuft

Storage Indication method used.



## Pond No. 3 - Pond 5A Lidar

### Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 5452.50 ft

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	5452.50	00	0	0
0.50	5453.00	1,850	463	463
1.50	5454.00	8,423	5,137	5,599
2.50	5455.00	15,430	11,927	17,526
4.50	5457.00	20,600	36,030	53,556

Lowered Riser  
Top Elevation

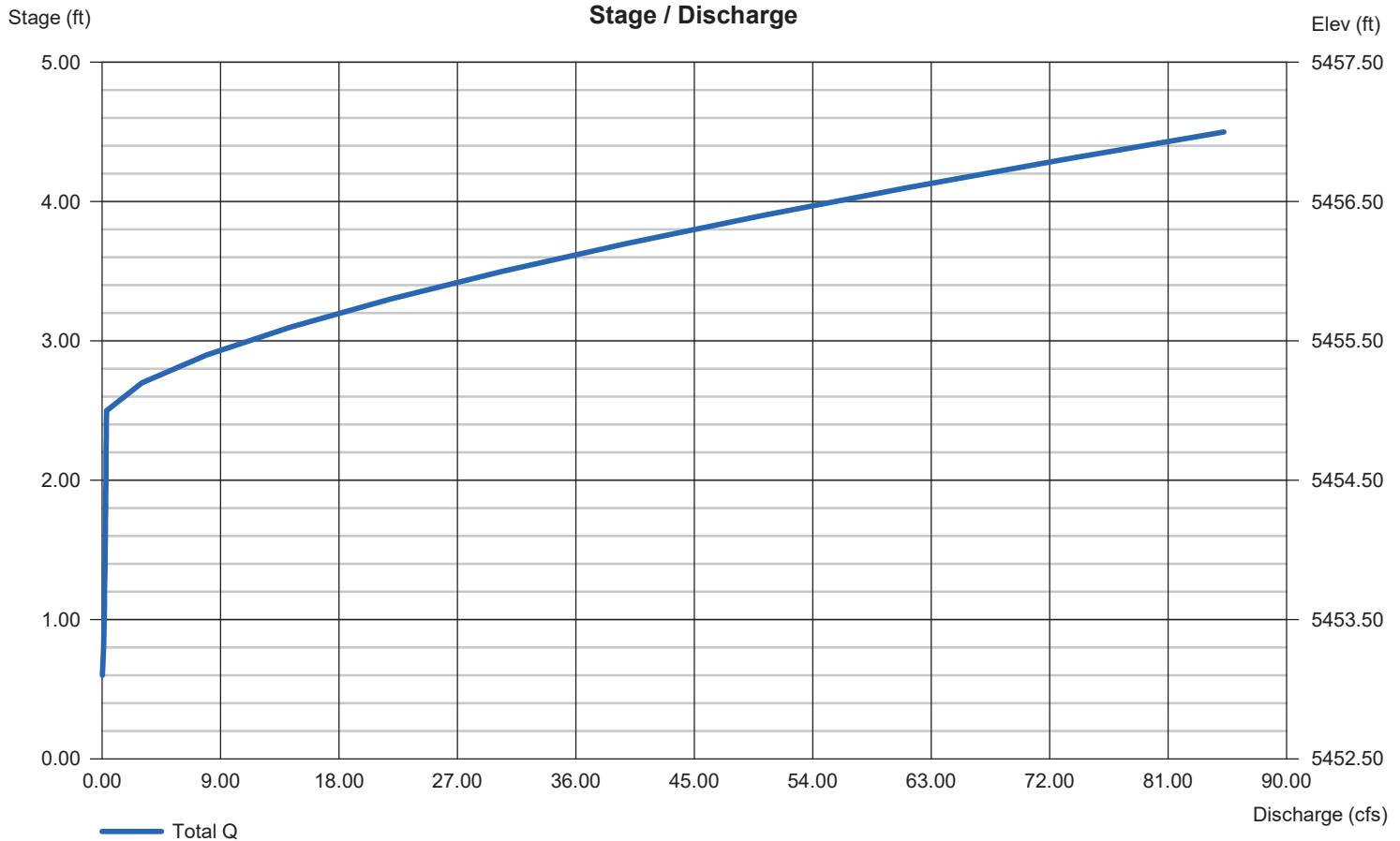
### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 18.00	3.00	0.00	Inactive
Span (in)	= 18.00	3.00	0.00	0.00
No. Barrels	= 1	1	0	1
Invert El. (ft)	= 5450.00	5453.00	0.00	0.00
Length (ft)	= 32.00	0.00	0.00	0.00
Slope (%)	= 0.90	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

### Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 9.00	0.00	0.00	0.00
Crest El. (ft)	= 5455.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No
Exfil. (in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Saturday, 09 / 2 / 2023

## Hyd. No. 22

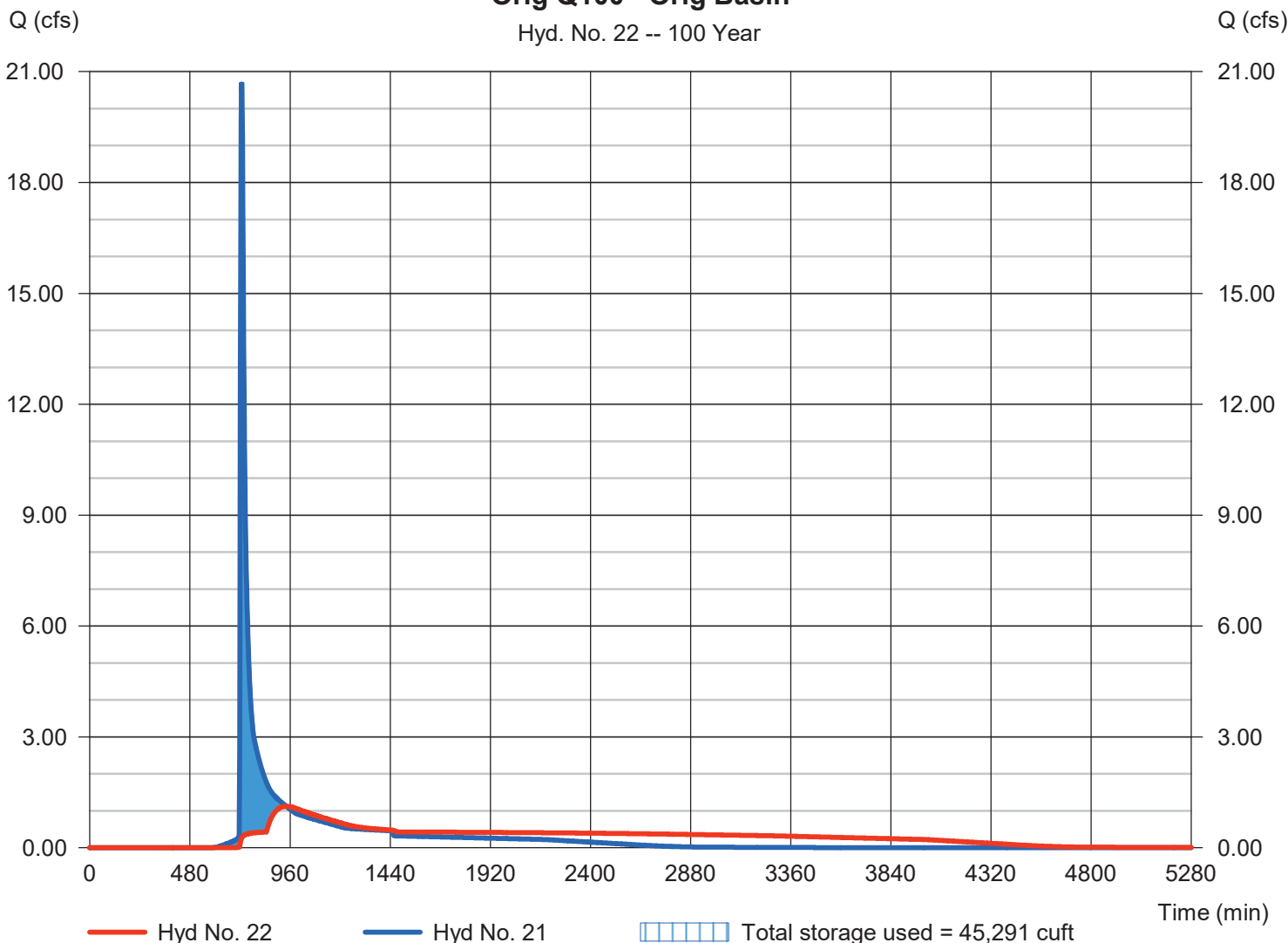
Orig Q100 - Orig Basin

Hydrograph type	= Reservoir	Peak discharge	= 1.122 cfs
Storm frequency	= 100 yrs	Time to peak	= 942 min
Time interval	= 2 min	Hyd. volume	= 89,984 cuft
Inflow hyd. No.	= 21 - Orig Q100 - Lidar Cons	Max. Elevation	= 5456.54 ft
Reservoir name	= Pond 5A Lidar Old	Max. Storage	= 45,291 cuft

Storage Indication method used.

### Orig Q100 - Orig Basin

Hyd. No. 22 -- 100 Year



## Pond No. 4 - Pond 5A Lidar Old

### Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 5452.50 ft

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	5452.50	00	0	0
0.50	5453.00	1,850	463	463
1.50	5454.00	8,423	5,137	5,599
2.50	5455.00	15,430	11,927	17,526
4.50	5457.00	20,600	36,030	53,556

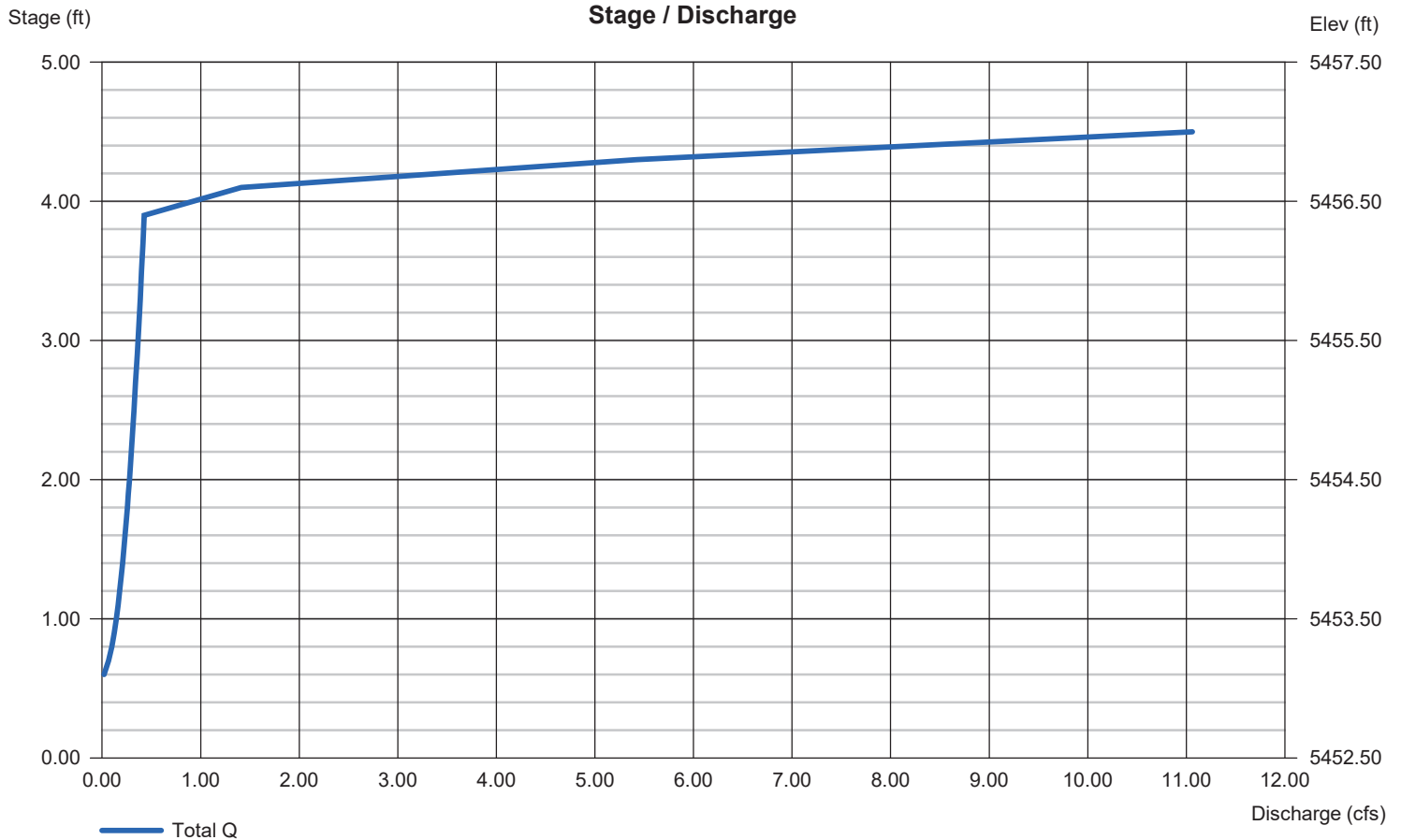
### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 18.00	3.00	0.00	Inactive
Span (in)	= 18.00	3.00	0.00	0.00
No. Barrels	= 1	1	0	1
Invert El. (ft)	= 5450.00	5453.00	0.00	0.00
Length (ft)	= 32.00	0.00	0.00	0.00
Slope (%)	= 0.90	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

### Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 9.00	0.00	0.00	0.00
Crest El. (ft)	= 5456.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrology Report  
for  
St. James's Village - Unit 1D

Washoe County, Nevada

Prepared for:

St. James's Village, Inc.  
241 Ridge St., Suite 305  
Reno NV 89501

15 April 1997



PLANNERS      ENGINEERS      SURVEYORS      LANDSCAPE ARCHITECTS

1150 CORPORATE BLVD RENO NV 89502      (702) 856-1150      FAX (702) 856-1160

## **INTRODUCTION**

This report presents hydrologic and hydraulic calculations and the storm drainage plan for St. James's Village - Unit 1D (46 lots) in Washoe County, Nevada. The 63-acre site is located north of Browns Creek. The proposed lots lie outside the FEMA flood zone. Roads will be privately maintained and drained by a system of ditches and culverts sized for the 100-year peak runoff. Three detention ponds (privately maintained) reduce peak flows to pre-development levels in the 100-year storm.

## **SITE DESCRIPTION**

The project site consists of about 63 acres located north of Browns Creek, a tributary to Steamboat Creek. The site is bounded by sparsely developed land on the north, undeveloped land to the east, Browns Creek to the south, and St. James's Village Unit 1C to the west.

The site is presently undeveloped except for a haul road. The existing ground slopes downhill to the north and east at approximately 5 - 15 percent. Vegetation consists of sparse pine trees and sagebrush. According to the geotechnical investigation by Kleinfelder, Inc., surface soils consist generally of silty and clayey sands with numerous cobbles and boulders.

## **PROJECT DESCRIPTION**

St. James's Village Unit 1D consists of 46 custom residential lots (1-acre minimum) and 2 common area parcels on 63 acres. Primary residential access will be via the extension of Woods Park Drive from the present terminus in Unit 1C. Only the streets and utilities will be constructed, leaving the lots in their natural condition. The CC&R's restrict cover to a maximum of 20% of the lot. Streets and storm drains will be privately owned and maintained.

## **FLOOD POTENTIAL**

According to the FEMA Flood Insurance Rate Map, Panel 3250, dated September 30, 1994, St. James's Village Unit 1D lies in Flood Zone X unshaded (outside the limits of the 500-year flood). The 100-year flood limits for Browns Creek have not been mapped in detail. Browns Creek flows in a well-defined canyon and the lots are at or above the rim. For the purposes of the official plat the floodplain limits were approximated as the base of the canyon slope.

## **EXISTING DRAINAGE**

Most of the site drains to the north and east, leaving the site as sheet flow or shallow concentrated flow at several locations. Portions of the site drain southerly to Browns Creek. Browns Creek has a 100-year flow of about 450 CFS, per Nimbus Engineers.

## **PROPOSED DRAINAGE**

The proposed on-site storm drain system consists of roadside swales, culverts, and lot line drainage ditches sized for the peak runoff from the 100-year storm. The majority of the drainage is routed through one of the three detention ponds. Roadway drainage will be treated for petrochemicals and silts. Erosion control measures include interceptor swales at the top of all cut slopes and rock rip-rap at areas of concentrated flow.

## **HYDROLOGY**

The site was analyzed using the SCS TR-55 method. The computer program Quick TR-55 was used to generate hydrographs for on-site and off-site drainage basins in the 10-year and 100-year storms. Drainage basins are delineated on the Hydrology Map and are labeled to conform to the Master Hydrology Report. (Unit 1D covers Watershed G and parts of Watersheds H and I.) The original CN of 51 (sagebrush with grass understory, fair condition) was considered to be too low and was revised to 59 (sagebrush, fair to poor condition). The 10-year

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## **DETENTION**

All drainage to the north is intercepted by one of the three proposed detention ponds. Pond 5 is located north of Waterman Court, Pond 6 is sited just outside the northeast corner of Unit 1D, and the temporary Pond 7T is situated east of Unit 1D at the proposed terminus of Woods Park Drive. With future development, flows reaching Pond 7T will be conveyed down Woods Park Drive to the ultimate planned location of Pond 7 about 2000 feet easterly (see Master Hydrology). These ponds will be maintained by the St. James's Village Homeowners Association.



Detention pond data and routing computations are presented in Appendix C and are summarized in Table 2 below.

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<u>Watershed</u>	<u>Pond</u>	<u>Spill WS</u>	<u>10-Year Storm</u>				<u>100-Year Storm</u>			
			<u>Qin</u>	<u>WS</u>	<u>Qout</u>	<u>Qexist</u>	<u>Qin</u>	<u>WS</u>	<u>Qout</u>	<u>Qexist</u>
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<b>Total G+H</b>			<b>17.9</b>		<b>4.3</b>	<b>4.5</b>	<b>71.5</b>		<b>27.4</b>	<b>35.5</b>
I	---		1.6		1.6	0.2	6.0		6.0	1.8
<b>Project Total</b>			<b>19.5</b>		<b>5.9</b>	<b>4.7</b>	<b>77.5</b>		<b>33.4</b>	<b>37.3</b>

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## **CONCLUSIONS**

1. St. James's Village Unit 1D (46 lots) can be developed as planned without adverse impact to downstream properties.
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