AGENDA

City of Sedona
Planning and Zoning Commission Meeting

5:30 PM | **Tuesday, May 20, 2014**

NOTICE:
Pursuant to A.R.S. 38-431.02 notice is hereby given to the members of the Planning and Zoning Commission and to the general public that the Planning and Zoning Commission will hold a public hearing open to the public on Tuesday, May 20, 2014 at 5:30 pm in Vultee Conference Room.

NOTES:
- Times are approximate.
- Meeting room is wheelchair accessible. American Disabilities Act (ADA) accommodations are available upon request. Please phone 928-282-3113 at least 24 hours in advance.
- Planning & Zoning Commission Meeting Agenda Packets are available on the City's website at: **www.SedonaAZ.gov**

GUIDELINES FOR
PUBLIC COMMENT

PURPOSE:
- To allow the public to provide input to the Planning and Zoning Commission on a particular subject scheduled on the agenda.
- Please note that this is not a question/answer session.

PROCEDURES:
- Fill out a "Comment Card" and deliver it to the Recording Secretary.
- When recognized, use the podium/microphone.
- State your Name and City of Residence
- Limit comments to 3 MINUTES.
- Submit written comments to the Recording Secretary.

1. VERIFICATION OF NOTICE
2. CALL TO ORDER, PLEDGE OF ALLEGIANCE, & ROLL CALL
3. ANNOUNCEMENTS & SUMMARY OF CURRENT EVENTS BY COMMISSIONERS & STAFF
4. DISCUSSION REGARDING PROJECT UPDATE SUMMARY
5. DISCUSSION & UPDATE REGARDING COMMUNITY PLAN IMPLEMENTATION ACTIVITIES

Scan with your mobile device to access project documents online

6. PUBLIC FORUM: For items not listed on the agenda within the jurisdiction of the Planning and Zoning Commission – limit of three minutes per presentation. Note that the Commission may not discuss or make any decisions on any matter brought forward by a member of the public.
7. CONSIDERATION OF THE FOLLOWING REQUEST(S) THROUGH PUBLIC HEARING PROCEDURES:
   a. Discussion/possible action regarding proposed amendments to Article 18 of the City of Sedona Land Development Code (City of Sedona Public Art Ordinance) Staff: Mike Raber, Senior Planner (30 minutes; 5:45 pm–6:15 pm)
8. INTRODUCTION/DISCUSSION OF THE FOLLOWING REQUEST(S):
   a. Discussion regarding a request for Preliminary Plat Map approval for Sky Ridge Subdivision, a 19 unit subdivision at 215 Brewer Road and accessed at the end of Mormon Hill Road. A general description of the area affected includes but is not necessarily limited to the area west of Brewer Road, south of Mormon Hill Road, and east of the Rolling Hills Estates and Les Springs Subdivisions. The proposed subdivision is currently zoned RS-18b, is approximately 12.41 acres and is further identified as Assessor's Parcel Number 401-38-013C. Applicant: SEDTEX, LLC. Case Number: PZ13-00015 (SUB). Staff: Cari Meyer, Associate Planner (45 minutes, 6:15 pm–7:00 pm)
9. FUTURE MEETING DATES AND AGENDA ITEMS (10 minutes; 7:00 pm–7:10 pm)
   a. Thursday, May 29, 2014; 3:30 pm (Work Session)
   b. Tuesday, June 3, 2014; 5:30 pm (Public Hearing)
   c. Thursday, June 12, 2014; 3:30 pm (Work Session)
   d. Tuesday, June 17, 2014; 5:30 pm (Public Hearing)
10. EXECUTIVE SESSION

    If an Executive Session is necessary, it will be held in the Vultee Conference Room at 106 Roadrunner Drive. Upon a public majority vote of the members constituting a quorum, the Planning and Zoning Commission may hold an Executive Session that is not open to the public for the following purposes:

    a. To consult with legal counsel for advice on matters listed on this agenda per

A.R.S. § 38-431.03(A)(3).

b. Return to open session. Discussion/possible action on executive session items.

11. ADJOURNMENT

Physical Posting: May 15, 2014 By: DJ

Project Update Summary
May 20, 2014
Updates in italics

City Of Sedona Community & Economic Development Department
102 Roadrunner Drive Sedona, AZ 86336
(928) 282-1154 · Fax: (928) 204-7124

Approved Projects

1. DEV 2010-01 (C-Market)
    a. New commercial development at 285 Jordan Road (Uptown Sedona)
    b. Approved March 6, 2012 (2 year approval)
    c. Building permit (B-00463) has been issued and project is under construction.
2. DEV 2010-03 (Thai Spices)
    a. Development Review for new restaurant at 1425 W State Route 89A
    b. Approved September 6, 2011 (2 year approval)
    c. Building permit (B-00178) has been issued and project is under construction.
3. CUP 2012-03 (Farmer's Market)
    a. Weekly outdoor farmer's market at Wells Fargo Bank from November through May
    b. Approved January 3, 2013 (3 year approval)
    c. *Finishing second winter season at Wells Fargo; no issues reported. This item will be removed from future updates until it is up for renewal.*
4. DEV 2012-01; PZ13-00012 (ZC), Bella Sedona Apartments Development Review and Zoning Reestablishment
    a. Development Review: 8-unit apartment complex (by Shadowbrook Apartments)
    b. Approved February 5, 2013 (2 year approval); Expires February 5, 2015 unless building permits are issued and project is under construction
    c. Zoning Reestablishment: Reestablishing RM-1 to allow for development of apartment project; Approved by City Council on September 24, 2013
    d. *No recent activity*
5. PZ 13-00002 (DEV) Park Place Condominiums
    a. Approved redesign for condominiums.
    b. Approved May 7, 2013 (2 year approval)
    c. Applicant has submitted for a Minor Final Plat Amendment (PZ14-00003). *The plat amendment is on the City Council's May 27, 2014, consent agenda.*
6. PZ 13-00003 (ZC, DEV) Mariposa Restaurant
    a. Zone Change and Development Review approval to allow for construction of a new restaurant
    b. Development Review approved by Planning and Zoning Commission on April 2, 2013, Zone Change approved by City Council on May 14, 2013 (3 year approval)
    c. All permits have been issued and project is under construction.

7. PZ 13-00004 (SUB) Kayenta Plaza
    a. Commercial condominium conversion of existing building to create 6 units
    b. Preliminary Plat approved by City Council on August 13, 2016
    c. The applicant has submitted for Final Plat approval. Inspections are required to be completed by the Sedona Fire District prior to approval of the Final Plat by City Council.
8. PZ 13-00014 (ZC, DEV) Sky Ranch Lodge Expansion
    a. Zone Change and Development Review for 40 new lodging units and a 7,500 square foot meeting facility
    b. The Planning and Zoning Commission approved the Development Review and recommended that City Council approve the zoning on February 18, 2014.
    c. *May 20, 2014 Update: City Council approved the Zone Change and Development Agreement for this project on April 22, 2014. The next step would be submittal of building permits.*
9. PZ 13-00018 (CUP) Enterprise Rent-A-Car CUP Renewal
    a. Renewal of a CUP (CUP2008-3 & CUP2003-5) to operate a rental car agency in a C-1 (General Commercial) Zone; Current CUP expires March 3, 2014
    b. The Planning and Zoning Commission approved this application on February 18, 2014. Based on the conditions of approval, Staff will be working with the applicant, property owner, and ADOT to improve the landscaping in the right-of-way. Based on the conditions of approval, the applicant has until August 18, 2014 to add additional landscaping.
10. PZ14-00004 (CUP) Sedona ATV CUP Renewal
    a. Application to renew an existing Conditional Use Permit for operation of an ATV business at 211 State Route 179.
    b. *The Commission approved this renewal on May 6, 2014. This item will be removed from future updates.*

Pending Projects

1. PZ 13-00009 (DEV) 15/20 Plaza
    a. Development Review for new commercial buildings (approximately 4,900 square feet total) at 1520 W. State Route 89A (northeast corner of Posse Ground and State Route 89A)
    b. Conceptual Review with Planning and Zoning Commission completed September 3, 2013
    c. Next steps would be submittal of application and documents for Final Review. Planning and Zoning Commission has final approval authority.
    d. *No recent activity*
2. PZ 13-00013 (DEV) Sedona Rouge Expansion
    a. Development Review for 32 new lodging units (new site plan, development under the previously approved plans is no longer being pursued)

b. Project has changed to include a Zone Change, Land Exchange, and Development Agreement in addition to the Development Review.

c. *May 20, 2014 Update: The Planning and Zoning Commission approved the Development Review and recommended the City Council approve the zone change on April 15, 2014. The project is scheduled to go to City Council as a work session item on May 28, 2014, and is tentatively scheduled for a public hearing on June 10, 2014.*

3. PZ 13-00015 (SUB) Mormon Hill Estates

   a. Subdivision for 19 new single family lots on the old ILX property off of Brewer Road

   b. Submitted application for Conceptual Review on August 30, 2013, Planning & Zoning Commission held a public hearing for the Conceptual Plat on October 15, 2013

   c. *May 20, 2014 Update: The applicant submitted for Preliminary Plat Review on March 26, 2014. The Planning & Zoning Commission has this item on the May 20, 2014 agenda as a work session item and it is tentatively scheduled for a public hearing on June 17, 2014.*

4. PZ 13-00016 (ZC, DEV) CVS/pharmacy

   a. Zone Change and Development Review for new 15,000 square foot building for CVS/pharmacy at 20 Airport Road.

   b. Submitted application for Conceptual Review on September 6, 2013

   c. Planning & Zoning Commission held a Work Session and Site Visit on October 10, 2013 and Conceptual Public Hearing on November 19, 2013.

   d. Next step is submittal of application and documents for Final Review.

   e. *No recent activity*

5. PZ14-00001 (DEV) Tlaquepaque North

   a. Development Review application for expansion of the Tlaquepaque Arts and Crafts Village on the north side of State Route 179.

   b. The Planning and Zoning Commission held a Conceptual Review Meeting for this project on March 18, 2014.

   c. *No recent activity.*

6. PZ14-00002 (ZC) Over the Edge Parking Lot

   a. Zone Change application to change the parcel at 35 View Drive from RS-6 (Single Family Residential) to C-2 (General Commercial) to allow for use of the lot as a parking lot for Over the Edge Bikes.

   b. The Planning and Zoning Commission will hold a work session on this item on March 27, 2014. *At this work session, the Commission had requested that Staff present them with alternatives to rezoning to C-2 that would still allow the applicant to use the property as a parking lot. This will be presented to the Commission at a future work session.*

7. PZ14-00003 (SUB) Minor Final Plat Amendment – Park Place

   a. The property owner has submitted an application for a minor plat amendment to allow for construction of the redesigned units as approved by the Planning and Zoning Commission in 2013 (PZ13-00002). Minor amendments are placed on the City Council's

consent agenda for consideration. *This item is on the City Council's May 27, 2014 Consent Agenda.*

8. *PZ14-00005 (ZC, DEV) Sedona Marriott Courtyard*
    a. *Proposal for a 120 room Marriott Courtyard hotel at the southeastern corner of State Route 89A and Upper Red Rock Loop Road. The applicant has submitted for Conceptual Review and the project is currently being reviewed by City Staff and outside review agencies.*
    b. *The project is scheduled to come to Planning & Zoning Commission for a Conceptual Review on May 29, 2014.*
9. *PZ14-00006 (CUP) Arizona Safari Jeep Tour CUP Renewal*
    a. *Application to renew an existing Conditional Use Permit for a Jeep parking and staging area at 355 Jordan Road (Arizona Safari Jeep Tour).*

Potential Projects

1. Preserve at Oak Creek (CPA, ZC, SUB, DEV)
    a. All previous approvals have expired. As the property was zoned PD, the current zoning only allows for development of that specific proposal. Any new proposal would have to go through at least a zone change and development review, possibly a community plan amendment and potentially a subdivision, depending on the proposal.
    b. No Update.
2. Lomacasi (CPA, ZC, SUB, DEV)
    a. The property is zoned L (Lodging) and C-1 (General Commercial) and designated Commercial/Lodging and Commercial by the Community Plan. Any new proposal would have to go through at least a development review, possibly a community plan amendment, zone change, and subdivision, depending on the proposal.
    b. No Update.
3. Cultural Park (CPA, ZC, SUB, DEV)
    a. All previous development review approvals have expired. As the property is zoned PD, the current zoning only allows for development of that specific proposal. Any new proposal would have to go through at least a zone change and development review, possibly a community plan amendment and potentially a subdivision, depending on the proposal.
    b. No Update.

Staff Report
Proposed Amendments to Article 18 of the Land Development Code

City Of Sedona Community & Economic Development Department
102 Roadrunner Drive Sedona, AZ 86336
(928) 282-1154 · Fax: (928) 204-7124

Meeting Date:	**May 20, 2014**
Hearing Body:	**Planning and Zoning Commission**
Action Requested:	Recommendation of Approval of amendments to Article 18 of the Land Development Code
Staff Recommendation:	Recommendation of Approval of amendments to Article 18 of the Land Development Code
Report Prepared By:	Mike Raber, Senior Planner
Attachments:	Article 18 of the City of Sedona Land Development Code with proposed changes.

BACKGROUND

In December 2013, the City Council dissolved several City Commissions in conjunction with the establishment of a new Citizen Engagement Program. The Arts and Culture Commission and the Arts in Public Places Committee were included among the public bodies that were dissolved. In addition to the establishment of a new Citizen Engagement Coordinator position, the City Council also approved a new Arts and Culture Coordinator position as a liaison to the community on Arts and Culture issues.

STAFF RECOMMENDATIONS

With the dissolution of the Commissions and this shift to the new Citizens Engagement Program, it is necessary to amend Article 18 of the Land Development Code (City of Sedona Public Art Ordinance) to reflect a new review and approval process for public art in conjunction with new development or expansion. The new review/approval process would involve the Director of Community and Economic Development and the Arts and Culture Coordinator, with discretion to consult with other staff, outside professional artists or to form a volunteer advisory group through the Citizen Engagement Program. Article 18 must also include a correction to the minimum investment per square foot for public art. Article 18 of the Land Development Code showing all of the proposed amendments is attached. Staff recommends that the Planning and Zoning Commission recommend approval of these amendments to Council.

RECOMMENDED MOTION

I Move that we recommend to Council the approval of the amendments to Article 18 of the Land Development Code as provided in the Staff Report.

Article 18
PUBLIC ART

Sections:

1801 Title.

This article shall be known as the City of Sedona Public Art Ordinance.

1802 Public art requirement.

A. Prior to the issuance of a building permit for any new commercial, professional office, lodging or timeshare structures or uses which are either:

1. Commercial, professional office, lodging or timeshare construction 5,000 square feet gross floor area or more; or

2. Expansions of an existing commercial, professional office, lodging or timeshare structure of an additional 2,500 square feet gross floor area or more;

3. The applicant will demonstrate that the proposed development or project will comply with the provisions of this article.

B. This article shall not apply to federal, state, county or city projects or structures or to residential and industrial uses as defined in Article 2 SLDC.

C. Developers of such projects shall demonstrate that the proposed project will involve a minimum investment of $0.~~034~~ 0.48 per square foot (~~based on year 2000 CPI~~ which will be adjusted up or down annually based on changes in the CPI) for artwork to be seen by the public.

D. Before a Certificate of Occupancy shall be issued for the development or the expansion, the art contribution must be certified by the ~~Arts and Culture Commission~~Director of Community and Economic Development in coordination with the Arts and Culture Coordinator ~~-~~as being in compliance with this article. For major projects, the Director of Community and Economic Development verification of compliance may form a Citizen Engagement Public Art Working Group to assist in verifying compliance with this section.

E. All artwork shall meet the applicable requirements of all other City of Sedona ordinances, the Land Development Code and City Code.

F. The art investment shall take the form of either an on-site installation of developer-selected exterior artwork, or, at the developer's discretion, an equivalent cash contribution to the City of Sedona Art in Public Places Fund may be made to be used for public art in the City of Sedona. A combination of the above options is also acceptable.

G. The owner of the development shall be responsible for the proper upkeep and maintenance of the artwork within the proposed development.

H. In the event that any artwork placed on the development as a result of this article is removed or destroyed, owner or developer shall, within 180 days of the removal or destruction:

1. Replace it with artwork which meets the requirements of this article and is equal to the removed/destroyed artwork's fair market value immediately prior to its removal or destruction; or

2. Make a cash payment to the City of Sedona Art in Public Places Fund in an amount equal to the square foot gross floor area of the development multiplied by the cents per square foot set forth above that is applicable at the time of the removal or destruction of the artwork.

~~**1803 Commission's time to act.**~~

~~Upon receipt of all initial artwork plans, the Art in Private Development Committee of the Arts and Culture Commission shall review the plans to ensure that they meet the requirements of this article and shall present a summary of each artwork plan and its recommendation to the Arts and Culture Commission. The Chairperson of the Commission shall place it on the agenda for a public hearing within 30 days for action to approve or disapprove the plan. The city shall cause notice to be delivered in person or sent by certified mail to the owner(s) of the property announcing the hearing, not later than 15 days preceding said hearing.~~

~~**1804**~~ **1803 Criteria for public art.**

A. Art which is selected by an owner or developer to be integrated on the site of the project must be located on an exterior of the structure or the building site which is visible to the public for at least 40 hours per week.

B. On-site artworks that are acceptable within the scope of this article are:

1. Building features and enhancements which are unique and produced by a professional artist;

2. Landscape art enhancements such as walkways, bridges, unique water or unique art features;

3. Murals or mosaics covering walls and walkways;

4. Professional artist sculptures which can be freestanding, wall-supported or suspended and made of durable materials suitable to the site;

5. Other suitable artworks accepted by the ~~Arts and Culture Commission.~~ Director of Community and Economic Development in coordination with the Arts and Culture Coordinator.

C. On-site artworks which are not eligible include:

1. Business logo;

2. Directional elements such as super graphics, signage or color coding;

3. Mass produced art objects, such as: fountains, statuary, playground equipment;

4. Art reproductions;

5. Landscaping or hardscape elements normally associated with the artwork;

6. Services or utilities necessary or desirable to operate or maintain artworks.

D. Eligible costs are:

1. Professional artist compensation;

2. Fabrication and installation of the artwork;

3. Site preparation;

4. Structures enabling the artist to display the artwork;

5. Documentation of the artwork;

6. Acknowledgment plaque identifying the artist and the artwork.

E. The ~~Commission~~ Director of Community and Economic Development in coordination with the Arts and Culture Coordinator shall approve/disapprove the artwork plan and inform the developer/property owner in writing. The Director and Arts and Culture Coordinator at their discretion may consult with other City staff or an outside professional artist or form a volunteer advisory group utilizing the City's Citizen Engagement Program to provide input on the approval

or disapproval of the artwork plan. The developer has the right to appeal the decision ~~of the Commission~~ of the Director of Community and Economic Development to the City Council within 15 days ~~of~~ after the Director's ~~Commission's~~ decision.

F. Prior to issuance of a Certificate of Occupancy, the approved artwork must be installed in accordance with approved construction and landscape plans, unless the ~~Arts and Culture Commission~~Director agrees to an extension of time of up to 6 months. If an extension of time is granted, then prior to the issuance of the Certificate of Occupancy, a cash deposit or an irrevocable letter of credit in an amount guaranteeing the complete installation of the artwork within 6 months of the issuance of the Certificate of Occupancy must be deposited by the owner or developer with the city. Failure to completely install the artwork approved by the ~~Commission~~ Director within the 6 months of the issuance of the Certificate of Occupancy shall result in forfeiture of the deposit or letter of credit and the money deposited shall be credited to the Art in Public Places Fund.

City Of Sedona Community & Economic Development Department
102 Roadrunner Drive Sedona, AZ 86336
(928) 282-1154 · Fax: (928) 204-7124

Memorandum

To: Planning & Zoning Commission

From: Cari Meyer, Associate Planner

Date: May 20, 2014

RE: PZ13-00015 (SUB), Sky Ridge Preliminary Plat Map

The Sky Ridge Subdivision (PZ13-00015) is included as a work session item on the Planning and Zoning Commission's May 20, 2014 agenda. Work sessions are generally used to allow the Planning and Zoning Commission to be introduced to a project, ask questions, and identify items that need to be addressed prior to action being taken on an item. No recommendation on the project is provided by Staff at the Work Session and no formal action is required of the Commission.

This project is a 19 unit subdivision on 12.41 acres between Brewer Road and the Rolling Hills and Les Springs Subdivisions. Formerly referred to as Mormon Hill Estates, the current proposed name is Sky Ridge. The property is zoned RS-18b, which requires a minimum lot size of 18,000 square feet and minimum lot dimensions of 100 feet by 100 feet. Setbacks in this zoning district are 25 feet for the front and rear, 10 feet for interior side yards, and 15 feet for exterior side yards. At this time, the applicant is not requesting a zone change or requesting any exemptions from any code requirements.

Based on the Letter of Intent, the applicant anticipates that he will build the road and infrastructure and then sell the lots as vacant home sites. Building on individual lots would then be processed through the City's established single family home review process. A Homeowner's Association (HOA) will be established and Covenants, Conditions, and Restrictions (CC&Rs) will be adopted. The CC&Rs will dedicate areas of disturbance to provide for building areas on each lot. The HOA will oversee the enforcement of the CC&Rs and manage the upkeep of the area designated as "Tract B" on the Preliminary Plat.

Subdivision Process

The City of Sedona's Subdivision Process is governed by Article 7 of the Sedona Land Development Code and includes the following steps:

1. Conceptual Plat Map
    a. Minimal information required
    b. Review by Staff and Planning & Zoning Commission
    c. No action taken
2. Preliminary Plat Map
    a. Full submittal required
    b. Review by Staff, Planning & Zoning Commission, and City Council
    c. Action taken by Planning & Zoning Commission and City Council

3. Final Plat Map
    a. Only Final Plat Map submitted
    b. Review by Staff and City Council
    c. Action taken by City Council

Conceptual Plat Map

The applicant submitted the required documents for conceptual plat review in August 2013. The Planning and Zoning Commission held a work session for this item on September 26, 2013, conducted a site visit and another work session on October 10, 2013, and held a conceptual public hearing on October 15, 2013. Throughout these meetings, the applicant received feedback regarding potential issues that will need to be addressed as the project moves forward.

Preliminary Plat Map

The applicant has now submitted all documents required for Preliminary Plat Map review, including a geotechnical report that contains recommendations on home design for this area. In addition to submitting all required documentation, the applicant has also addressed many of the concerns brought up during the Conceptual phase of review. These items are addressed on Pages 5-6 of the Letter of Intent and the applicant has committed to a lower height limit on the most prominent lots along the ridgeline to address concerns about protecting the ridgeline. Finally, to address concerns about the "build-ability" of the lots, the density of the subdivision, and the impact on views from surrounding areas, the applicant has submitted an additional exhibit to illustrate the anticipated building area for each lot, the density of this subdivision in comparison to neighboring subdivisions, and how potential home sites will appear from off-site locations.

After the Planning & Zoning Commission reviews and takes action on the Preliminary Plat Map at a public hearing, it will move onto the City Council for review and action at a public hearing. Planning & Zoning Commission's action would be in the form of a recommendation to City Council.

Final Plat Map

If the Preliminary Plat Map is ultimately approved by City Council, the next step would be Final Plat Approval. This would occur after the applicant has constructed (or provided financial assurances for) all required infrastructure and met any other conditions of the Preliminary Plat Map. The Final Plat would only be reviewed by Staff and City Council and would ultimately be approved by City Council on a consent agenda. No public hearings are required for Final Plat approval.

Hillside Development Area

As the average slope in the proposed subdivision is over 15%, this area is classified as a Hillside Development Area. The City of Sedona's Land Development Code does not prohibit hillside areas from being developed but does require additional information to be provided when development is proposed in a hillside area. These requirements can be found in SLDC 706.08 (Hillside Development Areas).

Purpose of Work Session

The purpose of the work session scheduled on this project for May 20 is to give the Planning & Zoning Commission a chance to review the submitted documents. The property owner (applicant), the applicant's designated agent (engineer), and City Staff will be available to answer questions. For the Commission's review, comments from review agencies are included as an attachment. The Planning & Zoning Commission should focus their review on any unresolved questions or items they would like to see addressed prior to taking action on this project. Currently, this project is tentatively scheduled for a public hearing on June 17, 2014. At this meeting, it would be expected that the Commission would be able to make a recommendation on the Preliminary Plat Map to City Council.

Attachments ***Page***

Letter Of Intent

Date: March 26, 2014

Project Name: Official name proposed is: Sky Ridge

Project Type: Residential Subdivision Development within the current zoning

Project Parcel Number: 401-38-013C

Parcel Address: 215 Brewer Road (L shaped parcel abutting Mormon Hill Road and Brewer Road)

To: Planning and Zoning Commission

INTRODUCTION

SEDTEX LLC is proposing to develop a subdivision on Assessor Parcel Number 401-38-013C. The parcel is 14.17 acres total with 12.41 acres zoned RS -18b and 1.76 acre zoned CF. Only the 12.41 acre portion of the property is being developed. The 1.76 acre portion is not a part of this subdivision or application. The property abuts Brewer Road and Mormon Hill Road. Access will be via a right of way off of Mormon Hill Road. SEDTEX LLC is not requesting any variances from the current zoning of the property. SEDTEX is proposing to develop 19 lots on the 12.41 acres. The existing RS-18 zoning requires lots to be a minimum of 18,000 sf. Absent terrain, infrastructure and other restrictions the existing zoning would allow up to 30 lots on the 12.41 acres. The proposed density for this subdivision is 1.5 units per acre versus the maximum allowed of 2.4 units per acre.

Art Beckwith PE, Vice President, Shephard-Wesnitzer, Inc. (SWI) has been retained to provide engineering. SWI and Art in particular, were selected for this project as Art and SWI have extensive experience on subdivisions and knowledge of the City of Sedona Land Development Codes and the Design Review Manual.

SEDTEX LLC intends to sell the undeveloped lots with all infrastructure in place for a buyer to develop a residence. Sky Ridge will be managed through a Homeowner's Association (HOA) that will not restrict access at the entry to the subdivision. The intent is to dedicate the street that serves the lots to the City. There are no right-of-ways crossing the property other than typical utility easements. In addition there are no structures or improvements on the property other than an abandoned water storage owned by SEDTEX LLC.

SITE DESIGN

The proposed road and lot layout has been designed to minimize disturbance to the natural landform of the site while providing access to all the lots. The lots vary in size from 18,321 sf to 28,751 sf with an average lot size of 22,776 sf. It is the intent of this proposal to comply with all the City's requirements of the Land Development Code and Engineering Design Standards and Details. The only use proposed with this application is residential.

The Sky Ridge subdivision layout responds to the unique terrain and character of the land blending with the natural shape and surrounding area. The road on the northwest portion of the property has been located at the lower elevation of the property over areas that were previously disturbed by utility construction. The road on the southern portion of the property is designed to comply with the Sedona hillside development guidelines with the road located along the ridge line at the higher elevation with the lots and buildings sites located on the slopes. The homes on lots 15, 16 and 17 will only have a single story above the road with the second level of the home constructed below. The maximum elevation will be approximately 18' above the road grade and maximum elevations designated on the final plat once the road design is complete. The proposed subdivision has relatively steep topography in several locations as is typical for Sedona. This topography has been considered in the preparation of the preliminary plat with the layout providing a buildable area on each lot. The applicants have discussed building on the inclines present on the property with a professional builder who did not express concerns that the property would present conditions that would preclude the building of homes. It has also been observed that throughout Sedona and the Village of Oak Creek there are numerous homes that appear to be built on as steep or steeper inclines than the topography of the lots in the proposed subdivision. There also appear to be homes in Les Springs and Rolling Hills that are observable from the property that are built on steep inclines as well as on the tops of ridges. The HOA will prepare a Covenants, Conditions and Restrictions that will dedicate areas of disturbance to provide the area for the building location on each lot. This disturbance area will also create open space for the subdivision by limiting construction outside of this area. The topography of the property and the location of the road accessing the lots significantly limit the location for building on each lot.

With a maximum of 19 lots proposed, the proposed 12.41 acre subdivision will provide substantial open space on the lots as the maximum lot coverage is 35%. This will blend well with the existing subdivisions natural terrain and current zoning.

The Sky Ridge subdivision lies at or lower elevations than the Les Springs and Rolling Hills subdivisions. Part of the property to the south is similar in elevation to this project. The primary view corridors are to the east and north which should result in minimal visual impairment for existing properties.

To the extent possible, the infrastructure for the subdivision, primarily the roadways and drainage facilities, are designed to follow the natural terrain to minimize cuts and fills. The road on the north end of the property is designed so that all the existing utility easements that traverse the property are contained within the easements or open space. There are few rock outcroppings on the property and they will not be disturbed while developing the subdivision. A very small

area of the property is within the flood plain with all potential building sites considerably above the flood plain. The natural drainage of the flood plain or other natural drainages will be minimally impacted by the subdivision development. The retaining walls for the roadway and headwalls for the drainage will comply with City requirements and will be designed, to the extent possible, to blend into the natural environment.

Access to the subdivision is via Mormon Hill Road near where the property abuts the existing church parking lot at the end of Mormon Hill Road. Currently, less than 20 residential lots are served by Mormon Hill Road. Normal traffic levels are minimal except when the church holds services and events. In addition, the proposed density of the subdivision is substantially less than the density ILX-Bruno, a prior owner of the property, proposed for which the Planning and Zoning Commission recommended approval on June 5, 2007. The road layout includes cul-de-sacs that will be constructed to City standard providing turn around capability for all vehicles, including emergency and waste management vehicles. The proposed street name is Sky Ridge Drive.

The current intent is to construct a monument sign with the subdivision name that meets all City requirements at the entrance to the subdivision.

UTILITY SERVICES

The following providers for utilities are available and have provided us with Letters of Serviceability: City of Sedona – sewer, Arizona Water Company – water, APS – electric, Century Link – phone, Suddenlink – cable television, and Unisource – gas. All the utilities will be located underground except the existing APS easements at the northwest corner of the property. The City of Sedona has sewer lines that cross the property one on the north end of the property that serves the Rolling Hills subdivision and the other in the middle of the property serving the Les Springs subdivision. As the City of Sedona is aware, the city does not have an easement for the sewer that crosses through the middle of the property. Upon final approval of this subdivision, SEDTEX LLC will grant the City a ten foot easement for this sewer line. Drainage will be per the City of Sedona Drainage requirements. The City Engineering Department has also discussed with the applicants' agent the possibility, if feasible, of the City constructing drainage containment below the existing utility easements on the far north end of the property. This potential drainage retention is primarily for storm water run-off from adjacent properties to help control drainage issues that currently exist at lower elevations. SEDTEX LLC is agreeable to granting an easement for this purpose, provided the easement does not interfere with the proposed Lots #1 and #2. The Sedona Fire District will serve the property.

GENERALIZED LAND USE IN THE VICINITY

The land use adjacent to the north and west of the site is residential; Rolling Hills zoned RS-10b (10,000 sf minimum lot size) and Les Springs zoned PRD with a density of 1.66 units per acre, are both greater densities than the proposed density of 1.5 units per acre of Sky Ridge. To the south is vacant land that is also designated residential. The Mormon Church is adjacent to the east at the north end of the property, two residential lots and the Sedona Oak Creek School District Office property abuts the remaining perimeter. The school district offices are situated off

of Brewer Road and the portion of their property that abuts the subdivision has no buildings close to the proposed subdivision. It is unlikely that the western portion of the school property will have future buildings as the property slopes down into a flood zone and drainage area. The remainder of the property is surrounded by residential property (other than the portion of the property zoned CF). The property is owned by SEDTEX, LLC who is the applicant and there are no pending legal problems associated with the property.

GENERAL LOCATION OF VEGETATION

Existing vegetation is primarily juniper and pinion pine trees with manzanita, scrub oak and typical natural low lying vegetation in this area. The southern end of the property is more densely vegetated than the north. The north portion of the proposed road is located over existing easements that has already disturbed the vegetation and topography. The proposed layout has been designed to minimize tree removal and disturbance of topography. It is our intent to preserve as much of this valuable resource and amenity as possible. See attached aerial plan.

SLOPE ANALYSIS

A slope analysis has been prepared per the City of Sedona requirements. As can be noted on the analysis this is a hillside development. As previously mentioned, infrastructure for this project was designed in areas where the slope are the shallowest and in already disturbed areas. All the lots have been designed to provide a building site that can be readily accessed by a driveway that will meet Code.

EXISTING SITE IMPROVENTS

There are no existing improvements noted or visible except for a water storage tank that at one point in time was utilized by the USFS and is owned by the applicant. The water storage tank will be removed during construction.

HISTORICAL

This property is not a historical parcel.

FLOOD HAZARDS

As noted the property is not in the flood zone or flood way except in a very small concentrated area.

PROPOSAL TRAFFIC CONCERNS

The entrance to the property is located at the top of Mormon Hill Road next to the church parking lot. Mormon Hill Road is used to serve less than 20 properties. The additional traffic generated by this project will have minimal impact on the area. As previously stated the church traffic will be the largest traffic count but only happens off peak hours.

PROPOSED MODIFICATIONS TO THE LAND DEVELOPMENT CODE

It is the intent of this project to meet the requirements of the City's Land Development Code and Engineering Design Standards. At this time no waivers or variances are being requested.

SEDONA COMMUNITY PLAN

In the 2002 Sedona Community Plan, this property was within the Villages at Heritage Park Planned Area on the Future Land Use Map. In 2005, the United States Forest Service sold this property to ILX-Bruno, LLC (ILX). In June 2007, ILX obtained the Planning and Zoning Commission recommendation for approval to rezone this property and development (which at the time included approximately 8 acres along Brewer Road) to build timeshares and other facilities. The City Council approved ILX's suspension of the application in July 2007 and subsequently in March 2009, ILX and its subsidiaries filed for bankruptcy. As such the property has remained with the current zoning. .

COMMISSION'S COMMENTS, QUESTIONS AND CONCERNS

The main comments, questions and concerns are those that have to do with the Land Development Code. In response to the Commission we offer the following to the code sections of concern.

700A.1.b: A Home Owner's Association will be developed to manage disturbance areas on each lot similar to building envelopes. By dedicating a disturbance area the remaining portion of the lot is saved as open space and preserves the natural terrain and vegetation.

700A.1.f: The nature of the terrain for this project is consistent with the regulations set forth in the Section 706.08 Hillside Development. It is the intent of this application to comply with all the requirements of this Section. At the request of the Commission and City Staff lot exhibits for some of the more difficult lots have been prepared as a part of this application.

706.01: The Project is zoned RS-18b. All of the provisions of the zoning ordinance will be adhered to; including applicable goals, objectives and recommendations of the Community Plan. Connectivity will be provided via a sidewalk along the length of Sky Ridge Road and disturbance areas designated on each lot in order to preserve open space, topography and vegetation. All infrastructure will be developed to meet the City's Engineering Design Standards and Details. No modifications to the standards are being requested.

706.03.F: Topographical, legal and engineering constraints do not allow for 2 points of vehicular access into the Project. Access is via Mormon Hill Road and the proposed road is designed to provide access to all the lots. The topography does not allow for the design of another connection to Brewer Road. There is no other legal access available to the Project.

706.07.A: The Project design considered the topography and the shape of the parcel in order to create an access road that would provide a driveway to each lot that can conform to the Land Development Code. As mentioned previously lot exhibits have been prepared for some of the more difficult lots. Clustering of Planned Development would entail a rezone of the existing RS-18b zoning. This Project is designed to meet the Engineering Standards of the Land Development Code.

706.07.F: Each lot has frontage on Sky Ridge Road. Lots 8 and 18 are flag lots. Lot 18 will be restricted from access on the frontage on upper side of the lot.

706.07.K: The road has been designed as close as possible to be on the crest of the ridge. This design causes the lots to be located on the downslope off of the road.

706.07.M: As mentioned previously consideration has been given the lay of the land and the proposed density of 1.5 units per acre as opposed to the allowable density of 2.4 units to the acre reduces the number of lots from the allowable 30 to 19 lots.

Thank you for attention to this matter.

Respectfully,
Terry A. Klebe
SEDTEX LLC

Shephard Wesnitzer, Inc.

110 West Dale Avenue
Flagstaff, AZ 86001

928.774.0354
928.774.8934 fax

www.swiaz.com

Engineering an environment of excellence

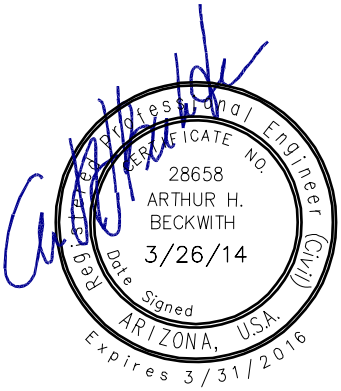
Preliminary Drainage Report

Sky Ridge

Sedona, Coconino County, Arizona

Prepared for:
Sedtex, LLC
c/o Terry Klebe
249 Sun Up Ranch Road
Sedona, AZ 86351

Prepared by:
Shephard-Wesnitzer, Inc.
Consulting Civil Engineers
110 West Dale Avenue
Flagstaff, AZ 86001
928.773.0354



March 26, 2014
Job # 13183

TABLE OF CONTENTS

APPENDICES

Appendix A

1. Vicinity Map
2. FEMA FIRM Panel 7657 of 8475
3. ADOT Highway Drainage Design Manual, Rational C Coefficient Graphs
4. NRCS Web Soil Survey, Black Hills-Sedona Area, Arizona, Parts of Coconino and Yavapai Counties

Appendix B

1. *PondPack* Detention Calculations

Appendix C

1. Copy of City of Sedona SWMP, Soldier Pass HEC-1 results
2. *CulvertMaster* Output

EXHIBITS

1. Pre-developed Condition Drainage Map
2. Post-developed Condition Drainage Map

Introduction

The proposed Sky Ridge project site is located in the City of Sedona, Coconino County and within the southeast ¼ of Section 7, Township 17 North, Range 6 East, of the Gila and Salt River Base Meridian, Coconino County. The site is identified as parcel number 401-38-013C with the Coconino County Assessor's office. The site is bounded by the Les Springs subdivision and Rolling Hills Estates Unit 4 to the west; the Rolling Hills Estates Unit 3 to the north; the Church of Jesus Christ of Latter-day Saints and the Sedona Head Start to the west; and single family residential properties to the south. A Vicinity Map is included in the Appendix of this report.

The property is currently undeveloped with vegetation consisting of juniper and pinyon trees with native grasses. The site slopes to the east and ultimately drains to Soldier Wash. Three unnamed washes convey offsite flow through the project site. The City of Sedona Storm Water Master Plan (SWMP) was reviewed to determine the peak flows calculated for the washes. One of the washes is the main flowline for sub basin "C2B" as shown in the SWMP and passes through the northern edge of the site. The wash that drains east through the middle of the site is identified as reach "X2R" in the SWMP. Wash X2R is shown as Zone A of the FEMA Flood Insurance Rate Map number 04005C7657G, September 3, 2010. Zone A is described as a Special Flood Hazard area subject to inundation by the 1% annual chance flood. No base flood elevations were determined. Appendix A contains a copy of the FIRM map near the project area. The south wash is a tributary to wash X2R and joins wash X2R downstream of the site.

The proposed development will consist of 19 single-family lots on the 12.41 acres zoned as RS-18b (single family residential). The 1.76 acre portion zoned CF (Community Facilities) will not be included with the subdivision development. The lots will range in size from 0.42 acres to 0.66 acres. Access to the subdivision will be from Mormon Hill Road. Approximately 1,400 feet of new roadway will be constructed on the site to access the lots.

Objective

The objective of this report is to determine the impact the proposed development will have on the runoff characteristics of the site and to provide mitigation measures for adverse impacts to runoff conditions. The design of the proposed drainage control structures will be in accordance with City of Sedona Drainage Criteria.

Procedure

Rainfall data was taken from the City of Sedona Drainage Criteria. Rational 'C' coefficients were determined from the graphs provided in the ADOT Highway Drainage Design Manual, Hydrology. The NRCS Web Soil Survey website was used to determine the hydrologic soil group classification of the soils in the watershed area.

Topographic mapping provided by Shephard-Wesnitzer, Inc. was the basis for determining watershed delineation and the time of concentration pathways and slopes. The project site was divided into seven drainage basin areas. Basin A is the portion of

the site that drains north to the existing wash. The majority of the site drains to wash X2R and its tributary. However, the runoff exits the site boundary at various points, so this portion of the site was divided into five drainage basins (B, C, D, E and F) based on where the runoff leaves the site. The seventh drainage area, basin G, is the portion of the site that drains south. Bentley's *PondPack* software program was utilized to calculate peak runoff flow rates and to estimate detention storage volumes. Calculations were performed using the Modified Rational Method.

The construction of the new access roadway will require three culvert crossings. Bentley's CulvertMaster was utilized to design the culvert crossings at the new access roadway. The design flow for the culverts will be the 100-year storm runoff as determined by the SWMP and the *PondPack* analyses.

Results

The soils on the site were determined to be Hydrologic Soil Group "D" as determined by the soil survey titled Black Hills-Sedona Area, Arizona, Parts of Coconino and Yavapai Counties. The runoff 'C' coefficient for the undeveloped land was determined to be 0.55. The offsite single family residential areas adjacent to the site are zoned as RS- 10b (single family residential) and PRD (planned residential development). Both zoning classifications allow for a maximum lot coverage of 40% per the City of Sedona Land Development Code. This resulted in a runoff coefficient of 0.75 for the offsite residential areas. The site is zoned as RS-18b, which has a maximum lot coverage of 35% per the City of Sedona Land Development Code. The proposed subdivision lots were determined to have a runoff 'C' coefficient of 0.725. The Rational Method parameters for the pre-developed and post-developed conditions are summarized in Table 1. Rational 'C' coefficients were weighted based on quantities of existing cover, developed areas and impervious areas.

Table 1. Rational Method Parameters

Basin I.D.	Area (acres)	T_c (min.)	Pre-developed Rational 'C' Coefficient	Post-developed Rational 'C' Coefficient
A	1.181	5	0.55	0.725
B	3.5	10	0.593	0.754
C	4.86	10	0.604	0.75
D	6.542	15	0.677	0.749
E	1.035	5	0.55	0.746
F	0.452	5	0.55	0.725
G	1.079	5	0.55	0.74

The peak flows in the pre-developed condition are summarized in Table 2 below. Table 3 below contains a summary of the peak flows in the post-developed conditions and the maximum estimated storage volume determined from the *PondPack* analysis. A copy of the *PondPack* output is included in Appendix B.

Table 2. Pre-Developed Condition Peak Flows (cfs)

Basin ID	2-year	10-year	25-year	100-year
A	2.20	3.53	5.26	7.06
B	5.27	8.53	12.80	17.19
C	7.46	12.08	18.11	24.33
D	9.29	15.19	22.52	30.38
E	1.93	3.10	4.61	6.19
F	0.84	1.35	2.01	2.71
G	2.01	3.23	4.81	6.46

Table 3. Post-Developed Condition Peak Flows (cfs)

Basin ID	2-year	10-year	25-year	100-year	Estimated Storage (c.f.)
A	2.90	4.66	6.94	9.32	337
B	6.70	10.85	16.28	21.87	1,657
C	9.27	15.00	22.50	30.22	1,826
D	10.27	16.79	24.89	33.58	2,879
E	2.62	4.20	6.26	8.41	341
F	1.11	1.78	2.66	3.57	129
G	2.70	4.35	6.47	8.69	325

The design flow for the crossing in basin C was determined to be 108 cfs per the SWMP. The culvert will be two 36 inch diameter CMP pipes with a length of 70 feet and a slope of 2.9%. Concrete headwalls will be constructed at the inlet and outlet of the pipes. The design flow for the crossing in basin B was determined to be 17.2 cfs. The culvert will be one 24 inch diameter CMP pipe with a length of 65 feet and a slope of 7.7%. A drop inlet will be required to create sufficient cover over the pipe and to reduce the slope of the pipe. The design flow for the crossing in basin D was determined to be 30.4 cfs.

The culvert will be one 36 inch diameter CMP with a length of 90 feet and a slope of 6.7%. Detailed results of the culvert analysis can be found in Appendix C.

Conclusion and Recommendations

Peak discharges for the 2, 10, 25, and 100-year storm event were determined for the project watershed for both the existing and post development conditions. Runoff from the proposed development will be conveyed to proposed detention facilities which will be designed to offset increases in the peak flow rates for the 2, 10, 25 and 100-year storm events. Refer to the Preliminary Grading Plan for grades, finished floor elevations, locations and notes.

The design concepts in this report will ensure that the drainage integrity of the site is sustained with proper maintenance activity. Activities include frequent clearing of debris and sediment from the detention ponds, disturbed slope treatment and erosion control at the pipe outlets. Frequent monitoring will ensure expedient remedies to common problems such as erosion, sedimentation and flow obstructions.

References

Publications

Drainage Criteria, City of Sedona, November 2009

Coconino County Drainage Design Criteria, January 2001

Highway Drainage Design Manual of Hydrology, ADOT, 1993

City of Sedona Storm Water Master Plan, Dibble & Associates, March 2005

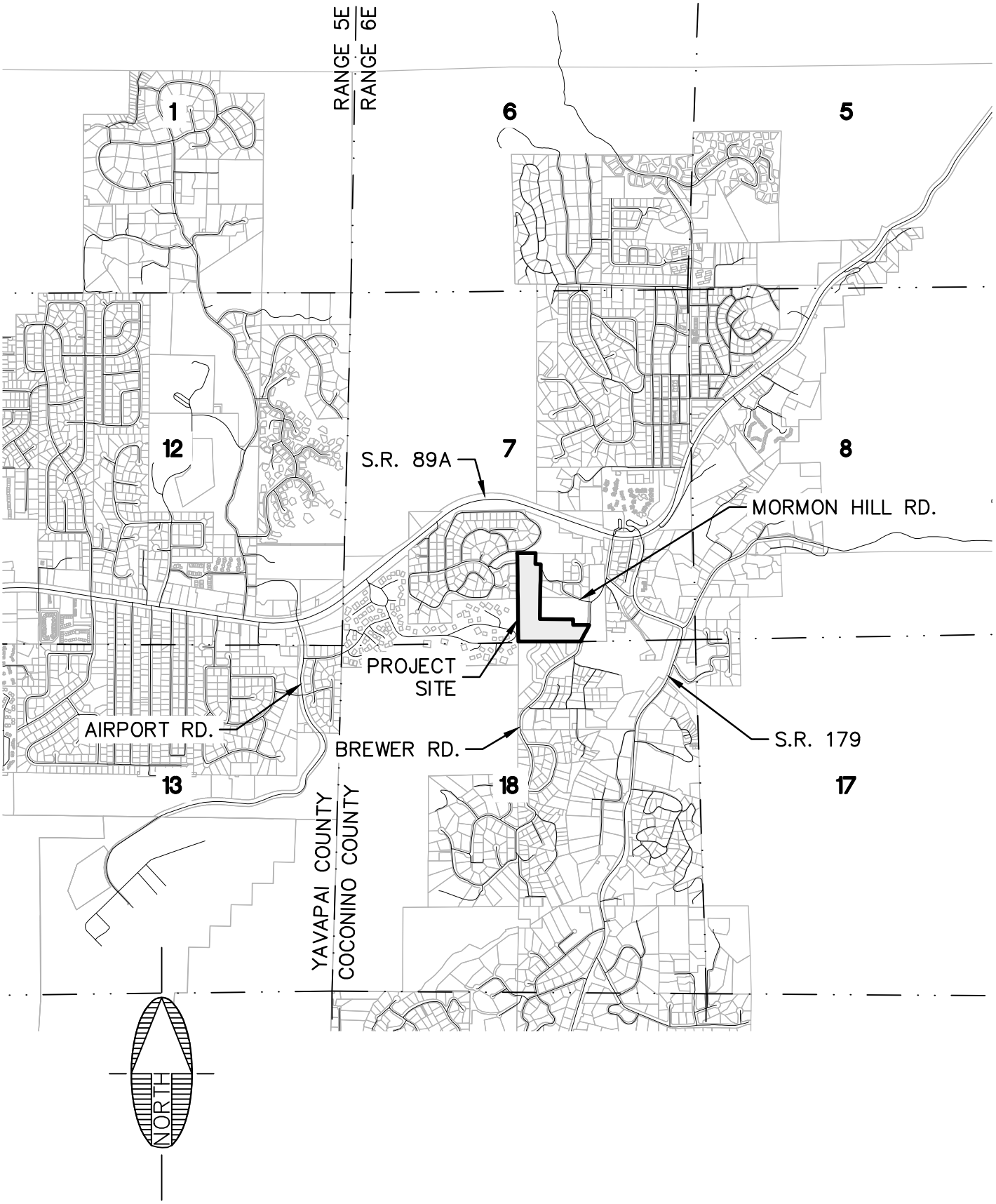
Computer Data & Software

PondPack, Bentley Systems, Inc., V8i
Culvertmaster, Bentley Systems, Inc.,v3.3

APPENDIX A:

1. Vicinity Map
2. FEMA FIRM Panel 7657 of 8475
3. ADOT Highway Drainage Design Manual, Rational C Coefficient Graphs
4. NRCS Web Soil Survey, Black Hills-Sedona Area, Arizona, Parts of Coconino and Yavapai Counties

SECTION 07, TOWNSHIP 17 NORTH, RANGE 6 EAST



PLOTTED: Mar 26, 2014-9:40am

FILE: P:\2013\13183\Engineering\Drainage\Hydrology\13183 - Vicinity Map.dwg OKB-C3D-12

Shephard Wesnitzer, Inc.

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0354
928.774.8934 fax
www.swiaz.com

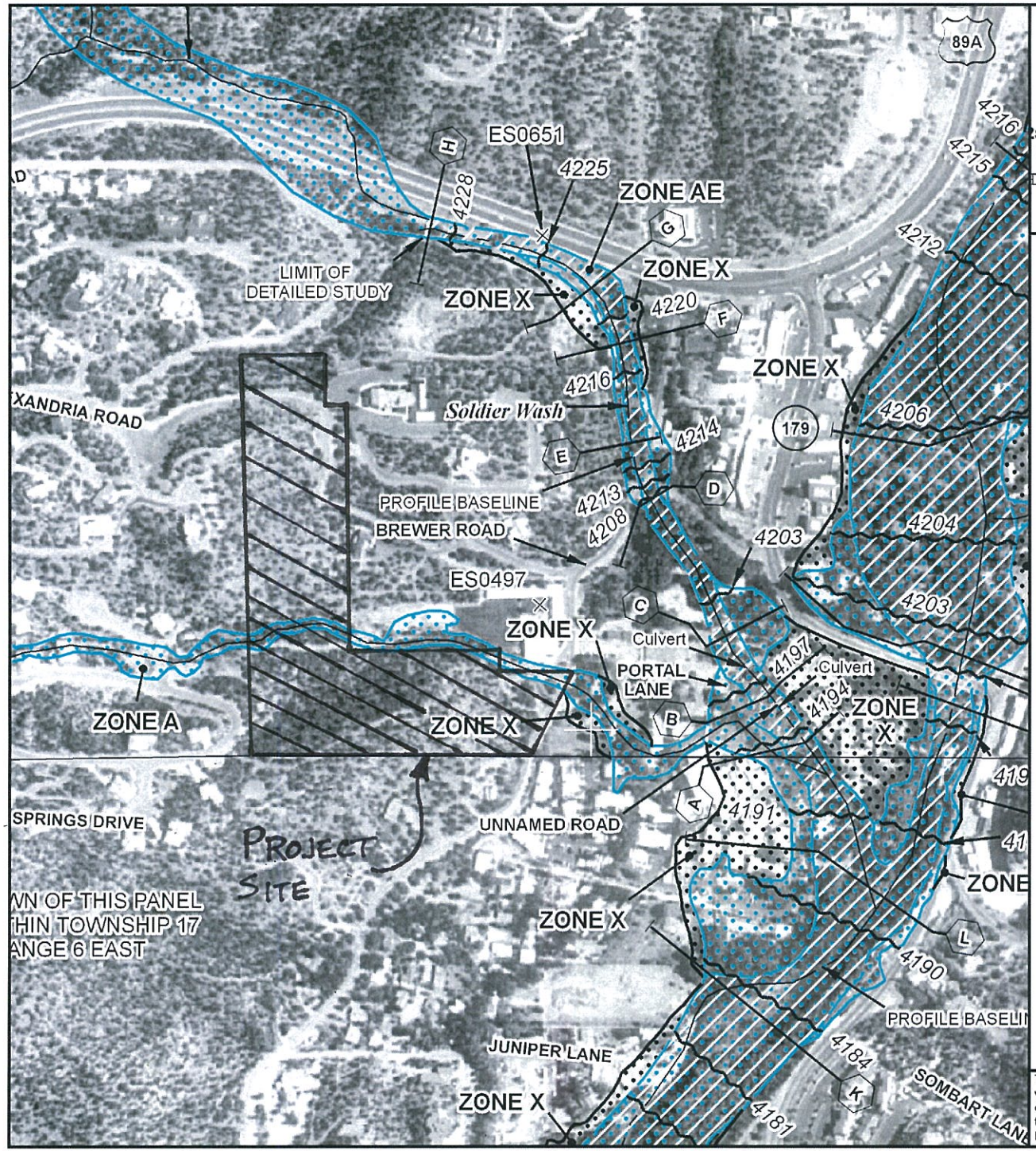
JOB NO.	13183
DATE	MAR 14
SCALE	1"=2000'
DRAWN	OKB
DESIGN	
CHECKED	OKB

SKY RIDGE

SEDONA
ARIZONA

VICINITY MAP

SHEET 1 OF 1



MAP SCALE 1" = 500'

250 0 500 1000 FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 7657G

FIRM

FLOOD INSURANCE RATE MAP

COCONINO COUNTY, ARIZONA
AND INCORPORATED AREAS

PANEL 7657 OF 8475

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COCONINO COUNTY	040019	7657	G
SEDONA, CITY OF	040130	7657	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
04005C7657G

EFFECTIVE DATE
SEPTEMBER 3, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

FIGURE 2-7
RATIONAL "C" COEFFICIENT
MOUNTAIN
(JUNIPER & GRASS)

AS A FUNCTION OF RAINFALL DEPTH, HYDROLOGIC SOIL GROUP (HSG), AND % OF VEGETATION COVER

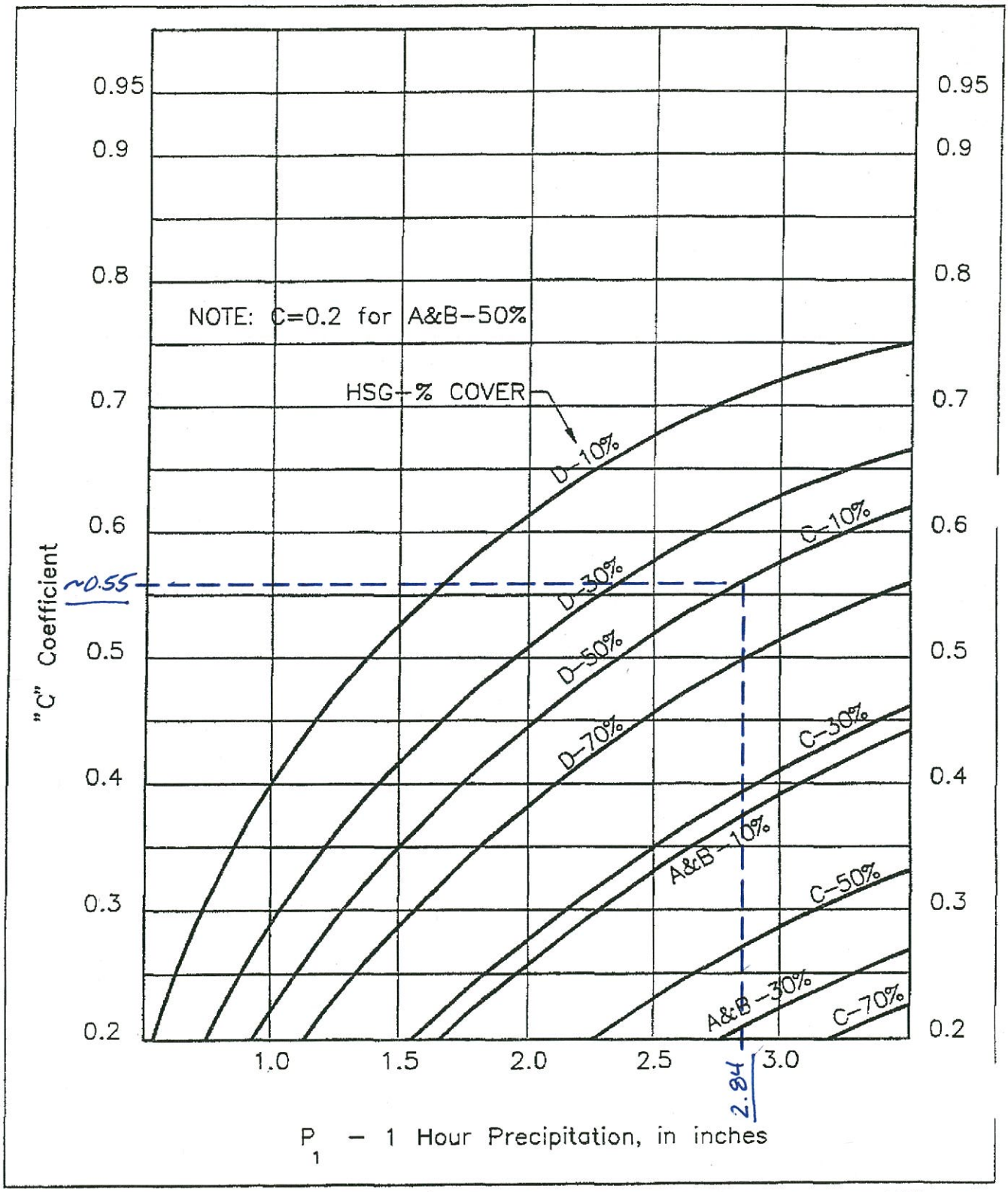
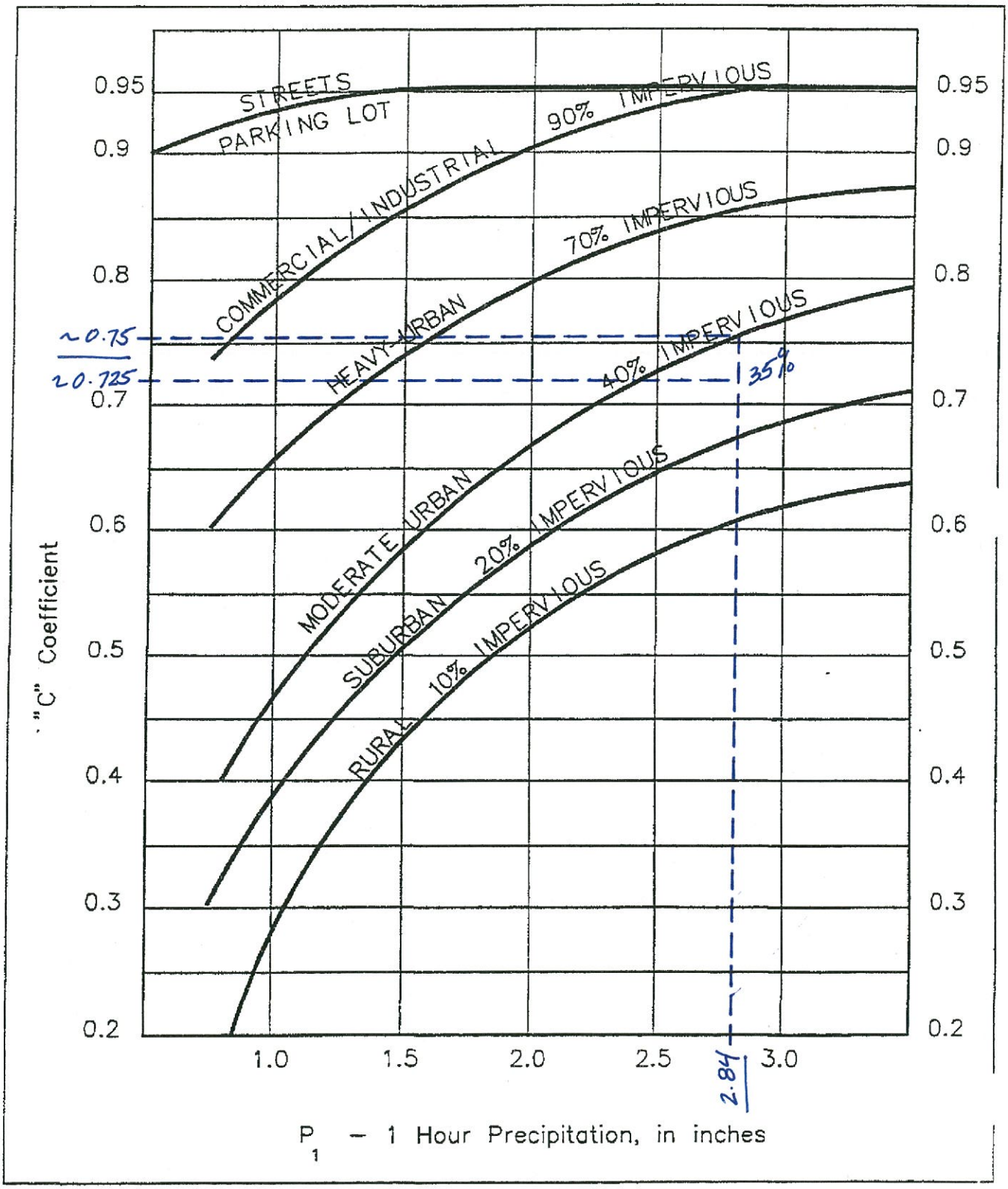
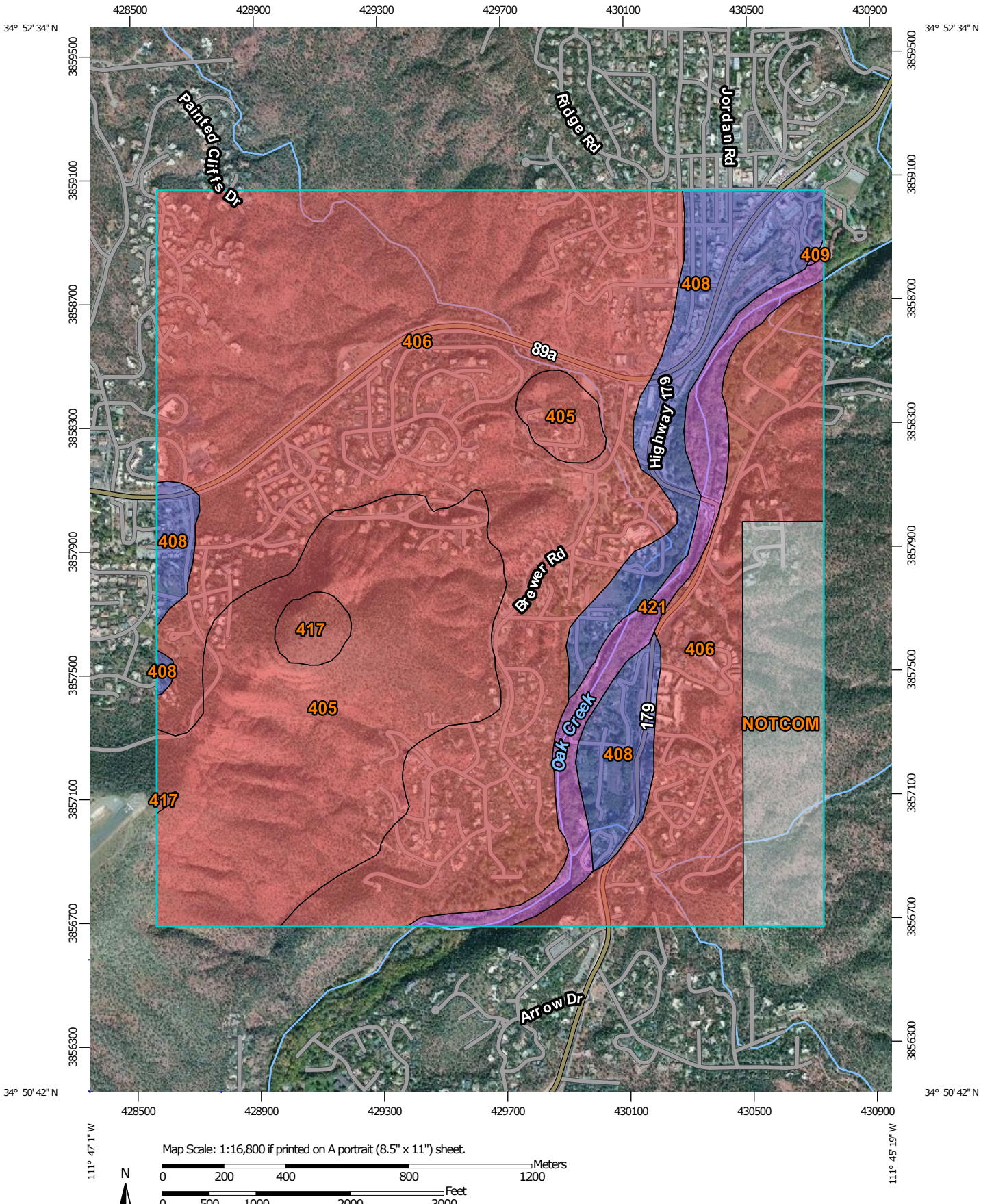


FIGURE 2-3
RATIONAL "C" COEFFICIENT
DEVELOPED WATERSHEDS

AS A FUNCTION OF RAINFALL DEPTH AND TYPE OF DEVELOPMENT



Hydrologic Soil Group—Black Hills-Sedona Area, Arizona, Parts of Coconino and Yavapai Counties
(13183 - Mormon Hill Subdivision)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Black Hills-Sedona Area, Arizona, Parts of Coconino and Yavapai Counties
Survey Area Data: Version 2, Sep 24, 2012

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 1, 2010—Nov 18, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Black Hills-Sedona Area, Arizona, Parts of Coconino and Yavapai Counties (AZ639)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
405	Turist soils, Rock outcrop and Urban land, 15 to 90 percent slopes	D	261.7	20.5%
406	Sedona soils, Turist soils and Urban land, 3 to 15 percent slopes	D	740.5	57.9%
408	Vortex soils and Urban land, 0 to 3 percent slopes	B	125.9	9.8%
409	Vortex fine sand, 0 to 2 percent slopes	A	0.4	0.0%
417	Biplane soils and Urban land, 0 to 3 percent slopes	D	11.9	0.9%
421	Amuzet-Water-Mollic Fluvaquents complex, 0 to 1 percent slopes	A	53.2	4.2%
NOTCOM	No Digital Data Available		85.2	6.7%
Totals for Area of Interest			**1,278.8**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B:

PondPack Detention Calculations

Project Summary	
Title	13183 - Sky Ridge, Basin A
Engineer	Ottis Begay, PE
Company	Shephard-Wesnitzer, Inc.
Date	3/26/2014

Notes

Table of Contents

Subsection: Modified Rational Grand Summary

Modified Rational Method

Q = CiA * Units Conversion; Where conversion = 43560 / (12 * 3600)

Frequency (years)	Area (acres)	Adjusted C Coefficient	Duration (hours)	Intensity (in/h)	Flow (Peak) (ft^3/s)	Flow (Allowable) (ft^3/s)	Volume (inflow) (ft^3)	Volume (Storage) (ft^3)
2	1.180	0.725	0.083	3.357	2.90	2.20	869	210
10	1.180	0.725	0.083	5.395	4.65	3.53	1,396	337
25	1.180	0.725	0.167	6.128	5.29	5.26	3,172	204
100	1.180	0.725	0.167	8.230	7.10	7.06	4,260	273

Subsection: C and Area (Pre-Development) Return Event: 100 years
Label: A Storm Event: IDF Table - Sedona - 2 Year

C and Area Results (Pre-Development)

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Undeveloped Condition	0.550	1.180	(N/A)
Weighted C & Total Area --->	0.550	1.180	0.649

Subsection: C and Area (Post-Development) Return Event: 100 years
Label: A Storm Event: IDF Table - Sedona - 2 Year

C and Area Results

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Post-developed Condition	0.725	1.180	(N/A)
Weighted C & Total Area --->	0.725	1.180	0.856

Index

Project Summary	
Title	13183 - Sky Ridge Basin B
Engineer	Ottis Begay, PE
Company	Shephard-Wesnitzer, Inc.
Date	3/26/2014

Notes

Table of Contents

Subsection: Modified Rational Grand Summary

Modified Rational Method

Q = CiA * Units Conversion; Where conversion = 43560 / (12 * 3600)

Frequency (years)	Area (acres)	Adjusted C Coefficient	Duration (hours)	Intensity (in/h)	Flow (Peak) (ft^3/s)	Flow (Allowable) (ft^3/s)	Volume (inflow) (ft^3)	Volume (Storage) (ft^3)
2	3.500	0.754	0.250	2.080	5.53	5.27	4,980	500
10	3.500	0.754	0.250	3.400	9.04	8.53	8,140	864
25	3.500	0.754	0.250	5.040	13.41	12.80	12,067	1,195
100	3.500	0.754	0.250	6.800	18.09	17.19	16,281	1,657

Subsection: C and Area (Pre-Development) Return Event: 100 years
Label: B Storm Event: IDF Table - Sedona - 2 Year

C and Area Results (Pre-Development)

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Developed, Offsite Residential	0.750	0.749	(N/A)
Undeveloped, Project Site	0.550	2.750	(N/A)
Weighted C & Total Area --->	0.593	3.499	2.074

Subsection: C and Area (Post-Development) Return Event: 100 years
Label: B Storm Event: IDF Table - Sedona - 2 Year

C and Area Results

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Developed, Offsite Residential	0.750	0.749	(N/A)
Developed, Site Residential	0.725	2.386	(N/A)
Impervious, New Roadway	0.950	0.365	(N/A)
Weighted C & Total Area --->	0.754	3.500	2.638

Index

Project Summary	
Title	13183 - Sky Ridge Basin C
Engineer	Ottis Begay, PE
Company	Shephard-Wesnitzer, Inc.
Date	3/26/2014

Notes

Table of Contents

Subsection: Modified Rational Grand Summary

Modified Rational Method

Q = CiA * Units Conversion; Where conversion = 43560 / (12 * 3600)

Frequency (years)	Area (acres)	Adjusted C Coefficient	Duration (hours)	Intensity (in/h)	Flow (Peak) (ft^3/s)	Flow (Allowable) (ft^3/s)	Volume (inflow) (ft^3)	Volume (Storage) (ft^3)
2	4.860	0.750	0.250	2.080	7.64	7.46	6,880	549
10	4.860	0.750	0.250	3.400	12.50	12.08	11,247	963
25	4.860	0.750	0.250	5.040	18.52	18.11	16,672	1,308
100	4.860	0.750	0.250	6.800	24.99	24.33	22,493	1,826

Subsection: C and Area (Pre-Development) Return Event: 100 years
Label: C Storm Event: IDF Table - Sedona - 2 Year

C and Area Results (Pre-Development)

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Undeveloped Condition	0.604	4.860	(N/A)
Weighted C & Total Area --->	0.604	4.860	2.935

Subsection: C and Area (Post-Development) Return Event: 100 years
Label: C Storm Event: IDF Table - Sedona - 2 Year

C and Area Results

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Post-developed Condition	0.750	4.860	(N/A)
Weighted C & Total Area --->	0.750	4.860	3.645

Index

Project Summary	
Title	13183 - Sky Ridge Basin D
Engineer	Ottis Begay, PE
Company	Shephard-Wesnitzer, Inc.
Date	3/26/2014

Notes

Table of Contents

Subsection: Modified Rational Grand Summary

Modified Rational Method

Q = CiA * Units Conversion; Where conversion = 43560 / (12 * 3600)

Frequency (years)	Area (acres)	Adjusted C Coefficient	Duration (hours)	Intensity (in/h)	Flow (Peak) (ft^3/s)	Flow (Allowable) (ft^3/s)	Volume (inflow) (ft^3)	Volume (Storage) (ft^3)
2	6.542	0.749	0.250	2.080	10.27	9.29	9,244	881
10	6.542	0.749	0.250	3.400	16.79	15.19	15,111	1,439
25	6.542	0.749	0.250	5.040	24.89	22.52	22,399	2,134
100	6.542	0.749	0.250	6.800	33.58	30.38	30,221	2,879

Subsection: C and Area (Pre-Development) Return Event: 100 years
Label: D Storm Event: IDF Table - Sedona - 2 Year

C and Area Results (Pre-Development)

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Developed, Offsite Residential	0.750	4.168	(N/A)
Undeveloped, Project Site	0.550	2.373	(N/A)
Weighted C & Total Area --->	0.677	6.541	4.431

Subsection: C and Area (Post-Development) Return Event: 100 years
Label: D Storm Event: IDF Table - Sedona - 2 Year

C and Area Results

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Developed, Offsite Residential	0.750	4.168	(N/A)
Developed, Site Residential	0.725	2.150	(N/A)
Impervious, New Roadway	0.950	0.224	(N/A)
Weighted C & Total Area --->	0.749	6.542	4.898

Index

Project Summary	
Title	13183 - Sky Ridge Basin E
Engineer	Ottis Begay, PE
Company	Shephard-Wesnitzer, Inc.
Date	12/30/2013

Notes

Table of Contents

Subsection: Modified Rational Grand Summary

Modified Rational Method

Q = CiA * Units Conversion; Where conversion = 43560 / (12 * 3600)

Frequency (years)	Area (acres)	Adjusted C Coefficient	Duration (hours)	Intensity (in/h)	Flow (Peak) (ft^3/s)	Flow (Allowable) (ft^3/s)	Volume (inflow) (ft^3)	Volume (Storage) (ft^3)
2	1.035	0.746	0.167	2.523	1.96	1.93	1,179	93
10	1.035	0.746	0.167	4.085	3.18	3.10	1,908	160
25	1.035	0.746	0.167	6.128	4.77	4.61	2,862	254
100	1.035	0.746	0.167	8.230	6.41	6.19	3,844	341

Subsection: C and Area (Pre-Development) Return Event: 100 years
Label: E Storm Event: IDF Table - Sedona - 2 Year

C and Area Results (Pre-Development)

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Undeveloped, Project Site	0.550	1.035	(N/A)
Weighted C & Total Area --->	0.550	1.035	0.569

Subsection: C and Area (Post-Development) Return Event: 100 years
Label: E Storm Event: IDF Table - Sedona - 2 Year

C and Area Results

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Developed, Site Residential	0.725	0.939	(N/A)
Impervious, New Roadway	0.950	0.096	(N/A)
Weighted C & Total Area --->	0.746	1.035	0.772

Index

Project Summary	
Title	13183 - Sky Ridge Basin F
Engineer	Ottis Begay, PE
Company	Shephard-Wesnitzer, Inc.
Date	3/26/2014

Notes

Table of Contents

Subsection: Modified Rational Grand Summary

Modified Rational Method

Q = CiA * Units Conversion; Where conversion = 43560 / (12 * 3600)

Frequency (years)	Area (acres)	Adjusted C Coefficient	Duration (hours)	Intensity (in/h)	Flow (Peak) (ft^3/s)	Flow (Allowable) (ft^3/s)	Volume (inflow) (ft^3)	Volume (Storage) (ft^3)
2	0.452	0.725	0.083	3.357	1.11	0.84	333	80
10	0.452	0.725	0.083	5.395	1.78	1.35	535	129
25	0.452	0.725	0.167	6.128	2.02	2.01	1,215	78
100	0.452	0.725	0.167	8.230	2.72	2.70	1,632	105

Subsection: C and Area (Pre-Development) Return Event: 100 years
Label: F Storm Event: IDF Table - Sedona - 2 Year

C and Area Results (Pre-Development)

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Undeveloped, Project Site	0.550	0.452	(N/A)
Weighted C & Total Area --->	0.550	0.452	0.249

Subsection: C and Area (Post-Development) Return Event: 100 years
Label: F Storm Event: IDF Table - Sedona - 2 Year

C and Area Results

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Developed, Site Residential	0.725	0.452	(N/A)
Weighted C & Total Area --->	0.725	0.452	0.328

Index

Project Summary	
Title	13183 - Sky Ridge Basin G
Engineer	Ottis Begay, PE
Company	Shephard-Wesnitzer, Inc.
Date	3/26/2014

Notes

Table of Contents

Subsection: Modified Rational Grand Summary

Modified Rational Method

Q = CiA * Units Conversion; Where conversion = 43560 / (12 * 3600)

Frequency (years)	Area (acres)	Adjusted C Coefficient	Duration (hours)	Intensity (in/h)	Flow (Peak) (ft^3/s)	Flow (Allowable) (ft^3/s)	Volume (inflow) (ft^3)	Volume (Storage) (ft^3)
2	1.079	0.740	0.167	2.523	2.03	2.01	1,219	87
10	1.079	0.740	0.167	4.085	3.29	3.23	1,973	151
25	1.079	0.740	0.167	6.128	4.93	4.81	2,959	242
100	1.079	0.740	0.167	8.230	6.62	6.46	3,975	325

Subsection: C and Area (Pre-Development) Return Event: 100 years
Label: G Storm Event: IDF Table - Sedona - 2 Year

C and Area Results (Pre-Development)

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Undeveloped, Project Site	0.550	1.079	(N/A)
Weighted C & Total Area --->	0.550	1.079	0.593

Subsection: C and Area (Post-Development) Return Event: 100 years
Label: G Storm Event: IDF Table - Sedona - 2 Year

C and Area Results

Soil/Surface Description	C Coefficient	Area (acres)	Area (Adjusted) (acres)
Developed, Site Residential	0.725	1.008	(N/A)
Impervious, New Roadway	0.950	0.071	(N/A)
Weighted C & Total Area --->	0.740	1.079	0.798

Index

APPENDIX C:

1. Copy of City of Sedona SWMP, Soldier Pass HEC-1 results
2. *CulvertMaster* Output

+	3 COMBINED AT	C13C	2082.	12.20	388.	116.	56.	2.15	
+	ROUTED TO	C13R	2054.	12.30	388.	116.	56.	2.15	
+	HYDROGRAPH AT	C29B	318.	12.35	49.	13.	6.	.35	
+	HYDROGRAPH AT	C12B	133.	12.30	19.	5.	2.	.12	
+	3 COMBINED AT	C12C	2495.	12.30	455.	134.	64.	2.63	
+	ROUTED TO	C12R	2471.	12.35	455.	134.	64.	2.63	
+	HYDROGRAPH AT	C11B	127.	12.10	14.	4.	2.	.07	
+	ROUTED TO	C11R	125.	12.15	14.	4.	2.	.07	
+	HYDROGRAPH AT	C6B	268.	12.05	30.	10.	5.	.11	
+	HYDROGRAPH AT	C10B	137.	12.10	15.	5.	2.	.06	
+	3 COMBINED AT	C6C	518.	12.10	60.	19.	9.	.24	
+	ROUTED TO	C6R	505.	12.15	60.	19.	9.	.24	
+	HYDROGRAPH AT	C5B	131.	12.20	17.	5.	2.	.09	
+	2 COMBINED AT	C5C	631.	12.15	76.	24.	11.	.33	
+	ROUTED TO	C5R	632.	12.20	76.	24.	11.	.33	
+	HYDROGRAPH AT	C3B	244.	12.05	19.	5.	3.	.10	
+	3 COMBINED AT	C3C	3008.	12.35	550.	163.	78.	3.06	
+	ROUTED TO	C3R	3016.	12.35	550.	163.	78.	3.06	
+	HYDROGRAPH AT	C1AB	161.	12.05	19.	6.	3.	.06	
+	HYDROGRAPH AT	C2B	235.	12.15	35.	12.	6.	.13	
+	3 COMBINED AT	C2C	3247.	12.35	604.	181.	87.	3.25	
+	ROUTED TO	C2R	3229.	12.40	604.	181.	87.	3.25	
+	HYDROGRAPH AT	C1B	99.	12.00	10.	3.	2.	.03	
+	2 COMBINED AT	C1C	3245.	12.40	614.	184.	89.	3.28	
+	ROUTED TO	C1R	3245.	12.40	614.	184.	89.	3.28	
+	HYDROGRAPH AT	X2B	172.	12.05	15.	5.	2.	.07	
+	ROUTED TO	SPRES	108.	12.20	15.	5.	2.	.07	
+									4287.53 12.20

Culvert Calculator Report
Proposed Culvert - Basin B Crossing

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	4,293.00	ft	Headwater Depth/Height	1.29	
Computed Headwater Elev	4,289.58	ft	Discharge	17.20	cfs
Inlet Control HW Elev.	4,289.43	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev.	4,289.58	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	4,287.00	ft	Downstream Invert	4,282.00	ft
Length	65.00	ft	Constructed Slope	0.076923	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	1.01	ft
Slope Type	Steep		Normal Depth	1.01	ft
Flow Regime	Supercritical		Critical Depth	1.50	ft
Velocity Downstream	10.85	ft/s	Critical Slope	0.023875	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.024	
Section Material	CMP		Span	2.00	ft
Section Size	24 inch		Rise	2.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	4,289.58	ft	Upstream Velocity Head	0.72	ft
Ke	0.50		Entrance Loss	0.36	ft

Inlet Control Properties					
Inlet Control HW Elev.	4,289.43	ft	Flow Control	Transition	
Inlet Type	Headwall		Area Full	3.1	ft²
K	0.00780		HDS 5 Chart	2	
M	2.00000		HDS 5 Scale	1	
C	0.03790		Equation Form	1	
Y	0.69000				

Culvert Calculator Report
Proposed Culvert - Basin C Crossing (SPRES to X2R)

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	4,255.00	ft	Headwater Depth/Height	1.42	
Computed Headwater Elev	4,253.26	ft	Discharge	108.00	cfs
Inlet Control HW Elev.	4,253.24	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev.	4,253.26	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	4,249.00	ft	Downstream Invert	4,247.00	ft
Length	70.00	ft	Constructed Slope	0.028571	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	2.19	ft
Slope Type	Steep		Normal Depth	2.19	ft
Flow Regime	Supercritical		Critical Depth	2.39	ft
Velocity Downstream	9.75	ft/s	Critical Slope	0.023640	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.024	
Section Material	CMP		Span	3.00	ft
Section Size	36 inch		Rise	3.00	ft
Number Sections	2				

Outlet Control Properties					
Outlet Control HW Elev.	4,253.26	ft	Upstream Velocity Head	1.25	ft
Ke	0.50		Entrance Loss	0.62	ft

Inlet Control Properties					
Inlet Control HW Elev.	4,253.24	ft	Flow Control	N/A	
Inlet Type	Headwall		Area Full	14.1	ft²
K	0.00780		HDS 5 Chart	2	
M	2.00000		HDS 5 Scale	1	
C	0.03790		Equation Form	1	
Y	0.69000				

Culvert Calculator Report
Proposed Culvert - Basin D Crossing (South Trib to X2R)

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	4,274.00	ft	Headwater Depth/Height	0.97	
Computed Headwater Elev	4,272.90	ft	Discharge	30.40	cfs
Inlet Control HW Elev.	4,272.58	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev.	4,272.90	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	4,270.00	ft	Downstream Invert	4,264.00	ft
Length	90.00	ft	Constructed Slope	0.066667	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	1.18	ft
Slope Type	Steep		Normal Depth	1.18	ft
Flow Regime	Supercritical		Critical Depth	1.79	ft
Velocity Downstream	11.80	ft/s	Critical Slope	0.016040	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.024	
Section Material	CMP		Span	3.00	ft
Section Size	36 inch		Rise	3.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	4,272.90	ft	Upstream Velocity Head	0.75	ft
Ke	0.50		Entrance Loss	0.37	ft

Inlet Control Properties					
Inlet Control HW Elev.	4,272.58	ft	Flow Control	N/A	
Inlet Type	Headwall		Area Full	7.1	ft²
K	0.00780		HDS 5 Chart	2	
M	2.00000		HDS 5 Scale	1	
C	0.03790		Equation Form	1	
Y	0.69000				

PLOTTED: Mar 26, 2014 - 9:39am

PRE-DEVELOPED CONDITION PEAK FLOWS							
BASIN	'C' COEFFICIENT	Tc (HR)	AREA (ACRES)	Q_2 (CFS)	Q_{10} (CFS)	Q_{25} (CFS)	Q_{100} (CFS)
A	0.55	0.083	1.181	2.20	3.53	5.26	7.06
B	0.593	0.167	3.50	5.27	8.53	12.80	17.19
C	0.604	0.167	4.86	7.46	12.08	18.11	24.33
D	0.677	0.250	6.542	9.29	15.19	22.52	30.38
E	0.55	0.083	1.035	1.93	3.10	4.61	6.19
F	0.55	0.083	0.452	0.84	1.35	2.01	2.71
G	0.55	0.083	1.079	2.01	3.23	4.81	6.46

LEGEND

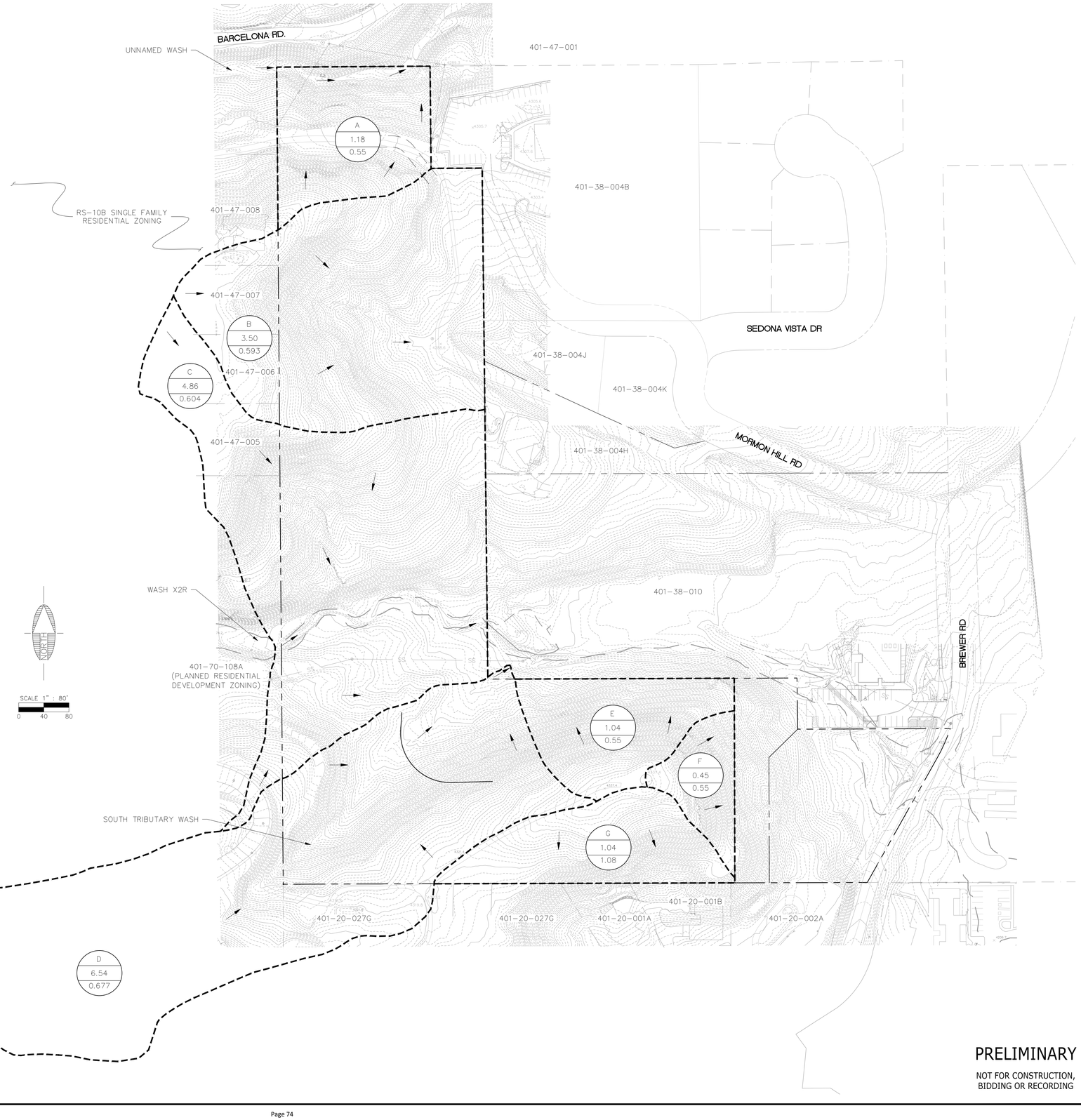
ID / A / C — ID = BASIN IDENTIFICATION; A = AREA IN ACRES; C = RATIONAL "C" COEFFICIET

FLOW DIRECTION

PROPERTY BOUNDARY

DRAINAGE BASIN BOUNDARY

NOTES:
1. ONSITE TOPOGRAPHIC DATA PROVIDED BY SHEPHARD-WESNITZER, INC., CONTOUR INTERVAL = 1'
2. OFFSITE TOPOGRAPHIC DATA FROM THE 2007 CITY OF SEDONA AERIAL SURVEY. CONTOUR INTERVAL = 2'. DATA WAS BEST FIT TO ONSITE TOPOGRAPHIC DATA.



SEDONA ARIZONA

SKY RIDGE

PRELIMINARY DRAINAGE REPORT
PRE-DEVELOPED CONDITION DRAINAGE MAP
APN: 401-38-013C

JOB NO: 13186
DATE: MAR 14
SCALE: 1"=80'
DRAWN: DKB
DESIGN: DKB
CHECKED:

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0354
928.774.6934 fax
www.swiaz.com

Shephard Wesnitzer, Inc.

REVISIONS

NO.	DESCRIPTION	DATE	BY

CALL TWO WORKING DAYS BEFORE YOU DIG 1-800-STAKE-IT

DRAWING NO. D1

SHT NO. 1 OF 1

PRELIMINARY

NOT FOR CONSTRUCTION, BIDDING OR RECORDING

FILE: P:\2013\13183\Engineering\Drainage\Hydrology\D1-13183.dwg DKB-C3D-12

POST-DEVELOPED CONDITION PEAK FLOWS							
BASIN	'C' COEFFICIENT	Tc (HR)	AREA (ACRES)	Q_2 (CFS)	Q_{10} (CFS)	Q_{25} (CFS)	Q_{100} (CFS)
A	0.725	0.083	1.181	2.90	4.66	6.94	9.32
B	0.754	0.167	3.50	6.70	10.85	16.28	21.87
C	0.75	0.167	4.86	9.27	15.00	22.50	30.22
D	0.749	0.250	6.542	10.27	16.79	24.89	33.58
E	0.746	0.083	1.035	2.62	4.20	6.26	8.41
F	0.725	0.083	0.452	1.11	1.78	2.66	3.57
G	0.74	0.083	1.079	2.70	4.35	6.47	8.69

LEGEND

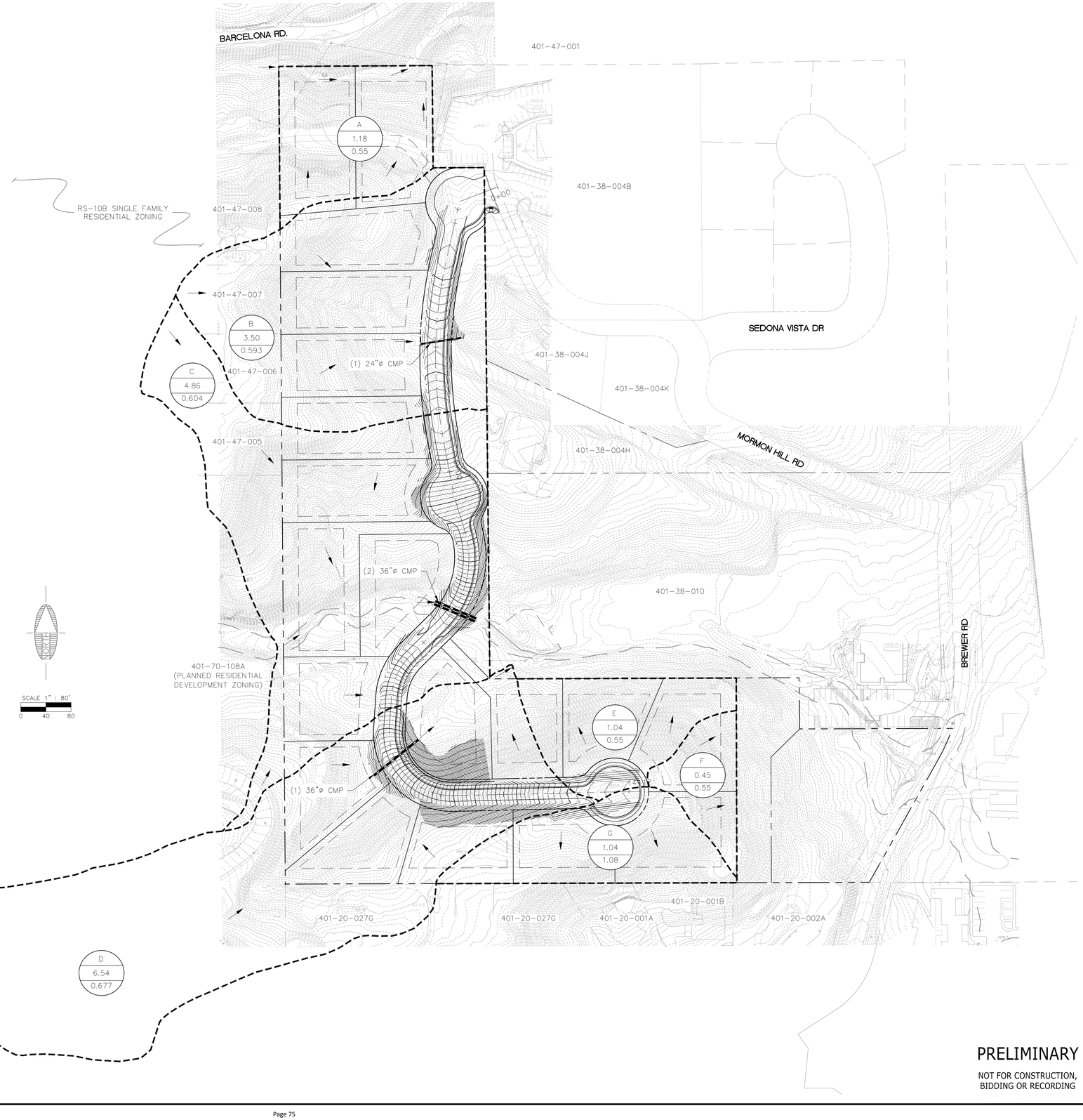
ID = BASIN IDENTIFICATION
A = AREA IN ACRES
C = RATIONAL "C" COEFFICIET

FLOW DIRECTION

PROPERTY BOUNDARY

DRAINAGE BASIN BOUNDARY

NOTES:
1. ONSITE TOPOGRAPHIC DATA PROVIDED BY SHEPHARD-WESNITZER, INC., CONTOUR INTERVAL = 1'
2. OFFSITE TOPOGRAPHIC DATA FROM THE 2007 CITY OF SEDONA AERIAL SURVEY. CONTOUR INTERVAL = 2'. DATA WAS BEST FIT TO ONSITE TOPOGRAPHIC DATA.



PRELIMINARY

NOT FOR CONSTRUCTION, BIDDING OR RECORDING

SEDONA ARIZONA

SKY RIDGE

PRELIMINARY DRAINAGE REPORT
POST-DEVELOPED CONDITION DRAINAGE MAP
APN: 401-38-013C

JOB NO: 13186
DATE: MAR 14
SCALE: 1"=80'
DRAWN: DKB
DESIGN: DKB
CHECKED:

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0354
928.774.6934 fax
www.SWIGZ.com

Shephard Wesnitzer, Inc.

REVISIONS

NO.	DESCRIPTION	DATE	BY

CALL TWO WORKING DAYS BEFORE YOU DIG
1-800-STAKE-IT

DRAWING NO.
D2

SHT NO. 1 OF 1

Shephard Wesnitzer, Inc.

110 West Dale Avenue
Flagstaff, AZ 86001

928.773.0354
928.774.8934 fax

www.swiaz.com

Engineering an environment of excellence.

SKY RIDGE

Traffic Impact Analysis

PREPARED FOR:

Sedtex, LLC
249 Sun Up Ranch Road
Sedona, AZ

March 11, 2014

SWI File No. 13183

PREPARED BY:

Shephard-Wesnitzer Inc.
75 Kallof Place
Sedona, AZ 86336

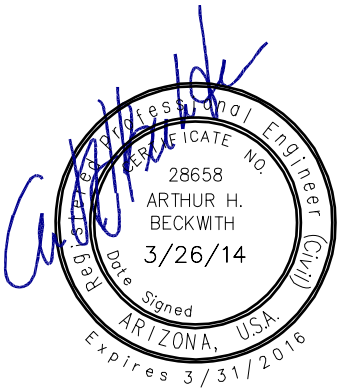


TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

Sky Ridge is a proposed 19 lot single family residential subdivision on 14.17 acres. The site is currently undeveloped and is located west of Brewer Road and Mormon Hill Road, see Figure 1. Access to the site will be provided by Mormon Hill Road. An overall site plan is included on the following pages.

The City of Sedona (COS) requires a Traffic Impact Analysis (TIA) for all residential developments with 10 or more dwelling units. Per discussions with the COS, the intersections of Mormon Hill Road/Brewer Road and Brewer Road/Ranger Road will be included in this TIA. The land use surrounding the proposed project consists mainly of residential subdivisions. There is a Church of Jesus Christ of Latter-day Saints located on the top of the hill at the end of Mormon Hill Road. The Sedona Head Start School is located on the southwest corner of the intersection of Mormon Hill Road and Brewer Road.

PHYSICAL ROADWAY FEATURES

Mormon Hill Road is a two lane roadway with three horizontal curves. There is no posted speed limit; however, Sedona City Code established a speed limit of 25 miles per hour (mph) for all roads and streets unless otherwise posted. There is no curb and gutter and there appears to be several cracks throughout the roadway with the roadway edges falling off in some places. It looks like portions of the road was striped at one point, but it is almost no-existent at this time. Mormon Hill Road forms a stop controlled T-intersection with Brewer Road. The required intersection sight distance was calculated using the AASHTO Geometric Design of Highways and Streets (Green Book) and a 25 mph speed limit. The southbound approach on Brewer Road does not appear to meet the minimum required intersection sight distance, but it does appear that the required stopping sight distance is present.

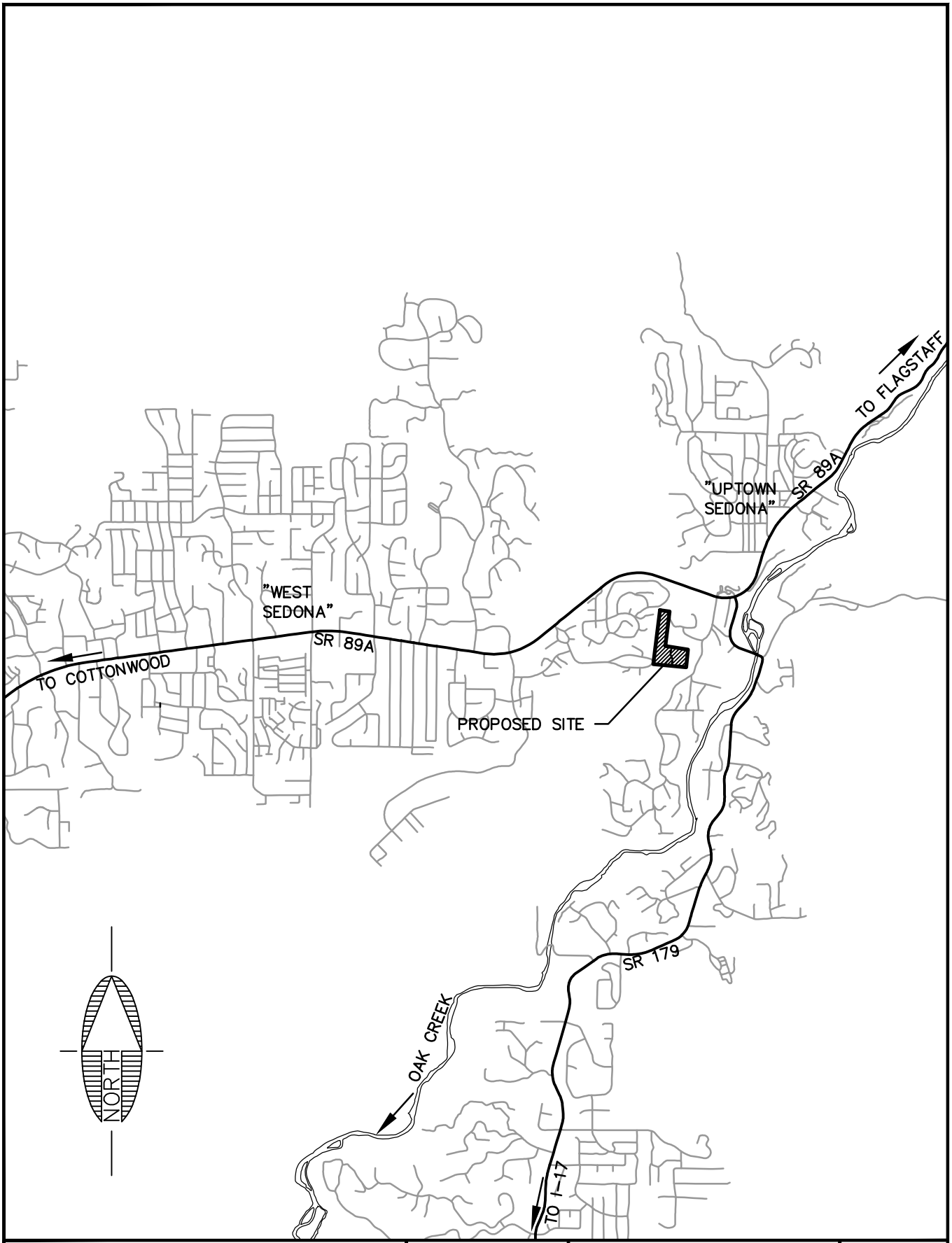
Brewer Road is a two lane roadway with a posted speed limit of 25 mph. There is a school zone in the area of the intersection with Mormon Hill Road with a posted speed limit of 15 mph when school is in session. The pavement and striping north of Brewer Road are in good condition, but there is some minor cracking in the vicinity of Mormon Hill road.

Brewer Road forms a stop controlled T-intersection with Ranger Road. Northbound Brewer Road and westbound Ranger Road are stop control, while vehicles traveling southbound on Brewer have the right-of-way and are not required to stop or yield. Ranger Road is a two lane roadway with one horizontal curve. There is no posted speed limit similar to Mormon Hill Road, so it is assumed to be 25 mph. The pavement and striping both appear to be in good condition.

There are no sidewalks or bike lanes on any of the roadways within the TIA study limits. Brewer Road has three driveways and two intersections with other roadways within 300 feet of its intersection with Mormon Hill Road. There are three driveways and one intersection with another roadway along Mormon Hill Road between Brewer Road and the top of the hill.

PLOTTED: Mar 11, 2014–12:11pm

FILE: P:\2013\13183\Engineering\Traffic\VIC MAP.dwg SCI–C3D–12



Shephard Wesnitzer, Inc.
75 Kallof Place
Sedona, AZ 86336
928.282.1061
928.282.2058 fax
www.swiaz.com

JOB NO:	13183
DATE:	MAR 2014
SCALE:	1"=3000'
DRAWN:	SCI
DESIGN:	SCI
CHECKED:	GEC

SKY RIDGE — CITY OF SEDONA ARIZONA

VICINITY MAP

SHEET F1 OF

PLOTTED: Aug 19, 2013-2:42pm

SCALE: 1" = 60'

0 30 60

20' TEL EASEMENT
20' APS EASEMENT
20' WATER EASEMENT
5' GAS EASEMENT
20' WATER EASEMENT
5' GAS & WATER EASEMENT
10' SEWER EASEMENT

1
27293.72 SQ FT
0.63 ACRES

2
28261.27 SQ FT
0.65 ACRES

3
23762.99 SQ FT
0.55 ACRES

4
22766.99 SQ FT
0.52 ACRES

5
22153.60 SQ FT
0.51 ACRES

6
22925.04 SQ FT
0.53 ACRES

7
22785.75 SQ FT
0.52 ACRES

8
29974.24 SQ FT
0.69 ACRES

9
23784.84 SQ FT
0.55 ACRES

10
18293.93 SQ FT
0.42 ACRES

11
22815.36 SQ FT
0.52 ACRES

12
23644.73 SQ FT
0.54 ACRES

13
18321.51 SQ FT
0.42 ACRES

14
19533.39 SQ FT
0.45 ACRES

15
20198.16 SQ FT
0.46 ACRES

16
25389.43 SQ FT
0.58 ACRES

17
18126.16 SQ FT
0.42 ACRES

18
20127.71 SQ FT
0.46 ACRES

19
22599.96 SQ FT
0.52 ACRES

0+00
14+17

MORMON HILL RD

5' GAS EASEMENT
20' WATER EASEMENT

SEDONA VISTA DR

BREWER RD

MORMON HILL RD

66' R/W

20' APS EASEMENT

SEDONA
ARIZONA

14 ACRE PARCEL

PRELIMINARY LAYOUT

JOB NO:	13186
DATE:	AUG 13
SCALE:	1"=60'
DRAWN:	MWJ
DESIGN:	AHB
CHECKED:	AHB

75 Kallof Place
Sedona, AZ 86336
928.282.1061
928.282.2058 fax
www.swiaz.com

Shephard Wesnitzer, Inc.

REVISIONS			
NO.	DESCRIPTION	DATE	BY

CALL TWO WORKING DAYS BEFORE YOU DIG
1-800-STAKE-IT

DRAWING NO.
EX1

SHT NO. 1 OF 1

PRELIMINARY

NOT FOR CONSTRUCTION, BIDDING OR RECORDING

FILE: P:\2013\13183\Drawings\Concept Plans\13183-PRELIMINARY LAYOUT.dwg MWJ-C3D12

TRAFFIC CHARACTERISTICS

Recent traffic volume data is unavailable for Brewer Road. Per discussions with COS, intersection traffic counts for the intersections of Mormon Hill Road/Brewer Road and Brewer Road/Ranger Road are not required for this study. Traffic volumes for Brewer Road south of Ranger Road were estimated using the *Institute of Transportation Engineers (ITE) Trip Generation, Eight Edition*. Coconino County GIS and Google Earth mapping was used to determine the land use of the surrounding area. There are approximately 204 single-family detached housing units, two churches, and one school south of Ranger Road. Refer to Table 1 for a summary of the land use and estimated traffic for Brewer Road.

TABLE 1 – ESTIMATED BREWER ROAD TRAFFIC VOLUMES

Land Use	ITE Code	Daily Traffic (veh/day)	AM Peak (veh/hr)	PM Peak (veh/hr)
Single-Family Detached Housing	210	1,952	153	206
Elementary School	520	63	22	7
Church	560	155	10	9
TOTAL	**-**	**2,170**	**185**	**223**

Traffic volumes for SR 179 and 89A were obtained from the ADOT Transportation Data Management System. The COS requested the traffic generated by the project be compared to the traffic volumes for these two State highways. The 2012 two-way AADT of SR 179 between Schnebly Hill Road and SR 89A was 8,628 vehicles/day (vpd). The 2012 two-way AADT of SR 89A between Rolling Hills Road and SR 179 South was 24,841 vpd.

Three years of historical accident data was obtained from the COS Police Department. Brewer Road has experienced a total of eight accidents in the last three years, all without injury and none of them involving bicycles or pedestrians. They involved three rear end collisions, one sideswipe, three single vehicle incidents, and one classified as “other”. The full accident list is included in the appendix.

Since traffic counts were not collected for this TIA, SWI was unable to observe traffic to

determine the vehicle classifications. The majority of the surrounding land use is residential, so it is likely that most vehicles travelling down Brewer Road are passenger cars. There was no reported bicycle or pedestrian conflicts in the accident data obtained from the COS, so no safety issues are anticipated.

EXISTING TRAFFIC CONTROLS

Mormon Hill Road

There is a stop sign at the intersection with Brewer Road, as well as stop signs at all three legs of the intersection with Sedona Vista Drive. There is a stop sign ahead warning sign approximately 200 feet west of Brewer Road. Portions of the roadway above Sedona Vista Drive appear to have had centerline striping, but the striping has faded and is almost non-existent. There are no crosswalks or traffic signals anywhere along Mormon Hill Road, but there is one street light at its intersection with Brewer Road. There are also no bicycle paths or lanes along Mormon Hill Road.

Brewer Road/Ranger Road

There are no traffic signals within the limits of this TIA. Northbound Brewer Road has a stop sign with its intersection with Ranger Road. Additional signs along Brewer Road include speed limit, school zone, stop ahead, and a pedestrian crosswalk sign. There is a striped crosswalk just south of the intersection of Brewer Road and Mormon Hill Road. The westbound approach of Ranger Road has a stop sign as well as a "cross traffic does not stop" warning sign. There are no bicycle paths or lanes along Brewer Road or Ranger Road.

TRAFFIC GENERATOR CHARACTERISTICS

The proposed project consists of a 19 lot single family residential subdivision. The parcel is 14.17 acres total with just under 10 acres reserved for lots and the rest being open space. The average daily volumes, including AM and PM peak hour trips generated by the proposed development have been estimated using trip rates provided by the *Institution of Transportation Engineers (ITE) Trip Generation, Eight Edition*. ITE land use code 210: Single-Family Detached Housing predicts 182 daily trips including 14 AM and 19 PM peak hour trips. The project will also generate 192 daily trips on Saturday including 18 peak hour trips, and an

additional 167 daily trips on Sunday including 16 peak hour trips. The trips generated by the project are negligible when compared to the 8,628 vpd on SR 179 and 24,841 vpd on SR 89A.

Mormon Hill Road is the only access to the development. It is assumed that most, if not all, of the generated trips leaving the development will turn north onto Brewer Road. Being a single family development, it is anticipated that most of the vehicles will be passenger cars. Single family developments typically do not generate significant amounts of pedestrian or bicycle traffic.

LOS analyses on the intersections of Mormon Hill Road/Brewer Road and Brewer Road/Ranger Road were not performed. Conversations with the COS indicated that both intersections are functioning well, and that there have been no issues with pedestrians or bicycles. The projected traffic from the project is approximately 8% of the existing traffic on Brewer Road, so it is not anticipated that the project will have any negative impacts to either intersection.

TABLE 2 - TRIP GENERATION

LAND USE	ITE CODE	VARIABLE	TIME PERIOD	EQUATION	% ENTERING	WKDAY TOTAL	AM TOTAL	AM		PM TOTAL	PM	
								in	out		in	out
Sky Ridge	**210**											
Variable = Dwelling Units		19	*Weekday*	T=9.57(X)	50%	182						
Single-Family Detached Housing			*AM Peak*	T=0.75(X)	25%		14	4	11			
			PM peak	T=1.01(X)	63%					19	12	7
				Total Trips		182	14	4	11	19	12	7

SUMMARY

The estimated traffic generated by the Sky Ridge development will not have any negative impacts to the surrounding roadway network. The projected traffic is approximately 8% of the existing traffic volumes on Brewer Road, as estimated by the ITE Trip Generation manual. When compared to the 2012 AADT of 8,628 vpd on SR 179 and 24,841 vpd on SR 89A, the daily traffic volume of 182 vpd is negligible. SWI does not recommend any additional TIA's or improvements to Brewer Road or Ranger Road.

There have been no reported pedestrian or bicycle safety issues in the last three years within the limits of this study. The project is not anticipated to generate large amounts of pedestrian and bicycle traffic, and as a result, it is unlikely that this project will create unsafe conditions for pedestrians or bicycles.

The AASHTO intersection sight distance is a desired condition, while the stopping sight distance is required. It does not appear that there is adequate intersection sight distance at the intersection of Brewer Road and Mormon Hill Road, but the required stopping sight distance is present. The accident report did not indicate this has been an issue within the last three years, so it will most likely not be an issue after build-out of the project.

APPENDIX

EXISTING BREWER ROAD TRAFFIC VOLUMES

LAND USE	ITE CODE	VARIABLE	TIME PERIOD	EQUATION	% ENTERING	WKDAY TOTAL	AM TOTAL	PM TOTAL
Adjacent Subdivisions	**210**							
Variable = Dwelling Units		204	*Weekday*	T=9.57(X)	50%	1,952		
Single-Family Detached Housing			*AM Peak*	T=0.75(X)	25%		153	
			PM peak	T=1.01(X)	63%			206
Adjacent School	**520**							
Variable = Students		49	*Weekday*	T=1.29(X)	50%	63		
Elementary School			*AM Peak*	T=0.45(X)	55%		22	
			PM peak	T=0.15(X)	49%			7
Adjacent Churches	**560**							
Variable = 1000 sf GFA		17	*Weekday*	T=9.11(X)	50%	155		
Church			*AM Peak*	T=0.56(X)	62%		10	
			PM peak	T=0.55(X)	48%			9
Total Trips (Site Entrance/Exit Total)						**2,170**	**185**	**223**

Accident Address Cross Street Name	Accident Address Street Name	Accident Date and Time	Accident Manner Of Collision	Accident Number	Accident Total Fatalities	Accident Total Injuries	Accident Total Units	Accident Type	Accident Unit Traffic Unit Action
	BREWER	2011/03/11 21:16:00:	Other	20111020:	0	0	1	Non-Injury	Going Straight Ahead
RANGER	BREWER	2011/07/09 07:18:00:	Single Vehicle	20113118:	0	0	1	Non-Injury	Going Straight Ahead
PROCHNOW	BREWER	2011/10/09 20:30:00:	Single Vehicle	20114818:	0	0	1	Non-Injury	Going Straight Ahead
89A	BREWER	2011/12/02 14:50:00:	xxRear-End	20115727:	0	0	2	Non-Injury	Going Straight Ahead
89A	BREWER	2011/12/02 14:50:00:	xxRear-End	20115727:	0	0	2	Non-Injury	Stopped in Trafficway
89A	BREWER	2012/08/09 12:41:00:	Rear End	20124425:	0	0	2	Non-Injury	Going Straight Ahead
	BREWER	2012/10/11 20:20:00:	Single Vehicle	20125568:	0	0	1	Non-Injury	Going Straight Ahead
	BREWER	2013/03/18 23:59:00:	Sideswipe (Same Direction)	20131158:	0	0	1	Non-Injury	Going Straight Ahead

Total: 8

Western Technologies Inc.

GEOTECHNICAL EVALUATION REPORT

MORMON HILL ESTATES
Mormon Hill Road
Sedona, Arizona
WT Reference No. 2523JW477

PREPARED FOR:
Terry and Janet Klebe
249 Sun Up Ranch Road
Sedona, Arizona 86351

February 28, 2014

Craig P. Wiedeman, P.E.
Senior Geotechnical Engineer

Reviewed By: Bruce M. MacIlroy, P.E.
Senior Geotechnical Engineer

Western Technologies Inc.
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004
(928) 774-8700 • fax (928) 774-6469

February 28, 2014

Terry and Janet Klebe
249 Sun Up Ranch Road
Sedona, Arizona 86351

Re: Geotechnical Evaluation
Mormon Hill Estates
Mormon Hill Road
Sedona, Arizona

Job No. 2523JW447

Western Technologies Inc. has completed the geotechnical evaluation for the proposed single-family residential subdivision to be located in Sedona, Arizona. This study was performed in general accordance with our proposal number 2523PW118 dated December 16, 2013. The results of our study, including the test pit location diagram, laboratory test results, test pit logs, and the geotechnical recommendations are attached.

We have appreciated being of service to you in the geotechnical engineering phase of this project and are prepared to assist you during the construction phases as well. If design conditions change, or if you have any questions concerning this report or any of our testing, inspection, design and consulting services, please do not hesitate to contact us. We look forward to working with you on future projects.

Sincerely,
WESTERN TECHNOLOGIES, INC.
Geotechnical Engineering Services

Craig P. Wiedeman, P.E.
Senior Geotechnical Engineer

Copies to: Addressee (emailed)
Shephard – Wesnitzer, Inc./A. Beckwith (emailed)

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

GEOTECHNICAL EVALUATION
MORMON HILL ESTATES
MORMON HILL ROAD
SEDONA, ARIZONA
JOB NO. 2523JW477

1.0 PURPOSE

This report contains the results of our geotechnical evaluation for the proposed single-family residential subdivision to be located south of the north end of Mormon Hill Road in Sedona, Arizona. The purpose of these services is to provide information and recommendations regarding:

- foundation design parameters
- floor slab support
- lateral earth pressures
- earthwork
- cut/fill slopes
- anticipated excavation conditions
- pavement sections
- drainage
- corrosivity to concrete

Results of the field exploration, field tests, and laboratory testing program are presented in the Appendices.

2.0 PROJECT DESCRIPTION

Project information supplied by Mr. Terry Klebe and Mr. Art Beckwith with SWI indicates the proposed project will consist of a nineteen lot single-family residential subdivision to be constructed on the 14-acre site. The development will include an approximate 1400 linear foot, two-lane, asphalt paved residential roadway. Maximum cut depths and fill heights for the proposed roadway are currently estimated to be about 10 feet. Finished grades for the proposed residences had not been determined at the time of this report. It is anticipated that the residences will be one and two-story, wood frame and/or masonry structures with plan areas of about 3000 to 5000 square feet. Maximum wall and column loads are assumed to be 3 kips per linear foot and 55 kips, respectively. We anticipate no extraordinary slab-on-grade criteria and that ground floor levels will be within about 5 feet of existing site grades. Should any of this information be incorrect, we request that the Client notify WT immediately.

3.0 SCOPE OF SERVICES

3.1 Field Exploration

Eight test pits were excavated to depths ranging from about 1 to 4.5 feet below the existing site grades. In addition, three seismic refraction survey traverses were performed at selected locations across the Site. The test pits and seismic profile lines were at the approximate locations shown on the attached test pit location diagram. Logs of the test pits are presented in Appendix A. Results of the seismic refraction surveying are shown in Appendix C.

A field log was prepared for each test pit. These logs contain visual classifications of the materials encountered during excavation as well as interpolation of the subsurface conditions between samples. Final logs, included in Appendix A, represent our interpretation of the field logs and include modifications based on laboratory observations and tests of the field samples. The final logs describe the materials encountered, their thicknesses, and the locations where samples were obtained.

The Unified Soil Classification System was used to classify soils. The soil classification symbols appear on the test pit logs and are briefly described in Appendix A. The results of the field exploration, along with local and regional geologic characteristics, were used to estimate the seismic design criteria.

3.2 Laboratory Analyses

Laboratory analyses were performed on representative soil samples to aid in material classification and to estimate pertinent engineering properties of the on-site soils for preparation of this report. Testing was performed in general accordance with applicable ASTM and Arizona methods. The following tests were performed and the results are presented in Appendix B.

- Water content
- Compression
- Expansion
- Shear strength
- Gradation
- Plasticity
- R-Value
- Maximum density/optimum moisture
- Soluble salts and sulfates

Test results were utilized in the development of the recommendations contained in this report.

3.3 Analyses and Report

This geotechnical evaluation report includes a description of the project, a discussion of the field and laboratory testing programs, a discussion of the subsurface conditions, and design recommendations as required to satisfy the purpose previously described.

This report is for the exclusive purpose of providing geotechnical engineering and/or testing information and recommendations. The scope of services for this project does not include, either specifically or by implication, any environmental assessment of the Site or identification of contaminated or hazardous materials or conditions. If the owner is concerned about the potential for such contamination, other studies should be undertaken. We are available to discuss the scope of such studies with you.

4.0 SITE CONDITIONS

4.1 Surface

At the time of our exploration, the Site was mostly undeveloped property. A utility easement primitive roadway is present along the northern end of the Site and down the northern portion of the proposed new roadway. Another primitive roadway entering the southern site boundary leads to an old concrete water tank located very near the southern end of the proposed new roadway. The Site is located along the flanks of moderate to steep hillsides oriented down to the east along the north-south portion of the proposed new roadway, and down to the north, east and south along the east-west portion of the proposed new roadway, which will run along the top of a relatively narrow ridgeline. Existing slope face angles vary from about 2.5:1 (horizontal:vertical) to near-vertical in random, exposed rock ledge areas. Materials exposed on the various slope faces include soil and highly weathered to massive rock. Rock ledge conditions with random differential weathering varying vertically is present throughout the Site. A moderate sized wash (approximately 10 to 15 feet wide) crosses the south-central portion of the Site and drains to the east. No water was present in the wash at the time of the field exploration. An elevation differential of approximately 100 feet is present between the invert of the wash and the top of the narrow ridgeline which forms the southern portion of the Site. Other smaller washes down the existing hillsides are also present. The ground surface was rocky with gravel, cobble and boulder sized materials, along with low rock outcrops. Site surface drainage was good by sheet flow into the various washes. A moderate to relatively heavy growth of native desert vegetation was present on the Site.

4.2 Subsurface

As presented on the test pit logs, the shallow surface and subsoils to depths of about 1 to 4.5 feet were found to include silty and clayey gravels with variable amounts of sand and low to medium plasticity fines, medium plasticity clays with sand and gravel, and areas where the material excavated as cobble sized materials. The materials underlying the site soils consisted of rock of the Supai Group, which are interbedded sandstones, siltstones, mudstones and occasional limestones. The degree of cementation and weathering of the rock materials varied considerably, both horizontally and vertically. Refusal to excavation using a standard sized rubber-tired backhoe occurred almost immediately upon encountering the rock at all of the locations explored. Groundwater was not encountered in any test pit at the time of exploration. The logs in Appendix A show details of the subsurface conditions encountered during the field exploration.

5.0 GEOTECHNICAL PROPERTIES

5.1 Laboratory Tests

Undisturbed samples suitable for compression testing were not obtained due to the shallow, granular nature of the site soils. Two selected samples were remolded to approximately 95 percent of the maximum density at water contents near optimum, as determined by ASTM D698, and tested for compression and shear strength characteristics. Laboratory test results indicate that the remolded samples exhibit low compressibility at the remolded water contents and low additional compression when the water content is increased. The remolded samples exhibited moderate to high shear strengths at water contents approaching saturation. When water is added to compacted near-surface soils, low to moderate expansion occurs.

5.2 Field Tests

Three seismic traverses were performed with a 12-channel Geometric ES 3000. The traverses were at the approximate locations shown on the attached Plate 1. The traverse lines were oriented approximately as shown, with a 10 foot geophone spacing designed to gather data to a depth of approximately 30 feet below the existing ground surface. The following table lists the results of the seismic survey lines performed on the Site, and includes the estimated compression wave velocities of the strata encountered.

Location	Depth (feet)	Estimated Compression Wave Velocity (ft./sec.)
Line A	0 to 5 5 to 25 below 25	740 2170 4730
Line B	0 to 8 below 8	1130 4500
Line C	0 to 10 below 10	1220 8590

The values obtained from the seismic refraction traverses indicate velocities beneath the central two-thirds of the traverse location only. Due to variations in the extent of weathering, the irregular configuration of soil and rock stratigraphy, and the possible occurrence of vertical discontinuities, these velocities should only be used as approximate values beneath or near the indicated location. The seismic traverses tend to transect these layers. Thus, the seismic velocities obtained will represent an average velocity of the different materials traversed and not a true indicator of the highest velocity (most dense) material. Additionally, the basic assumption in seismic refraction theory is that each successive layer downward is more dense than the one above. For this reason, seismic refraction surveys will not detect soft layers located below or between hard layers.

6.0 RECOMMENDATIONS

6.1 General

Recommendations contained in this report are based on our understanding of the project criteria described in Section 2.0, **PROJECT DESCRIPTION**, and the assumption that the soil and subsurface conditions are those disclosed by the test pits. Others may change the plans, final elevations, number and type of structures, foundation loads, and floor levels during design or construction. Substantially different subsurface conditions from those described herein may be encountered or become known. Any changes in the project criteria or subsurface conditions shall be brought to our attention in writing.

6.2 Foundations

Based on observation of existing residences in the area, it is likely that the proposed large, custom homes on this Site will utilize tall stem walls and stepped foundations, rather than large/deep mass fill areas, to accommodate the steep site grades. Proposed retaining walls will likely encounter both fill and rock conditions. The proposed residential structures and retaining walls can be supported by conventional shallow spread footings. To help reduce possible differential settlements, all residence foundations should bear either entirely on dense rock or entirely on engineered fill. Mixed bearing conditions (rock and fill) should be avoided for residence foundations. For retaining walls, control joints should be provided at all cut/fill transition areas to help account for differential movements. Footings should bear at least 2 feet below the lowest adjacent finished grade. Footings bearing on dense rock may be designed to impose a maximum dead plus live-load pressure of up to 4000 pounds per square foot (psf). If desired, lean mix (2-sack) concrete backfill can be used between the bottom of the footing and the top of the dense rock. Footings bearing on engineered fill may be designed to impose a maximum dead plus live-load pressure of up to 2500 psf. If engineered fill bearing conditions are used, a minimum thickness of 1.5 feet of engineered fill should be provided below all foundation elements.

We anticipate that total settlement proposed residence and retaining wall structures, supported as recommended on engineered fill, should be less than 1 inch. Differential settlement should be less than 1/2 inch. Additional foundation movements could occur if water from any source infiltrates the foundation soils. Therefore, proper drainage should be provided in the final design and during construction. Settlement of foundations bearing on dense rock and/or lean mix concrete backfill should be nominal.

Finished grade is the lowest adjacent grade for perimeter residential and retaining wall footings and floor level and/or bottom of crawl space elevation for interior footings. The design bearing capacities apply to dead loads plus design live load conditions. Recommended minimum widths of column and wall footings are 24 inches and 16 inches, respectively. The bearing values given are net bearing values and the weight of the concrete in the footings may be ignored.

Thickened slab sections can be used to support interior partitions, provided that loads do not exceed 900 pounds per linear foot, thickened sections have a minimum width of 12 inches, and thickness and reinforcement are consistent with structural requirements.

All footings, stem walls, and masonry walls should be reinforced to reduce the potential for distress caused by differential foundation movements. The use of joints at openings or other discontinuities in masonry walls is recommended.

We recommend that the geotechnical engineer or his representative observe the footing excavations before reinforcing steel and concrete are placed. It should be determined whether the bearing materials exposed are similar to those anticipated for support of the footings. Any soft, loose or unacceptable materials should be undercut to suitable materials and backfilled with approved fill materials for foundations bearing on engineered fill or lean concrete for foundations bearing on dense rock.

6.3 Lateral Design Criteria

For cantilevered walls above any free water surface with level backfill and no surcharge loads, recommended equivalent fluid pressures and coefficients of base friction for unrestrained elements are:

- Active:
  - Undisturbed subsoil ..... 35 psf/ft
  - Compacted granular backfill ..... 30 psf/ft
  - Compacted site soils ..... 35 psf/ft

- Passive:
  - Shallow wall footings ..... 250 psf/ft
  - Shallow column footings ..... 400 psf/ft
  - Dense rock ..... 750 psf/ft

- Coefficient of base friction:
  - Soil 0.40*
  - Rock 0.55

  * The coefficient of base friction (soil) should be reduced to 0.30 when used in conjunction with passive pressure.

Where the design includes restrained elements, the following equivalent fluid pressures are recommended:

- At-rest:
  - Undisturbed subsoil ..... 60 psf/ft
  - Compacted granular backfill ..... 55 psf/ft

These lateral earth pressures are not applicable for submerged soils. We should be consulted for additional recommendations if such conditions are to be included in the design. Any surcharge from adjacent loadings must also be considered. Walls below grade should be waterproofed.

We recommend a free-draining soil layer or manufactured geocomposite material, be constructed adjacent to the back of the retaining walls and any basement walls. A filter may be required between the soil backfill and drainage layer. This drainage zone should help prevent hydrostatic pressure buildup. This vertical drain should be tied into a gravity drainage system at the base of the retaining wall. It is important that all backfill be properly placed and compacted. Backfill should be mechanically compacted in layers. Flooding or jetting should not be permitted. Care should be taken not to damage the walls when placing the backfill. Backfills should be inspected and tested during placement.

Fill against footings, stem walls, basement walls and retaining walls should be compacted to densities specified in **EARTHWORK**. Medium to high plasticity clay soils should not be used as backfill against retaining walls. Compaction of each lift adjacent to walls should be accomplished with hand-operated tampers or other lightweight compactors. Overcompaction may cause excessive lateral earth pressures which could result in wall movements.

6.4 Seismic Considerations

For structural designs based upon the International Building Code 2009, the recommended site class is C.

6.5 Slab-on-Grade Support

Floor slabs can be supported on properly placed and compacted fill or approved recompacted natural soils. For design of interior slabs-on-grade, we recommend using a modulus of subgrade reaction (k) of 250 pounds per cubic inch (pci) for the on-site soils or imported fill material. The slab subgrade should be prepared by the procedures outlined in this report. A minimum 4 inch thick layer of base course should be provided beneath all slabs to help prevent capillary rise and a damp slab. The use of vapor retarders is desirable for any slab-on-grade where the floor will be covered by products using water based adhesives, wood, vinyl backed carpet, impermeable floor coatings (urethane, epoxy, acrylic terrazzo, etc.) or where the floor will be in contact with moisture sensitive equipment or product. When used, the design and installation should be in accordance with the recommendation given in ACI 302.2R-06. Final determination on the use of a vapor retarder should be left to the slab designer.

All concrete placement and curing operations should follow the American Concrete Institute manual recommendations. Improper curing techniques and/or high slump (water-cement ratio) could cause excessive shrinkage, cracking or curling. The plastic properties of the concrete should be documented at the time of placement and specimens should also be prepared for strength testing to verify compliance with project

specifications. Concrete slabs should be allowed to cure adequately before placing vinyl or other moisture sensitive floor covering.

6.6 Drainage

The major cause of soil problems in this vicinity is moisture increase in soils below structures. Therefore, it is extremely important that positive drainage be provided during construction and maintained throughout the life of the proposed residences. Infiltration of water into utility or foundation excavations must be prevented during construction. Planters and other surface features which could retain water in areas adjacent to the houses should be eliminated. Scuppers and drain pipes should be designed to provide drainage away from the homes for a minimum of 10 feet.

In areas where sidewalks or paving do not immediately adjoin the structures, protective slopes should be provided with an outfall of about 5 percent for at least 10 feet from perimeter walls. Backfill against footings, exterior walls, and in utility and sprinkler line trenches should be well compacted and free of all construction debris to minimize the possibility of moisture infiltration.

6.7 Corrosivity to Concrete

The chemical test results indicate that the site soils are negligibly corrosive to concrete. However, in order to be consistent with standard local practice and for reasons of material availability, we recommend that Type II portland cement be used for all concrete on and below grade.

6.8 Pavements

Based on existing subgrade conditions, a pavement section consisting of 3 inches of asphalt concrete over 5 inches of aggregate base course material is recommended for the proposed residential roadway.

Bituminous surfacing should be constructed of dense-graded, central plant-mix, asphalt concrete. Base course and asphalt concrete should conform with City of Sedona or Yavapai County specifications.

Material and compaction requirements should conform to recommendations presented under **EARTHWORK**. The gradient of paved surfaces should ensure positive drainage. Water should not pond in areas directly adjoining paved sections. The native subgrade soils will soften and lose stability if subjected to conditions which result in an increase in water content.

6.8.1 Pavement Analyses

The recommended pavement sections are based on the following conditions. This firm should be contacted if any of these conditions change so that revised recommendations can be provided, if necessary.

a. A laboratory tested R-value of 21 for the on-site soils which corresponds to a resilient modulus of approximately 7450 pounds per square inch. Any required fills should be constructed using on-site or imported materials with subgrade support characteristics equal to or greater than the subgrade soils in the area being filled.

b. Structural coefficients of 0.40 for asphalt concrete and 0.12 for aggregate base course material.

c. A present serviceability index of 4.5, a terminal serviceability index of 2.4, an overall standard deviation of 0.35, a reliability factor of 85 percent, a drainage coefficient of 0.85, a seasonal variation factor of 2.4, and a design life of 20 years.

d. A total 18-kip equivalent single axle load (ESAL) of 20,000 for the proposed residential roadway.

7.0 EARTHWORK

7.1 General

The conclusions contained in this report for the proposed construction are contingent upon compliance with recommendations presented in this section. Any excavating, trenching, or disturbance which occurs after completion of the earthwork must be backfilled, compacted and tested in accordance with the recommendations contained herein. It is not reasonable to rely upon our conclusions and recommendations if any future unobserved and untested trenching, grading or backfilling occurs.

7.2 Site Clearing

Strip and remove existing vegetation, organic topsoils, debris, and any other deleterious materials from the building and pavement areas. The building area is defined as that area within the building footprint plus 5 feet beyond the perimeter of the footprint. All exposed

surfaces should be free of mounds and depressions which could prevent uniform compaction.

Sloping areas steeper than 5:1 (horizontal:vertical) should be benched to reduce the potential for slippage between existing slopes and fills. Benches should be level and wide enough to accommodate compaction and earth moving equipment.

7.3 Excavation

The degrees of weathering and cementation of the rock on this Site vary significantly both horizontally and vertically, making for extremely variable anticipated excavation conditions. The test pits were excavated with a standard sized rubber-tired backhoe using a locally experienced operator. We were unable to obtain any significant depth of penetration into the rock with that piece of equipment. Ease of removal in a mass excavation operation often depends on the nature of the discontinuities in the rock. Moderately to highly weathered and fractured rock can typically be ripped and excavated with standard equipment. Light weathering and/or widely spaced fractures with massive rock between will require heavy duty, specialized equipment/procedures such as large pneumatic hammers, possibly with drilling/blasting if allowed. For this rock, the degree of cementation will also be significant. Heavy cementation is often what creates difficult excavation conditions. Depending on the excavation techniques used, rock may dislodge in large boulder size pieces. Weathering/fracturing and degree of cementation should be expected to vary considerably (both horizontally and vertically) across the Site.

The following maximum slope face angles are recommended for the materials indicated:

Material	Maximum Slope Face Angle (horizontal:vertical)
Soil	2:1
Weathered Rock	1:1
Massive Rock	0.5:1
Fill	2:1

The mass stability of the existing slopes on the Site has been suitable for many years. However, considerable boulder and smaller debris flow deposition has occurred at the bottom of some of the slopes due to natural face weathering. This natural face weathering can require significant future maintenance for debris removal. The amount of

debris flow tends to increase with the steepness of the slope face angle and the height of the slope, with the steeper slopes creating more debris flow.

Depending on flow velocities in the floodplain area, bank protection may be required along the floodplain boundary areas. Only the more heavily cemented, massive rock should be used for bank protection material. Weathered rock will not be suitable for this purpose.

On-Site materials may pump or become unworkable at high water contents. Workability may be improved by scarifying and drying. Overexcavation of wet zones and replacement with drier granular materials may be necessary. The use of lightweight excavation and compaction equipment may be required to minimize subgrade pumping.

Excavations into the on-Site materials will encounter a variety of conditions. Caving soils such as clean sands and gravels may be encountered. The individual contractors should be made responsible for designing and constructing stable, temporary excavations as required to maintain stability of both the excavation sides and bottom. All excavations should be sloped or shored in the interest of safety following local and federal regulations, including current OSHA excavation and trench safety standards.

For this Site, the native soils can be considered Type B, and the differentially weathered rock will vary from Type A to stable rock. OSHA recommends a maximum temporary slope inclination of 1:1 for Type B, 0.75:1 for Type A, and allows vertical for stable rock. The materials to be penetrated by the proposed excavations will vary significantly across the site. Our classifications are based solely on the materials encountered in widely spaced exploratory test pits. The contractor should verify that similar conditions exist throughout the proposed area of excavation. If different subsurface conditions are found at the time of construction, we should be contacted immediately to evaluate the conditions encountered.

If any excavation, including a utility trench, is extended to a depth of more than 20 feet, the side slopes should be designed by a professional engineer. As a safety measure, it is recommended that all vehicles and soil piles be kept a minimum lateral distance back from the crest of the slope at least equal to the slope height. The exposed slope face should be protected against the elements.

We recommend that the contractor retain a geotechnical engineer to observe the materials exposed in all excavations. This will provide an opportunity to classify the material types encountered, and to modify the excavation slopes as necessary.

7.4 Foundation Preparation (Rock Bearing)

Specialized treatment of existing dense rock bearing materials within foundation areas is not required. Remove all loose or disturbed materials from the bottoms and sides of the excavations prior to the placement of foundation concrete and/or lean mix concrete backfill. The contractor should be cautioned that the differentially weathered rock can change from dense rock to near soil-like consistency over short distances. Accordingly, removal of softer materials within foundations areas and replacement with either lean mix (2-sack) concrete backfill or structural concrete may be required in some areas.

7.5 Foundation Preparation (Engineered Fill Bearing)

As previously discussed, provide a minimum thickness of 1.5 feet of engineered fill material below all foundation elements. In footing areas, remove existing soils and/or rock to a minimum depth of 1.5 feet below the bottom of the footing. Removal should extend a minimum of 1 foot beyond the footing edges in soils. Removal in rock may extend straight down along the sides of the footing. Replace the removed materials with site soils recompacted as engineered fill and/or with properly compacted imported low expansive engineered fill material.

7.6 Slab-on-Grade Preparation

Scarify, moisten or dry as required, and compact all subgrade soils to a minimum depth of 8 inches. The subgrade preparation should be accomplished in a manner which will result in uniform water contents and densities after compaction. Recompaction is not required where rock or heavily cemented soil is encountered as identified by the geotechnical engineer or his qualified representative.

7.7 Pavement Preparation

Prior to placement of fill and/or pavement materials, the exposed subgrade soils should be proof-rolled to verify that stable subgrade conditions exist. Any loose, soft, disturbed, or otherwise unsuitable materials should be overexcavated and replaced with engineered fill. The subgrade should then be scarified, moistened as required, and recompacted for a minimum depth of 8 inches prior to placement of fill and pavement materials. Recompaction is not required where rock or heavily cemented soil is encountered as identified by the geotechnical engineer or his qualified representative.

7.8 Materials

a. Clean on-site native soils with a maximum dimension of 6 inches, rock crushed and processed to the gradation given in item c. below, or imported materials may be used as fill material for the following:

- foundation areas
- slab-on-grade areas
- pavement areas
- backfill

b. Frozen soils should not be used as fill or backfill.

c. Oversize material, greater than 6 inches, may be used in the lower portions of the fills, below 3 feet, provided that the particles are distributed throughout the fill and no nesting of oversize material occurs. The materials used in the upper 3 feet of building pads should be reasonably free of rocks or lumps having a particle diameter greater than 6 inches. Acceptance of the quantity of oversize material should be at the discretion of the geotechnical engineer.

d. Imported soils should conform to the following:

- Gradation (ASTM C136): percent finer by weight

6"	100
4"	85-100
3/4"	70-100
No. 4 Sieve	50-100
No. 200 Sieve	40 (max)

- Maximum expansive potential (%)* 1.5

- Maximum soluble sulfates (%) 0.10

* Measured on a sample compacted to approximately 95 percent of the ASTM D698 maximum dry density at about 3 percent below optimum water content. The sample is confined under a 100 psf surcharge and submerged.

e. Base course should conform to City of Sedona or Yavapai County specifications.

7.9 Placement and Compaction

a. Place and compact fill in horizontal lifts, using equipment and procedures that will produce recommended water contents and densities throughout the lift.

b. Uncompacted fill lifts should not exceed 8 inches.

c. No fill should be placed over frozen ground.

d. Materials should be compacted to the following:

Material	Minimum Percent Compaction (ASTM D698)
• On-site and imported materials, reworked and fill:	
Below footings	95
Below slabs-on-grade	90
Below pavement	95
Deep fill areas (from top to a depth of 5 feet)	95
Deep fill areas (below a depth of 5 feet)	100
• Aggregate base:	
Below slabs-on-grade	95
Below pavement	100
• Miscellaneous backfill	90

e. On-site and imported soils with low expansive potential and aggregate base course materials should be compacted with a moisture content in the range of 3 percent below to 3 percent above optimum.

7.10 Compliance

Recommendations for slabs-on-grade, foundations and pavement elements supported on compacted fills or prepared subgrade depend upon compliance with **EARTHWORK** recommendations. To assess compliance, observation and testing should be performed under the direction of a geotechnical engineer.

7.11 Ground Compaction and Shrinkage Factors

Ground surface lowering of 1 to 2 inches can occur by compaction of the surface soils to a 12-inch depth and to an average density of 95 percent of the ASTM D698 maximum dry density. The following tabulation presents the relationship for compacted on-site material, percent compaction, and approximate shrinkage of excavated on-site materials placed in compacted fills:

Material Type	Percent Compaction in Fill (ASTM D698)	Estimated Shrinkage (%)
Site Soils	90	10 to 20
	95	15 to 25
On-Site Rock	90	+5 to +15 (swell)
	95	0 to +10 (swell)

The estimated shrinkages consider only material densification and do not consider other effects such as transport, wind, overcompaction, or compaction of subsoils to greater depths. The final amount of shrink/swell will depend on many variables regarding the grading at the site. The factors presented will also vary based on the practices of the grading contractor, and ultimately on the densities achieved in the fill.

8.0 LIMITATIONS

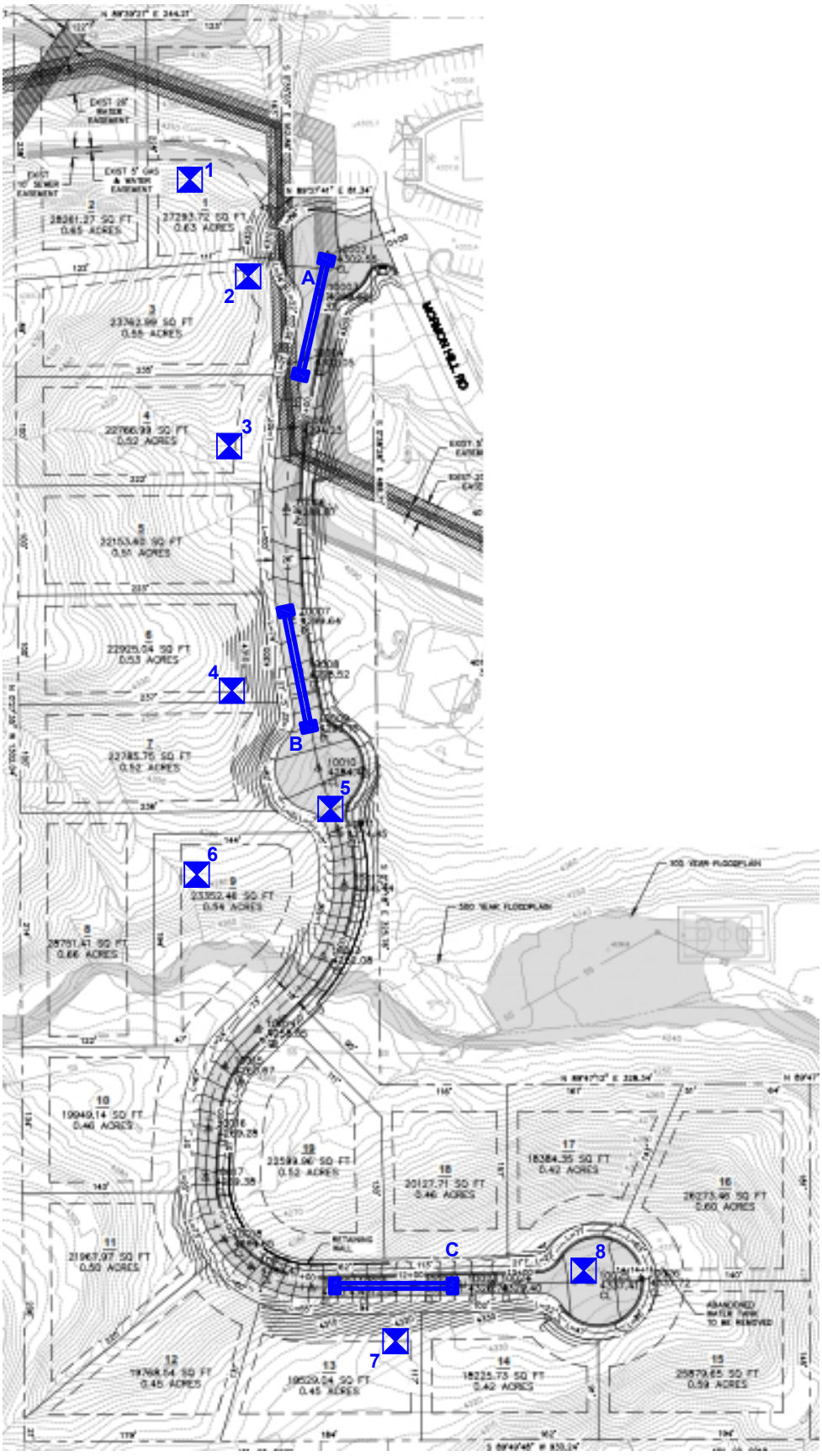
This report has been prepared assuming the project criteria described in Section 2.0. If changes in the project criteria occur, or if different subsurface conditions are encountered or become known, the conclusions and recommendations presented herein shall become invalid. In any such event, WT should be contacted in order to assess the effect that such variations may have on our conclusions and recommendations.

The recommendations presented are based entirely upon data derived from a limited number of samples obtained from widely spaced test pits. The attached logs are indicators of subsurface conditions only at the specific locations and times noted. This report assumes the uniformity of the geology and soil structure between test pits, however variations can and often do exist. Whenever any deviation, difference or change is encountered or becomes known, WT should be contacted.

This report is valid for the earlier of one year from the date of issuance, a change in circumstances, or discovered variations. After expiration, no person or entity shall rely on this report without the express written authorization of WT.

9.0 CLOSURE

We prepared this report as an aid to the designers of the proposed project. The comments, statements, recommendations and conclusions set forth in this report reflect the opinions of the authors. These opinions are based upon data obtained at the location of the borings, and from laboratory tests. Work on your project was performed in accordance with generally accepted standards and practices utilized by professionals providing similar services in this locality. No other warranty, express or implied, is made.



Not to Scale

Approximate Test Pit Location

Approximate Seismic Survey Traverse Location

MORMON HILL ESTATES	
Test Pit Location Diagram	
Western Technologies Inc.	
Job No.: 2523JW477	Plate: 1

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

Allowable Soil Bearing Capacity	The recommended maximum contact stress developed at the interface of the foundation element and the supporting material.
Backfill	A specified material placed and compacted in a confined area.
Base Course	A layer of specified material placed on a subgrade or subbase.
Base Course Grade	Top of base course.
Bench	A horizontal surface in a sloped deposit.
Caisson	A concrete foundation element cast in a circular excavation which may have an enlarged base. Sometimes referred to as a cast-in-place pier.
Concrete Slabs-on-Grade	A concrete surface layer cast directly upon a base, subbase or subgrade.
Crushed Rock Base Course	A base course composed of crushed rock of a specified gradation.
Differential Settlement	Unequal settlement between or within foundation elements of a structure.
Engineered Fill	Specified material placed and compacted to specified density and/or moisture conditions under observations of a representative of a soil engineer.
Existing Fill	Materials deposited through the action of man prior to exploration of the site.
Existing Grade	The ground surface at the time of field exploration.
Expansive Potential	The potential of a soil to expand (increase in volume) due to absorption of moisture.
Fill	Materials deposited by the actions of man.
Finished Grade	The final grade created as a part of the project.
Gravel Base Course	A base course composed of naturally occurring gravel with a specified gradation.
Heave	Upward movement
Native Grade	The naturally occurring ground surface.
Native Soil	Naturally occurring on-site soil.
Rock	A natural aggregate of mineral grains connected by strong and permanent cohesive forces. Usually requires drilling, wedging, blasting or other methods of extraordinary force for excavation.
Sand & Gravel Base	A base course of sand and gravel of a specified gradation.
Scarify	To mechanically loosen soil or break down existing soil structure.
Settlement	Downward movement.
Soil	Any unconsolidated material composed of discrete solid particles, derived from the physical and/or chemical disintegration of vegetable or mineral matter, which can be separated by gentle mechanical means such as agitation in water.
Strip	To remove from present location.
Subbase	A layer of specified material placed to form a layer between the subgrade and base course.
Subbase Grade	Top of subbase.
Subgrade	Prepared native soil surface.

COARSE-GRAINED SOILS

LESS THAN 50% FINES*

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
GW	WELL-GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LESS THAN 5% FINES	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE
GP	POORLY-GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LESS THAN 5% FINES	
GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES, MORE THAN 12% FINES	
GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, MORE THAN 12% FINES	
SW	WELL-GRADED SANDS OR GRAVELLY SANDS, LESS THAN 5% FINES	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE
SP	POORLY-GRADED SANDS OR GRAVELLY SANDS, LESS THAN 5% FINES	
SM	SILTY SANDS, SAND-SILT MIXTURES, MORE THAN 12% FINES	
SC	CLAYEY SANDS, SAND-CLAY MIXTURES, MORE THAN 12% FINES	

NOTE: Coarse-grained soils receive dual symbols if they contain 5% to 12% fines (e.g., SW-SM, GP-GC).

FINE-GRAINED SOILS

MORE THAN 50% FINES

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50
CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
OL	ORGANIC SILTS OR ORGANIC SILT-CLAYS OF LOW PLASTICITY	
MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTS, ELASTIC SILTS	SILTS AND CLAYS LIQUID LIMIT MORE THAN 50
CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY	
PT	PEAT, MUCK AND OTHER HIGHLY ORGANIC SOILS	HIGHLY ORGANIC SOILS

NOTE: Fine-grained soils may receive dual classification based upon plasticity characteristics.

SOIL SIZES

COMPONENT	SIZE RANGE
BOULDERS	Above 12 in.
COBBLES	3 in. – 12 in.
GRAVEL	No. 4 – 3 in.
Coarse	3/4 in. – 3 in.
Fine	No. 4 – 3/4 in.
SAND	No. 200 – No. 4
Coarse	No. 10 – No. 4
Medium	No. 40 – No. 10
Fine	No. 200 – No. 40
*Fines (Silt or Clay)	Below No. 200

NOTE: Only sizes smaller than three inches are used to classify soils

CONSISTENCY

CLAYS & SILTS	BLOWS PER FOOT*
VERY SOFT	0 – 2
SOFT	2 – 4
FIRM	4 – 8
STIFF	8 – 16
VERY STIFF	16 – 32
HARD	Over 32

RELATIVE DENSITY

SANDS & GRAVELS	BLOWS PER FOOT*
VERY LOOSE	0 – 4
LOOSE	4 – 10
MEDIUM DENSE	10 – 30
DENSE	30 – 50
VERY DENSE	Over 50

*Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 inch ID) split spoon (ASTM D1586).

PLASTICITY OF FINE GRAINED SOILS

PLASTICITY INDEX	TERM
0	NON-PLASTIC
1 – 7	LOW
8 – 25	MEDIUM
Over 25	HIGH

DEFINITION OF WATER CONTENT

DRY
SLIGHTLY DAMP
DAMP
MOIST
WET
SATURATED

The number shown in **"TEST PIT NO."** refers to the approximate location of the same number indicated on the "Test Pit Location Diagram" as positioned in the field by pacing or measurement from property lines and/or existing features.

"EXCAVATION TYPE" refers to the equipment type used in the excavation of the test pit, and may include the width of the bucket on the excavator.

"SAMPLE TYPE" refers to the form of sample recovery, in which **G = Grab sample**.

"MOISTURE CONTENT (% OF DRY WT.)" refers to the laboratory-determined water content in percent (Ref. ASTM D2216).

"USCS" refers to the "Unified Soil Classification System" Group Symbol for the soil type as defined by ASTM D 2487 and D 2488. The soils were classified visually in the field, and where appropriate, classifications were modified by visual examination of samples in the laboratory and/or by appropriate tests.

These notes and test pit logs are intended for use in conjunction with the purposes of our services defined in the text. Test pit log data should not be construed as part of the construction plans nor as defining construction conditions.

Test pit logs depict our interpretations of subsurface conditions at the locations and on the date(s) noted. Variations in subsurface conditions and characteristics may occur between test pits. Groundwater levels may fluctuate due to seasonal variations and other factors.

The stratification lines shown on the test pit logs represent our interpretation of the approximate boundary between soil or rock types based upon visual field classification at the test pit location. The transition between materials is approximate and may be more or less gradual than indicated.

DATE EXCAVATED: **1-30-14**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 1

EQUIPMENT: **JD 310K**
EXCAVATION TYPE: **24 inch bucket**
FIELD ENGINEER: **C. Saline**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
6.9		G				GC-GM		Silty, Clayey GRAVEL; with sand, red, slightly damp
5.0		G						
					5			**Excavation Refusal at 4.5 Feet on Rock**

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **MORMON HILL ESTATES**
PROJECT NO.: **2523JW477**

PLATE **A-4**

TEST PIT LOG

DATE EXCAVATED: **1-30-14**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 2

EQUIPMENT: **JD 310K**
EXCAVATION TYPE: **24 inch bucket**
FIELD ENGINEER: **C. Saline**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
4.6		G				GC-GM		Silty, Clayey GRAVEL; with sand, red, slightly damp
					5			**Excavation Refusal at 3 Feet on Rock**

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **MORMON HILL ESTATES**
PROJECT NO.: **2523JW477**

PLATE **A-5**

TEST PIT LOG

DATE EXCAVATED: **1-30-14**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 3

EQUIPMENT: **JD 310K**
EXCAVATION TYPE: **24 inch bucket**
FIELD ENGINEER: **C. Saline**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G						COBBLES; with gravel, sand and clay, purple-red, slightly damp
								Excavation Refusal at 1 Foot on Rock
					5			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **MORMON HILL ESTATES**
PROJECT NO.: **2523JW477**

PLATE **A-6**

TEST PIT LOG

DATE EXCAVATED: **1-30-14**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 4

EQUIPMENT: **JD 310K**
EXCAVATION TYPE: **24 inch bucket**
FIELD ENGINEER: **C. Saline**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
7.4		G				CL		Lean CLAY; with gravel, some sand, orange-red, slightly damp
					5			**Excavation Refusal at 3 Feet on Rock**

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **MORMON HILL ESTATES**
PROJECT NO.: **2523JW477**

PLATE **A-7**

TEST PIT LOG

DATE EXCAVATED: **1-30-14**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 5

EQUIPMENT: **JD 310K**
EXCAVATION TYPE: **24 inch bucket**
FIELD ENGINEER: **C. Saline**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
6.5		G				GC		Clayey GRAVEL; some sand, red, slightly damp
								with cobbles, purple
								Excavation Refusal at 3 Feet on Rock
					5			

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **MORMON HILL ESTATES**
PROJECT NO.: **2523JW477**

PLATE **A-8**

TEST PIT LOG

DATE EXCAVATED: **1-30-14**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 6

EQUIPMENT: **JD 310K**
EXCAVATION TYPE: **24 inch bucket**
FIELD ENGINEER: **C. Saline**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G						COBBLES; with gravel, sand and clay, orange-red, slightly damp
					5			**Excavation Refusal at 3 Feet on Rock**

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **MORMON HILL ESTATES**
PROJECT NO.: **2523JW477**

PLATE **A-9**

TEST PIT LOG

DATE EXCAVATED: **1-30-14**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 7

EQUIPMENT: **JD 310K**
EXCAVATION TYPE: **24 inch bucket**
FIELD ENGINEER: **C. Saline**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
6.6		G				GC		Clayey GRAVEL; with sand, orange-red, slightly damp
								Excavation Refusal at 1 Foot on Rock
					5			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **MORMON HILL ESTATES**
PROJECT NO.: **2523JW477**

PLATE **A-10**

TEST PIT LOG

DATE EXCAVATED: **1-30-14**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 8

EQUIPMENT: **JD 310K**
EXCAVATION TYPE: **24 inch bucket**
FIELD ENGINEER: **C. Saline**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
10.3		G				GC-GM		Silty, Clayey GRAVEL; with sand, pink-red, damp
								Excavation Refusal at 1 Foot on Rock
					5			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **MORMON HILL ESTATES**
PROJECT NO.: **2523JW477**

PLATE **A-11**

TEST PIT LOG

PHYSICAL PROPERTIES

Test Pit No.	Depth (ft)	Soil Class.	Particle Size Distribution (%) Passing by Weight						Atterberg Limits		Moisture-Density Relationship			R-Value	Remarks
			3"	¾"	#4	#10	#40	#200	LL	PI	Dry Density (pcf)	Optimum Moisture (%)	Method		
1	0-2	GC-GM	100	81	52	42	36	32.5	24	7					2
1	2-4.5	GC-GM	100	74	52	46	42	36.3	24	6					2
2	0-3	GC-GM	100	87	55	47	39	30.3	23	5	127.7	9.7	A		2,4
4	0-3	CL		100	80	80	78	71.4	30	11	125.8	10.5	A		2,4
5	0-1.5	GC	100	86	58	54	50	43.8	30	10				21	2
7	0-1	GC	100	74	55	48	44	32.9	31	11					2
8	0-1	GC-GM	87	65	46	40	35	23.0	27	6					2

NOTE: NP = Non-plastic

REMARKS

Classification / Particle Size / Moisture-Density Relationship

1. Visual
2. Laboratory Tested
3. Minus #200 Only
4. Test Method ASTM D698/AASHTO T99
5. Test Method ASTM D1557/AASHTO T180
6. From the ADOT Family of Curves

Geotechnical Environmental Inspections Materials

Western Technologies Inc.
The Quality People
Since 1955

PROJECT: MORMON HILL ESTATES

JOB NO.: 2523JW477

PHYSICAL PROPERTIES

PLATE

B-1

SOIL PROPERTIES

Test Pit No.	Depth (ft.)	Soil Class	Initial Dry Density (pcf)	Initial Water Content (%)	Compression Properties			Expansion Properties		Plasticity		Percent Passing #200	Soluble		Remarks
					Surcharge (ksf)	Total Compression (%)		Surcharge (ksf)	Expansion (%)	LL	PI		Salt ppm	Sulfate ppm	
						In-Situ	After Saturation								
2	0-3	GC-GM	121.2	9.7				0.1	0.2						1,2
4	0-3	CL	119.5	10.5				0.1	2.9				119	111	1,2
7	0-1	GC											91	61	

Note: Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted. NP = Non-Plastic

Remarks

1. Compacted density (approx. 95% of ASTM D698 max. density at optimum moisture content.)
2. Submerged to approximate saturation.
3. Slight rebound after saturation.
4. Sample disturbance observed.

Geotechnical Environmental Inspections Materials

Western Technologies Inc.
The Quality People
Since 1955

PROJECT: **MORMON HILL ESTATES**

JOB NO.: **2523JW477**

SOIL PROPERTIES

PLATE

B-2

SOIL PROPERTIES

Test Pit No.	Depth (ft.)	Soil Class.	Initial Dry Density (pcf)	Initial Water Content (%)	Compression Properties			Direct Shear		Plasticity		Percent Passing #200	Soluble Salts (ppm)	Remarks
					Surcharge (ksf)	Total Compression (%)		Cohesion (ksf)	Φ Angle (°)	Liquid Limit	Plasticity Index			
						In-Situ	After Saturation							
2	0-3	GC-GM	120.9	10.3				0.6	33					1,2
4	0-3	CL	118.9	11.0				0.1	37					1,2

Note: Initial Dry Density and Initial Water Content are in-situ values unless otherwise noted. NP = Non-Plastic

Remarks

1. Compacted density (approx. 95% of ASTM D698 max. density at moisture content slightly below optimum.)
2. Submerged to approximate saturation.
3. Slight rebound after saturation.
4. Testing in progress.

Geotechnical Environmental Inspections Materials

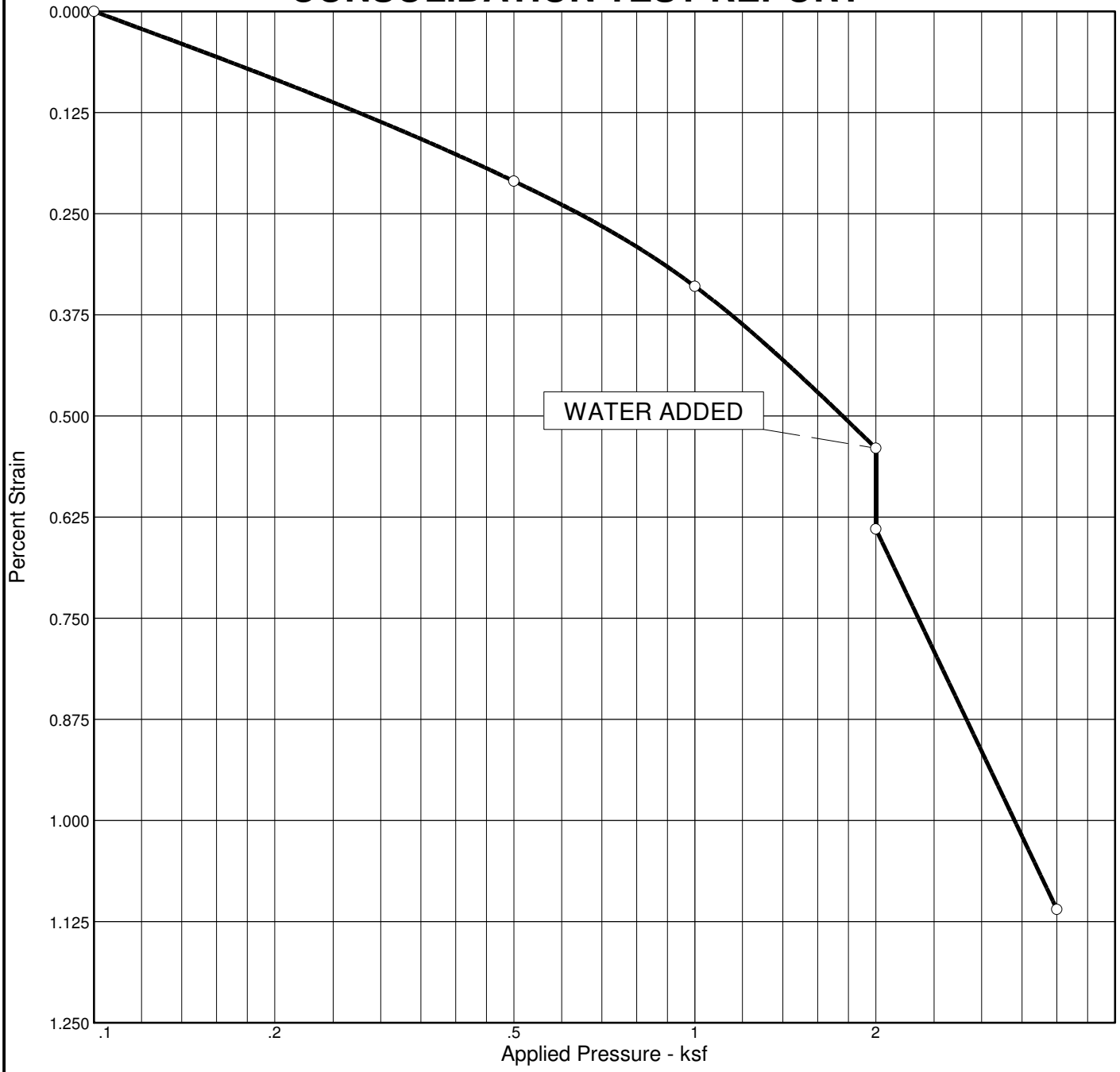
Western Technologies Inc.
The Quality People
Since 1955

PROJECT: **MORMON HILL ESTATES**
JOB NO.: **2523JW477**

SOIL PROPERTIES

PLATE **B-3**

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	P_c (ksf)	C_c	C_r	Swell Press. (ksf)	Clpse. %	e_o
Sat.	Moist.											
69.8 %	9.7 %	120.9			2.65						0.1	0.368

MATERIAL DESCRIPTION	USCS	AASHTO
SILTY CLAYEY GRAVEL	GC-GM	

Project No. 2523JW477 **Client:** TERRY AND JANET KLEBE

Project: MORMON HILL ESTATES

Source: REMOLDED **Sample No.:** TP 2 **Elev./Depth:** 0-3 FEET

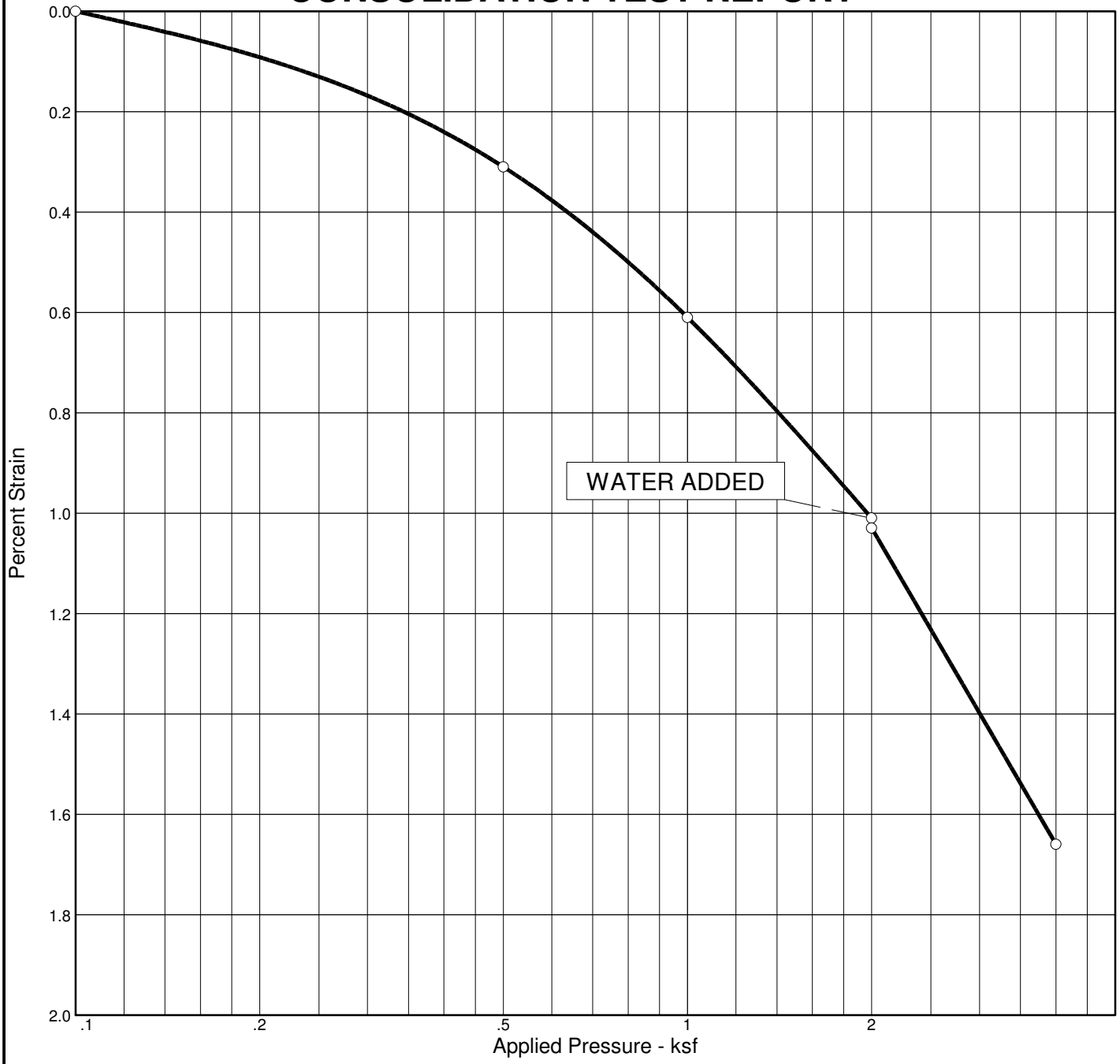
Remarks:

Western Technologies, Inc.

Flagstaff, AZ

Plate B-4

CONSOLIDATION TEST REPORT



Natural		Dry Dens. (pcf)	LL	PI	Sp. Gr.	Overburden (ksf)	P_c (ksf)	C_c	C_r	Swell Press. (ksf)	Swell %	e_o
Sat.	Moist.											
71.6 %	10.5 %	119.2			2.65							0.388

MATERIAL DESCRIPTION	USCS	AASHTO
LEAN CLAY	CL	

Project No. 2523JW477 **Client:** TERRY AND JANET KLEBE

Project: MORMON HILL ESTATES

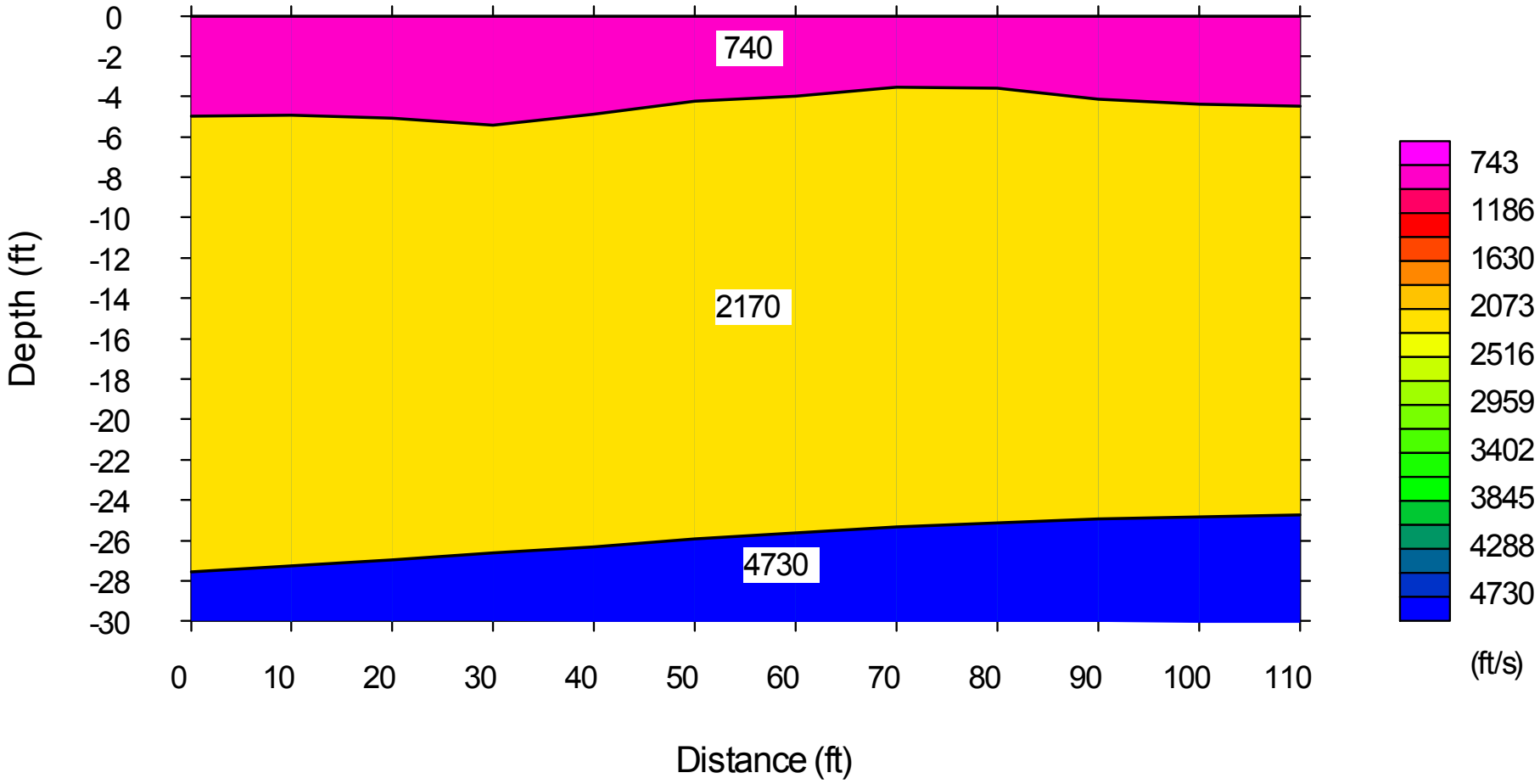
Source: REMOLDED **Sample No.:** TP 4 **Elev./Depth:** 0-3 FEET

Remarks:

Western Technologies, Inc.

Flagstaff, AZ

Plate B-5



Line A

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955

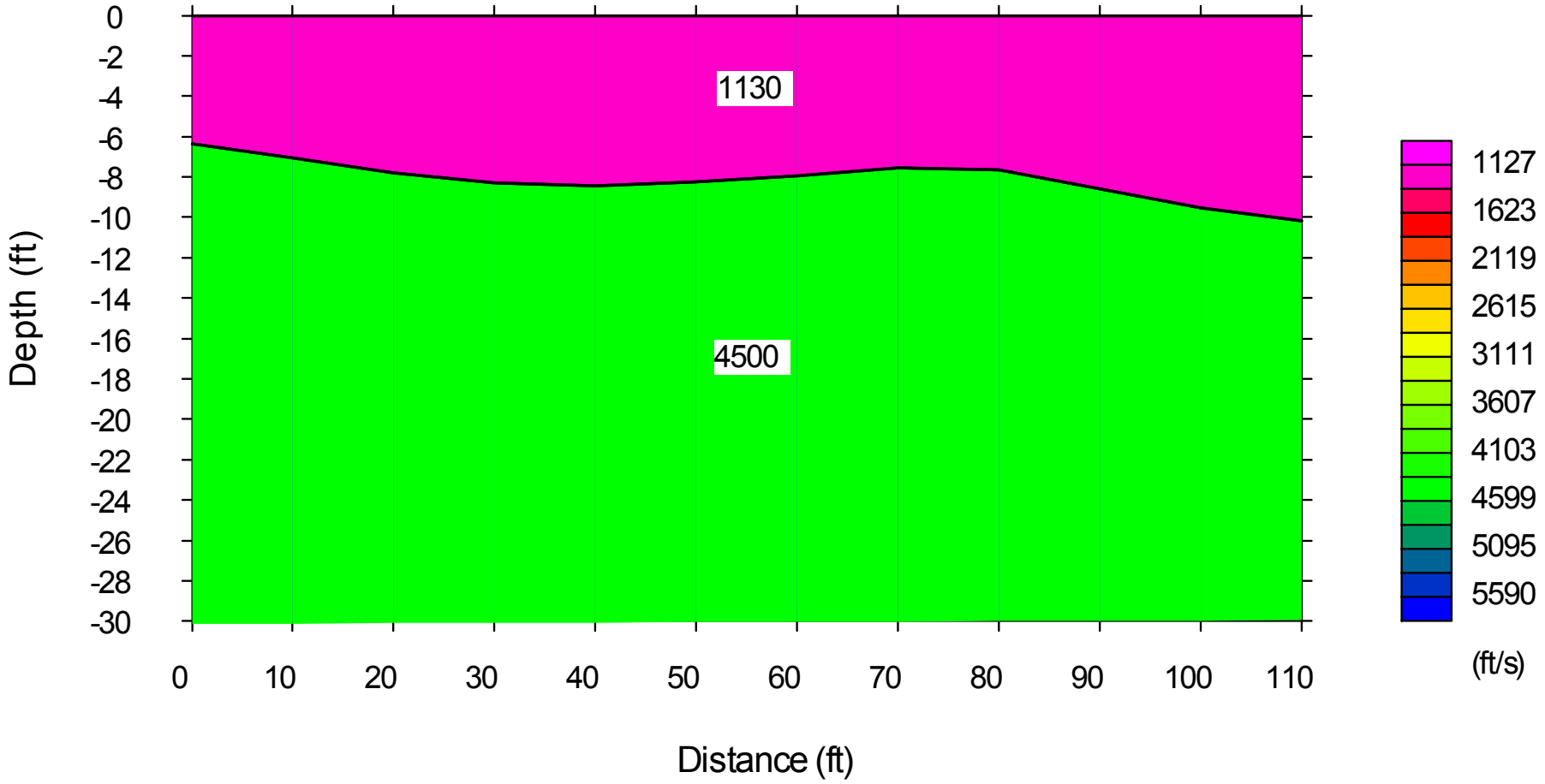
PROJECT: MORMON HILLS ESTATES

JOB NO.: 2523JW477

SEISMIC PROFILE

PLATE

C-1



Line B

Geotechnical
Environmental
Inspections
Materials

Western Technologies Inc.
The Quality People
Since 1955

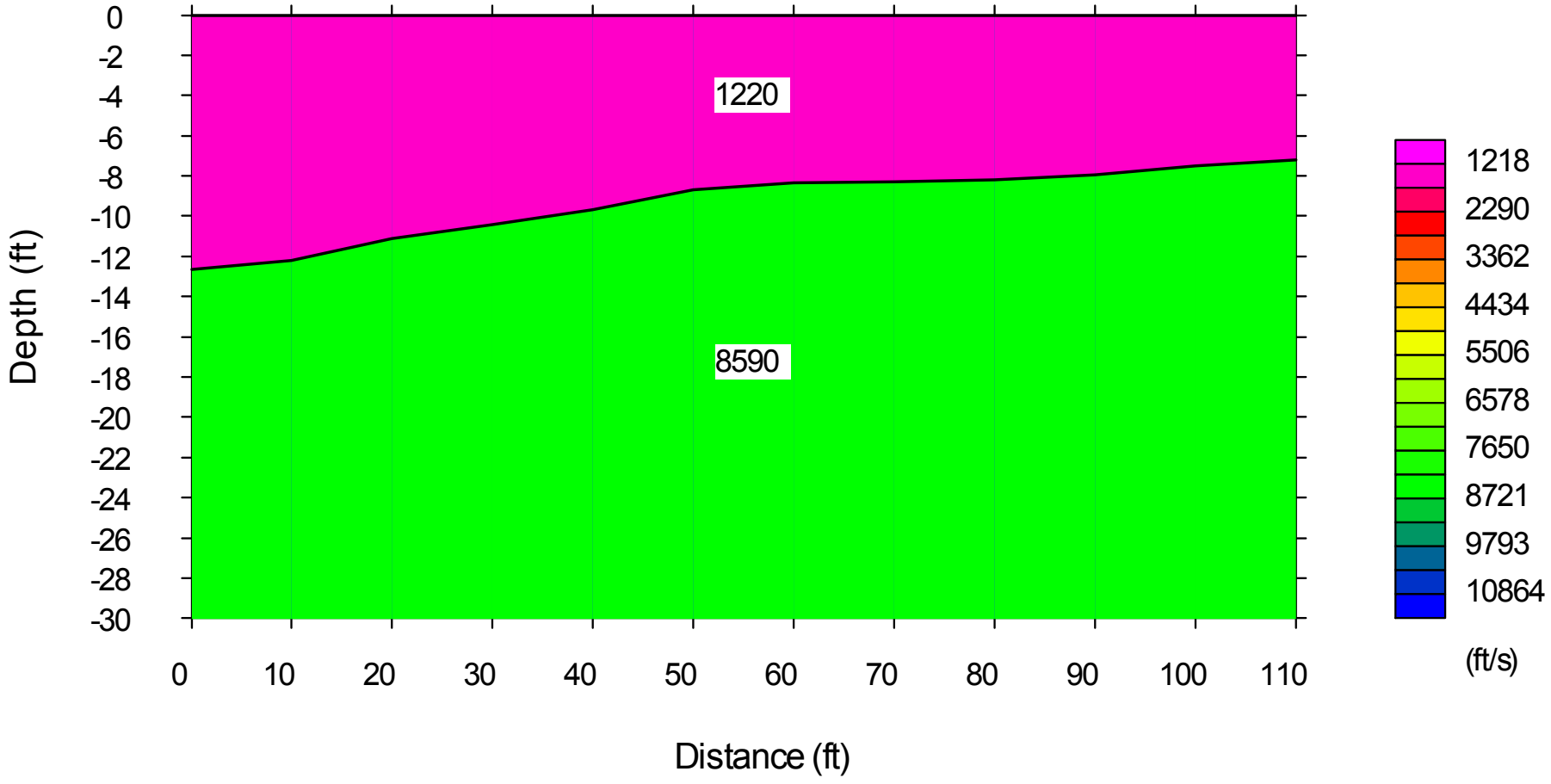
PROJECT: MORMON HILLS ESTATES

JOB NO.: 2523JW477

SEISMIC PROFILE

PLATE

C-2



Line C

Geotechnical Environmental Inspections Materials

Western Technologies Inc.
The Quality People
Since 1955

PROJECT: **MORMON HILLS ESTATES**

JOB NO.: **2523JW477**

SEISMIC PROFILE

PLATE

C-3

aps

1250 E. State Route 89A
Cottonwood, AZ 86326

February 10, 2014

Arthur H. Beckwith
Shephard Wesnitzer, Inc.
75 Kallof Place
Sedona, AZ 86336

Re: 14 Ac Subdivision-APN 401-38-013C

Dear Mr. Beckwith,

The above referenced project is located in Arizona Public Service Company's electric service area. The Company extends its lines in accordance with the "Conditions Governing Extensions of Electric Distribution Lines and Services," Schedule 3, and the "Terms and Conditions for the Sale of Electric Service," Schedule 1, on file with the Arizona Corporation Commission at the time we begin installation of the electric facilities.

Application for the Company's electric service often involves construction of new facilities for various distances and costs depending upon customer's location, load size and load characteristics. With such variations, it is necessary to establish conditions under which Arizona Public Service will extend its facilities.

The policy governs the extension of overhead and underground electric facilities to customers whose requirements are deemed by Arizona Public Service to be usual and reasonable in nature.

Please give me a call at 928-646-8463 so that we may set up an appointment to discuss the details necessary for your project.

Sincerely,

Sandy Finley

Sandy Finley
Customer Project Manager
Verde District

ARIZONA WATER COMPANY

65 COFFEE POT DRIVE, SUITE 7, SEDONA, AZ 86336-4554
PHONE: (928) 282-7092 • FAX: (928) 282-6131 • TOLL FREE: (800) 649-8393 • www.azwater.com

February 12, 2014

Shephard Westnitzer, Inc.
Attn: Arthur H. Beckwith
PO Box 3924
Sedona, AZ 86340

Re: Domestic Water Service to APN 401-35-013

Dear Mr. Beckwith:

Arizona Water Company (the "Company") certifies that the above-described property is located within its Certificate of Convenience and Necessity in Sedona, Arizona, and that it will provide water service to the property in accordance with the Company's tariffs and the Arizona Corporation Commission's rules and regulations. It will be the responsibility of the developer to provide the funds to install the necessary water facilities, and the Company assumes no liability to install those facilities if the funds are not advanced by the developer.

The design of the water distribution system must comply with the Company's standard specifications that are on file at the Arizona Department of Environmental Quality. Both preliminary and final water system designs must be approved by the Company.

It will also be the responsibility of the developer to meet all the requirements of regulatory agencies having jurisdiction over Arizona subdivisions and of Arizona statutes applicable to subdivided or unsubdivided land, including, but not limited to, requirements relating to a Certificate of Assured Water Supply, as set forth in the Arizona Groundwater Management Act, A.R.S. §45-576.

Very truly yours,

John Snickers
Operations Superintendent
jsnickers@azwater.com

tt
Enclosure

Monday, February 17, 2014

Terry Kebel
Dear Developer:

Subject: **Shephard-Wesnitzer**
Request for service: 12.41 Ac Subdivision, Mormon Hills Road, Sedona AZ -APN 401-35-013

This letter is in response to your "Service Availability" request for the subject property.

The subject property is in the CenturyLink serving area therefore, service is available. The developer has specific requirements, which will be forwarded when appropriate. These requirements may be, but are not limited to, "support structure" on the property being developed. Once all requirements are completed, CenturyLink service will be available to the subject property on a service order basis, arranged by those who occupy the property.

The tariff Rates and Regulations prescribed for service to the project are on file with your State Utilities Commission, and may be examined at your local CenturyLink Business Office, or on the web at: http://tariffs.CenturyLink.com:8000.

Sincerely,

Chad Henkel
Field Engineer
928 821-4609 (cell)
Chad.Henkel@CenturyLink.com

102 Roadrunner Drive
Sedona, Arizona 86336
www.SedonaAZ.gov

February 20, 2014

Shephard/Wesnitzer, Inc.
75 Kallof Place
Sedona, AZ 86336

Attention: Arthur Beckwith, Vice President
SUBJECT: SEWER AVAILABILITY FOR THE PROPOSED 19 SINGLE FAMILY PARCEL SUBDIVISION LOCATED WITHIN THE 12.41 ACRE PARCEL 401-35-013 ON MORMON HILL ROAD

In response to your letter dated February 10, 2014, regarding the above mentioned 19 single family home sites, 12.41 acre subdivision, City of Sedona sewer service is currently available to this proposed subdivision.

If you have any questions, please contact me at (928) 203-5039, or email adickey@sedonaaz.gov.

Sincerely,

J. Andy Dickey, P.E.
Assistant Public Works Director/Assistant City Engineer
City of Sedona

JAD/dkp
cc: Charles Mosley, PE MPA, Public Works Director/City Engineer (e-copy)
David Peck, Assistant Engineer (e-copy)
Kelly Parlin, Interim Wastewater Superintendent (e-copy)
File: Mormon Hill Road - Street File

February 13, 2014

Arthur H. Beckwith

Shephard Wesnitzer, Inc.

75 Kallof Place

Sedona, AZ 86336

Re: 14 Ac Subdivision-APN 410-38-013C

Dear Mr. Beckwith,

On behalf of Suddenlink Communications, we will provide services to the subdivision in Sedona Az. Suddenlink Communications will go in the same trench with Power and Phone. Suddenlink Communications will require the following information from Shephard Wesnitzer:

100% Plans of the Project, Power Company plans on the routing of their services and contact information on the contractor doing the work on site.

Sincerely,

Suddenlink Communications

Sanford Yazzie

Upgrade Construction Supervisor

Mountain District

928-606-2464

Taylor Waste

P.O. Box 3218 • Cottonwood, AZ 86326 • (928) 649-2662 • www.taylorwaste.com

2/12/14

SWI
P O Box 3924
Sedona, Az 86340

Attention: Arthur H. Beckwith, PE

Re: 12.41 Ac Subdivision, Mormon Hill Rd
Sedona, Az – APN 401-35-013

Thank you for requesting a letter of serviceability from Taylor Waste, Inc.

Taylor Waste can provide waste service for Mormon Hill Estates located off of Mormon Hill Rd. Taylor Waste already services Rolling Hills Estates and numerous other Customers in the area.

Please call our office at (928) 649-2662 if you have any further questions.

Sincerely,

Chris Taylor
Owner/President

RECEIVED
FEB 2 4 2014
BY:

February 12, 2014

Shephard – Wesnitzer, Inc.
PO Box 3924
Sedona, AZ 86336

RE: 12.41 Ac Subdivision, Mormon Hill Rd, Sedona, AZ APN 401-35-013

Thank you for your interest in the use of natural gas for the above location. Natural gas can be made available to this project through a mainline extension. There is a 2" steel gas main that runs east and west across Lot 1 and 2 and runs southward on the east side of Lot 3 and Lot 4. We can tie into this line to run a mainline extension for service to all 19 Lots.

Before an estimate can be given on cost we will need to have a final plat in a cad file, and paper. If you have any questions please give me a call at 928-203-1214.

Thank you,
Monette Fanning
Planner

City Of Sedona Community & Economic Development Department
102 Roadrunner Drive Sedona, AZ 86336
(928) 282-1154 · Fax: (928) 204-7124

Planning Comments
PZ13-00015 (SUB); Sky Ridge Preliminary Plat; 215 Brewer Road
April 24, 2014

1) Comment: Staff greatly appreciates the work that was been done between the Conceptual Plat review and submittal of the Preliminary Plat. It is acknowledged that the applicant and their representatives have exceeded the minimum requirements for Preliminary Plat submittal in an order to address concerns raised by citizens and members of the Planning & Zoning Commission.
2) Community Plan Compliance:
   a) See comments from Michael Raber, Senior Planner.
3) Ridgeline Lots:
   a) The Letter of Intent states that the maximum elevation of homes on lots 15, 16, and 17 will be 18' above the road grade. While this could be a good benefit to ensure a lower profile homes, Staff is unsure of its effectiveness, as these lots drop off significantly from the road to the point where the highest point within the potential building envelope is up to 10 feet below the proposed road grade. Homes in this situation would reach the City's code limitation of 22' above the highest point within the building envelope before they would reach the plat restriction of 18' above road grade. Staff would suggest a limitation of 18' above the highest point within the building envelope rather than above the road grade.
4) Preliminary Plat:
   a) The title block on the first page states that the subdivision contains ±40.7 acres. Please clarify what this number refers to or correct to reflect the correct acreage of the subdivision.
   b) The Plat should include a non-vehicular access easement along the south property line of Lot 18 to ensure that the lot is accessed via the "flag" at the northwest corner.
   c) Based on SLDC Article 7, Section 704.04.8 and Table 7.1, no parking signs will be required on the section of the road that is 18 feet wide.
   d) Based on SLDC Article 7, Section 704.04.9, lots fronting on the section of the road that is 18 feet wide shall require a minimum of 3 off-street parking spaces.
   e) SLDC 706.06.B does not allow land within a utility easement for major power transmission (tower) lines or pipelines to be counted towards minimum lot sizes unless the lot is more than 0.5 acres. Please ensure that any lots with these types of easements are greater than 0.5 acres in area or that the utility easement is not counted towards the minimum lot size.
   f) The applicant should indicate the proposed location of the subdivision sign on the Preliminary Plat. It should be clear whether this sign would be located on private property or on future City right-of-way.

g) The applicant should indicate the proposed location of a cluster mailbox, if one is proposed. It should be clear whether this sign would be located on private property or on future City right-of-way.

5) Future Retaining Walls:

   a) The Letter of Intent states that retaining walls will be used for the roadway and headwalls for the drainage areas. The applicant should state the approximate height of those walls and the materials to be used, if known at this time.

6) School District Property:

   a) Staff believes that there is an opportunity to provide a dedicated pedestrian pathway from the new subdivision to Brewer Road through the school district property, if the school district is willing to discuss this option. This could provide future pedestrian access to the former Forest Service property (recently acquired by the City) and any uses or activities that may occur there. Staff would strongly encourage the applicant to designate land for an eventual pedestrian pathway/trail from the subdivision to Brewer Road and work with the school district to complete this pedestrian connection.

7) Potential Conditions of Approval:

   a) Prior to approval of the Final Plat, the applicant shall submit the proposed Covenants, Conditions, and Restrictions (CC&Rs) for the subdivision. Based on statements in the Letter of Intent, the CC&Rs shall address how the Homeowner's Association (HOA) will handle areas of disturbance, building area on each lot, and review of new single family homes.

Cari Meyer - Fwd: Sky Ridge Estate Comments

From: Mike Raber
To: Cari Meyer
Date: 4/21/2014 2:38 PM
Subject: Fwd: Sky Ridge Estate Comments
CC: Audree Juhlin

Hi Cari:

The following are my comments on Sky Ridge Estates subdivision relative to the Sedona Community Plan.

The proposed subdivision lies within a Planned Area (PA) designation in the Sedona Community Plan. The PA land use designations were established in the 2002 Community Plan and brought forward in the current 2013 Community Plan to address needs and benefits for certain areas in the community. The PA designation was applied to this subject property as part of a larger area in 2006 through a Sedona Community Plan amendment. The purpose of the PA designation is to guide future rezonings so they can be consistent with the Community Plan recommendations for the PA. In this case, since there is no rezoning proposed, the project must comply with the underlying zoning, RS-18b.

The subject property also lies within one of the 13 "Community Focus Areas" described in the Community Plan. These are priority areas for future planning. Each of these areas include "Community Expectations" that describe future conditions that the Community Plan will strive to achieve over time. "Community Expectations" are not definitive requirements, but provide guidance for future planning. This area is called the Ranger Road Community Focus Area and includes Community Expectations that address a much broader area than this proposed subdivision.

One of the Community Expectations for the Ranger Road Community Focus Area is the use of the "Heart of Sedona Area Plan" as a key resource for future planning. This conceptual 2004 plan also covered a much broader area than the proposed subdivision and focused on potential scenarios centered on a "Town Park" at the 3.4-acre Brewer Road historic site, a "Market Green" near Oak Creek and a "Civic Plaza" in the commercial area near the "Y". The area that includes the proposed subdivision, contained a "balanced" or preferred alternative that preserved the prominent southern ridge area as open space with minimal residential development on the remainder of the site, including a pedestrian connection to the future park site to the east. However, the "Heart of Sedona" Plan also looked at other scenarios that continued to include the Town Park, Market Green and Civic Plaza. For the subject property, one scenario included no development and the other acknowledged full residential development of the site.

Conclusion:

The Heart of Sedona Area Plan is a resource for future planning and for future rezonings. It is not a series of requirements to be applied to individual parcels that are being developed according to the current zoning. However, through this resource, the Sedona Community Plan encourages development that is sensitive to the visibility of the ridge line, works to preserve on-site vegetation and can provide for potential future pedestrian connectivity.

The proposed subdivision design addresses the open space and ridge line issues by including a road layout that follows previously disturbed land on the west and on the south is located along the ridge line, keeping lots and buildings below the top of the ridge. Other site-sensitivity features include lot access that minimizes development potential on higher slopes.

Staff would recommend that in addition to the street right-of-way, public access be provided through Tract A to the property line providing for a potential future pedestrian connection.

_____
Michael Raber, Senior Planner
City of Sedona
102 Roadrunner Drive
Sedona, AZ 86336

928-204-7106
mraber@SedonaAZ.gov
Visit: www.SedonaAZ.gov
Be a fan on Facebook: www.Facebook.com/CityofSedonaAZ

_____
Michael Raber, Senior Planner
City of Sedona
102 Roadrunner Drive
Sedona, AZ 86336

928-204-7106
mraber@SedonaAZ.gov
Visit: www.SedonaAZ.gov
Be a fan on Facebook: www.Facebook.com/CityofSedonaAZ

Public Works Department
Engineering/Streets
104 Roadrunner Drive
Sedona, Arizona 86336
Phone (928) 204-7111
Fax (928) 282-5348
David Peck, EIT, (928) 204-7108

SUB2013-15
Sky Ridge Estates Subdivision
04/25/14

Engineering Comments
For Final Plat submittal:

1. Provide the appropriate dedication language on the Plat.
2. Please provide a Non-Vehicular Access Easement along the west and south boundaries of the subdivision (with the exception of the west boundary of lot 1), along the north ends of Lots 1 and 2, and along the east leg of Lot 2. Also, provide a Non-Vehicular Access Easement along the south end of Lot 18.
3. The Landmark Survey dated 12/3/10, shows ROW through church parking area only connecting to the subject property with ½ of the ROW. Please provide evidence showing that this issue has been resolved.
4. The City Engineer (and Community Development) would like to see a pedestrian connection to Brewer Road. Maybe following the contours along the north end of lots 16, 17, and 18.
5. Lots 8 and 9 will be impacted by the need for an erosion hazard setback. Please provide a note on the plat in this area stating the following, "Per Chapter 8 of the City of Sedona Land Development Code, an additional building set back will be required to address the erosion hazard, or additional engineering shall be provided to the satisfaction of the City Engineer."
6. Note: Access to lot 1 shall be by private easement through lot 2 (for lot 1 and 2 owner's use), with approved SFD turnaround. The easement shall stop short of the Rolling Hills Subdivision by at least 25'.
7. Per LDC Section 706.04 (2): The use of less than 24' wide road with grades exceeding 10 percent shall not be allowed without a Traffic Study. The use of the proposed 18' road section with slopes up to 14.82 percent needs to be discussed in the Traffic Study.
8. If the 18' road section is allowed, it will need to be posted with "No Parking" and "No Parking on Pavement" signs per LDC Section 706.04 (8).
9. Per LDC Section 707.04 (B), vertical curbing is typically used for commercial areas. Is there a reason for it as shown on the plans, such as drainage capacity?
10. For the street sections proposed, curb and gutter is required on both sides (LDC Table 7.1)
11. In the Final Drainage report, discuss the use of drainage easements for the development. The dedication of drainage easements on the Plat shall be Class II as defined in the Yavapai County Drainage Criteria Manual, dedicated to the HOA and City of Sedona.
12. Drainage easements shall meet the minimum dimensions per Chapter 8 of the LDC.

13. There appears to be a need for a drainage easement between lots 11 and 12. Lot 19 looks like it will be directly impacted by drainage from the ravine between lots 11 and 12. Lot 4 has a ravine that could possibly use a drainage easement. Lots 1 and 2 need a drainage easement along the boundaries of the north floodplain. Consider dedicating appropriate drainage easements on east parcel that is not part of this subdivision.
14. Just a note, nothing specific: Subdivision road geometry and grading shall meet the requirements of Chapter 7 of the LDC.
15. Maximum roadway slope = 15%. Surface must be **grey concrete** in areas with slopes between 12% and 15%. See notes under LDC Table 7.1
16. The Final Plat shall meet the requirements of LDC Chapter 7.
17. Applicant shall provide a final Grading and Drainage Plan, including a Final Drainage Report for review and approval prior to Final Plat (LDC Article 6)
18. Note: Before the recording of the plat, Financial Assurances which meet the requirements of the City of Sedona, Land Development Code Section 707.07, shall be on file with the City Clerk.
19. The City will need sewer line easements if not already existing. May have to pothole the sewer force main for accurate easement description. Consider potholing if community benefits are required.
20. The Final Plat shall include a note stating the minimum finish floor elevations for any building pads within the 100-year floodplain, and that the developer/owner will have an Arizona Registered Civil Engineer or Land Surveyor certify the finished-floor elevations of all new structures located within the floodplain.
21. Please submit roadway names to the City Traffic Aid for approval (it needs approval through the Verde Valley 911 system before it will be accepted on the Plat). Please call Victor Estrada at (928) 204-7800, or email vestrada@sedonaaz.gov
22. The roadway cut/fill slopes shall be either in the roadway right-of-way or in a slope maintenance easement per Section 706.08.A.3.g of the LDC.
23. Provide a Sewer Design Report. It shall include a Sewer Capacity Analysis and specifications for the grinder pumps as well as any emergency reserve capacity tanks.
24. On the Final Plat, provide monuments at the centers of both cul-de-sacs (LDC 707.04 C). These centerline monuments need to be reflected on the Grading, Drainage and Utility Plan.

Final Drainage Report:

1. The Preliminary Drainage Report: The Post-Development Drainage Map shows a large radius turnaround area by Lot 7. This turnaround is not shown on other plans.
2. The Preliminary Drainage Report, Page 1, Intro: The report says the church is to the west of the development (should be north). The report says the Head Start School is to the west of the development (should be east).
3. The Preliminary Drainage Report, Page 3: Why were the design flows for basins B and D based on the 100-year pre-development flow instead of the post-development flow?
4. The Preliminary Drainage Report, Curve Figure 2-3: The horizontal line should be drawn at 75% of the distance between the 20% and 40% curves. This would result in a “C” value closer to 0.735. Please revise.

5. Discuss the timing of the runoff from this subdivision with the Soldiers Wash peak, and your reasoning for detention vs. retention as your mitigation strategy.

Traffic Impact Analysis:

1. The TIA needs to discuss the existing roadway geometrics of Mormon Hill Road and Brewer Road.
2. Per LDC Section 706.04 (2): The use of less than 24' wide road with grades exceeding 10 percent shall not be allowed without a Traffic Study. The use of the proposed 18' road section with slopes up to 14.82 percent needs to be discussed in the Traffic Study.
3. TIA, Page 1: It is noted that the sight distance requirements are not met at the Mormon Hill Road/Brewer Road Intersection. Please state the site distance required – is it 280'? The TIA needs to discuss why you think this is a safe condition, even though the AASHTO site distance requirement isn't met. There should be a narrative discussing any accidents at this intersection over the past three years. This item needs to be addressed in the summary on page 9 as well.
4. Since Mormon Hill Road does not meet minimum width standards for providing access to the proposed Subdivision, the TIA needs to discuss what the width of Mormon Hill Road is relative to what it should be per LDC Table 7.1. The TIA also needs to discuss the feasibility of constructing a new road (that meets minimum standards) from Brewer Road up along the north boundary of lots 16, 17, and 18.
5. TIA, Page 7: Why are the trips generated by this subdivision being compared to the traffic volume on SR 89A and SR 179? The trips generated by this subdivision need to be compared to the existing volume on Mormon Hill Road and Brewer Road.
6. TIA, Page 7: Andy and I don't recall saying both intersections are functioning well, and that there are no issues with pedestrians or bicycles. Did someone speak to Charles? Otherwise, please remove this statement and make a consultant engineer based observation.
7. TIA, Page 9: "SWI does not recommend any additional TIAs or improvements to Brewer or Ranger Road." The TIA needs to have the discussion about SWI's recommendation regarding improvements to Mormon Hill Road.

Final Grading, Drainage, and Utility Plans:

1. Determine the need for a 404 permit from the Army Corps of Engineers for the road crossing at Lot 9.
2. The crossing of the FEMA Floodplain at Lot 9 requires approval from the Floodplain Administrator, Coconino County Flood Control.
3. How will the drainage coming from the ravine between lots 11 and 12 be handled?
4. On the Final Grading Plan, the shoulder slope should be 5% maximum, per Section 706.04.A.3 of the LDC. Preliminary looks okay.
5. On the Final Grading Plan, the roadway cut/fill slopes shall be 2(H):1(V) (Section 810.07.I.2 of the LDC). The soils report does not support cut/fill steeper than 2:1.
6. On the Final Grading Plan, the vertical height of roadway cut/fill slopes shall be 8' maximum per Section 810.07.I.3 of the LDC.
7. On the Final Grading Plan, driveway typical shall be per the LDC. Maximum driveway slopes for lots with an average slope of 0 – 15% shall be 15%.

Maximum driveway slopes for lots with an average slope of greater than 15% shall be 24%. The first 10' of the driveway from edge of street shall be ≤ 6%.

8. Subdivision road geometry and grading shall meet the requirements of Chapter 7 of the LDC.
9. On the Final Grading & Drainage Plan, show the proposed and existing sewer and water lines.
10. Incorporate the findings from the GeoTech Report in the design of the retaining walls.

Prior to Issuance of Building Permit:

- Provide utility construction details on plans. Provide the actual details with the plans.
- Please provide cut and fill earthwork quantities (in cu. yds.) for the project. If applicable, the applicant shall provide bond assurance, which meets the requirements of the City of Sedona, Land Development Code Section 809, prior to issuance of a building permit.
- A copy of the ADEQ "Approval to Construct" Water Facilities and Wastewater Facilities shall be provided prior to construction.
- Provide construction details for concrete structures (walls, curb, etc.). Designs shall be in accordance with the Western Tech GeoTech Report.
- Applicant shall provide a Storm Water Pollution Prevention Plan along with the ADEQ NOI (disturbance area appears to be greater than 1 acre). **Note: This project appears to be within ¼ mile of Oak Creek - special requirements may apply.** SWPP measures shall be in place prior to the start of construction (LDC Article 8). Storm water quality measures shall also comply with City of Sedona Code, Chapter 13.5 requirements.
- Determine the need for a 404 permit from the Army Corps of Engineers for work in watercourse areas prior to disturbance of those areas.
- A City Right-of-Way Permit shall be acquired for any work taking place within City Rights-of-Way. A Traffic Control Plan needs to be submitted with the application.
- No dumping of excavated material is allowed within city limits without prior authorization from the City of Sedona Engineering Department (LDC Chapter 8).
- For projects involving grading of more than 5,000 cubic yards, a haul plan, a dust control plan, a topsoil reutilization plan, a stormwater pollution prevention plan, and a traffic control plan shall be required. Each must be acceptable to and approved by the City Engineer. (LDC Section 806)

SEDONA FIRE DISTRICT
2860 SOUTHWEST DRIVE • SEDONA, AZ 86336 • TEL: (928) 282-6800 • FAX: (928) 282-6857

April 4, 2014

Ms. Cari Meyer
Associate Planner, Current Planning
City of Sedona Community Development
City of Sedona
104 Road Runner Drive
Sedona, Arizona 86336

Dear Ms. Meyer:

A conceptual plan review has been completed for the project listed below.

Description:	Sky Ridge Estates (formerly Mormon Hill Estates)
Address:	Off of Mormon Hill Road, Sedona, Arizona 86336
Case#:	PZ13-00015
APN:	401-38-013C
Proposal:	New Subdivision, 19 home sites

Based on the submitted information the following fire code requirements shall be applicable.

1. Fire department access roadways shall be provided. Roadways shall meet the listed requirements:

   A. Roadways shall be at least 20 feet wide.
   B. Grades shall not exceed 6% for gravel, 12% for blacktop and 15% for concrete surfaces.
   C. Overhead obstructions shall not be lower than 13 feet 6 inches.
   D. Obstructions such as low water crossings, security gates and speed bumps require buildings served by such roads to be equipped with automatic fire sprinklers.
   E. Turning radii shall be no less than 20 feet inside, 40 outside.
   F. Dead-ends longer than 150 feet shall be equipped with turn-a-rounds.
   G. Bridges shall be designed to carry the imposed loads of fire apparatus.
   H. Approved signs shall mark roads by name.
   I. Vehicles shall not park in a fashion to obstruct fire lanes. No parking signs shall be installed where parking presents such obstructions.

   NOTE: **Roadways for emergency access shall be made available through the site during the construction process. These requirements may be modified with the approval of the fire marshal when automatic fire sprinklers are provided in the buildings served by these roadways.**

2. All buildings hereafter constructed shall be equipped with an approved residential style automatic fire sprinkler system. The system shall be installed in accordance with the National Fire Protection Association's pamphlet #13D, "Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes" the 2002 edition. A framing inspection will not be conducted until a set of sprinkler plans is approved. **This installation requires a separate construction permit through this office.**

3. An approved water supply capable of supplying the required fire-flow shall be provided. Fire hydrants shall be installed in accordance with the local water purveyor and as required by this office. Hydrants shall be situated on at least six-inch mains, eight-inch if dead-end.

   NOTE: Required fire-flows shall be made available prior to any combustible construction materials being brought on site. Fire flow is based on the size and construction type of the proposed buildings.

   Fire hydrants shall be installed as directed by this office. An approved water main shall be provided to support the required fire flow for this project. Fire flows are determined by Appendix B, Table B105.1, of the IFC, 2003 edition. This installation requires a separate construction permit through this office.

4. Water mains and their appurtenances shall be installed in accordance with the National Fire Protection Association's pamphlet #24, "**Standard for the Installation of Private Fire Service Mains and Their Appurtenances**" the 2002 edition. Plans and specifications shall be submitted for review and approval prior to any installation.

5. Security gates, if provided, shall be equipped with a Sedona Fire District key over-ride cylinder. This cylinder shall be keyed to the type presently employed by the Sedona Fire District. Operation of the key shall open the gates and the gates shall remain open until such time that the key is returned to its normal position. One clockwise turn shall open the gate. One counterclockwise turn shall return the gate to normal operation. Provide proper key cylinder. This cylinder is available for purchase through this office.

   In addition to the key operation, a TOMAR (TOMAR Industries, http://TOMAR.com) optical sensor 2091-SD or similar, shall be installed. This sensor allows for emergency apparatus to enter the property having the gate automatically open upon the approach of emergency apparatus. The actuation of the gate is through a signal sent via the strobe lights on the emergency apparatus. The gate will remain open for as long as the signal is being transmitted by the emergency apparatus. Provide proper optical sensor.

   A battery backup system shall be provided to open the gate one time upon a power failure. Provide proper battery backup.

6. Streets and roads shall be identified with approved signage that meets the requirements of the City of Sedona.

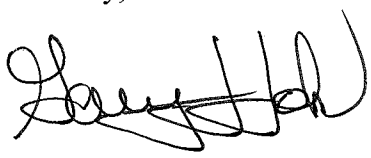
These comments shall not be meant to exclude any applicable requirements adopted by the Sedona Fire District or other regulatory agency. The adopted fire code is based on the 2003 edition of the International Fire Code with amendments as approved by the Arizona State Fire Marshal.

Inspections required by the fire code, to ensure that these requirements have been satisfied, shall be scheduled through this office. Proof of these inspections shall be submitted by you to the City of Sedona Community Development Department prior to a certificate of occupancy being issued.

As of February 27, 2008 the Sedona Fire District adopted a fee for service schedule. Service fees include construction plan reviews. A construction permit is required to be obtained from this office prior to any commencement of work. Construction permits will not be issued until such time that fee payments are received.

If you have any questions concerning these comments please feel free to contact me at (928) 204-8907 or gjohnson@sedonfire.org.

Sincerely,



Gary J. Johnson
District Fire Marshal

C: City of Sedona
Community Development

Comments Received Online
PZ13-00015 (SUB) Sky Ridge

City Of Sedona Community & Economic Development Department
102 Roadrunner Drive Sedona, AZ 86336
(928) 282-1154 · Fax: (928) 204-7124

The City of Sedona allows for anyone interested in a project to submit comments online. The following is a summary of comments received online for the above mentioned project.

Project Name: Sky Ridge Estate
Your Name: UniSource Energy Irene
City of Residence: Not answered
I am a: Other [x]
I heard about this project from: Other [x]
Your Comments on the Project: We have 2 gas lines in this project, No fill can be taken off of them. If you have any questions please call our construction number at 928-203-1295
If you would like to be added to the notification list for this project, please provide your e-mail or mailing address. Not answered

Cari Meyer - Tract A and Sky Ridge

From: Marsha Amon <mamon220@aol.com>
To: <CMeyer@SedonaAZ.gov>
Date: 5/5/2014 2:41 PM
Subject: Tract A and Sky Ridge
Attachments: Letter_to_City_Of_Sedona.pdf

Hi Cari,

Here is the research that I did on Tract A in Rolling Hills.
including the history documented by the original real estate agent,maps of the approved Plat,isolated map odf Tract A and B and AZ Land and water Trust regarding conservation easements.
If you can find any minutes from the City Of Sedona Archives of the original meetings in 1990 it regarding Tract A and B it would be very helpful.

Regards,
Marsha Amon
mamon220@aol.com
928-203-0061

Marsha & Steven Amon
220 Kashmir Road Lot#112 Rolling Hills Estates
Sedona, AZ 86336

May 5th, 2014

To: Cari Meyer
Re: Tract "A" Rolling Hills
(Lots 1 & 2 of Sky Ridge the newly proposed development shares this same tract of land)

Hi Cari,

We have been doing some research on the history and purpose of Tract "A". We found that it was zoned a "Conservation Easement" in 1990. The City of Sedona did not allow the owners of Tract A and B to develop Tract A due to their assessment as a sensitive wash and natural environment. The owners were basically forced to give up 2 building lots in order to get approval on the other 8. It would be great if the city could find the minutes of this meeting.

At the suggestion of the City, they created the "Conservation Easement" and later conveyed the Conservation Easement with all of the restrictions to Rolling Hills Estates Improvement Association on December 1990.
(Please see the History Of Tract A and B letter enclosed with maps)
(A copy of the deed is also enclosed.)

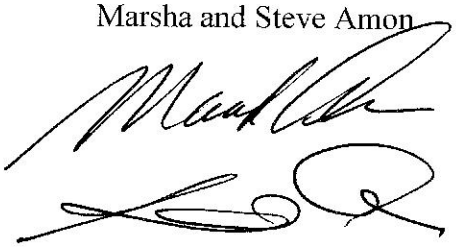
We believe this information may be very useful to the City of Sedona in reviewing the newly proposed development "Sky Ridge" in which 2 lots past the gate on Tract A sit on the same land that was denied development approval in 1990.

Please also see the attached " AZ Land and Water very clear definition of "Conservation Easement". This states the formation of such an easement "runs with the land and all subsequent owners are bound by the restrictions set forth when the easement was created.-see page 3.

Information Enclosed:
History of Tract "A" and "B",a copy of the deed for Tract "A", Arizona Land and water Trust regarding Conservation easements.

Please let us know about any records you can finds pertaining to this issue.
Sincerely,

Marsha and Steve Amon



9 PAGES

HISTORY OF TRACT A AND B ROLLING HILLS ESTATES

May/June 1990. My clients, Dr. and Mrs. Arvin Phillipart, purchased Tract A and B RHE from Mr. Bruce Bramlett for the purpose of developing these tracts of land into 10 residential lots, which would be called Unit 4 RHE.

June 1990. Dr. and Mrs. Phillipart employed Todd Graham, Engineering and Don Woods, Architecht to draw a Preliminary plot plan for Tracts A and B showing 10 lots, roadways, underground utilities, and building envelopes within the lots.

July 1990. This plot plan was submitted to the then new Sedona City Council. Sedona had just been incorporated and this was their first subdivision request. The 10 lot plot was accepted by the Council, except for the 2 lots on Tract A. The Council did not want those 2 lots as part of the subdivision. The reason they gave was that they both bordered alongside an active deep wash. After much discussion I agreed to go back to my clients and ask their permission to make a change on the plot.

August 1990. I received approval from my clients, Dr. and Mrs. Phillipart to proceed with the Sedona City Council for an 8 lot Subdivision on Tract B only. Tract A was at that time left unaddressed. During that August meeting with the Sedona City Council, it was suggested by the Council that Tract A be left as undeveloped, virgin land – a Conservation Easement. Two items became very clear at that meeting. My clients would get their approval for 8 lots if they agreed to a Conservation Easement, and it was suggested by the City that they (the City) take ownership of the Conservation Easement. My clients were advised by me to take this under consideration.

September 19, 1990. The Sedona City Council was now also called the Planning and Zoning Department. Final plot approval for the 8 lot subdivision and Tract A's designation was approved by the Council (see Plat). Approval was made without the City wanting to discuss the ownership of Tract A.

October/November 1990. My clients, the Philliparts, directed me to offer Rolling Hills Estates Board of Directors and its homeowners the ownership of Tract A with the complete understanding that Rolling Hills Estates understood the zoning as a Conservation Easement and agreed to maintain this tract of land as undeveloped, virgin land as required by the City of Sedona. Furthermore, they understood that they would pay any property taxes, and that there would be no sewer line to this property. The then Board of Directors agreed to all of the terms and conditions of this grant. A Deed was recorded naming Rolling Hills Estates as the owner, and as I remember, Anita Phillipart told the Board at that time that if you mistreat this land, I will reserve the right to revert the land back to me. This language could be on the Deed as a Deed restriction.

Attachments:
Original 1971 Subdivision Map of RHE
Enlargement Map of Tract A and B before any development
City of Sedona's Final Plat Approval of Tract A and B
Notes from original sale's file
A Complaint to the City of Sedona regarding the mismanagement of Tract A – dated September 2000
Conservation Easement from Wikipedia Dictionary

Thomas F. Schultz
Realtor – Coldwell Banker First Affiliate

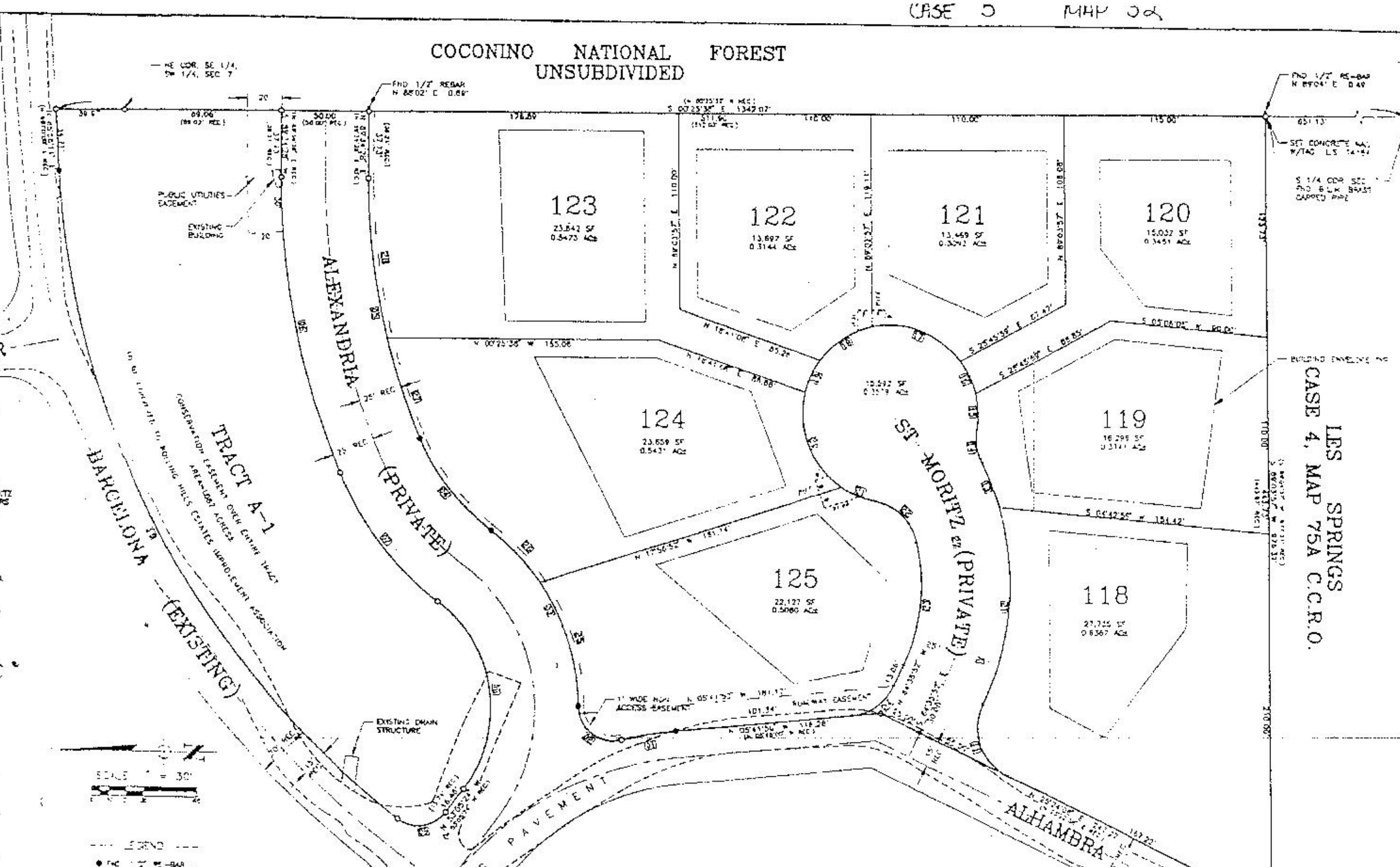
Thomas F Schultz 04-26-2014

CASE 5 MAP 32

City of Sedona
Approved
Final Plat
of Tracts A & B

APPLICATION NO. SUB 90-3
PARCEL NO. 401-46-121A

91-02454
City of Sedona
DATE 2/1/91 @ 2:00
CASE 5
MAP 32



DECLARATION

STATE OF ARIZONA }
COUNTY OF COCONINO } ss.

KNOW ALL MEN BY THESE PRESENTS THAT ANITA R. PHILIPPART, A MARRIED WOMAN, HAS SUBDIVIDED UNDER THE NAME OF "ROLLING HILLS ESTATES NO. 4", ALL OF TRACT "B" AND LUCERNE (A PRIVATE STREET) AND A PORTION OF TRACT "A" OF ROLLING HILLS ESTATES NO. 3, THE PLAT THEREOF BEING RECORDED IN CASE 2, MAP 272 OF THE COCONINO COUNTY RECORDER'S OFFICE AND BEING LOCATED IN SECTION 7, TOWNSHIP 17 NORTH, RANGE 6 EAST OF THE GILA AND SALT RIVER MERIDIAN IN COCONINO COUNTY, ARIZONA, ...

EXECUTION

IN WITNESS WHEREOF: ANITA R. PHILIPPART, A MARRIED WOMAN, HAS DULY AUTHORIZED THOMAS F. SCHULTZ TO EXECUTE THIS INSTRUMENT FOR THE PURPOSES SET FORTH THEREIN AS HER STATUTORY AGENT.

DONE IN SEDONA, ARIZONA THIS ___ DAY OF ______ 1990

BY: THOMAS F. SCHULTZ, STATUTORY AGENT

ACKNOWLEDGEMENT

STATE OF ARIZONA
COUNTY OF YAVAPAI

NOTARY PUBLIC
MY COMMISSION EXPIRES

CERTIFICATE OF APPROVALS

SEDONA POLICE DEPARTMENT — CHIEF OF POLICE	DATE
SEDONA FIRE DEPARTMENT — FIRE MARSHAL	DATE
COCONINO COUNTY HEALTH DEPARTMENT — SANITATION ENGINEER	DATE
SEDONA CITY ENGINEERING DEPARTMENT — CITY ENGINEER	12-19-90
SEDONA DEPARTMENT OF COMMUNITY DEVELOPMENT — DIRECTOR	12-19-90
SEDONA CITY COUNCIL — MAYOR OF SEDONA	12-27-90
CITY CLERK	12/18/90

CERTIFICATION

ON THE BASIS OF MY KNOWLEDGE, INFORMATION AND BELIEF, I CERTIFY THAT THIS PLAT AND THE BOUNDARY SURVEY ON WHICH IT WAS BASED WERE PREPARED AND PERFORMED UNDER MY SUPERVISION TO THE NORMAL STANDARD OF CARE OF PROFESSIONAL LAND SURVEYORS PRACTICING IN SEDONA, ARIZONA.

WM. TODD GRAHAM, R.L.S. — REG. NO. — DATE

A 1/2" RE-BAR WITH CAP STAMPED "LS 14184" SHALL BE SET AT ALL LOT AND TRACT CORNERS AND AT ALL BEGINNINGS AND ENDS OF CURVES.

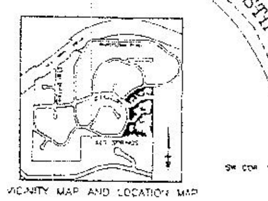
763B

CURVE TABLE

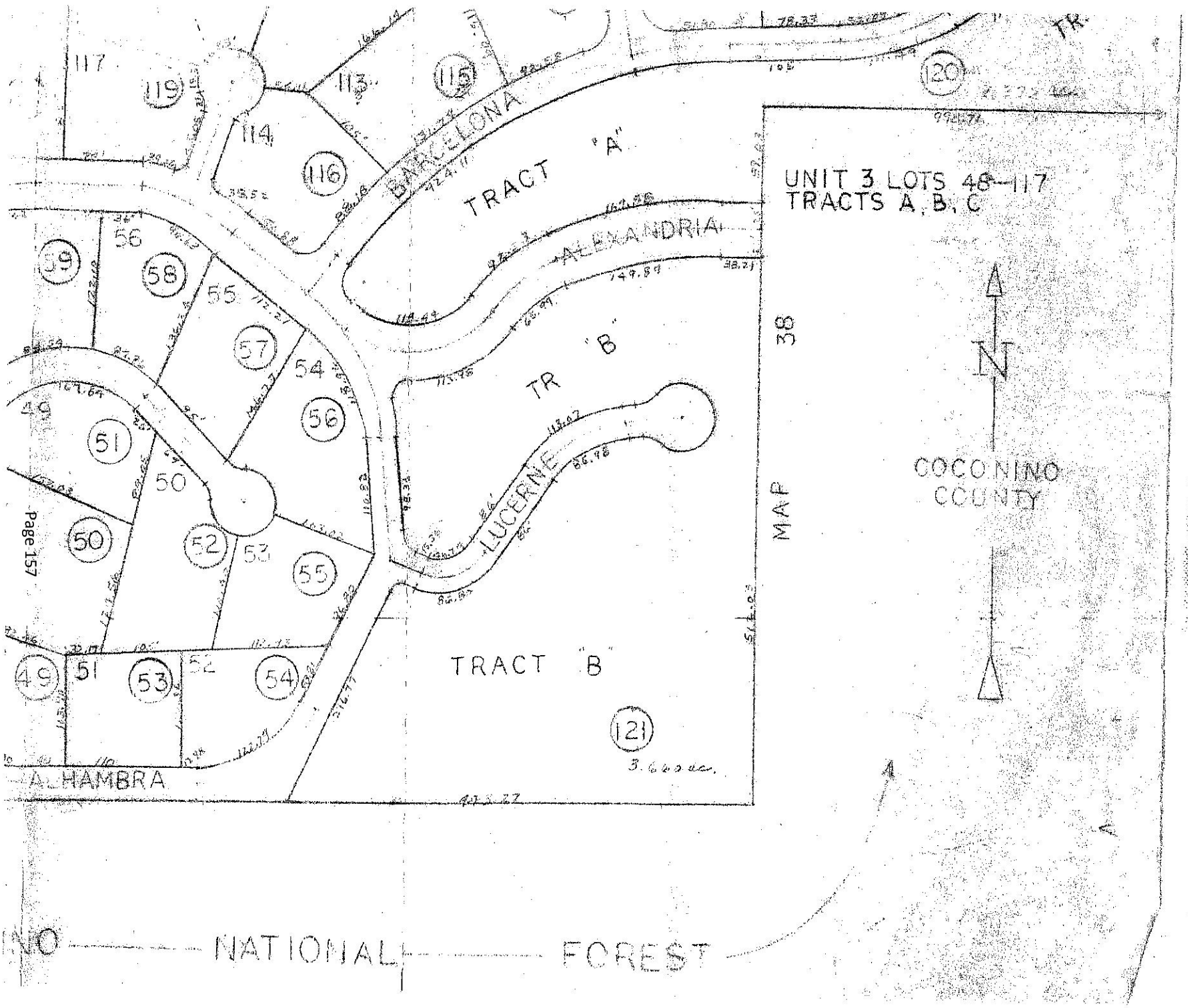
NO.	DELTA	RADIUS	ARC LENGTH	TANGENT	CHORD	CHORD BEARING
01	08°45'57"	205.00	31.35	15.71	31.33	N 12°13'35" W
02	103°17'23"	20.00	36.05	25.27	31.37	N 37°01'59" E
03	52°15'00"	125.00	113.99	61.32	110.06	N 62°32'00" E
04	30°14'50"	125.00	65.99	33.78	65.23	N 51°32'55" E
05	22°54'00"	375.00	149.89	75.96	148.92	N 76°07'24" E
06	22°54'08"	425.00	169.88	86.09	168.75	S 76°07'24" W
07	30°14'50"	175.00	92.38	47.30	91.32	S 51°32'55" W
08	90°29'06"	75.00	118.44	75.64	106.51	S 81°40'03" W
09	90°00'00"	19.57	30.75	19.57	27.68	N 08°05'24" W
10	49°05'24"	495.00	424.11	226.05	411.25	N 61°27'18" E
11	90°00'00"	30.00	47.12	30.00	42.43	N 72°24'08" E
12	42°35'24"	153.17	113.86	59.74	111.25	S 65°53'34" E
13	09°55'06"	153.17	26.51	13.29	26.48	N 67°51'11" E
14	36°36'34"	30.00	19.17	9.93	18.85	N 81°12'05" E
15	23°33'09"	50.00	20.55	10.42	20.41	N 67°43'57" E
16	23°06'35"	50.00	20.17	10.22	20.03	N 64°24'05" E
17	65°19'04"	50.00	57.05	32.05	53.96	N 22°11'16" E
18	40°58'29"	50.00	35.76	18.68	35.00	N 32°57'31" W
19	23°12'52"	50.00	20.26	10.27	20.12	N 65°03'11" W
20	69°30'02"	50.00	60.65	34.69	57.00	S 68°35'23" W
21	24°21'49"	50.00	21.26	10.79	21.10	S 21°39'27" W
22	66°28'17"	30.00	34.80	19.66	32.89	S 42°42'41" W
23	39°27'18"	103.17	71.04	37.00	69.65	N 84°19'31" W
24	58°54'03"	30.00	30.84	16.94	29.50	N 35°08'51" W
25	33°50'10"	125.00	73.82	38.02	72.75	N 71°45'25" E
26	18°24'50"	125.00	40.17	20.26	40.00	N 45°37'55" E
27	09°07'52"	375.00	55.76	29.95	59.70	N 71°14'16" E
28	13°46'16"	375.00	90.13	45.28	89.91	N 82°41'20" E
29	74°21'54"	128.17	166.35	97.22	154.92	N 78°13'11" E

FINAL PLAT OF ROLLING HILLS ESTATES No. 4

A SUBDIVISION OF TRACT B,
LUCERNE (A PRIVATE STREET) AND
A PORTION OF TRACT A OF
ROLLING HILLS ESTATES No. 3
AS RECORDED IN CASE 2, MAP 272 C.C.R.O.
LOCATED IN SECTION 7, T17N, R6E, G.&S.R.M.,
COCONINO COUNTY, ARIZONA
8 LOTS, 1 TRACT AND 1 STREET ON 5.0178 ACRES±



LANDMARK ENGINEERING & SURVEYING, INC
P.O. Drawer 1907 Sedona, Arizona 86336 282-710
1515 N Main Suite 8 Flagstaff, Arizona 86004 774-108
DATE NOVEMBER 13, 1990 DISK 49-S JOB NO. 9006



1971 map shows, TRACT A & B

Recording Requested By:

FIRST AMERICAN TITLE

When Recorded Mail To:

ROLLING HILLS ESTATES IMPROVEMENT ASSOCIATION
10 ROLLING HILLS
SEDONA, AZ 86336

HELEN I. HUDGENS
COCONINO COUNTY RECORDER
OFFICIAL RECORDS OF
COCONINO COUNTY

INST#:91-03269 FEE:$ 12.00
AT THE REQUEST OF:
FIRST AMERICAN TITLE
DATE: 02/22/91 TIME: 03:55
DKT: 1383 PG: 294 #PAGES: 2

Escrow No. 281-006-0073384

WARRANTY DEED

For the consideration of TEN AND NO/100 DOLLARS, and other valuable considerations, I or we,

ANITA R. PHILIPPART, a married woman as her sole and separate property

do hereby convey to the GRANTOR

ROLLING HILLS ESTATES IMPROVEMENT ASSOCIATION, an Arizona Non-profit corporation the GRANTEE

the following described real property situate in Coconino County, Arizona:

SEE EXHIBIT A ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF.

SUBJECT TO: Existing taxes, assessments, liens, encumbrances, covenants, conditions, restrictions, rights of way and easements of record.

And the GRANTOR does warrant the title against all persons whomsoever, subject to the matters above set forth.

DATED: December 7, 1990

Anita R. Philippart
ANITA R. PHILIPPART

STATE OF Michigan)
County of Oakland) ss.

This instrument was acknowledged and executed before me this 10 day of December 19 90 by: ANITA R. PHILIPPART

Faith A. Tudek
Notary Public

My Commission Expires:

FAITH A. TUDEK
NOTARY PUBLIC STATE OF MICHIGAN
OAKLAND COUNTY
MY COMMISSION EXP. JAN. 4,1994

STATE OF ARIZONA)
County of Yavapai) ss.

This instrument was acknowledged and executed before me this ___ day of _____ 19 ____ by __

Notary Public

My Commission Expires:

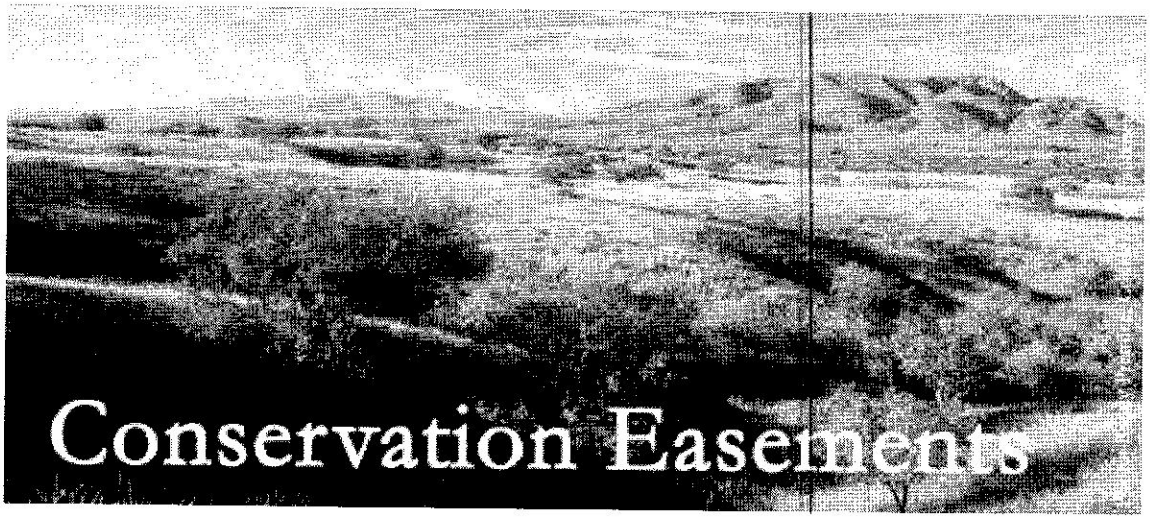
FATCOA 6051 (Rev. 11/89)tds

9

1383-294

EXHIBIT "A"

THAT PORTION OF LAND SHOWN AS TRACT 1-A (CONSERVATION EASEMENT) ON PLAT MAP RECORED IN THE OFFICE OF THE COUNTY RECORDER OF COCONINO COUNTY, ARIZONA, IN CASE 5 MAP 32



Conservation Easements

For more information about conservation easements, or if you have land you would like to place a conservation easement on, please call us at (520) 577-8564. We look forward to hearing from you!

CONTENTS OF THIS PAGE:

WHAT ARE CONSERVATION EASEMENTS?

A conservation easement is a legal agreement a property owner makes to restrict the type and amount of development that take place on his or her property. Each easement's restrictions are tailored to the particular property and to the interests of individual owner. The easement has the effect of limiting real estate development while allowing certain current uses such a farming and ranching to continue. The easement is generally put in place to protect some important conservation value of tl land such as wildlife habitat.

To understand the easement concept think of owning land as holding a bundle of rights or sticks. A landowner may sell or g away the whole bundle, or just one or two of those rights. These rights may include the development rights, the grazing rigl the water rights, the mineral rights or timber rights. To give away certain rights while retaining others is like pulling a single s out of the bundle. To give away certain rights while retaining others, a property owner grants an easement to an appropriat

third party.

The specific rights a property owner forgoes when granting a conservation easement are detail in each easement documen The owner and the prospective easement holder identify the rights and restrictions on use that are necessary to protect the property. The owner then conveys the right to enforce those restrictions to a qualified conservation recipient, such as a pub agency, a land trust, or a historic preservation organization.

WHAT KIND OF PROPERTY CAN BE PROTECTED BY AN EASEMENT?

Any property with significant conservation or historic preservation values can be protected by an easement. This includes forests, wetlands, farms and ranches, endangered species habitat, beaches, scenic areas, historic areas, and more. Land conservation and historic preservation professionals can help you evaluate the relative features of your property.

WHO CAN GRANT AND EASEMENT AND TO WHOM CAN THEY GRANT IT?

Any owner of property with conservation or historic resources may grant an easement. If the property belongs to more than person, all owners must consent to granting an easement. If the property is mortgaged, the owner must obtain an agreemer from the lender to subordinate its interest to those of the easement holder so that the easement cannot be extinguished in th event of foreclosure.

If an easement donor wishes to claim tax benefits for the gift, he or she must donate it or sell it for less than fair market valu public agency or to a conservation or historic preservation organization that qualifies as a public charity under Internal Reve Code Section 501(c) (3). Most land trusts and historic preservation organizations meet this criterion.

Holding an easement is a great responsibility. A property owner should make sure that the recipient organization has the tin and resources to carry out that responsibility. An organization that accepts the donation of an easement typically will ask th owner to make a contribution toward the costs of monitoring the easement in perpetuity or will establish a monitoring fund fr other sources.

HOW RESTRICTIVE IS AN EASEMENT?

An easement restricts development to the degree that is necessary to protect the significant values of that particular propert Sometimes this totally prohibits construction, sometimes it does not.

If the goal is to preserve a pristine natural area, for example, an easement may prohibit all construction, as well as activities would alter the land's present natural condition. If the goal is to protect farm or ranch land, however, an easement may restr subdivision and development while allowing for structures and activities necessary for, and compatible with, the agricultural operation. Even the most restrictive easements often permit landowners to continue traditional uses of the land.

HOW LONG DOES AN EASEMENT LAST?

An easement can be written so that it lasts forever. This is known as a perpetual easement. Where state law allows, an easement may be written for a specified period of years, and this is known as a term easement. Only gifts of perpetual easements can qualify a donor for income and estate tax benefits. Most recipient conservation and historic preservation organizations accept only perpetual easements.

An easement runs with the land. The original owner and all subsequent owners are bound by the restrictions of the easeme The easement is recorded at the county or town records office so that all future owners and lenders will learn about the restrictions when they obtain title reports.

WHAT ARE THE GRANTEE'S RESPONSIBILITIES?

The grantee organization or agency is responsible for enforcing the restrictions that the easement document spells out. To this, the grantee monitors the property on a regular basis, typically once a year. Grantee representatives visit the restricted property, usually accompanied by the owner. They determine whether the property remains in the condition prescribed in th easement and documented at the time of the grant. The grantee maintains written records of the monitoring visits. The visi also keep the grantee and the property owner in touch.
If a monitoring visit reveals that the easement has been violated, the grantee has the right to require the owner to correct th violation and restore the property to its condition prior to the violation.

MUST AN EASEMENT ALLOW PUBLIC ACCESS?

Landowners who grant conservation easements make their own choice about whether to open their property to the public. Some landowners convey certain public access rights, such as allowing fishing or hiking in specified locations. Others do n

If an income tax deduction is to be claimed, however, some types of easements require access. If the easement is given for recreation or educational purposes public access is required. Access is generally not required for easements that protect w or plant habitats or agricultural lands.

TAX POLICY FOR LAND CONSERVATION

One of the most effective ways we can increase the pace of land conservation, is through Federal and State tax incentives t help land owners choose conservation over development. In the last few decades, land trusts have been enormously succe in using these incentives to protect special places across America.

Thanks to the hard work of the land conservation community, Congress enacted and recently renewed a tax incentive that allows conservation easement donors to deduct a larger portion of their income over a longer period of time. While we conti to work to make these expanded incentives permanent, we're also working to build awareness among donors, attorneys, an advisors to make the most of this incentive over the next several years.

Congress has recognized the enormous value of our work with expanded incentives, but the IRS expects easement donors land trusts to adhere to a high standard of compliance. Of course, there's no substitute for professional tax and legal advice the LTA website helps provide important guidance. (www.lta.org)

WHAT IS MONITORING AND WHY WE DO I

When ALWT accepts a conservation easement, we commit ourselves to perpetual stewardship of the easement land. This means that we have an ongoing obligation to regularly monitor the easement and enforce the easement terms if they are violated.

The completion of each conservation easement project involves mapping and careful documentation of the character of the and its special conservation values. This "baseline documentation" provides a starting point for ALWT staff and volunteers t annually monitor the terms of the easement. During the monitoring, ALWT takes photos from established monitoring photo p to document the condition of the ranch. In addition, we complete a written checklist of the observations of the property.

Each monitoring visit provides us with an opportunity to maintain and develop a stringer relationship with the owner and buil spirit of education and cooperation. A monitoring visit reinforces the partnership between the owner and the Arizona Land a Water Trust to uphold the terms of the easement. While all easement properties are still owned by the original landowner, at some point in the future, the property may be transferred to new owners. These personal visits give the landowner names a faces to accompany the legal terms of the deed, and also provide the landowner with ready access to someone who can an questions about the easement. Ultimately, our goal is to prevent violations and foster a spirit of partnership,

ENDOWMENTS

Land trusts must determine the long-term stewardship and enforcement expense of each conservation easement and secur dedicated funds to cover current and future expenses. A contribution to a restricted endowment fund is usually part of the e negotiation between a land trust and the grantor. Typically the size of this request is based on the size of your easement (ar therefore the time required to monitor it.)

Sources:

"Preserving Family Lands: Books I and II", Stephen J. Small, 1998, 2000, 2003
"The Conservation Easement in California", Thomas S. Barrett, 1983

For more information about conservation easements, or if you have land you would like to place a conservation easement on, please call us at (520) 577-8564. We look forward to hearing from you!

9. **PUBLIC HEARING - DISCUSSION/POSSIBLE ACTION ON FIRST READING OF ORDINANCE FOR A ZONE CHANGE FOR PROPERTY ADJACENT TO ROLLING HILLS ESTATE FROM C-RM-10/A TO C-RS-10,000.**

Mr. Dunlap - asked Mr. Schafer to present a report on this item.

Mr. Schafer - the request before you is a consideration for a zone change from Coconino to RM-10/A (multi family residential zone which will allow for 10 residential units per acre to a C-RS-10,000 (single residential zone). The property is 3.66 Acres in size and the basis for the request is to allow for future development of 8 lots.

The subject property is located immediately southeast of Rolling Hills Estates at the end of Lucerne Rd. The Planning and Zoning Commission considered this request on June 5th and by unanimous vote of the members present recommended approval.

There are three conditions as set forth in the Ordinance and discussed in the Staff report:

. Submittal of a preliminary plat within 6 months.
. not to reflect more than 8 lots.
. no work prior to a final plat.

Mr. Silvern - asked what Ordinance # this is referring to.

Answer -Ordinance #14. First reading.

Mayor Cornelison - asked if there was anyone present that wanted to address this issue.

Mr. Schultz - representing the applicant, Anita Phillipont." We are simply down-zoning the property that exists in Rolling Hills. This over 3 Acre parcel has been zoned multiple family which isn't consistent with anything in Rolling Hills as a R1 10,000 zoning.

By down-zoning we would be in total compliance with the rest of the subdivision. The 117 lots that now exist there"

Mr. Silvern - questioned if Mr. Schultz was a resident of Rolling Hills and if so, is he associated with the association. Mr. Schultz stated he was the President.

Mr Schultz - addressed Councilman Silvern and stated that the Board of Directors of Rolling Hills has applauded this zoning change.

Mr. Silvern - do you have any problems or objections to the down zoning to the restrictive number of lots?

Mr. Schultz - stated he thought eight lots are a comfortable size.

Mr. Silvern - will you have a wastewater treatment system?

Mr. Schultz - we are on Phase 1 sewer, and these lots will have their own systems per lot until the sewer system is involved in Rolling Hills.

Mayor Cornelison - asked if anyone else wanted to speak at this time. Since there were none the hearing was closed. Opened the discussion to the Council.

Mr. Pomphrey - **MOVED THAT THE COUNCIL ACCEPT ORDINANCE 90-14.**

Mr. Levin - read the Ordinance 90-14 as follows: **AN ORDINANCE OF THE CITY OF SEDONA, ARIZONA REZONING THAT PROPERTY DESCRIBED HEREIN FROM ITS PRESENT DESIGNATION OF C-RM-10/A, MULTI-FAMILY RESIDENTIAL, TO THE NEW DESIGNATION OF C-RS-LO,000, SINGLE FAMILY RESIDENTIAL; ESTABLISHING CONDITIONS OF SUCH REZONING; DIRECTING THE AMENDMENT OF THE ZONING MAP UPON COMPLETION OF ALL ZONING CONDITIONS SET FORTH HEREIN; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH, AND PROVIDING PENALTIES FOR THE VIOLATION THEREOF.**

Mayor Cornelison stated that unless there is some discussion, since this is the 1st reading, there will be no action taken on Ordinance 90-14.

Mayor Cornelison stated she is going to reverse the order and place Item #10 before Item #09 as Item #9 is asking for a time extension. However if the applicant, if I understand this, has the rezoning then he really isn't particularly interested in the time extension.

10. **PUBLIC HEARING - DISCUSSION/POSSIBLE ACTION ON FIRST READING OF ORDINANCE FOR A CHANGE OF ZONE CLASSIFICATION FROM Y-PAD TO Y-RS (RESIDENTIAL AND**

9. DISCUSSION/ACTION ON SECOND READING OF ORDINANCE 90-14 FOR A ZONE CHANGE FOR PROPERTY ADJACENT TO ROLLING HILLS ESTATE FROM C-RM-10/A to C-RS-10,000.

MAYOR CORNELISON: I would like to see if we can do -- moving back up here -- Item Number 9, Discussion/Action on Second Reading of the Ordinance Number 90-14 for a Zone Change for Property Adjacent to Rolling Hill Estate from C-RM-10/A to C-RS-10,000.

Mr. Levin.

MR. LEVIN: Madam Mayor, members of the Council, Ordinance Number 90-14, the second reading; and this is an action item of that ordinance: An ordinance of the City of Sedona, Arizona, rezoning that property described herein from its present designation of C-RM-10A, multi-family residential, to the new designation of C-RS-10,000, single family residential establishing conditions of such rezoning, directing the amendment of the zoning map upon completion of all zoning conditions set forth herein, repealing all ordinances in conflict herewith, providing penalties for the violation hereof.

MAYOR CORNELISON: All right. For the benefit of the public, we heard this under Public Hearing last time; and there were not any objections to this. Basically what is happening is this is a decreased intense -- Would you please correct my English.

MR. LEVIN: Yes, it's a down-zoning.

MAYOR CORNELISON: It's a down-zoning, and everybody was in favor of it, which doesn't happen too often.

MR. POMPHREY: I move we accept Ordinance 90-14.

VICE-MAYOR HAYES: I second it.

MAYOR CORNELISON: All right. Councilman Silvern.

COUNCILMAN SILVERN: Yes. I would like to ask the City Attorney, there's a word used in Exhibit B which is Roman numeral two. It says submitted with the instant zone change application. I don't understand that word.

COUNCILMAN LA BARBERA: Page 113.

COUNCILMAN SILVERN: That also appeared --

MR. LEVIN: Councilman Silvern, I would have to defer to Tom Schafer.

MR. SCHAFER: What page are we on?

MR. LEVIN: Page 113.

I would have to say if you're referring to the word instant in its connection with the word zone change, I would gather that there was a preliminary plat which reflected the proposed development on the land which is about to be rezoned, and that this is to tie down the use of that land to the plat which was submitted.

And what would be anticipated -- and Tom can correct me if I'm wrong -- What would be anticipated is that what we might expect to see in the future is the development of that property in conformance with the proposal contained in the

preliminary plat.

MR. SCHAFER: If I might comment on that. That is exactly what the intent was. The condition was it originally appeared in the staff report that went to the Planning and Zoning Commission on June 5th did not in fact include the word instant, but the intent clearly is that the development of this site will occur in accordance with the plans as reviewed and approved in the public hearings. Instant seems to have shown up since that time.

COUNCILMAN SWARTWOUT: Is that a correct word? Wouldn't it be extant?

COUNCILMAN SILVERN: I thought would it be extant, but I'm not sure.

MR. SCHAFER: It doesn't correlate with what was in the staff report, and it probably would be just fine if it were eliminated altogether.

COUNCILMAN SILVERN: So should we amend Exhibit BD and just delete the word?

MR. LEVIN: I don't think there is a problem with the intent of the ordinance; so if you want to delete it, that's fine.

COUNCILMAN SILVERN: Do we need a motion to delete or is it simply --

MAYOR CORNELISON: It's housekeeping.
Is it not just housekeeping?

MR. LEVIN: I think that could be a matter of a housekeeping item because I don't think it changes the meaning or the intent of the ordinance whatsoever.

COUNCILMAN SILVERN: I would like to see it removed.

MAYOR CORNELISON: Councilman Pomphrey.

COUNCILMAN POMPHREY: The word instant, is that the question we have, the use of the word instant?

MR. LEVIN: As I understand it, yes.

COUNCILMAN POMPHREY: I thought that the word instant as used here means that this is the project that is before us. In other words, it's not something that has gone before and not something coming after. Instant means this is the thing that we're discussing this night. Isn't that the legal terminology that is normally used?

MR. LEVIN: Well, it was meant to refer to the application, the zone change application that was made with this particular agenda item or this particular zoning matter.

COUNCILMAN POMPHREY: It's a proper use of the word, though.

MR. LEVIN: I think it is, but it doesn't matter whether it's there or not. It doesn't really change the meaning if it's included or excluded.

MAYOR CORNELISON: Okay. Are we ready to vote on this item?

(No response indicated.)

MAYOR CORNELISON: All those in favor?

(Mayor Cornelison, Vice-Mayor Hayes, Councilman Eaton, Councilman Swartwout, Councilman Silvern, Councilman La Barbera, Councilman Pomphrey indicate affirmatively.)

MAYOR CORNELISON: All those opposed?

(No response indicated.)

MAYOR CORNELISON: May the record reflect it was a unanimous vote.

I'm going to call a recess right now. It will be a short one.

(Recess taken at 8:25 p.m.)

(End of proceedings on Agenda Item 9.)

10. DISCUSSION/ACTION FOR TIME EXTENSION OF AN EXISTING Y-PAD (PLANNED AREA DEVELOPMENT) ZONE CLASSIFICATION FOR KNOLLS WEST.

MAYOR CORNELISON: Item Number 10, Discussion/Action for Time Extension of an Existing Y-PAD, (Planned Area Development), Zone Classification for Knolls West.

Mr. Schafer, where are you?

MR. DUNLAP: Mr. Schafer will be here in a moment, Mayor.

COUNCILMAN EATON: Here he comes.

MAYOR CORNELISON: Mr. Schafer, I've called Number 10 which is the time extension of an existing Y-PAD, planned area development, zone classification for Knolls West.

MR. SCHAFER: Thank you.

Madam Mayor, Madam Vice-Mayor, members of the Council, this is a request for a time extension for a previously-approved planned area development zone on a project referred to as the Knolls. The subject property is located on the southeast corner of Highway 89A and Juniper Drive.

The Council's packet for this evening does not include the materials on this particular request simply because they were included in detail on the last packet. They're on pages 60 to 73 if anybody needs those for reference purposes.

The project itself a proposed office and retail mixed-use development.

In terms of the background, in April of 1986, the Yavapai County Board of Supervisors approved a zone change from a R1-L12, single family residential zone, to a PAD, a planned area development zone. That original approval was granted for two years.

The project was not able to satisfy the County's requirement within that original two-year time frame, and so the Board of Supervisors granted a two-year extension again in April of 1988.

The Planning and Zoning considered -- Planning/Zoning Commission considered this request on June 5th of 1990 in conjunction with a request for a zone change on the

CITY OF SEDONA
CITY COUNCIL MEETING
CITY COUNCIL CHAMBERS

WEDNESDAY, OCTOBER 17, 1990
7:00 p.m.

MINUTES

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE
The meeting was called to order at 7:00 p.m.

2. MOMENT OF SILENCE

3. ROLL CALL

Council Members:

June Cornelison, Mayor — Annamarie Hayes, Vice-Mayor

Jim Eaton — Nick LaBarbera
Pat Pomphrey — Len Silvern
Chuck Swartwout

Staff Present:

Kevin Dunlap, City Manager
Lew Levin, City Attorney
Tom Schafer, Director of Community Development
John O'Brien, Associate Planner
Ken Griffin, City Engineer

4. PUBLIC HEARING - DISCUSSION/POSSIBLE ACTION REGARDING A REQUEST FOR PRELIMINARY PLAT APPROVAL FOR THE PROPOSED ROLLING HILLS ESTATES UNIT #4 SUBDIVISION. THE PROPOSED SUBDIVISION IS TO CONSIST OF EIGHT (8) SINGLE RESIDENTIAL LOTS. THE FIVE (5) ACRE PROPERTY IS LOCATED IMMEDIATELY SOUTHEAST OF ROLLING HILLS ESTATES AT THE END OF LUCERNE ROAD. THE SITE IS FURTHER IDENTIFIED AS ASSESSOR'S PARCEL NUMBER 401-46-121A.

THE PUBLIC HEARING WAS DECLARED OPEN.

STAFF REPORT

John O'Brien - using a visual of the preliminary plat explained the proposal. This falls under the current subdivision regulations which went into effect April 12, 1990.

On August 14, the Council approved a downzoning of the property from multifamily residential, 10 dwelling units per acre, to single family residential, 4 dwelling units per acre.

A one acre open space tract is proposed which encompasses a large wash and will be left in an open space conservation easement designated as such on the plat.

All utilities will be located underground.

On October 2, the Commission unanimously approved the preliminary plat subject to the conditions outlined in the October 8 memorandum from the Department of Community Development.

A copy of the October 8, 1990 memorandum is attached to the original minutes.

Councilman Silvern - pointed out in Item Number 5 under Conditions of Approval that instead of the term "Grading Ordinance," the correct terminology should be "Article 7-13, Grading and Drainage" and requested the change be incorporated into the motion when made thereby incorporating it into the conditions of approval.

He noted in Item Number 12, the term "Conservation Easement" is used. He pointed out Mr. O'Brien used the term conservation open space. On the plat, it's called the drainage easement; and in the preliminary plat notes, Item Number 4, it's called a drainage easement. For purposes of conformity, Councilman Silvern suggests the terminology of "conservation easement."

Mr. O'Brien - confirms that it will be called a conservation easement on the revised preliminary plat.

Councilman Silvern - requests that be made part of the motion when the motion is made.

For the benefit of the Council, he noted the property to the north and south is zoned open space so that the property is sandwiched between two very large areas of Coconino National Forest. This zoning has been in effect since August 3, 1981.

He also noted on the right-hand side of the plat that the statement is made, "Future connection to City

sewer," and notes the correct terminology according to Chapter 13 of the City Code would be "Future connection of City wastewater system."

PUBLIC COMMENT

No comments.

PUBLIC HEARING CLOSED

COUNCIL COMMENT

COUNCILMAN POMPHREY: "I MOVE WE APPROVE THE PRELIMINARY PLAT FOR THE PROPOSED ROLLING HILLS ESTATES UNIT #4 SUBDIVISION SUBJECT TO THE CHANGE THAT WAS SUGGESTED IN PARAGRAPH 5 OF THE CONDITIONS OF APPROVAL." VICE-MAYOR HAYES SECONDED.

7 VOTES FOR - NONE OPPOSED - MOTION PASSED

5. PUBLIC HEARING - DISCUSSION/POSSIBLE ACTION REGARDING A REQUEST FOR FINAL PLAT APPROVAL FOR THE PROPOSED NORTH SLOPES SUBDIVISION. THE PROPOSED SUBDIVISION IS TO CONSIST OF FIFTY-FIVE (55) SINGLE FAMILY RESIDENTIAL LOTS ON APPROXIMATELY ONE HUNDRED TWENTY-FIVE (125) ACRES OF LAND. THE SUBJECT PROPERTY, SITUATED IN THE Y-R1L-70 ZONE (SINGLE FAMILY RESIDENTIAL ZONE), IS LOCATED APPROXIMATELY 1-1/2 MILES NORTH OF HIGHWAY 89A/DRY CREEK ROAD INTERSECTION ALONG THE WEST AND EAST SIDES OF DRY CREEK ROAD. THE SUBJECT SITE IS IDENTIFIED AS ASSESSOR'S PARCEL NUMBER 408-22-346.

THE PUBLIC HEARING WAS DECLARED OPEN.

STAFF REPORT

John O'Brien - using a visual of the plat, explained that the preliminary plat for the subdivision was approved by the Planning Commission on November 6, 1989; therefore, this subdivision is subject to the former procedures in the old ordinance which did not require the preliminary plat to come to the Council.

The applicant has voluntarily developed the subdivision in accordance with the new standards of the current ordinance.

The road network consists of a series of cul-de-sacs which are constructed on the ridge tops. This coupled

2940 Southwest Drive
P.O. Box 30002
Sedona, Arizona 86336
(602) 282-3113
FAX (602) 282-7207

MEMORANDUM

TO: **MAYOR AND CITY COUNCIL**

FROM: **DEPARTMENT OF COMMUNITY DEVELOPMENT**

DATE: **OCTOBER 8, 1990**

RE: **ROLLING HILLS ESTATES, UNIT #4 -- PRELIMINARY PLAT SUBDIVISION, CASE NUMBER SUB 90-2**

On October 2, 1990, the Planning and Zoning Commission unanimously approved the above-referenced subdivision, which consists of eight (8) Single Family Residential lots on five (5) acres of land. The site is located immediately southeast of Rolling Hills Estates, Unit #3.

Primary issues raised by Commission members at the hearing included:

-- The need to designate building envelopes on the revised Preliminary Plat for all lots;

-- The concern regarding the Subdivision's proposed cluster sewage system and its relationship to the City Sewer System.

The Council should note that both of the above-listed concerns of the Commission have been addressed by Conditions of Approval.

No one from the general public spoke on this item.

A copy of the Staff Report as provided to the Planning and Zoning Commission is available in the Department of Community Development for your further review.

OCT 17 1990

252

RECOMMENDATION:

The Planning and Zoning Commission, by a unanimous vote, recommends that the City Council approve the Preliminary Plat, subject to the following:

CONDITIONS OF APPROVAL
Rolling Hills Estates, Unit #4 -- Preliminary Plat

1.A. Arizona Department of Environmental Quality (ADEQ) approval for a temporary effluent disposal system must be obtained prior to the Final Plat submittal.

1.B. Prior to Final Plat submittal, the Applicant shall execute, in writing, the release of any financial liability to the City of Sedona for the abandonment of said temporary system and dedication of collector lines and lift stations.

2. The cul-de-sac shall be renamed St. Moritz Lane on the revised Preliminary Plat and Final Plat.

3. The St. Moritz Lane cul-de-sac shall be constructed to City Standards.

4. A final Grading Plan for St. Moritz Lane shall be reviewed and approved by the City Engineer with the revised Preliminary Plat submittal.

5. With the revised Preliminary Plat submittal, the Applicant shall provide Preliminary Grading Plans in accordance with the Grading Ordinance, and to the specifications of the City's Engineering Department which address site access, driveway grades and sight visibility for all lots.

6. With the revised Preliminary Plat submittal, the Applicant shall designate building envelopes on all lots to the specifications of the City Engineer.

7. Grading Plans for all individual lots delineating the finished grade of all improvement locations and the depth and extent of all cuts and fills shall be reviewed and approved by the City Engineering Department prior to the issuance of Building Permits.

8. Utility Easement locations shall be delineated on the Final Plat.

9. Fire Hydrants shall be located on-site to the specifications of the Sedona Fire Department.

10. All utilities shall be accommodated through underground installation.

11. Tree removal permits shall be obtained prior to any vegetation removal. Every attempt shall be made to transplant removed vegetation back onto the site where appropriate.

12. A Conservation Easement shall be recorded on the portion of the subject property identified as Tract A-1 on the Preliminary Plat to preclude any future development.

13. With the submittal of the revised Preliminary Plat, a Stop Sign shall be noted at the Alhambra Road/St. Moritz Drive Intersection.

Respectfully submitted,

John O'Brien

John P. O'Brien, Associate Planner
Department of Community Development

JOB/ilb

c:\wp51\job\rolling.cc