

SOLAEGUI
ENGINEERS

September 10, 2020

Ms. Sienna Reid
City of Sparks
431 Prater Way
Sparks, Nevada 89431

Re: Stonebrook Phase 2, Trip Generation Letter

Dear Sienna:

This letter contains the findings of our trip generation calculations for Stonebrook Phase 2. The Stonebrook Phase 2 site plan is attached. Project access is provided from Fen Way, Stonebrook Parkway and Oppio Ranch Parkway. Villages E, F, G1 and G2 are included in this phase 2 review. The proposed Stonebrook Phase 2 site plan includes 489 single family homes. The original Stonebrook Handbook overall density included 1,935 single family dwelling units. Stonebrook Phase 1 was recorded with 603 lots. Stonebrook West has an approved tentative map containing 182 lots. With the 489 lots in Stonebrook Phase 2 the current single family lot total stands at 1,274. Ultimate Stonebrook build-out will allow 661 remaining lots. Table 1 shows the trip generation summary for the project being calculated as "Single Family Detached Housing". ITE Land Use #210 for the Single Family Detached Housing is the basis of these calculations per the Tenth Edition of ITE Trip Generation. The 1,935 build-out lot count and the 489 phase 2 lot count trip generation calculations are summarized below.

TABLE 1
TRIP GENERATION

<u>LAND USE</u>	<u>ADT</u>	<u>AM PEAK HOUR TOTAL</u>	<u>PM PEAK HOUR TOTAL</u>
Stonebrook Handbook Lot Total			
Single Family			
1,935 Dwelling Units	15,874	1,379	1,746
Stonebrook Phase 2			
Single Family			
489 Dwelling Units	4,478	352	466

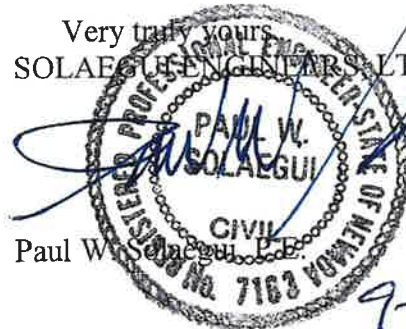
As indicated in Table 1, the phase 2 site plan results in project trip generation of 4,478 average daily trips with 352 AM peak hour trips and 466 PM peak hour trips. 661 lots remain approved but un-built. The roadway network was designed to serve the 15,874

average daily trips. In our opinion capacity exists in the existing and planned Stonebrook area roadway network to serve Stonebrook Phase 2.

We trust that this information will be adequate for your review. Please contact us if you have questions or comments.

Very truly yours,
SOLAEGUI ENGINEERS LTD

Paul W. Solaequi, P.E.



9-10-20

EXP 6-30-22

Enclosures

Letters/ Stonebrook Phase 2 Letter

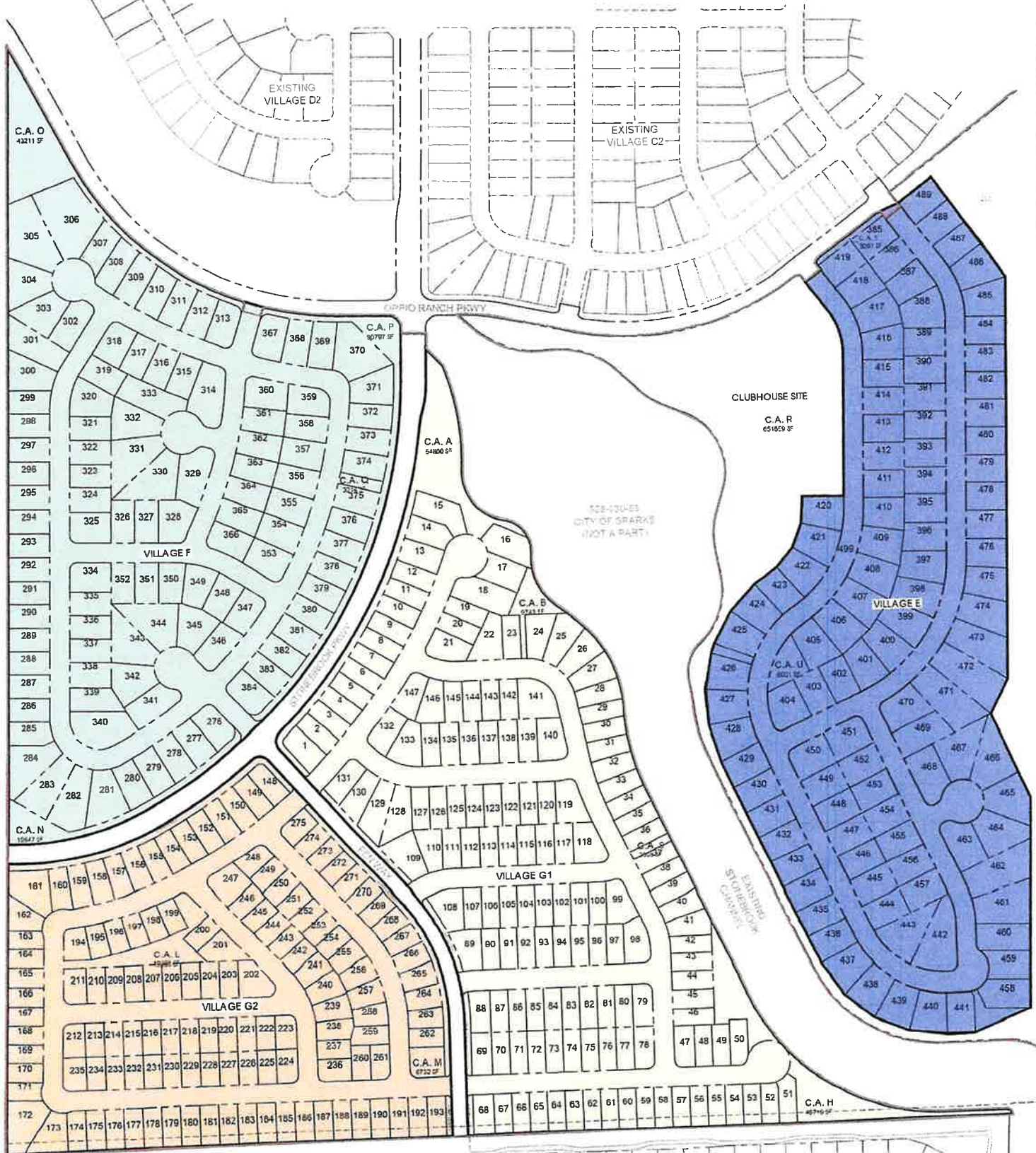
OVERALL SITE MAP

STONEBROOK PHASE 2

SPARKS, NEVADA
AUGUST, 2020

LOTING STATISTICS:

VILLAGE E - 70x105' (6,300ft) MIN.	TOTAL VILLAGE E	105 LOTS
VILLAGE F - 60x105' (6,300ft) MIN.	TOTAL VILLAGE F	109 LOTS
VILLAGE G1 - 45x105' (4,725ft) MIN.	TOTAL VILLAGE G1	147 LOTS
VILLAGE G2 - 48x87' (4,176ft) MIN.	TOTAL VILLAGE G2	128 LOTS
TOTAL		489 LOTS



Single-Family Detached Housing (210)

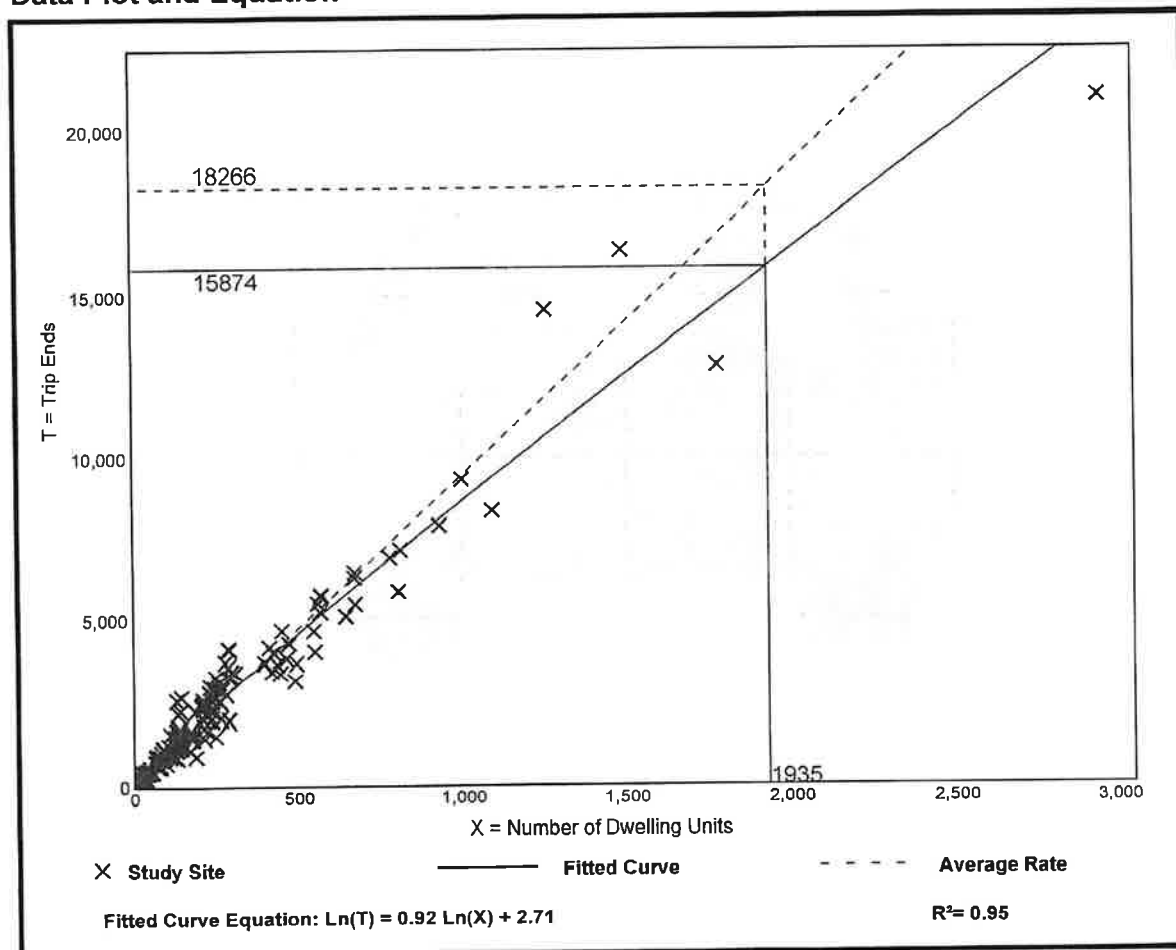
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 159
Avg. Num. of Dwelling Units: 264
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.44	4.81 - 19.39	2.10

Data Plot and Equation



Trip Gen Manual, 10th Edition • Institute of Transportation Engineers

Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 173

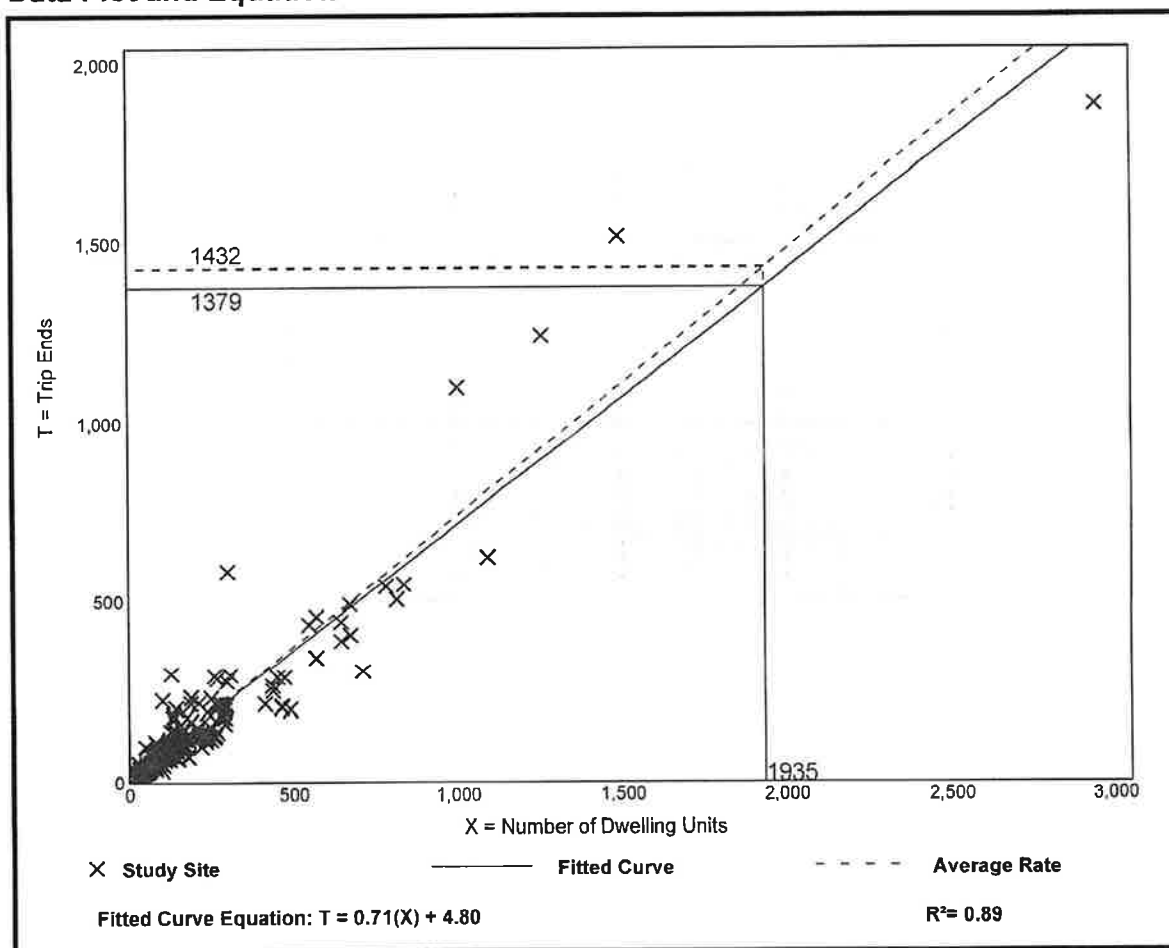
Avg. Num. of Dwelling Units: 219

Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.74	0.33 - 2.27	0.27

Data Plot and Equation



Trip Gen Manual, 10th Edition • Institute of Transportation Engineers

Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

**On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.**

Setting/Location: General Urban/Suburban

Number of Studies: 190

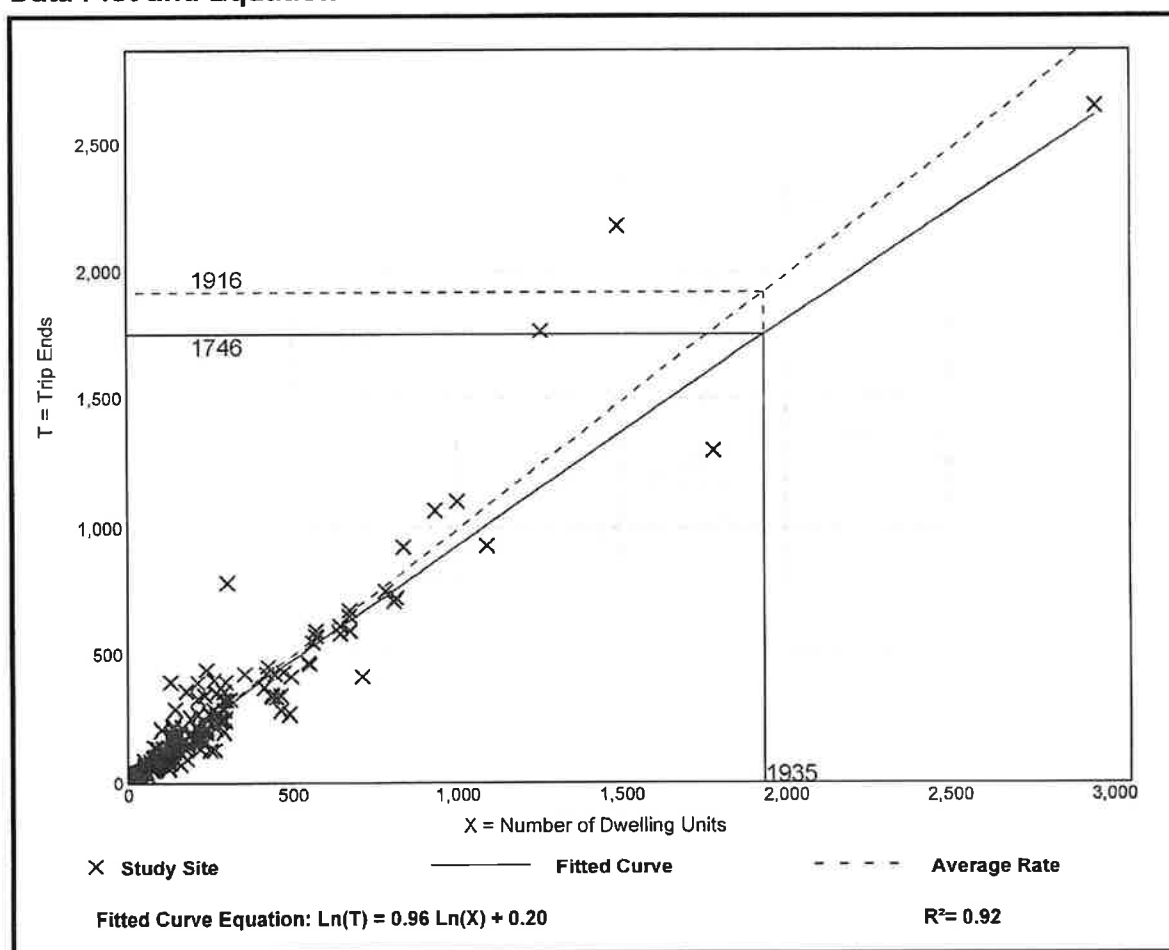
Avg. Num. of Dwelling Units: 242

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.99	0.44 - 2.98	0.31

Data Plot and Equation



Trip Gen Manual, 10th Edition • Institute of Transportation Engineers

Single-Family Detached Housing (210)

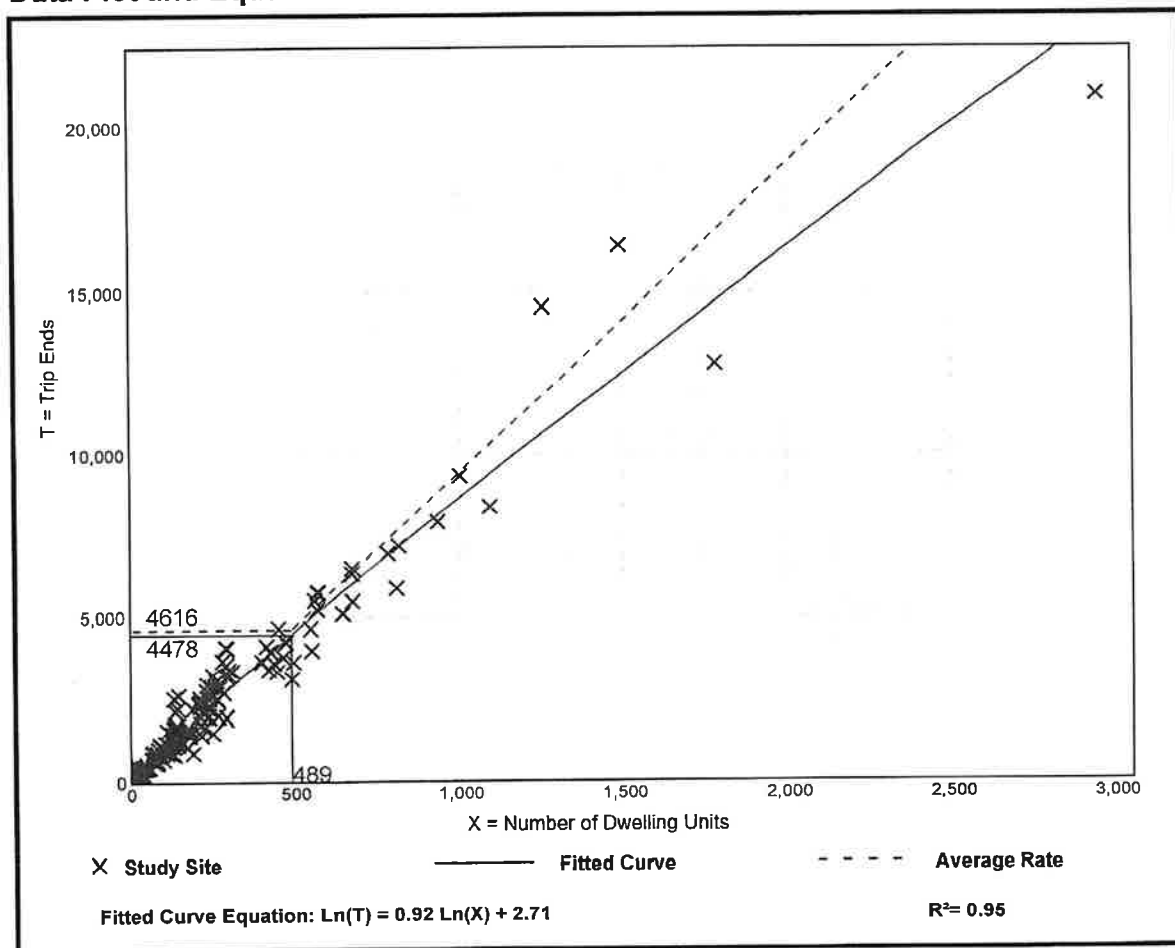
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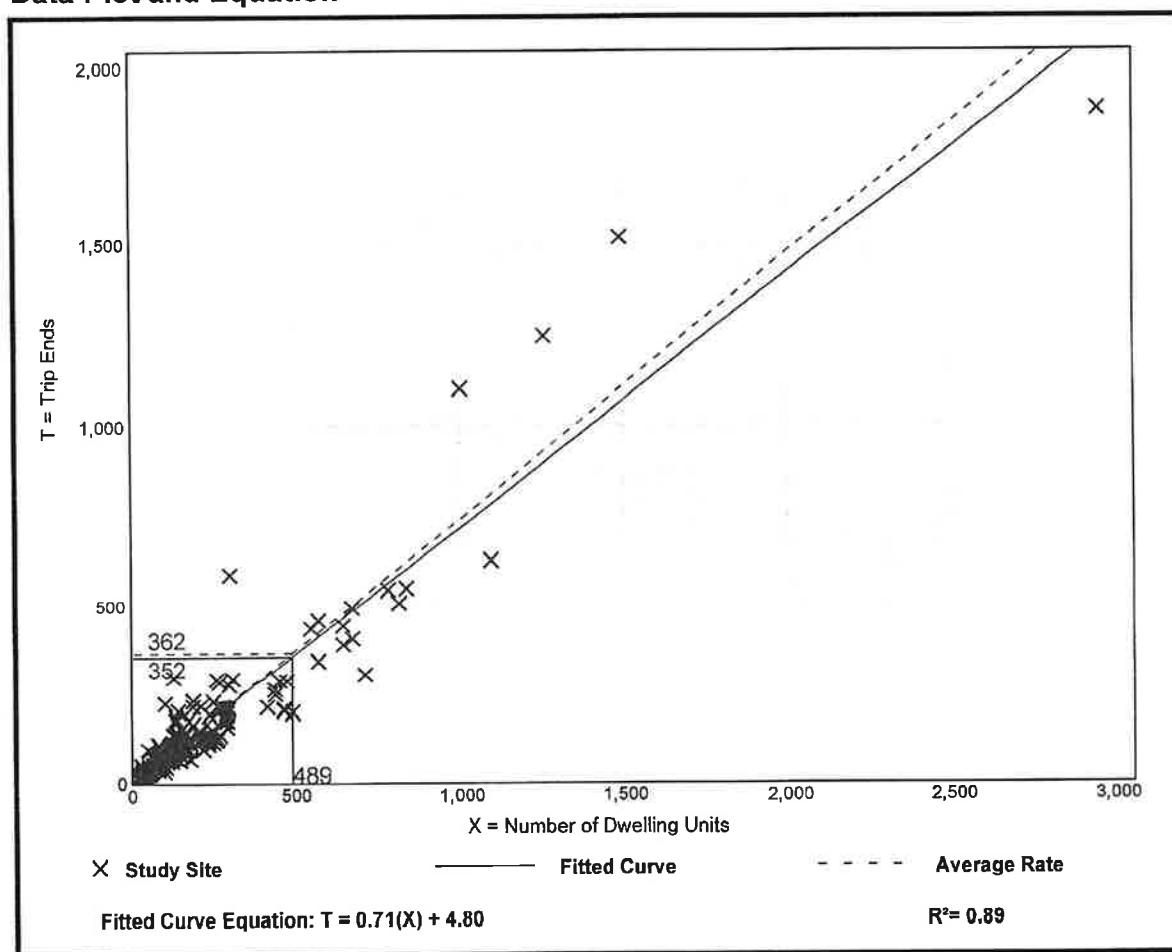
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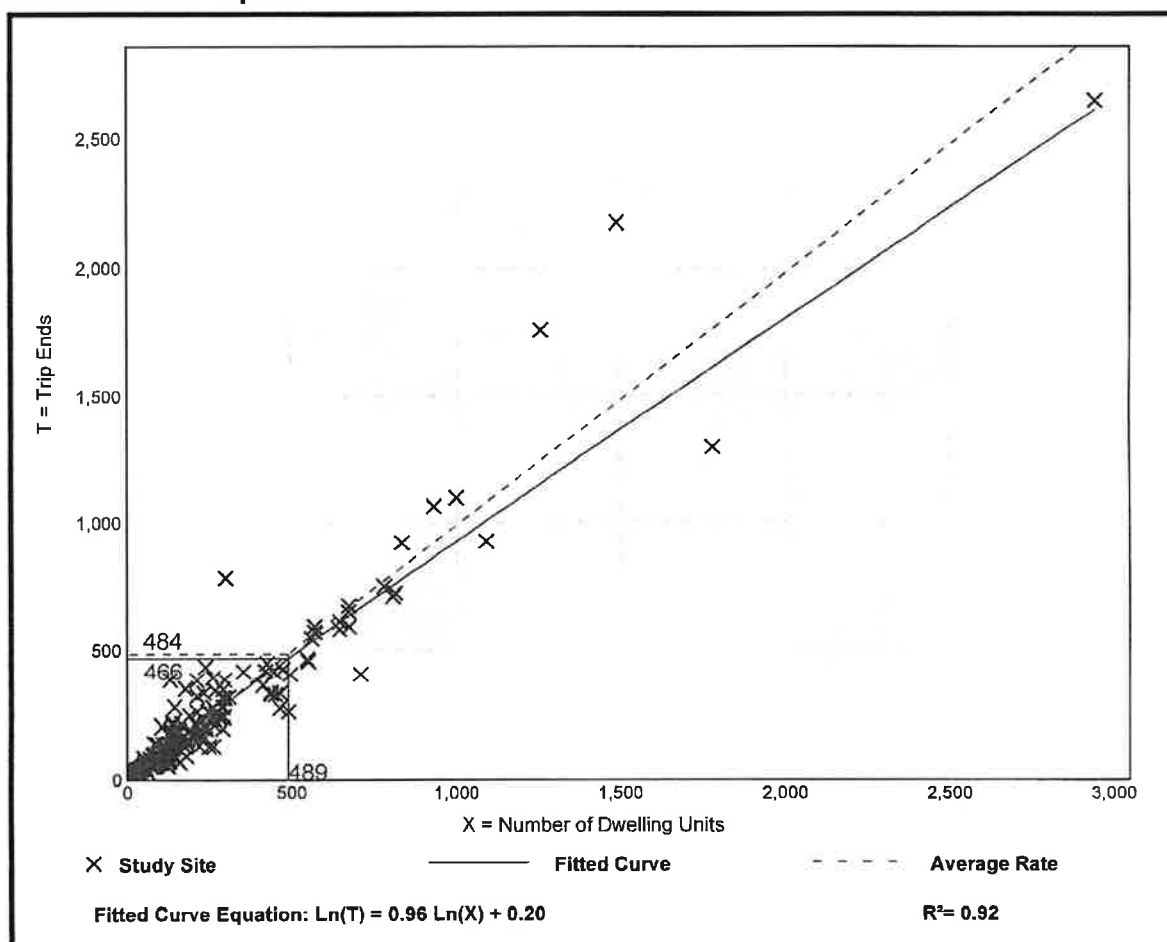
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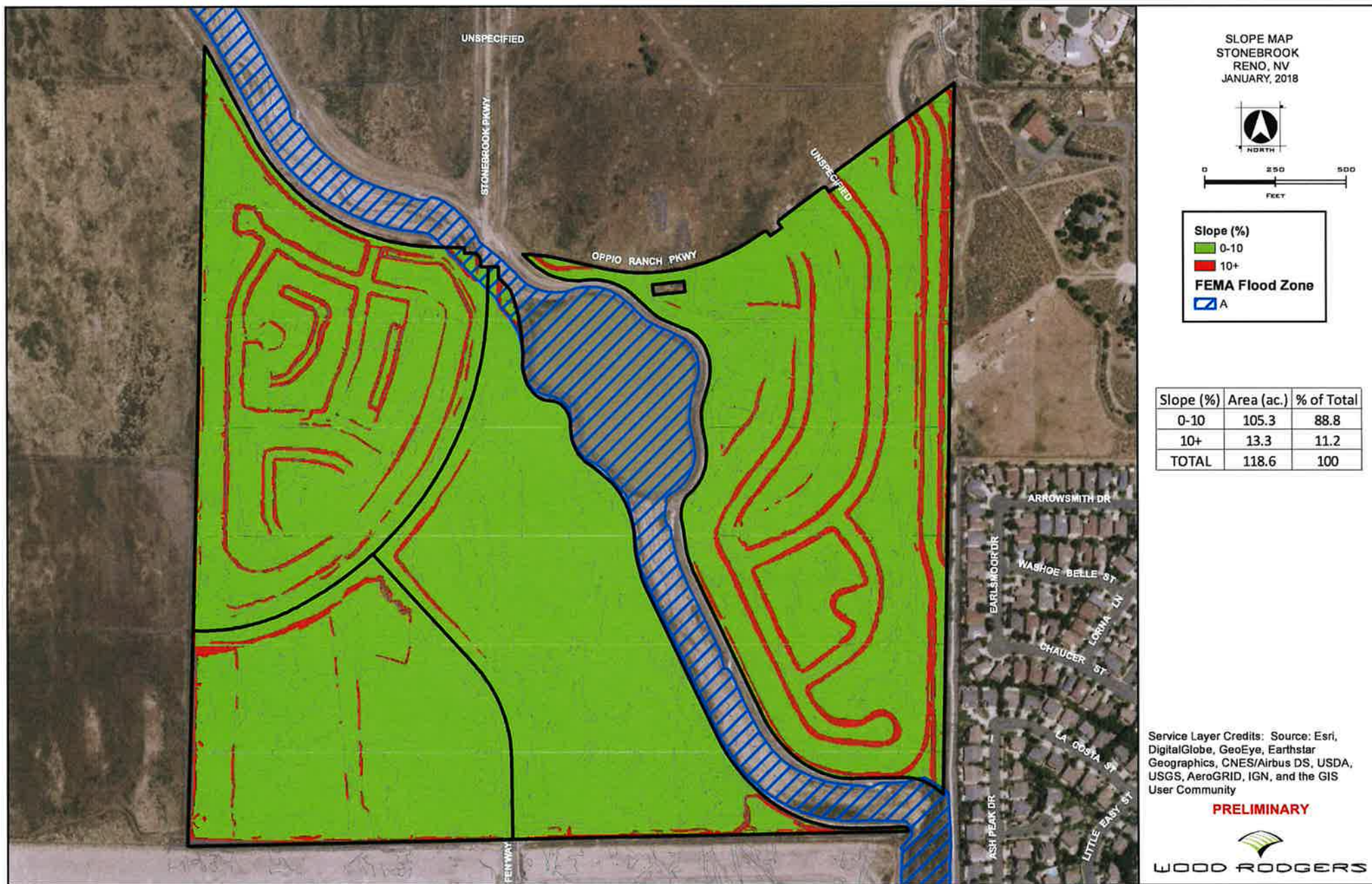
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Data Plot and Equation



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Exhibit 9 - Slope Map



LANDSCAPE LEGEND/REQUIREMENTS



OPEN SPACE, INCLUDING FLOOD CONTROL IMPLEMENTATION CHANNELS, SHALL UTILIZE DRAINAGE PLANTING PRINCIPLES USING A COMBINATION OF PLANTS, NATIVE AND ORNAMENTAL GRASSES, PERENNIALS AND ORNAMENTAL GROUND COVERS, WHICH REQUIRE MINIMAL SUPPLEMENTAL WATERING AND PROVIDE SEASONAL INTEREST AND AN ABUNDANCE OF COLOR.

OPEN SPACE UTILIZING FLOOD CONTROL IMPLEMENTATION CHANNELS ARE TO BE LANDSCAPED BY THE INDIVIDUAL PARCEL DEVELOPERS TO THE FOLLOWING MINIMUM STANDARDS WITH ONGOING MAINTENANCE TO BE PROVIDED BY THE HOMEOWNERS ASSOCIATION:

- ONE (1) 2" CALIPER DECIDUOUS TREE OR MINIMUM HEIGHT EVERGREEN TREE PER FIFTEEN HUNDRED (1,500) SQ. FT. OF OPEN SPACE AREA (1 UNIT RING IN LOCAL MAINTENANCE AREAS, TRAIL CROSSINGS, ETC.)
- SIX (6) SHRUBS PER TREE
- INTERSPERSED ROCK/GRASS OR OUTCROPPINGS COMPOSED OF NATIVE GRASSES AND NATIVE SHRUBS
- BENCH SEATING AREAS SHALL BE INSTALLED APPROXIMATELY EVERY 1/4 MILE ALONG THE REGIONAL TRAIL SUBJECT TO APPROVAL OF THE PARKS AND RECREATION DIRECTOR

LANDSCAPE REQUIREMENTS ALONG ROADWAYS (ARTERIALS AND COMMUNITY COLLECTORS)

ALL LANDSCAPE IMPROVEMENTS ALONG BOTH SIDES OF THE ROADWAYS SHALL BE COMPLETED IN CONJUNCTION WITH ADJACENT ROADWAY CONSTRUCTION AND MAINTAINED BY THE SRA.

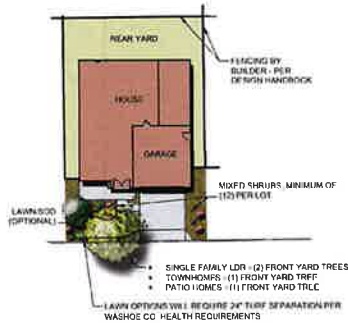
STREETSCAPES ALONG MINOR ARTERIALS AND COMMUNITY COLLECTORS SHALL BE DESIGNED IN CHARACTER WITH THE FUNCTION OF THE ROADWAY.

STREETSCAPES SHALL BE PROVIDED ON BOTH SIDES OF THE ROADWAY AND SHALL CONTAIN A MINIMUM OF THE FOLLOWING:

- ONE (1) 2" CALIPER DECIDUOUS TREE PER 30' x 10' MINIMUM HEIGHT EVERGREEN TREE PER 30' x 10' OF ROADWAY, PER SIDE ADJACENT TO THE SIDEWALK IN MATCHING SPECIES
- ROADWAY MEDIAN SHALL NOT INCLUDE EVERGREENS BUT SHALL INCLUDE ONE (1) 2" CALIPER COLUMNAR TREE PER 30' x 10' OF MEDIAN
- SIX (6) GALLON SHRUBS PER TREE WILL BE PROVIDED WITHIN THE STREETSCAPE
- USE OF TURF SHALL CONSTITUTE A MAXIMUM OF 30% OF COVERING OF THE LANDSCAPE AREA. NO TURF IS ALLOWED IN MEDIANS
- GROUND COVER SHALL CONSTITUTE THE BALANCE OF THE LANDSCAPE AREA AND BE ONE (1) GALLON OR FLAT SIZE FOR ORNAMENTAL GRASSES, PERENNIALS OR ORNAMENTAL GROUND COVERS SPECIFICALLY DESIGNED AND GROWN FOR INTERMEDIATE AND HIGH DESERT ENVIRONMENTS

GENERAL PLANTING REQUIREMENTS

- ALL PLANTING AND IRRIGATION SHALL BE INSTALLED PER LOCAL COVERING CODES
- FINAL PLANT SELECTION AND LAYOUT WILL BE BASED ON SOUND HORTICULTURAL PRACTICES RELATING TO MICRO-CLIMATE, SOIL, AND WATER REGIMES. ALL TREES WILL BE SHARDED AS TO REMAIN UPRIGHT AND PLANTING FOLLOWING INSTALLATION. PLANT SIZE AND QUALITY AT TIME OF PLANTING WILL BE PER CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1)
- ALL PLANTER BEDS WILL RECEIVE 4" MINIMUM DEPTH OF MULCH WITH WEED CONTROL
- ALL LANDSCAPING WILL BE AUTOMATICALLY IRRIGATED (SEE NOTES CONCERNING THE PLAN). CONTAINER PLANTINGS WILL BE Drip IRRIGATED. A REDUCED PRESSURE TYPE BACKFLOW PREVENTER WILL BE PROVIDED ON THE IRRIGATION SYSTEM AS REQUIRED PER CODE
- NO TREES SHALL BE INSTALLED WITHIN ROADWAY OR TRAIL RIGHT-OF-WAY



TYPICAL FRONT YARD LANDSCAPE PLAN - CONCEPTUAL



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L.A. Studio Nevada
THE LANDSCAPE ARCHITECTURE STUDIO
Sparks, NV 89431 (775) 323-2223 NV RA #440
www.la-studio.com



Preliminary Landscape Plan
STONEBROOK VILLAGES E, F, AND G
RRW Stonebrook, LLC
Sparks, NV

No. Revision Date

LA No: 200-004-01-10
Designed: RWH
Drawn: LMS
Checked: RWH
Date: 10/2/2020

Sheet
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of
1

STONEBROOK PHASE 2 - MODEL COMPLEX EXHIBIT
SPARKS, WASHOE COUNTY, NEVADA
SEPTEMBER, 2020



From: [Rodela, Brett A](#)
To: [Reid, Sienna](#)
Cc: [Boster, Mike](#); [Freund, Sandra](#); [Baxley, Randy](#)
Subject: Development Review PCN18-007/STM20-0003 Stonebrook Phase 2 TM
Date: Tuesday, September 1, 2020 12:40:32 PM
Attachments: [PCN18-0007 STM18-0004 \(Stonebrook Phase 2\).pdf](#)

Hello, Sienna,

This is an update to the attached Development Review response with newly updated unit counts and student generation factors.

Stonebrook Phase 2 is zoned for Bohach Elementary School, Shaw Middle School, and Spanish Springs High School. The project is calculated to generate 104, 48, and 44 students respectively.

The following table details current student capacity percentages and projections for the 2024/25 and 2029/30 school years. Please keep in mind that these numbers do not take into account impacts of COVID.

School	Current	2024/25	2029/30
Bohach ES	77%	97%	113%
Shaw MS	66%	89%	94%
Spanish Springs HS	113%	81%	92%

The school district owns property a few parcels west of Stonebrook Phase 2 which will be utilized to construct an elementary school once student generation prompts its build. This new elementary school will relieve overcrowding at Bohach Elementary.

Options for relief at Shaw Middle include adding on to existing infrastructure and redefining zoning boundaries.

Please respond with any further questions and/or comments pertaining to Stonebrook Phase 2's impacts on WCSD facilities.

Brett A. Rodela

GIS Analyst

Washoe County School District

Office: (775) 325-8303 | Cell: (775) 250-7762





Washoe County School District

Every Child, By Name And Face, To Graduation

425 East Ninth Street * P.O. Box 30425 * Reno, NV 89520-3425
Phone (775) 348-0200 * (775) 348-0304 * www.washoeschools.net

Board of Trustees: Katy Simon Holland, President * Malena Raymond, Vice President * John Mayer, Clerk *
Debra Feemster * Veronica Frenkel * Angie Taylor * Scott Kelley * Traci Davis, Superintendent

07-Mar-18

Karen Melby, Planner
City of Sparks
Planning & Community Services
1675 E Prater Way #107
Sparks, NV 89434

RE: PCN18-0007/STM18-004 (Stonebrook Phase 2)

Dear Ms./Mrs. Melby,

Stonebrook Phase 2, which proposes **459** new single-family residential units, will impact Washoe County School District facilities. This project is currently zoned for the following schools:

Spanish Springs Elementary School

Spanish Springs ES has **2** portable buildings (**4** classrooms) in use that provide temporary space for an additional **100** students.

- **Estimated Stonebrook Phase 2 impact = 103** new ES students (**459** single-family units x **.225** ES students per unit)
- **Base Capacity = 750**
- **2017-2018 Enrollment = 864**
- **% of Base Capacity = 115%**
- **2017-2018 Enrollment including Stonebrook Phase 2 = 967**
- **% of Base Capacity including Stonebrook Phase 2 = 129%**
- To address these and projected future enrollments, Washoe County School District is requesting a 10.5 acre set-aside for an elementary school with the development of Stonebrook in addition to Sky Ranch Middle School (currently being built) and another Elementary School directly adjacent to Sky Ranch Middle, south of Stonebrook roughly 1.5 miles.

Shaw Middle School

Shaw MS has **2** portable buildings (**4** classrooms) in use that provide temporary space for an additional **100** students.

- **Estimated Stonebrook Phase 2 impact = 21** new MS students (**459** single-family units x **.045** MS students per unit)
- **Base Capacity = 1,072**
- **2017-2018 Enrollment = 955**
- **% of Base Capacity = 89%**
- **2017-2018 Enrollment including Stonebrook Phase 2 = 976**
- **% of Base Capacity including Project Name = 91%**

Spanish Springs High School

Spanish Springs HS has **5** portable buildings (**10** classrooms) in use that provide temporary space for an additional **250** students.

- **Estimated Project Name impact = 43** new HS students (**459** single-family units x **.093** HS students per unit)
- **Base Capacity = 2,160**
- **2017-2018 Enrollment = 2,364**
- **% of Base Capacity = 109%**
- **2017-2018 Enrollment including Stonebrook Phase 2 = 2,407**
- **% of Base Capacity including Stonebrook Phase 2 = 11%**
- Washoe County School District maintains steady momentum in building a high school anticipated to open Fall of 2022 to relieve overcrowding at Spanish Springs High School.

Thank you for the opportunity to comment. If there are any further questions and/or comments please contact me at your convenience.

Brett A. Rodela

Brett A. Rodela & GIS Analyst
Washoe County School District Capital Projects
14101 Old Virginia Road
Reno NV USA 89521
775.325.8303
brett.rodela@washoeschools.net



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

September 1, 2020

FR: Chrono/PL 181-20

Ms. Sienna Reid
Planning and Community Services Department
City of Sparks
431 Prater Way
Sparks, NV 89431

RE PCN18-0007 / STM20-0003 (Stonebrook Phase 2 TM)

Dear Ms. Reid,

The Regional Transportation Commission (RTC) has reviewed this request for A request to amend a tentative map (STM18-0004) to add 30 lots, increasing the number of lots from 459 to 489, by incorporating townhome units into the tentative map. The proposed amended tentative map occupies a site approximately 118.45 acres in size generally located east of Pyramid Hwy and south of La Posada Drive, Sparks, Nevada in the NUD (New Urban District – Stonebrook Planned Development) zoning district.

The 2040 [Regional Transportation Plan \(RTP\)](#) identifies Stonebrook Pkwy as an arterial with moderate-access control. To maintain collector capacity, the following RTP access management standards should be maintained:

Access Management Standards-Arterials ¹ and Collectors							
Access Management Class	Posted Speeds	Signals Per Mile and Spacing ²	Median Type	Left From Major Street? (Spacing from signal)	Left From Minor Street or Driveway?	Right Decel Lanes at Driveways?	Driveway Spacing ³
Moderate Access Control	40-45 mph	3 or less Minimum spacing 1590 feet	Raised or painted w/turn pockets	Yes 500 ft. minimum	No, on 6 or 8-lane roadways w/o signal	Yes ⁴	200 ft./300 ft.

¹ On-street parking shall not be allowed on any new arterials. Elimination of existing on-street parking shall be considered a priority for major and minor arterials operating at or below the policy level of service.

² Minimum signal spacing is for planning purposes only; additional analysis must be made of proposed new signals in the context of planned signalized intersections, and other relevant factors impacting corridor level of service.

³ Minimum spacing from signalized intersections/spacing other driveways.

⁴ If there are more than 60 inbound, right-turn movements during the peak-hour

The policy Level of Service (LOS) standard for Stonebrook Pkwy is LOS D. Policy LOS for intersections shall be designed to provide a level of service consistent with maintaining the policy level of service of the intersecting corridor. This project should be required to meet all the conditions necessary to complete road improvements to maintain policy LOS standards.

Review of the proposed tentative map amendment for Stonebrook phase 2 (additional 30 lots from 459 to 489) will not have a detrimental impact to traffic circulation around the development. It is not expected that the impact from the increased traffic will significantly change the results of the traffic analysis provided in the 2017 traffic report submitted with this application.

The RTP, the RTC Bicycle/Pedestrian Master Plan and the Nevada Department of Transportation Pedestrian Safety Action Plan, all indicate that new development and re-development will be encouraged to construct pedestrian and bicycle facilities, internal and/or adjacent to the development, within the regional road system. In addition, these plans recommend that the applicant be required to design and construct any sidewalks along the frontage of the property in conformance with the stated ADA specifications.

Thank you for the opportunity to comment on this application. Please feel free to contact me at 775-332-0174 or email me at rkapuler@rtcwashoe.com if, you have any questions or comments.

Sincerely,

A handwritten signature in black ink, reading "Rebecca Kapuler". The signature is fluid and cursive, with the first name "Rebecca" written in a larger, more prominent script than the last name "Kapuler".

Rebecca Kapuler
Senior Planner

Cc: Amber Sosa, City of Sparks
Brian Stewart, Regional Transportation Commission
Doug Maloy, Regional Transportation Commission
Dale Keller, Regional Transportation Commission
Tina Wu, Regional Transportation Commission
Andrew Jayankura, Regional Transportation Commission
Scott Miklos, Regional Transportation Commission

/ (Stonebrook Phase 2 TM)



STEVE SISOLAK
Governor

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
1263 S. Stewart Street
Carson City, Nevada 89712

KRISTINA L. SWALLOW, P.E., Director

August 26, 2020

City of Sparks
Planning & Community Services Department
431 Prater Way
Sparks, NV 89431
Attention: Sienna Reid – Planner

RE: PCN18-0007 / STM20-0003 Stonebrook Phase 2 Tentative Map

Dear Ms. Reid,

Nevada Department of Transportation (NDOT) staff have reviewed the following project tentatively scheduled to be reviewed by the Sparks Planning and Community Services Department on September 2, 2020 and provided comments accordingly.

PCN18-0007 / STM20-0003 (Stonebrook Phase 2 Tentative Map) – A request to amend a tentative map (STM18-0004) to add 30 lots, increasing the number of lots from 459 to 489, by incorporating townhome units into the tentative map. The proposed amended tentative map occupies a site approximately 118.45 acres in size generally located east of Pyramid Hwy and south of La Posada Drive, Sparks, Nevada in the NUD (New Urban District – Stonebrook Planned Development) zoning district.


NDOT comments:

1. While the project is not adjacent to Pyramid Way, the traffic study identifies that trips generated by the project will have an impact on Pyramid Way. Pyramid Way is a State-owned roadway officially designated as State Route 445 (SR-445) and functionally classified as an urban principal arterial.
2. The application includes the original traffic study from 2017 which does not provide analysis of the proposed Oppio Ranch Pkwy connection to SR-445. NDOT would encourage an update to the traffic study to analyze the potential effect of the trips generated by this phase of the project on the proposed SR-445 / Oppio Ranch Pkwy intersection, especially if the Oppio Ranch Pkwy connection is completed before the proposed Stonebrook Pkwy connection to SR-445.
3. The NDOT occupancy permit for the proposed SR-445 / Oppio Ranch Pkwy intersection is currently in review. If any improvements are proposed within the State right of way that are not a part of the NDOT occupancy permit currently in review, an additional occupancy permit or an amendment of the in-process

permit would be required. Please contact the NDOT District II Permits Office at (775) 834-8330 for more information relating to occupancy permits.

Thank you for the opportunity to review these projects. NDOT reserves the right to incorporate further changes and/or comments as these applications and design reviews progress. Should you have any questions, please contact Alex Wolfson at (775) 834-8365.

Sincerely,

DocuSigned by:

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Tara Smaltz, PE
Engineering Services Manager
NDOT District II

TMS:alw

Cc: Rebecca Kapuler – Regional Transportation Commission
Blaine Petersen, PE, PTOE – Regional Transportation Commission
Sondra Rosenberg, PTP – NDOT Assistant Director of Planning
Mike Fuess, PE, PTOE – NDOT District Engineer
Denise Inda, PE, PTOE – NDOT Traffic Operations
Alex Wolfson, PE – NDOT Traffic Engineering
Marlene Revera – NDOT Administration
File