

**CITY OF SARATOGA SPRINGS  
CITY COUNCIL MEETING**

Tuesday, September 16, 2014

Meeting held at the City of Saratoga Springs City Offices  
1307 North Commerce Drive, Suite 200, Saratoga Springs, Utah 84045

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**CITY COUNCIL AGENDA**

Councilmembers may participate in this meeting electronically via video or telephonic conferencing.

**POLICY SESSION- Commencing at 7:00 p.m.**

- Call to Order.
- Roll Call.
- Invocation / Reverence.
- Pledge of Allegiance.
- Awards, Recognitions and Introduction.
- Public Input - Time has been set aside for the public to express ideas, concerns, and comments. Please limit repetitive comments.

**POLICY ITEMS**

1. Quarterly update from the Engineering Department.
2. Consent Calendar:
  - a. Final Plat for River Heights Plat C located at approximately 250 East Alhambra Drive, Bach Investments, applicant.
    - i. Resolution R14-40 (9-16-14): Addendum to resolution of the City of Saratoga Springs pertaining to the City Street Lighting Special Improvement District to include additional subdivision lots. (River Heights Plat C)
  - b. Approval of Minutes:
    - i. September 2, 2014.
3. Public Hearing: Budget Amendments to the City of Saratoga Springs Budget for Fiscal Year 2014-2015.
  - a. Resolution R14-41 (9-16-14): A resolution amending the City of Saratoga Springs Budget for Fiscal Year 2014-2015.
4. Award of Contract for Culinary and Secondary Water Master Plan.
5. Public Hearing: Code Amendments for Chapter 19.05, Swimming Pool Setbacks.
  - a. Ordinance 14-22 (9-16-14): An ordinance of the City of Saratoga Springs, Utah, adopting amendments to the Saratoga Springs Land Development Code and establishing an effective date.
6. Approval of Preliminary Plat and Final Plat for Wiltshire Phases 1-3 located at approximately 1600 South Centennial Boulevard, Peter Staks, applicant.
  - a. Resolution R14-42 (9-16-14): Addendum to resolution of the City of Saratoga Springs pertaining to the City Street Lighting Special Improvement District to include additional subdivision lots. (Wiltshire Phases 1-3)
7. Public Hearing: Consideration and Approval of the City's Amended Sanitary Sewer Rates.
  - a. Ordinance 14-23 (9-16-14): An ordinance of the City of Saratoga Springs, Utah amending Sanitary Sewer collection rates and fees in the consolidated fee schedule and establishing an effective date.
8. Motion to enter into closed session to discuss the purchase, exchange, or lease of property, pending or reasonably imminent litigation, the character, professional competence, or physical or mental health of an individual.
9. Adjournment.

**Notice to those in attendance:**

- Please be respectful to others and refrain from disruptions during the meeting.
- Please refrain from conversing with others as the microphones are sensitive and can pick up whispers in the back of the room.
- Keep comments constructive and not disruptive.
- Avoid verbal approval or dissatisfaction of the ongoing discussion (e.g., applauding or booing).
- Please silence all cell phones, tablets, beepers, pagers, or other noise making devices.
- Refrain from congregating near the doors to talk as it can be noisy and disruptive.

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify the City Recorder at 766-9793 at least one day prior to the meeting.



**River Heights Plat C  
Final Plat  
September 16, 2014  
Public Meeting**

Report Date:	September 9, 2014
Applicant/Owner:	Bach Investments
Location:	Approximately 250 East Alhambra Drive
Major Street Access:	Redwood Road
Land area:	Approximately 10.95 acres
Parcel Number(s) & Size:	a portion of 58:023:0223
Land Use Plan Designation:	Medium Density Residential Parcel
Zoning:	R-6 and R-10, Medium Density Residential
Zoning of Adjacent Parcels:	R-14 and R-18, High Density Residential; R-10, Medium Density Residential; A, Agricultural
Current Use of Parcel:	Undeveloped
Adjacent Uses:	Townhomes, Agricultural properties
Previous Meetings and Approvals:	Summer Village Phases 4-7 Rezone, General Plan Amendment and Concept Review, 5-22-07 River Heights Concept Review, 12-13-12 PC, 1-15-13 CC, 2-19-13 CC Preliminary Plat: approved by City Council 5-7-13 Plat A and B Final Plat: approved by City Council 8-6-13 Phasing Plan: approved by City Council 6-7-14
Land Use Authority:	City Council
Author:	Sarah Carroll, Senior Planner

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- A. Executive Summary:** This is a request for final plat approval for River Heights Plat C which consists of 17 lots and 0.58 acres of open space within 3.26 acres. The property is zoned R-6 and R-10. The preliminary plat was approved on August 6, 2013.

**Recommendation:**

**Staff recommends that the City Council conduct a public meeting, take public comment at their discretion, discuss the proposed final plat, and choose from**

**the options in Section "H" of this report.** Options include approval with conditions, continuing the item, or denial.

- B. Background:** The property falls within the R-6 and R-10 zones. The proposed lots range in size from 4,590 to 5,867 square feet. When the preliminary plat was approved, the R-6 and R-10 zones allowed a minimum lot size of 4,000 square feet. The Preliminary plat approval occurred on August 6, 2013, and is valid for two years. **Please note, this application has been reviewed under the Code that was in effect prior to July 16, 2013.**
- C. Specific Request:** This is a request for Final Plat approval for Plat C of the River Heights Development.
- D. Process:** Section 19.13.04 of the City Code states that Final Plats require approval by the City Council. A public hearing is not required.
- E. Community Review:** A public hearing, neighborhood/canvas meeting, and publication in the paper is not required for final plat. However, the Preliminary Plat was reviewed by the Planning Commission at a public hearing on April 25, 2013 and was approved by the City Council at a public meeting on May 7, 2013. Prior to the public hearing with the Planning Commission, the Preliminary Plat was noticed as a public hearing in the *Daily Herald* and notices were mailed to all property owners within 300 feet of the subject property. No public input was given at the public hearing.
- F. General Plan:** The General Plan recommends Medium Density Residential for this site. The Land Use Element of the General Plan states that Medium Density Residential is to be characterized by density ranging from 4 to 14 units per acre that may include a mixture of attached and detached dwellings.

**Finding: consistent.** The overall subdivision consists of 6.21 units per acre (68 units within 10.95 acres); thus, the proposed density is consistent with the general plan.

- G. Code Criteria:** The property is zoned R-6 and R-10, Medium Density Residential. Sections 19.04.12 and 19.04.13 regulate the R-6 and R-10 zones and are evaluated below. The Code references below are from the Code that was in place prior to the July 2013 code changes.

**Permitted or Conditional Uses: complies.** Sections 19.04.12 and 19.04.13 lists "Multi-family dwellings" as a permitted use in the R-6 and R-10 zones. This entire project includes 31 single family lots and 37 townhome units. Plat C includes 17 single family lots; thus, the proposal is a permitted use in these zones.

**Minimum Lot Sizes: complies.** Sections 19.04.12 and 19.04.13 state that "the minimum lot size for any use in this zone is 4,000 square feet. This may not apply to multi-family units where each unit is separately owned." The lots shown on the final plat are all 4,000 square feet or larger.

**Setbacks and Yard Requirements: complies.** Sections 19.04.12 and 19.04.13 outline the setbacks required by the R-6 and R-10 zones. These requirements are listed below.

Front: twenty-five feet.

1. The front may be reduced to 15 feet if the garage is setback from the front plane of the home, but in no case shall the garage be located closer than twenty feet to the front property line.
2. An unenclosed front entry or porch may encroach up to five feet into the twenty-five-foot front setback but only if the front setback is not reduced due to a garage that is set back from the front plane of the home.

Sides: 1. Single family residences: 5/10 feet (both combined – minimum)  
2. Multi-family buildings: ten feet

Rear: twenty feet

Corner Lots:

Front: twenty-five feet

Side: twenty feet

The front and side setbacks can be reversed, but in no case will the setback combination for the two street sides be less than twenty-five feet.

The setback detail on the plat complies with these requirements.

**Minimum Lot Width: complies.** Sections 19.04.12 and 19.04.13 outline the requirements for lot widths in the R-6 and R-10 zones and states “Every lot in this zone shall be at least forty feet in width at the front building setback. This may not apply to multi-family units where each unit is separately owned.” All of the proposed lots comply with this requirement.

**Minimum Lot Frontage: complies.** Sections 19.04.12 and 19.04.13 outline the requirements for lot frontage in the R-6 and R-10 zones and states “Every lot in this zone shall have at least thirty-five feet of frontage along a public or private street. This may not apply to multi-family units where each unit is separately owned.” Each lot frontage exceeds 35’, thus meeting this requirement.

**Maximum Height of Structures, Maximum Lot Coverage, Minimum Dwelling Size: can comply.** No building in the R-6 zone shall be taller than thirty five feet and no building in the R-10 zone shall be taller than forty feet. In the R-6 and R-10 zones the maximum lot coverage is fifty percent. In the R-6 and R-10 zones, “Every dwelling in this zone shall contain a minimum of 1,000 square feet of living space.” These requirements will be reviewed by the building department with each individual building permit application.

**Open Space: complies.** Sections 19.04.12 and 19.04.13 outline the open space requirements for the R-6 and R-10 zones and states:

There shall be a minimum requirement of twenty percent of the total project area to be used for open space either public or common space not reserved in individual lots.

- a. This requirement is intended to provide neighborhood park space to meet the minimum recreational needs of the residents of the subdivision and to provide other open space amenities such as gateways, trails, buffer areas and berms.
- b. Individual lots are not approved open space for the purpose of meeting this requirement.
- c. Required park-strips shall not be included in the calculation of open space for the purpose of meeting this provision.
- d. Credit toward meeting minimum open space requirements may be given for sensitive lands as define in Chapter 19.03. However, no more than fifty percent of the required open space area shall be comprised of sensitive lands or detention areas. All sensitive lands shall be placed in protected open space.

The project includes 20% open space which includes a park with a play structure, benches and a picnic pavilion, common space and a trail to be used by the residents. Plat C includes 0.58 acres of open space including a portion of the park and a portion of the trail leading to 400 North.

**Landscape Requirements: complies.** Chapter 19.06 regulates the landscape requirements. The overall landscape plan was approved with 69,619 square feet of landscaping which requires 28 deciduous trees, 19 evergreen trees and 88 shrubs and 50% turf. The plans include 28 deciduous trees, 23 evergreen trees, 263 shrubs, and 75% turf. The attached plans are for Plat C only and include the plantings that were shown on the landscape plan that was approved with the preliminary plat, thus meeting the requirements.

**Phasing: complies.** Section 19.12.02(6) requires the City Council to approve phasing plans and states that "the open space or recreational facilities shall be developed in proportion to the number of dwellings intended to be developed during any stage of construction." The City Council approved the River Heights phasing plan on June 17, 2014. Plat C is phase 3 and is consistent with the phasing plan (attached).

#### **H. Recommendation and Alternatives:**

Staff recommends that the City Council review the Final Plat and select from the options below.

#### **Recommended Motion:**

"I move that the City Council approve the River Heights Plat C Final Plat, located at approximately 250 East Alhambra Drive, with the findings and conditions below:

#### **Findings:**

1. The proposed final plat is consistent with the General Plan as explained in the findings in Section "F" of this report, which findings are incorporated herein by this reference.

2. The proposed final plat meets all the requirements in the Land Development Code as explained in the findings in Section "G" of this report, which findings are incorporated herein by this reference.

**Conditions:**

1. That all requirements of the City Engineer are met, including those listed in the attached report.
  2. That all requirements of the Fire Chief are met.
  3. Any other conditions as articulated by the City Council:
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**Alternative Motions:**

**Alternative Motion A**

"I move to **continue** the final plat to another meeting, with direction to the applicant and Staff on information and/or changes needed to render a decision, as follows:

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**Alternative Motion B**

"Based upon the evidence and explanations received today and the following findings, I move that the City Council deny the River Heights Plat C Final Plat, generally located at 550 North 800 West."

List findings for denial:

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**I. Exhibits:**

1. Engineering Staff Report
2. Zoning / Location map
3. Preliminary Plat
4. Overall Landscape Plan
5. Proposed Final Plat
6. Proposed Landscape Plan
7. Phasing Plan

**City Council  
Staff Report**

**Author:** Jeremy D. Lapin, City Engineer  
**Subject:** River Heights Plat C  
**Date:** September 16, 2014  
**Type of Item:** Final Plat Approval



**Description:**

**A. Topic:** The Applicant has submitted a Final Plat application. Staff has reviewed the submittal and provides the following recommendations.

**B. Background:**

*Applicant:* Bach Investments  
*Request:* Final Plat Approval  
*Location:* Approximately 250 East Alhambra Drive  
*Acreage:* 3.26 acres - 17 lots

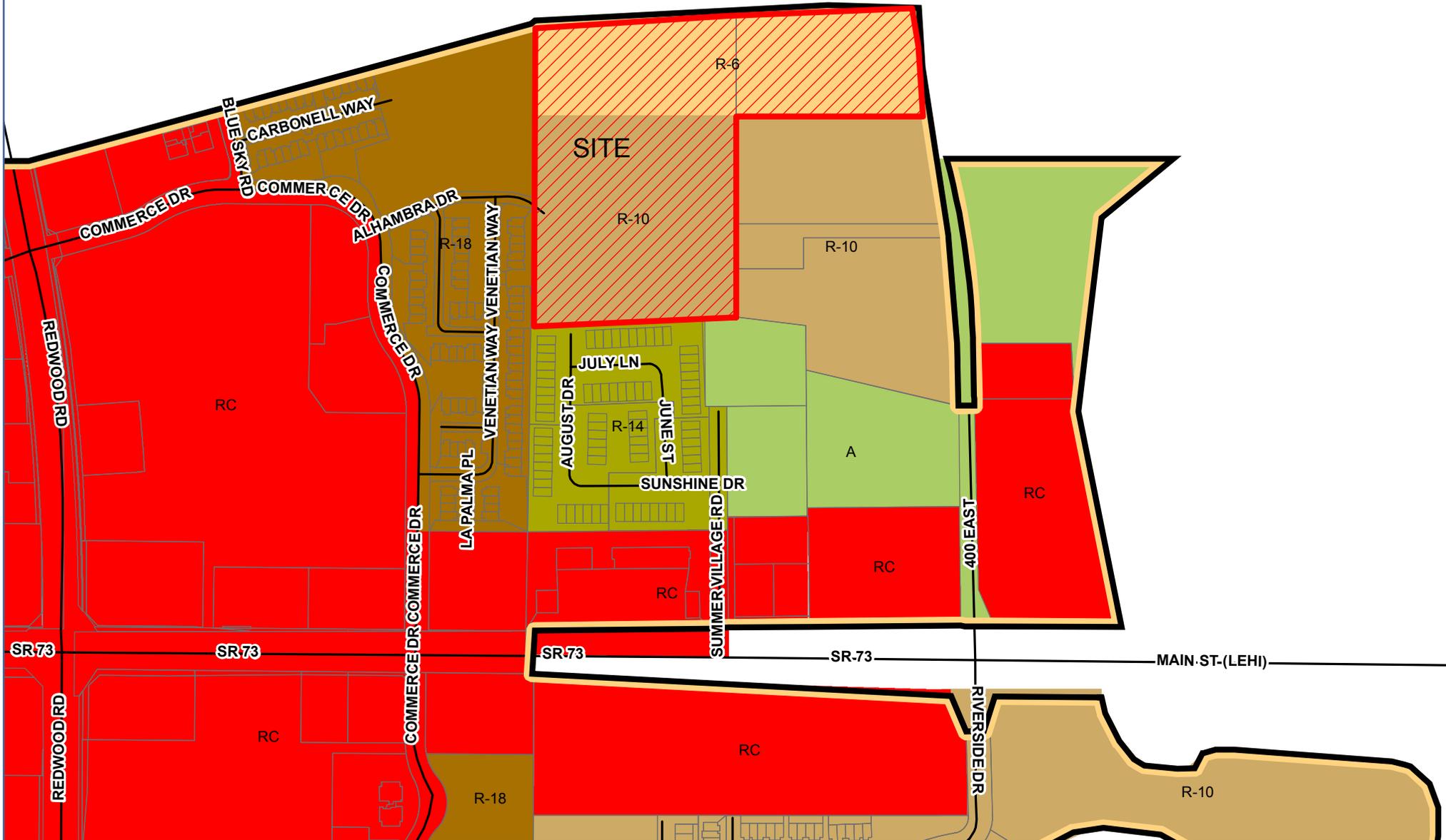
**C. Recommendation:** Staff recommends the approval of final plat subject to the following conditions:

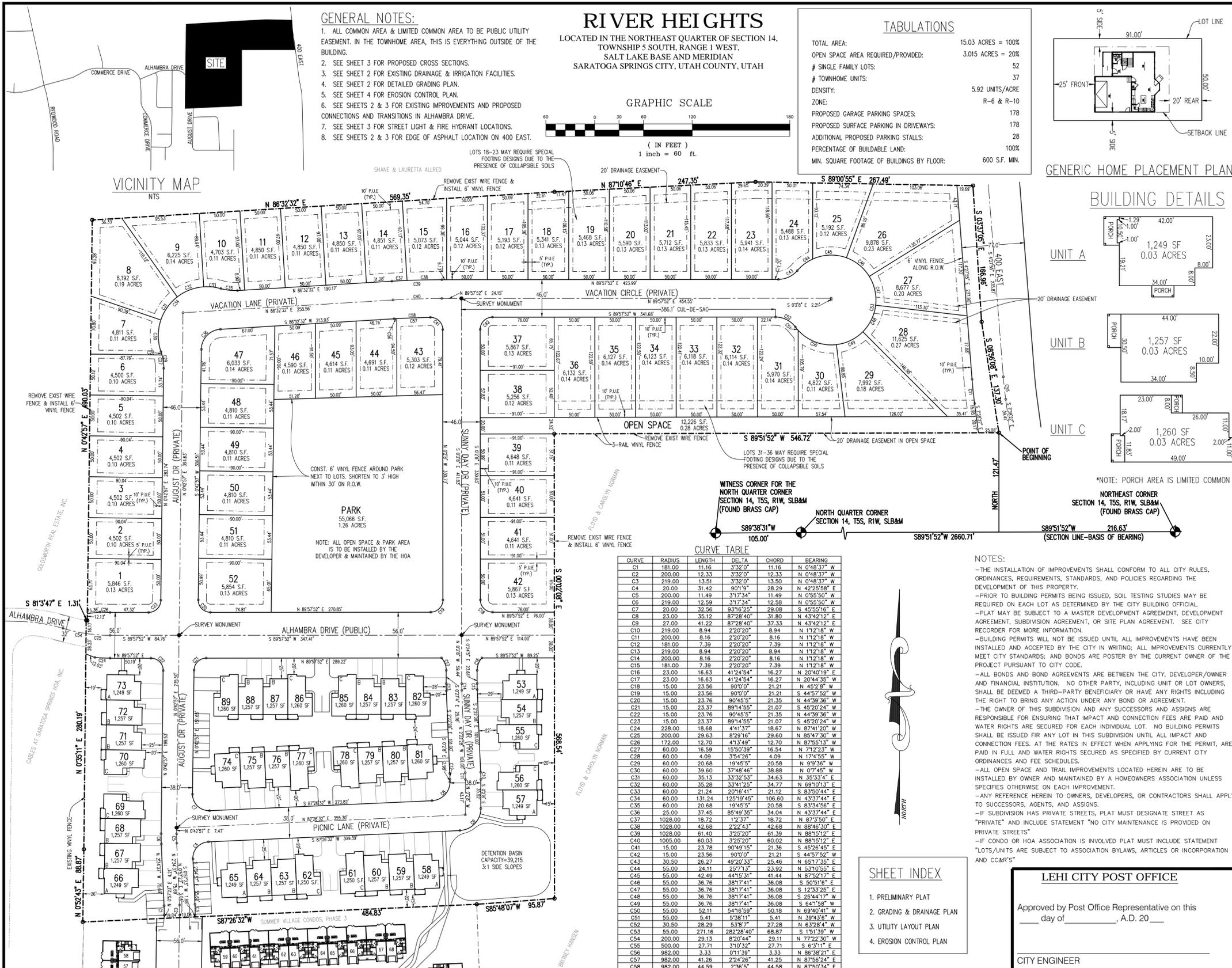
**D. Conditions:**

- A. Meet all engineering conditions and requirements in the construction of the subdivision and recording of the plats. Review and inspection fees must be paid as indicated by the City prior to any construction being performed on the project.
- B. All review comments and redlines provided by the City Engineer are to be complied with and implemented into the Final plat and construction drawings.
- C. Developer must secure water rights as required by the City Engineer, City Attorney, and development code.
- D. Submit easements for all off-site utilities not located in the public right-of-way.
- E. Developer is required to ensure that there are no adverse effects to future homeowners due to the grading practices employed during construction of these plats.
- F. Project must meet the City Ordinance for Storm Water release (0.2 cfs/acre for all developed property) and all UPDES and NPDES project construction requirements.
- G. Final plats and plans shall include an Erosion Control Plan that complies with all City, UPDES and NPDES storm water pollution prevention requirements.
- H. All work to conform to the City of Saratoga Springs Standard Technical Specifications, most recent edition.

- I. Project bonding must be completed as approved by the City Engineer prior to recordation of plats.
- J. Developer may be required by the Saratoga Springs Fire Chief to perform fire flow tests prior to final plat approval and prior to the commencement of the warranty period.
- K. Submittal of a Mylar and electronic version of the as-built drawings in AutoCAD format to the City Engineer is required prior acceptance of site improvements and the commencement of the warranty period.
- L. Developer shall bury and/or relocate the power lines that are within or adjacent to this plat.
- M. All roads shall be designed and constructed to City standards and shall incorporate all geotechnical recommendations as per the applicable soils report.
- N. Developer shall provide a finished grading plan for all lots and shall stabilize and reseed all disturbed areas.
- O. Developer shall provide mow strips under all fencing.
- P. The final plat shall identify what lots and areas were identified as having problematic soils as per the geotechnical report (IGES Job No. 01384-002).
- Q. Developer shall provide end of road and end of sidewalk signs per MUTCD at all applicable locations.
- R. Developer shall provide plans for and complete all improvements within pedestrian corridors.
- S. All sanitary sewer and storm drain lines shall terminate at manholes.
- T. Developer shall provide comprehensive drainage study to verify that existing storm drain and detention system has adequate capacity and makes any modifications necessary to accommodate this new plat.
- U. Developer shall provide landscaping and irrigation plats that clearly identify what was installed with previous phases and what improvements are to be completed with this plat.

Location Map





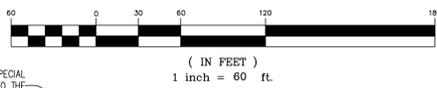
GENERAL NOTES:

1. ALL COMMON AREA & LIMITED COMMON AREA TO BE PUBLIC UTILITY EASEMENT. IN THE TOWNHOME AREA, THIS IS EVERYTHING OUTSIDE OF THE BUILDING.
2. SEE SHEET 3 FOR PROPOSED CROSS SECTIONS.
3. SEE SHEET 2 FOR EXISTING DRAINAGE & IRRIGATION FACILITIES.
4. SEE SHEET 2 FOR DETAILED GRADING PLAN.
5. SEE SHEET 4 FOR EROSION CONTROL PLAN.
6. SEE SHEETS 2 & 3 FOR EXISTING IMPROVEMENTS AND PROPOSED CONNECTIONS AND TRANSITIONS IN ALHAMBRA DRIVE.
7. SEE SHEET 3 FOR STREET LIGHT & FIRE HYDRANT LOCATIONS.
8. SEE SHEETS 2 & 3 FOR EDGE OF ASPHALT LOCATION ON 400 EAST.

RIVER HEIGHTS

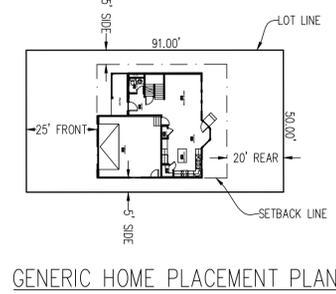
LOCATED IN THE NORTHEAST QUARTER OF SECTION 14, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN SARATOGA SPRINGS CITY, UTAH COUNTY, UTAH

GRAPHIC SCALE



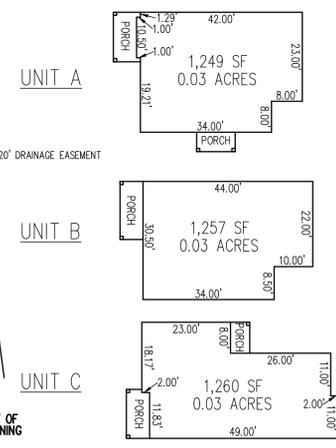
TABULATIONS

TOTAL AREA:	15.03 ACRES = 100%
OPEN SPACE AREA REQUIRED/PROVIDED:	3.015 ACRES = 20%
# SINGLE FAMILY LOTS:	52
# TOWNHOME UNITS:	37
DENSITY:	5.92 UNITS/ACRE
ZONE:	R-6 & R-10
PROPOSED GARAGE PARKING SPACES:	178
PROPOSED SURFACE PARKING IN DRIVEWAYS:	178
ADDITIONAL PROPOSED PARKING STALLS:	28
PERCENTAGE OF BUILDABLE LAND:	100%
MIN. SQUARE FOOTAGE OF BUILDINGS BY FLOOR:	600 S.F. MIN.



GENERIC HOME PLACEMENT PLAN

BUILDING DETAILS



\*NOTE: PORCH AREA IS LIMITED COMMON

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	CHORD	BEARING
C1	181.00	11.16	3°32'0"	11.16	N 0°48'37" W
C2	200.00	12.33	3°32'0"	12.33	N 0°48'37" W
C3	219.00	13.51	3°32'0"	13.50	N 0°48'37" W
C4	20.00	31.42	90°1'9"	28.29	N 42°25'58" E
C5	200.00	11.49	3°17'34"	11.49	N 0°55'50" W
C6	219.00	12.59	3°17'34"	12.58	N 0°55'50" W
C7	20.00	32.56	93°16'25"	29.08	S 45°55'16" E
C8	23.00	35.12	87°28'40"	31.80	N 43°42'12" E
C9	27.00	41.22	87°28'40"	37.33	N 43°42'12" E
C10	219.00	8.94	2°20'20"	8.94	N 1°12'18" W
C11	200.00	8.16	2°20'20"	8.16	N 1°12'18" W
C12	181.00	7.39	2°20'20"	7.39	N 1°12'18" W
C13	219.00	8.94	2°20'20"	8.94	N 1°12'18" W
C14	200.00	8.16	2°20'20"	8.16	N 1°12'18" W
C15	181.00	7.39	2°20'20"	7.39	N 1°12'18" W
C16	23.00	16.63	41°24'54"	16.27	N 20°40'19" E
C17	23.00	16.63	41°24'54"	16.27	N 20°40'19" E
C18	15.00	23.56	90°0'0"	21.21	N 44°52'28" W
C19	15.00	23.56	90°0'0"	21.21	N 44°52'28" W
C20	15.00	23.76	90°45'5"	21.35	N 44°39'36" W
C21	15.00	23.76	90°45'5"	21.35	N 44°39'36" W
C22	15.00	23.37	89°14'55"	21.07	S 45°20'24" W
C23	15.00	23.37	89°14'55"	21.07	S 45°20'24" W
C24	228.00	18.68	4°41'37"	18.67	N 87°41'20" W
C25	200.00	29.63	8°29'16"	29.60	N 85°47'30" W
C26	172.00	12.70	4°15'46"	12.70	N 87°50'13" W
C27	60.00	16.59	15°50'39"	16.54	N 71°22'23" W
C28	60.00	4.09	35°42'26"	4.09	N 17°45'55" W
C29	60.00	20.68	19°45'5"	20.58	N 9°39'36" W
C30	60.00	39.60	37°48'46"	38.88	N 0°74'55" W
C31	60.00	35.13	33°32'33"	34.63	N 30°33'41" W
C32	60.00	35.28	33°41'25"	34.77	N 69°10'13" E
C33	60.00	21.24	20°16'41"	21.12	S 83°50'44" E
C34	60.00	131.24	125°19'45"	106.60	N 43°37'44" E
C35	60.00	20.68	19°45'5"	20.58	S 83°34'56" E
C36	25.00	37.45	85°49'35"	34.04	N 43°37'44" E
C37	1028.00	18.72	1°2'37"	18.72	N 87°3'50" E
C38	1028.00	42.68	2°22'43"	42.68	N 88°46'30" E
C39	1028.00	61.40	3°25'20"	61.39	N 88°15'12" E
C40	1009.00	60.03	3°25'20"	60.02	N 88°15'12" E
C41	15.00	23.78	90°49'15"	21.36	S 45°26'45" E
C42	15.00	23.56	90°0'0"	21.21	S 44°57'52" W
C43	30.50	28.27	49°20'33"	25.46	N 65°17'35" E
C44	55.00	24.11	25°71'3"	23.92	N 53°10'55" E
C45	55.00	42.49	44°15'31"	41.44	N 87°52'17" E
C46	55.00	36.76	38°17'41"	36.08	S 50°51'6" E
C47	55.00	36.76	38°17'41"	36.08	S 12°33'25" E
C48	55.00	36.76	38°17'41"	36.08	S 25°44'17" W
C49	55.00	36.76	38°17'41"	36.08	S 64°15'58" W
C50	55.00	52.11	54°16'59"	50.18	N 69°40'41" W
C51	55.00	5.41	5°38'11"	5.41	N 39°43'6" W
C52	30.50	28.29	53°37"	27.28	N 63°28'4" W
C53	55.00	271.16	282°28'40"	68.87	S 1°51'59" W
C54	200.00	29.13	8°20'44"	29.11	N 77°22'30" W
C55	500.00	27.71	3°10'32"	27.71	S 63°11" E
C56	982.00	63.33	0°13'59"	63.33	N 86°38'21" E
C57	982.00	41.26	2°24'26"	41.25	N 87°56'24" E
C58	982.00	44.59	2°36'5"	44.58	N 87°50'34" E

SHEET INDEX

1. PRELIMINARY PLAT
2. GRADING & DRAINAGE PLAN
3. UTILITY LAYOUT PLAN
4. EROSION CONTROL PLAN

LEHI CITY POST OFFICE

Approved by Post Office Representative on this day of \_\_\_\_\_, A.D. 20\_\_

CITY ENGINEER

SARATOGA SPRINGS ATTORNEY

Approval as to form this day of \_\_\_\_\_, A.D. 20\_\_

SARATOGA SPRINGS ATTORNEY

SURVEYOR'S CERTIFICATE

I, Matthew B. Judd, do hereby certify that I am a Registered Land Surveyor, and that I hold certificate No. 6913 as prescribed under laws of the State of Utah. I further certify that by authority of the owners, I have made a survey of the tract of land shown on this plat and described below, and have subdivided said tract of land into lots, blocks, streets, and easements and that the same as shown on this plat. I further certify that all lots have been correctly surveyed and staked on the ground, meet frontage width and area requirements of the applicable zoning ordinances.

BOUNDARY DESCRIPTION

COMMENCING AT A POINT LOCATED SOUTH 89°51'52" WEST ALONG THE SECTION LINE 216.63 FEET AND NORTH 121.47 FEET FROM THE NORTHEAST CORNER OF SECTION 14, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN; THENCE SOUTH 89°51'52" WEST 546.72 FEET; THENCE SOUTH 0°02'08" EAST 568.54 FEET; THENCE ALONG A FENCE LINE THE FOLLOWING SIX(6) COURSES: SOUTH 85°48'07" WEST 95.87 FEET, SOUTH 87°26'32" WEST ALONG SUMMER VILLAGE SUBDIVISION 484.83 FEET, NORTH 00°52'43" EAST 88.87 FEET, NORTH 00°35'11" EAST 280.19 FEET, SOUTH 81°03'47" EAST 1.31 FEET, NORTH 00°42'57" EAST 490.03 FEET, NORTH 86°32'32" EAST 569.35 FEET, NORTH 87°10'46" EAST 247.35 FEET AND SOUTH 89°00'55" EAST 267.49 FEET; THENCE SOUTH 03°37'05" EAST 166.96 FEET; THENCE SOUTH 08°56'08" EAST 137.30 FEET TO THE POINT OF BEGINNING.

AREA = 15.03 ACRES

OWNER'S DEDICATION

Know all men by these presents that \_\_\_\_\_, the undersigned owner(s) of the above described tract of land having caused same to be subdivided into lots and streets to be hereafter known as

RIVER HEIGHTS

do hereby dedicate for perpetual use of the public and/or City all parcels of land, easements, and public amenities shown on this plat as intended for public use. The owner(s) warrant and defend and save the City harmless against any easements or other encumbrance on a dedicated street which will interfere with the City's use, maintenance and operation of the street.

In witness whereof \_\_\_\_\_ have hereunto set \_\_\_\_\_ this day of \_\_\_\_\_, A.D. 20\_\_

OWNER'S ACKNOWLEDGMENT

STATE OF UTAH } S.S.  
County of Utah }  
On the \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_, personally appeared before me, the undersigned Notary Public, in and for said County of Utah in said State of Utah, the signer ( ) of the above Owner's dedication, \_\_\_\_\_ in number, who duly acknowledged to me that \_\_\_\_\_ signed it freely and voluntarily and for the uses and purposes therein mentioned.

CORPORATE ACKNOWLEDGMENT

STATE OF UTAH } S.S.  
County of Utah }  
On the \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_, personally appeared before me \_\_\_\_\_ and \_\_\_\_\_, who being by me duly sworn did say each for himself, that he, the said \_\_\_\_\_ is the President and he the said \_\_\_\_\_ is the Secretary of \_\_\_\_\_ Corporation, and that the within and foregoing instrument was signed in behalf of said Corporation by authority of a resolution of its board of directors and said \_\_\_\_\_ and \_\_\_\_\_ each duly acknowledge to me that said Corporation executed the same and that the seal affixed is the seal of said Corporation.

ACCEPTANCE BY LEGISLATIVE BODY

The Mayor of the City of Saratoga Springs, County of Utah, approves this subdivision subject to the conditions and restrictions stated hereon, and hereby accepts the Dedication of all streets, easements, and other parcels of land intended for the public purpose of the perpetual use of the public.

This \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_

Mayor \_\_\_\_\_ Attest \_\_\_\_\_  
City Recorder (See Seal Below)

RIVER HEIGHTS

LOCATED IN THE NORTHEAST QUARTER OF SECTION 14, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN SARATOGA SPRINGS CITY, UTAH COUNTY, UTAH

Developer: Bach Homes  
11650 S. State St. Suite 3000Raper, Utah 84020  
Surveyor: JUDCO  
473 West Lakeview Rd. London, UT 84042 (801) 367-7409  
Engineer: Excel Engineering, Inc. 12 West 100 North, #201 American Fork, UT 84003 (801) 756-4504

PUBLIC UTILITIES APPROVALS	DATE
QUESTAR	_____
ROCKY MOUNTAIN POWER	_____
CENTURY LINK	_____
COMCAST CABLE	_____

**FIRE CHIEF APPROVAL**  
Approved this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_  
By the Fire Chief \_\_\_\_\_  
CITY FIRE CHIEF

**PLANNING COMMISSION APPROVAL**  
Approved this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_  
By the Planning Commission. \_\_\_\_\_  
CHAIRMAN, PLANNING COMMISSION

**SARATOGA SPRINGS ENGINEER APPROVAL**  
Approved this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_  
By the City Engineer. \_\_\_\_\_  
CITY ENGINEER

**SARATOGA SPRINGS ATTORNEY**  
Approval as to form this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_  
By the City Attorney. \_\_\_\_\_  
SARATOGA SPRINGS ATTORNEY

SURVEYORS SEAL	NOTARY PUBLIC SEAL	CITY ENGINEERS SEAL	CLERK-RECORDER SEAL
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**SHADE TREE LEGEND**

SYMBOL	BOT. NAME/COMMON NAME	QTY.	SIZE
	FRAXINUS AMERICANA 'AUTUMN PURPLE' AUTUMN PURPLE ASH	24	2-1/2" CALIPER
	GLEDITSIA T. I. 'SHADEMASTER' SHADEMASTER THORNLESS HONEYLOCUST	16	2-1/2" CALIPER

**ORNAMENTAL TREE LEGEND**

SYMBOL	BOT. NAME/COMMON NAME	QTY.	SIZE
	MALUS SP. 'RADIANT' RADIANT CRAB APPLE	16	1-1/2" CALIPER
	PYRUS CALLERYANA 'CHANTICLEER' CHANTICLEER FLOWERING PEAR	37	1-1/2" CALIPER

**EVERGREEN TREE LEGEND**

SYMBOL	BOT. NAME/COMMON NAME	QTY.	SIZE
	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID' VANDERWOLF'S LIMBER PINE	15	5'
	PICEA OMORIKA 'WELLS DEER RUN' WELLS DEER RUN SERBIAN SPRUCE	16	5'

**SHRUB LEGEND**

SYMBOL	BOT. NAME/COMMON NAME	QTY.	SIZE
A	CORNUS ALBA 'BAILHALO' IVORY HALO DOGWOOD	7	5 GALLON
B	CORNUS ALBA 'ELEGANTISSIMA' VARIEGATED DOGWOOD	21	5 GALLON
C	CORNUS SERICEA 'KELSEY' KELSEY DOGWOOD	61	5 GALLON
D	PHYSOCARPUS O. 'SUMMER WINE' SUMMER WINE NINEBARK	28	5 GALLON
E	PINUS MUGO 'SLOWMOUND' SLOWMOUND MUGO PINE	16	5 GALLON
F	SPIRAEA BIMALDA 'GOLDFLAME' GOLDFLAME SPIRAEA	13	5 GALLON
G	TAXUS BACCATA REPANDENS DWARF ENGLISH YEW	36	5 GALLON
H	VIBURNUM OPULUS NANUM DWARF EUROPEAN VIBURNUM	77	5 GALLON

**GRASS & PERENNIAL LEGEND**

SYMBOL	BOT. NAME/COMMON NAME	QTY.	SIZE
I	HEMEROCALLIS SP 'STELLA DE ORO' STELLA DE ORO DAYLILY	159	1 GALLON
J	HOSTA SP. 'MEDIO PICTA' VARIEGATA PLANTAIN LILY	68	1 GALLON
K	PENNISETUM RUPPELII CRIMSON FOUNTAINGRASS	79	1 GALLON

**LANDSCAPE NOTES:**

1. ALL PLANTER AREAS SHALL HAVE A 3" DEPTH OF 1" SCREENED GRAVEL.
2. SEE CIVIL PLANS FOR ALL GRADING AND DRAINAGE INFORMATION.
3. SEE CIVIL PLANS FOR ALL HARDSCAPE DRAWINGS.
4. SEE ARCHITECTURAL PLANS FOR ALL BUILDING AND PAVILION INFORMATION.
5. SITE SHALL HAVE OVERHEAD SPRAY IRRIGATION IN ALL TURF AREAS AND DRIP IRRIGATION IN ALL PLANTER AREAS.

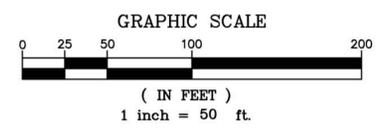
**TOWNHOME LANDSCAPE CALCULATION**

	REQUIRED	PROVIDED
TOTAL LANDSCAPE AREA:	-	69,619 S.F.
TOTAL DECIDUOUS TREES:	28	28
(6 PER 15,000 S.F.)		
TOTAL EVERGREEN TREES	19	23
(4 PER 15,000 S.F.)		
TOTAL SHRUBS:	88	263
(19 PER 15,000 S.F.)		
TOTAL TURF AREA:	50%	75%

**SINGLE FAMILY/OPEN SPACE CALCULATION**

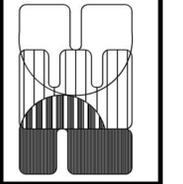
	REQUIRED	PROVIDED
TOTAL DECIDUOUS TREES:	-	51
TOTAL EVERGREEN TREES	-	8

PRELIMINARY PLAN  
NOT FOR CONSTRUCTION

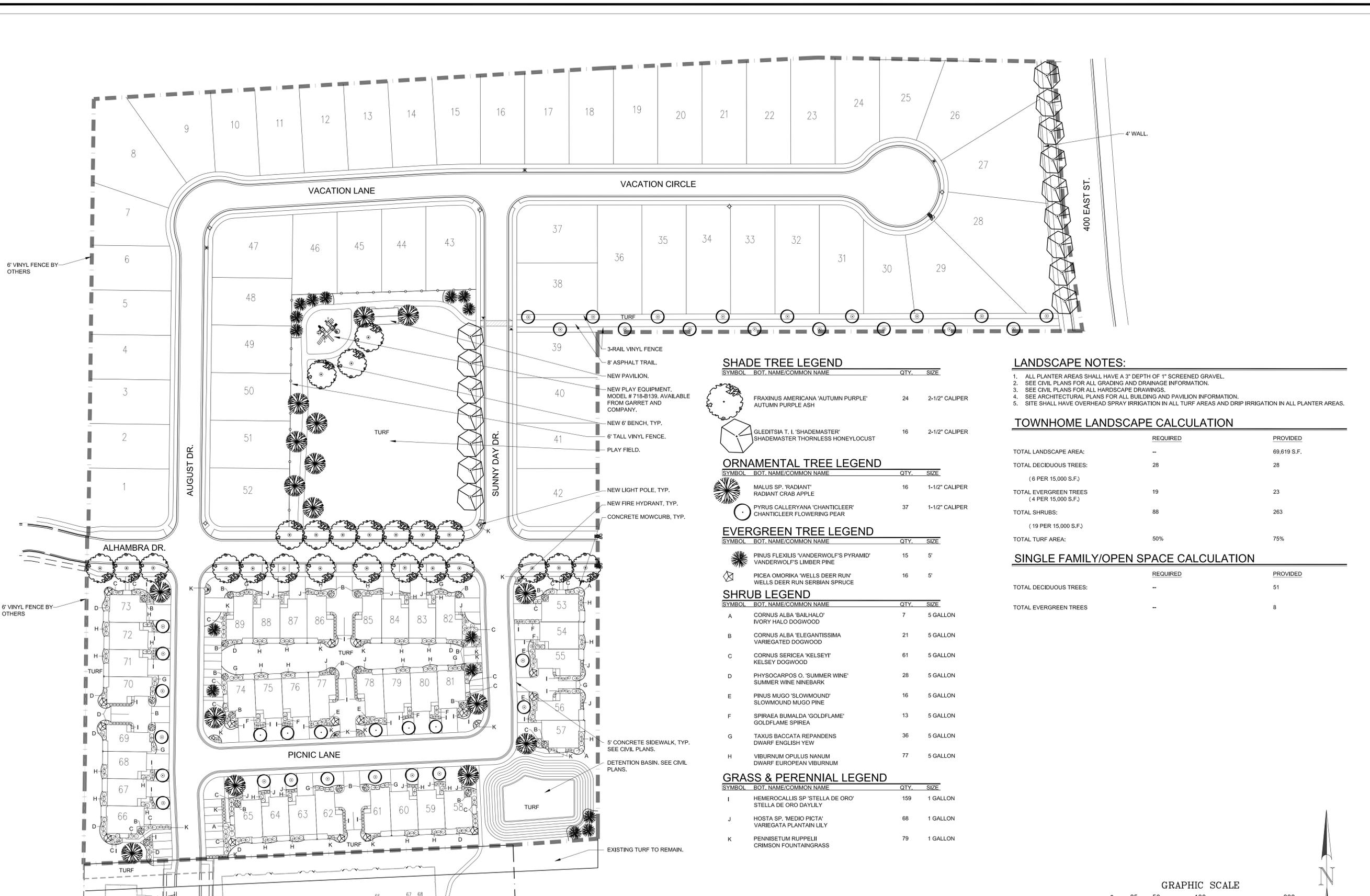


Project Number	LDA	Plot Date	Drawn By	Date	Date Issued	Revisions	No.	By	Date

**PROJECT ENGINEERING CONSULTANTS**  
 986 West 9000 South  
 West Jordan, Utah, 84088  
 Tel. (801) 495-4240  
 Fax. (801) 495-4244  
 www.pecutah.com



**RIVER HEIGHTS SUBDIVISION**  
 ALHAMBRA DRIVE & AUGUST DRIVE  
 SARATOGA SPRINGS, UTAH, 84045  
**LANDSCAPE PLAN**



**SHADE TREE LEGEND**

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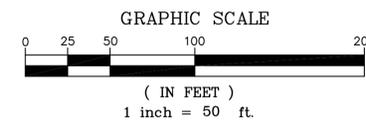
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TOTAL TURF AREA:	50%	75%

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	REQUIRED	PROVIDED
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TOTAL EVERGREEN TREES:	--	8

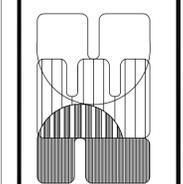
PRELIMINARY PLAN  
NOT FOR CONSTRUCTION



Project Number	File Name	Design By	Checked By	Date Issued	Revisions

Project Number	File Name	Design By	Checked By	Date Issued	Revisions

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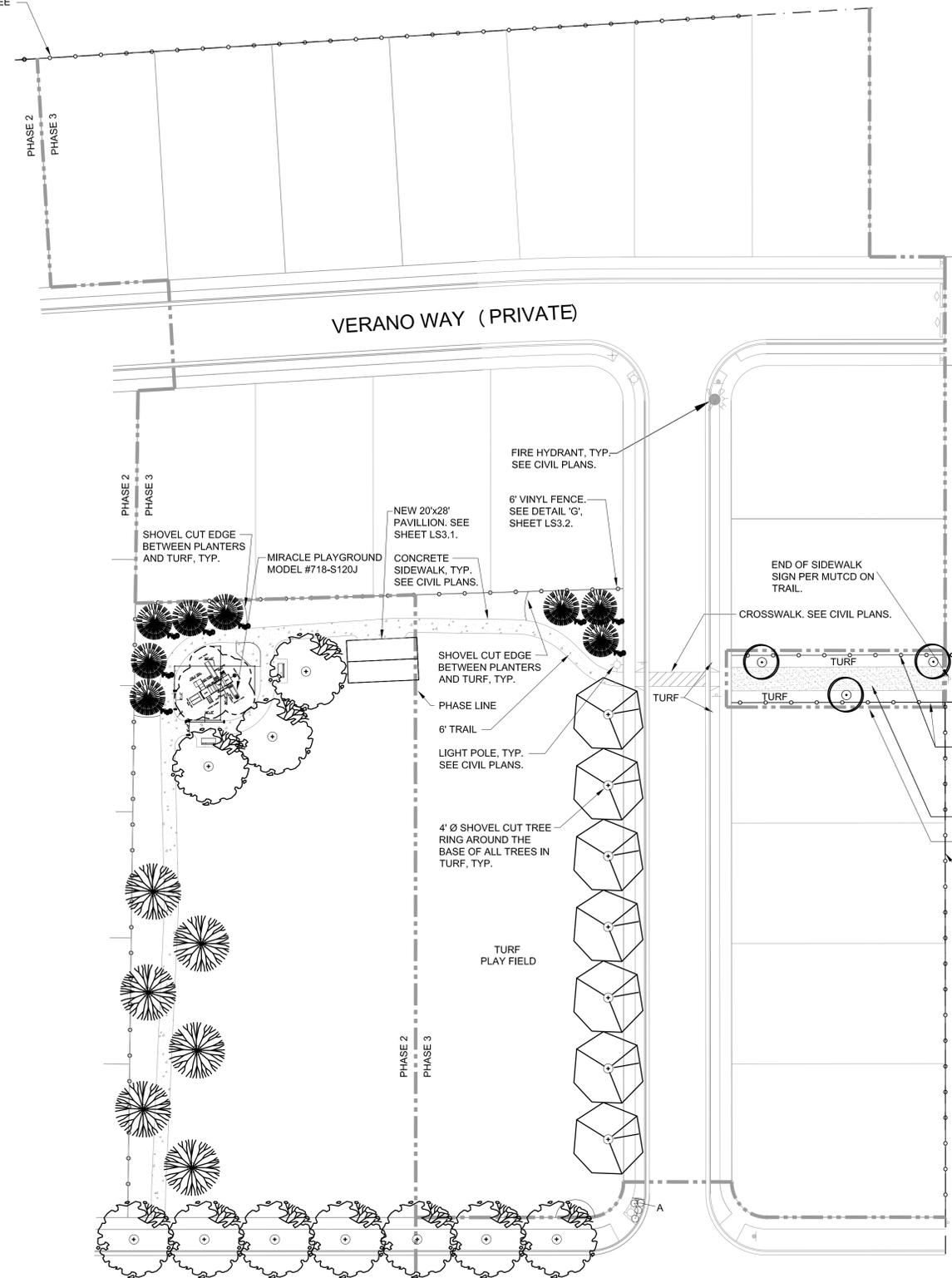


**RIVER HEIGHTS SUBDIVISION**  
ALHAMBRA DRIVE & AUGUST DRIVE  
SARATOGA SPRINGS, UTAH, 84045  
**LANDSCAPE PLAN**



PHASE 2 AND PHASE 3  
PARK SEGMENT REVISIONS

6' VINYL FENCE. SEE  
DETAIL 'G', SHEET  
LS3.2.



SHADE TREE LEGEND

SYMBOL	BOT. NAME/COMMON NAME	QTY.	SIZE
	FRAXINUS AMERICANA 'AUTUMN PURPLE' AUTUMN PURPLE ASH	10	2-1/2" CALIPER
	GLEDITSIA T. L. 'SHADEMASTER' SHADEMASTER HONEYLOCUST	7	2-1/2" CALIPER

ORNAMENTAL TREE LEGEND

SYMBOL	BOT. NAME/COMMON NAME	QTY.	SIZE
	PYRUS CALLERYANA 'CHANTICLEER' CHANTICLEER FLOWERING PEAR	3	2-1/2" CALIPER
	MALUS SP. 'RADIANT' RADIANT CRAB APPLE	6	2-1/2" CALIPER

EVERGREEN TREE LEGEND

SYMBOL	BOT. NAME/COMMON NAME	QTY.	SIZE
	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID' VANDERWOLF'S LIMBER PINE	8	6-7"

ORNAMENTAL GRASS LEGEND

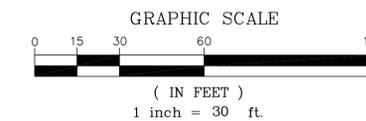
SYMBOL	BOT. NAME/COMMON NAME	QTY.	SIZE
	PENNISETUM ORIENTALE 'KARLEY ROSE' KARLEY ROSE FOUNTAIN GRASS	4	1 GALLON

LANDSCAPE NOTES

- SEE CIVIL PLANS FOR ALL GRADING AND DRAINAGE INFORMATION.
- SEE CIVIL PLANS FOR ALL HARDSCAPE DRAWINGS.
- SEE ARCHITECTURAL PLANS FOR ALL BUILDING INFORMATION.
- ALL OPEN SPACE AND PARK AREA IS TO BE INSTALLED BY THE DEVELOPER AND MAINTAINED BY THE HOA.

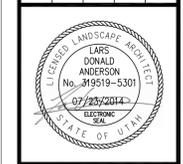
OPEN SPACE CALCULATIONS

TOTAL PHASE AREA.....	141,204 S.F.
TOTAL PHASE OPEN SPACE AREA.....	28,241 S.F.
% OF OPEN SPACE .....	20%



No.	Revisions	By	Date

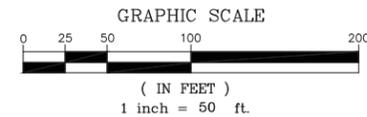
Project Number	13-065
LDA	08/12/2014
Plot Date	08/12/2014
Drawn By	JWA
Designed By	JWA
Checked By	JWA
Date	4/29/2014
Scale	1" = 30'
Date Issued	08/12/2014



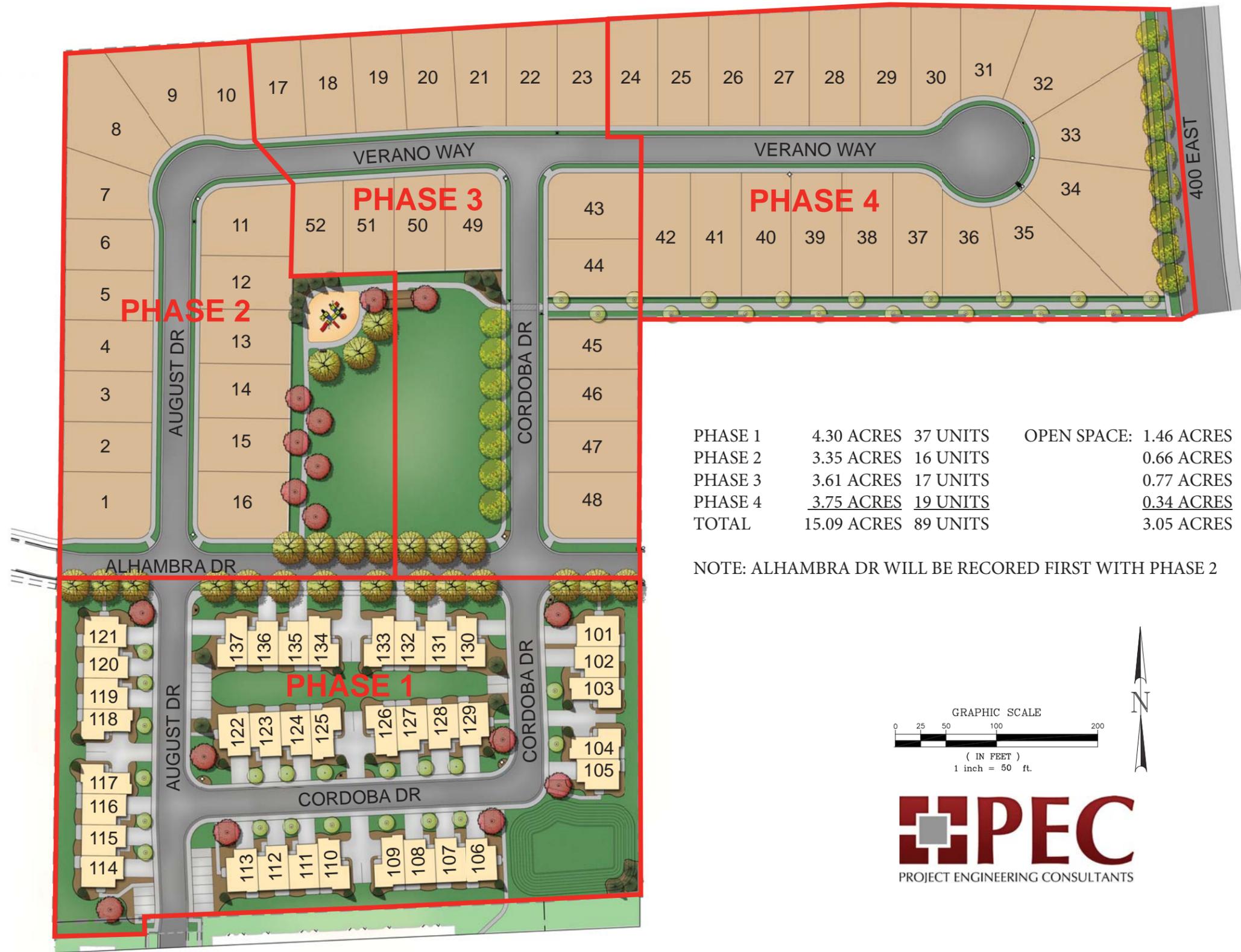
PROJECT ENGINEERING CONSULTANTS  
886 West 9000 South  
West Jordan, Utah 84088  
Tel. 801-485-4240

**PEEC**

RIVER HEIGHTS SUBDIVISION  
ALHAMBRA DRIVE & AUGUST DRIVE  
SARATOGA SPRINGS, UTAH, 84045  
LANDSCAPE PLANTING PLAN

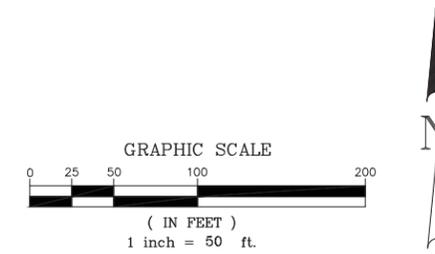


# PHASING PLAN



PHASE 1	4.30 ACRES	37 UNITS	OPEN SPACE:	1.46 ACRES	33%
PHASE 2	3.35 ACRES	16 UNITS		0.66 ACRES	20%
PHASE 3	3.61 ACRES	17 UNITS		0.77 ACRES	21%
PHASE 4	3.75 ACRES	19 UNITS		0.34 ACRES	9%
TOTAL	15.09 ACRES	89 UNITS		3.05 ACRES	21.4%

NOTE: ALHAMBRA DR WILL BE RECORDED FIRST WITH PHASE 2



**PEC**  
 PROJECT ENGINEERING CONSULTANTS

**RESOLUTION NO. R14-40 (9-16-14)**

**ADDENDUM TO RESOLUTION OF THE CITY OF SARATOGA SPRINGS PERTAINING TO THE CITY STREET LIGHTING SPECIAL IMPROVEMENT DISTRICT TO INCLUDE ADDITIONAL SUBDIVISION LOTS. (River Heights Plat C)**

WHEREAS, on May 10, 2001, the City Council adopted Resolution No. 01-0510-01 creating a street lighting special improvement district (the "Lighting SID") consisting of all lots and parcels included within the Subdivisions set out in said Resolution for the maintenance of street lighting within the Lighting SID.

WHEREAS, *Utah Code Ann.* § 17A-3-307 provides that additional properties may be added to the special improvement district and assessed upon the conditions set out therein.

WHEREAS, the City Council has given final plat approval to River Heights Plat C, (the "Subdivision") conditioned upon all lots in the Subdivision being included in the Lighting SID.

WHEREAS, the City Council finds that the inclusion of all of the lots covered by the Subdivision in the Lighting SID will benefit the Subdivision by maintaining street lighting improvements, after installation of such by the developer of the Subdivision, which is necessary for public safety, and will not adversely affect the owners of the lots already included within the Lighting SID.

WHEREAS, the owners of the property covered by the Subdivision have given written consent: (i) to have all lots and parcels covered by that Subdivision included within the Lighting SID, (ii) to the improvements to that property (maintenance of the street lighting), (iii) to payment of the assessments for the maintenance of street lighting within the Lighting SID, and (iv) waiving any right to protest the Lighting SID and/or assessments currently being assessed for all lots in the Lighting SID (which consent is or shall be attached as Exhibit 1 to this Resolution).

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SARATOGA SPRINGS THAT:

1. All lots and parcels in the Subdivision be added to and included in the Lighting SID based upon the above findings and the written consent attached as Exhibit 1 to this Resolution.
2. City staff is directed to file a copy of this Resolution, as an Addendum to Resolution No. 01-0510-01 creating the Lighting SID, as required by *Utah Code Ann.* § 17A-3-307.
3. Assessments will be hereafter levied against owners of all lots within the Subdivision on the same basis as assessments are being levied against other lots included in the Lighting SID.
4. The provisions of this Resolution shall take effect upon the passage and publication of this Resolution as required by law.



CONSENT OF OWNER OF PROPERTY  
TO BE INCLUDED IN STREET LIGHTING SPECIAL IMPROVEMENT DISTRICT

WHEREAS the City of Saratoga Springs (the “City”), by and through its City Council, has created a Street Lighting Special Improvement District (the “Lighting SID”) to pay for maintenance of street lighting within the subdivisions covered by the Lighting SID.

WHEREAS the undersigned (“Developer”) is the developer of River Heights Plat C (the “Subdivision”) located within the City for which the City Council has given or is expected to give final plat approval.

WHEREAS, *Utah Code Ann.* § 17A-3-307 provides that before the completion of the improvements covered by a special improvement district, additional properties may be added to the special improvement district and assessed upon the conditions set out therein. Since the improvements covered by the Lighting SID are the maintenance of street lighting in the Lighting SID, said improvements are not completed so additional properties may be added to the Lighting SID pursuant to said § 17A-3-307.

WHEREAS, the Developer wishes that the Subdivision be included within the Lighting SID in order to provide for the maintenance of street lighting within the Subdivision and the City has conditioned such as a condition of final approval of the Subdivision.

WHEREAS, Developer, as the owner of the property covered by the Subdivision, is required by *Utah Code Ann.* § 17A-3-307 to give written consent to having the property covered by that Subdivision included within the Lighting SID and to consent to the proposed improvements to the property covered by the Subdivision and to waive any right to protest the Lighting SID.

NOW THEREFORE, Developer hereby consents to including the lots and parcels within the Subdivision in the Lighting SID. On behalf of itself and all lot purchasers and/or successors in interests, Developer consents and agrees as follows:

1. Consents to have all property covered by the Subdivision and all lots and parcels created by the Subdivision included within the Lighting SID. The legal description and the tax identification number(s) of the property covered by the Subdivision are set out in Exhibit A attached to this Consent.
2. Consents to the improvements with respect to the property covered by the Subdivision -- that is the maintenance of street lighting within the Subdivision. The street lighting within the Subdivision will be installed by Developer as part of the “Subdivision Improvements.”
3. Agrees to the assessments by the Lighting SID for the maintenance of street lighting within the Lighting SID.

4. Waives any right to protest against the Lighting SID and/or the assessments currently being assessed for all lots in the Lighting SID.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2014.

DEVELOPER:

Name:  
Authorized  
Signature:  
Its:

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**City of Saratoga Springs**  
**City Council Meeting - Work Session**  
**September 2, 2014**

Regular Session held at the City of Saratoga Springs City Offices  
1307 North Commerce Drive, Suite 200, Saratoga Springs, Utah 84045

---

**Work Session Minutes**

**Present:**

Mayor: Jim Miller

Council Members: Michael McOmber, Shellie Baertsch, Rebecca Call, Stephen Willden, Bud Poduska

Staff: Mark Christensen, Kimber Gabryszak, Kyle Spencer, Owen Jackson, Kevin Thurman, Nicolette Fike

Others: Sue Alexander, Chris Porter, Ken Watson, Brandon Watson, Steven Maddox, K. Becraft, Kelsey Dean, Barbara Poduska

**Call to Order – 6:35 p.m.**

**1. Agenda Review:**

**a. Discussion of current City Council agenda staff questions.**

**i. Discussion of items on the Consent Calendar.**

**b. Discussion of future City Council policy and work session agenda items.**

Councilmembers had a few changes for the minutes of Aug. 19<sup>th</sup>

Councilman Willden indicated that he would like to discuss public safety trends at a future work session.

Councilman Poduska asked about Riverside Heights and compliance with proposition 6. He wanted to know how the proposition was calculated into each new housing development that comes up.

Kevin Thurman replied that on the city web site there is an explanation of what proposition 6 did and what a vested right is and a link to properties that are already vested.

It was noted that the Riverside property was already zoned R10.

Kevin Thurman noted that the State is clear that there is not a vested right to a particular zone, however if they get an application in before we change the zone then they have a vested right.

Councilwoman Call wanted the part in the Budget document where it noted the Council made a decision at their retreat, that it should indicate that was in 2012. (pg. 25) She believes we should include the information that we have through June on the table on pg. 2.

Councilwoman Baertsch brought up parks naming.

Discussion was shared on goals and how they should proceed. Consensus was that they wanted to change the perception that there were only specific neighborhood parks and that they would be city community parks. They need to start with a list of parks and their location, perhaps go with a theme, narrow the results down to 2 names per park and meet in 3 weeks or perhaps the work session in two meetings time.

Upcoming Code changes were briefly discussed and thoughts on how to proceed on questions of those.

Kevin Thurman indicated that Council can make a policy statement or set parameters when adopting an ordinance. e.g.- grandfathering in existing structures.

Councilman McOmber would like to address some of the signs. He brought up Eagle Mt. putting up signs in Saratoga on the trailhead on Redwood road.

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**2. Reports:**

- a. Mayor.
- b. City Council.
- c. Administration communication with Council.

**Motion was made by Councilwoman Baertsch to move reports to the policy session. Second by Councilwoman Call. Aye: Councilman Willden, Councilwoman Baertsch, Councilman McOmber, Councilwoman Call, Councilman Poduska. Motion passed unanimously.**

**Adjourn to Policy Session 7:10 p.m.**

104  
105 **Policy Session Minutes**  
106

107 **Present:**

108 Mayor: Jim Miller

109 Council Members: Michael McOmber, Shellie Baertsch, Rebecca Call, Stephen Willden, Bud Poduska

110 Staff: Mark Christensen, Kimber Gabryszak, Kyle Spencer, Owen Jackson, Kevin Thurman, Sarah Carroll,

111 Chelese Rawlings, Jess Campbell, Andrew Burton, Nicolette Fike, Eric Lundell, Holly Johnson

112 Others: Sue Alexander, Chris Porter, Ken Watson, Brandon Watson, Steven Maddox, K. Becraft, Kelsey Dean,  
113 Barbara Poduska

114  
115 **Call to Order** - 7:14 p.m.

116 **Roll Call** - Quorum was present

117 **Invocation / Reverence** - Given by Councilman Poduska

118 **Pledge of Allegiance** - led by Kimber Gabryszak  
119

120 **Awards, Recognitions and Introductions**

- 121 • Chief Burton introduced Holly Johnson, City of Saratoga Springs Victims Services Coordinator, who  
122 gave an update about the program. She provides Crisis and Victim support and is working on a volunteer  
123 program and obtaining a grant. It is National Domestic Violence Awareness month and they have a  
124 number of projects in coordination with that this month. She presented Council with a Pledge board  
125 signed by kids who have pledged to use their hands for helping, not hurting.  
126

127 **Public Input - Opened** by Mayor Miller

128 Sue Alexander wanted to acknowledge Owen Jackson and his help regarding the slurry seal and where to  
129 park. He responded within an hour on a Saturday and had it posted on the website by this morning. She  
130 and her neighbors are appreciative of his timely response. She talked with some of the Slurry Seal  
131 people and they were accommodating so a family could move into a house and she wanted to recognize  
132 their help.

133 The Westlake Kiwanis club wants to help raise funds for a sports complex. Thursday Oct. 9<sup>th</sup> will be a  
134 gala and auction to raise money for the sports complex 5:30 – 9p.m. There will be a silent auction and  
135 live auction, dress casual (team attire is encouraged). Part of the entrance tickets price is tax deductible.

136 Chris Porter spoke about how the city has talked about their role to provide a wide variety of housing options  
137 in the city; he would like to encourage them to find ways to create single family homes that are not in a  
138 HOA. That type of housing is hard to find. He would like to encourage them to take over the parks to  
139 take care of so there wouldn't need to be an HOA.

140 **Public Input - Closed** by Mayor Miller  
141

142 **Policy Items**  
143

144 **1. Consent Calendar:**

145 **a. Approval of Conditional Use Permit for Central Pipeline project located between 1450 North and**  
146 **the North City Boundary, Bowen Collins, applicant.**

147 **b. Approval of Minutes:**

148 **i. August 19, 2014.**  
149

150 Councilman McOmber wanted to make sure item he listed was in Saratoga Springs Development.

151 Councilwoman Call clarified that city work project was actually CityWorks. Clarification of private vs.  
152 community boat docs.

153 Mayor Miller had comments listed in wrong place.

154 Councilwoman Baertsch had emailed a change previously.  
155

156 **Motion by Councilwoman Call Council to approve Consent Calendar with changes as outlined.**  
157 **Seconded Councilman Willden Aye: Councilman Willden, Councilwoman Baertsch, Councilman**  
158 **McOmber, Councilwoman Call, Councilman Poduska. Motion passed unanimously.**  
159

160 **2. Final Budget Document for Fiscal Year 2014-2015.**

161 Chelese Rawlings presented the final Budget Document.

162  
163 Councilman Willden thought it was amazing to see where the city has come since he has been on the finance  
164 committee and the awards they have received. It's well done.

165 Councilwoman Baertsch appreciated all the work done on the document. It's nice to see the graphics and  
166 being able to see the balance. She asked if there were any areas of concern that was thought to need a  
167 closer look.

168 Chelese Rawlings responded that property tax was perhaps an area. They should cover public safety but that  
169 is being subsidized.

170 Mark Christensen indicated that they asked questions in the appendixes to dig more into financial analysis  
171 and see things long term.

172 Councilman McOmber appreciated the well done document. He liked the where it showed the work they  
173 have been doing and to try and provide direction and focus. He thinks it shows how conservative our  
174 property taxes are and potentially this could be a good opportunity in future newsletter to encourage  
175 people to shop local and encourage new developers so we don't need to raise property taxes. Share these  
176 messages from a positive spin.

177 Councilwoman Call noticed the building numbers should include through June of this year and in reference  
178 to wage salaries should note the date of the retreat in 2012. She thanked Chelese for her work.

179 Councilman Poduska likes the clarity of the document and that it shows as the city grows the amount of  
180 expenditures has not risen at the same rate.

181  
182 **Motion by Councilwoman Baertsch to approve the Budget Document for the fiscal year 2014-15.**  
183 **Seconded by Councilman McOmber.**

184  
185 Councilman Willden indicated it should include additions from work section.

186 Councilwoman Baertsch amended the motion to include **Additions from work section and policy**  
187 **session.**

188  
189 **Aye: Councilman Willden, Councilwoman Baertsch, Councilman McOmber, Councilwoman Call,**  
190 **Councilman Poduska. Motion passed unanimously.**  
191

192 **3. Consideration of the Talus Ridge Phasing and Open Space Plan, Edge Homes, applicant.**

193 Sarah Carroll presented the plan to Council. She presented different proposals and trails in the plan. She  
194 showed a revised plan that moved some lots and opened up some open space with a few options.

195 Applicant is requesting no HOA and that it is all public open space. If it is approved staff recommends  
196 adding a restroom and trailhead parking.

197 Steven Maddox, applicant, commented on the parks and indicated that it would be a gateway area for a larger  
198 subdivision and it behooved the city to take care of that.

199  
200 Councilwoman Baertsch said she is good with the option of moving the two lots and likes the phasing that  
201 has been put together and combining open spaces and she is ok with taking it over as a public park. She  
202 thought one side on-street parking was difficult.

203 Councilman McOmber is ok with the public parks. He thinks parking on the trailhead is not the best place for  
204 money at this time and we could put it in later if needed. On street parking looked to be enough parking  
205 for now. He likes the move of the lots from the trailhead area.

206 Councilwoman Call likes the option of moving the lots and thinks parking would be advantageous but thinks  
207 on street is sufficient for now and likes no HOA.

208 Councilman Poduska likes it not being an HOA. He likes the entrance park and thinks they would be  
209 popular community parks for the rest of the city. He thinks trailhead parking can be resolved, and thinks  
210 the plan has been thought out well and seems to include amenities for all ages.  
211 Mayor Miller agrees with the rest of the council on parking and thinks it will be a great addition.  
212 Councilman Willden thought the parks look great.  
213

214 **Motion by Councilwoman Baertsch that the City Council approve the Talus Ridge Phasing and Open**  
215 **Space Plan, for Edge Homes applicant, including OPTION A-2 with homes on the north end of the**  
216 **central park and the restroom building and no additional parking at the trail head with the**  
217 **findings and conditions listed in the staff report. Second by Councilwoman Call Aye: Councilman**  
218 **Willden, Councilwoman Baertsch, Councilman McOmer, Councilwoman Call, Councilman**  
219 **Poduska. Motion passed unanimously.**  
220

- 221 **4. Approval of Final Plat for Talus Ridge Plat A located at 550 West 800 North, Edge Homes, applicant.**  
222 **a. Resolution R14-39 (9-2-14): Addendum to resolution of the City of Saratoga Springs pertaining to**  
223 **the City Street Lighting Special Improvement District to include additional subdivision lots. (Talus**  
224 **Ridge Plat A)**  
225

226 **Motion by Councilman McOmer that the City Council approve the Final Plat for Talus Ridge Plat A**  
227 **Final Plat, located at approximately 550 North 800 West, Resolution R14-39 (9-2-14): Addendum**  
228 **to resolution of the City of Saratoga Springs pertaining to the City Street Lighting Special**  
229 **Improvement District to include additional subdivision lots. (Talus Ridge Plat A) with the findings**  
230 **and conditions listed in the staff Report. Second Councilman Poduska Aye: Councilman Willden,**  
231 **Councilwoman Baertsch, Councilman McOmer, Councilwoman Call, Councilman Poduska.**  
232 **Motion passed unanimously.**  
233

- 234 **5. Concept Plan for Riverside Heights (formerly Sunset Acres) located at 400 East and Crossroads**  
235 **Boulevard, Ivory Development, LLC, applicant.**

236 Kimber Gabryszak presented the Plan to the Council. They are recommending that they change the name  
237 because there is a River Heights already.

238 Ken Watson addressed council and pointed out some features and amenities of the plan.  
239

240 Councilman McOmer appreciates that a lot of this has been thought through. He appreciates lowering the  
241 number of units and looking at the bigger picture. He has no problem with this concept.

242 Councilwoman Call asked staff to clarify about corner setbacks, driveway lengths, fencing and the stub road.

243 Kimber Gabryszak said these corners have been revised and met the code. For the driveways they are no  
244 longer alley driveways so these all meet 20' setbacks. None of the yards would be fenced. They don't  
245 want to see a property get completely closed off so they had recommended a stub or easement so that  
246 there could be future connectivity.

247 Councilwoman Call appreciates the changes made and the feeling of the Boulevard look and the trees. It  
248 looks like a good development.

249 Councilman Poduska was impressed with the new rendition. He likes the sidewalk all the way around and  
250 thinks that will get a lot of use. He likes the stub road area and likes the look of the elevation examples.

251 He likes the look of a friendly neighborhood.

252 Councilman Willden thanked the developer for the changes and thinks it's a great product. He supports it.

253 Councilwoman Baertsch thanked the developer for the revisions and she is good with doing an easement vs.  
254 a stub road for connectivity. She likes the sports court hard surface area. She thinks it's a great plan.

255 Councilman McOmer likes the thought of having a half court and perhaps some other things like hopscotch  
256 or 4-square in the area as well.

257 Mayor Miller liked the plan.  
258  
259  
260

261 **6. Event Sponsorship and Advertising Policy.**

262 Kevin Thurman briefly reviewed the policy and changes to it that had been suggested by Council. They  
263 have tried to make it politically neutral and family friendly.

264  
265 Councilman Poduska asked about item 11 and with floats and signs in a parade from candidates for example  
266 could they not do that anymore?

267 Kevin Thurman the intent is for brochures that the city puts out, or advertisements.

268 Councilman McOmber thought we could tighten it up to allow candidates that pay to be in the parade

269 Kevin Thurman said we can allow all of it or restrict all of it. You can't restrict very specific categories.

270 Council wanted to open that up.

271  
272 **Motion by Councilman Willden to approve the Event Sponsorship and Advertising Policy as presented**  
273 **removing politically neutral in item 11. Second by Councilman Poduska**

274  
275 Councilman Willden amended the motion to **remove item 11.**

276 Councilman Poduska accepted the amendment.

277 Kevin Thurman noted that there were other sections that mentioned politically neutral. He suggested they  
278 could move **to remove any mention of politically neutral aspect of the policy.**

279 Councilman Willden accepted that as an amendment.

280 Councilman Poduska accepted that as an amendment.

281  
282 **Aye: Councilman Willden, Councilwoman Baertsch, Councilman McOmber, Councilwoman Call,**  
283 **Councilman Poduska. Motion passed unanimously.**

284  
285 **7. Government Records Access and Management Policy.**

286 Kevin Thurman reviewed the Policy. All records are considered public unless it classified as protected. This  
287 helps the city determine what a protected record is and how to respond to requests. A nice feature is the  
288 hyperlinks to State statutes.

289  
290 Councilman Willden asked about the fee schedule not including electronic records copies.

291 Kevin Thurman said we can't really charge for the digital documents unless we have to put time into  
292 preparing the document for getting it online.

293 Councilwoman Call would like to change in Fees "the city can charge" to the city may charge. She asked is  
294 11.A.(i) applicable only to the City Recorder or could it be or designee? e.g. could that include a deputy  
295 recorder.

296 Councilman McOmber asked on Attorney privilege.

297 Kevin Thurman thought we could define it more; they had tried to leave it a little open for a little discretion.

298 When he is actually giving advice to a City department that is attorney/client privilege.

299 Councilman McOmber doesn't want a resident to think the city is using a legal loophole to keep them from  
300 getting information. He wants to make sure it's not abused. Also he wants it solid so that if someone  
301 were to take the attorneys place down the road that he would feel comfortable with the way it is stated so  
302 the policy would continue as intended.

303 Kevin Thurman in 2.G.(ii) he could change it to include **"and contains Attorney-Client communication,"**  
304 and add it to subsection (iii) as well.

305  
306 **Motion by Councilwoman Baertsch to approve the Government Records Access and Management**  
307 **Policy. Amending the changes to 2.G. (ii) and (iii) per Kevin's recommendation; and 5.A. from**  
308 **"can" to "may" and 11.A. including designees of the City Recorder. Second by Councilwoman**  
309 **Call. Aye: Councilman Willden, Councilwoman Baertsch, Councilman McOmber, Councilwoman**  
310 **Call, Councilman Poduska. Motion passed unanimously.**

311  
312  
313 **8. Update on the Pioneer Crossing Extension.**

314 Mark Christensen noted one of the issues that came up was a schedule exception that there will be a surface  
315 overlay next spring and some of the landscaping as weather permits. A request was made to close 800  
316 West. Could there be a possibility of a few weekend closures back to back and two additional later in the  
317 year with paving and installing street lights. They have talked to UDOT about closing off turn lanes from  
318 SR73 to 800 W. We hope if they do the weekend closures they won't need to do lane closures or it could  
319 be limited.

320  
321 Councilman McOmber said the frustration is that the contractor said no closures. We are trying to work with  
322 UDOT, we need to be a good partner with them so he is ok with the weekend closures. If we make it too  
323 hard for developers to come than we will have to raise property taxes.

324 Councilwoman Call thought if there was benefit to the community than it's something to consider. They  
325 need to honor their side of the contract which said they could do it without closures. She is inclined to  
326 consider a weekend or two but not continual requests.

327 Mark Christensen said they are asking for 4 weekends right now. 4 plus a slurry seal. One challenge is that  
328 we put an amendment in our contract for no closures but it did not go through the Constructability  
329 Analysis that was done. That was done prior to our clause that you can't close the road, but the clause  
330 was done before the bid. He thinks the request is legitimate. His recommendation is to consider the  
331 request. We would hope that if we allow this than they wouldn't need to do the turn lane closures.

332 Kevin Thurman said we needed to look at is as not giving them a private benefit, our goal is public safety.

333 Councilman Poduska is in favor of the change as a good compromise. There is going to be changes and new  
334 construction needed throughout the city and the safety is important. It would be good to have it done and  
335 out of the way.

336 Councilman Willden thinks doing the weekend closures would be good to move forward and be a good  
337 partner.

338 Councilwoman Baertsch would like to avoid the soccer games if we could and home football games and they  
339 would need to have very well designated detours. She asked if this would this speed up the time frame.

340 Mark Christensen thought it would lessen the impact, but maybe not speed up the finish date.

341 Mayor Miller asked why they needed asphalt on this extension instead of cement as on the other area of  
342 Pioneer Crossing. Coming East on current Pioneer they have the one lane closed, could they lengthen  
343 the turn light or open that lane up during commute times? It's backed up considerably.

344 Mark Christensen recapped see if they could do something about the lane cueing at least during the commute  
345 time. Also keep SR73 turn lanes open as much as possible; not to exceed 4 night closures; avoid home  
346 game nights; and make notifications in the neighborhood. Also asking why asphalt and not concrete.

## 347 348 **Council reports**

349  
350 Councilwoman Baertsch reported that residents said thank you for smoothing out Harvest Blvd. The trailhead  
351 by the detention basin path to Riverview Elementary needs to be completed. A pipe that is along the  
352 detention basin that is unfinished looks odd.

353 Mark Christensen noted they were working on finishing that path section.

354 Councilwoman Call said the Lake Commission annual legislative event will be at Talons Cove on the 23<sup>rd</sup>.

355 School visits are underway for the year. Phragmites removal is beginning this week from Eagle Park to  
356 Pelican Point. It's a 3 year process, year one is the most intensive. It was requested as an executive  
357 board at Jordan River Commission to have a presentation and demonstration as to the water rights  
358 coming out of Utah Lake. Central Utah Water owns 75% of the lake.

359 Councilman Poduska wondered about the invitation to tour the sewers

360 Spencer Kyle thought they could perhaps travel together and will send out the invite. He will RSVP as a  
361 group.

## 362 363 **9. Motion to enter into closed session for the purchase, exchange, or lease of property, pending or** 364 **reasonably imminent litigation, the character, professional competence, or physical or mental health of** 365 **an individual. Personnel land and property litigation** 366

367 **Councilman McOmber made a motion to enter into closed session for the purchase, exchange, or lease**  
368 **of property, pending or reasonably imminent litigation, the character, professional competence, or**  
369 **physical or mental health of an individual. Seconded by Councilman Poduska. Aye: Councilman**  
370 **McOmber, Councilwoman Baertsch, Councilman Willden, Councilman Poduska and**  
371 **Councilwoman Call. Motion passed unanimously.**  
372

373 Meeting Adjourn to Closed Session 9:23 p.m.

374  
375 **Closed Session**

376  
377 Present: Mayor Miller, Councilman Willden, Councilwoman Baertsch, Councilman McOmber, Councilwoman  
378 Call, Mark Christensen, Kevin Thurman, Spencer Kyle, Nicolette Fike

379  
380 **Closed Session Adjourned at 9:37 p.m.**

381  
382 **Policy Meeting Adjourned at 9:37p.m**

383  
384  
385  
386 \_\_\_\_\_  
387 Date of Approval

387 \_\_\_\_\_  
Mayor Jim Miller

388  
389  
390 \_\_\_\_\_  
391 Lori Yates, Rec  
392

# City Council Staff Report

**Author:** Chelese M. Rawlings, Finance Manager  
**Subject:** Budget Amendments  
**Date:** September 16, 2014  
**Type of Item:** Resolution



**Summary Recommendation:** Staff recommends approval of the following by resolution amending the budget for the fiscal year 2014-15.

## Description

### A. Topic

This is the first budget amendment for the fiscal year 2014-2015.

### B. Background

1. The Library has received two grants for books and programming in the Library.
2. Police Service contract adjusted to match the most current contract.
3. Master plan amendments to match contract with Hansen Allen & Luce.
4. Communities that Care amendment to match additional funds

### C. Analysis

Additional expenditures:

1. The Library received two grants; one for \$10,000 which will need to be used for young adult books or immersion materials and the other for \$2,000 for library programming. These expenses are offset by the grant revenue that was already received.
2. A recent Police Service contract was signed on June 10, 2014. An adjustment of \$35,807 in revenues was made to match the most current contract.
3. Master plans for both culinary and secondary water adjustments to match the contract approved for Hansen Allen & Luce.
4. On August 18, a Guiding Good Choices Inter-local Agreement was approved for \$13,682. These expenses will be offset by revenue that will be reimbursed after expended.

**Recommendation:** Staff recommends approval of the resolution amending the budget for the fiscal year 2014-15.

**2014-2015 Budget Amendment Supplemental #1**

<b>G/L Account</b>	<b>Department</b>	<b>Description</b>	<b>Current FY 2015 Budget</b>	<b>New Budget Amount</b>	<b>Increase (Decrease)</b>	<b>Notes/Comments</b>
<b>General Fund</b>						
<u>Revenues</u>						
10-3310-100	Intergovernmental Revenue	Grants	(200,000)	(212,000)	(12,000)	Library Received 2 grants for young adult books and library programs
10-3680-255	Other Revenue	Police Service Contract - Bluffdale	(895,000)	(859,193)	35,807	Revenue per contract signed June 10, 2014
10-3310-100	Intergovernmental Revenue	Grants	(200,000)	(213,682)	(13,682)	Guiding Good Choices Interlocal Agreement
<u>Expenditures</u>						
10-4610-400	Library Services	Book Purchases	17,000	27,000	10,000	Library Received 2 grants for young adult books and library programs
10-4610-500	Library Services	Library Programs	2,800	4,800	2,000	Library Received 2 grants for young adult books and library programs
10-4570-560	Civic Events	Communities That Care	7,000	20,682	13,682	Guiding Good Choices Interlocal Agreement
<b>Culinary Water Impact Fund</b>						
<u>Expenditures</u>						
56-4000-600	Capital Project Expenditures	Culinary Water Master Plans	25,391	43,191	17,800	Per contract with Hansen, Allen and Luce
<b>Secondary Water Impact Fund</b>						
<u>Expenditures</u>						
57-4000-600	Capital Project Expenditures	Secondary Water Master Plans	1,083	17,008	15,925	Per contract with Hansen, Allen and Luce
					69,532	

**RESOLUTION NO. R14-41 (9-16-14)**

**A RESOLUTION AMENDING THE CITY OF SARATOGA SPRINGS BUDGET FOR FISCAL YEAR 2014-2015 AND ESTABLISHING AN EFFECTIVE DATE.**

WHEREAS, the City Council of the City of Saratoga Springs has found it necessary to amend the City's current 2014-2015 fiscal year budget;

WHEREAS, pursuant to state law, the City Council has conducted a public hearing on the proposed amended budget; and,

WHEREAS, the City Council has determined that the proposed budget amendment is in the best interests of the public, will further the public health, safety, and welfare, and will assist in the efficient administration of City government.

NOW THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF SARATOGA SPRINGS, UTAH, THAT:

1. The City of Saratoga Springs does hereby adopt the amended 2014-2015 fiscal year budget as set forth and attached hereto.

BE IT FURTHER RESOLVED that this resolution shall take effect immediately upon passage.

Passed this 16<sup>th</sup> day of September, 2014.

CITY OF SARATOGA SPRINGS  
A UTAH MUNICIPAL CORPORATION

Signed: \_\_\_\_\_  
Jim Miller, Mayor

Attest: \_\_\_\_\_  
City Recorder

\_\_\_\_\_  
Date

**City Council  
Staff Report**

**Author: Jeremy D. Lapin, P.E., City Engineer**  
**Subject: Engineering Contract for Culinary and Secondary Water Master Plans**  
**Date: September 16, 2014**  
**Type of Item: Award of Engineering Contract**



**Description:**

**A. Topic:**

This item is for the awarding of a contract for the engineering for the City's Culinary and Secondary Water Master Plans

**B. Background:**

The City has recently completed its Capital Facilities and Impact Fee Facilities plans for Culinary and Secondary Water. While these documents provide direction on what projects the City should consider over the next 10 years, they do not analyze the system at build out conditions.

It is critical that the City have accurate and detailed master plans to guide development activities and now that the City has updated its Impact Fee Facility Plans it is both a convenient and cost-effective time to complete them.

**C. Analysis:**

The City's existing Water Master Plans are almost 9 years old having been completed in 2005 by Gilson Engineering. During Hansen, Allen, and Luce's (HAL) work on the City's Capital and Impact Fee Facilities Plans, they have performed much of the analysis and modeling efforts that would be included in a Master Plan document. They also found in our analysis that the secondary water system demands utilized in the existing Master Plan from 2005 are not realistic (too low).

The City solicited bids from 3 engineering firms and, as expected, HAL was able to provide the best value to the City due to their having already performed much of the analysis and modeling efforts that would be included in a Master Plan document. Updating the Master Plans now is a great value to the City due to timing and the relevant information that HAL can provide from their recent work. Below is the price proposals received from each engineering firm.

	<i>Hansen, Allen, and Luce</i>	<b>Bowen and Collins</b>	<b>Caldwell, Richards, Sorensen</b>
<b>Culinary Master Plan</b>	<b>\$17,761</b>	\$32,158	\$31,400
<b>Secondary Master Plan</b>	<b>\$15,923</b>	\$28,304	\$31,400

**Recommendation:**

Staff recommends that Council awards the Engineering Contract to Hansen, Allen and Luce in the amount of \$17,761 for the Culinary Water Master Plan and \$15,923 for the Secondary Water Master Plan



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 www.hansenallenluce.com

Mr. Jeremy Lapin  
 City Engineer  
 City of Saratoga Springs  
 1307 North Commerce Drive, Suite 200  
 Saratoga Springs, Utah 84045

June 20, 2014

**RE: Consulting Proposal for City of Saratoga Springs  
 DRINKING WATER MASTER PLAN**

Dear Jeremy:

Hansen, Allen & Luce, Inc. (HAL), appreciates this opportunity to submit a proposal to provide engineering services in connection with preparing updates to the Drinking Water Master Plan for the City that meets the requirement of the Division of Drinking Water (DDW).

We feel especially qualified for your project for the following reasons:

- **■ A ■ understands your drinking water system.** We completed your most recent drinking water model, Capital Facilities Plan, Impact Fee Facilities Plan, and Impact Fee Analysis.
- **■ ■ ■ ■ ■ ■ ■ ■ responsive.** Because we have completed recent work for the City, we are up to speed and ready to begin productive work immediately.
- **■ ■ ■ ■ ■ ■ ■ ■ proven project team.** We are proposing the same team members that completed your Drinking Water Master model and Impact Fee analyses.
- **■ ■ ■ ■ ■ ■ ■ ■ required experience.** We have completed many extended period models and Drinking Water Master Plans.
- **■ ■ ■ specialize in water engineering.** Our personnel have significant training in hydraulics. Most of our engineers have at least a master’s degree. Our projects work.
- **■ ■ ■ ■ ■ ■ ■ ■ reasonable engineering fees.** Because we are a medium-sized firm headquartered in Utah, our hourly and direct costs are typically less than larger firms.
- **You know us.** Working relationships are already established. City and HAL staff work together effectively.

Now that the City has updated its impact fees, it appears to be a convenient and cost-effective time to update the almost-7-year-old Drinking Water Master Plan. During our preparation of the Drinking Water Capital Facility Plans we performed many of the analyses and modeling efforts



that would be included in a Master Plan project. We have also found in our analyses that the drinking water system demands utilized in the existing Master Plan are not realistic and that an update should incorporate more realistic demand data. Updating the Master Plan now is a great value to the City due to timing and the relevant information that HAL can provide versus waiting for a time and then needing to prepare a separate document.

Included in this proposal are a statement of our understanding of the project, a scope of work, the project team, the anticipated schedule, a fee proposal, and a list of assumptions.

<b>SECTION 1</b>
<b>PROJECT UNDERSTANDING</b>

In 2005 the City of Saratoga Springs completed the current Drinking Water Master Plan (DWMP). At that time, the City updated the model to include the substantial growth that had occurred in Saratoga Springs during the preceding seven years. More recently, the City's drinking water model was updated by HAL to include an Extended-Period Simulation. It is our opinion that the original DWMP needs to be updated to include facilities built in the past nine years, new General Plan information, and demands provided by the City's SCADA System.

<b>SECTION 2</b>
<b>SCOPE OF WORK</b>

HAL proposes to complete the following Tasks to assist the City with preparing the Drinking Water System Master Plan.

#### **TASK 100 – PROJECT STARTUP**

**Objective:**

Obtain and review water system data and information, review City staff goals for the project, and establish project management protocol

**Input:**

- Contracted project work plan
- City staff's goals for the project
- Prior studies and reports
- Water system information and GIS data
- Existing system mapping
- Water use data
- A list of known problem areas and concerns within the water system
- Input from City staff

**Activities:**

1. Meet with City staff for a project startup meeting to discuss project management protocol, schedule for key meetings, master plan goals, system criteria, and data needs.
2. Review prior studies, existing modeling and mapping, growth data, GIS data, water use and system performance data, water rights information, fire flow requirements and test data, system specifications, and operation details.

3. Identify additional data needs.
4. Prepare system inventory and basemaps using GIS.
5. Work with City personnel to obtain and prepare any additional data needs.
6. Provide project management throughout the project.

***Output:***

- Project management protocol and master plan goals
- Water system data
- GIS system inventory and mapping

**TASK 200 – SYSTEM USE ANALYSIS**

**Objective:**

Select growth rate and length of planning period. Determine the existing and future projected number of connections, Equivalent Residential Connections (ERCs), and water demand.

***Input:***

- Water use data
- Population and development projection data
- Input from City staff

***Activities:***

1. Review the growth rate analysis from the Impact Fee Analysis. Select growth rate and length of planning period with input from City personnel.
2. Review water use, meter data, definition of an ERC, and calculate the total number of existing ERCs.
3. Review future projected connections and ERCs.
4. Calculate Average Day, Peak Day, and Peak Instantaneous system demand for existing and future projected conditions.

***Output:***

- Growth rate and length of planning period
- Existing and future projected number of connections and ERCs
- Existing and future projected water system demand requirements

**TASK 300 – SOURCE CAPACITY ANALYSIS**

**Objective:**

Evaluate the City's drinking water source capacity and make recommendations

***Input:***

- Scope of work
- Output from previous tasks
- Water source capacity data
- Input from City staff

***Activities:***

1. Review the City's existing water source capacity.
2. Calculate existing water source capacity requirements.

3. Calculate the future projected water source capacity requirements.
4. Determine existing and future projected water source capacity requirements and solution alternatives to solve the identified issues.

***Output:***

- Summary of the City's existing source capacity
- Existing and future projected source capacity requirements with recommended solution alternatives

## **TASK 400 – STORAGE CAPACITY ANALYSIS**

**Objective:**

Evaluate the City's drinking water storage capacity and make needed recommendations.

***Input:***

- Scope of work
- Output from previous tasks
- Water storage capacity data
- Input from City staff

***Activities:***

1. Review the City's existing storage capacity.
2. Calculate existing storage capacity requirements.
3. Calculate the future projected water storage capacity requirements.
4. Determine existing and future projected water storage capacity issues and solution alternatives to solve the identified issues.

***Output:***

- Summary of the City's existing water storage capacity
- Existing and future projected water storage capacity issues with recommended solution alternatives

## **TASK 500 – WATER DISTRIBUTION SYSTEM ANALYSIS**

**Objective:**

Use the computer model to determine existing and future projected deficiencies in the water system.

***Input:***

- Output from previous tasks
- System facility, controls, and operation data
- Input from City staff

***Activities:***

1. Develop water demands. Diurnal usage patterns for the City water system will be developed for minimum day, average day, and maximum day for use in the extended-period model simulations. A GIS parcel layer will be used to distribute demand to node locations throughout the City. Large nonresidential water users will be located individually. The current City land zoning, future planning for land

- use, population densities, and growth potential within the City will be used to locate future projected water use demand.
2. Prepare a computer model that represents the existing condition of the City's water system. The model will include distribution pipes, transmission lines, tanks, PRVs, booster pumps, wells, and control valves. Elevations at nodes will be determined using the best available GIS contour data. After the existing model is calibrated, simulations for future projected conditions will be prepared. Several evaluations will be performed using the model under many simulated conditions to identify recommended improvements.
  3. Calibrate the model using flow test data to compare existing water system response to the predicted model results. Water level within the tanks and pumping rates in the model will be compared to actual conditions.
  4. Run a fire flow analysis using the model to determine locations in the system that do not have the selected fire flow capacity.
  5. Run an existing system operations analysis using the model to identify existing issues in the water system.
  6. Run a future projected system operations analysis to identify future issues in the water system.
  7. Summarize existing and future projected water operation and distribution system issues and generate solution alternatives.

***Output:***

- Computer hydraulic model
- Existing and future projected water operation and distribution system issues with recommended solution alternatives

**TASK 600 – IMPLEMENTATION PLAN**

**Objective:**

Develop and screen alternative solutions to existing and future deficiencies in the drinking water system

***Input:***

- Output from previous tasks
- Typical water system facility construction costs
- Typical water system operation and maintenance costs
- Currently budgeted water system operation and maintenance costs for the City
- Currently budgeted costs for the construction of water system projects
- Current fees and financial information
- Input from City staff

***Activities:***

1. Meet with City personnel to review all water system deficiencies and recommended alternative solutions. Screen alternatives based on feasibility and public acceptance. Evaluate and compare the alternative plans on the basis of conceptual-level construction costs, maintenance requirements, public acceptability, and ability to accommodate changes in the land use plan. Select the preferred alternative for solutions to existing and future water system deficiencies.

2. Prepare a summary of the preferred alternative projects and compare the preferred alternatives with the projects outlined by the recently completed Capital Facilities Plan. Prioritize the preferred solution projects for the system deficiencies and finalize the implementation plan.
3. Develop conceptual cost estimates for identified projects that are part of the preferred alternative.

**Output:**

- Implementation plan including a prioritized project list with conceptual project costs and a proposed funding plan

**TASK 700 – REPORT**

**Objective:**

Prepare a final report

**Input:**

- Output from previous tasks
- Input from City staff

**Activities:**

1. Prepare draft report that summarizes and presents methodologies, data, results, and information from all of the previous tasks that meets all the requirements of the DDW.
2. Submit the draft report to the City for review and comment.
3. Receive comments and make requested changes to the draft report. Prepare and deliver final report.

**Output:**

- Final report

<b>SECTION 3</b>
<b>PROJECT TEAM</b>

Our proposed Project Manager is **Mr. Steven Jones** who is well known to the City. Steve will be responsible for overall direction of the project, for regular communication with the City, for helping select project design criteria, for managing the project budget and schedule, for making certain that all contractual requirements are met, and for **ensuring that the City is completely satisfied with all of our services**. We are proposing the following individuals:

**Person**

Steven C. Jones  
Tavis B. Timothy

**Project Responsibility**

Project Manager and Engineer  
Quality Assurance

These individuals have **worked together for many years** on a variety of water system modeling, master planning and design projects, including the **completion of the City's most recent Drinking Water System Impact Fees**.

<b>SECTION 4</b>
<b>PROJECT SCHEDULE</b>

PROJECT SCHEDULE															
Task	Description	July					August				September				
		1	8	15	22	29	5	12	19	26	2	9	16	23	30
100	Review water system data and information														
200	Review water use data and project future use														
300	Evaluate the City's source capacity and provide recommendations														
400	Evaluate the City's storage capacity and provide recommendations														
500	Identify existing and future projected deficiencies														
600	Develop and screen alternative solutions to existing and future deficiencies														
700	Prepare final report														

<b>SECTION 5</b>
<b>FEE PROPOSAL</b>

We propose completing the work on a time and materials basis with a not-to-exceed contract amount without prior authorization from the City. The following table includes a summary of our cost estimate. The cost estimate and scope of work is based on our understanding of the City's needs and what we feel would give the City a complete analysis. The City may wish to add, subtract, or modify Tasks to better meet their needs.

Task	Task Name	Estimated Hours	Fee Estimate
100	Project Start Up	26	\$2,782
200	System Use Analysis	8	\$829
300	Source Capacity Analysis	16	\$1,561
400	Storage Capacity Analysis	15	\$1,468
500	Water Distribution System Analysis	52	\$5,380
600	Implementation Plan	19	\$1,961
700	Report	38	\$3,780
Total:		174	\$17,761

<b>SECTION 6</b>
<b>ASSUMPTIONS</b>

In preparation of our proposal, we have made the following assumptions. Any desired changes to these assumptions can be incorporated into a modified scope of work and modified fee estimate.

- Two (2) project meetings will be required to coordinate with City Staff on the Master Plan document which will be combined with the secondary water master plan.
- The water model will be produced in EPANET and provided to the City upon completion.
- This scope does not include attending or preparing materials for public meetings.
- HAL will provide electronic copies of the Master Plan draft and final reports in PDF format.

We appreciated the opportunity you have given us to present his proposal to the City. We are excited about the project and are ready to begin immediately. We invite you to contact us if you have any questions.

Sincerely:

**HANSEN, ALLEN & LUCE, INC.**



---

Steven Jones, P.E.  
Project Manager

# HAL PROPOSAL SPREADSHEET

BASE COST/HR

\$167.00	\$139.00	\$129.00	\$121.00	\$103.00	\$93.50	\$87.00
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CLIENT: CITY OF SARATOGA SPRINGS

PROJECT: SECONDARY WATER MASTER PLAN UPDATE

Pha	Task #	Task Activity	Billing Period	Hours						Total Hours	Labor Costs	Expense Cost	Total HAL Cost	Outside Expense	COMMENT	
				Principal	Managing Prof.	Sr Prof II	Sr Prof I	Prof II	Prof I							PEI
<b>I PROJECT STARTUP</b>																
	101	Project startup meeting	1				1.5			2.0	3.5	\$355.50	40.50	\$396.00		
	102	Review available data	1				2.0			3.0	5	\$503.00	30.00	\$533.00		
	103	Identify additional data needs	1				1.0			1.0	2	\$208.00	12.00	\$220.00		
	104	Prepare system inventory and base mapping in GIS	1				1.0			4.0	5	\$469.00	30.00	\$499.00		
	105	Obtain and prepare additional data needs	1				1.0			4.0	5	\$469.00	30.00	\$499.00		
	106	Provide project management	1				4.0				4	\$484.00	24.00	\$508.00		
	200	Quality Control (QC) / Quality Assurance (QA)	1								0	\$0.00	0.00	\$0.00		
		SUBTOTAL HOURS/UNITS:		0	0	0	11.5	0	0	14	25.5					
		SUBTOTAL:		\$0.00	\$0.00	\$0.00	\$1,391.50	\$0.00	\$0.00	\$1,218.00		\$2,609.50	\$172.50	\$2,782.00	\$0.00	Outside / Subconsultant Costs
<b>II SYSTEM USE ANALYSIS</b>																
	201	Review growth rate analysis	1				0.5			0.5	1	\$104.00	6.00	\$110.00		
	202	Review water use data, define an ERC, calculate total ERCs	1				0.5			2.0	2.5	\$234.50	15.00	\$249.50		
	203	Review future projected connections and ERCs	1				0.5			1.0	1.5	\$147.50	9.00	\$156.50		
	204	Calculate average day, peak day, and peak instantaneous dema	1				1.0			2.0	3	\$295.00	18.00	\$313.00		
	300	Quality Control (QC) / Quality Assurance (QA)	1								0	\$0.00	0.00	\$0.00		
		SUBTOTAL HOURS/UNITS:		0	0	0	2.5	0	0	5.5	8					
		SUBTOTAL:		\$0.00	\$0.00	\$0.00	\$302.50	\$0.00	\$0.00	\$478.50		\$781.00	\$48.00	\$829.00	\$0.00	Outside / Subconsultant Costs
<b>III SOURCE CAPACITY ANALYSIS</b>																
	301	Review the City's existing water source capacity	1				0.5			2.0	2.5	\$234.50	15.00	\$249.50		
	302	Calculate existing water source capacity requirements	1				0.5			2.0	2.5	\$234.50	15.00	\$249.50		
	303	Calculate the future water source capacity requirements	1				0.5			2.0	2.5	\$234.50	15.00	\$249.50		
	304	Provide alternatives to address source capacity issues	1				2.0			6.0	8	\$764.00	48.00	\$812.00		
	400	Quality Control (QC) / Quality Assurance (QA)	1								0	\$0.00	0.00	\$0.00		
		SUBTOTAL HOURS/UNITS:		0	0	0	3.5	0	0	12	15.5					
		SUBTOTAL:		\$0.00	\$0.00	\$0.00	\$423.50	\$0.00	\$0.00	\$1,044.00		\$1,467.50	\$93.00	\$1,560.50	\$0.00	Outside / Subconsultant Costs
<b>IV STORAGE CAPACITY ANALYSIS</b>																
	401	Review the City's existing storage capacity	1				0.5			1.0	1.5	\$147.50	9.00	\$156.50		
	402	Calculate existing storage capacity requirements	1				0.5			1.0	1.5	\$147.50	9.00	\$156.50		
	403	Calculate the future water storage requirements	1				0.5			1.0	1.5	\$147.50	9.00	\$156.50		
	404	Determine existing and future water storage capacity issues and	1				2.0			8.0	10	\$938.00	60.00	\$998.00		
	500	Quality Control (QC) / Quality Assurance (QA)	1								0	\$0.00	0.00	\$0.00		
		SUBTOTAL HOURS/UNITS:		0	0	0	3.5	0	0	11	14.5					
		SUBTOTAL:		\$0.00	\$0.00	\$0.00	\$423.50	\$0.00	\$0.00	\$957.00		\$1,380.50	\$87.00	\$1,467.50	\$0.00	Outside / Subconsultant Costs
<b>V WATER DISTRIBUTION SYSTEM ANALYSIS</b>																
	501	Develop water demands	1				1.0			4.0	5	\$469.00	30.00	\$499.00		
	502	Prepare a computer model that represents the existing condition	1				2.0			8.0	10	\$938.00	60.00	\$998.00		
	503	Calibrate the computer model	1				2.0			4.0	6	\$590.00	36.00	\$626.00		
	504	Analyze the available fire flow	1				1.0			4.0	5	\$469.00	30.00	\$499.00		
	505	Analyze the existing operation of the system	1				4.0			4.0	8	\$832.00	48.00	\$880.00		
	506	Analyze the operation of the future projected system	1				4.0			4.0	8	\$832.00	48.00	\$880.00		
	507	Summarize existing and future operation and distribution issues	1				1.0			8.0	9	\$817.00	54.00	\$871.00		
	600	Quality Control (QC) / Quality Assurance (QA)	1				1.0			1.0	1	\$121.00	6.00	\$127.00		
		SUBTOTAL HOURS/UNITS:		0	0	0	16	0	0	36	52					
		SUBTOTAL:		\$0.00	\$0.00	\$0.00	\$1,936.00	\$0.00	\$0.00	\$3,132.00		\$5,068.00	\$312.00	\$5,380.00	\$0.00	Outside / Subconsultant Costs
<b>VI IMPLEMENTATION PLAN</b>																
	601	Meet with City to review all water system deficiencies	1				4.0			4.0	8	\$832.00	67.50	\$899.50		
	602	Prepare a summary of preferred alternatives	1				1.0			4.0	5	\$469.00	30.00	\$499.00		
	603	Develop cost estimates for the identified projects	1				1.0			4.0	5	\$469.00	30.00	\$499.00		
	700	Quality Control (QC) / Quality Assurance (QA)	1				0.5			0.5	0.5	\$60.50	3.00	\$63.50		
		SUBTOTAL HOURS/UNITS:		0	0	0	6.5	0	0	12	18.5					
		SUBTOTAL:		\$0.00	\$0.00	\$0.00	\$786.50	\$0.00	\$0.00	\$1,044.00		\$1,830.50	\$130.50	\$1,961.00	\$0.00	Outside / Subconsultant Costs
<b>VII Report</b>																
	701	Prepare draft report	1				3.0			24.0	27	\$2,451.00	162.00	\$2,613.00		
	702	Meet with City to discuss the draft report	1				1.0			1.0	2	\$208.00	12.00	\$220.00		
	703	Prepare final report	1				1.0			6.0	7	\$643.00	42.00	\$685.00		
	800	Quality Control (QC) / Quality Assurance (QA)	1			1.0	1.0				2	\$250.00	12.00	\$262.00		
		SUBTOTAL HOURS/UNITS:		0	0	1	6	0	0	31	38					
		SUBTOTAL:		\$0.00	\$0.00	\$129.00	\$726.00	\$0.00	\$0.00	\$2,697.00		\$3,552.00	\$228.00	\$3,780.00	\$0.00	Outside / Subconsultant Costs
<b>TOTAL HOURS BY EMPLOYEE:</b>				0	0	1	49.5	0	0	121.5						



PHASE	TASK	Labor	Direct Exp	Subtotal	Subconsultant	SubTotal
		Costs	Cost		Costs	
I	PROJECT STARTUP	\$2,609.50	\$172.50	\$2,782.00	\$0.00	\$2,782.00
II	SYSTEM USE ANALYSIS	\$781.00	\$48.00	\$829.00	\$0.00	\$829.00
III	SOURCE CAPACITY ANALYSIS	\$1,467.50	\$93.00	\$1,560.50	\$0.00	\$1,560.50
IV	STORAGE CAPACITY ANALYSIS	\$1,380.50	\$87.00	\$1,467.50	\$0.00	\$1,467.50
V	WATER DISTRIBUTION SYSTEM ANALYSIS	\$5,068.00	\$312.00	\$5,380.00	\$0.00	\$5,380.00
VI	IMPLEMENTATION PLAN	\$1,830.50	\$130.50	\$1,961.00	\$0.00	\$1,961.00
VII	Report	\$3,552.00	\$228.00	\$3,780.00	\$0.00	\$3,780.00
VIII	SUBTASK TITLE 8	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
IX	SUBTASK TITLE 9	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
X	SUBTASK TITLE 10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	<b>TOTAL:</b>	\$16,689.00	\$1,071.00	\$17,760.00	\$0.00	\$17,760.00



**SALT LAKE AREA OFFICE**  
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 MIDVALE, UTAH 84047  
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 www.hansenallenluce.com

Mr. Jeremy Lapin  
 City Engineer  
 City of Saratoga Springs  
 1307 North Commerce Drive, Suite 200  
 Saratoga Springs, Utah 84045

June 20, 2014

**RE: Proposal for City of Saratoga Springs  
 SECONDARY WATER MASTER PLAN**

Dear Jeremy:

Hansen, Allen & Luce, Inc. (HAL) appreciates this opportunity to submit a proposal to provide engineering services in connection with preparing a Secondary Water Master Plan for the City.

We feel especially qualified for your project for the following reasons:

- **■ A ■ understands your secondary water system.** We completed your most recent secondary water system model, Capital Facility Plan, Impact Fee Feasibility Plan (IFFP), and Impact Fee Analysis (IFA).
- **■ ■ ■ ■ ■ ■ ■ ■ responsive.** Because we have very recently performed the work listed above on your secondary water system, we are up to speed and ready to begin productive work immediately.
- **■ ■ ■ ■ ■ ■ ■ ■ proven project team.** We are proposing the same team members that completed your secondary water system model and IFFP.
- **■ ■ ■ ■ ■ ■ ■ ■ required experience.** We have completed many extended-period models and master plans.
- **■ ■ specialize in water engineering.** Our personnel have significant training in hydraulics. Most of our engineers have at least an M.S. degree. Our projects work.
- **■ ■ ■ ■ ■ ■ ■ ■ reasonable engineering fees.** Because we are a medium-sized firm headquartered in Utah, our hourly and direct costs are typically less than larger firms.
- **You know us.** Working relationships are already established. City and HAL staff work together effectively.

Now that the City has updated their impact fees it appears to be a convenient and cost-effective



time to prepare the almost-9-year old Secondary Water Master Plan (SWMP). During our preparation of the Secondary Water Capital Facility Plans we have performed much of the analysis and modeling efforts that would be included in a Master Plan document. We have also found in our analysis that the secondary water system demands utilized in the existing Master Plan are not realistic. The Master Plan and accompanying model should incorporate more realistic demand data. Updating the Master Plan now is a great value to the City due to timing and the relevant information that HAL can provide versus waiting for a time and then having to write a separate document.

Included in this proposal are a statement of the understanding of the project, the scope of work, the project team, the anticipated project schedule, a fee proposal, and a list of the assumptions we made in preparation of this proposal.

<b>SECTION 1</b>
<b>PROJECT UNDERSTANDING</b>

In 2005 the City of Saratoga Springs completed the current SWMP. At that time, the modeling had been updated by the City to include the substantial growth over the preceding seven years. Modeling also was updated by our firm to include an Extended Period Simulation. It is our opinion that a new SWMP needs to be completed in order to include facilities built in the past nine years, updated general plan information, and demands provided by the City's SCADA System.

<b>SECTION 2</b>
<b>SCOPE OF WORK</b>

HAL proposes to complete the following Tasks to assist the City with preparing the Secondary Water System Master Plan.

**TASK 100 – PROJECT START UP**

**Objective:**

Obtain and review water system data and information, review City staff goals for the project, and establish project management protocol

**Input:**

- Contracted project work plan
- City staff's goals for the project
- Prior studies and reports
- Water system information and GIS data
- Existing system mapping
- Water use data
- A list of known problem areas and concerns within the water system
- Input from City staff

**Activities:**

1. Meet with City staff for a project start up meeting to discuss project management protocol, schedule for key meetings, master plan goals, system criteria, and data needs.
2. Review prior studies, existing modeling and mapping, growth data, GIS data, water use and system performance data, system specifications and operation details.
3. Identify additional data needs.
4. Prepare system inventory and base mapping in GIS.
5. Work with City personnel to obtain and prepare any additional data needs.
6. Provide project management throughout the project.

**Output:**

- Project management protocol and master plan goals
- Water system data
- GIS system inventory mapping

**TASK 200 – SYSTEM USE ANALYSIS**

**Objective:**

Select growth rate and length of planning period. Determine the existing and future projected number of connections, Equivalent Residential Connections (ERCs), and water demand.

**Input:**

- Water use data
- Population and development projection data
- Input from City staff

**Activities:**

1. Perform a growth rate analysis from the IFA. Select growth rate and length of planning period with input from City personnel.
2. Review water use and meter data to define an ERC and calculate the total number of existing ERCs.
3. Review future projected connections and ERCs.
4. Calculate Average Day, Peak Day, and Peak Instantaneous system demand for existing and future projected conditions.

**Output:**

- Growth rate and length of planning period
- Existing and future projected number of connections and ERCs
- Existing and future projected water system demand requirements

**TASK 300 – SOURCE CAPACITY ANALYSIS**

**Objective:**

Evaluate the City's secondary water source capacity and make needed recommendations

***Input:***

- Scope of work
- Output from previous tasks
- Water source capacity data
- Input from City staff

***Activities:***

1. Review the City's existing water source capacity.
2. Calculate existing water source capacity requirements
3. Calculate the future projected water source capacity requirements.
4. Determine existing and future projected water source capacity requirements and solution alternatives to solve the identified issues.

***Output:***

- Summary of the City's existing source capacity
- Existing and future projected source capacity requirements with recommended solution alternatives

**TASK 400 – STORAGE CAPACITY ANALYSIS**

**Objective:**

Evaluate the City's secondary water storage capacity and make needed recommendations.

***Input:***

- Scope of work
- Output from previous tasks
- Water storage capacity data
- Input from City staff

***Activities:***

1. Review the City's existing storage capacity.
2. Calculate existing storage capacity requirements
3. Calculate the future projected water storage capacity requirements.
4. Determine existing and future projected water storage capacity issues and solution alternatives to solve the identified issues.

***Output:***

- Summary of the City's existing water storage capacity
- Existing and future projected water storage capacity issues with recommended solution alternatives

## **TASK 500 – WATER DISTRIBUTION SYSTEM ANALYSIS**

### **Objective:**

Use the computer model to determine existing and future projected deficiencies in the water system.

### ***Input:***

- Output from previous tasks
- System facility, controls, and operation data
- Input from City staff

### ***Activities:***

1. Develop water demands. Diurnal usage patterns for the City water system will be developed for minimum day, average day, and maximum day for use in the extended period model simulations. The GIS parcel layer will be used to distribute demand to node locations throughout the City. Large nonresidential water users will be located individually. The current City land zoning, future planning for land use, population densities, and growth potential within the City will be used to locate future projected water use demand.
2. Prepare a computer model that represents the existing condition of the City's water system. The model will include distribution pipes, transmission lines, PRVs, booster pumps, wells, storage reservoirs, and control valves. Elevations at nodes will be determined using the best available GIS contour data. After the existing model is calibrated, simulations for future projected conditions will be prepared. Several evaluations will be performed using the model under many simulated conditions to identify recommended improvements.
3. Calibrate the model using flow test data to compare existing water system response to the predicted model results. Water levels in the reservoirs and pumping rates in the model will be compared to actual conditions.
4. Run an existing system operations analysis using the model to identify existing issues in the water system.
5. Run a future projected system operations analysis to identify future issues in the water system.
6. Summarize existing and future projected water operation and distribution system issues and generate solution alternatives to solve the identified issues.

### ***Output:***

- Computer hydraulic water model
- Existing and future projected water operation and distribution system issues with recommended solution alternatives

## **TASK 600 - IMPLEMENTATION PLAN**

### **Objective:**

Develop and screen alternative solutions to existing and future deficiencies in the secondary water system

***Input:***

- Output from previous tasks
- Typical water system facility construction costs
- Typical water system operation and maintenance costs
- Currently budgeted water system operation and maintenance costs for the City
- Currently budgeted costs for the construction of water system projects
- Current fees and financial information
- Input from City staff

***Activities:***

1. Meet with City personnel to review all water system deficiencies and recommended alternative solutions. Screen alternatives based on feasibility and public acceptance. Evaluate and compare the alternative plans on the basis of conceptual level construction costs, maintenance requirements, public acceptability, and ability to accommodate changes in the land use plan. Select the preferred alternative for solutions to existing and future water system deficiencies.
2. Prepare a summary of the preferred alternative projects, and compare the master plan projects to the projects on the recently completed capital facilities plan. Prioritize the preferred solution projects for the system deficiencies and finalize the implementation plan.
3. Develop conceptual cost estimates for identified projects that are part of the preferred alternative.

***Output:***

- Implementation plan - including a prioritized project list with conceptual project costs and a proposed funding plan

**TASK 700 - REPORT**

**Objective:**

Prepare a final report

***Input:***

- Output from previous tasks
- Input from City staff

***Activities:***

1. Prepare draft report that summarizes and presents methodologies, data, results, and information from all of the previous tasks.
2. Meet with City staff to discuss the draft report and to submit the draft report to the City for review and comment.
3. Receive comments and make requested changes to the draft report. Prepare and deliver final report.

***Output:***

- Final report



<b>SECTION 5</b>
<b>FEE PROPOSAL</b>

We propose completing the work on a time and materials basis with a not-to-exceed contract amount without prior authorization from the City. The following table includes a summary of our cost estimate. The cost estimate and scope of work is based on our understanding of the City's needs and what we feel would give the City a complete analysis. The City may wish to add, subtract or modify Tasks to better meet their needs.

Task	Task Name	Estimated Hours	Fee Estimate
100	Project Start Up	25	\$2,719
200	System Use Analysis	8	\$861
300	Source Capacity Analysis	14	\$1,474
400	Storage Capacity Analysis	14	\$1,406
500	Water Distribution System Analysis	42	\$4,346
600	Implementation Plan	16	\$1,709
700	Report	32	\$3,408
Total:			\$15,923

<b>SECTION 6</b>
<b>ASSUMPTIONS</b>

In preparation of our proposal, we have made the following assumptions. Any desired changes to these assumptions can be incorporated into a modified scope of work and modified fee estimate.

- Two (2) project meetings will be required to coordinate with City Staff on the Master Plan document which will be combined with the drinking water master plan.
- The water model will be produced in EPANET and provided to the City upon completion.
- This scope does not include attending or preparing materials for Public Meetings.
- HAL will provide electronic copies of the Master Plan draft and final reports in PDF format.

We appreciated the opportunity you have given us to present this proposal to the City. We are excited about the project and are ready to begin immediately. We invite you to contact us if you have any questions.

Sincerely:

**HANSEN, ALLEN & LUCE, INC.**

A handwritten signature in black ink, appearing to read 'Steven Jones', written over a horizontal line.

Steven Jones, P.E.  
Project Manager

# HAL PROPOSAL SPREADSHEET

BASE COST/HR

\$167.00	\$139.00	\$129.00	\$121.00	\$103.00	\$87.00
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CLIENT: CITY OF SARATOGA SPRINGS

PROJECT: DRINKING WATER MASTER PLAN UPDATE

Pha	Task #	Task Activity	Billing Period	Hours					Total Hours	Labor Costs	Expense Cost	Total HAL Cost	Outside Expense	COMMENT
				Principal	Managing Prof.	Sr Prof II	Sr Prof I	Prof II						
<b>I PROJECT STARTUP</b>														
	101	Project startup meeting	1				1.5	2.0	3.5	\$355.50	40.50	\$396.00		
	102	Review available data	1				2.0	3.0	5	\$503.00	30.00	\$533.00		
	103	Identify additional data needs	1				1.0	1.0	2	\$208.00	12.00	\$220.00		
	104	Prepare system inventory and base mapping in GIS	1				1.0	4.0	5	\$469.00	30.00	\$499.00		
	105	Obtain and prepare additional data needs	1				1.0	4.0	5	\$469.00	30.00	\$499.00		
	106	Provide project management	1				4.0		4	\$484.00	24.00	\$508.00		
	200	Quality Control (QC) / Quality Assurance (QA)	1				0.5		0.5	\$60.50	3.00	\$63.50		
	SUBTOTAL HOURS/UNITS:			0	0	0	11	14	25					
	SUBTOTAL:			\$0.00	\$0.00	\$0.00	\$1,331.00	\$0.00	\$1,218.00	\$2,549.00	\$169.50	\$2,718.50	\$0.00	Outside / Subconsultant Costs
<b>II SYSTEM USE ANALYSIS</b>														
	201	Review growth rate analysis	1				0.5	0.5	1	\$104.00	6.00	\$110.00		
	202	Review water use data, define an ERC, calculate total EF	1				0.5	2.0	2.5	\$234.50	15.00	\$249.50		
	203	Review future projected connections and ERCs	1				0.5	1.0	1.5	\$147.50	9.00	\$156.50		
	204	Calculate average day, peak day, and peak instantaneous	1				1.0	2.0	3	\$295.00	18.00	\$313.00		
	300	Quality Control (QC) / Quality Assurance (QA)	1				0.3		0.25	\$30.25	1.50	\$31.75		
	SUBTOTAL HOURS/UNITS:			0	0	0	2.75	5.5	8.25					
	SUBTOTAL:			\$0.00	\$0.00	\$0.00	\$332.75	\$0.00	\$478.50	\$811.25	\$49.50	\$860.75	\$0.00	Outside / Subconsultant Costs
<b>III SOURCE CAPACITY ANALYSIS</b>														
	301	Review the City's existing water source capacity	1				0.5	1.0	1.5	\$147.50	9.00	\$156.50		
	302	Calculate existing water source capacity requirements	1				0.5	1.0	1.5	\$147.50	9.00	\$156.50		
	303	Calculate the future water source capacity requirements	1				0.5	2.0	2.5	\$234.50	15.00	\$249.50		
	304	Provide alternatives to address source capacity issues	1				2.0	6.0	8	\$764.00	48.00	\$812.00		
	400	Quality Control (QC) / Quality Assurance (QA)	1			0.5	0.3		0.75	\$94.75	4.50	\$99.25		
	SUBTOTAL HOURS/UNITS:			0	0	0.5	3.75	10	14.25					
	SUBTOTAL:			\$0.00	\$0.00	\$64.50	\$453.75	\$0.00	\$870.00	\$1,388.25	\$85.50	\$1,473.75	\$0.00	Outside / Subconsultant Costs
<b>IV STORAGE CAPACITY ANALYSIS</b>														
	401	Review the City's existing storage capacity	1				0.5	1.0	1.5	\$147.50	9.00	\$156.50		
	402	Calculate existing storage capacity requirements	1				0.5	1.0	1.5	\$147.50	9.00	\$156.50		
	403	Calculate the future water storage requirements	1				0.5	2.0	2.5	\$234.50	15.00	\$249.50		
	404	Determine existing and future water storage capacity issu	1				2.0	6.0	8	\$764.00	48.00	\$812.00		
	500	Quality Control (QC) / Quality Assurance (QA)	1				0.3		0.25	\$30.25	1.50	\$31.75		
	SUBTOTAL HOURS/UNITS:			0	0	0	3.75	10	13.75					
	SUBTOTAL:			\$0.00	\$0.00	\$0.00	\$453.75	\$0.00	\$870.00	\$1,323.75	\$82.50	\$1,406.25	\$0.00	Outside / Subconsultant Costs
<b>V WATER DISTRUBUTION SYSTEM ANALYSIS</b>														
	501	Develop water demands	1				1.0	4.0	5	\$469.00	30.00	\$499.00		
	502	Prepare a computer model that represents the existing cc	1				2.0	8.0	10	\$938.00	60.00	\$998.00		
	503	Calibrate the computer model	1				2.0	4.0	6	\$590.00	36.00	\$626.00		
	504	Analyze the existing operation of the system	1				3.0	4.0	7	\$711.00	42.00	\$753.00		
	505	Analyze the operation of the future projected system	1				3.0	4.0	7	\$711.00	42.00	\$753.00		
	506	Summarize existing and future operation and distribution	1				1.0	6.0	7	\$643.00	42.00	\$685.00		
	600	Quality Control (QC) / Quality Assurance (QA)	1				0.3		0.25	\$30.25	1.50	\$31.75		
	SUBTOTAL HOURS/UNITS:			0	0	0	12.25	30	42.25					
	SUBTOTAL:			\$0.00	\$0.00	\$0.00	\$1,482.25	\$0.00	\$2,610.00	\$4,092.25	\$253.50	\$4,345.75	\$0.00	Outside / Subconsultant Costs
<b>VI IMPLEMENTATION PLAN</b>														
	601	Meet with City to review all water system deficiencies	1				3.0	3.0	6	\$624.00	55.50	\$679.50		
	602	Prepare a summary of preferred alternatives	1				1.0	4.0	5	\$469.00	30.00	\$499.00		
	603	Develop cost estimates for the identified projects	1				1.0	4.0	5	\$469.00	30.00	\$499.00		
	700	Quality Control (QC) / Quality Assurance (QA)	1				0.3		0.25	\$30.25	1.50	\$31.75		
	SUBTOTAL HOURS/UNITS:			0	0	0	5.25	11	16.25					
	SUBTOTAL:			\$0.00	\$0.00	\$0.00	\$635.25	\$0.00	\$957.00	\$1,592.25	\$117.00	\$1,709.25	\$0.00	Outside / Subconsultant Costs
<b>VII REPORT</b>														
	701	Prepare draft report	1				3.0	20.0	23	\$2,103.00	138.00	\$2,241.00		
	702	Deliver draft report and respond to questions	1				1.0	1.0	2	\$208.00	12.00	\$220.00		
	703	Prepare final report	1				1.0	6.0	7	\$643.00	42.00	\$685.00		
	800	Quality Control (QC) / Quality Assurance (QA)	1			1.0	1.0		2	\$250.00	12.00	\$262.00		
	SUBTOTAL HOURS/UNITS:			0	0	1	6	27	34					
	SUBTOTAL:			\$0.00	\$0.00	\$129.00	\$726.00	\$0.00	\$2,349.00	\$3,204.00	\$204.00	\$3,408.00	\$0.00	Outside / Subconsultant Costs
<b>TOTAL HOURS BY EMPLOYEE:</b>				0	0	1.5	44.75	0	107.5					



PHASE	TASK	Labor	Direct Exp	Subtotal	Subconsultant	SubTotal
		Costs	Cost		Costs	
I	PROJECT STARTUP	\$2,549.00	\$169.50	\$2,718.50	\$0.00	\$2,718.50
II	SYSTEM USE ANALYSIS	\$811.25	\$49.50	\$860.75	\$0.00	\$860.75
III	SOURCE CAPACITY ANALYSIS	\$1,388.25	\$85.50	\$1,473.75	\$0.00	\$1,473.75
IV	STORAGE CAPACITY ANALYSIS	\$1,323.75	\$82.50	\$1,406.25	\$0.00	\$1,406.25
V	WATER DISTRUBUTION SYSTEM ANALYSIS	\$4,092.25	\$253.50	\$4,345.75	\$0.00	\$4,345.75
VI	IMPLEMENTATION PLAN	\$1,592.25	\$117.00	\$1,709.25	\$0.00	\$1,709.25
VII	REPORT	\$3,204.00	\$204.00	\$3,408.00	\$0.00	\$3,408.00
	<b>TOTAL:</b>	\$14,960.75	\$961.50	\$15,922.25	\$0.00	\$15,922.25

August 13, 2014

Mr. Jeremy D. Lapin, P.E.  
City Engineer  
City of Saratoga Springs  
1307 North Commerce Drive, Suite 200  
Saratoga Springs, Utah 84045

**Re: Scope and Fee Proposal to Prepare Update to Drinking Water Master Plan**

Dear Jeremy,

It is our pleasure to prepare this proposal for the update of the City's Drinking Water Master Plan. The City's decision to update the master plan after 9 years of substantial growth will provide much needed direction in future years as development continues in the area. We also understand that the water model was recently updated. This will improve the projections and help to more accurately foresee the needs of the City. The work of incorporating the changes of the past 9 years and proactively planning for needed infrastructure can provide significant challenges. The scope and fee for this work is outline below.

**SCOPE OF WORK**

**Task 1- Project Startup**

In order to begin the project on the right foot we will meet with City staff to obtain and review prior studies, project management, schedule and the goals for the project. We will also identify any additional data needs, prepare the system inventory and base maps, and coordinate regularly with City staff to ensure that we understand the City's concerns throughout this project. We will provide the City with copies of the water system inventory and base maps as well as a checklist of project goals.

**Task 2- System Use Analysis**

After receipt of all necessary data, we will review recent water use information, population and development projections and any additional information provided by City staff. This task will be directly tied to data included in the impact fee analysis, calculations of average and peak use demands and an agreed upon growth rate in the City for coming years. This will allow us to clearly determine the potential future impacts on the water system. This information will be used to determine upcoming capital projects later in the project.

**Task 3- Source Capacity Analysis**

The data gathered on the source capacity of the culinary system will provide us the information needed to identify where deficiencies may exist in future years. We will review the current capacity of the City's sources as well as the potential capacity if the idle wells are equipped. Using the system use analysis, we will determine what source requirements are currently and what they will be in future years based on continued growth. After identifying potential deficiencies, we will evaluate solutions to these problems and provide



recommendations to the City. The results of this analysis and the system use analysis will be provided to the City in a technical memorandum.

**Task 4- Storage Capacity Analysis**

They City’s storage capacity will continue to change in coming years, not only due to the rate of growth but the location of the growth as well. As development moves up onto the benches, additional higher elevation storage will be necessary. We will review the current storage capacity and evaluate at which point the City will need new reservoirs. An analysis of currently active construction and development projects will also help to determine the needed elevation of these tanks. We will calculate the storage requirements for current population and for future intervals based on projected growth. Where deficiencies are identified we will propose alternative solutions.

**Task 5- Water Distribution System Analysis**

Using the recently updated model, we will add in the future improvements in source, use and storage systems and evaluate the impact on the distribution system analysis. With most sources being in the northeast portion of the City and continues development occurring in the west and south portions of the City, we will pay special attention to distribution capabilities to these areas. We will evaluate the model at current conditions, and at future intervals as identified by the City to determine when each distribution system improvement may be necessary. We will also provide calibration of the current model with fire flow data from the City. Based on the multiple model runs, we will identify where improvements will be needed and provide them to the City in another technical memorandum.

**Task 6- Implementation Plan**

Using the data from the previous tasks, we will prepare cost estimates for the construction of new facilities operations and maintenance of the entire water system at each identified interval. We will evaluate the City’s current budget for these tasks including impact fees and will use this data to prepare a plan for funding and completing the plan. We will discuss this plan with City staff to evaluate the potential improvements based on feasibility, cost, public perception and acceptance and effectiveness. The preferred solutions will be incorporated in the final plan.

**Task 7- Report**

All data from previous tasks will be used to prepare the final report. This report will summarize the findings from all other tasks in this project. A draft report will be provided to the City for review and any changes or comments will be incorporated and a final draft will be issued.

**FEE PROPOSAL**

We propose a lump sum fee of \$31,400 to complete these seven tasks. These costs are broken down below.

Task 1- Project Startup .....	\$4,800
Task 2- System Use Analysis .....	\$3,400
Task 3- Source Capacity Analysis.....	\$3,400
Task 4- Storage Capacity Analysis.....	\$3,400
Task 5- Distribution System Analysis .....	\$8,400
Task 6- Implementation Plan .....	\$4,400
Task 7- Report.....	\$3,600



**SCHEDULE**

We will begin this work upon notice to proceed. We anticipate that the project will take approximately 10 weeks from notice to proceed to complete.

If you have any questions on this proposal please call me at (801) 359-5565.

Sincerely,

**Caldwell Richards Sorensen**

Mark Chandler, P.E.  
Project Manager

August 13, 2014

Mr. Jeremy D. Lapin, P.E.  
City Engineer  
City of Saratoga Springs  
1307 North Commerce Drive, Suite 200  
Saratoga Springs, Utah 84045

**Re: Scope and Fee Proposal to Prepare Update to Secondary Water Master Plan**

Dear Jeremy,

It is our pleasure to prepare this proposal for the update of the City's Secondary Water Master Plan. The City's decision to update the master plan after 9 years of substantial growth will provide much needed direction in future years as development continues in the area. We also understand that the water model was recently updated. This will improve the projections and help to more accurately foresee the needs of the City. The work of incorporating the changes of the past 9 years and proactively planning for needed infrastructure can provide significant challenges. The scope and fee for this work is outline below.

**SCOPE OF WORK**

**Task 1- Project Startup**

In order to begin the project on the right foot we will meet with City staff to obtain and review prior studies, project management, schedule and the goals for the project. We will also identify any additional data needs, prepare the system inventory and base maps, and coordinate regularly with City staff to ensure that we understand the City's concerns throughout this project. We will provide the City with copies of the water system inventory and base maps as well as a checklist of project goals.

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**Task 6- Implementation Plan**

Using the data from the previous tasks, we will prepare cost estimates for the construction of new facilities operations and maintenance of the entire water system at each identified interval. We will evaluate the City’s current budget for these tasks including impact fees and will use this data to prepare a plan for funding and completing the plan. We will discuss this plan with City staff to evaluate the potential improvements based on feasibility, cost, public perception and acceptance and effectiveness. The preferred solutions will be incorporated in the final plan.

**Task 7- Report**

All data from previous tasks will be used to prepare the final report. This report will summarize the findings from all other tasks in this project. A draft report will be provided to the City for review and any changes or comments will be incorporated and a final draft will be issued.

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We propose a lump sum fee of \$31,400 to complete these seven tasks. These costs are broken down below.

Task 1- Project Startup .....	\$4,800
Task 2- System Use Analysis .....	\$3,400
Task 3- Source Capacity Analysis.....	\$3,400
Task 4- Storage Capacity Analysis.....	\$3,400
Task 5- Distribution System Analysis .....	\$8,400
Task 6- Implementation Plan .....	\$4,400
Task 7- Report.....	\$3,600



**SCHEDULE**

We will begin this work upon notice to proceed. We anticipate that the project will take approximately 10 weeks from notice to proceed to complete.

If you have any questions on this proposal please call me at (801) 359-5565.

Sincerely,

**Caldwell Richards Sorensen**

Mark Chandler, P.E.  
Project Manager

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August 22, 2014

Mr. Jeremy Lapin  
City of Saratoga Springs

**SUBJECT: PROPOSAL TO PROVIDE ENGINEERING SERVICES FOR DRINKING WATER AND SECONDARY WATER MASTER PLANS**

Dear Mr. Lapin:

Bowen, Collins & Associates, Inc. (BC&A) is excited to present this proposal to provide engineering services for the Drinking Water and Secondary Water Master Plans.

**1. PROJECT UNDERSTANDING AND KEY ISSUES**

In 2005 the City of Saratoga Springs completed the current Drinking Water Master Plan (DWMP) and Secondary Water Master Plan (SWMP). At that time, the City updated the models to include the substantial growth that had occurred in Saratoga Springs during the preceding seven years. More recently, the City's water models were updated as part of its Capital Facilities Plan to include Extended-Period Simulations. The City desires to update the original master plans to include facilities built in the past nine years, new General Plan information, and demands provided by the City's SCADA System.

Based on our understanding of the project and our experience with these studies, we have identified the following key issues:

- **Water Master Planning Utility Expertise** - Master planning for wet utilities are a core area of our business. Our expertise in these areas and relationships with key project stakeholders will allow us to provide the city with the best possible service on this project. Conversely, a 'Jack of all Trades' engineering firm may not provide the necessary expertise that is needed for these complex plans. BC&A will provide the City with engineering expertise focused strictly on your water systems.
- **Understanding Our Role in Your Long-Term Plans** - We know that your staff is deeply involved in the master planning of Saratoga Springs, and that you are looking for a consulting firm to work with you as a member of your team to move your plans forward. We will function as an extension of the City's staff. We will partner with you to review the current state of the City's master plans, make recommendations to progress them forward where gaps exist, and develop master plan updates that are accurate and useful. We will recommend and utilize the latest technology in computer modeling, and we will train your staff to use these programs to analyze your utilities as growth continues into the future.
- **Master Planning and Impact Fee Experience** - BC&A has completed dozens of master plans for cities throughout Utah. Our proposed project manager, Keith Larson, is a regional expert with these studies. He has presented formal papers on master plans at numerous professional engineering conferences. Mr. Larson will offer the City the rare combination of a technically minded water engineer with a deep level understanding of the financial aspects and challenges associated with master planning.

## 2. PROPOSED WORK PLAN

Per your request, BC&A will provide the following scope of services for the Drinking Water and Secondary Water Master plans:

### DRINKING WATER MASTER PLAN

BC&A will complete the following tasks to assist the City with preparing the Drinking Water System Master Plan.

#### TASK 100 – PROJECT STARTUP

**Objective:** Obtain and review water system data and information, review City staff goals for the project, and establish project management protocol.

**City Input:**

- City staff’s goals for the project
- Prior studies and reports
- Water system information and GIS data
- Existing system mapping
- Water use data
- A list of known problem areas and concerns within the water system
- Input from City staff

**Activities:**

1. Meet with City staff for a project startup meeting to discuss project management protocol, schedule for key meetings, master plan goals, system criteria, and data needs.
2. Review prior studies, existing modeling and mapping, growth data, GIS data, water use and system performance data, water rights information, fire flow requirements and test data, system specifications, and operation details.
3. Identify additional data needs.
4. Prepare system inventory and base maps using GIS.
2. Work with City personnel to obtain and prepare any additional data needs.
3. Provide project management throughout the project.

**Deliverables:**

- Project management protocol and master plan goals
- Water system data
- GIS system inventory and mapping

#### TASK 200 – SYSTEM USE ANALYSIS

**Objective:** Select growth rate and length of planning period. Determine the existing and future projected number of connections, Equivalent Residential Connections (ERCs), and water demand.

**City Input:**

- Water use data
- Population and development projection data

**Activities:**

1. Review the growth rate analysis from the Impact Fee Analysis. Select growth rate and length of planning period with input from City personnel.
2. Review water use, meter data, definition of an ERC, and calculate the total number of existing ERCs.
3. Review future projected connections and ERCs.
4. Calculate Average Day, Peak Day, and Peak Instantaneous system demand for existing and future projected conditions.

**Deliverables:**

- Growth rate and length of planning period
- Existing and future projected number of connections and ERCs
- Existing and future projected water system demand requirements

**TASK 300 – SOURCE CAPACITY ANALYSIS**

*Objective:* Evaluate the City’s drinking water source capacity and make recommendations

*City Input:*

- Water source capacity data

*Activities:*

1. Review the City’s existing water source capacity.
2. Calculate existing water source capacity requirements.
3. Calculate the future projected water source capacity requirements.
4. Determine existing and future projected water source capacity requirements and solution alternatives to solve the identified issues.

*Deliverables:*

- Summary of the City’s existing source capacity
- Existing and future projected source capacity requirements with recommended solution alternatives

**TASK 400 – STORAGE CAPACITY ANALYSIS**

*Objective:* Evaluate the City’s drinking water storage capacity and make needed recommendations.

*City Input:*

- Water storage capacity data

*Activities:*

1. Review the City’s existing storage capacity.
2. Calculate existing storage capacity requirements.
3. Calculate the future projected water storage capacity requirements.
4. Determine existing and future projected water storage capacity issues and solution alternatives to solve the identified issues.

*Deliverables:*

- Summary of the City’s existing water storage capacity
- Existing and future projected water storage capacity issues with recommended solution alternatives

**TASK 500 – WATER DISTRIBUTION SYSTEM ANALYSIS**

*Objective:* Use the computer model to determine existing and future projected deficiencies in the water system.

*City Input:*

- System facility, controls, and operation data

*Activities:*

1. Develop water demands. Diurnal usage patterns for the City water system will be developed for minimum day, average day, and maximum day for use in the extended-period model simulations. A GIS parcel layer will be used to distribute demand to node locations throughout the City. Large nonresidential water users will be located individually. The current City land zoning, future planning for land use, population densities, and growth potential within the City will be used to locate future projected water use demand.
2. Prepare a computer model that represents the existing condition of the City’s water system. The model will include distribution pipes, transmission lines, tanks, PRVs, booster pumps, wells, and control valves. Elevations at nodes will be determined using the best available GIS contour data. After the existing model is calibrated, simulations for future projected conditions will be prepared. Several evaluations will be performed using the model under many simulated conditions to identify recommended improvements.

3. Calibrate the model using flow test data to compare existing water system response to the predicted model results. Water level within the tanks and pumping rates in the model will be compared to actual conditions.
5. Run a fire flow analysis using the model to determine locations in the system that do not have the selected fire flow capacity.
6. Run an existing system operations analysis using the model to identify existing issues in the water system.
2. Run a future projected system operations analysis to identify future issues in the water system.
3. Summarize existing and future projected water operation and distribution system issues and generate solution alternatives.

**Deliverables:**

- Computer hydraulic model
- Existing and future projected water operation and distribution system issues with recommended solution alternatives

**TASK 600 – IMPLEMENTATION PLAN**

**Objective:** Develop and screen alternative solutions to existing and future deficiencies in the drinking water system

**City Input:**

- Typical water system facility construction costs
- Typical water system operation and maintenance costs
- Currently budgeted water system operation and maintenance costs for the City
- Currently budgeted costs for the construction of water system projects
- Current fees and financial information

**Activities:**

1. Meet with City personnel to review all water system deficiencies and recommended alternative solutions. Screen alternatives based on feasibility and public acceptance. Evaluate and compare the alternative plans on the basis of conceptual-level construction costs, maintenance requirements, public acceptability, and ability to accommodate changes in the land use plan. Select the preferred alternative for solutions to existing and future water system deficiencies.
2. Prepare a summary of the preferred alternative projects and compare the preferred alternatives with the projects outlined by the recently completed Capital Facilities Plan. Prioritize the preferred solution projects for the system deficiencies and finalize the implementation plan.
3. Develop conceptual cost estimates for identified projects that are part of the preferred alternative.

**Deliverables:**

- Implementation plan including a prioritized project list with conceptual project costs and a proposed funding plan

**TASK 700 – REPORT**

**Objective:** Prepare a final report

**City Input:**

- City review of draft report

**Activities:**

1. Prepare draft report that summarizes and presents methodologies, data, results, and information from all of the previous tasks that meets all the requirements of the DDW.
2. Submit the draft report to the City for review and comment.
3. Receive comments and make requested changes to the draft report. Prepare and deliver final report.

**Deliverables:**

- Final report

## SECONDARY WATER MASTER PLAN

BC&A will complete the following Tasks to assist the City with preparing the Secondary Water System Master Plan.

### TASK 100 – PROJECT START UP

**Objective:** Obtain and review water system data and information, review City staff goals for the project, and establish project management protocol

**City Input:**

- City staff’s goals for the project
- Prior studies and reports
- Water system information and GIS data
- Existing system mapping
- Water use data
- A list of known problem areas and concerns within the water system

**Activities:**

1. Meet with City staff for a project start up meeting to discuss project management protocol, schedule for key meetings, master plan goals, system criteria, and data needs.
2. Review prior studies, existing modeling and mapping, growth data, GIS data, water use and system performance data, system specifications and operation details.
3. Identify additional data needs.
4. Prepare system inventory and base mapping in GIS.
5. Work with City personnel to obtain and prepare any additional data needs.
6. Provide project management throughout the project.

**Output:**

- Project management protocol and master plan goals
- Water system data
- GIS system inventory mapping

### TASK 200 – SYSTEM USE ANALYSIS

**Objective:** Select growth rate and length of planning period. Determine the existing and future projected number of connections, Equivalent Residential Connections (ERCs), and water demand.

**Input:**

- Water use data
- Population and development projection data

**Activities:**

1. Perform a growth rate analysis from the IFA. Select growth rate and length of planning period with input from City personnel.
2. Review water use and meter data to define an ERC and calculate the total number of existing ERCs.
3. Review future projected connections and ERCs.
4. Calculate Average Day, Peak Day, and Peak Instantaneous system demand for existing and future projected conditions.

**Output:**

- Growth rate and length of planning period
- Existing and future projected number of connections and ERCs
- Existing and future projected water system demand requirements

### TASK 300 – SOURCE CAPACITY ANALYSIS

**Objective:** Evaluate the City’s secondary water source capacity and make needed recommendations

**Input:**

- Water source capacity data

**Activities:**

1. Review the City’s existing water source capacity.
2. Calculate existing water source capacity requirements
3. Calculate the future projected water source capacity requirements.
4. Determine existing and future projected water source capacity requirements and solution alternatives to solve the identified issues.

**Output:**

- Summary of the City’s existing source capacity
- Existing and future projected source capacity requirements with recommended solution alternatives

**TASK 400 – STORAGE CAPACITY ANALYSIS**

**Objective:** Evaluate the City’s secondary water storage capacity and make needed recommendations.

**Input:**

- Water storage capacity data

**Activities:**

1. Review the City’s existing storage capacity.
2. Calculate existing storage capacity requirements
3. Calculate the future projected water storage capacity requirements.
4. Determine existing and future projected water storage capacity issues and solution alternatives to solve the identified issues.

**Output:**

- Summary of the City’s existing water storage capacity
- Existing and future projected water storage capacity issues with recommended solution alternatives

**TASK 500 – WATER DISTRIBUTION SYSTEM ANALYSIS**

**Objective:** Use the computer model to determine existing and future projected deficiencies in the water system.

**Input:**

- System facility, controls, and operation data

**Activities:**

1. Develop water demands. Diurnal usage patterns for the City water system will be developed for minimum day, average day, and maximum day for use in the extended period model simulations. The GIS parcel layer will be used to distribute demand to node locations throughout the City. Large nonresidential water users will be located individually. The current City land zoning, future planning for land use, population densities, and growth potential within the City will be used to locate future projected water use demand.
2. Prepare a computer model that represents the existing condition of the City’s water system. The model will include distribution pipes, transmission lines, PRVs, booster pumps, wells, storage reservoirs, and control valves. Elevations at nodes will be determined using the best available GIS contour data. After the existing model is calibrated, simulations for future projected conditions will be prepared. Several evaluations will be performed using the model under many simulated conditions to identify recommended improvements.
3. Calibrate the model using flow test data to compare existing water system response to the predicted model results. Water levels in the reservoirs and pumping rates in the model will be compared to actual conditions.
4. Run an existing system operations analysis using the model to identify existing issues in the water system.
5. Run a future projected system operations analysis to identify future issues in the water system.
6. Summarize existing and future projected water operation and distribution system issues and generate solution alternatives to solve the identified issues.

**Output:**

- Computer hydraulic water model

- Existing and future projected water operation and distribution system issues with recommended solution alternatives

## **TASK 600 - IMPLEMENTATION PLAN**

**Objective:** Develop and screen alternative solutions to existing and future deficiencies in the secondary water system

**Input:**

- Typical water system facility construction costs
- Typical water system operation and maintenance costs
- Currently budgeted water system operation and maintenance costs for the City
- Currently budgeted costs for the construction of water system projects
- Current fees and financial information

**Activities:**

1. Meet with City personnel to review all water system deficiencies and recommended alternative solutions. Screen alternatives based on feasibility and public acceptance. Evaluate and compare the alternative plans on the basis of conceptual level construction costs, maintenance requirements, public acceptability, and ability to accommodate changes in the land use plan. Select the preferred alternative for solutions to existing and future water system deficiencies.
2. Prepare a summary of the preferred alternative projects, and compare the master plan projects to the projects on the recently completed capital facilities plan. Prioritize the preferred solution projects for the system deficiencies and finalize the implementation plan.
3. Develop conceptual cost estimates for identified projects that are part of the preferred alternative.

**Output:**

- Implementation plan - including a prioritized project list with conceptual project costs and a proposed funding plan

## **TASK 700 - REPORT**

**Objective:** Prepare a final report

**Input:**

- City review of draft report

**Activities:**

1. Prepare draft report that summarizes and presents methodologies, data, results, and information from all of the previous tasks.
2. Meet with City staff to discuss the draft report and to submit the draft report to the City for review and comment.
3. Receive comments and make requested changes to the draft report. Prepare and deliver final report.

**Output:**

- Final report

### **3. QUALIFICATIONS, TRAINING AND EDUCATION OF KEY PERSONNEL**

From past experience, we know that people are the critical element to the successful completion of any project. With this in mind, we have carefully selected specific personnel for this project that have the technical background and directly-related experience to meet your specific requirements and expectations. Our proposed project team has developed more recent water system master plans for Utah cities and water districts than any consultant in the State of Utah. Brief resumes of key staff are listed below; full resumes are attached for reference.



**Keith Larson, P. E., Overall Project Manager and Water Projects Manager.** Our proposed Project Manager and primary point of contact with the City is Keith Larson. We would suggest that you contact some of the other clients outlined in his resume to determine how he has worked with and for his previous clients in delivering quality projects on time and on budget. Mr. Larson's greatest strength is in water, wastewater, and storm drain system master planning and design. He has served as project engineer on culinary and secondary water master plans for a large range of clients including Salt Lake City, Sandy City, Provo City, and Jordanelle Special Service District. He has also served as project manager for wastewater and storm drain master plans for clients such as Salt Lake City, Provo City, and Ogden City and at the University of Utah. Mr. Larson worked with Salt Lake City to improve its internal water and sewer modeling

capabilities. He provided oversight and review services for City staff as they developed models of the City's water and sewer systems. During this process, he helped develop existing and future demand distributions, calibrated the models, added extended period modeling capability, and provided training on many aspects of the model. As part of these efforts, he performed an analysis of supply, major conveyance, and storage improvements needed in the City's transmission system through build out.

In addition to his knowledge of the engineering aspects of master planning, Mr. Larson is well versed in the financial aspects of master planning as well. He served as project manager on rate and impact fee studies for clients throughout Utah including Sandy City, Murray City, Logan City, Pleasant Grove City, American Fork City, South Valley Sewer District and Virgin Valley Water District in Mesquite, Nevada. His work included assessing existing rate structures, developing rate models, and recommending future changes in impact fees and water pricing. In each case, he has worked with city councils and residents to successfully adopt new rate and impact fee structures to support required capital improvement plans.



**Kirk Bagley, P.E., Secondary Water System Planning.** Mr. Bagley has over 18 years of experience with federal, state, municipal, and private civil engineering projects. His experience includes the engineering of several site civil, water, wastewater, and storm drain projects such as water treatment plants, sewer treatment plants, water and wastewater pipelines, storm drain pipeline and detention facilities, sewage lift stations, road improvements, and site grading. He has also performed and managed master planning efforts for several projects including secondary water , culinary water , storm drain and sanitary sewer systems. Each of the master planning efforts have included system demand projections, modeling and improvement recommendations. He has demonstrated the ability to work with jurisdictional agencies through the planning, design and construction phases of a project. He has managed all aspects of projects including agency

coordination, permitting, planning, quality assurance, design and construction administrative functions.



**Craig Bagley, P. E., Culinary Water System Planning.** Mr. Bagley is Vice President of BC&A. He is a water resources engineer that specializes in hydraulics and hydrology. Mr. Bagley has extensive experience in master planning water, storm drain, and sewer facilities for large areas and in designing sewer, water, and storm drain system improvements. He served as either project manager or project engineer on the following related water master planning projects: Sandy City Master Plan and Rate Study Update, Virgin Valley Water System Master Plan, Murray City Water System Master Plan, Weber Basin Water Conservancy District Master Plan/Model, Virgin Valley Water District Water System Model, Salt Lake City Water Distribution System Master Plan, several Granger-Hunter Improvement District Water System Model updates. He has managed over 20 other large storm drain or sewer system master planning projects. In completing these

projects, Mr. Bagley has become familiar with a variety of computer modeling programs, utilized GIS technology and digital mapping, developed capital improvement plans, and developed modeling tools, design criteria and guidelines, and manuals to assist agency personnel in better managing their systems. He understands how to develop a water master plan that will be used often in planning, budgeting, and system optimization.

#### 4. Project Experience

BC&A is a Utah engineering firm specializing in culinary water, secondary water, storm water, and waste water related fields. BC&A personnel have completed numerous water-related master plans and studies. The table below provides a list of water-related master plans and studies completed by BC&A.

##### Summary of Related Project Experience

Client	Project Name	Project Manager	Short Project Description	Year Completed
<b>Culinary Water Studies</b>				
Provo City, Utah	System Master Plan	Keith Larson	Cost of service rate and impact fee study	2011
Sandy City, Utah	Water Rate Study Update	Keith Larson	Prepared comprehensive water system master plan and prepared an analysis of water rates in 2003 and updating in 2009.	Ongoing
Virgin Valley Water District (VVWD)	Water Rate and Impact Fee Study	Keith Larson	Completed water rate and impact fee studies for VVWD in 2001, 2006, and 2009.	2009
Murray City, Utah	Water Rate and Impact Fee Study	Keith Larson	Completed water rate and impact fee study	2006
Salt Lake City Department of Airports	Utility Master Plan	Keith Larson	Prepared a utility master plan and analysis of existing utilities and projected utility infrastructure need for all utilities at the Airport including water, sanitary sewer, storm drainage, natural gas, power, and communications	2008
Weber Basin Water Conservancy District	Supply and Demand Study	Keith Larson	developed long-term demand projections and examined long-term supplies available to the District to meet that demand and is currently developing similar demand projection and supply evaluation for the District's service area within the Wasatch Back	2008
Ogden City, Utah	Major Water Conveyance Facility Study	Craig Bagley	Performed master planning of major water conveyance facilities in Ogden City's water system	2008
Salt Lake City, Utah	Major Conveyance Master Plan Study	Keith Larson	Developing a master plan for all major conveyance facilities	2007
Metropolitan Water District of Salt Lake and Sandy, Jordan Valley Water Conservancy District, Murray City and Holladay Water Company	Salt Lake County Demand and Supply Study	Keith Larson	Developed comprehensive supply and demand study for Salt Lake County	2007

Client	Project Name	Project Manager	Short Project Description	Year Completed
Jordan Valley Water Conservancy District (JVWCD)/Sandy City/Midvale City	Retail Service Area Exchange	Keith Larson	Developed alternatives for the exchange and evaluate the effects of the proposed alternatives on each entity	2006
Metropolitan Water District of Salt Lake and Sandy (MWDSLS)	Master Planning, Engineering Design, and Program Management - Metro Water Project	Michael Collins	Provided a full scope of engineering services to MWDSLS for \$300 million project by assisting with master planning services, capital cost and budgeting analysis, conceptual planning, preliminary design, final design, construction management and overall program management	2006
Jordan Valley Water Conservancy District	Major conveyance Facilities Master Plan	Keith Larson	Assisted in developing master planning to project future population	2005
Granger-Hunter Improvement District (GHID)	Water Model Update	Craig Bagley	Converted existing water distribution model to a format that could be used with GIS-based software	2004
Metropolitan Water District of Salt Lake and Sandy (MWDSLS)	Point of the Mountain Water Transmission System Facilities Project	Michael Collins	Developed conceptual level design for new water transmission system facilities	2003
Holliday Water Company	Holliday Water Sys. Master Plan Update	Gregory Loscher	Completed an update of a Water System Master Plan	2003
Provo River Water Users Association (PRWUA)	Provo Reservoir Canal (PRC) Master Planning	Michael Collins	Assisted in master planning the canal	2003
Provo River Water Users Association (PRWUA)	System Master Plan	Michael Collins	Serving as a Master Plan Coordinator	2002
Sandy City Department of Public Utilities	Water System Master Plan Update	Craig Bagley	Developed an update to 1995 Water Master Plan	2002
Bona Vista Water Improvement District	Water System Master Plan Update	Ken Spiers	Developed a Water System Master Plan	2001
Metropolitan Water District of Salt Lake and Sandy (MWDSLS)	1998 Master Plan Update	Michael Collins	Assisted in developing a 1998 update to the 1987 Master Plan	2001

Client	Project Name	Project Manager	Short Project Description	Year Completed
Murray City, Utah	Murray City Water System Fluoride Study	Thayne Clark	Utilized computer model of developed water distribution system to perform dynamic chemical tracing of fluoride in water distribution system	2001
North Logan City, Utah	Water System Master Plan	Ken Spiers	Prepared a Water System Master Plan	2001
Uintah Water Conservancy District (UWCD)	Water Supply and Conservation Master Plan	Keith Larson	Prepared supply master plan and conservation plan for the District that examined water supply, water use, and ability to provide for additional water conservation	2001
Logan City, Utah	Water Rate Study	Keith Larsen	Cost of service rate study	2006
Pleasant Grove, Utah	Water Rate Study and Impact Fee	Keith Larson	Cost of service water rate study	2006
American Fork City, Utah	Water Rate Study	Keith Larson	Cost of service water rate study	Ongoing
Murray City, Utah	Water System Master Plan	Craig Bagley	Prepared Water System Master Plan	1999 & 2009
Virgin Valley Water District (VVWD)	Water System Master Plan	Ken Spiers	Completed a Water System Master Plan	1999
<b>Secondary Water Studies</b>				
Provo City, Utah	Secondary System Master Plan	Keith Larson	Assisting in studying feasibility of installing secondary water system within the City	2008
Herriman City, Utah	Secondary System Master Plan	Keith Larson	Developing a master plan for all secondary facilities	Ongoing
Eagle Mountain City, Utah	Secondary System Master Plan	Jeff Beckman	Examined the feasibility of implementing reuse at the City's wastewater treatment plant for development of the first phase of a secondary system.	2011
Park City, Utah	Secondary Feasibility Study	Keith Larson	Evaluated and master planned major conveyance facilities for a new secondary and reuse system.	2009
Bluffdale City, Utah	Avalon Estates Secondary Water System Evaluation	Kirk Bagley	Performed preliminary engineering design services to determine feasibility of creating an irrigation special improvement district for residences	2006
West Valley City, Utah	Westridge Golf Course Irrigation System Evaluation	Craig Bagley	Performed evaluation of irrigation system at Westridge Golf Course	1998
American Fork City, Utah	Culinary and Secondary Water Rate Study	Keith Larson	Calculated secondary system user rates and fees.	Ongoing

#### 4. References

Listed below are names of owner contacts for several of BC&A’s master plan projects. We encourage you to contact these individuals regarding our performance on these projects.

<i>Water</i>	<i>Secondary Water</i>
<i>Contact</i>	<i>Contact</i>
Mr. Robert Sperling, P.E. Project Manager Salt Lake County Public Utilities 1530 South West Temple Salt Lake City, Utah 84115 Phone: 801-483-6888	Mr. Brad Jorgensen, P.E. Assistant Public Works Director Provo City Public Works 1377 South 350 East Provo, Utah 84603 Phone: 801-852-7772
Mr. Danny Astill Water Superintendent Murray City Public Works 4646 South 500 West Murray, Utah 84123 Phone: 801-270-2443	Mr. Mark Jensen, P.E. Project Manager Herriman City 13011 South Pioneer Street Herriman, Utah 84096 Phone: 801-446-5323
Mr. Ken Rock, P.E. General Manager Virgin Valley Water District 500 Riverside Road Mesquite, NV 89027 Phone: 702-346-5731	Mr. Dave Norman, P.E. Eagle Mountain City 2545 N. Pony Express Pkwy, Eagle Mountain, UT 84005 Phone: 801-636-7209

#### 5. Proposed Fee

Based on your request, we have tabulated an estimate of man-hours and proposed fee to complete the scope of work outlined in this proposal. The tabulation was prepared on a task-by-task basis by project team member. This fee estimate is attached.

We are excited about the opportunity to work with personnel from Saratoga on this important project. Please contact me if you have any questions or need additional information pertaining to this proposal or the project.

Sincerely,

Bowen, Collins & Associates

Keith Larson, P.E.  
 Project Manager

**ATTACHMENT 1.A - CULINARY WATER**

City of Saratoga Springs

Drinking Water Master Plan

Engineering Man-Hour and Fee Estimate

Last Updated 8/22/2014

		Office/Support		Engineers				Subtotal Hours	Subtotal Labor	Subtotal Expenses	Total Cost
Labor Category		Office	Editor	Engineer 2	Engineer 3	Engineer 5	Engineer 6				
Staff		Rasmusen	Hansen		McKinnon	Larson	C. Bagley				
Labor Rate		\$50	\$60	\$95	\$99	\$124	\$135				
Task No.	Task Description										
100	Task 100 - Project Startup	2			15	8	2	27	\$ 2,847.00	\$214	\$ 3,061.00
200	Task 200 - System Use Analysis				12	4		16	\$ 1,684.00	\$137	\$ 1,821.00
300	Task 300 - Source Capacity Analysis				20	8		28	\$ 2,972.00	\$196	\$ 3,168.00
400	Task 400 - Storage Capacity Analysis				12	4		16	\$ 1,684.00	\$112	\$ 1,796.00
500	Task 500 - Water Distribution Analysis				65	24	4	93	\$ 9,951.00	\$676	\$ 10,627.00
600	Task 600 - Implementation Anaylsis				24	12		36	\$ 3,864.00	\$252	\$ 4,116.00
700	Task 700 - Report	4	8		32	20	4	68	\$ 6,868.00	\$701	\$ 7,569.00
<b>Total Cost</b>		<b>6</b>	<b>8</b>	<b>0</b>	<b>180</b>	<b>80</b>	<b>10</b>	<b>284</b>	<b>\$ 29,870.00</b>	<b>\$2,288</b>	<b>\$ 32,158.00</b>

**Expenses include:**

Mileage reimbursement at \$0.75/mile

Computer/Communications Charge at \$7/labor hour

10% Markup on Outside Services

**ATTACHMENT 1.B - SECONDARY WATER**

City of Saratoga Springs

Secondary Water Master Plan

Engineering Man-Hour and Fee Estimate

Last Updated 8/22/2014

		Office/Support		Engineers				Subtotal Hours	Subtotal Labor	Subtotal Expenses	Total Cost
Labor Category		Office	Editor	Engineer 2	Engineer 3	Engineer 5	Engineer 6				
Staff		Rasmusen	Hansen		McKinnon	Larson	K. Bagley				
Labor Rate		\$50	\$60	\$95	\$99	\$124	\$135				
Task No.	Task Description										
100	Task 100 - Project Startup	2			12	8	2	24	\$ 2,550.00	\$193	\$ 2,743.00
200	Task 200 - System Use Analysis				14	4		18	\$ 1,882.00	\$151	\$ 2,033.00
300	Task 300 - Source Capacity Analysis				16	6		22	\$ 2,328.00	\$154	\$ 2,482.00
400	Task 400 - Storage Capacity Analysis				8	4		12	\$ 1,288.00	\$84	\$ 1,372.00
500	Task 500 - Water Distribution System Analysis				54	16	4	74	\$ 7,870.00	\$543	\$ 8,413.00
600	Task 600 - Implementation Plan				20	12		32	\$ 3,468.00	\$224	\$ 3,692.00
700	Task 700 - Report	4	8		32	20	4	68	\$ 6,868.00	\$701	\$ 7,569.00
	<b>Total Cost</b>	<b>6</b>	<b>8</b>	<b>0</b>	<b>156</b>	<b>70</b>	<b>10</b>	<b>250</b>	<b>\$ 26,254.00</b>	<b>\$2,050</b>	<b>\$ 28,304.00</b>

**Expenses include:**

Mileage reimbursement at \$0.75/mile

Computer/Communications Charge at \$7/labor hour

10% Markup on Outside Services



**City Council  
Staff Report**

**Code Amendment  
19.05 – Swimming Pool Setback  
September 16, 2014  
Public Hearing**

Report Date:	Tuesday, September 9, 2014
Applicant:	R&M Pools & Spas
Property Owner:	Bethany Tenney
Previous Meetings:	Planning Commission, September 11, 2014
Land Use Authority:	City Council
Future Routing:	Public hearing(s) with City Council
Author:	Kimber Gabryszak, Planning Director

**A. Executive Summary:**

The applicant, R&M Pools on behalf of the property owner, is requesting amendments to Section 19.05.02.14, “Swimming Pool (private)” to remove the requirement for an additional setback for pools on certain corner lots.

The Planning Commission will hold a public hearing on this request on September 11, 2014. As their recommendation will come after the date of this report, a Report of Action from the Planning Commission meeting will be provided to the City Council prior to the Council action.

**Recommendation:**

**Staff recommends that the City Council conduct a public hearing, take public comment, discuss the proposed amendments, and choose from the options in Section H of this report.**

Options include approval, denial, or continuance.

**B. Background:**

The applicant began excavation for a pool on the property owner’s lot. When the applicant applied for a building permit to complete the pool, the applicant discovered that the hole did not meet required setbacks and was located within the public utility easement (PUE) for the lot. The applicant has applied for a Code amendment to help bring the pool into compliance.

The applicant will still be required to move the pool out of the PUE, or ask the utilities for approval to reduce the PUE from 10’ to 5’ and then process a plat amendment to formalize this change, but these options are in addition to and separate from the Code amendment.

**C. Specific Request:**

Section 19.05.02.14 requires swimming pools to be located within a rear or side yard, and requires a minimum setback of five feet. In addition, if a corner lot backs up to the side lot line of the adjacent lot, there is an increased setback requirement of 25 feet from that property line.

The affected property is a corner lot, and the rear lot line of the affected property abuts the side lot line of the adjacent lot. The hole for the pool is currently five feet from the rear property line, and the 25' setback requirement would require that the pool be moved 20 feet.

The hole for the pool is also located within the public utility easement. As the PUE is called out on the plat, the hole must be relocated, or a release secured from the utilities to reduce the PUE from 10 feet to 5 feet. If this occurs, a plat amendment for the lot must also be recorded to reflect the reduction.

The proposed amendments are below:

**14. Swimming Pool (private).** Private swimming pools may be allowed in any zone as an accessory use if the following requirements are met:

- a. it is an accessory use to a main building and is located within the side or rear yard thereof;
- b. it is intended and is to be used solely for the enjoyment of the occupants and guests of the principal use of the property on which it is located;
- c. it may not be located closer than five feet to any property line of the property on which it is located;
- ~~e.d. shall not be located within any public utility easement;  
d. on a corner lot where the rear lot line is coterminous with a side lot line of an adjoining lot, it shall be located not less than twenty-five feet from such lot line;~~
- e. the swimming pool, or the entire property on which it is located, shall be walled or fenced to a minimum height of six feet. Where a swimming pool is located less than thirty feet from any property line, the pool shall be enclosed within a view obstructing wall or fence not less than six feet in height. Vegetation on or near a fence or wall shall not be considered view obstructing. All gates on said fences shall be fitted with a latching device located on the interior side of the gate;
- f. where a swimming pool is completely enclosed in a building, the location requirements for accessory and main buildings shall apply. Where a swimming pool is to be located in the near vicinity of any septic tank or sewage disposal drain field, the location must be approved by the Utah County Health Department; and
- g. any pool lighting shall be installed and directed in such a manner as to not cause disturbance to neighboring residents.

**D. Process:**

Section 19.17.03 of the Code outlines the process for an amendment:

1. The Planning Commission shall review the petition and make its recommendation to the City Council within thirty days of the receipt of the petition.

*Complies. The application was submitted on August 27, 2014, and the hearing is within the 30 days.*

2. The Planning Commission shall recommend adoption of proposed amendments only where it finds the proposed amendment furthers the purpose of the Saratoga Springs Land Use Element of the General Plan and that changed conditions make the proposed amendment necessary to fulfill the purposes of this Title.

*Complies. Please see Sections F and G of this report.*

3. The Planning Commission and City Council shall provide the notice and hold a public hearing as required by the Utah Code. For an application which concerns a specific parcel of property, the City shall provide the notice required by Chapter 19.13 for a public hearing.

*Complies. Please see Section E of this report. After the Planning Commission recommendation, a public hearing will be scheduled with the City Council.*

4. For an application which does not concern a specific parcel of property, the City shall provide the notice required for a public hearing except that notice is not required to be sent to property owners directly affected by the application or to property owners within 300 feet of the property included in the application.

*Complies. Please see Section E of this report.*

**E. Community Review:**

Per Section 19.17.03 of the City Code, this item was noticed for the Planning Commission meeting on September 11, 2014 as a public hearing and for the Council meeting as a public hearing in the *Daily Herald*; while the request is by one property owner, these amendments are Citywide and no mailed notice was required. As of the date of this report, no public input has been received.

**F. General Plan:**

**Land Use Element**

The General Plan has stated goals of responsible growth management, the provision of orderly and efficient development that is compatible with both the natural and built environment, establishment of a strong community identity in the City of Saratoga Springs, and implementation of ordinances and guidelines to assure quality of development.

**Staff conclusion: consistent**

The proposed change removes an unnecessary limitation on the location of pools and will not negatively impact the quality of development. Property rights are expanded, while appropriate limitations will protect the health, safety, and welfare of the City and residents.

The goals and objectives of the General Plan are not negatively affected by the proposed amendments, community goals will be met, and community identity will be maintained.

**G. Code Criteria:**

**Code amendments are a legislative decision; therefore the City Council has significant discretion when considering changes to the Code.**

The criteria for an ordinance (Code) change are outlined below, and act as guidance to the Council in making a decision, and to the Commission in making a recommendation. Note that the criteria are not binding.

#### **19.17.04 Consideration of General Plan, Ordinance, or Zoning Map Amendment**

The Planning Commission and City Council shall consider, but not be bound by, the following criteria when deciding whether to recommend or grant a general plan, ordinance, or zoning map amendment:

1. The proposed change will conform to the Land Use Element and other provisions of the General Plan;  
*Consistent. See Section F of this report.*
2. the proposed change will not decrease nor otherwise adversely affect the health, safety, convenience, morals, or general welfare of the public;  
*Consistent. The amendment will permit pools in back and side yards while maintaining safety requirements such as 6' fencing, and will not adversely affect the health, safety, convenience, morals, or general welfare of the public.*
3. the proposed change will more fully carry out the general purposes and intent of this Title and any other ordinance of the City; and  
*Consistent. The stated purposes of the Code are found in section 19.01.04:*
  1. The purpose of this Title, and for which reason it is deemed necessary, and for which it is designed and enacted, is to preserve and promote the health, safety, morals, convenience, order, fiscal welfare, and the general welfare of the City, its present and future inhabitants, and the public generally, and in particular to:
    - a. encourage and facilitate the orderly growth and expansion of the City;
    - b. secure economy in governmental expenditures;
    - c. provide adequate light, air, and privacy to meet the ordinary or common requirements of happy, convenient, and comfortable living of the municipality's inhabitants, and to foster a wholesome social environment;
    - d. enhance the economic well-being of the municipality and its inhabitants;
    - e. facilitate adequate provisions for transportation, water, sewer, schools, parks, recreation, storm drains, and other public requirements;
    - f. prevent the overcrowding of land, the undue concentration of population, and promote environmentally friendly open space;
    - g. stabilize and conserve property values;
    - h. encourage the development of an attractive and beautiful community; and
    - i. promote the development of the City of Saratoga Springs in accordance with the Land Use Element of the General Plan.

*The amendment will permit additional use of private property, which may increase property values, while ensuring that appropriate standards are in place and that*

*such standards will be effective and supportive of the General Plan.*

4. in balancing the interest of the petitioner with the interest of the public, community interests will be better served by making the proposed change.

***Consistent.** The amendment will increase the ability for property owners to use corner lots, with limitations to ensure the increase is balanced with the protection of the community.*

## **H. Recommendation / Options:**

Staff recommends that the City Council conduct a public hearing, discuss any public input received, and choose from the options below.

### **Option A – Approval**

Staff recommends that the City Council choose to forward **approve** the amendment, as proposed or with modifications:

Motion: “Based upon the evidence and explanations received today, I move to **approve** the proposed amendment to Sections 19.05, with the Findings and Conditions below:

#### **Findings:**

1. The amendments are consistent with Section 19.17.04.1, General Plan, as outlined in Sections F and G of this report and incorporated herein by reference, by supporting the goals and policies of the General Plan.
2. The amendments are consistent with Section 19.17.04.2 as outlined in Section G of this report and incorporated herein by reference, and will not decrease nor otherwise adversely affect the health, safety, convenience, morals, or general welfare of the public.
3. The amendments are consistent with Section 19.17.04.3 as outlined in Section G of this report and incorporated herein by reference.
4. The amendments are consistent with Section 19.17.04.4 as outlined in Section G of this report, and incorporated herein by reference.

#### **Conditions:**

1. The amendments shall be edited as directed by the Council: \_\_\_\_\_
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_

### **Alternative Option B – Continuance**

Vote to **continue** the Code amendments to the next meeting, with specific feedback and direction to Staff on changes needed to render a decision.

Motion: “I move to continue the amendments to Section 19.05 of the Code to the October 7<sup>th</sup> meeting, with the following changes to the draft:

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**Alternative Option C – Denial**

Vote to **deny** the proposed Code amendments.

**Motion:** “Based upon the evidence and explanations received today, I move to **deny** the proposed amendments to Section 19.05-of the Code with the Findings below:

**Findings**

1. The amendments do not comply with Section 19.17.04(1), General Plan, as articulated by the Council: \_\_\_\_\_
2. The amendments do not comply with Section 19.17.04, sub paragraphs 2, 3, and/or 4 as articulated by the Council: \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**I. Exhibits:**

1. Section 19.05.02.10, proposed amendments (page 7)

## EXHIBIT 1

**15. Swimming Pool (private).** Private swimming pools may be allowed in any zone as an accessory use if the following requirements are met:

- h. it is an accessory use to a main building and is located within the side or rear yard thereof;
- i. it is intended and is to be used solely for the enjoyment of the occupants and guests of the principal use of the property on which it is located;
- j. it may not be located closer than five feet to any property line of the property on which it is located;
- j.k. shall not be located within any public utility easement;
- ~~k. on a corner lot where the rear lot line is coterminous with a side lot line of an adjoining lot, it shall be located not less than twenty-five feet from such lot line;~~
- l. the swimming pool, or the entire property on which it is located, shall be walled or fenced to a minimum height of six feet. Where a swimming pool is located less than thirty feet from any property line, the pool shall be enclosed within a view obstructing wall or fence not less than six feet in height. Vegetation on or near a fence or wall shall not be considered view obstructing. All gates on said fences shall be fitted with a latching device located on the interior side of the gate;
- m. where a swimming pool is completely enclosed in a building, the location requirements for accessory and main buildings shall apply. Where a swimming pool is to be located in the near vicinity of any septic tank or sewage disposal drain field, the location must be approved by the Utah County Health Department; and
- n. any pool lighting shall be installed and directed in such a manner as to not cause disturbance to neighboring residents.

**ORDINANCE NO. 14-22 (9-16-14)**

**AN ORDINANCE OF THE CITY OF SARATOGA SPRINGS, UTAH, ADOPTING AMENDMENTS TO THE SARATOGA SPRINGS LAND DEVELOPMENT CODE AND ESTABLISHING AN EFFECTIVE DATE.**

**WHEREAS**, Title 19 of the City of Saratoga Springs Code, entitled “Land Development Code” was enacted on November 9, 1999 and has been amended from time to time; and

**WHEREAS**, the City Council and Planning Commission have reviewed the Land Development Code and find that further amendments to the Code are necessary to better meet the intent and direction of the General Plan; and

**WHEREAS**, the Saratoga Springs Planning Commission has held a public hearing to receive comment on the proposed modifications and amendments as required by Chapter 9a, Title 10, Utah Code Annotated 1953, as amended; and

**WHEREAS**, the Planning Commission, after the full and careful consideration of all public comment, has forwarded a recommendation to the Saratoga Springs City Council regarding the modifications and amendments; and

**WHEREAS**, the City Council has conducted a public hearing to receive comment on the Planning Commission recommendation pursuant to Chapter 9a, Title 10, Utah Code Annotated 1953, as amended; and

**WHEREAS**, following the public hearing, and after receipt of all comment and input, and after careful consideration, the Saratoga Springs City Council has determined that it is in the best interest of the public health, safety, and welfare of Saratoga Springs citizens that the following modifications and amendments to Title 19 be adopted.

**NOW THEREFORE**, the City Council of the City of Saratoga Springs, Utah hereby ordains as follows:

**SECTION I – ENACTMENT**

The amendments attached hereto as Exhibit A, incorporated herein by this reference, are hereby enacted. Such amendments are shown as underlines and strikethroughs. The remainder of Title 19 shall remain the same.

**SECTION II – AMENDMENT OF CONFLICTING ORDINANCES**

If any ordinances, resolutions, policies, or zoning maps of the City of Saratoga Springs heretofore adopted are inconsistent herewith they are hereby amended to comply

with the provisions hereof. If they cannot be amended to comply with the provisions hereof, they are hereby repealed.

**SECTION III – EFFECTIVE DATE**

This ordinance shall take effect upon its passage by a majority vote of the Saratoga Springs City Council and following notice and publication as required by the Utah Code.

**SECTION IV – SEVERABILITY**

If any section, subsection, sentence, clause, phrase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such provision shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

**SECTION V – PUBLIC NOTICE**

The Saratoga Springs Recorder is hereby ordered, in accordance with the requirements of Utah Code §§ 10-3-710—711, to do as follows:

- a. deposit a copy of this ordinance in the office of the City Recorder; and
- b. publish notice as follows:
  - i. publish a short summary of this ordinance for at least one publication in a newspaper of general circulation in the City; or
  - ii. post a complete copy of this ordinance in three public places within the City.

**ADOPTED AND PASSED** by the City Council of the City of Saratoga Springs, Utah, this \_\_\_ day of \_\_\_\_\_, 2014.

Signed: \_\_\_\_\_  
Jim Miller, Mayor

Attest: \_\_\_\_\_  
Lori Yates, City Recorder

\_\_\_\_\_  
Date

**VOTE**

Shellie Baertsch	_____
Rebecca Call	_____
Michael McOmber	_____
Stephen Willden	_____
Bud Poduska	_____

## EXHIBIT 1

**15. Swimming Pool (private).** Private swimming pools may be allowed in any zone as an accessory use if the following requirements are met:

- h. it is an accessory use to a main building and is located within the side or rear yard thereof;
- i. it is intended and is to be used solely for the enjoyment of the occupants and guests of the principal use of the property on which it is located;
- j. it may not be located closer than five feet to any property line of the property on which it is located;
- j.k. shall not be located within any public utility easement;
- ~~k. on a corner lot where the rear lot line is coterminous with a side lot line of an adjoining lot, it shall be located not less than twenty-five feet from such lot line;~~
- l. the swimming pool, or the entire property on which it is located, shall be walled or fenced to a minimum height of six feet. Where a swimming pool is located less than thirty feet from any property line, the pool shall be enclosed within a view obstructing wall or fence not less than six feet in height. Vegetation on or near a fence or wall shall not be considered view obstructing. All gates on said fences shall be fitted with a latching device located on the interior side of the gate;
- m. where a swimming pool is completely enclosed in a building, the location requirements for accessory and main buildings shall apply. Where a swimming pool is to be located in the near vicinity of any septic tank or sewage disposal drain field, the location must be approved by the Utah County Health Department; and
- n. any pool lighting shall be installed and directed in such a manner as to not cause disturbance to neighboring residents.



**Wiltshire Estates  
Preliminary and Final Plats  
September 16, 2014  
Public Meeting**

Report Date:	September 9, 2014
Applicant/Owner:	Peter Staks / Lynn Wardley
Location:	1530 South Centennial Boulevard
Major Street Access:	Centennial Boulevard
Parcel Number(s) & Size:	59-001-0097, 58-041-0146, -0096, -0188; 18.944 acres
Parcel Zoning:	R-3
Adjacent Zoning:	R-3
Current Use of Parcel:	Undeveloped
Adjacent Uses:	Low Density Residential & Open Space (Eagle Park & Utah Lake)
Previous Meetings:	Concept Plan heard by Planning Commission on May 2, 2006 and by City Council on May 9, 2006. Preliminary Plat heard by Planning Commission on May 15, 2007 and conditionally approved by City Council on May 22, 2007 (expired). The Planning Commission reviewed the new Preliminary Plat on August 28, 2014.
Previous Approvals:	Preliminary Plat, conditionally approved by City Council on May 22, 2007 (expired); Lakeside MDA 09/17/2013
Land Use Authority:	City Council
Future Routing:	Public meeting with City Council
Author:	Scott Langford, Senior Planner

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**A. Executive Summary:**

This is a request for approval of a 35 lot, three phase, Preliminary Plat as well as Final Plat approval for all three phases. The total area of all three phases is 18.944 acres and is generally located at 1530 North Centennial Boulevard. A similar request was approved by the City Council in 2007, but due to inactivity has expired.

**Recommendation:**

**Staff recommends that the City Council conduct a public meeting, take public comment and discuss the proposed Preliminary and Final Plats, and choose from the options in Section "I" of this report.** Options include approving the Preliminary and Final Plats as recommended by staff, approval with additional conditions, denial based on noncompliance with specific findings, or a motion to continue this item to allow the applicant time to provide additional material.

**B. Background:**

In 2007 the City Council conditionally approved a similar Preliminary Plat subject to the following conditions of approval:

1. That all the requirements of the City Engineer, including those listed within the attached staff report be met;
2. That all requirements of the Fire Chief be met;
3. That a fee be paid in lieu of the remaining 0.35-acre required open space dedication as outlined in Section 19.13.090 previous to recording the final plat, and;
4. That final plat approval and construction be delayed until secondary water funding is approved.
5. That the Plat be modified so that no portion of any lot is located within the 100-year floodplain.
6. That the sensitive lands area (30% or greater slopes) be protected through an easement dedicated to the City that permits the City to regulate future improvements, and;

Due to inactivity this approval expired in 2009.

The majority of this property is also governed by the Lakeside at Saratoga Springs Master Development Agreement, which was approved by the City Council on September 17, 2013. This new agreement provides direction regarding the construction of the required shoreline trail and open space requirements.

The Planning Commission reviewed the resubmitted Preliminary Plat on August 28, 2014 and forwarded a positive recommendation to the City Council subject to specific conditions of approval (see recommended motions).

**C. Specific Request:**

The property is zoned R-3, Low Density Residential. The proposed 35 lot Preliminary Plat and associated Final Plats will facilitate single family home development, which is permitted in the R-3 zone. The overall acreage of the subdivision is 18.944 acres; however, the land development code states that any areas defined as sensitive land must be excluded when determining the density of the development (Section 19.04.13). The sensitive land is shown on the Plats as remainder parcels C & D, which total 0.805 acres. Therefore the overall acreage of land that can be counted toward calculating the density of the proposed development is 18.944 acres – 0.805 acres = 18.139 acres. The overall density of the subdivision is 1.93 dwelling units per acre.

**D. Process:**

Per section 19.12.03 of the City Code, all subdivisions must receive a Preliminary Plat approval. The development review process for subdivision approval involves a formal review of the Preliminary Plat by the Planning Commission in a public hearing, with a formal recommendation forwarded to the City Council. The City Council reviews the Preliminary Plat in a public meeting and formally approves the Preliminary Plat. Final Plats are reviewed and approved by the City Council in a public meeting. The applicant has applied for both Preliminary and Final Plats with the anticipation that the City Council will review both Preliminary and Final Plats concurrently.

The Planning Commission forwarded a positive recommendation to the City Council on August 28, 2014, subject to conditions of approval (draft minutes attached).

**E. Community Review:**

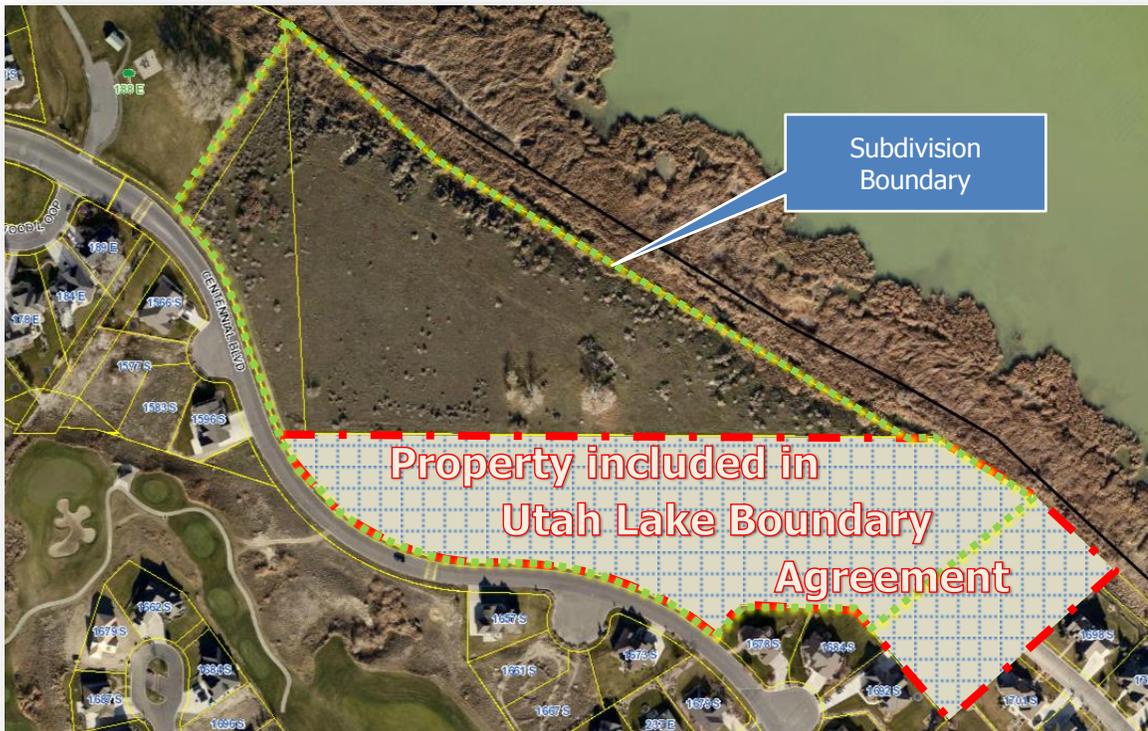
Per 19.13.04 of the City Code, this item has been noticed in *The Daily Herald*, and each residential property within 300 feet of the subject property was sent a letter at least ten calendar days prior to the Planning Commission meeting. As of the completion of this report, the City has received inquiries from one resident regarding this application. Their questions were communicated via email and the staff called her to answer her questions. These questions are

answered and attached at the end of this report. There were 4 other residents that made comment during the Planning Commission hearing. Their comments are included in the attached minutes.

**F. Review:**

The requirements of the subdivision review are found in Section 19.12.03(2) of the City Code. The plats were reviewed within the context of all these and other pertinent sections of the City Code. An in-depth review of code requirements within the context of the provided plats are found in Section "H" of this report.

In addition to City Code, it is important to know that in January 2000 the applicant and the State of Utah entered into an agreement regarding the Utah Lake boundary (attached) for a portion of the property (see exhibit below).



The Utah Lake Boundary Settlement Agreement requires the applicant to install a trail and to provide and maintain public access through their property to sovereign lands. The agreement requires the applicant to:

*"construct and maintain a public trail which will be located near the sovereign lands boundary. When the construction of the trail is completed, the sovereign land boundary will be the upper (landward) side of the trail and the legal description will be adjusted by survey if necessary."* – page 5 Agreement of Stipulation and Compromise Regarding Utah Lake Boundary

The State maintains that the applicant must still construct the trail along the east side of Lots 108 and 109 as part of this plat, similar to what was shown with the approval of Plat 16 A that was recently approved. Pursuant to what was shown on the Plat 16A approval, the applicant has shown the trail improvements east of Lots 108 and 109 (see below).



Section 19.25 of the City Code requires "all developments whose projects are adjacent to or abut Utah Lake shall provide an improved pedestrian lakeshore trail throughout the length of their project." However, on September 17, 2013 the City Council approved the Lakeside at Saratoga Springs Master Development Agreement, which allowed the current trail along Centennial Blvd. to count as part of the required trail for this Plat if the applicant could not get permission from the State of Utah to construct the trail where the current canal is on sovereign lands. If the applicant could get permission, then the trail is required to be installed. This MDA acts independently of the agreement entered into by the applicant and the State, which is why the applicant has shown the trail improvements on Lots 108 and 109.

**G. General Plan:**

The site is designated as Low Density Residential on the adopted Future Land Use Map. The General Plan states that areas designated as Low Density Residential are "designed to provide areas for residential subdivisions with an overall density of 1 to 4 units per acre. This area is to be characterized by neighborhoods with streets designed to the City's urban standards, single-family detached dwellings and open spaces." The proposed Plat provides a design that has a density of 1.93 units per acre and can be developed in a way that is in compliance with the General Plan.

**H. Code Criteria:**

Section 19.12.03 of the City Code states, "All subdivisions are subject to the provisions of Chapter 19.13, Development Review Process". The following criteria are pertinent requirements for subdivision plats listed in Sections 19.12 (Subdivision Requirements) and 19.04.13 (R-3 Requirements) of the City Code.

**Permitted or Conditional Uses: complies.** Section 19.04.13(2 & 3) lists all of the permitted and conditional uses allowed in the R-3 zone. The plat provides single family residential building lots which are supported as a permitted use in the R-3 zone.

**Minimum Lot Sizes: complies.** 19.04.13(4) states that the minimum lot size for residential lots is 10,000 square feet. The smallest lot shown on the Plat is 13,784 square feet (Lot #101)

**Setbacks and Yard Requirements: can comply.** Section 19.04.13(5) outlines the setbacks required by the R-3 zone. These requirements are:

**Front:** Not less than twenty-five feet.

**Sides:** 8/20 feet (minimum/combined)

**Rear:** Not less than twenty-five feet

**Corner:** Front 25 feet; Side abutting street 20 feet

The Plat provides details that show typical setbacks. These details need to be updated to reflect the rear setback be a minimum 25 feet, not the 15 feet shown on the details. The lot sizes are large enough that staff believes this change will not impact the placement of homes or the buildable nature of the proposed lots.

**Parking, vehicle and pedestrian circulation: complies.** Section 19.09.11 requires single-family homes to have a minimum 2 parking stalls within an enclosed garage. Driveways leading to the required garages must be a minimum 25 feet in length. Even though this requirement will be reviewed by the building department with each individual building permit application, staff believes that the proposed lots are of sufficient size to support this requirement.

This development will be built in three phases. The Preliminary Plat shows the placement of temporary turnarounds at the proper locations. Per the concerns expressed by staff and the Planning Commission, the applicant has updated the northern entrance to the subdivision to allow vehicles not able to enter the private gated community the option to turn around without having to back out into Centennial Blvd.

Residents of this private, gated community will have access to the lakeshore trail via the 30 foot wide utility easement (Parcels E & C) that runs between Lots 107, 108, and Plat 16A. The applicant does not want to provide a paved trail connection through this area because they feel it will invite non-community residents into the development. Instead, this area will be landscaped with turf grass.

**Fencing: conditionally complies.** Section 19.06.09 currently requires fencing along property lines abutting open space, parks, trails, and easement corridors. The *current* Code also states that in an effort to promote safety for citizens using these trail corridors and security for home owners, fences shall be semi-private. This code section is currently being discussed and may be amended in the near future. Staff therefore recommends as a condition of approval that the Final Plats be amended prior to recordation to reflect the fencing requirements listed in Section 19.06.09. The Planning Commission did not have an issue with the six foot tall masonry fence shown between the private lots and Centennial Blvd.; however, they recognized that the code would have to be amended in order to allow for such a design. Likewise, the majority of the Planning Commission did not want to see a fence between the private lots and the State sovereign land in Utah Lake. The code would have to be amended in order to not require a fence along the lake.

**Open Space: complies.** The Lakeside MDA states that the open space, except for the Lakeshore Trail, for this plat is satisfied by the existing 4 acre Eagle Park, which is located to the north approximately half a mile. With regard to the trail, the MDA states:

*"The Lakeshore Trail along Utah Lake through Plats 16A and 14, which is also required for Plat 16A and portions of Plat 14 (Wiltshire Estates) by the agreement between the State of Utah and Saratoga Springs Development, shall be constructed with the development of Plats 16A and 14 provided the canal, located in State of Utah lands adjacent to Plats 16A and 14, is vacated and filled-in by the State of Utah, or designee, and Developer obtains permission from the State of Utah to construct the trail in the area where the canal was located. However, if the developer cannot obtain permission from the State of Utah, this requirement may also be met by using the existing trail along Centennial Blvd. Nonetheless, this paragraph is not intended to supersede the agreement between the State of Utah and Saratoga Springs Development. In lieu of completion of the trail before plat recordation, Developer may deposit cash with the City in an amount sufficient to install the trail improvements in the canal location. If the canal is not*

*vacated prior to expiration of this Lakeside Master Development Agreement, the cash shall be returned to Developer after expiration of this Agreement provided that all Plat 14 and Plat 16A improvements have been completed and the 1-year warranty period has expired per City regulations."*

Section 19.04.13.12 requires all land with slopes 30% and greater be placed in protected open space. The plats show Lots 302 to 305 and 201 to 203 with land that have slopes 30% and greater. In order to protect these sensitive areas, these lots will have an easement recorded over the specific areas which have a 30% and greater slope. The plats currently show a note placed on these areas indicating, "Protected open space that is listed as unbuildable." In order to meet the full requirements listed in Section 19.04.13.12 of the code, engineering staff has provided additional conditions in their report (attached).

**I. Recommendation and Alternatives:**

After evaluating the required standards for subdivision plats located in an R-3 zone, staff recommends that the City Council hold a public meeting and choose one of the following motions:

**Recommended Motion:**

"Based upon the evidence and explanations received today, I move that the City Council to approve the Saratoga Springs Plat 14, Wiltshire Estates Preliminary and Final Subdivision Plats for Phases 1, 2, and 3, on property generally located at 1530 South Centennial Boulevard, with the findings and conditions below:

**Findings:**

1. Granting a Preliminary and Final Plat to allow the proposed development of 35 single family residential lots on 18.944 acres is consistent with the General Plan as explained in the findings in Section "G" of this report, which findings are incorporated herein by this reference.
2. Granting a Preliminary Plat, and subsequent Final Plats, to allow 35 single family residential lots on 18.944 acres meets or can conditionally meet all the requirements in the Land Development Code as explained in the findings in Section "H" of this report, which findings are incorporated herein by this reference.

**Conditions:**

1. That per Section 19.12.02(5) of the City Code, the Final Subdivision Plats shall remain valid for twenty-four months from the date of City Council approval. The City Council may grant extensions of time when such extensions will promote the public health, safety, and general welfare. Said extensions must be requested within twenty-four months of site plan/Subdivision approval and shall not exceed twelve months."
2. That all the terms, conditions, and obligations required of the Lakeside at Saratoga Springs Master Development Agreement be met.
3. The Final Plats shall be amended prior to recordation to show the fencing required per Section 19.06.09 of the City Code at the time of recordation.
4. The Final Plats shall be amended to show the required setbacks per Section 19.04.13 of the City Code.
5. The Final Plats shall be amended to show a protective easement over all land with 30% and greater slopes. Such easement language shall clearly prohibit any and all land disturbance and shall prohibit all structures both temporary and permanent.
6. All requirements of the City Engineer shall be met, including but not limited to those in the attached report.
7. All requirements of the Fire Chief shall be met, including but not limited to those in this report.
8. The Lakeshore Trail along Utah Lake through Plats 16A and 14, which is also required for Plat 16A and portions of Plat 14 (Wiltshire Estates) by the agreement between the State of Utah

and Saratoga Springs Development, shall be constructed with the development of Plats 16A and 14 provided the canal, located in State of Utah lands adjacent to Plats 16A and 14, is vacated and filled-in by the State of Utah, or designee, and Developer obtains permission from the State of Utah to construct the trail in the area where the canal was located. However, if the developer cannot obtain permission from the State of Utah, this requirement may also be met by using the existing trail along Centennial Blvd. Nonetheless, this paragraph is not intended to supersede the agreement between the State of Utah and Saratoga Springs Development. In lieu of completion of the trail before plat recordation, Developer may deposit cash with the City in an amount sufficient to install the trail improvements in the canal location. If the canal is not vacated prior to expiration of this Lakeside Master Development Agreement, the cash shall be returned to Developer after expiration of this Agreement provided that all Plat 14 and Plat 16A improvements have been completed and the 1-year warranty period has expired per City regulations.

9. Any other conditions as articulated by the City Council:

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**Alternative Motions:**

**Alternative Motion A**

"I move to **continue** the item to another meeting, with direction to the applicant and Staff on information and/or changes needed to render a decision, as follows:

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**Alternative Motion B**

"Based upon the evidence and explanations received today and the following findings, I move that the City Council deny Saratoga Springs Plat 14, Wiltshire Estates Preliminary and Final Subdivision Plats for Phases 1, 2, and 3, on property generally located at 1530 South Centennial Boulevard. Specifically I find that the following standards and/or code requirements have not been met:"

List Specific Code Standards and Requirements:

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**J. Exhibits:**

1. Engineering Report
2. Zoning / Location map
3. Aerial Photo
4. Plat Exhibits
5. Agreement of Stipulation and Compromise Regarding Utah Lake Boundary
6. Citizen questions
7. Planning Commission Minutes (August 28<sup>th</sup>)

**City Council  
Staff Report**

**Author:** Jeremy D. Lapin, City Engineer  
**Subject:** Saratoga Springs Development – Plat 14 – Wiltshire  
**Date:** September 16, 2014  
**Type of Item:** Final Plat Approval



**Description:**

**A. Topic:** The Applicant has submitted a Final Plat application. Staff has reviewed the submittal and provides the following recommendations.

**B. Background:**

*Applicant:* Peter Staks / Lynn Wardley  
*Request:* Final Plat Approval  
*Location:* Approx. 1530 South Centennial Blvd.  
*Acreage:* 18.944 acres - 35 lots

**C. Recommendation:** Staff recommends the approval of final plat subject to the following conditions:

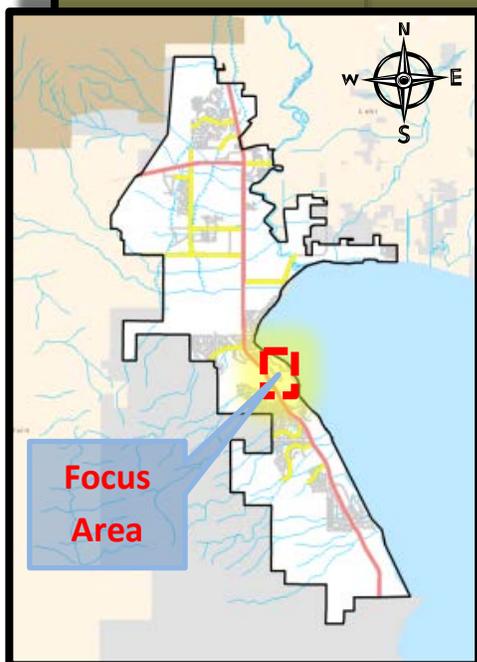
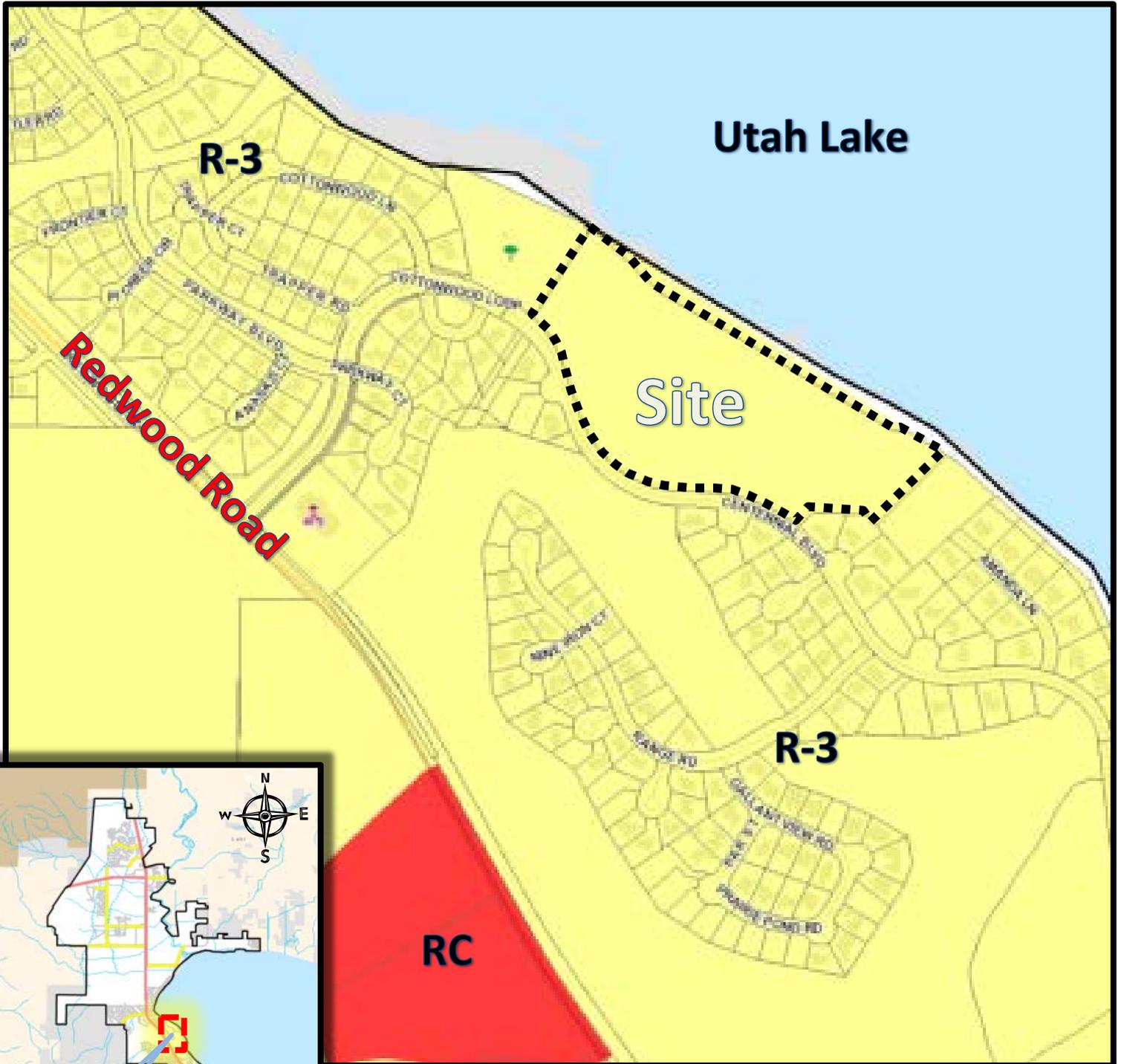
**D. Conditions:**

- A. Meet all engineering conditions and requirements in the construction of the subdivision and recording of the plats. Review and inspection fees must be paid, an NOI permit obtained, and a preconstruction meeting held prior to any construction being performed on the project.
- B. All review comments and redlines provided by the City Engineer are to be complied with and implemented into the Final plat and construction drawings.
- C. Developer must secure water rights as required by the City Engineer, City Attorney, and development code.
- D. Submit easements for all off-site utilities not located in the public right-of-way.
- E. Developer is required to ensure that there are no adverse effects to future homeowners due to the grading practices employed during construction of these plats.
- F. Project must meet the City Ordinance for Storm Water release (0.2 cfs/acre for all developed property) and all UPDES and NPDES project construction requirements.
- G. Final plats and plans shall include an Erosion Control Plan that complies with all City, UPDES and NPDES storm water pollution prevention requirements.
- H. All work to conform to the City of Saratoga Springs Standard Technical Specifications,

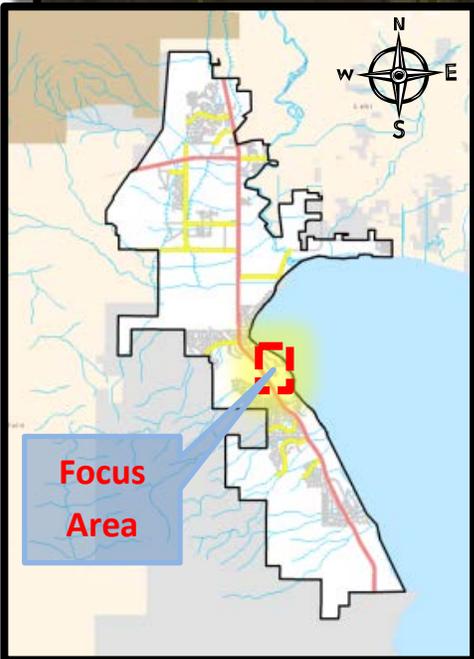
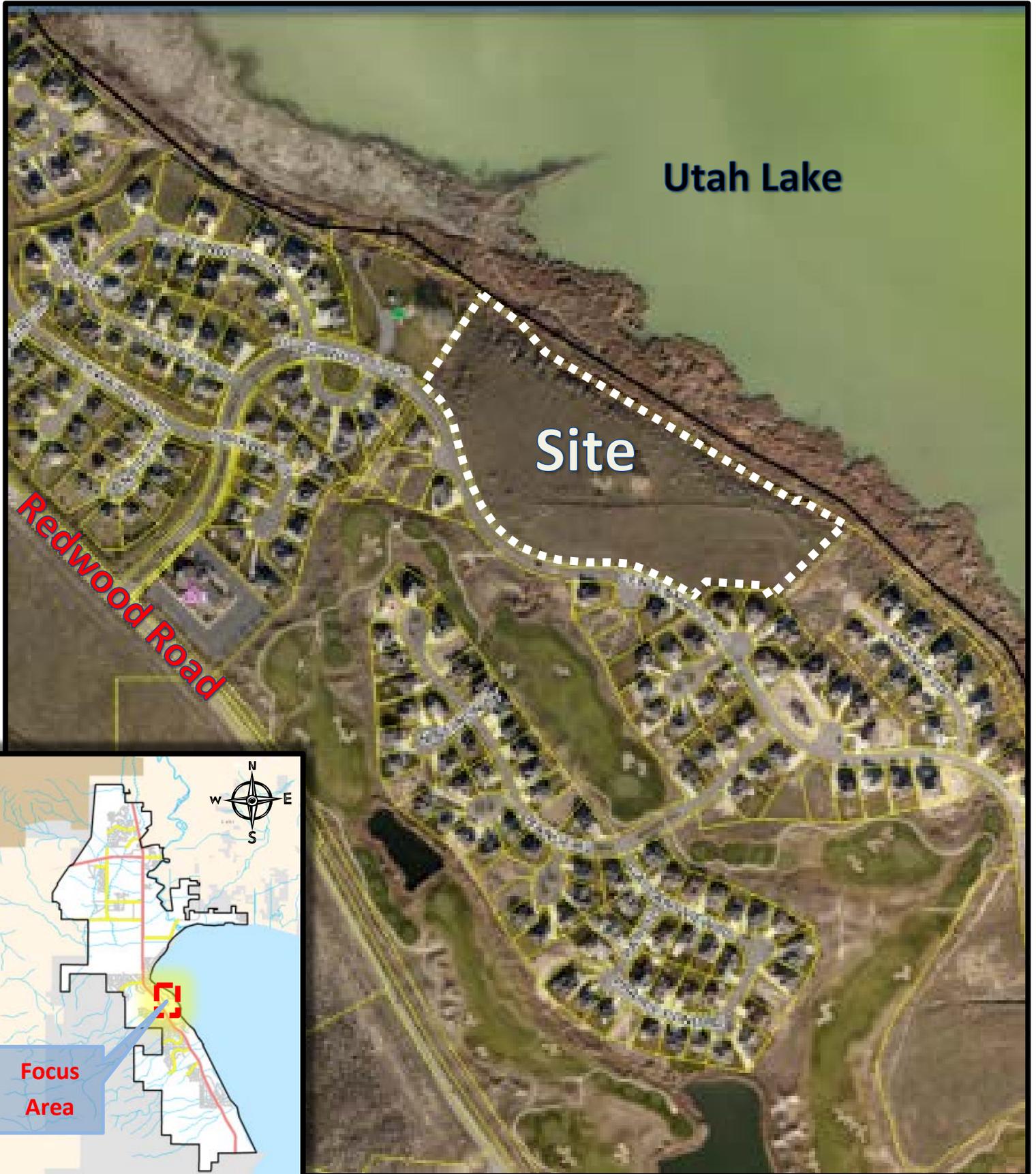
most recent edition.

- I. Project bonding must be completed as approved by the City Engineer prior to recordation of plats.
- J. Developer may be required by the Saratoga Springs Fire Chief to perform fire flow tests prior to final plat approval and prior to the commencement of the warranty period.
- K. Submittal of a Mylar and electronic version of the as-built drawings in AutoCAD format to the City Engineer is required prior acceptance of site improvements and the commencement of the warranty period.
- L. Developer shall bury and/or relocate the power lines that are within or adjacent to this plat.
- M. All roads shall be designed and constructed to City standards and shall incorporate all geotechnical recommendations as per the applicable soils report.
- N. Developer shall provide a finished grading plan for all lots and shall stabilize and/or reseed all disturbed areas.
- O. All sensitive lands shall be placed in protected open space that will provide for their preservation on the final plat. Buildable areas shall be setback a minimum of 10' from all sensitive lands to protect against future erosion hazards.
- P. Developer shall provide end of road and end of sidewalk signs per MUTCD at all applicable locations.
- Q. Developer shall provide 12' paved access roads to all manholes outside the ROW
- R. Developer shall provide and bond for the shoreline trail as per the Master Development Agreement and City regulations.
- S. Developer shall keep all storm drain and sewer mains outside the ROW, out of buildable lots and in dedicated easements.
- T. Developer shall coordinate with the Division of Forestry, Fire, and State Lands to ensure the proposed lot boundaries and shoreline trail comply with the *Agreement of Stipulation and Compromise Regarding Utah Lake Boundary*, dated January 2000.
- U. Project shall comply with all ADA standards and requirements.
- V. Developer shall provide plans for and complete all improvements within open spaces and pedestrian corridors.
- W. Developer shall provide easements for any existing or proposed City utilities outside the public ROW.
- X. All secondary water points of connection shall be metered as per City Standards.

# Zoning Map



# Aerial Photo





# WILTSHIRE ESTATES

CENTENNIAL BOULEVARD  
SARATOGA SPRINGS, UTAH



## INDEX OF DRAWINGS

C-0.0	COVER SHEET	C-4.2	PHASE 3 EROSION CONTROL PLAN
1 of 2	PRELIMINARY PLAT	C-5.0	STANDARD DETAILS
2 of 2	PRELIMINARY PLAT	C-5.1	STANDARD DETAILS
1 of 1	PHASE 1 SUBDIVISION PLAT	C-5.2	STANDARD DETAILS
1 of 1	PHASE 2 SUBDIVISION PLAT	C-5.3	STANDARD DETAILS
1 of 1	PHASE 3 SUBDIVISION PLAT	C-5.4	STANDARD DETAILS
C-0.1	EXISTING/DEMOLITION PLAN	PP-1	PLAN & PROFILE
C-0.2	PHASING PLAN	PP-2	PLAN & PROFILE
C-1.0	SITE PLAN	PP-3	PLAN & PROFILE
C-2.0	OVERALL GRADING AND DRAINAGE PLAN	PP-4	PLAN & PROFILE
C-2.1	PHASE 1 GRADING PLAN	PP-5	PLAN & PROFILE
C-2.2	PHASE 2 GRADING PLAN	L-1.0	LANDSCAPE PLAN
C-2.3	PHASE 3 GRADING PLAN	L-2.0	LANDSCAPE PLAN
C-3.0	OVERALL UTILITY PLAN	L-3.0	LANDSCAPE PLAN
C-3.1	UTILITY PLAN	L-4.0	IRRIGATION PLAN
C-3.2	UTILITY PLAN	L-5.0	IRRIGATION PLAN
C-4.0	PHASE 1 EROSION CONTROL PLAN	L-6.0	IRRIGATION PLAN
C-4.1	PHASE 2 EROSION CONTROL PLAN		

### UTILITY DISCLAIMER

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND / OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

### NOTICE TO CONTRACTOR

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS OF THE U.S. DEPARTMENT OF LABOR AND THE STATE OF UTAH DEPARTMENT OF INDUSTRIAL RELATIONS CONSTRUCTION SAFETY ORDERS. THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS AND SUBCONTRACTORS COMPLIANCE WITH SAID REGULATIONS AND ORDERS.

CONTRACTOR FURTHER AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB-SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

### NOTICE TO DEVELOPER/ CONTRACTOR

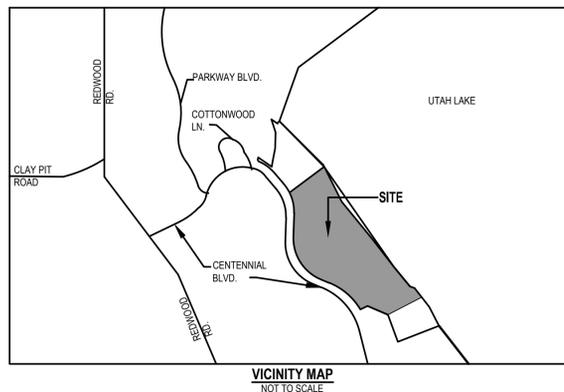
UNAPPROVED DRAWINGS REPRESENT WORK IN PROGRESS, ARE SUBJECT TO CHANGE, AND DO NOT CONSTITUTE A FINISHED ENGINEERING PRODUCT. ANY WORK UNDERTAKEN BY DEVELOPER OR CONTRACTOR BEFORE PLANS ARE APPROVED IS UNDERTAKEN AT THE SOLE RISK OF THE DEVELOPER, INCLUDING BUT NOT LIMITED TO BIDS, ESTIMATION, FINANCING, BONDING, SITE CLEARING, GRADING, INFRASTRUCTURE CONSTRUCTION, ETC.

### SARATOGA SPRINGS STANDARD NOTES

- CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND INVERT ELEVATIONS OF EXISTING MANHOLES AND OTHER UTILITIES BEFORE STAKING OR CONSTRUCTING ANY NEW SEWER LINES.
- CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND INVERT ELEVATIONS OF EXISTING STORM DRAIN STRUCTURES AND OTHER UTILITIES BEFORE STAKING OR CONSTRUCTING ANY NEW STORM DRAIN LINES.
- ALL CONSTRUCTION SHALL COMPLY TO THE STANDARD TECHNICAL SPECIFICATIONS AND DRAWINGS FOR THE CITY OF SARATOGA SPRINGS, UTAH.
- EXISTING UTILITIES HAVE BEEN NOTED TO THE BEST OF ENGINEERS KNOWLEDGE. IT IS OWNERS AND CONTRACTORS RESPONSIBILITY TO LOCATE UTILITIES IN FIELD AND NOTIFY ENGINEER AND CITY IF DISCREPANCIES EXIST.
- POST-APPROVAL ALTERATIONS TO LIGHTING PLANS OR INTENDED SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL.
- THE CITY RESERVES THE RIGHT TO CONDUCT POST-INSTALLATION INSPECTIONS TO VERIFY COMPLIANCE WITH THE CITY'S REQUIREMENTS AND APPROVED LIGHTING PLAN COMMITMENTS, AND IF DEEMED APPROPRIATE BY THE CITY, TO REQUIRE REMEDIAL ACTION AT NO EXPENSE TO THE CITY.
- ALL EXTERIOR LIGHTING SHALL MEET IESNA FULL-CUTOFF CRITERIA UNLESS OTHERWISE APPROVED BY THE CITY.

### DEVELOPER

WARDLEY DEVELOPMENT SARATOGA INC.  
5296 SOUTH COMMERCE DRIVE SUITE 202  
MURRAY, UTAH  
CONTACT: LYNN WARDLEY  
PHONE: 801-293-9674



### GENERAL NOTES

- ALL WORK SHALL CONFORM WITH SARATOGA SPRINGS CITY STANDARDS & SPECIFICATIONS.
- CALL BLUE STAKES 48 HOURS PRIOR TO DIGGING.
- BENCHMARK ELEVATION = NORTHWEST CORNER SECTION 1, TOWNSHIP 6 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN. ELEV. = 4578.79 PER NGVD 1929, PER UTAH COUNTY SURVEYORS OFFICE.
- ALL SANITARY SEWER CONSTRUCTION SHALL COMPLY WITH SARATOGA SPRINGS DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING MANHOLES AND OTHER UTILITIES BEFORE CONSTRUCTING ANY IMPROVEMENTS.
- LATERALS SHALL TIE DIRECTLY INTO SEWER MAIN WITH A "WYE" CONNECTION.

### ENGINEER/SURVEYOR:



SALT LAKE CITY  
45 West 10000 South Suite  
500  
Sandy, UT 84070  
Phone: 801.255.0529  
Fax: 801.255.4449  
WWW.ENSIGNUTAH.COM

LAYTON  
Phone: 801.547.1100  
TOOELE  
Phone: 435.843.3590  
CEDAR CITY  
Phone: 435.865.1453

WILTSHIRE ESTATES  
September 8, 2014

# WILTSHIRE ESTATES SUBDIVISION PRELIMINARY PLAT

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 36,  
TOWNSHIP 5 SOUTH, RANGE 1 WEST  
& THE NORTHWEST QUARTER OF SECTION 1,  
TOWNSHIP 6 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN  
SARATOGA SPRINGS, UTAH COUNTY, UTAH

## SURVEYOR'S CERTIFICATE

I, Patrick M. Harris, do hereby certify that I am a registered Land Surveyor, and that I hold a license, Certificate No. 286882, in accordance with the Professional Engineers and Land Surveyors Licensing Act found in Title 58, Chapter 22 of the Utah Code. I further certify that by authority of the Owners, I have made a survey of the tract of land shown on this plat and described below, have subdivided said tract of land into lots, streets, and easements, have completed a survey of the property described on this plat in accordance with Utah Code Section 17-23-17, have verified all measurements, and have placed monuments as represented on the plat. I further certify that every existing right-of-way and easement grant of record for underground facilities, as defined in Utah Code Section 54-8a-2, and for other utility facilities, is accurately described on this plat, and that this plat is true and correct. I also certify that I have filed, or will file within 90 days of recordation of this plat, a map of survey I have completed with the Utah County Surveyor.

## BOUNDARY DESCRIPTION

A parcel of land, situate in the Southwest Quarter of Section 36 and the Southeast Quarter of Section 35, Township 5 South, Range 1 West, and in the Northwest Quarter of Section 1 and the Northeast Quarter of Section 2, Township 6 South, Range 1 West, Salt Lake Base and Meridian, more particularly described as follows:

Beginning at a point of tangency on the north line of Centennial Blvd., which is located North 56°05'45" West 80.77 feet from the Southwest Corner of said Section 36, Township 5 South, Range 1 West; and running

thence North 18°40'52" West 225.45 feet along the north line of said Centennial Blvd.;  
thence Northwesterly 200.95 feet along the arc of a 400.00 foot radius curve to the left (center bears South 71°19'07" West and the chord bears North 33°04'24" West 198.94 feet with a central angle of 28°47'02" along the north line of said Centennial Blvd.;  
thence North 33°01'37" East 384.22 feet;  
thence North 02°55'49" West 34.56 feet;  
thence North 47°07'13" East 390.20 feet;  
thence South 59°13'58" East 468.34 feet;  
thence South 58°24'39" East 322.40 feet;  
thence South 60°01'02" East 238.87 feet;  
thence South 69°39'49" East 47.16 feet;  
thence South 59°40'50" East 180.64 feet to the westerly boundary line of Saratoga Springs No. 16A;  
thence South 44°56'15" West 380.88 feet along westerly boundary line of Saratoga Springs No. 16A to the northerly boundary line of Saratoga Springs No. 13;  
thence North 40°23'55" West 52.24 feet along the northerly boundary line of said Saratoga Springs No. 13;  
thence North 87°14'14" West 209.31 feet along the northerly boundary line of said Saratoga Springs No. 13;  
thence South 44°35'57" West 75.91 feet along the northerly boundary line of said Saratoga Springs No. 13;  
thence Northwesterly 393.17 feet along the arc of a 608.00 foot radius non-tangent curve to the left (center bears South 38°32'13" West and the long chord bears North 69°59'20" West 386.36 feet, through a central angle of 37°03'04" along the north line of said Centennial Blvd.;  
thence North 88°30'52" West 83.77 feet along the northerly line of said Centennial Boulevard;  
thence Northwesterly 514.35 feet along the arc of a 422.00 foot radius tangent curve to the right (center bears North 1°29'08" East and the long chord bears North 53°35'52" West 483.09 feet, through a central angle of 69°50'00" along the northerly line of said Centennial Boulevard to the point of beginning.

Parcel contains: 825,191 Square Feet or 18,944 Acres

DATE: PATRICK M. HARRIS  
P.L.S. 286882

## OWNER'S DEDICATION

Know all men by these presents that \_\_\_\_\_ the undersigned owner(s) of the above described tract of land having caused same to be subdivided into lots and streets to be hereafter known as

## WILTSHIRE ESTATES SUBDIVISION

do hereby dedicate for perpetual use of the public and/or City all parcels of land, easements and public amenities shown on this plat as intended for public and/or City use. Parcel D hereby dedicated to the State of Utah. The private street and Parcel A, B, C, E & F are hereby dedicated to Saratoga Springs Home Owners Association as common area. Owners hereby offer and conveys to all public utility agencies, their successors and assigns, a permanent easement and right-of-way in and to those areas reflected on the plat as Parcel F and private streets for the construction and maintenance of approved public utilities and appurtenances, together with the right of access thereto. The owner(s) voluntarily defend, indemnify and hold harmless the City from any damage claimed by persons within or without this subdivision to have been caused by alterations of the ground surface, vegetation, drainage, or surface or sub-surface water flows in the subdivision or by establishment or construction of the roads within this subdivision.

In witness whereof \_\_\_\_\_ have hereunto set this \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_\_\_

By: \_\_\_\_\_ By: \_\_\_\_\_  
By: \_\_\_\_\_ By: \_\_\_\_\_

## LIMITED LIABILITY COMPANY ACKNOWLEDGMENT

STATE OF UTAH  
County of \_\_\_\_\_ J.S.S.  
On the \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_\_\_ personally appeared before me, the undersigned Notary Public, in and for said County of \_\_\_\_\_ in the State of Utah, who after being duly sworn, acknowledged to me that He/She is \_\_\_\_\_ a Limited Liability Company and that He/She signed the Owner's Dedication freely and voluntarily for and in behalf of said Limited Liability Company for the purposes therein mentioned and acknowledged to me that said Corporation executed the same.

MY COMMISSION EXPIRES: \_\_\_\_\_  
NOTARY PUBLIC RESIDING IN \_\_\_\_\_ COUNTY.

## CORPORATE ACKNOWLEDGMENT

STATE OF UTAH  
COUNTY OF \_\_\_\_\_ J.S.S.  
ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. 20\_\_\_\_ PERSONALLY APPEARED BEFORE ME \_\_\_\_\_ AND, WHO BEING BY ME DULY SWORN DID SAY EACH FOR HIMSELF, THAT HE, THE SAID \_\_\_\_\_ IS THE PRESIDENT AND HE THE SAID \_\_\_\_\_ IS THE SECRETARY OF \_\_\_\_\_ CORPORATION, AND THAT THE WITHIN AND FOREGOING INSTRUMENT WAS SIGNED IN BEHALF OF SAID CORPORATION BY AUTHORITY OF A RESOLUTION OF ITS BOARD OF DIRECTORS AND SAID \_\_\_\_\_ AND \_\_\_\_\_ EACH DULY ACKNOWLEDGED TO ME THAT SAID CORPORATION EXECUTED THE SAME AND THAT THE SEAL AFFIXED IS THE SEAL OF SAID CORPORATION.

MY COMMISSION EXPIRES: \_\_\_\_\_ NOTARY PUBLIC RESIDING AT \_\_\_\_\_

## APPROVAL BY LEGISLATIVE BODY

THE CITY COUNCIL OF THE CITY OF SARATOGA SPRINGS, COUNTY OF UTAH, APPROVES THIS SUBDIVISION SUBJECT TO THE CONDITIONS AND RESTRICTIONS STATED HEREON, AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES OF THE PERPETUAL USE OF THE PUBLIC.

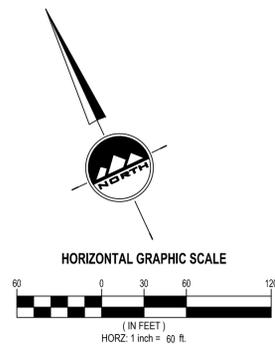
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. 20\_\_\_\_  
CITY MAYOR \_\_\_\_\_ CITY RECORDER \_\_\_\_\_  
(SEE SEAL BELOW)

## WILTSHIRE ESTATES SUBDIVISION

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 36,  
TOWNSHIP 5 SOUTH, RANGE 1 WEST  
& THE NORTHWEST QUARTER OF SECTION 1,  
TOWNSHIP 6 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN  
SARATOGA SPRINGS, UTAH COUNTY, UTAH

SURVEYOR'S SEAL	NOTARY PUBLIC SEAL	CIVIL ENGINEER'S SEAL	CLERK-RECORDER SEAL

**BENCHMARK**  
NORTH QUARTER CORNER  
SECTION 2,  
TSS, R1W  
SLB8M  
ELEVATION = 4578.79 PER NGVD 1929  
PER UTAH COUNTY SURVEYORS OFFICE



- LEGEND**
- EXISTING STREET MONUMENT
  - PROPOSED STREET MONUMENT
  - SECTION CORNER
  - SET 5/8" REBAR WITH YELLOW PLASTIC CAP, OR NAIL STAMPED "ENSIGN ENG. & LAND SURV."
  - BOUNDARY LINE
  - SECTION LINE
  - CENTER LINE
  - EASEMENT LINE
  - FLOOD ZONE
  - UNBUILDABLE AREA

DEVELOPER  
WARDLEY DEVELOPMENT SARATOGA INC.  
5296 S. COMMERCE DRIVE STE. 202  
MURRAY, UTAH 84107  
CONTACT: LYNN WARDLEY  
(801) 293-9674

BY SIGNING THIS PLAT, THE FOLLOWING UTILITY COMPANIES ARE APPROVING THE (A) BOUNDARY, COURSE, DIMENSIONS, AND INTENDED USE OF THE RIGHT-OF-WAY AND EASEMENT GRANTS OF RECORD; (B) LOCATION OF EXISTING UNDERGROUND AND UTILITY FACILITIES; (C) CONDITIONS OR RESTRICTIONS GOVERNING THE LOCATION OF THE FACILITIES WITHIN THE RIGHT-OF-WAY, AND EASEMENT GRANTS OF RECORD, AND UTILITY FACILITIES WITHIN THE SUBDIVISION. "APPROVING" SHALL HAVE THE MEANING IN UTAH CODE SECTION 19-9A-603(4)(c)(ii)

<b>SHEET 1 OF 2</b>	SALT LAKE CITY Phone: 801.547.1100 Sandy, UT 84070 Phone: 801.255.0529 Fax: 801.255.4449	LAYTON Phone: 801.547.1100 TOOELE Phone: 435.843.3590 CEDAR CITY Phone: 435.865.1453 RICHFIELD Phone: 435.590.0187	QUESTAR GAS COMPANY APPROVED THIS _____ DAY OF _____ A.D. _____	ROCKY MOUNTAIN POWER APPROVED THIS _____ DAY OF _____ A.D. _____	COMCAST CABLE TELEVISION APPROVED THIS _____ DAY OF _____ A.D. _____	QWEST APPROVED THIS _____ DAY OF _____ A.D. _____	FIRE CHIEF APPROVAL APPROVED BY THE FIRE CHIEF ON THIS _____ DAY OF _____ A.D. _____	PLANNING COMMISSION REVIEW REVIEWED BY THE PLANNING COMMISSION ON THIS _____ DAY OF _____ A.D. _____	SARATOGA SPRINGS ENGINEER APPROVAL APPROVED BY THE CITY ENGINEER ON THIS _____ DAY OF _____ A.D. _____	SARATOGA SPRINGS ATTORNEY APPROVED BY SARATOGA SPRINGS CITY ATTORNEY THIS _____ DAY OF _____ A.D. _____	LEHI CITY POST OFFICE APPROVED THIS _____ DAY OF _____ A.D. _____ BY THE POST OFFICE.
PROJECT NUMBER: U1237 MANAGER: LCM DRAWN BY: KFW CHECKED BY: PMH DATE: 9/8/14	WWW.ENSIGNUTAH.COM		QUESTAR GAS COMPANY	ROCKY MOUNTAIN POWER	COMCAST CABLE TELEVISION	QWEST	CITY FIRE CHIEF	CHAIRMAN, PLANNING COMMISSION	CITY ENGINEER	SARATOGA SPRINGS ATTORNEY	POST OFFICE



# WILTSHIRE ESTATES SUBDIVISION PRELIMINARY PLAT

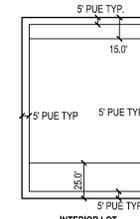
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 36,  
TOWNSHIP 5 SOUTH, RANGE 1 WEST  
& THE NORTHWEST QUARTER OF SECTION 1,  
TOWNSHIP 6 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN  
SARATOGA SPRINGS, UTAH COUNTY, UTAH

**PLAT NOTES**

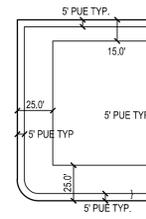
1. PLAT MUST BE RECORDED WITHIN 24 MONTHS OF FINAL PLAT APPROVAL BY CITY COUNCIL. FINAL PLAT APPROVAL WAS GRANTED ON \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_\_.
2. ALL EASEMENTS ARE 5' AS SHOWN ON THIS PLAT UNLESS NOTED OTHERWISE.
3. PARCEL D TO BE DEDICATED TO THE STATE OF UTAH PER UTAH LAKE SETTLEMENT AGREEMENT.
4. SET 24" #5 REBAR & CAP AT ALL PROPERTY CORNERS.
5. THE INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO ALL CITY RULES, ORDINANCES, REQUIREMENTS, STANDARDS, POLICIES REGARDING TO THE DEVELOPMENT OF THIS PROPERTY.
6. PRIOR TO BUILDING PERMITS BEING ISSUED, SOIL TESTING STUDIES MAY BE REQUIRED ON EACH LOT AS DETERMINED BY THE CITY OF SARATOGA SPRINGS BUILDING OFFICIAL.
7. PLAT MAY BE SUBJECT TO A MASTER DEVELOPMENT AGREEMENT, DEVELOPMENT AGREEMENT, SUBDIVISION AGREEMENT, OR SITE PLAN AGREEMENT. SEE CITY RECORDER FOR MORE INFORMATION.
8. BUILDING PERMITS WILL NOT BE ISSUED UNTIL ALL IMPROVEMENTS HAVE BEEN INSTALLED AND ACCEPTED BY THE CITY IN WRITING. ALL IMPROVEMENTS CURRENTLY MEET CITY STANDARDS. AND BONDS ARE POSTED BY THE CURRENT OWNER OF THE PROJECT PURSUANT TO CITY CODE.
9. ALL BONDS AND BOND AGREEMENTS ARE BETWEEN THE CITY, DEVELOPER/OWNER AND FINANCIAL INSTITUTION. NO OTHER PARTY, INCLUDING UNIT OR LOT OWNERS, SHALL BE DEEMED A THIRD-PARTY BENEFICIARY OR HAVE ANY RIGHTS INCLUDING THE RIGHT TO BRING ANY ACTION UNDER ANY BOND OR BOND AGREEMENT.
10. THE OWNER OF THIS SUBDIVISION AND ANY SUCCESSORS AND ASSIGNS ARE RESPONSIBLE FOR ENSURING THAT IMPACT AND CONNECTION FEES ARE PAID AND WATER RIGHTS SECURED FOR EACH INDIVIDUAL LOT. NO BUILDING PERMITS SHALL BE ISSUED FOR ANY LOT IN THIS SUBDIVISION UNTIL ALL IMPACT AND CONNECTION FEES, AT THE RATES IN EFFECT WHEN APPLYING FOR BUILDING PERMIT, ARE PAID IN FULL AND WATER RIGHTS SECURED AS SPECIFIED BY CURRENT CITY ORDINANCES AND FEE SCHEDULES.
11. NO CITY MAINTENANCE IS PROVIDED ON PRIVATE STREETS.
12. ALL COMMON AREA AND TRAIL IMPROVEMENTS LOCATED HEREIN ARE TO BE INSTALLED BY OWNER AND MAINTAINED BY HOMEOWNERS ASSOCIATION UNLESS SPECIFIES OTHERWISE ON EACH IMPROVEMENT.
13. ANY REFERENCE HEREIN TO OWNERS, DEVELOPERS, OR CONTRACTORS SHALL APPLY TO SUCCESSORS, AGENTS, AND ASSIGNS.
14. PRIVATE STREET IS HEREBY DEDICATED TO THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
15. LOTS/UNITS ARE SUBJECT TO ASSOCIATION BY LAWS, ARTICLES OF INCORPORATION AND CC&R'S.
16. ACCESSORY BUILDINGS NEED TO BE 10 FEET FROM A NEIGHBORING LOT LINE.
17. PARCELS A, B, C, E & F ARE TO BE IMPROVED BY DEVELOPER AND IS HEREBY DEDICATED TO AND MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
18. PARCEL F IS A 30' WIDE COMMON AREA, SANITARY SEWER & STORM DRAINAGE EASEMENT TO BE IMPROVED BY DEVELOPER & HEREBY DEDICATED TO AND MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
19. SHALLOW SEWER DEPTHS/ CONTRACTOR SHALL VERIFY SEWER DEPTHS BEFORE EXCAVATING FOR BASEMENT, HOME(S) WITH BASEMENT MAY NOT HAVE SEWER SERVICE AVAILABLE FOR BASEMENT.
20. SEWER EASEMENT NEEDS TO BE GRANTED TO CITY BUT STILL MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
21. FLOOD PLAIN IS ZONE X ON COMMUNITY PANEL NO. 4902500115 A DATED: JULY 17, 2002.

LINE TABLE		
LINE	BEARING	LENGTH
L1	S83°19'48"E	37.71
L2	N28°07'51"W	10.01
L3	S17°20'55"E	5.55
L4	N32°59'27"E	35.51
L5	N36°56'28"E	1.69
L6	N36°56'28"E	18.31
L7	N36°56'28"E	20.00
L8	S25°45'15"W	16.86
L9	N81°02'38"W	9.92
L10	S44°38'20"W	35.47

LINE TABLE		
LINE	BEARING	LENGTH
L11	S88°30'52"E	65.68
L12	S6°03'56"W	6.87
L13	S6°03'56"W	6.87
L14	S81°02'38"E	10.67
L15	N33°00'01"W	29.86
L16	S0°19'24"W	18.55



INTERIOR LOT



CORNER LOT

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C1	200.00	59.65	17°05'21"	N55°58'40"E	59.43
C2	200.00	27.20	7°47'36"	N60°37'32"E	27.16
C3	200.00	32.45	9°17'45"	N52°04'52"E	32.41
C4	200.16	139.45	39°55'06"	S67°24'33"W	136.65
C5	200.21	119.39	34°10'04"	N75°30'47"W	117.63
C6	199.82	181.58	52°03'55"	S73°17'42"W	175.39
C7	199.63	77.83	22°20'11"	N69°34'09"W	77.33
C8	1972.00	104.43	3°02'03"	N56°53'38"W	104.42
C9	1972.00	62.76	1°49'24"	N57°29'57"W	62.76
C10	1972.00	41.67	1°12'39"	N55°58'55"W	41.67
C11	1972.00	89.20	2°35'30"	N54°04'51"W	89.20
C12	1972.00	46.38	1°20'52"	N54°42'10"W	46.38
C13	1972.00	42.82	1°14'39"	N53°24'25"W	42.82
C14	2028.00	199.13	5°37'33"	S55°35'52"E	199.05
C15	2028.00	185.73	5°14'51"	S55°24'31"E	185.67
C16	2028.00	13.40	0°22'43"	S58°13'18"E	13.40
C17	500.00	151.91	17°24'26"	N49°42'28"W	151.32
C18	500.00	32.67	3°44'37"	N56°32'21"W	32.66
C19	500.00	119.24	13°39'49"	N47°50'08"W	118.96
C20	500.00	190.90	21°52'33"	S51°56'30"E	189.74
C21	500.00	180.94	20°44'04"	S51°22'15"E	179.96
C22	500.00	9.96	1°08'29"	S62°18'31"E	9.96

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C23	500.00	115.35	13°13'05"	S24°58'49"W	115.09
C24	500.00	33.12	3°47'41"	S16°28'25"W	33.11
C25	500.00	19.38	2°13'17"	S13°27'56"W	19.38
C26	500.00	14.21	1°37'42"	S11°32'27"W	14.21
C27	500.00	40.68	4°39'40"	S8°23'46"W	40.66
C28	500.00	120.26	13°46'50"	S24°41'56"W	119.97
C29	500.00	32.53	3°43'40"	S15°56'41"W	32.53
C30	500.00	15.43	1°46'04"	S13°11'49"W	15.43
C31	500.00	18.27	2°05'37"	S11°15'59"W	18.27
C32	500.00	36.25	4°09'14"	S8°08'33"W	36.24
C33	608.00	75.05	7°04'20"	N83°56'04"W	75.00
C34	608.00	75.05	7°04'20"	N83°56'04"W	75.00
C35	400.00	38.10	5°27'28"	N21°34'53"W	38.09
C36	1000.00	79.58	4°33'34"	N33°52'08"E	79.56
C37	1000.00	78.17	4°28'43"	N33°49'43"E	78.15
C38	1000.00	14.41	0°49'32"	N36°33'42"E	14.41
C39	1000.00	15.82	0°54'24"	N36°31'16"E	15.82
C40	537.50	38.11	4°03'43"	S8°05'48"W	38.10
C41	74.00	53.11	41°07'18"	S37°54'56"W	51.98
C42	74.00	30.86	23°53'27"	S70°25'18"W	30.63
C43	74.00	15.88	12°17'49"	S88°30'56"W	15.85
C44	62.00	29.02	26°49'19"	N71°55'30"W	28.76

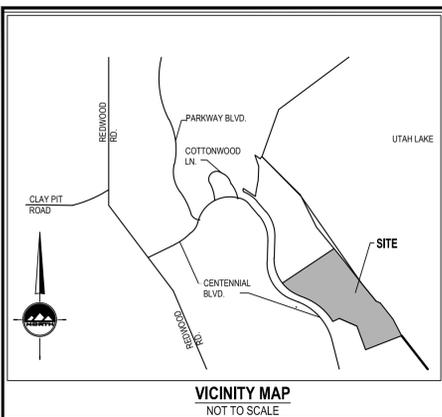
CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C45	62.00	15.54	14°21'24"	S85°28'12"E	15.49
C46	228.00	92.73	23°18'09"	N80°57'49"W	92.09
C47	228.00	43.38	10°54'06"	N63°51'42"W	43.32
C48	2000.00	55.33	1°36'37"	N67°37'06"W	55.33
C49	2000.00	100.34	2°52'28"	N55°23'18"W	100.33
C50	2000.00	40.71	1°09'58"	N53°22'05"W	40.71
C51	2000.00	59.94	1°43'02"	S53°38'36"E	59.94
C52	2000.00	100.26	2°52'21"	S55°56'17"E	100.25
C53	2000.00	36.18	1°02'11"	S57°53'33"E	36.18
C54	528.00	21.41	2°19'23"	N57°14'58"W	21.41
C55	528.00	101.53	11°01'02"	N50°34'45"W	101.37
C56	528.00	37.48	4°04'01"	N43°02'14"W	37.47
C57	472.00	66.48	8°04'10"	S45°02'18"E	66.42
C58	472.00	100.55	12°12'20"	S55°10'33"E	100.36
C59	472.00	6.06	0°44'09"	S61°38'48"E	6.06
C60	42.00	59.21	80°46'41"	N74°45'21"E	54.43
C61	55.71	56.75	58°22'11"	S63°37'37"W	54.33
C62	59.50	83.69	80°35'18"	N48°56'57"W	76.86
C63	59.50	34.26	32°59'27"	N75°02'25"E	33.79
C64	59.50	30.53	29°23'51"	N39°02'04"E	30.19
C65	59.50	38.45	37°01'25"	N72°14'42"E	37.78
C66	100.00	30.55	17°30'06"	S80°29'33"E	30.43

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C67	100.00	15.47	9°51'43"	S67°18'38"E	15.45
C68	528.00	40.24	4°22'02"	S80°41'45"E	40.24
C69	528.00	93.02	10°05'37"	S53°27'56"E	92.89
C70	528.00	68.33	7°24'54"	S44°42'40"E	68.28
C71	472.00	27.40	3°19'33"	N42°40'00"W	27.39
C72	472.00	85.16	10°20'16"	N49°29'54"W	85.05
C73	15.00	24.54	93°44'37"	S78°27'59"W	21.89
C74	472.00	55.86	6°46'52"	S28°11'55"W	55.83
C75	472.00	53.03	6°28'12"	S21°35'22"W	53.00
C76	100.00	31.50	18°02'52"	S9°20'50"W	31.37
C77	73.00	13.25	10°24'12"	N5°31'30"E	13.24
C78	462.50	3.30	0°24'33"	S10°31'20"W	3.30
C79	462.50	34.32	4°15'07"	S8°11'30"W	34.32
C80	628.00	68.84	6°16'51"	N74°33'18"W	68.81
C81	628.00	62.62	7°32'17"	N67°38'44"W	62.56
C82	628.00	90.98	8°18'03"	N59°43'34"W	90.90
C83	628.00	47.20	4°18'23"	N53°25'21"W	47.19
C84	608.00	307.05	28°56'07"	N65°55'19"W	303.80
C85	608.00	11.08	1°02'38"	N87°59'33"W	11.08
C86	402.00	92.17	13°08'10"	S81°56'46"E	91.96
C87	537.50	0.86	0°05'31"	S10°10'25"W	0.86
C88	73.00	19.79	15°32'05"	S17°59'13"W	19.73

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C89	250.00	30.33	6°57'08"	N22°16'41"E	30.32
C90	250.00	4.33	0°59'36"	N18°18'19"E	4.33
C91	528.00	103.36	11°12'56"	S23°24'59"W	103.19
C92	528.00	23.64	2°33'54"	S30°18'24"W	23.63
C93	15.00	23.46	89°37'17"	N13°13'16"W	21.14
C94	2056.00	115.72	3°13'29"	S56°25'12"E	115.70
C95	2056.00	72.58	2°01'21"	S53°47'46"E	72.57
C96	1944.00	42.21	1°14'39"	N53°24'25"W	42.21
C97	15.00	24.71	94°22'55"	S78°46'48"W	22.01
C98	1028.00	47.66	2°40'03"	N32°55'03"E	47.66
C99	402.00	34.14	1°54'11"	N35°11'50"E	34.14
C100	40.00	32.22	46°09'02"	S13°04'25"W	31.36
C101	59.50	48.78	46°58'34"	N13°29'11"E	47.43
C102	59.50	48.93	47°06'53"	N60°31'55"E	47.56
C103	59.50	68.34	65°48'22"	S63°00'28"E	64.64
C104	59.50	66.72	64°14'43"	S2°10'04"W	63.28
C105	59.50	2.94	2°50'02"	S35°32'27"W	2.94
C106	59.50	48.59	46°47'29"	S60°22'12"W	47.25
C107	40.00	33.32	47°43'26"	N58°54'13"E	32.36
C108	972.00	32.88	1°56'16"	N35°04'22"E	32.87
C109	972.00	42.66	2°31'16"	N32°50'47"E	42.66
C110	15.00	23.08	88°10'38"	N12°29'57"W	20.87

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C111	1944.00	61.87	1°49'35"	N57°29'57"W	61.87
C112	172.00	66.93	22°17'45"	N69°33'31"W	66.51
C113	62.00	67.49	62°22'04"	S68°06'34"W	64.21
C114	73.85	27.30	21°10'44"	N47°30'54"E	27.14
C115	73.85	33.44	25°56'33"	N71°04'31"E	33.15
C116	60.00	20.57	19°38'35"	S73°29'27"W	20.47
C117	400.00	1.19	0°10'15"	N18°46'01"W	1.19
C118	402.00	128.03	18°23'23"	S27°52'34"E	128.47
C119	402.00	211.24	30°06'25"	S52°51'13"E	208.81
C120	402.00	52.42	7°28'16"	S71°38'33"E	52.38
C121	422.00	514.34	69°49'59"	S53°35'52"E	483.09
C122	422.00	514.34	69°49'59"	S53°35'52"E	483.09
C123	400.00	38.03	5°26'50"	N27°02'01"W	38.01
C124	400.00	123.63	17°42'29"	N38°36'41"W	123.13
C125	369.67	104.09	16°08'00"	N40°51'06"W	103.79
C126	60.00	7.00	6°41'15"	N61°10'43"E	7.00
C127	60.00	42.38	40°28'48"	N37°35'41"E	41.51

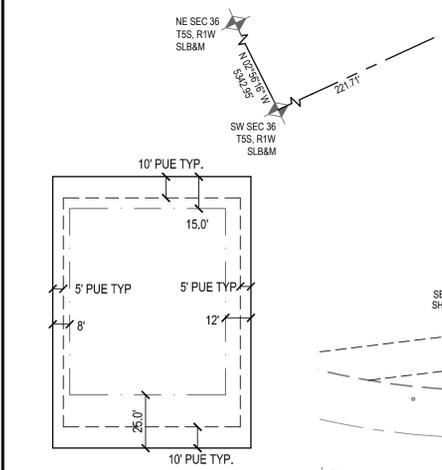
LAND USE TABLE			
LOT AREA	= 621,790 SF	14.274 AC	75.35%
PRIVATE ROADWAY	= 138,113 SF	3.171 AC	16.74%
COMMON AREA	= 65,288 SF	1.499 AC	7.91%
TOTAL AREA	= 825,191 SF	18.944 AC	100.00%
MINIMUM LOTS SIZE = 13,000 SQ. FT.			
AVERAGE LOT SIZE = 17,765 SQ. FT.			
TOTAL NUMBER OF LOTS = 35			
DENSITY = 2.			



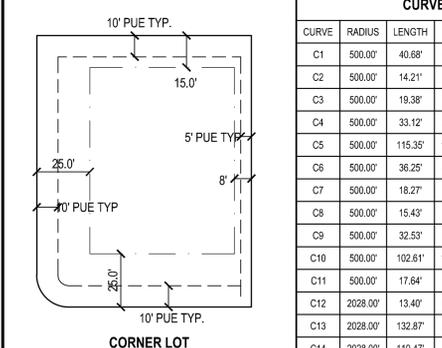
**BENCHMARK**  
 NORTH QUARTER CORNER  
 SECTION 2,  
 T6S, R1W  
 SLB&M  
 ELEVATION = 4578.79 PER NGVD 1929  
 PER UTAH COUNTY SURVEYORS OFFICE

**VICINITY MAP**  
 NOT TO SCALE

- PLAT NOTES**
- PLAT MUST BE RECORDED WITHIN 24 MONTHS OF FINAL PLAT APPROVAL BY CITY COUNCIL. FINAL PLAT APPROVAL WAS GRANTED ON \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_.
  - ALL EASEMENTS ARE AS SHOWN ON THIS PLAT UNLESS NOTED OTHERWISE.
  - PARCEL D TO BE DEDICATED TO THE STATE OF UTAH PER UTAH LAKE SETTLEMENT AGREEMENT.
  - SET A 24" #5 REBAR & CAP AT ALL PROPERTY CORNERS.
  - THE INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO ALL CITY RULES, ORDINANCES, REQUIREMENTS, STANDARDS, POLICIES REGARDING TO THE DEVELOPMENT OF THIS PROPERTY.
  - PRIOR TO BUILDING PERMITS BEING ISSUED, SOIL TESTING STUDIES MAY BE REQUIRED ON EACH LOT AS DETERMINED BY THE CITY OF SARATOGA SPRINGS BUILDING OFFICIAL.
  - PLAT MAY BE SUBJECT TO A MASTER DEVELOPMENT AGREEMENT, DEVELOPMENT AGREEMENT, SUBDIVISION AGREEMENT, OR SITE PLAN AGREEMENT. SEE CITY RECORDER FOR MORE INFORMATION.
  - BUILDING PERMITS WILL NOT BE ISSUED UNTIL ALL IMPROVEMENTS HAVE BEEN INSTALLED AND ACCEPTED BY THE CITY IN WRITING. ALL IMPROVEMENTS CURRENTLY MEET CITY STANDARDS, AND BONDS ARE POSTED BY THE CURRENT OWNER OF THE PROJECT PURSUANT TO CITY CODE.
  - ALL BONDS AND BOND AGREEMENTS ARE BETWEEN THE CITY, DEVELOPER/OWNER AND FINANCIAL INSTITUTION. NO OTHER PARTY, INCLUDING UNIT OR LOT OWNERS, SHALL BE DEEMED A THIRD-PARTY BENEFICIARY OR HAVE ANY RIGHTS INCLUDING THE RIGHT TO BRING ANY ACTION UNDER ANY BOND OR BOND AGREEMENT.
  - THE OWNER OF THIS SUBDIVISION AND ANY SUCCESSORS AND ASSIGNS ARE RESPONSIBLE FOR ENSURING THAT IMPACT AND CONNECTION FEES ARE PAID AND WATER RIGHTS SECURED FOR EACH INDIVIDUAL LOT. NO BUILDING PERMITS SHALL BE ISSUED FOR ANY LOT IN THIS SUBDIVISION UNTIL ALL IMPACT AND CONNECTION FEES, AT THE RATES IN EFFECT WHEN APPLYING FOR BUILDING PERMIT, ARE PAID IN FULL AND WATER RIGHTS SECURED AS SPECIFIED BY CURRENT CITY ORDINANCES AND FEE SCHEDULES.
  - NO CITY MAINTENANCE IS PROVIDED ON PRIVATE STREETS.
  - ALL COMMON AREA AND TRAIL IMPROVEMENTS LOCATED HEREIN ARE TO BE INSTALLED BY OWNER AND MAINTAINED BY HOMEOWNERS ASSOCIATION UNLESS SPECIFIED OTHERWISE ON EACH IMPROVEMENT.
  - ANY REFERENCE HEREIN TO OWNERS, DEVELOPERS, OR CONTRACTORS SHALL APPLY TO SUCCESSORS, AGENTS, AND ASSIGNS.
  - PRIVATE STREET IS HEREBY DEDICATED TO THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - LOTS/UNITS ARE SUBJECT TO ASSOCIATION BY LAWS, ARTICLES OF INCORPORATION AND C&C&R'S.
  - ACCESSORY BUILDINGS NEED TO BE 10 FEET FROM A NEIGHBORING LOT LINE.
  - PARCELS A, B, C & E ARE TO BE IMPROVED BY DEVELOPER AND IS HEREBY DEDICATED TO AND MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - PARCEL E IS A 30' WIDE COMMON AREA, SANITARY SEWER & STORM DRAINAGE EASEMENT TO BE IMPROVED BY DEVELOPER & HEREBY DEDICATED TO AND MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - SHALLOW SEWER DEPTHS CONTRACTOR SHALL VERIFY SEWER DEPTHS BEFORE EXCAVATING FOR BASEMENT. HOME(S) WITH BASEMENT MAY NOT HAVE SEWER SERVICE AVAILABLE FOR BASEMENT.
  - SEWER EASEMENT NEEDS TO BE GRANTED TO CITY BUT STILL MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - FLOOD PLAIN IS ZONE 5 ON COMMUNITY PANEL NO. 4902500115 A DATED: JULY 17, 2002



**INTERIOR LOT**



**CORNER LOT**

# WILTSHIRE ESTATES SUBDIVISION PHASE 1

## FINAL PLAT

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 36,  
 TOWNSHIP 5 SOUTH, RANGE 1 WEST  
 & THE NORTHWEST QUARTER OF SECTION 1,  
 TOWNSHIP 6 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN  
 SARATOGA SPRINGS, UTAH COUNTY, UTAH

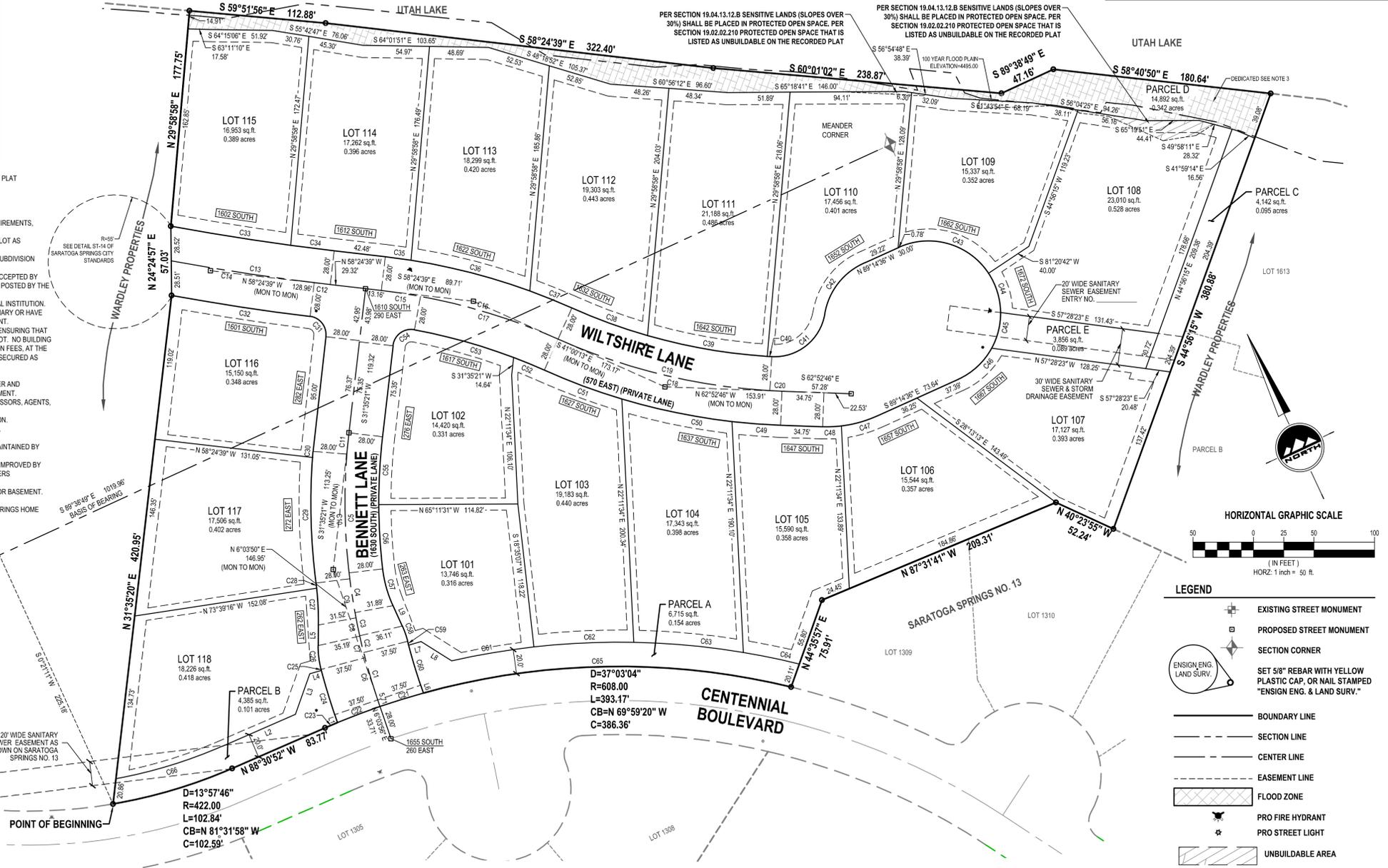
**LAND USE TABLE**

LOT AREA	= 316,637 SF	7.269 AC	76.51%
PRIVATE ROADWAY	= 67,114 SF	1.541 AC	16.22%
COMMON AREA	= 30,106 SF	0.693 AC	7.27%
TOTAL AREA	= 413,857 SF	9.503 AC	100.00%

MINIMUM LOTS SIZE = 13,000 SQ. FT.  
 AVERAGE LOT SIZE = 17,591 SQ. FT.  
 TOTAL NUMBER OF LOTS = 18  
 DENSITY = 2.5 UNITS / ACRE

**SURVEYOR'S CERTIFICATE**

I, Patrick M. Harris, do hereby certify that I am a registered Land Surveyor, and that I hold a license, Certificate No. 286882, in accordance with the Professional Engineers and Land Surveyors Licensing Act found in Title 58, Chapter 22 of the Utah Code. I further certify that by authority of the Owners, I have made a survey of the tract of land shown on this plat and described below, have subdivided said tract of land into lots, streets, and easements, have completed a survey of the property described on this plat in accordance with Utah Code Section 17-23-17, have verified all measurements, and have placed monuments as represented on the plat. I further certify that every existing right-of-way and easement grant of record for underground facilities, as defined in Utah Code Section 54-8a-2, and for other utility facilities, is accurately described on this plat, and that this plat is true and correct. I also certify that I have filed, or will file within 90 days of recordation of this plat, a map of survey I have completed with the Utah County Surveyor.



**BOUNDARY DESCRIPTION**

A parcel of land, situate in the Southwest Quarter of Section 36, Township 5 South, Range 1 West, and in the Northwest Quarter of Section 1, Township 6 South, Range 1 West, Salt Lake Base and Meridian, more particularly described as follows:

Beginning at a point on the north line of Centennial Boulevard, which is located South 89°38'49" East 221.77 feet and South 00°21'11" West 225.18 feet from the Southwest Corner of said Section 36, Township 5 South, Range 1 West, and running

thence North 31°35'20" East 420.95 feet;  
 thence North 24°24'57" East 57.03 feet;  
 thence North 29°58'58" East 177.75 feet;  
 thence North 59°51'56" East 112.88 feet;  
 thence South 58°24'39" East 322.40 feet;  
 thence South 60°01'02" East 238.87 feet;  
 thence South 89°38'49" East 47.16 feet;  
 thence South 58°40'50" East 180.64 feet to the westerly line of Saratoga Springs No. 16A;  
 thence South 44°50'51" West 300.58 feet along the westerly line of Saratoga Springs No. 16A to the northerly line of Saratoga Springs No. 13;  
 thence North 87°31'41" West 209.31 feet along the northerly line of said Saratoga Springs No. 13;  
 thence North 40°23'55" West 52.24 feet along the northerly line of said Saratoga Springs No. 13 to the northerly line of Centennial Boulevard;  
 thence Northwesterly 393.17 feet along the arc of a 608.00 foot radius curve to the left (center bears South 38°32'13" West and the chord bears North 69°59'20" West 386.36 feet with a central angle of 37°03'04") along the northerly line of said Centennial Boulevard;  
 thence North 88°30'52" West 83.77 feet along the northerly line of said Centennial Boulevard;  
 thence Northwesterly 102.84 feet along the arc of a 422.00 foot radius curve to the right (center bears North 01°29'09" East and the chord bears North 81°31'58" West 102.59 feet with a central angle of 13°57'46") along the northerly line of said Centennial Boulevard to the point of beginning.

Contains 413,857 Square Feet or 9.501 Acres and 18 Lots and 5 Parcels

DATE \_\_\_\_\_ PATRICK M. HARRIS  
 P.L.S. 286882

**OWNER'S DEDICATION**

Know all men by these presents that \_\_\_\_\_ the undersigned owner(s) of the above described tract of land having caused same to be subdivided into lots and streets to be hereinafter known as

### WILTSHIRE ESTATES SUBDIVISION PHASE 1

do hereby dedicate for perpetual use of the public and/or City all parcels of land, easements and public amenities shown on this plat as intended for public and/or City use. Parcel D hereby dedicated to the State of Utah. The private street and Parcel A, B, C & E are hereby dedicated to Saratoga Springs Home Owners Association as common area. Owners hereby also offers and conveys to all public utility agencies, their successors and assigns, a permanent easement and right-of-way in and to those areas reflected on the plat as Parcel E and private streets for the construction and maintenance of approved public utilities and appurtenances, together with the right of access thereto. The owner(s) voluntarily defend, indemnify and hold harmless the City from any damage claimed by persons within or without this subdivision to have been caused by alterations of the ground surface, vegetation, drainage, or surface or sub-surface water flows within the subdivision or by establishment or construction of the roads within this subdivision.

In witness whereof \_\_\_\_\_ have hereunto set \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_\_\_

By: \_\_\_\_\_ By: \_\_\_\_\_  
 By: \_\_\_\_\_ By: \_\_\_\_\_

**LIMITED LIABILITY COMPANY ACKNOWLEDGMENT**

STATE OF UTAH \_\_\_\_\_ J.S.S.  
 County of \_\_\_\_\_

On the \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_\_\_ personally appeared before me, the undersigned Notary Public, in and for said County of \_\_\_\_\_ in the State of Utah, who after being duly sworn, acknowledged to me that He/She is the \_\_\_\_\_ of \_\_\_\_\_ a Limited Liability Company and that He/She signed the Owner's Dedication freely and voluntarily for and in behalf of said Limited Liability Company for the purposes therein mentioned and acknowledged to me that said Corporation executed the same.

MY COMMISSION EXPIRES: \_\_\_\_\_  
 \_\_\_\_\_ RESIDING IN \_\_\_\_\_ COUNTY.

**CORPORATE ACKNOWLEDGMENT**

STATE OF UTAH \_\_\_\_\_ J.S.S.  
 COUNTY OF \_\_\_\_\_

ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. 20\_\_\_\_ PERSONALLY APPEARED BEFORE ME \_\_\_\_\_ AND, WHO BEING BY ME DULY SWORN, DID SAY EACH FOR HIMSELF, THAT HE, THE SAID \_\_\_\_\_ IS THE PRESIDENT AND HE, THE SAID \_\_\_\_\_ IS THE SECRETARY OF \_\_\_\_\_ CORPORATION, AND THAT THE WITH AND FOREGOING INSTRUMENT WAS SIGNED IN BEHALF OF SAID CORPORATION BY AUTHORITY OF ITS BOARD OF DIRECTORS AND SAID \_\_\_\_\_ AND \_\_\_\_\_ EACH DULY ACKNOWLEDGED TO ME THAT SAID CORPORATION EXECUTED THE SAME AND THAT THE SEAL AFFIXED IS THE SEAL OF SAID CORPORATION.

MY COMMISSION EXPIRES: \_\_\_\_\_ NOTARY PUBLIC RESIDING AT \_\_\_\_\_

**APPROVAL BY LEGISLATIVE BODY**

THE CITY COUNCIL OF THE CITY OF SARATOGA SPRINGS, COUNTY OF UTAH, APPROVES THIS SUBDIVISION SUBJECT TO THE CONDITIONS AND RESTRICTIONS STATED HEREON, AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES OF THE PERPETUAL USE OF THE PUBLIC.

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. 20\_\_\_\_

CITY MAYOR \_\_\_\_\_ CITY RECORDER (SEE SEAL BELOW) \_\_\_\_\_

**WILTSHIRE ESTATES SUBDIVISION PHASE 1**

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 36,  
 TOWNSHIP 5 SOUTH, RANGE 1 WEST  
 & THE NORTHWEST QUARTER OF SECTION 1,  
 TOWNSHIP 6 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN  
 SARATOGA SPRINGS, UTAH COUNTY, UTAH

SURVEYORS SEAL \_\_\_\_\_ NOTARY PUBLIC SEAL \_\_\_\_\_ CIVIL ENGINEERS SEAL \_\_\_\_\_ CLERK-RECORDER SEAL \_\_\_\_\_

**CURVE TABLE**

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C1	500.00	40.88	4°39'40"	S8°23'46"W	40.66
C2	500.00	14.21	1°37'42"	S11°32'27"W	14.21
C3	500.00	19.38	2°13'17"	S13°27'56"W	19.38
C4	500.00	33.12	3°47'41"	S16°28'25"W	33.11
C5	500.00	115.35	13°13'05"	S24°58'49"W	115.09
C6	500.00	36.25	4°08'14"	S8°08'33"W	36.24
C7	500.00	18.27	2°05'37"	S11°15'59"W	18.27
C8	500.00	15.43	1°46'04"	S13°11'49"W	15.43
C9	500.00	32.53	3°43'40"	S15°56'41"W	32.53
C10	500.00	102.61	11°45'31"	S23°41'17"W	102.43
C11	500.00	17.64	2°01'19"	S30°34'42"W	17.64
C12	2028.00	13.40	0°22'43"	S58°13'18"E	13.40
C13	2028.00	132.87	3°45'14"	S56°32'02"E	132.85
C14	2028.00	119.47	3°22'32"	S56°20'41"E	119.46

**CURVE TABLE**

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C15	500.00	32.67	3°44'37"	N56°32'21"W	32.66
C16	500.00	151.91	17°24'26"	N49°42'26"W	151.32
C17	500.00	119.24	13°39'49"	N47°50'08"W	118.96
C18	500.00	190.90	21°52'33"	S51°56'30"E	189.74
C19	500.00	180.94	20°44'04"	S51°22'15"E	179.96
C20	500.00	9.96	1°08'29"	S62°18'31"E	9.96
C21	608.00	37.68	3°33'04"	N82°09'32"W	37.68
C22	608.00	38.50	3°37'41"	N85°44'55"W	38.49
C23	608.00	11.08	1°02'38"	N87°59'33"W	11.08
C24	474.03	38.11	4°36'22"	S8°05'49"W	38.10
C25	537.50	0.86	0°05'31"	S10°10'25"W	0.86
C26	73.00	19.79	15°32'05"	S17°59'13"W	19.73
C27	250.00	30.33	6°57'08"	N22°16'41"E	30.32
C28	250.00	4.33	0°59'36"	N18°18'19"E	4.33

**CURVE TABLE**

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C29	509.67	103.37	11°37'15"	S23°24'24"W	103.19
C30	509.67	5.00	0°33'45"	S29°29'54"W	5.00
C31	15.00	23.46	89°37'17"	N13°13'18"W	21.14
C32	2056.00	115.72	3°13'29"	S56°25'12"E	115.70
C33	2000.00	100.26	2°52'21"	S55°56'17"E	100.25
C34	2000.00	36.18	1°02'11"	S57°33'33"E	36.18
C35	528.00	21.41	2°19'23"	N57°14'58"W	21.41
C36	528.00	101.53	11°01'02"	N50°34'45"W	101.37
C37	528.00	37.48	4°04'01"	N43°02'14"W	37.47
C38	472.00	66.48	8°04'10"	S45°02'18"E	66.42
C39	472.00	100.55	12°12'20"	S55°10'33"E	100.36
C40	472.00	3.78	0°27'34"	S61°30'30"E	3.78
C41	42.00	61.44	83°49'03"	N76°21'12"E	56.11
C42	55.71	56.75	58°21'53"	S63°37'37"W	54.33

**CURVE TABLE**

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C43	99.50	83.69	80°35'18"	N48°58'57"W	76.96
C44	99.50	34.26	32°59'27"	N7°50'25"E	33.79
C45	99.50	30.53	29°23'51"	N39°02'04"E	30.19
C46	99.50	38.45	37°01'25"	N72°14'42"E	37.78
C47	100.00	30.55	17°30'06"	S80°29'33"E	30.43
C48	100.00	15.47	8°51'43"	S67°18'38"E	15.45
C49	528.00	40.24	4°22'02"	S60°41'45"E	40.24
C50	528.00	93.02	10°05'37"	S53°27'56"E	92.89
C51	528.00	68.33	7°24'54"	S44°42'40"E	68.28
C52	472.00	27.40	3°19'33"	N42°40'00"W	27.39
C53	472.00	85.16	10°20'16"	N49°29'54"W	85.05
C54	15.00	24.54	93°44'37"	S78°27'39"W	21.89
C55	472.00	55.86	6°46'52"	S28°11'55"W	55.83
C56	472.00	53.03	6°26'12"	S21°35'22"W	53.00

**CURVE TABLE**

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C57	100.00	31.50	16°02'52"	S9°20'50"W	31.37
C58	73.00	13.25	10°24'12"	N5°31'30"E	13.24
C59	462.50	3.30	0°24'33"	S10°31'20"W	3.30
C60	462.50	34.32	4°15'00"	S8°11'30"W	34.32
C61	628.00	68.84	6°16'51"	N74°33'18"W	68.81
C62	628.00	82.62	7°32'17"	N67°38'44"W	82.56
C63	628.00	90.98	8°18'03"	N59°43'34"W	90.90
C64	628.00	47.20	4°18'23"	N53°25'21"W	47.19
C65	608.00	307.05	28°56'07"	N65°55'51"W	303.80
C66	402.00	92.16	13°08'09"	S81°56'47"E	91.96

**LINE TABLE**

LINE	BEARING	LENGTH
L1	S6°03'56"W	6.87
L2	S88°30'52"E	65.68
L3	S44°38'20"W	35.47
L4	N81°02'38"W	9.92
L5	S25°45'15"W	16.86
L6	S6°03'56"W	6.87
L7	S81°02'38"E	10.67

**LINE TABLE**

LINE	BEARING	LENGTH
L8	N33°00'01"W	29.86
L9	S0°19'24"W	18.55

**DEVELOPER**  
 WARDLEY DEVELOPMENT SARATOGA INC.  
 5236 S. COMMERCE DRIVE STE. 202  
 MURRAY, UTAH 84107  
 CONTACT: LYNN WARDLEY  
 (801) 293-9674

BY SIGNING THIS PLAT, THE FOLLOWING UTILITY COMPANIES ARE APPROVING THE (A) BOUNDARY, COURSE, DIMENSIONS, AND INTENDED USE OF THE RIGHT-OF-WAY AND EASEMENT GRANTS OF RECORD; (B) LOCATION OF EXISTING UNDERGROUND AND UTILITY FACILITIES; (C) CONDITIONS OR RESTRICTIONS GOVERNING THE LOCATION OF THE FACILITIES WITHIN THE RIGHT-OF-WAY, AND EASEMENT GRANTS OF RECORD; AND UTILITY FACILITIES WITHIN THE SUBDIVISION. "APPROVING" SHALL HAVE THE MEANING IN UTAH CODE SECTION 10-6A-603(4)(ii)

**SHEET 1 OF 1**

PROJECT NUMBER: U1237  
 MANAGER: LCM  
 DRAWN BY: KFW  
 CHECKED BY: PMH  
 DATE: 9/4/14

SALT LAKE CITY  
 45 W. 1000 S., Suite 500  
 Sandy, UT 84070  
 Phone: 801.255.0529  
 Fax: 801.255.4449  
 WWW.ENSIGNUTAH.COM

LAYTON  
 Phone: 801.547.1100  
 TOOELE  
 Phone: 435.843.3590  
 CEDAR CITY  
 Phone: 435.865.1453  
 RICHFIELD  
 Phone: 435.590.0187

**QUESTAR GAS COMPANY**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**ROCKY MOUNTAIN POWER**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**COMCAST CABLE TELEVISION**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**QWEST**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**FIRE CHIEF APPROVAL**

APPROVED BY THE FIRE CHIEF ON THIS DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**PLANNING COMMISSION REVIEW**

REVIEWED BY THE PLANNING COMMISSION ON THIS DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**SARATOGA SPRINGS ENGINEER APPROVAL**

APPROVED BY THE CITY ENGINEER ON THIS DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**SARATOGA SPRINGS ATTORNEY**

APPROVED BY SARATOGA SPRINGS CITY ATTORNEY THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**LEHI CITY POST OFFICE**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_ BY THE POST OFFICE.

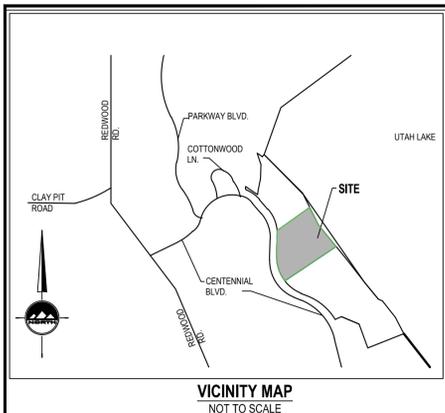
# WILTSHIRE ESTATES SUBDIVISION PHASE 2 FINAL PLAT

LOCATED IN THE SOUTHEAST QUARTER OF SECTION 35 & THE SOUTHWEST QUARTER OF SECTION 36,  
TOWNSHIP 5 SOUTH, RANGE 1 WEST  
& THE NORTHWEST QUARTER OF SECTION 1 & THE NORTHEAST QUARTER OF SECTION 2,  
TOWNSHIP 6 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN  
SARATOGA SPRINGS, UTAH COUNTY, UTAH

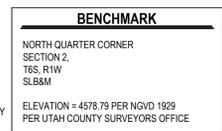
PER SECTION 19.04.13.12.B SENSITIVE LANDS (SLOPES OVER 30%) SHALL BE PLACED IN PROTECTED OPEN SPACE. PER SECTION 19.02.02.210 PROTECTED OPEN SPACE THAT IS LISTED AS UNBUILDABLE ON THE RECORDED PLAT

100 YEAR FLOOD PLAIN ELEVATION=4495.00 DEDICATED TO STATE OF UTAH SEE NOTE 3

PARCEL B 3,778 sq. ft. 0.087 acres



- PLAT NOTES**
- PLAT MUST BE RECORDED WITHIN 24 MONTHS OF FINAL PLAT APPROVAL BY CITY COUNCIL. FINAL PLAT APPROVAL WAS GRANTED ON \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_.
  - ALL EASEMENTS ARE 5' AS SHOWN ON THIS PLAT UNLESS NOTED OTHERWISE.
  - PARCEL B TO BE DEDICATED TO THE STATE OF UTAH PER UTAH LAKE SETTLEMENT AGREEMENT.
  - SET A 2" #5 REBAR & CAP AT ALL PROPERTY CORNERS.
  - THE INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO ALL CITY RULES, ORDINANCES, REQUIREMENTS, STANDARDS, POLICIES REGARDING TO THE DEVELOPMENT OF THIS PROPERTY.
  - PRIOR TO BUILDING PERMITS BEING ISSUED, SOIL TESTING STUDIES MAY BE REQUIRED ON EACH LOT AS DETERMINED BY THE CITY OF SARATOGA SPRINGS BUILDING OFFICIAL.
  - PLAT MAY BE SUBJECT TO A MASTER DEVELOPMENT AGREEMENT, DEVELOPMENT AGREEMENT, SUBDIVISION AGREEMENT, OR SITE PLAN AGREEMENT. SEE CITY RECORDER FOR MORE INFORMATION.
  - BUILDING PERMITS WILL NOT BE ISSUED UNTIL ALL IMPROVEMENTS HAVE BEEN INSTALLED AND ACCEPTED BY THE CITY IN WRITING. ALL IMPROVEMENTS CURRENTLY MEET CITY STANDARDS. AND BONDS ARE POSTED BY THE CURRENT OWNER OF THE PROJECT PURSUANT TO CITY CODE.
  - ALL BONDS AND BOND AGREEMENTS ARE BETWEEN THE CITY, DEVELOPER/OWNER AND FINANCIAL INSTITUTION. NO OTHER PARTY, INCLUDING UNIT OR LOT OWNERS, SHALL BE DEEMED A THIRD-PARTY BENEFICIARY OR HAVE ANY RIGHTS INCLUDING THE RIGHT TO BRING ANY ACTION UNDER ANY BOND OR BOND AGREEMENT.
  - THE OWNER OF THIS SUBDIVISION AND ITS SUCCESSORS AND ASSIGNS ARE RESPONSIBLE FOR ENSURING THAT IMPACT AND CONNECTION FEES ARE PAID AND WATER RIGHTS SECURED FOR EACH INDIVIDUAL LOT. NO BUILDING PERMITS SHALL BE ISSUED FOR ANY LOT IN THIS SUBDIVISION UNTIL ALL IMPACT AND CONNECTION FEES, AT THE RATES IN EFFECT WHEN APPLYING FOR BUILDING PERMIT, ARE PAID IN FULL AND WATER RIGHTS SECURED AS SPECIFIED BY CURRENT CITY ORDINANCES AND FEE SCHEDULES.
  - NO CITY MAINTENANCE IS PROVIDED ON PRIVATE STREETS.
  - ALL COMMON AREA AND TRAIL IMPROVEMENTS LOCATED HEREIN ARE TO BE INSTALLED BY OWNER AND MAINTAINED BY HOMEOWNERS ASSOCIATION UNLESS SPECIFIED OTHERWISE ON EACH IMPROVEMENT.
  - ANY REFERENCE HEREIN TO OWNERS, DEVELOPERS, OR CONTRACTORS SHALL APPLY TO SUCCESSORS, AGENTS, AND ASSIGNS.
  - PRIVATE STREET IS HEREBY DEDICATED TO THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - LOTS/UNITS ARE SUBJECT TO ASSOCIATION BY LAWS, ARTICLES OF INCORPORATION AND CC&RS.
  - ACCESSORY BUILDINGS NEED TO BE 10 FEET FROM A NEIGHBORING LOT LINE.
  - PARCELS A & B TO BE IMPROVED BY DEVELOPER AND IS HEREBY DEDICATED TO AND MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - SHALLOW SEWER DEPTHS! CONTRACTOR SHALL VERIFY SEWER DEPTHS BEFORE EXCAVATING FOR BASEMENT. HOME(S) WITH BASEMENT MAY NOT HAVE SEWER SERVICE AVAILABLE FOR BASEMENT.
  - SEWER EASEMENT NEEDS TO BE GRANTED TO CITY BUT STILL MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - FLOOD PLAIN IS ZONE X ON COMMUNITY PANEL NO. 4902500115 A DATED: JULY 17, 2002

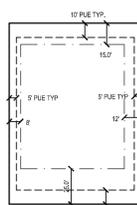


**CURVE TABLE**

CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C1	1972.00'	104.43'	3°02'03"	N56°53'38"W	104.42'
C2	1972.00'	62.76'	1°49'24"	N57°29'57"W	62.76'
C3	1972.00'	41.67'	1°12'39"	N55°58'55"W	41.67'
C4	1972.00'	89.20'	2°35'30"	N54°04'51"W	89.20'
C5	1972.00'	46.38'	1°20'52"	N54°42'10"W	46.38'
C6	1972.00'	42.82'	1°14'39"	N53°24'25"W	42.82'
C7	2028.00'	76.29'	2°09'20"	S53°51'46"E	76.29'
C8	1000.00'	79.58'	4°33'34"	N33°52'08"E	79.56'
C9	1000.00'	78.17'	4°28'43"	N33°49'43"E	78.15'
C10	1000.00'	14.41'	0°49'32"	N36°33'42"E	14.41'
C11	1000.00'	15.82'	0°54'24"	N36°31'16"E	15.82'
C12	2000.00'	59.94'	1°43'02"	S53°38'36"E	59.94'
C13	2000.00'	40.71'	1°09'58"	N53°22'05"W	40.71'
C14	2000.00'	100.34'	2°52'28"	N55°23'18"W	100.33'
C15	2000.00'	55.33'	1°35'07"	N57°37'06"W	55.33'
C16	2056.00'	72.58'	2°01'21"	S53°47'46"E	72.57'
C17	1944.00'	42.21'	1°14'39"	N53°24'25"W	42.21'
C18	15.00'	24.71'	94°22'55"	S78°46'48"W	22.01'
C19	1028.00'	47.66'	2°40'01"	N32°55'03"E	47.66'
C20	1028.00'	34.14'	1°54'11"	N35°11'50"E	34.14'
C21	40.00'	32.22'	46°09'02"	S13°04'25"W	31.36'
C22	59.50'	48.78'	46°58'34"	N13°29'11"E	47.43'
C23	59.50'	48.93'	47°06'53"	N60°31'55"E	47.56'
C24	59.50'	68.34'	65°48'22"	S63°00'28"E	64.64'
C25	59.50'	66.72'	64°14'43"	S2°01'04"W	63.28'
C26	59.50'	2.94'	2°50'02"	S35°33'27"W	2.94'
C27	59.50'	48.59'	46°47'29"	S60°22'12"W	47.25'
C28	40.00'	33.32'	47°43'26"	N59°54'13"E	32.36'
C29	972.00'	32.88'	1°56'16"	N35°04'22"E	32.87'
C30	972.00'	42.66'	2°31'31"	N32°50'47"E	42.66'
C31	15.00'	23.08'	88°10'36"	N12°29'57"W	20.87'
C32	1944.00'	61.87'	1°49'24"	N57°29'57"W	61.87'
C33	402.00'	129.03'	18°23'23"	S27°52'34"E	128.47'
C34	402.00'	216.35'	30°50'10"	S52°29'20"E	213.75'
C35	402.00'	52.42'	7°28'16"	S71°38'33"E	52.38'

**LINE TABLE**

LINE	BEARING	LENGTH
L1	N36°58'28"E	1.69'
L2	N36°58'28"E	18.31'
L3	N36°58'28"E	20.00'



**DEVELOPER**  
WARDLEY DEVELOPMENT SARATOGA INC.  
5296 S. COMMERCE DRIVE STE. 202  
MURRAY, UTAH 84107  
CONTACT: LYNN WARDLEY  
(801) 293-9674

**QUESTAR GAS COMPANY**  
APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**ROCKY MOUNTAIN POWER**  
APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**COMCAST CABLE TELEVISION**  
APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**QWEST**  
APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**FIRE CHIEF APPROVAL**  
APPROVED BY THE FIRE CHIEF ON THIS DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**PLANNING COMMISSION REVIEW**  
REVIEWED BY THE PLANNING COMMISSION ON THIS DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**SARATOGA SPRINGS ENGINEER APPROVAL**  
APPROVED BY THE CITY ENGINEER ON THIS DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**SARATOGA SPRINGS ATTORNEY**  
APPROVED BY SARATOGA SPRINGS CITY ATTORNEY THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**LEHI CITY POST OFFICE**  
APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_ BY THE POST OFFICE.

**SHEET 1 OF 1**  
PROJECT NUMBER: U1237  
MANAGER: LCM  
DRAWN BY: KFW  
CHECKED BY: PMH  
DATE: 9/4/14



SALT LAKE CITY  
45 W. 1000 S., Suite 500  
Sandy, UT 84070  
Phone: 801.255.0529  
Fax: 801.255.4449  
WWW.ENSIGNUTAH.COM

LAYTON  
Phone: 801.547.1100  
TOOELE  
Phone: 435.843.3590  
CEDAR CITY  
Phone: 435.865.1453  
RICHFIELD  
Phone: 435.590.0187

QUESTAR GAS COMPANY

ROCKY MOUNTAIN POWER

COMCAST CABLE TELEVISION

QWEST

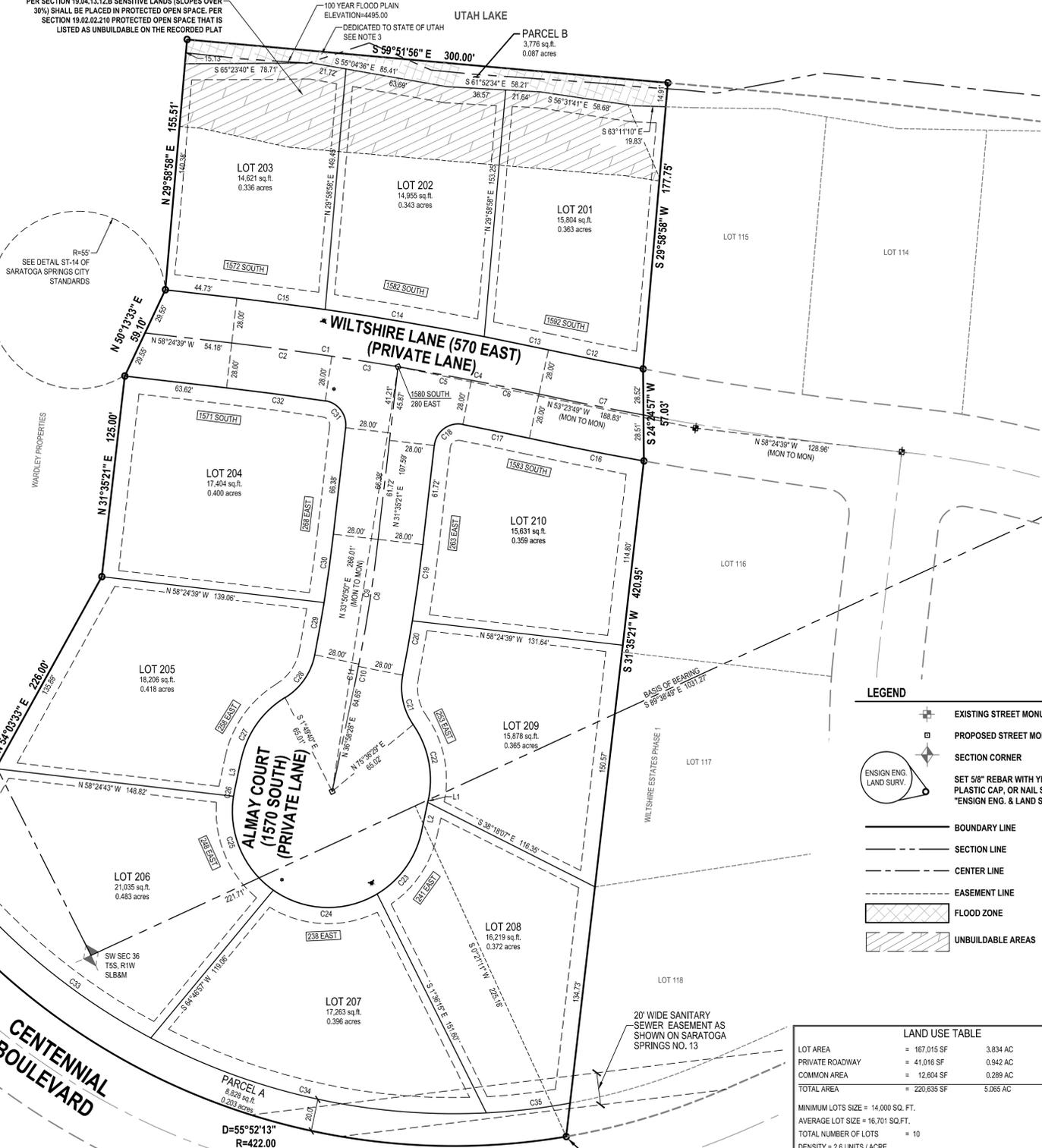
FIRE CHIEF APPROVAL

PLANNING COMMISSION REVIEW

SARATOGA SPRINGS ENGINEER APPROVAL

SARATOGA SPRINGS ATTORNEY

LEHI CITY POST OFFICE



**LAND USE TABLE**

LOT AREA	= 167,015 SF	3.834 AC	75.70%
PRIVATE ROADWAY	= 41,016 SF	0.942 AC	18.59%
COMMON AREA	= 12,604 SF	0.289 AC	5.71%
TOTAL AREA	= 220,635 SF	5.065 AC	100.00%

MINIMUM LOTS SIZE = 14,000 SQ. FT.  
AVERAGE LOT SIZE = 16,701 SQ. FT.  
TOTAL NUMBER OF LOTS = 10  
DENSITY = 2.6 UNITS / ACRE

BY SIGNING THIS PLAT, THE FOLLOWING UTILITY COMPANIES ARE APPROVING THE: (A) BOUNDARY, COURSE, DIMENSIONS, AND INTENDED USE OF THE RIGHT-OF-WAY AND EASEMENT GRANTS OF RECORD; (B) LOCATION OF EXISTING UNDERGROUND AND UTILITY FACILITIES; (C) CONDITIONS OR RESTRICTIONS GOVERNING THE LOCATION OF THE FACILITIES WITHIN THE RIGHT-OF-WAY, AND EASEMENT GRANTS OF RECORD, AND UTILITY FACILITIES WITHIN THE SUBDIVISION. "APPROVING" SHALL HAVE THE MEANING IN UTAH CODE SECTION 10-9A-603(4)(G)

**SURVEYOR'S CERTIFICATE**

I, Patrick M. Harris, do hereby certify that I am a registered Land Surveyor, and that I hold a license, Certificate No. 286882, in accordance with the Professional Engineers and Land Surveyors Licensing Act found in Title 58, Chapter 22 of the Utah Code. I further certify that by authority of the Owners, I have made a survey of the tract of land shown on this plat and described below, have subdivided said tract of land into lots, streets, and easements, have completed a survey of the property described on this plat in accordance with Utah Code Section 17-23-17, have verified all measurements, and have placed monuments as represented on the plat. I further certify that every existing right-of-way and easement grant of record for underground facilities, as defined in Utah Code Section 54-8a-2, and for other utility facilities, is accurately described on this plat, and that this plat is true and correct. I also certify that I have filed, or will file within 90 days of recordation of this plat, a map of survey I have completed with the Utah County Surveyor.

**BOUNDARY DESCRIPTION**

A parcel of land, situate in the Southwest Quarter of Section 36 and the Southeast Quarter of Section 35, Township 5 South, Range 1 West, and in the Northwest Quarter of Section 1 and the Northeast Quarter of Section 2, Township 6 South, Range 1 West, Salt Lake Base and Meridian, more particularly described as follows:

Beginning at a point on the north line of Centennial Boulevard, which is located South 89°38'49" East 221.71 feet and South 00°21'11" West 225.18 feet from the Southwest Corner of said Section 36, Township 5 South, Range 1 West, and running

thence Northwesterly 411.50 feet along the arc of a 422.00 foot radius curve to the right (center bears North 15°26'55" East and the chord bears North 46°36'59" West 395.39 feet with a central angle of 55°52'13") along the northerly line of said Centennial Boulevard;

thence North 19°40'52" West 33.64 feet along the northerly line of said Centennial Boulevard;

thence North 54°03'33" East 226.00 feet;

thence North 31°35'21" East 125.00 feet;

thence North 50°13'33" East 59.10 feet;

thence North 29°58'58" East 155.51 feet;

thence South 59°51'59" East 300.00 feet;

thence South 29°58'58" West 177.75 feet to the Northwesterly Boundary Line of Wiltshire Estates Phase 1 Subdivision;

thence South 24°24'57" West 57.03 feet along the Northwesterly Boundary Line of said Wiltshire Estates Phase 1 Subdivision;

thence South 31°35'21" West 420.95 feet along the Northwesterly Boundary Line of said Wiltshire Estates Phase 1 Subdivision to the point of beginning.

Contains 220,635 Square Feet or 5.065 Acres and 10 Lots and 2 Parcels

**OWNER'S DEDICATION**

Know all men by these presents that \_\_\_\_\_ the undersigned owner(s) of the above described tract of land having caused same to be subdivided into lots and streets to be hereafter known as

**WILTSHIRE ESTATES SUBDIVISION PHASE 2**

do hereby dedicate for perpetual use of the public and/or City all parcels of land, easements and public amenities shown on this plat as intended for public and/or City use. Parcel B hereby dedicated to the State of Utah. The private street and Parcel A are hereby dedicated to Saratoga Springs Home Owners Association as common area. Owners hereby also offers and conveys to all public utility agencies, their successors and assigns, a permanent easement and right-of-way in and to those areas reflected on the plat as private streets for the construction and maintenance of approved public utilities and appurtenances, together with the right of access thereto. The owner(s) voluntarily defend, indemnify and hold harmless the City from any damage claimed by persons within or without this subdivision to have been caused by alterations of the ground surface, vegetation, drainage, or surface or sub-surface water flows with in the subdivision or by establishment or construction of the roads within this subdivision.

In witness whereof \_\_\_\_\_ have hereunto set \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_\_\_

By: \_\_\_\_\_ By: \_\_\_\_\_  
By: \_\_\_\_\_ By: \_\_\_\_\_

**LIMITED LIABILITY COMPANY ACKNOWLEDGMENT**

STATE OF UTAH \_\_\_\_\_ ) S.S.  
County of \_\_\_\_\_ )

On the \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_\_\_ personally appeared before me, the undersigned Notary Public, in and for said County of \_\_\_\_\_ in the State of Utah, who after being duly sworn, acknowledged to me that He/She is the \_\_\_\_\_ a Limited Liability Company and that He/She signed the Owner's Dedication freely and voluntarily for and in behalf of said Limited Liability Company for the purposes therein mentioned and acknowledged to me that said Corporation executed the same.

MY COMMISSION EXPIRES: \_\_\_\_\_ NOTARY PUBLIC RESIDING AT \_\_\_\_\_ COUNTY.

**CORPORATE ACKNOWLEDGMENT**

STATE OF UTAH \_\_\_\_\_ ) S.S.  
COUNTY OF \_\_\_\_\_ )

ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. 20\_\_\_\_ PERSONALLY APPEARED BEFORE ME \_\_\_\_\_ AND, WHO BEING BY ME DULY SWORN DID SAY EACH FOR HIMSELF, THAT HE, HE SAID \_\_\_\_\_ IS THE PRESIDENT AND HE THE SAID \_\_\_\_\_ IS THE SECRETARY OF \_\_\_\_\_ CORPORATION, AND THAT THE WITHIN AND FOREGOING INSTRUMENT WAS SIGNED IN BEHALF OF SAID CORPORATION BY AUTHORITY OF ITS BOARD OF DIRECTORS AND SAID \_\_\_\_\_ AND \_\_\_\_\_ EACH DULY ACKNOWLEDGED TO ME THAT SAID CORPORATION EXECUTED THE SAME AND THAT THE SEAL AFFIXED IS THE SEAL OF SAID CORPORATION.

MY COMMISSION EXPIRES: \_\_\_\_\_ NOTARY PUBLIC RESIDING AT \_\_\_\_\_

**APPROVAL BY LEGISLATIVE BODY**

THE CITY COUNCIL OF THE CITY OF SARATOGA SPRINGS, COUNTY OF UTAH, APPROVES THIS SUBDIVISION SUBJECT TO THE CONDITIONS AND RESTRICTIONS STATED HEREON, AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES OF THE PERPETUAL USE OF THE PUBLIC.

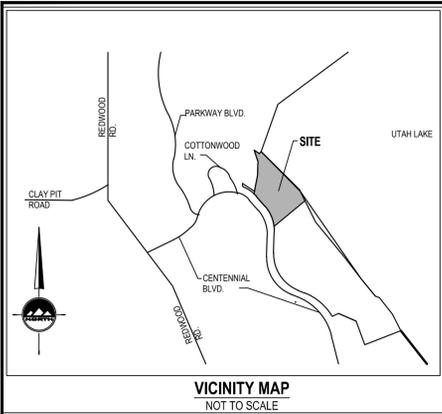
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. 20\_\_\_\_

CITY MAYOR \_\_\_\_\_ ATTEST: \_\_\_\_\_ CITY RECORDER (SEE SEAL BELOW)

**WILTSHIRE ESTATES SUBDIVISION PHASE 2**

LOCATED IN THE SOUTHEAST QUARTER OF SECTION 35 & THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 5 SOUTH, RANGE 1 WEST, & THE NORTHWEST QUARTER OF SECTION 1 & THE NORTHEAST QUARTER OF SECTION 2, TOWNSHIP 6 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN SARATOGA SPRINGS, UTAH COUNTY, UTAH

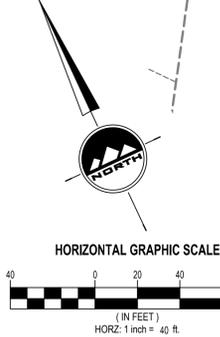
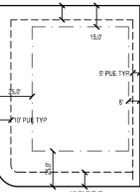
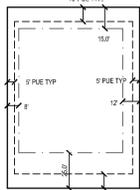
SURVEYOR'S SEAL NOTARY PUBLIC SEAL CIVIL ENGINEER'S SEAL CLERK-RECORDER SEAL



BENCHMARK	
NORTH QUARTER CORNER SECTION 2, T6S, R1W SLB8M	
ELEVATION = 4578.79 PER NGVD 1929 PER UTAH COUNTY SURVEYORS OFFICE	

- PLAT NOTES**
- PLAT MUST BE RECORDED WITHIN 24 MONTHS OF FINAL PLAT APPROVAL BY CITY COUNCIL. FINAL PLAT APPROVAL WAS GRANTED ON DAY OF 20.
  - ALL EASEMENTS ARE 5' AS SHOWN ON THIS PLAT UNLESS NOTED OTHERWISE.
  - PARCEL C TO BE DEDICATED TO THE STATE OF UTAH PER UTAH LAKE SETTLEMENT AGREEMENT.
  - SET A 24" #5 REBAR & CAP AT ALL PROPERTY CORNERS.
  - THE INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO ALL CITY RULES, ORDINANCES, REQUIREMENTS, STANDARDS, POLICIES REGARDING TO THE DEVELOPMENT OF THIS PROPERTY.
  - PRIOR TO BUILDING PERMITS BEING ISSUED, SOIL TESTING STUDIES MAY BE REQUIRED ON EACH LOT AS DETERMINED BY THE CITY OF SARATOGA SPRINGS BUILDING OFFICIAL.
  - PLAT MAY BE SUBJECT TO A MASTER DEVELOPMENT AGREEMENT, DEVELOPMENT AGREEMENT, SUBDIVISION AGREEMENT, OR SITE PLAN AGREEMENT. SEE CITY RECORDER FOR MORE INFORMATION.
  - BUILDING PERMITS WILL NOT BE ISSUED UNTIL ALL IMPROVEMENTS HAVE BEEN INSTALLED AND ACCEPTED BY THE CITY IN WRITING. ALL IMPROVEMENTS CURRENTLY MEET CITY STANDARDS. AND BONDS ARE POSTED BY THE CURRENT OWNER OF THE PROJECT PURSUANT TO CITY CODE.
  - ALL BONDS AND BOND AGREEMENTS ARE BETWEEN THE CITY, DEVELOPER/OWNER AND FINANCIAL INSTITUTION. NO OTHER PARTY, INCLUDING UNIT OR LOT OWNERS, SHALL BE DEEMED A THIRD-PARTY BENEFICIARY OR HAVE ANY RIGHTS INCLUDING THE RIGHT TO BRING ANY ACTION UNDER ANY BOND OR BOND AGREEMENT.
  - THE OWNER OF THIS SUBDIVISION AND ANY SUCCESSORS AND ASSIGNS ARE RESPONSIBLE FOR ENSURING THAT IMPACT AND CONNECTION FEES ARE PAID AND WATER RIGHTS SECURED FOR EACH INDIVIDUAL LOT. NO BUILDING PERMITS SHALL BE ISSUED FOR ANY LOT IN THIS SUBDIVISION UNTIL ALL IMPACT AND CONNECTION FEES, AT THE RATES IN EFFECT WHEN APPLYING FOR BUILDING PERMIT, ARE PAID IN FULL AND WATER RIGHTS SECURED AS SPECIFIED BY CURRENT CITY ORDINANCES AND FEE SCHEDULES.
  - NO CITY MAINTENANCE IS PROVIDED ON PRIVATE STREETS.
  - ALL COMMON AREA AND TRAIL IMPROVEMENTS LOCATED HEREIN ARE TO BE INSTALLED BY OWNER AND MAINTAINED BY HOMEOWNERS ASSOCIATION UNLESS SPECIFIED OTHERWISE ON EACH IMPROVEMENT.
  - ANY REFERENCE HEREIN TO OWNERS, DEVELOPERS, OR CONTRACTORS SHALL APPLY TO SUCCESSORS, AGENTS, AND ASSIGNS.
  - PRIVATE STREET IS HEREBY DEDICATED TO THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - LOTS/UNITS ARE SUBJECT TO ASSOCIATION BY LAWS, ARTICLES OF INCORPORATION AND C&C'S.
  - ACCESSORY BUILDINGS NEED TO BE 10 FEET FROM A NEIGHBORING LOT LINE.
  - PARCELS A & B ARE TO BE IMPROVED BY DEVELOPER AND IS HEREBY DEDICATED TO AND MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - SHALLOW SEWER DEPTHS/ CONTRACTOR SHALL VERIFY SEWER DEPTHS BEFORE EXCAVATING FOR BASEMENT. HOME(S) WITH BASEMENT MAY NOT HAVE SEWER SERVICE AVAILABLE FOR BASEMENT.
  - SEWER EASEMENT NEEDS TO BE GRANTED TO CITY BUT STILL MAINTAINED BY THE SARATOGA SPRINGS HOME OWNERS ASSOCIATION.
  - FLOOD PLAIN IS ZONE X ON COMMUNITY PANEL NO. 4902500115 A DATED JULY 17, 2002.

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	BEARING	CHORD
C1	200.0'	59.65'	17°05'21"	N55°58'40"E	59.43'
C2	200.0'	26.96'	7°43'21"	N60°39'40"E	26.94'
C3	200.0'	32.69'	9°21'59"	N52°06'59"E	32.66'
C4	200.0'	181.58'	52°01'07"	S73°17'03"W	175.41'
C5	200.0'	77.83'	22°17'43"	N69°33'32"W	77.34'
C6	200.0'	139.46'	39°57'06"	S67°24'33"W	136.65'
C7	200.0'	119.40'	34°12'15"	N75°30'47"W	117.63'
C8	400.0'	38.03'	5°26'50"	N27°02'01"W	38.01'
C9	400.0'	38.10'	5°27'28"	N21°34'53"W	38.09'
C10	400.0'	1.19'	0°10'15"	N18°46'01"W	1.19'
C11	400.0'	123.63'	17°42'29"	N38°36'41"W	123.13'
C12	420.0'	103.97'	14°11'01"	N40°49'49"W	103.71'
C13	60.0'	7.06'	6°44'32"	N61°09'04"E	7.06'
C14	60.0'	42.33'	40°25'31"	N37°34'03"E	41.46'
C15	74.00'	53.11'	41°07'18"	S37°54'56"W	51.96'
C16	74.00'	30.86'	23°53'27"	S70°25'18"W	30.63'
C17	74.00'	15.88'	12°17'49"	S88°30'56"W	15.85'
C18	62.00'	29.02'	26°49'19"	N71°55'30"W	28.76'
C19	62.00'	21.37'	19°44'40"	S68°23'10"E	21.26'
C20	62.00'	15.54'	14°21'24"	S85°26'12"E	15.49'
C21	228.00'	92.73'	23°18'09"	N80°57'49"W	92.09'
C22	228.00'	92.73'	23°18'09"	N80°57'49"W	92.09'
C23	228.00'	43.38'	10°54'06"	N63°51'42"W	43.32'
C24	172.00'	66.93'	22°17'45"	N69°33'31"W	66.51'
C25	62.00'	67.49'	62°22'04"	S68°06'34"W	64.21'
C26	73.85'	27.30'	21°10'43"	N47°30'54"E	27.14'
C27	73.85'	33.44'	25°56'32"	N71°04'31"E	33.15'
C28	60.00'	20.57'	19°38'35"	S73°29'27"W	20.47'



# WILTSHIRE ESTATES SUBDIVISION PHASE 3

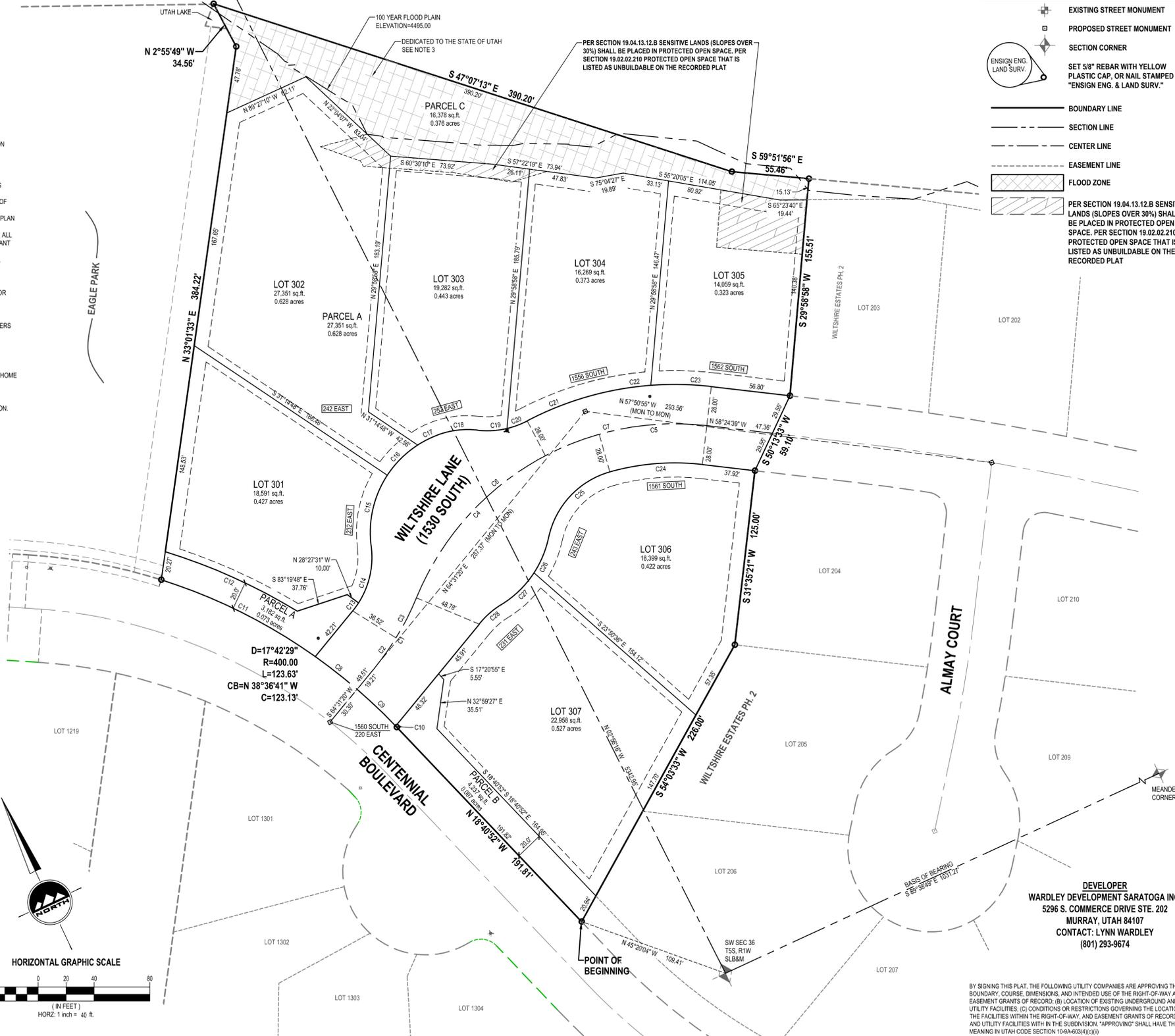
## FINAL PLAT

LOCATED IN THE SOUTHEAST QUARTER OF SECTION 35 & THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN SARATOGA SPRINGS, UTAH COUNTY, UTAH

LAND USE TABLE		
LOT AREA	= 136,855 SF	3.142 AC
PRIVATE ROADWAY	= 29,994 SF	0.688 AC
COMMON AREA	= 23,830 SF	0.548 AC
TOTAL AREA	= 190,699 SF	4.378 AC
MINIMUM LOTS SIZE	= 14,000 SQ. FT.	
AVERAGE LOT SIZE	= 19,555 SQ. FT.	
TOTAL NUMBER OF LOTS	= 7	
DENSITY = 1.6 LOTS / ACRE		

### LEGEND

- EXISTING STREET MONUMENT
- PROPOSED STREET MONUMENT
- SECTION CORNER
- SET 5/8" REBAR WITH YELLOW PLASTIC CAP, OR NAIL STAMPED "ENSGN ENG. & LAND SURV."
- BOUNDARY LINE
- SECTION LINE
- CENTER LINE
- EASEMENT LINE
- FLOOD ZONE
- PER SECTION 19.04.13.12.B SENSITIVE LANDS (SLOPES OVER 30%) SHALL BE PLACED IN PROTECTED OPEN SPACE. PER SECTION 19.02.02.210 PROTECTED OPEN SPACE THAT IS LISTED AS UNBUILDABLE ON THE RECORDED PLAT



**SURVEYOR'S CERTIFICATE**

I, Patrick M. Harris, do hereby certify that I am a registered Land Surveyor, and that I hold a license, Certificate No. 286882, in accordance with the Professional Engineers and Land Surveyors Licensing Act found in Title 58, Chapter 22 of the Utah Code. I further certify that by authority of the Owners, I have made a survey of the tract of land shown on this plat and described below, have subdivided said tract of land into lots, streets, and easements, have completed a survey of the property described on this plat in accordance with Utah Code Section 17-23-17, have verified all measurements, and have placed monuments as represented on the plat. I further certify that every existing right-of-way and easement grant of record for underground facilities, as defined in Utah Code Section 54-8a-2, and for other utility facilities, is accurately described on this plat, and that this plat is true and correct. I also certify that I have filed, or will file within 90 days of recordation of this plat, a map of survey I have completed with the Utah County Surveyor.

**BOUNDARY DESCRIPTION**

A parcel of land, situate in the Southwest Quarter of Section 36 and the Southeast Quarter of Section 35, Township 5 South, Range 1 West, Salt Lake Base and Meridian, more particularly described as follows:

Beginning at a point on the north line of Centennial Boulevard, which is located North 45°20'04" West 109.41 feet from the Southwest Corner of said Section 36, Township 5 South, Range 1 West, and running

thence North 18°40'52" West 191.81 feet along the northerly line of said Centennial Boulevard;

thence Northwesterly 200.95 feet along the arc of a 400.00 foot radius curve to the left (center bears South 71°19'07" West and the chord bears North 33°04'24" West 198.84 feet with a central angle of 28°47'02") along the northerly line of said Centennial Boulevard to the Eastern Boundary Line of Eagle Park Subdivision;

thence North 33°01'33" East 384.22 feet along the Eastern Boundary Line of said Eagle Park Subdivision;

thence North 02°55'49" West 34.56 feet the Eastern Boundary Line of said Eagle Park Subdivision and its extension;

thence South 47°07'13" East 390.20 feet;

thence South 59°51'56" East 55.49 feet to the Northwesterly Boundary Line of Wilshire Estates Phase 2 Subdivision;

thence South 29°59'59" East 155.51 feet along the Northwesterly Boundary Line of said Wilshire Estates Phase 2 Subdivision;

thence South 50°13'33" West 59.10 feet along the Northwesterly Boundary Line of said Wilshire Estates Phase 2 Subdivision;

thence South 31°35'21" West 125.00 feet along the Northwesterly Boundary Line of said Wilshire Estates Phase 2 Subdivision;

thence South 14°03'33" West 226.00 feet along the Northwesterly Boundary Line of said Wilshire Estates Phase 2 Subdivision to the point of beginning.

Contains 190,699 Square Feet or 4.378 Acres and 7 Lots and 3 Parcels

DATE: \_\_\_\_\_ PATRICK M. HARRIS  
P.L.S. 286882

**OWNER'S DEDICATION**

Know all men by these presents that \_\_\_\_\_ the undersigned owner(s) of the above described tract of land having caused same to be subdivided into lots and streets to be hereafter known as

## WILTSHIRE ESTATES SUBDIVISION PHASE 3

do hereby dedicate for perpetual use of the public and/or City all parcels of land, easements and public amenities shown on this plat as intended for public and/or City use. Parcel C hereby dedicated to the State of Utah. The private street and Parcel A & B are hereby dedicated to Saratoga Springs Home Owners Association as common area. Owners hereby offer and convey to all public utility agencies, their successors and assigns, a permanent easement and right-of-way in and to those areas reflected on the plat as private streets for the construction and maintenance of approved public utilities and appurtenances, together with the right of access thereto. The owner(s) voluntarily defend, indemnify and hold harmless the City from any damage claimed by persons with or without this subdivision to have been caused by alterations of the ground surface, vegetation, drainage, or surface or sub-surface water flows with in the subdivision or by establishment or construction of the roads within this subdivision.

In witness whereof \_\_\_\_\_ have hereunto set \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_\_\_

By: \_\_\_\_\_ By: \_\_\_\_\_  
By: \_\_\_\_\_ By: \_\_\_\_\_

**LIMITED LIABILITY COMPANY ACKNOWLEDGMENT**

STATE OF UTAH \_\_\_\_\_ ) S.S.  
County of \_\_\_\_\_ )

On the \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_\_\_ personally appeared before me, the undersigned Notary Public, in and for said County of \_\_\_\_\_ in the State of Utah, who after being duly sworn, acknowledged to me that He/She is the \_\_\_\_\_ a Limited Liability Company and that He/She signed the Owner's Dedication freely and voluntarily for and in behalf of said Limited Liability Company for the purposes therein mentioned and acknowledged to me that said Corporation executed the same.

MY COMMISSION EXPIRES: \_\_\_\_\_ NOTARY PUBLIC RESIDING IN \_\_\_\_\_ COUNTY.

**CORPORATE ACKNOWLEDGMENT**

STATE OF UTAH \_\_\_\_\_ ) S.S.  
COUNTY OF \_\_\_\_\_ )

ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. 20\_\_\_\_ PERSONALLY APPEARED BEFORE ME \_\_\_\_\_ AND, WHO BEING BY ME DULY SWORN DID SAY EACH FOR HIMSELF, THAT HE, THE SAID \_\_\_\_\_ IS THE PRESIDENT AND HE THE SAID \_\_\_\_\_ IS THE SECRETARY OF \_\_\_\_\_ CORPORATION, AND THAT THE WITHIN AND FOREGOING INSTRUMENT WAS SIGNED IN BEHALF OF SAID CORPORATION BY AUTHORITY OF A RESOLUTION OF ITS BOARD OF DIRECTORS AND SAID \_\_\_\_\_ AND EACH DULY ACKNOWLEDGED TO ME THAT SAID CORPORATION EXECUTED THE SAME AND THAT THE SEAL AFFIXED IS THE SEAL OF SAID CORPORATION.

MY COMMISSION EXPIRES: \_\_\_\_\_ NOTARY PUBLIC RESIDING AT \_\_\_\_\_

**APPROVAL BY LEGISLATIVE BODY**

THE CITY COUNCIL OF THE CITY OF SARATOGA SPRINGS, COUNTY OF UTAH, APPROVES THIS SUBDIVISION SUBJECT TO THE CONDITIONS AND RESTRICTIONS STATED HEREON, AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES OF THE PERPETUAL USE OF THE PUBLIC.

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. 20\_\_\_\_

CITY MAYOR \_\_\_\_\_ ATTEST: \_\_\_\_\_ CITY RECORDER (SEE SEAL BELOW)

**WILTSHIRE ESTATES SUBDIVISION PHASE 3**

LOCATED IN THE SOUTHEAST QUARTER OF SECTION 35 & THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN SARATOGA SPRINGS, UTAH COUNTY, UTAH

**SHEET 1 OF 1**

PROJECT NUMBER : U1237  
MANAGER : LCM  
DRAWN BY : KFW  
CHECKED BY : PMH  
DATE : 9/4/14

SALT LAKE CITY  
45 W. 1000 S., Suite 500  
Sandy, UT 84070  
Phone: 801.255.0529  
Fax: 801.255.4449

LAYTON  
Phone: 801.547.1100  
TOOELE  
Phone: 435.843.3590  
CEDAR CITY  
Phone: 435.865.1453  
RICHFIELD  
Phone: 435.590.0187

WWW.ENSGNUTAH.COM

**QUESTAR GAS COMPANY**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**ROCKY MOUNTAIN POWER**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**COMCAST CABLE TELEVISION**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**QWEST**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**FIRE CHIEF APPROVAL**

APPROVED BY THE FIRE CHIEF ON THIS DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**PLANNING COMMISSION REVIEW**

REVIEWED BY THE PLANNING COMMISSION ON THIS DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**SARATOGA SPRINGS ENGINEER APPROVAL**

APPROVED BY THE CITY ENGINEER ON THIS DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**SARATOGA SPRINGS ATTORNEY**

APPROVED BY SARATOGA SPRINGS CITY ATTORNEY THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_

**LEHI CITY POST OFFICE**

APPROVED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ A.D. \_\_\_\_\_ BY THE POST OFFICE.

**QUESTAR GAS COMPANY**

**ROCKY MOUNTAIN POWER**

**COMCAST CABLE TELEVISION**

**QWEST**

**CITY FIRE CHIEF**

**CHAIRMAN, PLANNING COMMISSION**

**CITY ENGINEER**

**SARATOGA SPRINGS ATTORNEY**

**POST OFFICE**

**ENSGN**

**WILTSHIRE ESTATES SUBDIVISION PHASE 3**

BY SIGNING THIS PLAT, THE FOLLOWING UTILITY COMPANIES ARE APPROVING THE: (A) BOUNDARY COURSE, DIMENSIONS, AND INTENDED USE OF THE RIGHT-OF-WAY AND EASEMENT GRANTS OF RECORD; (B) LOCATION OF EXISTING UNDERGROUND AND UTILITY FACILITIES; (C) CONDITIONS OR RESTRICTIONS GOVERNING THE LOCATION OF THE FACILITIES WITHIN THE RIGHT-OF-WAY, AND EASEMENT GRANTS OF RECORD; AND UTILITY FACILITIES WITHIN THE SUBDIVISION; "APPROVING" SHALL HAVE THE MEANING IN UTAH CODE SECTION 10-6A-603(4)(c)(ii)

**QUESTAR GAS COMPANY**

**ROCKY MOUNTAIN POWER**

**COMCAST CABLE TELEVISION**

**QWEST**

**CITY FIRE CHIEF**

**CHAIRMAN, PLANNING COMMISSION**

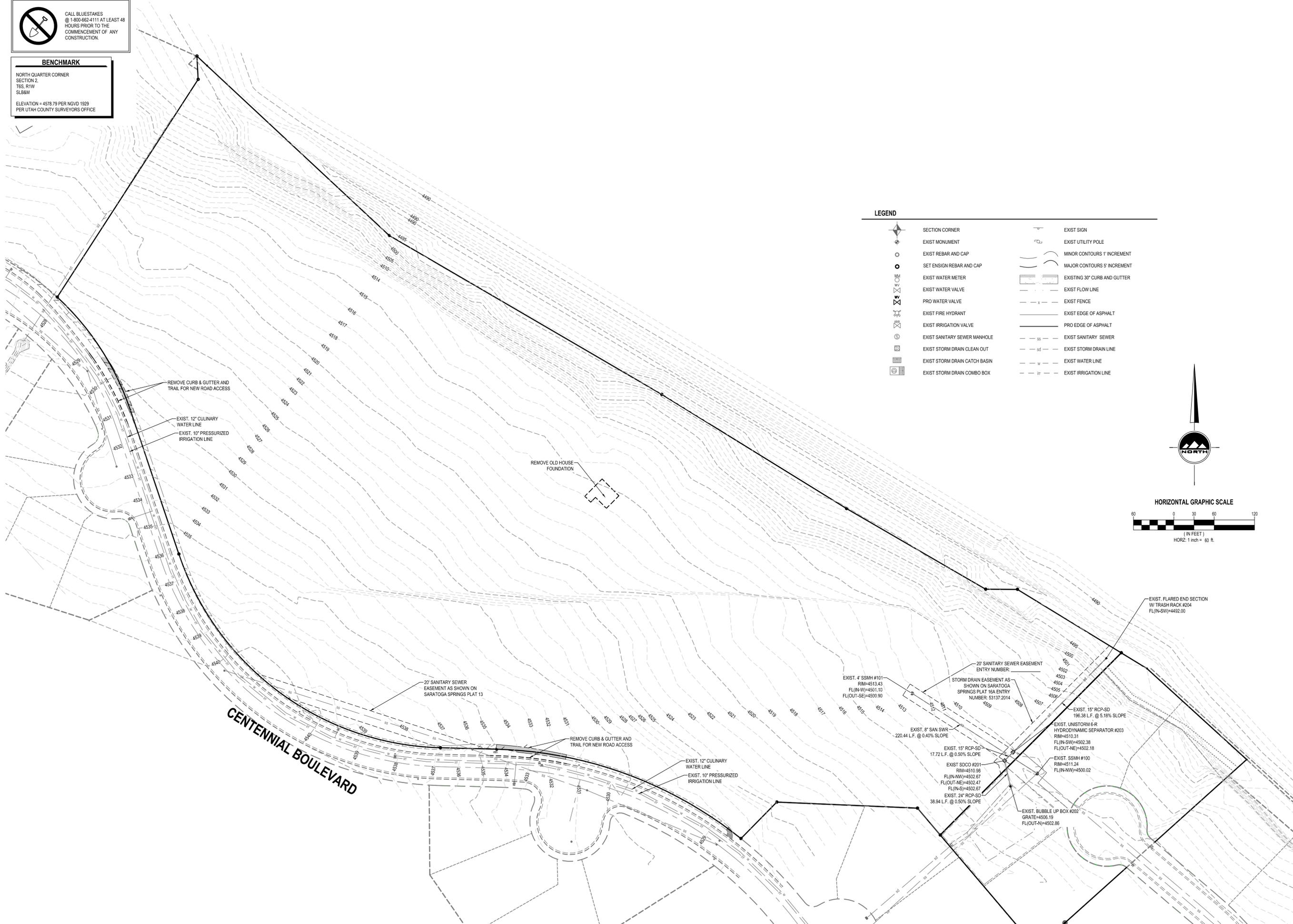
**CITY ENGINEER**

**SARATOGA SPRINGS ATTORNEY**

**POST OFFICE**

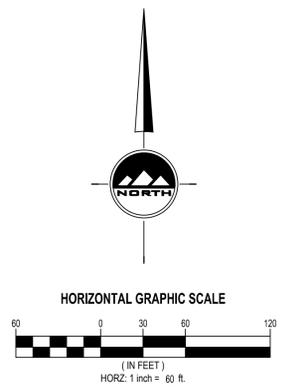
CALL BLUESTAKES  
@ 1-800-662-4111 AT LEAST 48  
HOURS PRIOR TO THE  
COMMENCEMENT OF ANY  
CONSTRUCTION.

**BENCHMARK**  
NORTH QUARTER CORNER  
SECTION 2,  
T6S, R1W  
SLB&M  
ELEVATION = 4578.79 PER NGVD 1929  
PER UTAH COUNTY SURVEYORS OFFICE



**LEGEND**

	SECTION CORNER		EXIST SIGN
	EXIST MONUMENT		EXIST UTILITY POLE
	EXIST REBAR AND CAP		MINOR CONTOURS 1' INCREMENT
	SET ENSIGN REBAR AND CAP		MAJOR CONTOURS 5' INCREMENT
	EXIST WATER METER		
	EXIST WATER VALVE		EXIST FLOW LINE
	PRO WATER VALVE		EXIST FENCE
	EXIST FIRE HYDRANT		EXIST EDGE OF ASPHALT
	EXIST IRRIGATION VALVE		PRO EDGE OF ASPHALT
	EXIST SANITARY SEWER MANHOLE		EXIST SANITARY SEWER
	EXIST STORM DRAIN CLEAN OUT		EXIST STORM DRAIN LINE
	EXIST STORM DRAIN CATCH BASIN		EXIST WATER LINE
	EXIST STORM DRAIN COMBO BOX		EXIST IRRIGATION LINE



**ENSGN**  
SALT LAKE CITY  
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Fax: 801.255.4449  
  
LAYTON  
Phone: 801.547.1100  
  
TOOELE  
Phone: 435.843.3590  
  
CEDAR CITY  
Phone: 435.865.1453  
  
RICHFIELD  
Phone: 435.590.0187  
  
WWW.ENSGNENG.COM

FOR:  
WARDLEY DEVELOPMENT SARATOGA INC.  
5286 S COMMERCE DR. STE 202  
MURRAY, UTAH  
  
CONTACT:  
LYNN WARDLEY  
PHONE: 801-293-9674  
FAX:

**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**

PROFESSIONAL SEAL  
BOYD PREECE  
9/10/14  
STATE OF UTAH  
09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
1			
2			
3			
4			
5			
6			
7			
8			

**EXISTING/DEMOLITION PLAN**

PROJECT NUMBER: UT237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

**C-0.1**



**BENCHMARK**  
 NORTH QUARTER CORNER  
 SECTION 2,  
 T6S, R1W  
 SLB&M  
 ELEVATION = 4578.79 PER NGVD 1929  
 PER UTAH COUNTY SURVEYORS OFFICE

**LEGEND**

○	SET ENSIGN REBAR AND CAP	- - - X - - -	EXIST FENCE
○	EXIST WATER METER	- X -	PRO FENCE
○	PRO WATER METER	- - - / - - -	EXIST EDGE OF ASPHALT
○	EXIST WATER VALVE	- - - / - - -	PRO EDGE OF ASPHALT
○	PRO WATER VALVE	- - - SS - - -	EXIST SANITARY SEWER
○	EXIST FIRE HYDRANT	- - - SS - - -	PRO SANITARY SEWER LINE
○	PRO FIRE HYDRANT	- - - SW - - -	PRO SAN. SWR. SERVICE LINE
○	EXIST SECONDARY WATER VALVE	- - - W - - -	EXIST WATER LINE
○	PRO SECONDARY WATER VALVE	- - - W - - -	PRO WATER LINE
○	EXIST SANITARY SEWER MANHOLE	- - - SW - - -	PRO CULINARY WATER SERVICE LINE
○	PRO SANITARY SEWER MANHOLE	- - - SW - - -	EXIST SECONDARY WATER LINE
○	EXIST SIGN	- - - SW - - -	PRO SECONDARY WATER LINE
○	PRO SIGN	- - - SW - - -	PRO SEC. WATER SERVICE LINE
○	EXISTING CURB AND GUTTER		
○	PROPOSED CURB AND GUTTER		

**GENERAL NOTES**

- ALL UTILITIES TO BE INSTALLED FOR ENTIRE SUBDIVISION WITH PHASE 1. LATERALS TO BE INSTALLED PER PHASE.
- BOTH ENTRANCES INCLUDING GATES, LANDSCAPING, AND ROAD IMPROVEMENTS TO BE INSTALLED WITH PHASE 1. (SEE PLAN FOR LIMITS)
- CONTRACTOR SHALL CONTACT THE CITY 7 DAYS PRIOR TO CONNECTING TO EXISTING UTILITIES.
- CONTRACTOR MUST SUBMIT TO THE CITY & RECEIVE APPROVAL FROM THE CITY A TRAFFIC CONTROL PLAN PRIOR TO PERFORMING ANY CONSTRUCTION IN CENTENNIAL BLVD.

**TOTAL AREA CALCULATIONS TABLE**

DESCRIPTION	AREA (SQUARE FEET)	AREA (ACRES)	PERCENTAGE
TOTAL AREA	825,191	18.944	100%
TOTAL IMPERVIOUS AREA	80,103	1.839	9.7%
TOTAL LOT AREA	624,790	14.274	75.7%
TOTAL LANDSCAPE AREA (OPEN SPACE)	65,288	1.499	7.9%
TOTAL ROW AREA	138,113	3.171	16.7%
TOTAL NUMBER OF LOTS	35		

**PHASE 1 AREA CALCULATIONS TABLE**

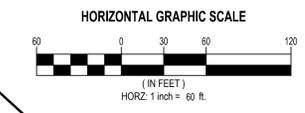
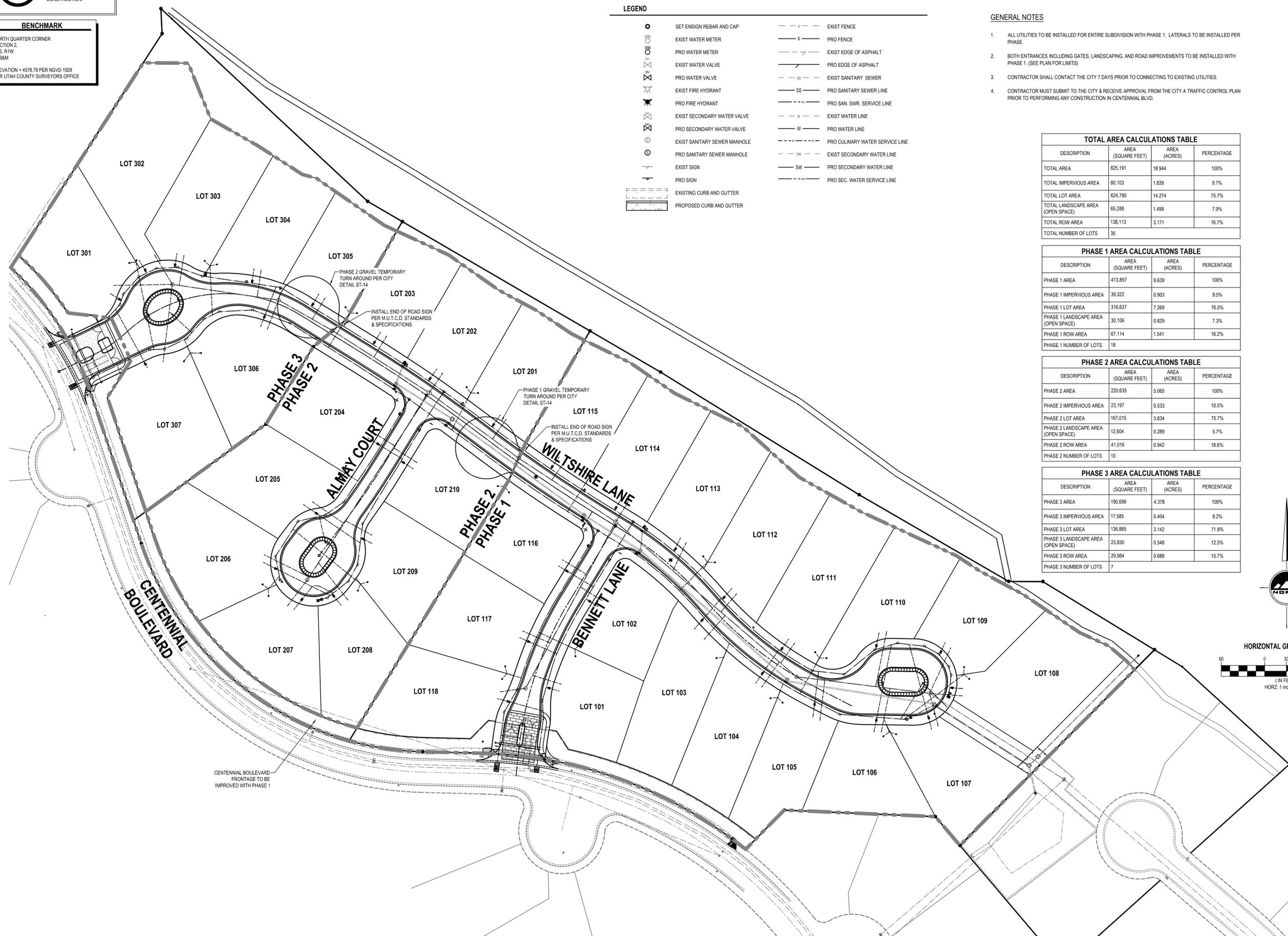
DESCRIPTION	AREA (SQUARE FEET)	AREA (ACRES)	PERCENTAGE
PHASE 1 AREA	413,857	9.639	100%
PHASE 1 IMPERVIOUS AREA	39,322	0.903	9.5%
PHASE 1 LOT AREA	316,637	7.269	76.5%
PHASE 1 LANDSCAPE AREA (OPEN SPACE)	30,106	0.829	7.3%
PHASE 1 ROW AREA	67,114	1.541	16.2%
PHASE 1 NUMBER OF LOTS	18		

**PHASE 2 AREA CALCULATIONS TABLE**

DESCRIPTION	AREA (SQUARE FEET)	AREA (ACRES)	PERCENTAGE
PHASE 2 AREA	220,635	5.065	100%
PHASE 2 IMPERVIOUS AREA	23,197	0.533	10.5%
PHASE 2 LOT AREA	167,015	3.834	75.7%
PHASE 2 LANDSCAPE AREA (OPEN SPACE)	12,604	0.289	5.7%
PHASE 2 ROW AREA	41,016	0.942	18.6%
PHASE 2 NUMBER OF LOTS	10		

**PHASE 3 AREA CALCULATIONS TABLE**

DESCRIPTION	AREA (SQUARE FEET)	AREA (ACRES)	PERCENTAGE
PHASE 3 AREA	190,699	4.378	100%
PHASE 3 IMPERVIOUS AREA	17,585	0.404	9.2%
PHASE 3 LOT AREA	136,885	3.142	71.8%
PHASE 3 LANDSCAPE AREA (OPEN SPACE)	23,830	0.548	12.5%
PHASE 3 ROW AREA	29,984	0.688	15.7%
PHASE 3 NUMBER OF LOTS	7		



SALT LAKE CITY  
 45 W. 10000 S., Suite 500  
 Sandy, UT 84070  
 Phone: 801.255.0529  
 Fax: 801.255.4449

LAYTON  
 Phone: 801.547.1100

TOOELE  
 Phone: 435.843.3590

CEDAR CITY  
 Phone: 435.865.1453

RICHFIELD  
 Phone: 435.590.0187

WWW.ENSGNENG.COM

FOR:  
 WARDLEY DEVELOPMENT SARATOGA INC.  
 5285 S COMMERCE DR. STE 202  
 MURRAY, UTAH

CONTACT:  
 LYNN WARDLEY  
 PHONE: 801-253-9674  
 FAX:

**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**



09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
1			
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**PHASE PLAN**

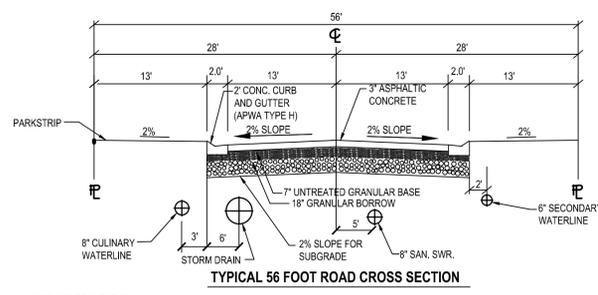
PROJECT NUMBER: U1237D  
 PRINT DATE: 9/8/14  
 DRAWN BY: D. COWLEY  
 CHECKED BY: C. MCFARLANE  
 PROJECT MANAGER: C. MCFARLANE

**C-0.2**

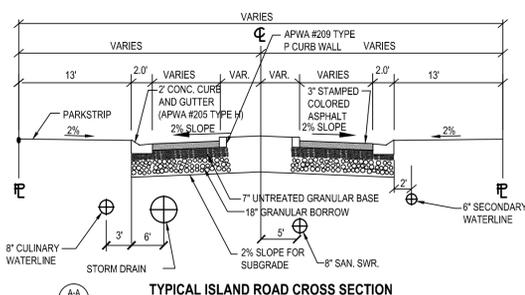


CALL BLUESTAKES  
@ 1-800-662-4111 AT LEAST 48  
HOURS PRIOR TO THE  
COMMENCEMENT OF ANY  
CONSTRUCTION.

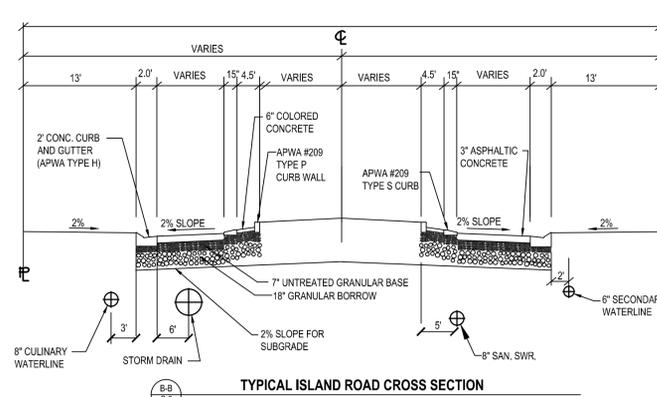
**BENCHMARK**  
NORTH QUARTER CORNER  
SECTION 2,  
T6S, R1W  
SLB&M  
ELEVATION = 4578.79 PER NGVD 1929  
PER UTAH COUNTY SURVEYORS OFFICE



**TYPICAL 56 FOOT ROAD CROSS SECTION**  
SEE GEOTECHNICAL REPORT NO. 01904-001 BY IGES, INC DATED APRIL 23, 2014

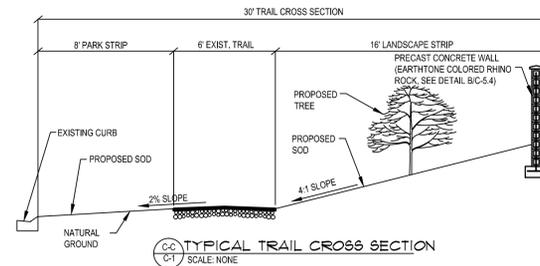


**TYPICAL ISLAND ROAD CROSS SECTION**  
SEE GEOTECHNICAL REPORT NO. 01904-001 BY IGES, INC DATED APRIL 23, 2014

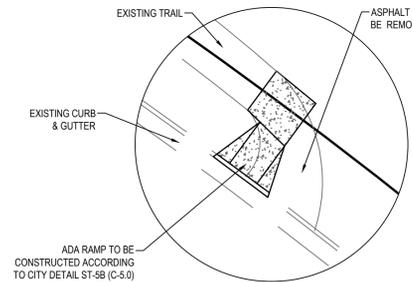


**TYPICAL ISLAND ROAD CROSS SECTION**  
SEE GEOTECHNICAL REPORT NO. 01904-001 BY IGES, INC DATED APRIL 23, 2014

- NOTE**
1. DIMENSIONS TO TBC UNLESS NOTED OTHERWISE
  2. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR PIPE
  3. CONTRACTOR SHALL CONTACT THE CITY 7 DAYS PRIOR TO CONNECTING TO EXISTING UTILITIES.
  4. CONTRACTOR MUST SUBMIT TO THE CITY & RECEIVE APPROVAL FROM THE CITY A TRAFFIC CONTROL PLAN PRIOR TO PERFORMING ANY CONSTRUCTION IN CENTENNIAL BLVD.



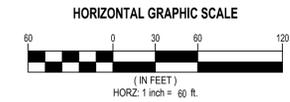
**TYPICAL TRAIL CROSS SECTION**  
SCALE: NONE



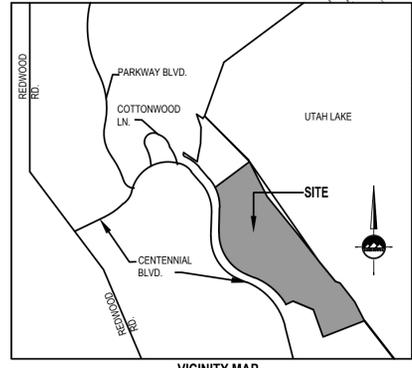
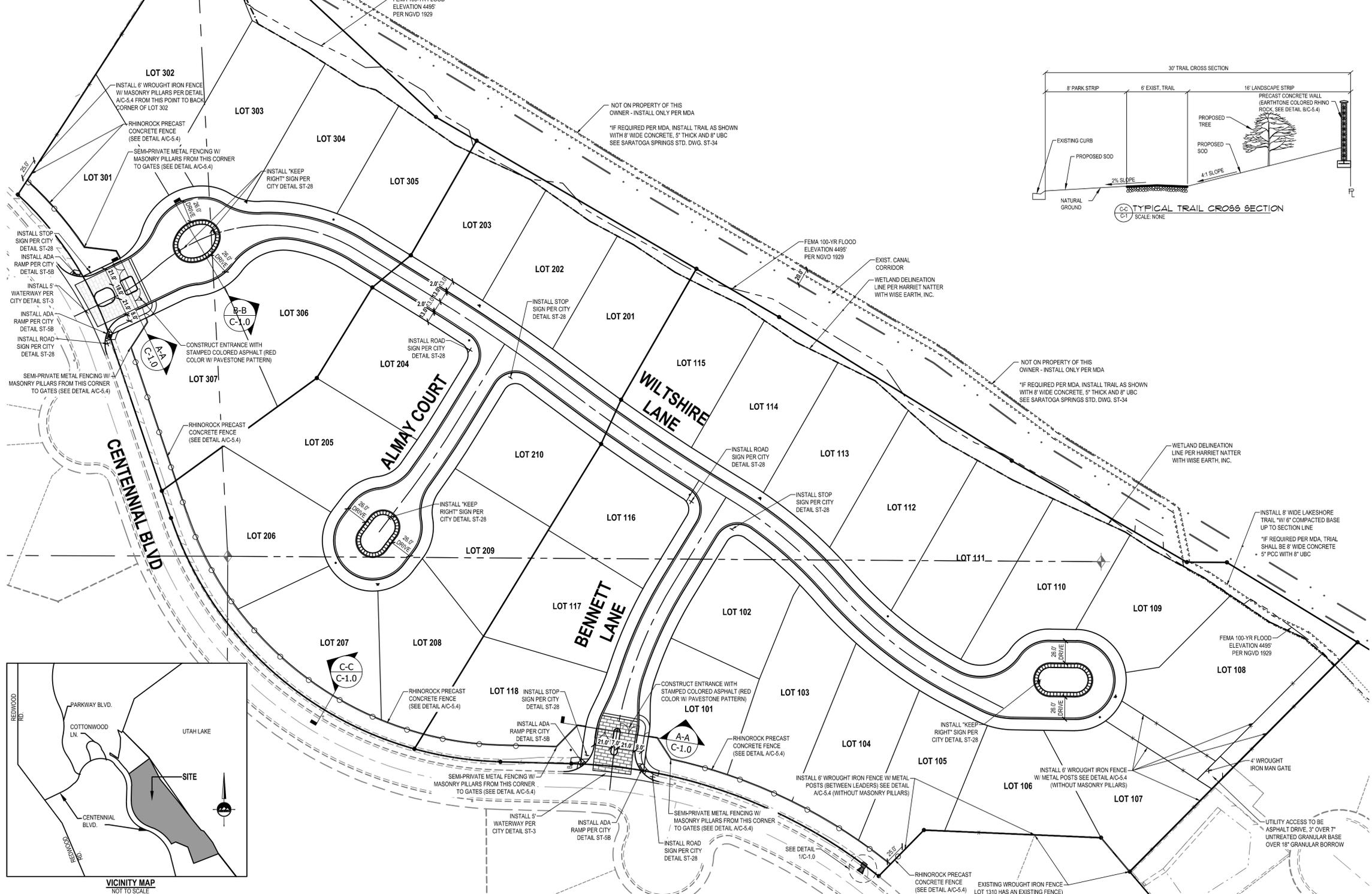
**RAMP DETAIL**  
SCALE: NONE

**LEGEND**

	SECTION CORNER
	EXIST MONUMENT
	PRO MONUMENT
	SET ENSIGN REBAR AND CAP
	EXIST SIGN
	PRO SIGN
	EXISTING CURB AND GUTTER
	PROPOSED CURB AND GUTTER
	EXIST FENCE
	PRO IRON FENCE
	PRO PRECAST CONCRETE FENCE
	EXIST EDGE OF ASPHALT
	PRO EDGE OF ASPHALT
	WETLAND LINE
	CANAL CORRIDOR
	FLOOD ZONE HWM
	EXIST FIRE HYDRANT
	PRO FIRE HYDRANT
	EXIST STREETLIGHT
	PRO STREETLIGHT



**EAGLE PARK**



**VICINITY MAP**  
NOT TO SCALE



SALT LAKE CITY  
45 W. 10000 S., Suite 500  
Sandy, UT 84070  
Phone: 801.255.0529  
Fax: 801.255.4449

LAYTON  
Phone: 801.547.1100

TOOELE  
Phone: 435.843.3590

CEDAR CITY  
Phone: 435.865.1453

RICHFIELD  
Phone: 435.590.0187

WWW.ENSGNENG.COM

FOR:  
WARDLEY DEVELOPMENT SARATOGA INC.  
5295 S COMMERCE DR. STE 202  
MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-259-9674  
FAX:

**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**



09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
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**SITE PLAN**

PROJECT NUMBER: U1237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

**C-1.0**



**BENCHMARK**  
NORTH QUARTER CORNER  
SECTION 2,  
T6S, R1W  
SLB&M  
ELEVATION = 4578.79 PER NGVD 1929  
PER UTAH COUNTY SURVEYORS OFFICE

**Catchment Calculations**

Runoff coefficient C:	0.364
Manning's N:	0.013

Catchment	Area (acre)	Hardscape Area (acre)	Landscape Area (acre)	Grass Travel Time (min)	Pavement Travel Time (min)	Time of Concentration (min)	Rainfall Intensity - I (in/hr)	Flow (CFS)	Destination	Gutter Slope at Inlet (ft/ft)	Avg. Cross Slope at Inlet (ft/ft)	Manning's n of gutter	Water Depth at Inlet (ft)
1	4.57	1.30	3.26	1.0	5	15	2.56	4.26	PIPE 01, 02	0.005	0.020	0.020	0.31
2	4.11	1.17	2.93	1.0	5	15	2.56	3.85	PIPE 03, 04, 05	0.005	0.020	0.020	0.30
3	1.25	0.36	0.89	1.0	5	15	2.56	1.16	PIPE 06	0.005	0.020	0.020	0.19
4	2.31	0.66	1.65	1.0	5	15	2.56	2.15	PIPE 07	0.013	0.020	0.020	0.20
5 (Undetained)	6.71			15	NA	15	2.56	6.26	NA	NA	NA	NA	NA

**Pipe Design (25-year storm)**

Pipe	Tributary Basins	Surface Flow (CFS)	Upstream Pipes	Pipe Flow (CFS)	Pipe Slope	Diameter (IN)	Full Flow Capacity (CFS)	% of Full-Flow Capacity
PIPE 01	1	N/A	N/A	4.26	0.50%	15	4.590	0.0%
PIPE 02	1	4.26	PIPE 01	4.26	0.50%	15	7.449	57.2%
PIPE 03	2	4.26	PIPE 02	4.26	0.50%	15	7.449	57.2%
PIPE 04	2	3.85	PIPE 03	3.85	0.50%	24	16.040	50.4%
PIPE 05	2	N/A	N/A	0.50%	15	4.590	0.0%	
PIPE 06	3	1.16	PIPES 04, 05	0.25	0.50%	24	16.040	57.7%
PIPE 07	4	N/A	PIPE 06	1.16	1.00%	24	22.695	0.0%
PIPE 08	ALL	2.15	PIPES 07	11.40	3.45%	24	42.132	27.1%
PIPE 09	ALL	N/A	N/A	11.40	0.50%	24	16.040	71.1%
PIPE 10	ALL	N/A	PIPES 08, 09	2.47	0.50%	15	4.590	53.8%
PIPE 11	ALL	N/A	PIPE 10	2.47	5.18%	15	14.742	16.7%

**EN SIGN Engineering, planning, surveying**

Project: Wiltshire Estates  
By: D. Cowley  
Date: 8-Jul-2014

Project No.: U1237  
Checked By:  
Sheet: 1 of 1

**DRAINAGE CALCULATION**

Area Calculations		Area Runoff Coefficients	
Handscaped Area (A <sub>p</sub> )	3.40 acres	C <sub>p</sub>	0.80
LANDSCAPE AREA (A <sub>L</sub> )	0.74 acres	C <sub>L</sub>	0.15
TOTAL AREA (A <sub>T</sub> )	12.23 acres	WEIGHTED C	0.364

**Runoff Calculations**

Time (min)	CA (Acres)	Precipitation (in/hr)	Time (sec)	Cumulative Runoff (ft)	Allowed Runoff (ft)	Storage (ft)
15	4.46	3.79	900	15,197	2,201	12,996
30	4.46	2.99	1,800	20,450	4,425	16,047
60	4.46	1.59	3,600	25,342	8,806	16,536
120	4.46	0.96	7,200	27,331	17,612	9,719
180	4.46	0.57	10,800	27,379	26,418	981
360	4.46	0.30	21,600	28,084	28,084	-25,772
720	4.46	0.17	43,200	31,961	1,05,672	-75,721

NOTE: 100 Year Storm  
STORAGE REQUIRED: 16,536  
STORAGE PROVIDED Pond: 16,925

**Outlet Control**

Offsite Flow:	1.080 cfs
Through orifice:	3.527 cfs

Gate Parameters	Gate Size	Pipe Parameters
C = 0.6	Area (ft <sup>2</sup> ) = 38.25 = 0.1(C(2gh) <sup>3/2</sup> )	TYPE OF PIPE = CONCRETE
g (ft/s <sup>2</sup> ) = 32.2	Width (ft) = 7	ROUGHNESS (n) = 0.013
HW M = 4.5103	Height (ft) = 5.46	PIPE DIA. (d) = 15
FL @ Gate = 4.5027		% SLOPE (s) = 0.50%
h (ft) = 7.6		Q allow = 4.58

Unit Check of Q (cfs) ok

PROVIDE:  
15" Dia. CONCRETE Pipe With 7" x 5" Vertical Slot in Metal Headgate  
(Orifice coefficients taken from: McCuen, Richard / Hydrologic Design Methods (2e 1998 p.424)

**LEGEND**

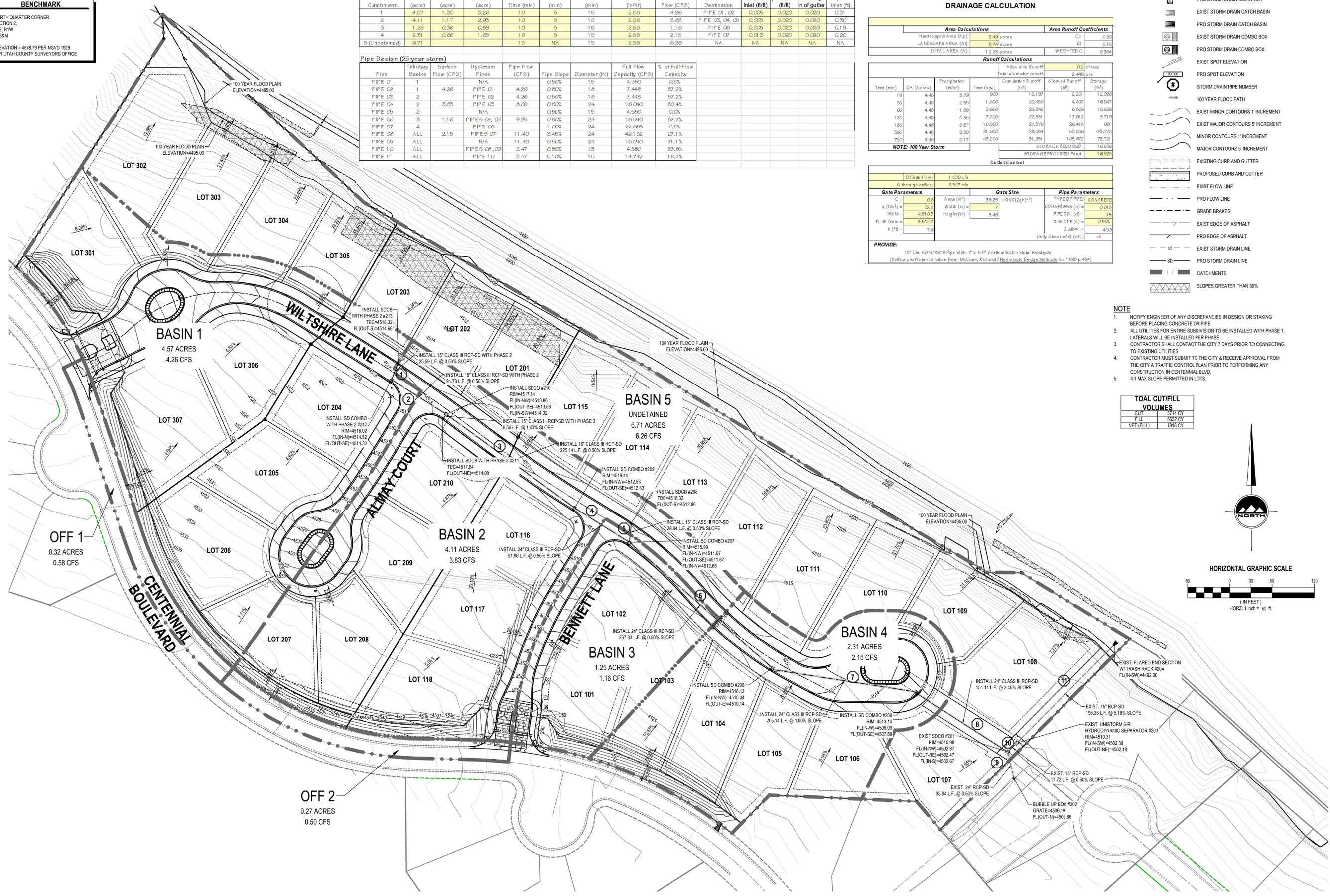
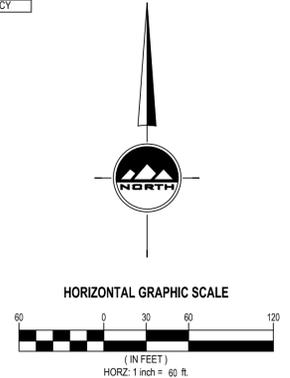
- SET ENSIGN REBAR AND CAP
- EXIST STORM DRAIN CLEAN OUT
- PRO STORM DRAIN CLEAN OUT
- EXIST STORM DRAIN CATCH BASIN
- EXIST STORM DRAIN CATCH BASIN
- EXIST STORM DRAIN COMBO BOX
- PRO STORM DRAIN COMBO BOX
- EXIST SPOT ELEVATION
- PRO SPOT ELEVATION
- STORM DRAIN PIPE NUMBER
- 100 YEAR FLOOD PATH
- EXIST MINOR CONTOURS 1' INCREMENT
- EXIST MAJOR CONTOURS 5' INCREMENT
- MINOR CONTOURS 1' INCREMENT
- MAJOR CONTOURS 5' INCREMENT
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXIST FLOW LINE
- PRO FLOW LINE
- GRADE BRAKES
- EXIST EDGE OF ASPHALT
- PRO EDGE OF ASPHALT
- EXIST STORM DRAIN LINE
- PRO STORM DRAIN LINE
- CATCHMENTS
- SLOPES GREATER THAN 30%

**NOTE**

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- 4:1 MAX SLOPE PERMITTED IN LOTS.

**TOTAL CUT/FILL VOLUMES**

CUT	3714 CY
FILL	5532 CY
NET (FILL)	1818 CY



**ENSIGN**

SALT LAKE CITY  
45 W. 10000 S., Suite 500  
Sandy, UT 84070  
Phone: 801.255.0529  
Fax: 801.255.4449

LAYTON  
Phone: 801.547.1100

TOOELE  
Phone: 435.843.3590

CEDAR CITY  
Phone: 435.865.1453

RICHFIELD  
Phone: 435.590.0187

WWW.ENSIGNENG.COM

FOR:  
WARDLEY DEVELOPMENT SARATOGA INC.  
5285 S COMMERCE DR. STE 202  
MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-263-9674  
FAX:

**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**

768958  
BOYD  
REECE  
9/8/14  
STATE OF UTAH

09-08-2014 5TH SUBMITTAL

NO. DATE REVISION BY

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**GRADING PLAN**

PROJECT NUMBER: U1237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

**C-2.0**



**BENCHMARK**  
 NORTH QUARTER CORNER  
 SECTION 2,  
 T6S, R1W  
 SLB&M  
 ELEVATION = 4578.79 PER NGVD 1929  
 PER UTAH COUNTY SURVEYORS OFFICE



SALT LAKE CITY  
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FOR:  
 WARDLEY DEVELOPMENT SARATOGA INC.  
 5296 S COMMERCE DR. STE 202  
 MURRAY, UTAH

CONTACT:  
 LYNN WARDLEY  
 PHONE: 801-253-9674  
 FAX:

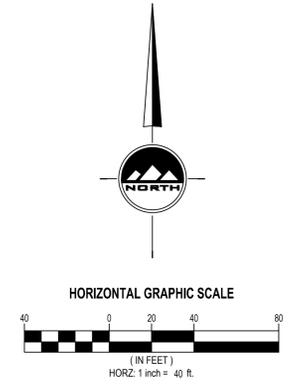
**LEGEND**

	SET ENSIGN REBAR AND CAP		MINOR CONTOURS 1' INCREMENT
	PRO STORM DRAIN CLEAN OUT		MAJOR CONTOURS 5' INCREMENT
	PRO STORM DRAIN CATCH BASIN		EXISTING CURB AND GUTTER
	EXIST STORM DRAIN CATCH BASIN		PROPOSED CURB AND GUTTER
	EXIST STORM DRAIN COMBO BOX		EXIST FLOW LINE
	PRO STORM DRAIN COMBO BOX		PRO FLOW LINE
	EXIST SPOT ELEVATION		GRADE BRAKES
	PRO SPOT ELEVATION		EXIST EDGE OF ASPHALT
	100 YEAR FLOOD PATH		PRO EDGE OF ASPHALT
	EXIST MINOR CONTOURS 1' INCREMENT		EXIST STORM DRAIN LINE
	EXIST MAJOR CONTOURS 5' INCREMENT		PRO STORM DRAIN LINE
			SLOPES GREATER THAN 30%

- NOTE**
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  5. 4:1 MAX SLOPE PERMITTED IN LOTS

**PHASE 1 CUT/FILL VOLUMES**

CUT	3128 CY
FILL	3864 CY
NET (FILL)	836 CY



**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**



NO.	DATE	REVISION	BY
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**PHASE 1 GRADING PLAN**

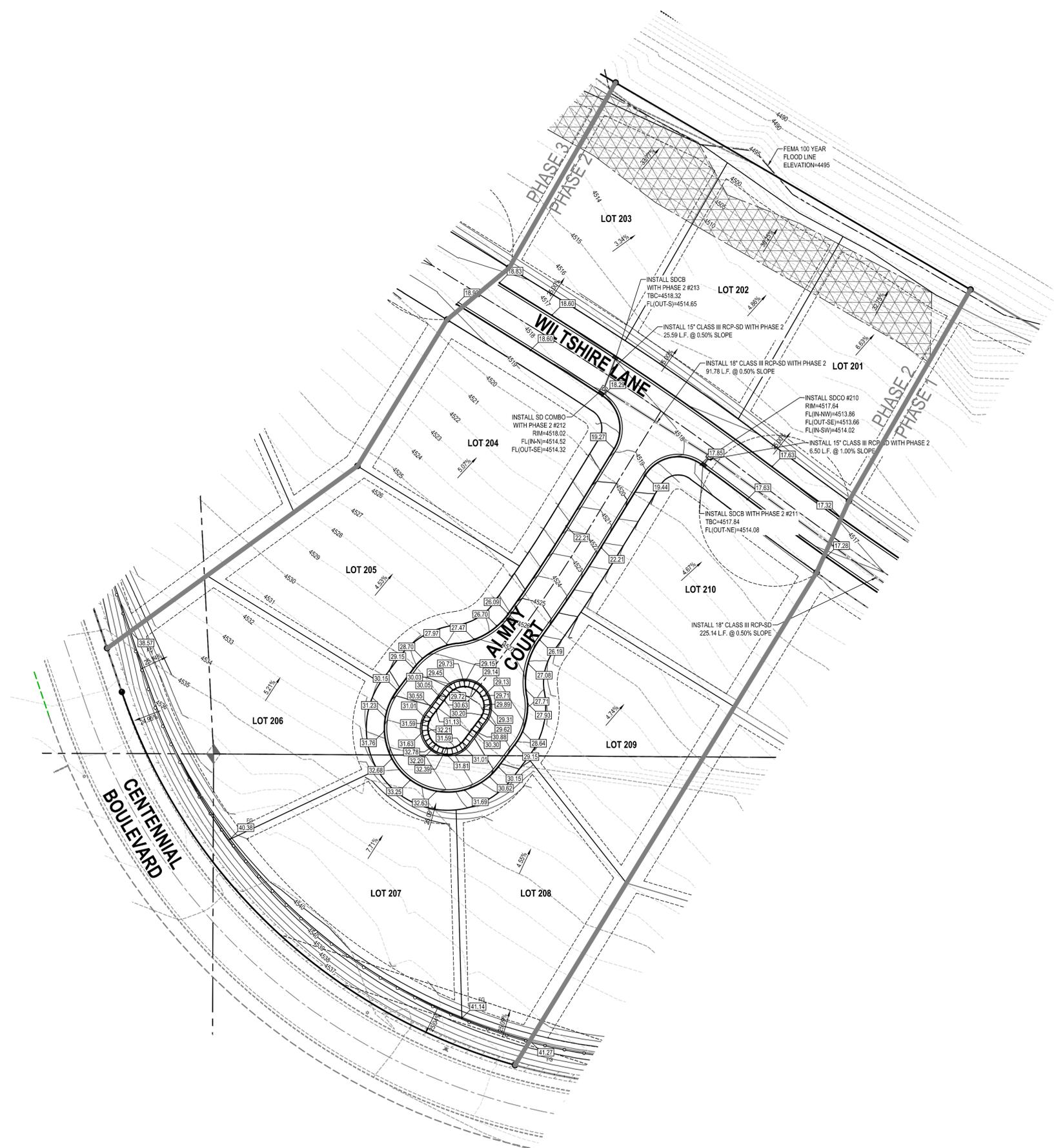
PROJECT NUMBER: U1237D  
 PRINT DATE: 9/8/14  
 DRAWN BY: D. COWLEY  
 CHECKED BY: C. MCFARLANE  
 PROJECT MANAGER: C. MCFARLANE



CALL BLUESTAKES  
@ 1-800-662-4111 AT LEAST 48  
HOURS PRIOR TO THE  
COMMENCEMENT OF ANY  
CONSTRUCTION.

**BENCHMARK**

NORTH QUARTER CORNER  
SECTION 2,  
T6S, R1W  
SLB&M  
  
ELEVATION = 4578.79 PER NGVD 1929  
PER UTAH COUNTY SURVEYORS OFFICE



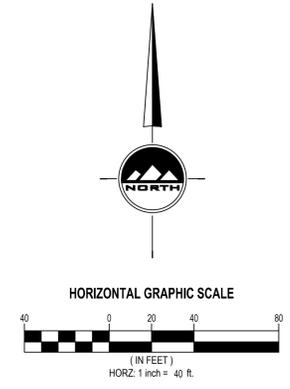
**LEGEND**

- SET ENSIGN REBAR AND CAP
- EXIST STORM DRAIN CLEAN OUT
- PRO STORM DRAIN CLEAN OUT
- EXIST STORM DRAIN CATCH BASIN
- PRO STORM DRAIN CATCH BASIN
- EXIST STORM DRAIN COMBO BOX
- PRO STORM DRAIN COMBO BOX
- EXIST SPOT ELEVATION
- PRO SPOT ELEVATION
- 100 YEAR FLOOD PATH
- EXIST MINOR CONTOURS 1' INCREMENT
- EXIST MAJOR CONTOURS 5' INCREMENT
- MINOR CONTOURS 1' INCREMENT
- MAJOR CONTOURS 5' INCREMENT
- PROPOSED CURB AND GUTTER
- EXIST FLOW LINE
- PRO FLOW LINE
- GRADE BRAKES
- EXIST EDGE OF ASPHALT
- PRO EDGE OF ASPHALT
- EXIST STORM DRAIN LINE
- PRO STORM DRAIN LINE
- SLOPES GREATER THAN 30%

**NOTE**

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5. 4:1 MAX SLOPE PERMITTED IN LOTS

PHASE 2 CUT/FILL VOLUMES	
CUT	498 CY
FILL	712 CY
NET (FILL)	213 CY



SALT LAKE CITY  
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RICHFIELD  
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WWW.ENSGNENG.COM

FOR:  
WARDLEY DEVELOPMENT SARATOGA INC.  
5296 S COMMERCE DR. STE 202  
MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-269-9674  
FAX:

**WILTSHIRE ESTATES**

**CENTENNIAL BLVD  
SARATOGA SPRINGS, UTAH**



09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
1			
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**PHASE 2 GRADING PLAN**

PROJECT NUMBER: U1237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

CALL BLUESTAKES  
@ 1-800-662-4111 AT LEAST 48  
HOURS PRIOR TO THE  
COMMENCEMENT OF ANY  
CONSTRUCTION.

**BENCHMARK**  
NORTH QUARTER CORNER  
SECTION 2,  
T6S, R1W  
SLB&M  
ELEVATION = 4578.79 PER NGVD 1929  
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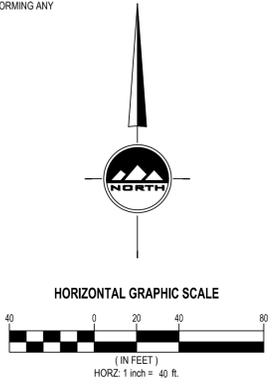
**LEGEND**

	SET ENSIGN REBAR AND CAP		MINOR CONTOURS 1' INCREMENT
	EXIST STORM DRAIN CLEAN OUT		MAJOR CONTOURS 5' INCREMENT
	PRO STORM DRAIN CLEAN OUT		EXISTING CURB AND GUTTER
	EXIST STORM DRAIN CATCH BASIN		PROPOSED CURB AND GUTTER
	PRO STORM DRAIN CATCH BASIN		EXIST FLOW LINE
	EXIST STORM DRAIN COMBO BOX		PRO FLOW LINE
	PRO STORM DRAIN COMBO BOX		GRADE BRAKES
	EXIST SPOT ELEVATION		EXIST EDGE OF ASPHALT
	PRO SPOT ELEVATION		PRO EDGE OF ASPHALT
	100 YEAR FLOOD PATH		EXIST STORM DRAIN LINE
	EXIST MINOR CONTOURS 1' INCREMENT		PRO STORM DRAIN LINE
	EXIST MAJOR CONTOURS 5' INCREMENT		SLOPES GREATER THAN 30%

- NOTE**
1. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR PIPE.
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  4. CONTRACTOR MUST SUBMIT TO THE CITY & RECEIVE APPROVAL FROM THE CITY A TRAFFIC CONTROL PLAN PRIOR TO PERFORMING ANY CONSTRUCTION IN CENTENNIAL BLVD.
  5. 4:1 MAX SLOPE PERMITTED IN LOTS

**PHASE 3 CUT/FILL VOLUMES**

CUT	92 CY
FILL	856 CY
NET (FILL)	769 CY



SALT LAKE CITY  
45 W. 10000 S., Suite 500  
Sandy, UT 84070  
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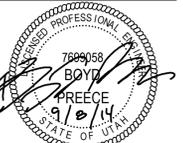
RICHFIELD  
Phone: 435.590.0187

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FOR:  
WARDLEY DEVELOPMENT SARATOGA INC.  
5296 S COMMERCE DR. STE 202  
MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-293-9674  
FAX:

**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**



09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
1			
2			
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**PHASE 3 GRADING PLAN**

PROJECT NUMBER: UT237D      PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY      CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

**C-2.3**

CALL BLUESTAKES  
@ 1-800-662-4111 AT LEAST 48  
HOURS PRIOR TO THE  
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**BENCHMARK**  
NORTH QUARTER CORNER  
SECTION 2,  
T6S, R1W  
SLB&M  
ELEVATION = 4578.79 PER NGVD 1929  
PER UTAH COUNTY SURVEYORS OFFICE

**LEGEND**

○	SET ENSIGN REBAR AND CAP	- - - X - - -	EXIST FENCE
○	EXIST WATER METER	- - - X - - -	PRO FENCE
○	PRO WATER METER	- - - / - - -	EXIST EDGE OF ASPHALT
○	EXIST WATER VALVE	- - - / - - -	PRO EDGE OF ASPHALT
○	PRO WATER VALVE	- - - SS - - -	EXIST SANITARY SEWER
○	EXIST FIRE HYDRANT	- - - SS - - -	PRO SANITARY SEWER LINE
○	PRO FIRE HYDRANT	- - - SW - - -	PRO SAN. SWR. SERVICE LINE
○	EXIST SECONDARY WATER VALVE	- - - W - - -	EXIST WATER LINE
○	PRO SECONDARY WATER VALVE	- - - W - - -	PRO WATER LINE
○	EXIST SANITARY SEWER MANHOLE	- - - - - - - - -	PRO CULINARY WATER SERVICE LINE
○	PRO SANITARY SEWER MANHOLE	- - - SW - - -	EXIST SECONDARY WATER LINE
○	EXIST SIGN	- - - SW - - -	PRO SECONDARY WATER LINE
○	PRO SIGN	- - - - - - - - -	PRO SEC. WATER SERVICE LINE
○	EXISTING CURB AND GUTTER		
○	PROPOSED CURB AND GUTTER		

**GENERAL NOTES**

- CULINARY & SECONDARY WATER:**
1. WATERLINES SHOULD BE CONSTRUCTED USING PVC C900 CLASS 150 OR 200
  2. MAXIMUM OPERATING PRESSURE IS TO BE 100 PSI
  3. MINIMUM COVER SHALL BE 48 INCHES FOR CULINARY AND 36 INCHES FOR SECONDARY WATERLINES
  4. WATERLINES THAT CONFLICT WITH OTHER UTILITIES SHALL BE LOOPED ACCORDING TO CITY DETAIL CW-3
  5. THE INSTALLATION OF ALL WATERLINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS
- SANITARY SEWER:**
1. SEWER LINES TO BE CONSTRUCTED USING PVC, TYPE PSM PLASTIC PIPE SDR-35
  2. THE INSTALLATION OF ALL SEWER LINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS
- STORM DRAIN:**
1. THE INSTALLATION OF ALL STORM DRAIN LINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS
  2. STORM DRAIN LINES TO BE CONSTRUCTED USING TYPE III RCP PIPE

**NOTE**

1. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR PIPE.
2. ALL UTILITIES FOR ENTIRE SUBDIVISION TO BE INSTALLED WITH PHASE 1. LATERALS INSTALLED PER PHASE.
3. CONTRACTOR SHALL CONTACT THE CITY 7 DAYS PRIOR TO CONNECTING TO EXISTING UTILITIES.
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FOR:  
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5295 S COMMERCE DR. STE 202  
MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-253-9674  
FAX:

**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**



09-08-2014 5TH SUBMITTAL

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**OVERALL UTILITY PLAN**

PROJECT NUMBER: UT237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

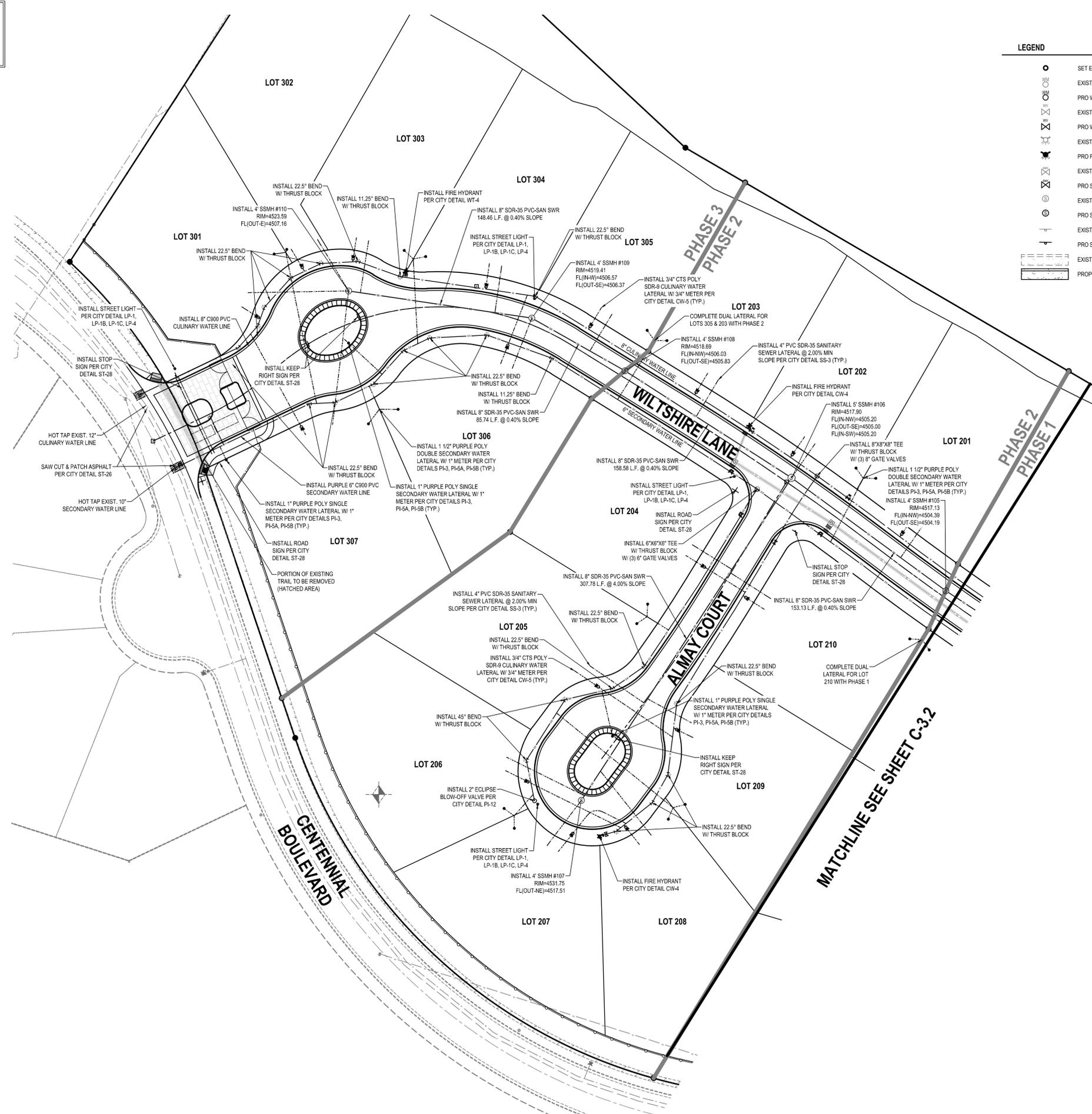
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**BENCHMARK**

NORTH QUARTER CORNER  
SECTION 2,  
T6S, R1W  
SLB&M

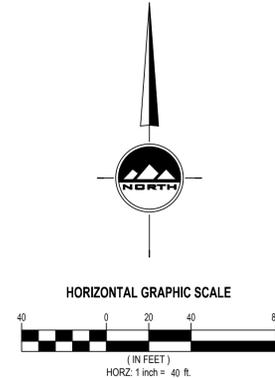
ELEVATION = 4578.79 PER NGVD 1929  
PER UTAH COUNTY SURVEYORS OFFICE



**LEGEND**

	SET ENSIGN REBAR AND CAP		EXIST FENCE
	EXIST WATER METER		PRO FENCE
	PRO WATER METER		EXIST EDGE OF ASPHALT
	EXIST WATER VALVE		PRO EDGE OF ASPHALT
	PRO WATER VALVE		EXIST SANITARY SEWER
	EXIST FIRE HYDRANT		PRO SANITARY SEWER LINE
	PRO FIRE HYDRANT		PRO SAN. SWR. SERVICE LINE
	EXIST SECONDARY WATER VALVE		EXIST WATER LINE
	PRO SECONDARY WATER VALVE		PRO WATER LINE
	EXIST SANITARY SEWER MANHOLE		PRO CULINARY WATER SERVICE LINE
	PRO SANITARY SEWER MANHOLE		EXIST SECONDARY WATER LINE
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PHONE: 801-293-9674  
FAX:

**WILTSHIRE ESTATES**

**CENTENNIAL BLVD**

**SARATOGA SPRINGS, UTAH**



09-08-2014 5TH SUBMITTAL

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**UTILITY PLAN**

PROJECT NUMBER: UT237D      PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY      CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

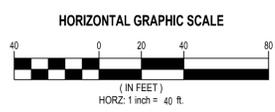
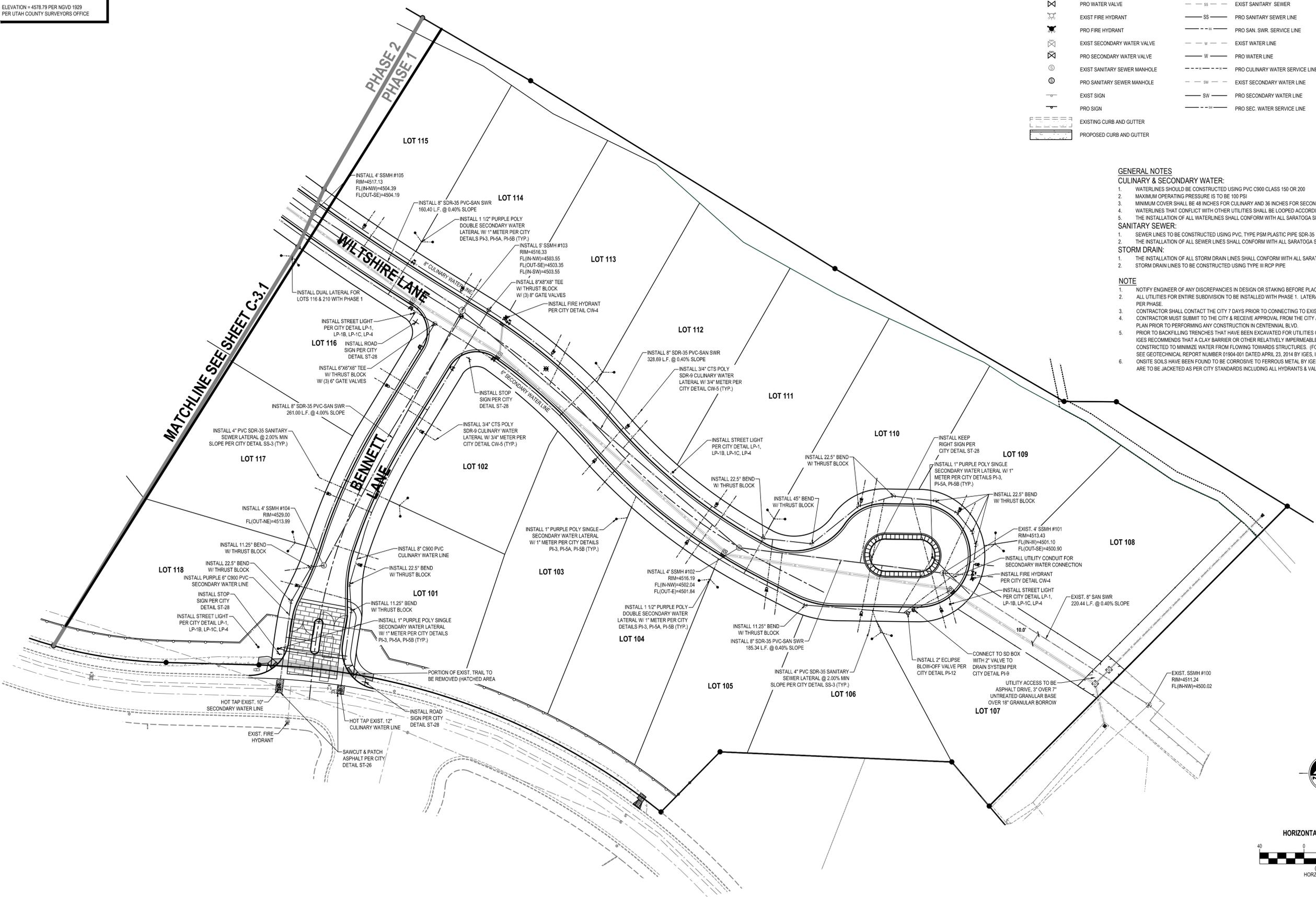
**C-3.1**



**BENCHMARK**  
 NORTH QUARTER CORNER  
 SECTION 2,  
 T6S, R1W  
 SLB&M  
 ELEVATION = 4578.79 PER NGVD 1929  
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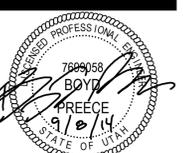
RICHFIELD  
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FOR:  
 WARDLEY DEVELOPMENT SARATOGA INC.  
 5295 S COMMERCE DR. STE 202  
 MURRAY, UTAH

CONTACT:  
 LYNN WARDLEY  
 PHONE: 801-293-9674  
 FAX:

**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**



09-08-2014 5TH SUBMITTAL

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**UTILITY PLAN**

PROJECT NUMBER: UT237D  
 PRINT DATE: 9/8/14  
 DRAWN BY: D. COWLEY  
 CHECKED BY: C. MCFARLANE  
 PROJECT MANAGER: C. MCFARLANE

**C-3.2**



CALL BLUESTAKES  
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**BENCHMARK**  
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ELEVATION = 4578.79 PER NGVD 1929  
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PHONE: 801-263-9674  
FAX:

**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
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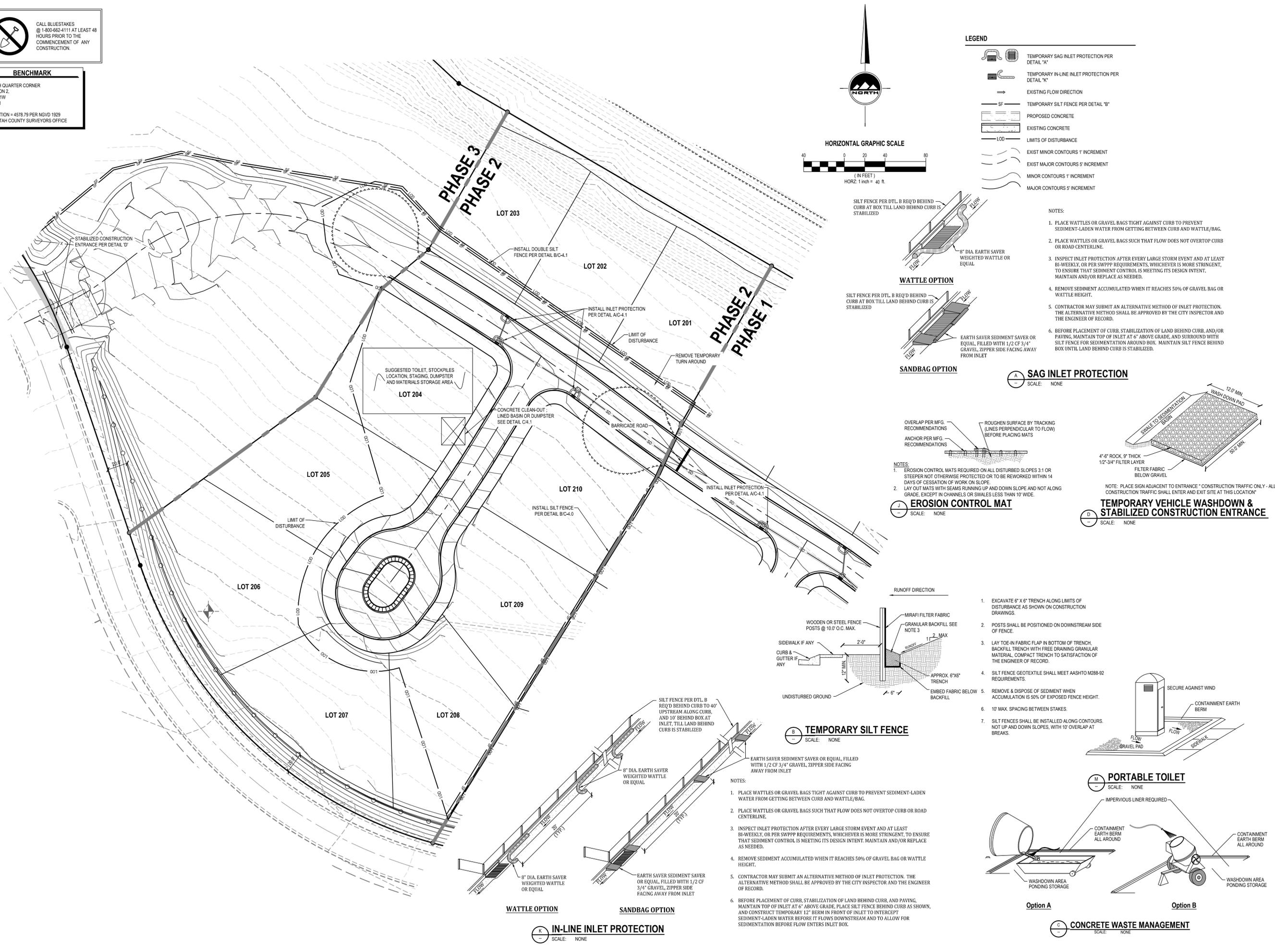
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**PHASE 2 EROSION CONTROL PLAN**

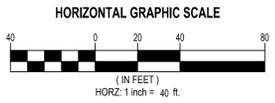
PROJECT NUMBER: U1237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. McFARLANE  
PROJECT MANAGER: C. McFARLANE

**C-4.1**



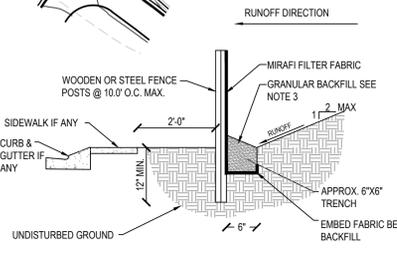
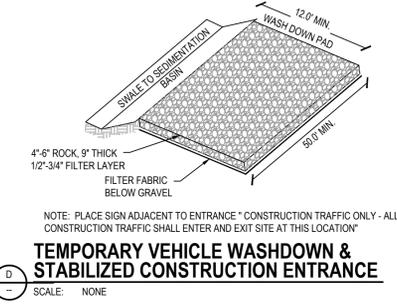
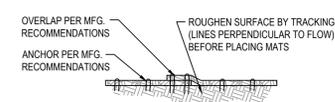
**LEGEND**

- TEMPORARY SAG INLET PROTECTION PER DETAIL "A"
- TEMPORARY IN-LINE INLET PROTECTION PER DETAIL "K"
- EXISTING FLOW DIRECTION
- TEMPORARY SILT FENCE PER DETAIL "B"
- PROPOSED CONCRETE
- EXISTING CONCRETE
- LIMITS OF DISTURBANCE
- EXIST MINOR CONTOURS 1' INCREMENT
- EXIST MAJOR CONTOURS 5' INCREMENT
- MINOR CONTOURS 1' INCREMENT
- MAJOR CONTOURS 5' INCREMENT

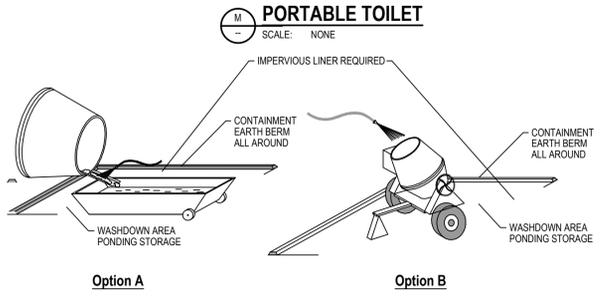
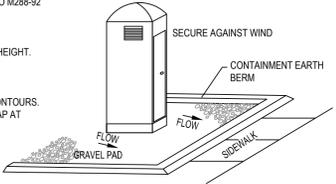


- NOTES:**
- PLACE WATTLES OR GRAVEL BAGS TIGHT AGAINST CURB TO PREVENT SEDIMENT-LADEN WATER FROM GETTING BETWEEN CURB AND WATTLE/BAG.
  - PLACE WATTLES OR GRAVEL BAGS SUCH THAT FLOW DOES NOT OVERTOP CURB OR ROAD CENTERLINE.
  - INSPECT INLET PROTECTION AFTER EVERY LARGE STORM EVENT AND AT LEAST BI-WEEKLY, OR PER SWPPP REQUIREMENTS, WHICHEVER IS MORE STRINGENT, TO ENSURE THAT SEDIMENT CONTROL IS MEETING ITS DESIGN INTENT. MAINTAIN AND/OR REPLACE AS NEEDED.
  - REMOVE SEDIMENT ACCUMULATED WHEN IT REACHES 50% OF GRAVEL BAG OR WATTLE HEIGHT.
  - CONTRACTOR MAY SUBMIT AN ALTERNATIVE METHOD OF INLET PROTECTION. THE ALTERNATIVE METHOD SHALL BE APPROVED BY THE CITY INSPECTOR AND THE ENGINEER OF RECORD.
  - BEFORE PLACEMENT OF CURB, STABILIZATION OF LAND BEHIND CURB, AND/OR PAVING, MAINTAIN TOP OF INLET AT 6" ABOVE GRADE, AND SURROUND WITH SILT FENCE FOR SEDIMENTATION AROUND BOX. MAINTAIN SILT FENCE BEHIND BOX UNTIL LAND BEHIND CURB IS STABILIZED.

**SAG INLET PROTECTION**  
SCALE: NONE



- EXCAVATE 6' X 6' TRENCH ALONG LIMITS OF DISTURBANCE AS SHOWN ON CONSTRUCTION DRAWINGS.
- POSTS SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
- LAY TOE-IN FABRIC FLAP IN BOTTOM OF TRENCH, BACKFILL TRENCH WITH FREE DRAINING GRANULAR MATERIAL, COMPACT TRENCH TO SATISFACTION OF THE ENGINEER OF RECORD.
- SILT FENCE GEOTEXTILE SHALL MEET AASHTO M288-92 REQUIREMENTS.
- REMOVE & DISPOSE OF SEDIMENT WHEN ACCUMULATION IS 50% OF EXPOSED FENCE HEIGHT.
- 10' MAX. SPACING BETWEEN STAKES.
- SILT FENCES SHALL BE INSTALLED ALONG CONTOURS. NOT UP AND DOWN SLOPES, WITH 10' OVERLAP AT BREAKS.



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**IN-LINE INLET PROTECTION**  
SCALE: NONE

**WATTLE OPTION**

**SANDBAG OPTION**

SUGGESTED TOILET, STOCKPILES LOCATION, STAGING, DUMPSTER AND MATERIALS STORAGE AREA

CONCRETE CLEAN-OUT LINED BASIN OR DUMPSTER SEE DETAIL C4.1

BARRICADE ROAD

REMOVE TEMPORARY TURN AROUND

INSTALL INLET PROTECTION PER DETAIL A/C-4.1

INSTALL DOUBLE SILT FENCE PER DETAIL B/C-4.1

PHASE 3  
PHASE 2

PHASE 2  
PHASE 1

LOT 203

LOT 202

LOT 201

LOT 204

LOT 205

LOT 210

LOT 206

LOT 209

LOT 207

LOT 208

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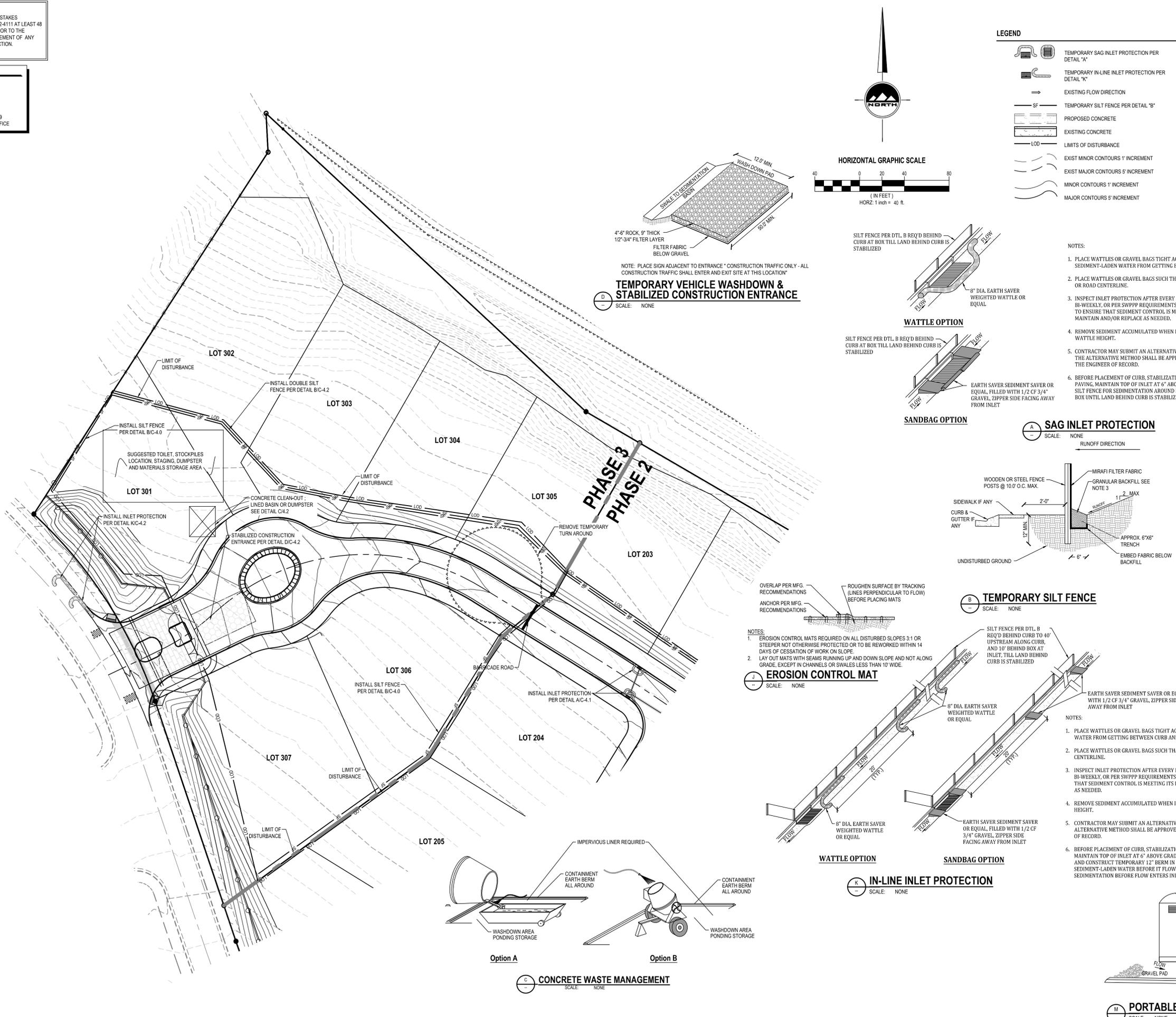
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PHASE 3 EROSION  
CONTROL PLAN

PROJECT NUMBER  
U1237D  
PRINT DATE  
9/8/14  
DRAWN BY  
D. COWLEY  
CHECKED BY  
C. MCFARLANE  
PROJECT MANAGER  
C. MCFARLANE

C-4.2



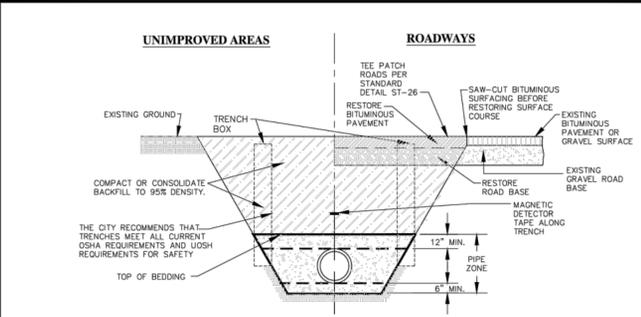


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FAX:



**CROSS-SECTION: TYPICAL TRENCH**

**RECOMMENDED TRENCH QUANTITIES**

PIPE DIAMETER (INCHES)	RECOMMENDED MAXIMUM TRENCH WIDTH FOR FILL PIPE ZONE	RECOMMENDED MAXIMUM WIDTH FOR FILL & SURFACING ABOVE PIPE ZONE MEASURED AT TOP OF TRENCH CENTERED ON PIPE
4	101.6	72
6	152.4	72
8	203.2	72
10	254.0	72
12	304.8	72
15	381.0	72
18	457.2	72
21	533.4	72
24	609.6	72
30	762.0	84
36	914.4	84
42	1066.8	96
48	1219.2	96
54	1371.6	108
60	1524.0	120

**NOTES:**

- THE CITY RECOMMENDS CONTRACTOR MEET ALL OF THE REQUIREMENTS ESTABLISHED FOR SAFE TRENCHING. (SEE OSHA AND USOH REQUIREMENTS, LATEST EDITIONS).
- CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE LAYING PIPE WITHIN 50' OF SAID UTILITIES WHICH MAY BE EXPOSED, DAMAGED OR CROSSED AS SHOWN ON THE DRAWINGS OR AS "BLUE STAKED". THE CONTRACTOR WILL MAKE ARRANGEMENTS WITH THE UTILITY COMPANY TO MOVE THE UTILITY IF NECESSARY OR OBTAIN PERMISSION FROM THE CITY ENGINEER TO MODIFY GRADE OF PIPELINE IN ORDER TO GO AROUND UTILITIES.
- TESTING: ALL NEW SANITARY SEWERS TO BE "TELEVIEWED" AND NECESSARY REPAIRS MADE BEFORE ACCEPTANCE. ALL LINES SHALL BE PRESSURE TESTED TO 3.5 PSI MIN. FOR 5 MINUTES A MANHOLE OR BALL CAN BE USED TO VERIFY DEFORMATION OF A PIPE AS DETERMINED FROM THE VIDEO UNLESS SPECIFIED OTHERWISE. MANHOLES SHALL BE TESTED AS PER CITY STANDARDS.
- ALL SEWER LINES TO BE INSTALLED IN PUBLIC RIGHT-OF-WAY OR RECORDED SEWER EASEMENT UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- WHERE COLLAPSIBLE SOILS ARE ENCOUNTERED, FURNISH, PLACE AND COMPACT IMPORTED BACKFILL MATERIALS AS REQUIRED AND AS DIRECTED.
- MIN. DEPTH SHALL BE 4" TO TOP OF PIPE. A 2" SPACING MUST BE MAINTAINED BETWEEN ALL WATER LINE PIPE CROSSINGS AND THE TOP OF THE SEWER PIPE.
- IF THE SEWER LINE IS NOT 13" DEEP A NOTE MUST BE PLACED ON THE PLAN "SHALLOW SEWER DEPTHS, BEFORE EXCAVATING BASEMENTS, CONTRACTOR MUST VERIFY SEWER DEPTH".
- MAX. DEPTH SHALL BE 20" TO THE TOP OF PIPE UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER.
- INSTALL MAGNETIC DETECTOR TAPE 3" ABOVE PIPE.
- IN ROCKY SUB-GRADES A MINIMUM OF 18" CLEARANCE ON ALL SIDES OF THE PIPE SHALL BE PROVIDED.

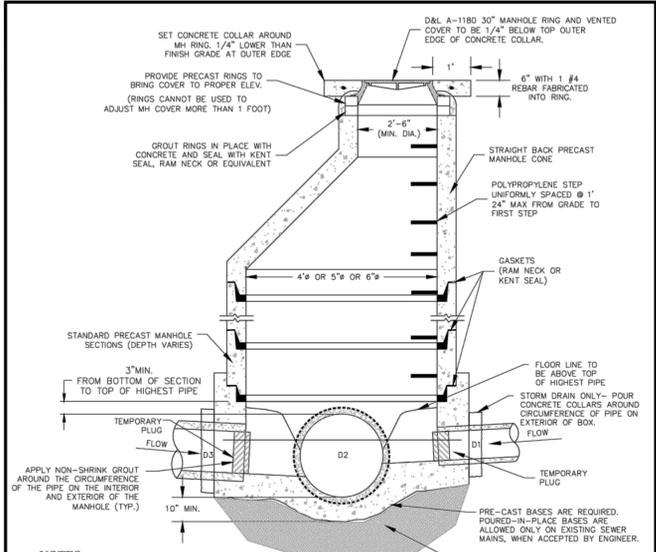
**STANDARD SEWER TRENCH**

DATE: APRIL 2014  
DRAWING NAME: SS-1  
DRAWN BY: ETL  
CHECKED: APPROVED

REVISIONS: COMMENTS

SARATOGA SPRINGS CITY

STANDARD DETAILS: SANITARY SEWER, SS-1



- NOTES:**
- IF GRADE ALLOWS, INVERTS OF D1 & D3 SHALL BE REQUIRED TO MATCH TOP OF D2.
  - AFTER ALL GRADING AROUND MANHOLE HAS BEEN COMPLETED AND FINAL SURFACING IS IN PLACE REMOVE TEMPORARY PLUGS, DEBRIS AND PLYWOOD FROM INSIDE OF MANHOLES.
  - IF MANHOLE IS TO BE POURED IN PLACE, FOLLOW SAME PATTERN AS SHOWN EXCEPT USE 10" MIN WALL THICKNESS.
  - MANHOLES DEEPER THAN 20 FEET SHALL HAVE AN 18" THICK CONCRETE BASE.
  - CONE AND WALL SECTIONS SHALL CONFORM WITH ASTM C-478 STANDARD.
  - ALL MANHOLES TO BE HS-20 RATED.
  - MANHOLES WITH SOLID LIDS MUST BE EPOXY LINED.
  - MANHOLES OUTSIDE OF ROW SHALL HAVE SOLID LOCKING LIDS.
  - FLAT CAST RINGS ARE NOT PERMITTED.
  - LID SHALL BE MARKED SS SEWER

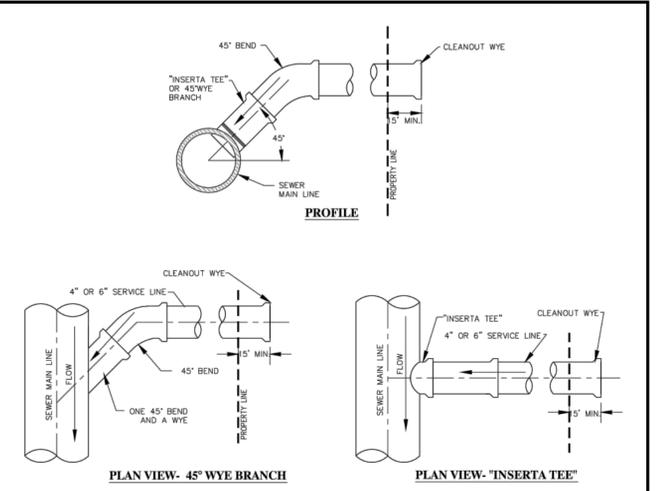
**SANITARY SEWER MANHOLE**

DATE: APRIL 2014  
DRAWING NAME: SS-2  
DRAWN BY: ETL  
CHECKED: APPROVED

REVISIONS: COMMENTS

SARATOGA SPRINGS CITY

STANDARD DETAILS: SANITARY SEWER, SS-2



- NOTES:**
- ALL RESIDENTIAL SERVICES SHALL BE 4" DIAMETER. NON-RESIDENTIAL SHALL BE 6" DIAMETER UNLESS DIRECTED OTHERWISE AND SHALL BE EXTENDED FROM MAIN LINES TO PROPERTY LINES.
  - EVERY RESIDENTIAL UNIT SHALL HAVE A SEPARATE SEWER LATERAL.
  - MINIMUM GRADE SHALL BE 2% FOR SERVICE LINES.
  - ALL 90° BENDS AT CONNECTION TO MAIN MUST BE CONSTRUCTED WITH ONE 45° BEND AND A WYE.
  - DIRECT NOSE ON IS ALLOWED WHEN CONNECTING TO EXISTING MAIN LINE. USE RUBBER BOOT AS PER CITY WITH STAINLESS STEEL STRAPS, IF REQUIRED. CORE CUT EXISTING PIPE, DO NOT BREAK OUT WITH A HAMMER.
  - NOTIFY CITY 24 HOURS IN ADVANCE OF ANY CONNECTION. EVERY CONNECTION TO BE INSPECTED BY CITY.
  - CONNECTION TO USERS TO BE DONE BY OTHERS.
  - CAST IRON WYES ARE REQUIRED FOR ALL NON-RESIDENTIAL CONNECTIONS.

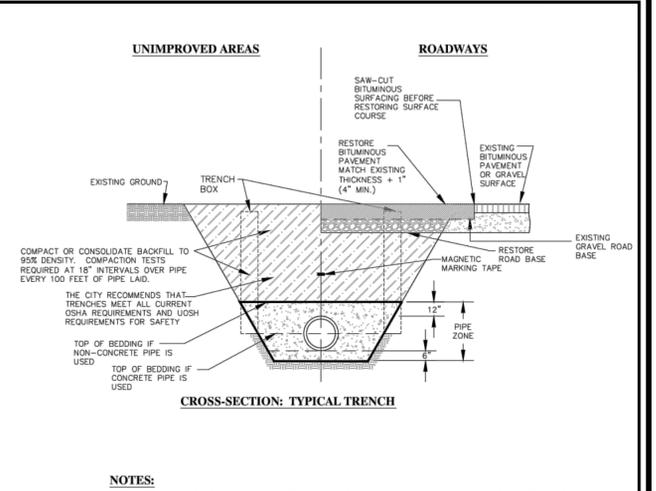
**SEWER SERVICE CONNECTION**

DATE: APRIL 2014  
DRAWING NAME: SS-3  
DRAWN BY: ETL  
CHECKED: APPROVED

REVISIONS: COMMENTS

SARATOGA SPRINGS CITY

STANDARD DETAILS: SANITARY SEWER, SS-3



- NOTES:**
- THE CITY RECOMMENDS CONTRACTOR MEET ALL OF THE REQUIREMENTS ESTABLISHED FOR SAFE TRENCHING. (SEE OSHA AND USOH REQUIREMENTS, LATEST EDITIONS).
  - CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE LAYING PIPE WITHIN 50' OF SAID UTILITIES WHICH MAY BE EXPOSED, DAMAGED OR CROSSED AS SHOWN ON THE DRAWINGS OR AS "BLUE STAKED". THE CONTRACTOR WILL MAKE ARRANGEMENTS WITH THE UTILITY COMPANY TO MOVE THE UTILITY IF NECESSARY OR OBTAIN PERMISSION FROM THE CITY ENGINEER TO MODIFY GRADE OF PIPELINE IN ORDER TO GO AROUND UTILITIES.
  - TESTING: ALL STORM DRAIN LINES TO BE "VIDEOED" AND NECESSARY REPAIRS MADE BEFORE ACCEPTANCE. A MANHOLE OR BALL CAN BE USED TO VERIFY DEFORMATION OF A PIPE AS DETERMINED FROM THE VIDEO UNLESS SPECIFIED OTHERWISE.
  - ALL STORM DRAIN TO BE INSTALLED IN PUBLIC RIGHT-OF-WAY OR RECORDED DRAINAGE EASEMENT UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
  - WHERE COLLAPSIBLE SOILS ARE ENCOUNTERED, FURNISH, PLACE AND COMPACT IMPORTED BACKFILL MATERIALS AS REQUIRED AND AS DIRECTED.
  - MIN. DEPTH OF COVER SHALL MEET MANUFACTURERS RECOMMENDATIONS.
  - IN ROCKY SUB-GRADES 18" OF CLEARANCE SHALL BE PROVIDED ON ALL SIDES OF PIPE.
  - INSTALL MAGNETIC DETECTOR TAPE 3" ABOVE PIPE IN TRENCH.

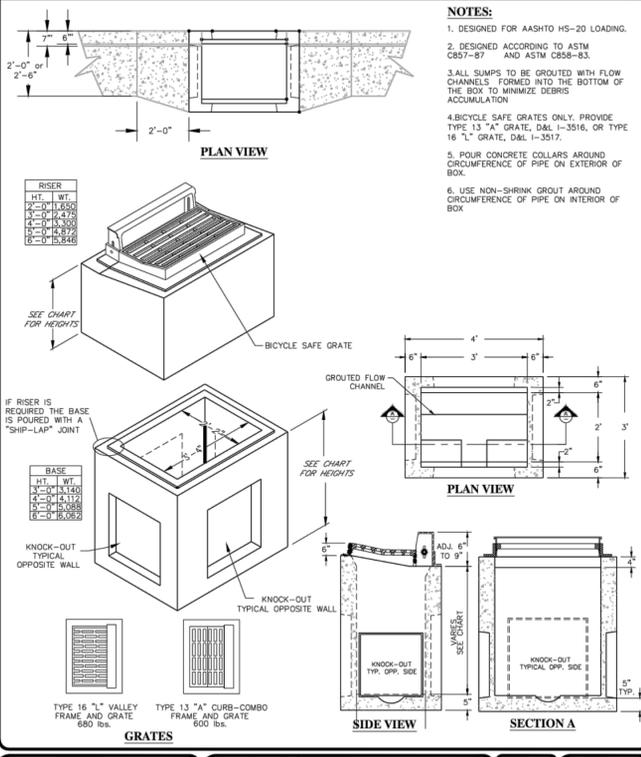
**STORM DRAIN TRENCH**

DATE: APRIL 2014  
DRAWING NAME: SD-1  
DRAWN BY: ETL  
CHECKED: APPROVED

REVISIONS: COMMENTS

SARATOGA SPRINGS CITY

STANDARD DETAILS: STORM DRAIN, SD-1



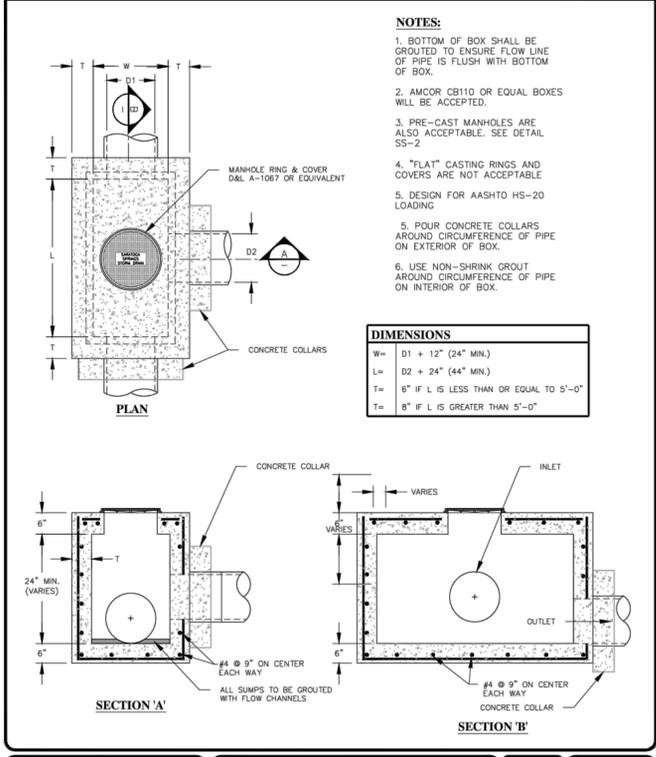
**GUTTER INLET BOX**

DATE: APRIL 2014  
DRAWING NAME: SD-2  
DRAWN BY: ETL  
CHECKED: APPROVED

REVISIONS: COMMENTS

SARATOGA SPRINGS CITY

STANDARD DETAILS: STORM DRAIN, SD-2



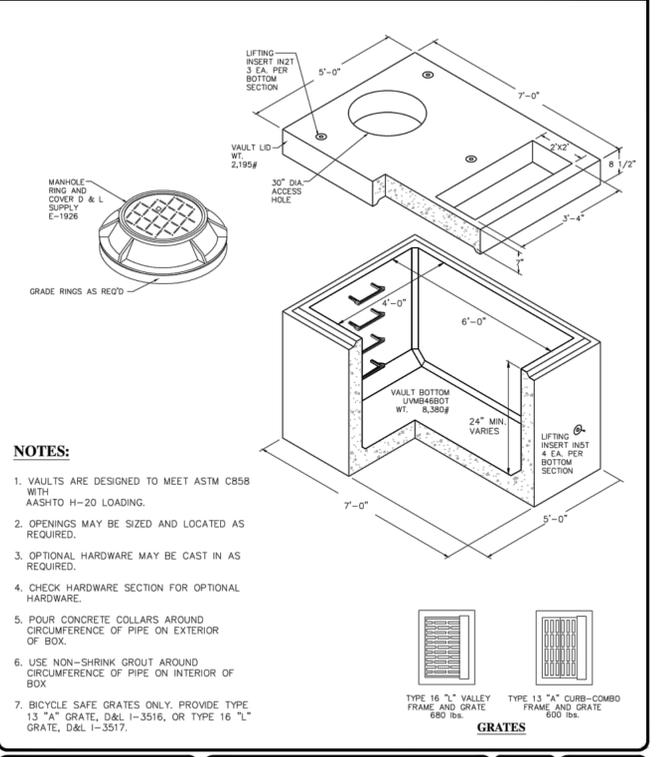
**CLEANOUT BOX**

DATE: APRIL 2014  
DRAWING NAME: SD-3  
DRAWN BY: ETL  
CHECKED: APPROVED

REVISIONS: COMMENTS

SARATOGA SPRINGS CITY

STANDARD DETAILS: STORM DRAIN, SD-3



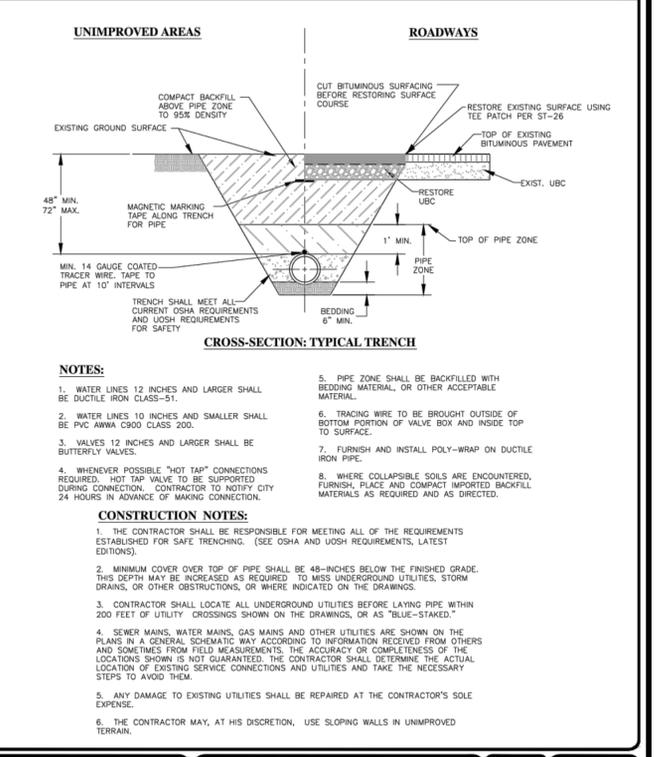
**COMBINATION GUTTER INLET & CLEANOUT BOX**

DATE: APRIL 2014  
DRAWING NAME: SD-4  
DRAWN BY: ETL  
CHECKED: APPROVED

REVISIONS: COMMENTS

SARATOGA SPRINGS CITY

STANDARD DETAILS: STORM DRAIN, SD-4



**CULINARY WATERLINE TRENCH**

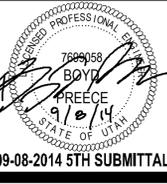
DATE: APRIL 2014  
DRAWING NAME: CW-1  
DRAWN BY: ETL  
CHECKED: APPROVED

REVISIONS: COMMENTS

SARATOGA SPRINGS CITY

STANDARD DETAILS: CULINARY WATER, CW-1

WILTSHIRE ESTATES  
CENTENNIAL BLVD  
SARATOGA SPRINGS, UTAH



09-08-2014 5TH SUBMITTAL

**STANDARD DETAILS**

PROJECT NUMBER: 11237D  
PRINT DATE: 5/8/14

DRAWN BY: D. COVILEY  
CHECKED BY: C. McFARLANE

PROJECT MANAGER: C. McFARLANE

**C-5.0**



SALT LAKE CITY  
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Sandy, UT 84070  
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Fax: 801.255.4449

LAYTON  
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TOOELE  
Phone: 435.843.3590

CEDAR CITY  
Phone: 435.865.1453

RICHFIELD  
Phone: 435.590.0187

WWW.ENSGNENG.COM

FOR:  
WARDLEY DEVELOPMENT SARATOGA INC.  
526 S COMMERCE DR. STE 202  
MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-253-9674  
FAX:

WILTSHIRE ESTATES  
CENTENNIAL BLVD  
SARATOGA SPRINGS, UTAH



NO. DATE REVISION BY

1			
2			
3			
4			
5			
6			
7			
8			

STANDARD DETAILS

PROJECT NUMBER: U1237D PRINT DATE: 5/8/14

DRAWN BY: D. COVILEY CHECKED BY: C. McFARLANE  
PROJECT MANAGER: C. McFARLANE

C-5.1

**SAFE BEARING LOADS**

SOIL TYPE	SAFE BEARING LOAD (lb/ft <sup>2</sup> )
SAND	1000
SAND & GRAVEL	1500
SAND & GRAVEL CEMENTED WITH CLAY SHALE	2000
SHALE	5000

**THRUST ON FITTINGS**

PIPE SIZE	TEES/PLUGS	90° BENDS	45° BENDS	22.5° BENDS
4"	16.9	26.1	14.2	7.2
6"	38	53.7	29.1	14.7
8"	45.8	93	50.4	25.5
10"	107.5	152	82.4	41.7
12"	153.1	216.4	117.2	59.4
14"	215.5	304.7	164.9	84
16"	281.5	398.1	215.4	109.8
18"	356.3	503.8	272.6	139
20"	439.8	622	336.6	171.6
24"	633.3	895.6	484.7	247.1

**THRUST BLOCK AREA AGAINST TRENCH WALL (SQUARE FEET)**

PIPE SIZE	TEES/PLUGS	90° BENDS	45° BENDS	22.5° BENDS
4"	2.8	3.9	2.1	1.1
6"	5.7	8.1	4.4	2.2
8"	9.9	14.0	7.6	3.8
10"	16.1	22.8	12.4	6.3
12"	23.0	32.5	17.6	8.9
14"	32.3	45.7	24.7	12.6
16"	42.2	59.7	32.3	16.5
18"	53.4	75.6	40.9	20.9
20"	66.0	93.3	50.5	25.7
24"	95.0	134.3	72.7	37.1

**CONCRETE THRUST BLOCKS**

DATE: APRIL 2014  
DRAWING NAME: CW-2  
DRAWN BY: BEL  
CHECKED APPROVED: SARATOGA SPRINGS CITY

STANDARD DETAILS: CULINARY WATER, CW-2

**NOTES:**

- CITY TO BE GIVEN 72 HOUR NOTICE BEFORE LOOPING ANY WATERLINE WHEN SHUT OFF IS REQUIRED
- A CASE OR SLEEVE IS REQUIRED WHEN CROSSING CULINARY WATER UNDER SANITARY AND STORM SEWER.
- ENGINEER SHALL DETERMINE # AND LOCATION OF RESTRAINTS.

**CULINARY WATERLINE LOOP**

DATE: APRIL 2014  
DRAWING NAME: CW-3  
DRAWN BY: BEL  
CHECKED APPROVED: SARATOGA SPRINGS CITY

STANDARD DETAILS: CULINARY WATER, CW-3

**NOTES:**

- HYDRANT SHALL BE "TRAFFIC" TYPE WITH A REPLACEABLE BREAK-AWAY UNIT IMMEDIATELY ABOVE GROUND.
- HYDRANT SHALL BE CENTERED IN A CONCRETE PAD.

**FIRE HYDRANT CONNECTION**

DATE: APRIL 2014  
DRAWING NAME: CW-4  
DRAWN BY: BEL  
CHECKED APPROVED: SARATOGA SPRINGS CITY

STANDARD DETAILS: CULINARY WATER, CW-4

**NOTES:**

- INSPECTION: METER BOX AND SERVICE LINE SHALL BE INSPECTED BY CITY PRIOR TO BACKFILLING.
- BACKFILL: INSTALL BACKFILL IN LIFTS NOT EXCEEDING 8" AFTER COMPACTION. COMPACT EACH LIFT TO AN AVERAGE DRY DENSITY OF 95% WITH NO DENSITY TEST RESULT LESS THAN 92%.
- CONTRACTOR TO SUPPLY ALL MATERIALS EXCLUDING METER.
- METER BOXES SHOULD BE PVC OR HOPE.
- PIPE: INSTALL MINIMUM 3/4" CTS POLY PIPE (SDR-9) FROM MAIN TO METER AND FROM METER TO BUILDING. MINIMUM 1" POLYETHYLENE PIPE TO BE USED IN COMMERCIAL AREAS. INSTALL TRACING WIRE FROM MAIN LINE TO METER.
- PLACEMENT: ALL METERS ARE TO BE INSTALLED IN THE PARK STRIP, MUST BE PLACED NEAR MIDPOINT OF THE LOT, AND MUST NOT BE LOCATED IN A DRIVEWAY OR IN A SIDEWALK.
- METER YOKE TO BE MUELLER B-2470R-6A OR ACCEPTABLE EQUIVALENT.
- SERVICE SADDLES SHALL BE MUELLER BR-2-B SERIES, OR EQUAL.
- METER LID TO BE 1" ABOVE LINE GRADE OF WALK/CURB.
- STAINLESS STEEL LINER INSERTS WILL BE REQUIRED INSIDE OF TUBING AT COMPRESSION FITTINGS.
- WATER SERVICES SHALL BE STUBBED TO A POINT APPROXIMATELY 1' BELOW UTILITY EASEMENT (PUE).
- 1" METER INSTALLATION TO BE SIMILAR USING 1" METER, PIPE, AND FITTINGS.

**RESIDENTIAL METER CONNECTION 3/4" x 5/8" OR 1"**

DATE: APRIL 2014  
DRAWING NAME: CW-5  
DRAWN BY: BEL  
CHECKED APPROVED: SARATOGA SPRINGS CITY

STANDARD DETAILS: CULINARY WATER, CW-5

**NOTES:**

- REINFORCING BARS SHALL BE EPOXY COATED
- RESIDENT PROJECT ENGINEER WILL CALCULATE QUANTITIES OF CONCRETE REID AND SPECIFY PLACEMENT METHODS & REQUIREMENTS, WHICH SHALL BE APPROVED BY CITY ENGINEER
- CONCRETE SHALL BE 4000 PSI MIN.
- POUR CONCRETE AGAINST UNDISTURBED SOIL

**2 INCH BLOW-OFF VALVE**

DATE: APRIL 2014  
DRAWING NAME: CW-13  
DRAWN BY: BEL  
CHECKED APPROVED: SARATOGA SPRINGS CITY

STANDARD DETAILS: CULINARY WATER, CW-13

**NOTES:**

- WATER LINES 12 INCHES AND LARGER SHALL BE DUCTILE IRON CLASS-51.
- WATER LINES 10 INCHES AND SMALLER SHALL BE PVC AWMA C900 CLASS 200.
- VALVES 12 INCHES AND LARGER SHALL BE BUTTERFLY VALVES.
- WHENEVER POSSIBLE "HOT TAP" CONNECTIONS REQUIRED. HOT TAP VALVE TO BE SUPPORTED DURING CONNECTION. CONTRACTOR TO NOTIFY CITY 24 HOURS IN ADVANCE OF MAKING CONNECTION.
- ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S SOLE EXPENSE.
- THE CONTRACTOR MAY, AT HIS DISCRETION, USE SLOPING WALLS IN UNIMPROVED TERRAIN.
- PIPE ZONE SHALL BE BACKFILLED WITH BEDDING MATERIAL, OR OTHER ACCEPTABLE MATERIAL.
- TRACING WIRE TO BE BROUGHT OUTSIDE OF BOTTOM PORTION OF VALVE BOX AND INSIDE TOP TO SURFACE.
- FURNISH AND INSTALL POLY-WRAP ON DUCTILE IRON PIPE. POLY-WRAP MAY BE DELETED WHERE DIRECTED BY CITY ENGINEER.
- WHERE COLLAPSIBLE SOILS ARE ENCOUNTERED, FURNISH, PLACE AND COMPACT IMPORTED BACKFILL MATERIALS AS REQUIRED AND AS DIRECTED.

**CONSTRUCTION NOTES:**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL OF THE REQUIREMENTS ESTABLISHED FOR SAFE TRENCHING. (SEE OSHA AND UOSH REQUIREMENTS, LATEST EDITIONS).
- MINIMUM COVER OVER TOP OF PIPE SHALL BE 36-INCHES BELOW THE FINISHED GRADE. THIS DEPTH MAY BE INCREASED AS REQUIRED TO MISS UNDERGROUND UTILITIES, STORM DRAINS, OR OTHER OBSTRUCTIONS, OR WHERE INDICATED ON THE DRAWINGS.
- CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE LAYING PIPE WITHIN 200 FEET OF UTILITY CROSSINGS SHOWN ON THE DRAWINGS, OR AS "BLUE-STAKED."
- SEWER MAINS, WATER MAINS, GAS MAINS AND OTHER UTILITIES ARE SHOWN ON THE PLANS IN A GENERAL SCHEMATIC WAY ACCORDING TO INFORMATION RECEIVED FROM OTHERS AND SOMETIMES FROM FIELD MEASUREMENTS. THE ACCURACY OR COMPLETENESS OF THE LOCATIONS SHOWN IS NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE THE ACTUAL LOCATION OF EXISTING SERVICE CONNECTIONS AND UTILITIES AND TAKE THE NECESSARY STEPS TO AVOID THEM.

**TRENCH DETAIL**

DATE: APRIL 2014  
DRAWING NAME: PI-1  
DRAWN BY: BEL  
CHECKED APPROVED: SARATOGA SPRINGS CITY

STANDARD DETAILS: PRESSURIZED IRR, PI-1

**SAFE BEARING LOADS**

SOIL TYPE	SAFE BEARING LOAD (lb/ft <sup>2</sup> )
SAND	1000
SAND & GRAVEL	1500
SAND & GRAVEL CEMENTED WITH CLAY SHALE	2000
SHALE	5000

**THRUST ON FITTINGS**

PIPE SIZE	TEES/PLUGS	90° BENDS	45° BENDS	22.5° BENDS
4"	16.9	26.1	14.2	7.2
6"	38	53.7	29.1	14.7
8"	45.8	93	50.4	25.5
10"	107.5	152	82.4	41.7
12"	153.1	216.4	117.2	59.4
14"	215.5	304.7	164.9	84
16"	281.5	398.1	215.4	109.8
18"	356.3	503.8	272.6	139
20"	439.8	622	336.6	171.6
24"	633.3	895.6	484.7	247.1

**THRUST BLOCK AREA AGAINST TRENCH WALL (SQUARE FEET)**

PIPE SIZE	TEES/PLUGS	90° BENDS	45° BENDS	22.5° BENDS
4"	2.8	3.9	2.1	1.1
6"	5.7	8.1	4.4	2.2
8"	9.9	14.0	7.6	3.8
10"	16.1	22.8	12.4	6.3
12"	23.0	32.5	17.6	8.9
14"	32.3	45.7	24.7	12.6
16"	42.2	59.7	32.3	16.5
18"	53.4	75.6	40.9	20.9
20"	66.0	93.3	50.5	25.7
24"	95.0	134.3	72.7	37.1

**NOTES:**

- REINFORCING BARS SHALL BE EPOXY COATED
- RESIDENT PROJECT ENGINEER WILL CALCULATE QUANTITIES OF CONCRETE REID AND SPECIFY PLACEMENT METHODS & REQUIREMENTS, WHICH SHALL BE APPROVED BY CITY ENGINEER
- CONCRETE SHALL BE 4000 PSI MIN.
- POUR CONCRETE AGAINST UNDISTURBED SOIL

**CONCRETE THRUST BLOCKS**

DATE: APRIL 2014  
DRAWING NAME: PI-2  
DRAWN BY: BEL  
CHECKED APPROVED: SARATOGA SPRINGS CITY

STANDARD DETAILS: PRESSURIZED IRR, PI-2

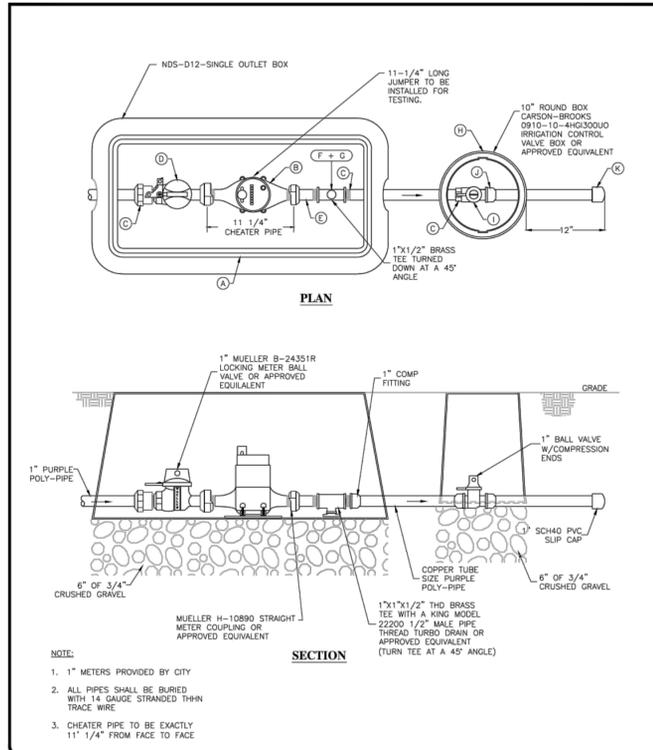
**NOTES:**

- STANDARD SERVICE SIZE SHALL BE 1 1/2" FOR DUAL SERVICES AND 1" FOR SINGLE SERVICES. SEE DETAIL PI-5A AND PI-5B FOR SERVICE BOX AND METER DETAILS.
- STAINLESS STEEL LINER INSERTS WILL BE REQUIRED INSIDE OF TUBING AT COMPRESSION FITTINGS.
- ALL FITTINGS SHALL BE COMPATIBLE WITH SERVICE SIZE.
- SERVICE LATERAL SHALL SLOPE TOWARDS PRESSURIZED IRRIGATION MAIN.
- SPRINKLER SLEEVE SHALL NOT BE IN LINE WITH ANY UTILITY BOXES.
- 4" SLEEVE SHALL BE BURIED 1' BELOW GRADE.
- CHEATER PIPE TO BE EXACTLY 11 1/4" FROM FACE TO FACE.

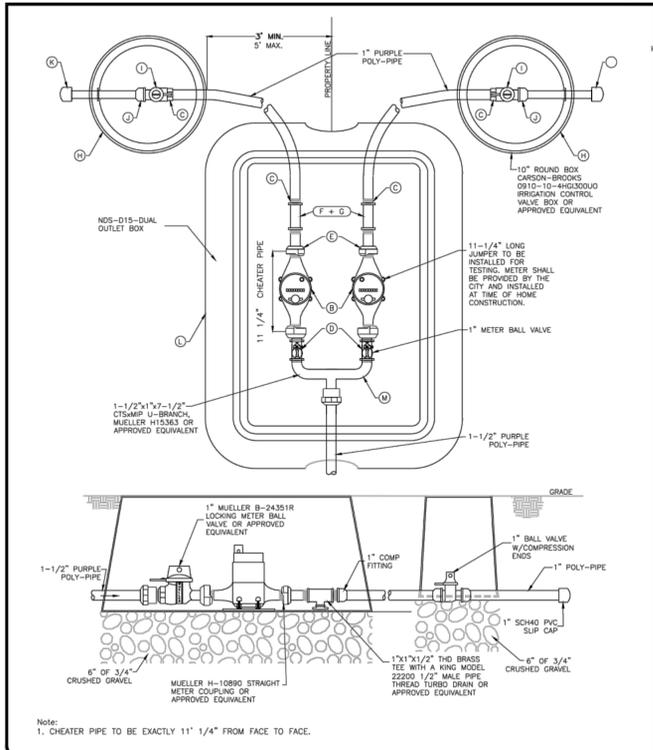
**1" SINGLE & DUAL SERVICE LATERALS**

DATE: APRIL 2014  
DRAWING NAME: PI-3  
DRAWN BY: BEL  
CHECKED APPROVED: SARATOGA SPRINGS CITY

STANDARD DETAILS: PRESSURIZED IRR, PI-3



<b>1" SINGLE SERVICE LATERAL BOX</b>	DATE: APRIL 2014	REVISIONS:	STANDARD DETAILS:
	DRAWING NAME: PI-5A	REVISIONS:	PRESSURIZED IRR:
	DRAWN BY: ETL	CHECKED: APPROVED:	
	SARATOGA SPRINGS CITY		



<b>1 1/2" DUAL SERVICE LATERAL BOX</b>	DATE: APRIL 2014	REVISIONS:	STANDARD DETAILS:
	DRAWING NAME: PI-5B	REVISIONS:	PRESSURIZED IRR:
	DRAWN BY: ETL	CHECKED: APPROVED:	
	SARATOGA SPRINGS CITY		

**SCHEDULE OF PLUMBING MATERIAL FOR WATER METER BOXES**

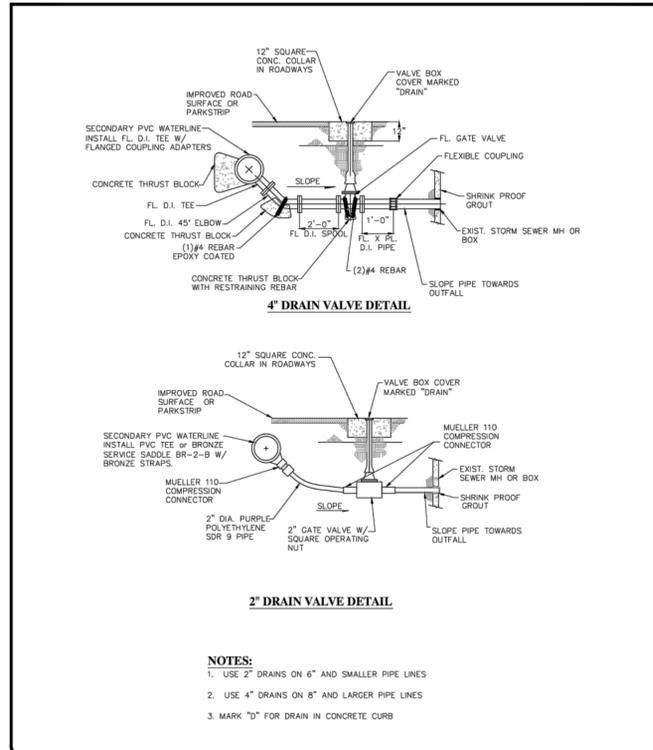
**1" SINGLE SERVICE CONNECTION**

ITEM	QUANTITY	DESCRIPTION
A	1eo	14"x19"x12" METER BOX W/ SINGLE OUTLET
B	1eo	1" METER (SUPPLIED AND INSTALLED BY CITY)
C	3eo	1" COUPLER CCT/MIPT H15428
D	1eo	1" STR BALL METER VALVE B24351R
E	1eo	1" STR METER COUPLER H10890
F	1eo	1"x1/2" BRASS TEE
G	1eo	1/2" MALE PIPE THREAD AUTO DRAIN
H	1eo	10" IRRIGATION VALVE BOX
I	1eo	1" BRASS BALL VALVE 600 WOG
J	1eo	1" MALE ADAPT SXM1PT SCH 40
K	1eo	1" SLIP CAP SHC 40

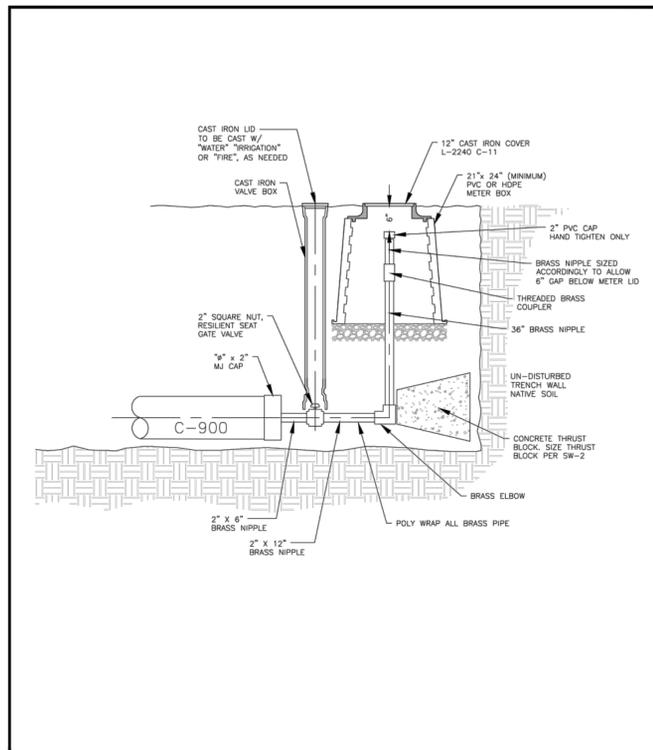
**1 1/2" TO DUAL 1" SERVICE CONNECTION**

ITEM	QUANTITY	DESCRIPTION
L	1eo	13"x20"x12" JUMBO METER BOX W/ DOUBLE OUTLET
B	2eo	1" METER (SUPPLIED AND INSTALLED BY CITY)
M	1eo	1.5"x7.5" CTSAMP U-BRANCH H15363
D	2eo	1" STR BALL METER VALVE B24351R
E	2eo	1" STR METER COUPLER H10890
G	2eo	1/2" MALE PIPE THREAD AUTO DRAIN
C	4eo	1" COUPLER CCT/MIPT H15428
I	2eo	1" BRASS BALL VALVE 600 WOG
H	2eo	10" IRRIGATION VALVE BOX
J	2eo	1" MALE ADAPT SXM1PT SCH 40
K	2eo	1" SLIP CAP SHC 40

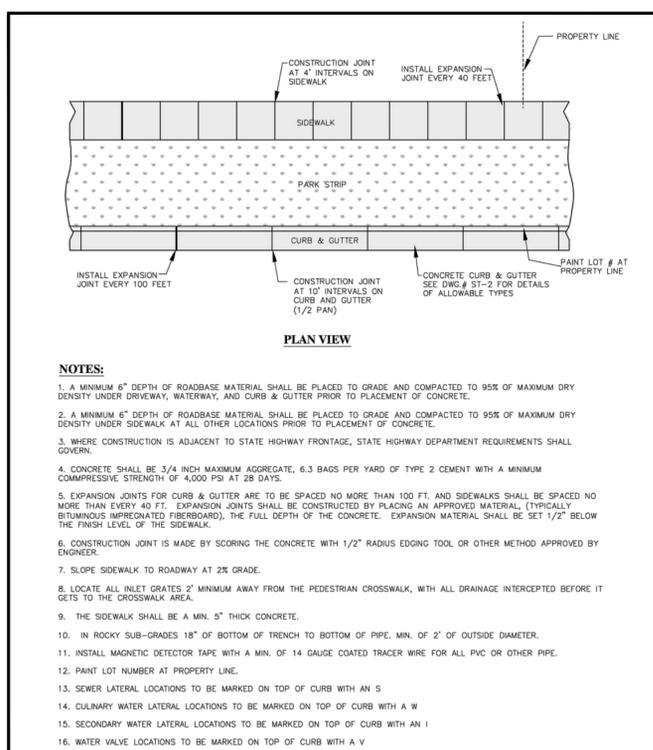
<b>PARTS LIST FOR SINGLE AND DUAL SERVICE LATERAL BOXES</b>	DATE: APRIL 2014	REVISIONS:	STANDARD DETAILS:
	DRAWING NAME: PI-5C	REVISIONS:	PRESSURIZED IRR:
	DRAWN BY: ETL	CHECKED: APPROVED:	
	SARATOGA SPRINGS CITY		



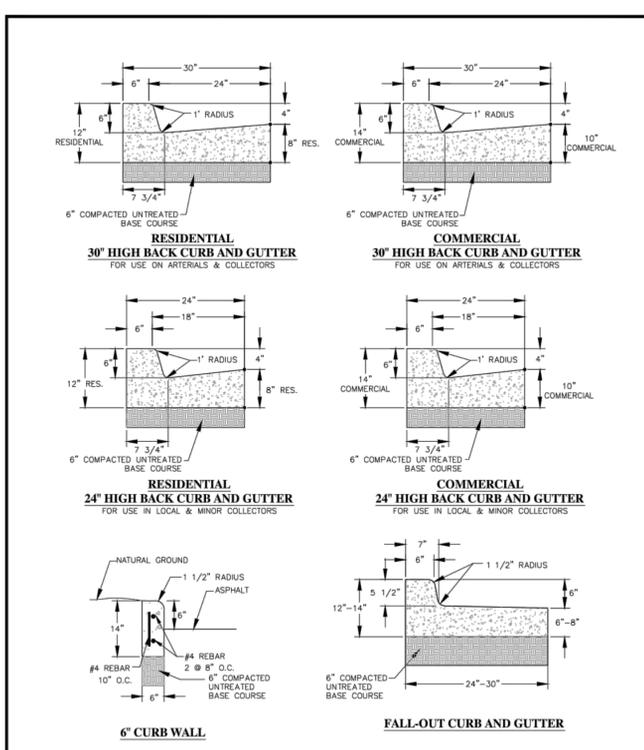
<b>2" &amp; 4" DRAIN VALVES</b>	DATE: APRIL 2014	REVISIONS:	STANDARD DETAILS:
	DRAWING NAME: PI-9	REVISIONS:	PRESSURIZED IRR:
	DRAWN BY: ETL	CHECKED: APPROVED:	
	SARATOGA SPRINGS CITY		



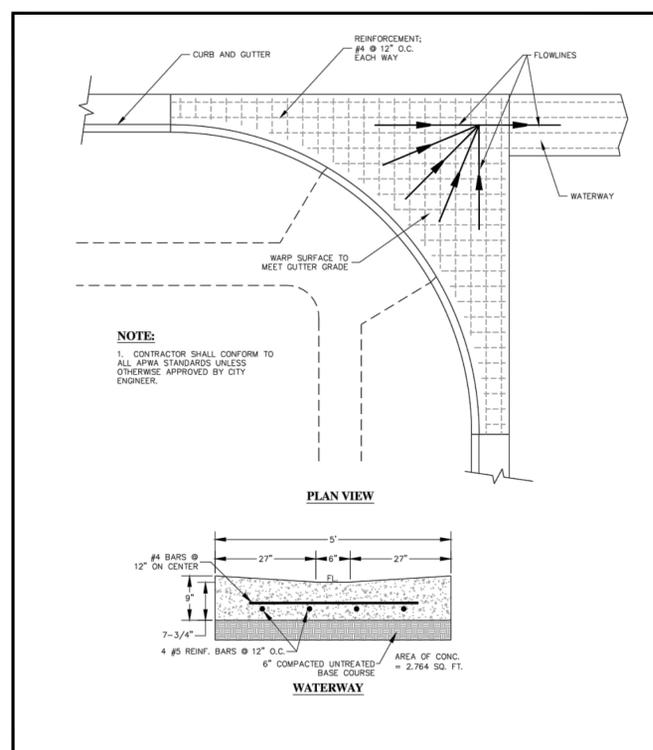
<b>2 INCH BLOW-OFF VALVE</b>	DATE: APRIL 2014	REVISIONS:	STANDARD DETAILS:
	DRAWING NAME: PI-12	REVISIONS:	PRESSURIZED IRR:
	DRAWN BY: ETL	CHECKED: APPROVED:	
	SARATOGA SPRINGS CITY		



<b>SIDEWALK, CURB &amp; GUTTER STANDARDS</b>	DATE: APRIL 2014	REVISIONS:	STANDARD DETAILS:
	DRAWING NAME: ST-1	REVISIONS:	STREET STANDARDS:
	DRAWN BY: ETL	CHECKED: APPROVED:	
	SARATOGA SPRINGS CITY		



<b>CURB &amp; GUTTER DETAILS</b>	DATE: APRIL 2014	REVISIONS:	STANDARD DETAILS:
	DRAWING NAME: ST-2	REVISIONS:	STREET STANDARDS:
	DRAWN BY: ETL	CHECKED: APPROVED:	
	SARATOGA SPRINGS CITY		



<b>WATERWAY DETAIL</b>	DATE: FEBRUARY 2013	REVISIONS:	STANDARD DETAILS:
	DRAWING NAME: ST-3	REVISIONS:	STREET STANDARDS:
	DRAWN BY: ETL	CHECKED: APPROVED:	
	SARATOGA SPRINGS CITY		

**ENSIGN**

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Sandy, UT 84070  
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Fax: 801.255.4449

LAYTON  
Phone: 801.547.1100

TOOELE  
Phone: 835.843.3590

CEDAR CITY  
Phone: 435.865.1453

RICHFIELD  
Phone: 435.590.0187

WWW.ENSIGNENG.COM

FOR:  
WARDLEY DEVELOPMENT SARATOGA INC.  
528 S COMMERCE DR. STE 202  
MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-253-9674  
FAX:

**WILTSHIRE ESTATES**

**CENTENNIAL BLVD**

**SARATOGA SPRINGS, UTAH**

PROFESSIONAL ENGINEER

BOYD RREECE

9/10/14

STATE OF UTAH

09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
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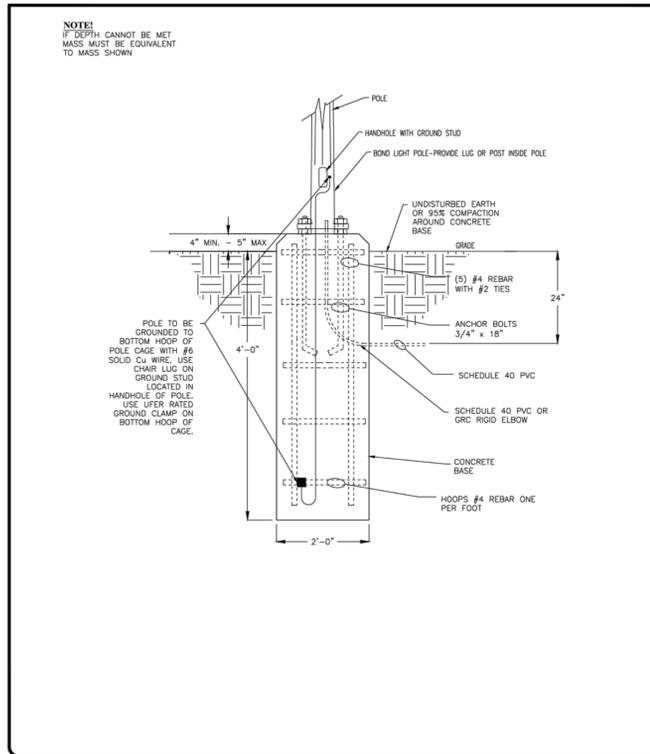
PROJECT NUMBER: 11/237D PRINT DATE: 5/8/14

DRAWN BY: D. COVLEY CHECKED BY: C. McFARLANE

PROJECT MANAGER: C. McFARLANE

**C-5.2**





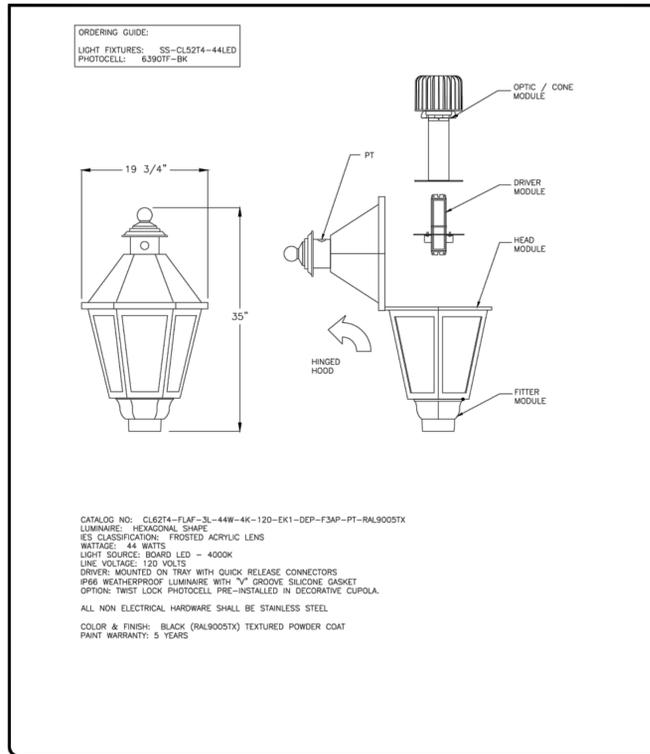
**CONCRETE BASE DETAIL FOR 14' RESIDENTIAL STREET LIGHT**

DATE: APRIL 2014  
DRAWING NAME: LP-1B  
DRAWN BY: EKL  
CHECKED: [REDACTED]

REVISIONS:  
DATE: [REDACTED]  
BY: [REDACTED]  
COMMENTS: [REDACTED]

SARATOGA SPRINGS CITY

STANDARD DETAILS  
STREET LIGHTS  
**LP-1B**



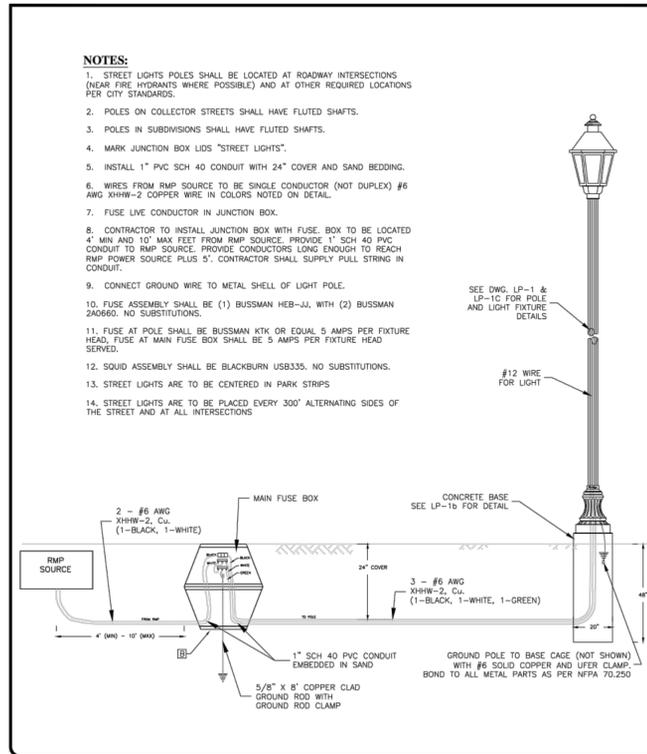
**RESIDENTIAL STREET LIGHT LUMINAIRE**

DATE: APRIL 2014  
DRAWING NAME: LP-1C  
DRAWN BY: EKL  
CHECKED: [REDACTED]

REVISIONS:  
DATE: [REDACTED]  
BY: [REDACTED]  
COMMENTS: [REDACTED]

SARATOGA SPRINGS CITY

STANDARD DETAILS  
STREET LIGHTS  
**LP-1C**



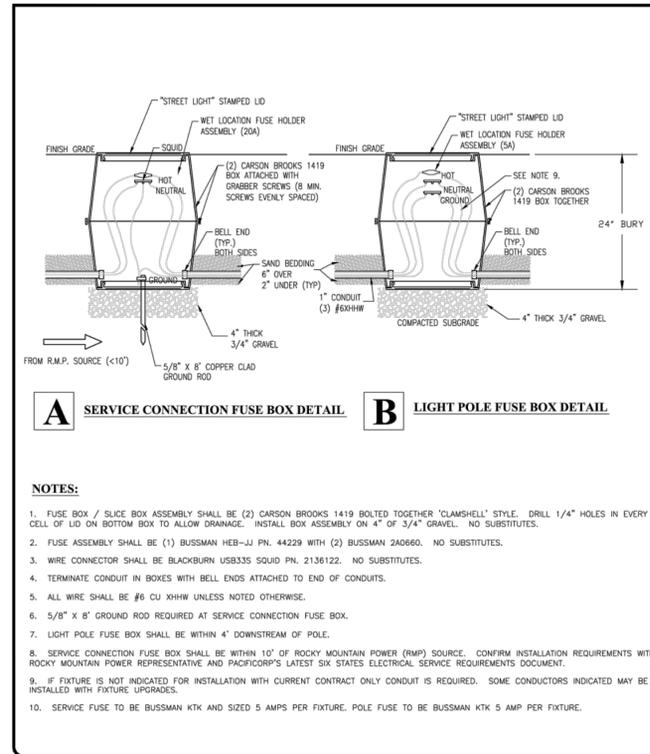
**RESIDENTIAL STREET LIGHT CONNECTION DETAIL**

DATE: APRIL 2014  
DRAWING NAME: LP-4  
DRAWN BY: EKL  
CHECKED: [REDACTED]

REVISIONS:  
DATE: [REDACTED]  
BY: [REDACTED]  
COMMENTS: [REDACTED]

SARATOGA SPRINGS CITY

STANDARD DETAILS  
STREET LIGHTS  
**LP-4**



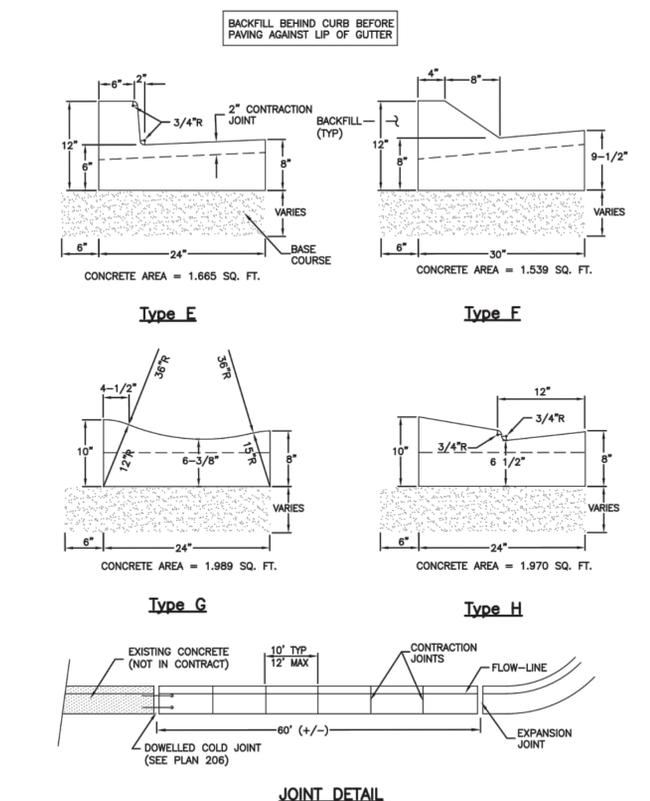
**LIGHT POLE BELOW GRADE BOXES INSTALLATION DETAILS**

DATE: APRIL 2014  
DRAWING NAME: LP-6  
DRAWN BY: EKL  
CHECKED: [REDACTED]

REVISIONS:  
DATE: [REDACTED]  
BY: [REDACTED]  
COMMENTS: [REDACTED]

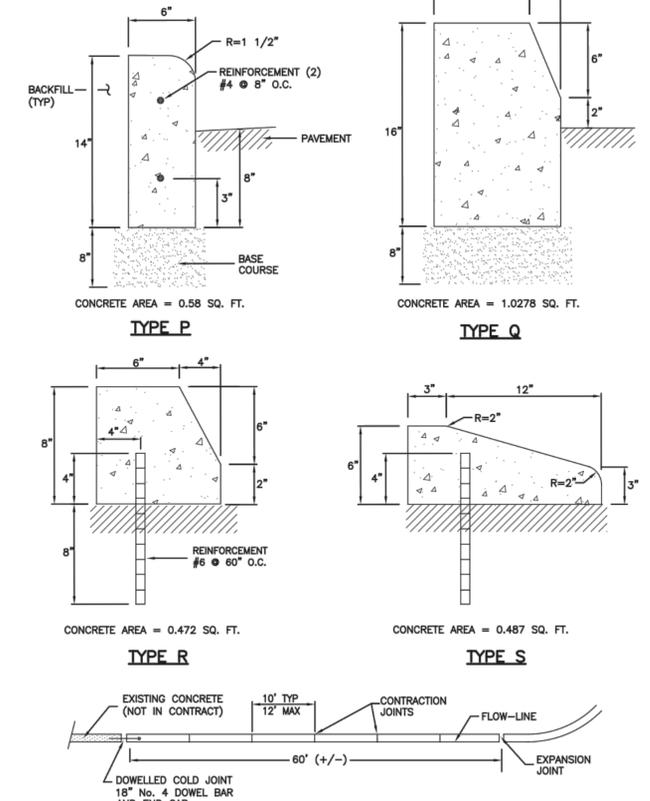
SARATOGA SPRINGS CITY

STANDARD DETAILS  
LANDSCAPING  
**LP-6**



**Curb and gutter**

Plan 205  
Sheet 2 of 3  
April 2011



**Curbs**

Plan 209  
November 2009

**RHINOROCK MASONRY FENCE**

TECHNICAL INFORMATION: RhinoRock Fence Panel

Dimension of Panel	182 cm x 259 cm	72"x102"
Weight of Panel	105 kg	230 lbs
Weight per area	21.5kg/m <sup>2</sup>	4.9lbs/ft <sup>2</sup>
Thickness of Panel	115mm	4.5"
EPS Foam Core thickness	63-95mm	2.5-3.75"
Glass fiber reinforced concrete shell thickness	9mm	5/16"
% glass fiber by volume	4-4.50%	
Compressive Strength of proprietary concrete mix design	4x10 <sup>3</sup> N/m <sup>2</sup>	5800 psi
Ultimate tensile strength of glass fiber reinforced concrete	9.6x10 <sup>3</sup> - 1.4x10 <sup>4</sup> N/m <sup>2</sup>	1400-2100 psi
Wind load capacity of panel	225 km/h	140mph with 1.6 safety factor
axial load capacity of panel	1644 kg/lineal meter	1100 lbs/lineal foot
moisture absorption of EPS foam core by total immersion		<4%
Combustibility of glass fiber reinforced concrete shell		Non-combustible
Freeze/thaw performance	200 freeze thaw cycles with no damage	
Derby, fungus, or mushroom attack		none
Termite food source		none

**A MASONRY PILLAR W/ METAL FENCE**  
SCALE: NONE

**ENSIGN**

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FOR: WARDLEY DEVELOPMENT SARATOGA INC.  
528 S COMMERCE CR. STE 202  
MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-263-9674  
FAX:

**WILTSHIRE ESTATES**  
CENTENNIAL BLVD  
SARATOGA SPRINGS, UTAH

PROFESSIONAL  
BOYD  
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09-08-2014 5TH SUBMITTAL

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**STANDARD DETAILS**

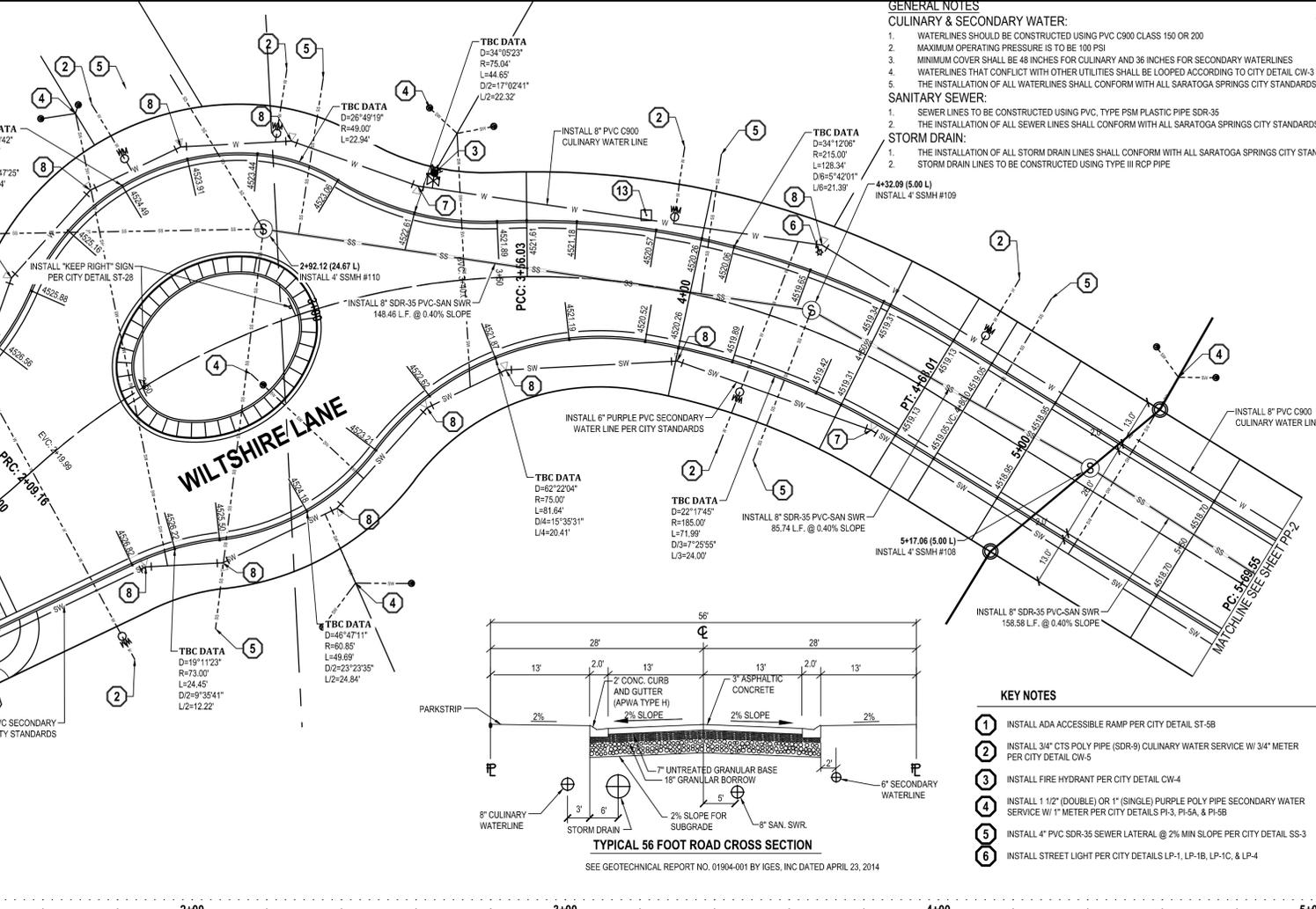
PROJECT NUMBER: U1237D  
PRINT DATE: 5/8/14  
DRAWN BY: D. COVILEY  
CHECKED BY: C. McFARLANE  
PROJECT MANAGER: C. McFARLANE

**C-5.4**

**CALL BLUESTAKES**  
@ 1-800-662-4111 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

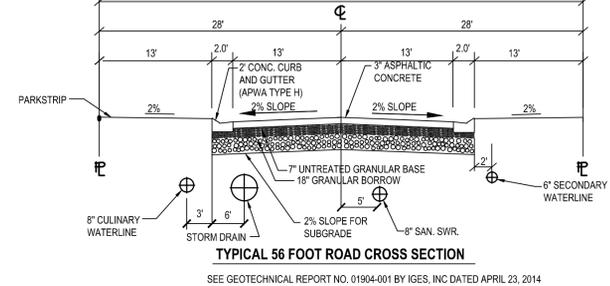
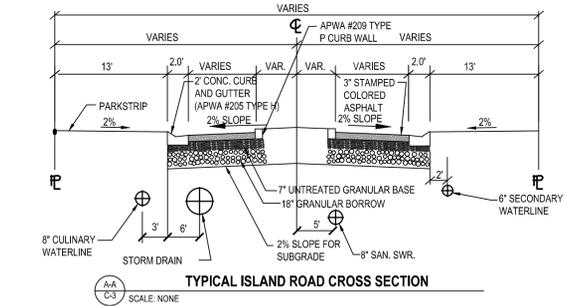
**BENCHMARK**  
NORTH QUARTER CORNER SECTION 2, T6S, R1W, SLB&M  
ELEVATION = 4578.79 PER NGVD 1929 PER UTAH COUNTY SURVEYORS OFFICE

- NOTE**
- ALL GRADES TO TBC UNLESS NOTED OTHERWISE
  - ALL UTILITIES FOR ENTIRE SUBDIVISION TO BE INSTALLED WITH PHASE 1. LATERALS INSTALLED PER PHASE
  - NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR PIPE
  - CONTRACTOR SHALL CONTACT THE CITY 7 DAYS PRIOR TO CONNECTING TO EXISTING UTILITIES.
  - CONTRACTOR MUST SUBMIT TO THE CITY & RECEIVE APPROVAL FROM THE CITY A TRAFFIC CONTROL PLAN PRIOR TO PERFORMING ANY CONSTRUCTION IN CENTENNIAL BLVD.

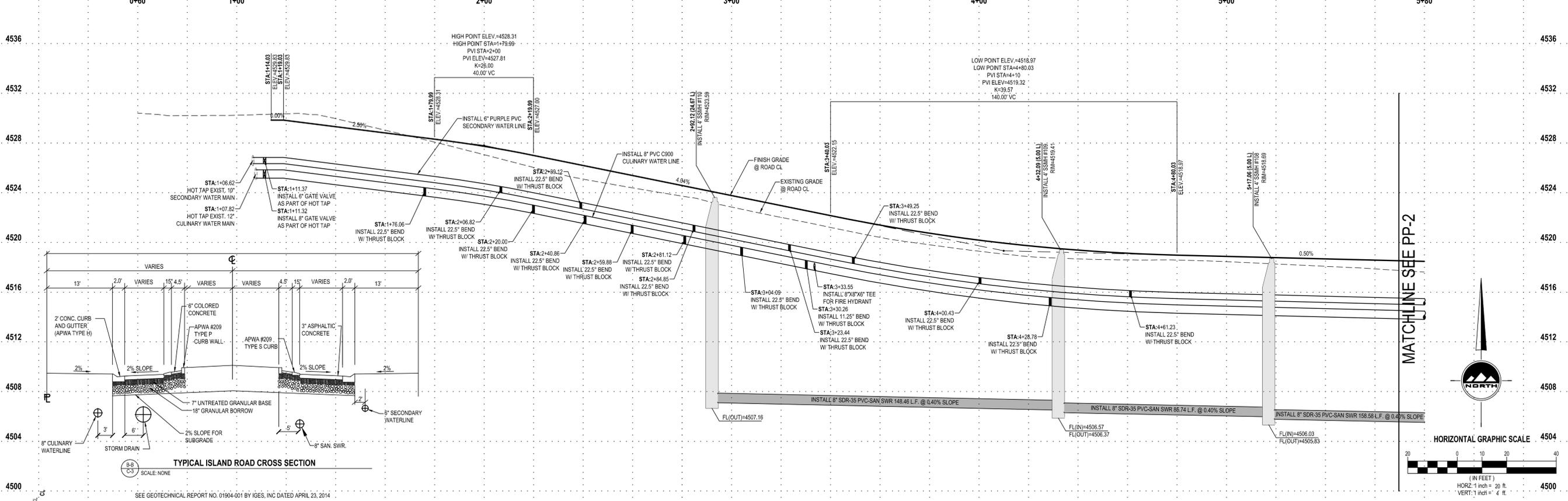


**LEGEND**

XXXX.XX	PRO TBC ELEVATION		EXIST STORM DRAIN COMBO BOX
	PRO STREET SIGN		PRO STORM DRAIN COMBO BOX
	PRO WATER METER		EXISTING CURB AND GUTTER
	EXIST WATER VALVE		PROPOSED CURB AND GUTTER
	PRO WATER VALVE		EXIST EDGE OF ASPHALT
	EXIST FIRE HYDRANT		PRO EDGE OF ASPHALT
	PRO FIRE HYDRANT		EXIST SANITARY SEWER
	EXIST SECONDARY WATER VALVE		PRO SANITARY SEWER LINE
	PRO SECONDARY WATER VALVE		PRO SAN. SEWER SERVICE LINE
	EXIST SANITARY SEWER MANHOLE		EXIST WATER LINE
	PRO SANITARY SEWER MANHOLE		PRO WATER LINE
	EXIST STORM DRAIN CLEAN OUT		PRO CULINARY WATER SERVICE LINE
	PRO STORM DRAIN CLEAN OUT		EXIST SECONDARY WATER LINE
	EXIST STORM DRAIN CATCH BASIN		PRO SECONDARY WATER LINE
	PRO STORM DRAIN CATCH BASIN		PRO SEC. WATER SERVICE LINE



- KEY NOTES**
- INSTALL ADA ACCESSIBLE RAMP PER CITY DETAIL ST-5B
  - INSTALL 3/4" CTS POLY PIPE (SDR-9) CULINARY WATER SERVICE W/ 3/4" METER PER CITY DETAIL CW-5
  - INSTALL FIRE HYDRANT PER CITY DETAIL CW-4
  - INSTALL 1 1/2" (DOUBLE) OR 1" (SINGLE) PURPLE POLY PIPE SECONDARY WATER SERVICE W/ 1" METER PER CITY DETAILS PI-3, PI-5A, & PI-5B
  - INSTALL 4" PVC SDR-35 SEWER LATERAL @ 2% MIN SLOPE PER CITY DETAIL SS-3
  - INSTALL STREET LIGHT PER CITY DETAILS LP-1, LP-1B, LP-1C, & LP-4
  - INSTALL 11.25" BEND WITH THRUST BLOCK PER CITY STANDARDS
  - INSTALL 22.5" BEND WITH THRUST BLOCK PER CITY STANDARDS
  - INSTALL 45" BEND WITH THRUST BLOCK PER CITY STANDARDS
  - INSTALL TEE WITH THRUST BLOCK PER CITY STANDARDS
  - INSTALL 8" CULINARY WATER ISOLATION VALVE PER CITY STANDARDS
  - INSTALL 6" SECONDARY WATER ISOLATION VALVE PER CITY STANDARDS
  - INSTALL STREET MONUMENT PER CITY STANDARDS



**HORIZONTAL GRAPHIC SCALE**  
20 0 10 20 30 40  
(IN FEET)  
HORZ: 1 inch = 20 ft  
VERT: 1 inch = 4 ft

**PROFESSIONAL ENGINEER**  
BOYD PREECE  
9/10/14  
STATE OF UTAH

09-08-2014 5TH SUBMITTAL

NO. DATE REVISION BY

PROJECT NUMBER: U233TD PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY CHECKED BY: C. McFARLANE  
PROJECT MANAGER: C. McFARLANE

**ENSIGN**

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Fax: 801.255.4449

LAYTON  
Phone: 801.547.1100

TOOELE  
Phone: 435.843.3590

CEDAR CITY  
Phone: 435.865.1453

RICHFIELD  
Phone: 435.590.0187

WWW.ENSIGNENG.COM

FOR: WARDLEY DEVELOPMENT SARATOGA INC.  
528 S COMMERCE DR. STE 202  
MURRAY, UTAH

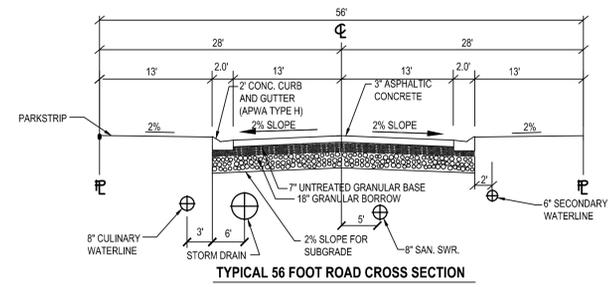
CONTACT: LYNN WARDLEY  
PHONE: 801-253-9674  
FAX:

**WILTSHIRE ESTATES**  
CENTENNIAL BLVD  
SARATOGA SPRINGS, UTAH

PP-1

**CALL BLUESTAKES**  
@ 1-800-662-4111 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

**BENCHMARK**  
NORTH QUARTER CORNER SECTION 2, T6S, R1W, SLB4M  
ELEVATION = 4578.79 PER NGVD 1929 PER UTAH COUNTY SURVEYORS OFFICE



- KEY NOTES**
- INSTALL ADA ACCESSIBLE RAMP PER CITY DETAIL ST-5B
  - INSTALL 3/4" CTS POLY PIPE (SDR-9) CULINARY WATER SERVICE W/ 3/4" METER PER CITY DETAIL CW-5
  - INSTALL FIRE HYDRANT PER CITY DETAIL CW-4
  - INSTALL 1 1/2" (DOUBLE) OR 1" (SINGLE) PURPLE POLY PIPE SECONDARY WATER SERVICE W/ 1" METER PER CITY DETAILS PI-3, PI-5A, & PI-5B
  - INSTALL 4" PVC SDR-35 SEWER LATERAL @ 2% MIN SLOPE PER CITY DETAIL SS-3
  - INSTALL STREET LIGHT PER CITY DETAILS LP-1, LP-1B, LP-1C, & LP-4
  - INSTALL 11 25" BEND WITH THRUST BLOCK PER CITY STANDARDS
  - INSTALL 22 5" BEND WITH THRUST BLOCK PER CITY STANDARDS
  - INSTALL 45" BEND WITH THRUST BLOCK PER CITY STANDARDS
  - INSTALL TEE WITH THRUST BLOCK PER CITY STANDARDS
  - INSTALL 8" CULINARY WATER ISOLATION VALVE PER CITY STANDARDS
  - INSTALL 6" SECONDARY WATER ISOLATION VALVE PER CITY STANDARDS
  - INSTALL STREET MONUMENT PER CITY STANDARDS
  - LOOP CULINARY WATER LINE UNDER STORM DRAIN PER CITY STD. DETAIL CW-3

- LEGEND**
- |        |                              |  |                               |  |                                 |
|--------|------------------------------|--|-------------------------------|--|---------------------------------|
| XXXXXX | PRO TBC ELEVATION            |  | EXIST STORM DRAIN CLEAN OUT   |  | PRO EDGE OF ASPHALT             |
|        | PRO STREET SIGN              |  | PRO STORM DRAIN CLEAN OUT     |  | EXIST SANITARY SEWER            |
|        | EXIST WATER METER            |  | EXIST STORM DRAIN CATCH BASIN |  | PRO SANITARY SEWER LINE         |
|        | PRO WATER METER              |  | PRO STORM DRAIN CATCH BASIN   |  | PRO SAN. SWR. SERVICE LINE      |
|        | EXIST WATER VALVE            |  | EXIST STORM DRAIN COMBO BOX   |  | EXIST WATER LINE                |
|        | PRO WATER VALVE              |  | PRO STORM DRAIN COMBO BOX     |  | PRO WATER LINE                  |
|        | EXIST FIRE HYDRANT           |  | EXIST UTILITY POLE            |  | PRO CULINARY WATER SERVICE LINE |
|        | EXIST FIRE HYDRANT           |  | EXISTING CURB AND GUTTER      |  | EXIST SECONDARY WATER LINE      |
|        | EXIST SECONDARY WATER VALVE  |  | PROPOSED CURB AND GUTTER      |  | PRO SECONDARY WATER LINE        |
|        | EXIST SANITARY SEWER MANHOLE |  | EXIST EDGE OF ASPHALT         |  | PRO SEC. WATER SERVICE LINE     |
|        | EXIST SANITARY SEWER MANHOLE |  |                               |  |                                 |

- GENERAL NOTES**
- CULINARY & SECONDARY WATER:**
- WATERLINES SHOULD BE CONSTRUCTED USING PVC C900 CLASS 150 OR 200
  - MAXIMUM OPERATING PRESSURE IS TO BE 100 PSI
  - MINIMUM COVER SHALL BE 48 INCHES FOR CULINARY AND 36 INCHES FOR SECONDARY WATERLINES
  - WATERLINES THAT CONFLICT WITH OTHER UTILITIES SHALL BE LOOPED ACCORDING TO CITY DETAIL CW-3
  - THE INSTALLATION OF ALL WATERLINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS
- SANITARY SEWER:**
- SEWER LINES TO BE CONSTRUCTED USING PVC, TYPE PSM PLASTIC PIPE SDR-35
  - THE INSTALLATION OF ALL SEWER LINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS
- STORM DRAIN:**
- THE INSTALLATION OF ALL STORM DRAIN LINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS
  - STORM DRAIN LINES TO BE CONSTRUCTED USING TYPE III RCP PIPE
- NOTE**
- ALL GRADES TO TBC UNLESS NOTED OTHERWISE.
  - NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR PIPE.
  - CONTRACTOR SHALL CONTACT THE CITY 7 DAYS PRIOR TO CONNECTING TO EXISTING UTILITIES.
  - CONTRACTOR MUST SUBMIT TO THE CITY & RECEIVE APPROVAL FROM THE CITY A TRAFFIC CONTROL PLAN PRIOR TO PERFORMING ANY CONSTRUCTION IN CENTENNIAL BLVD.

**ENSIGN**

SALT LAKE CITY  
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Phone: 801.255.0529  
Fax: 801.255.4449

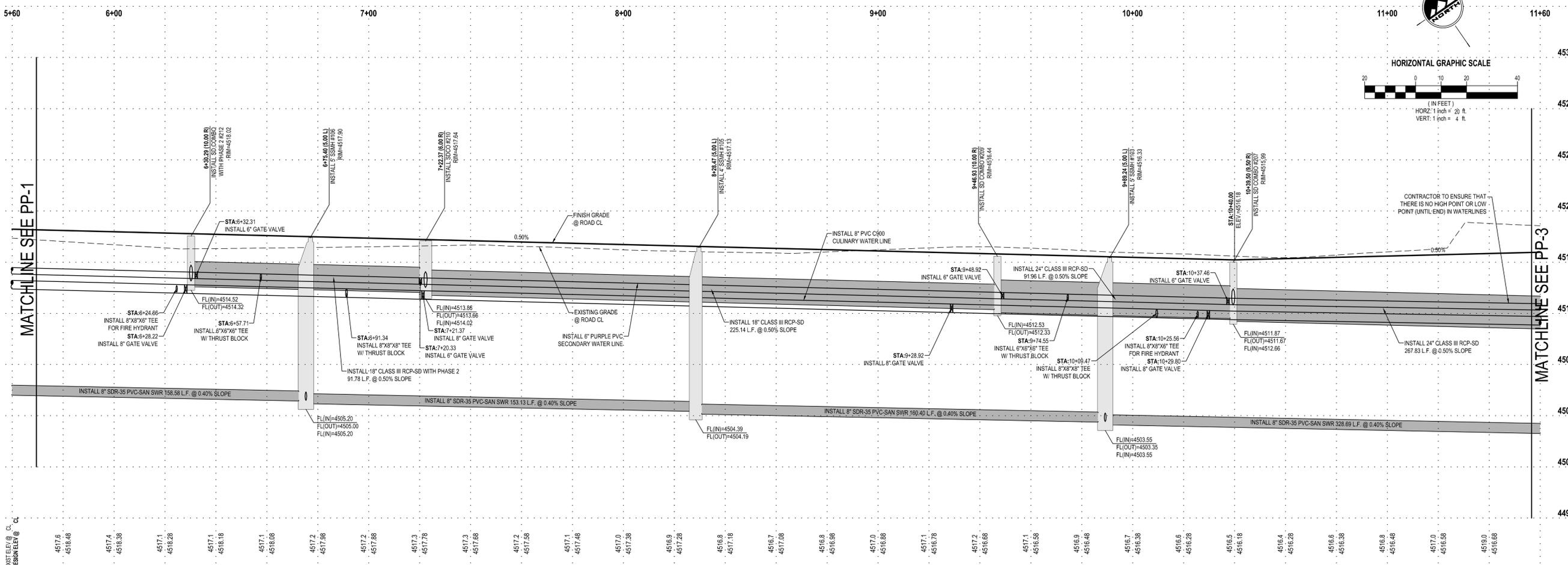
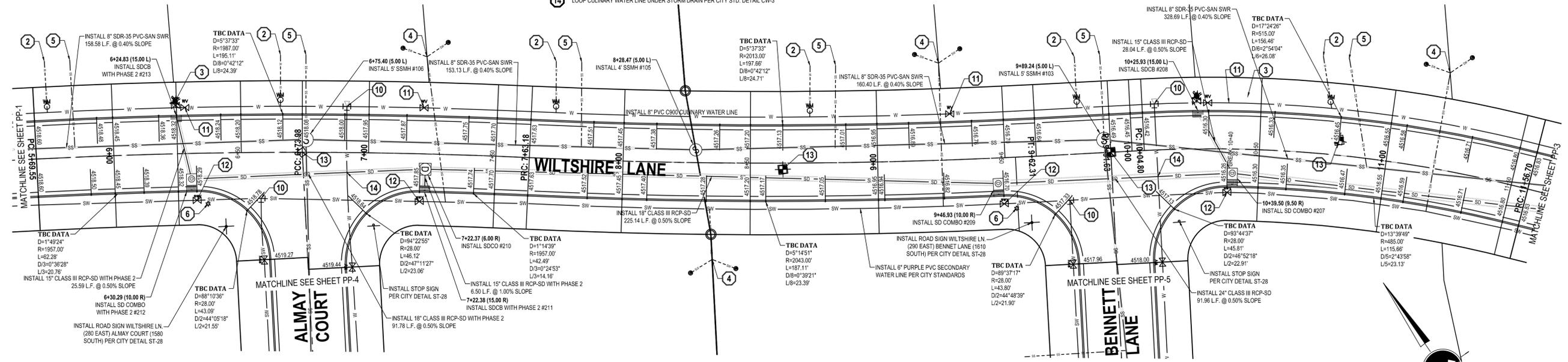
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**SARATOGA SPRINGS, UTAH**

PROFESSIONAL ENGINEER

BOYD A. REECE  
9/10/14  
STATE OF UTAH

09-08-2014 5TH SUBMITTAL

NO. DATE REVISION BY

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2  
3  
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**STREET PLAN & PROFILE**

PROJECT NUMBER: U232D  
PRINT DATE: 9/8/14

DRAWN BY: D. COWLEY  
CHECKED BY: C. MCFARLANE

PROJECT MANAGER: C. MCFARLANE

**PP-2**

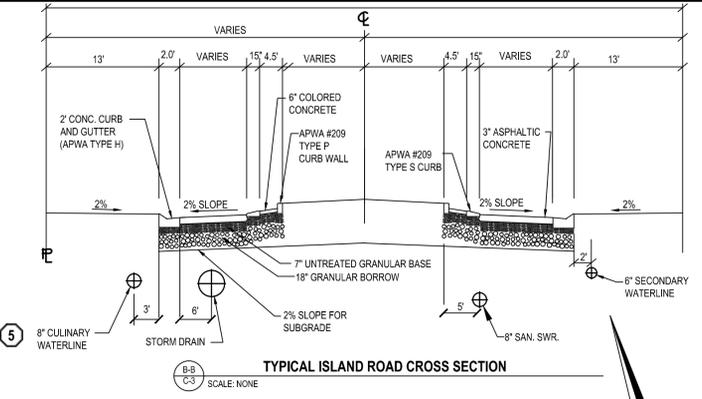
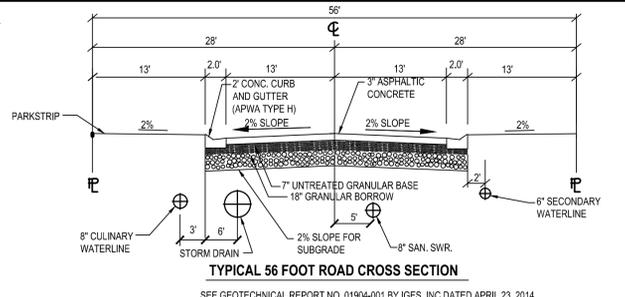


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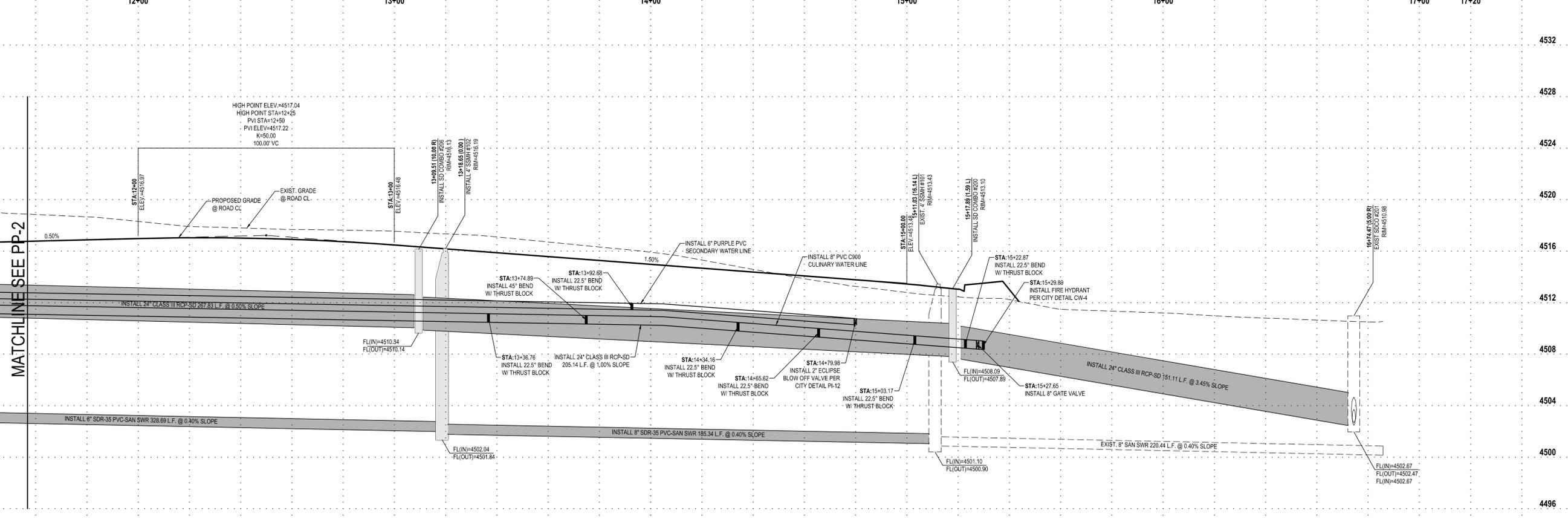
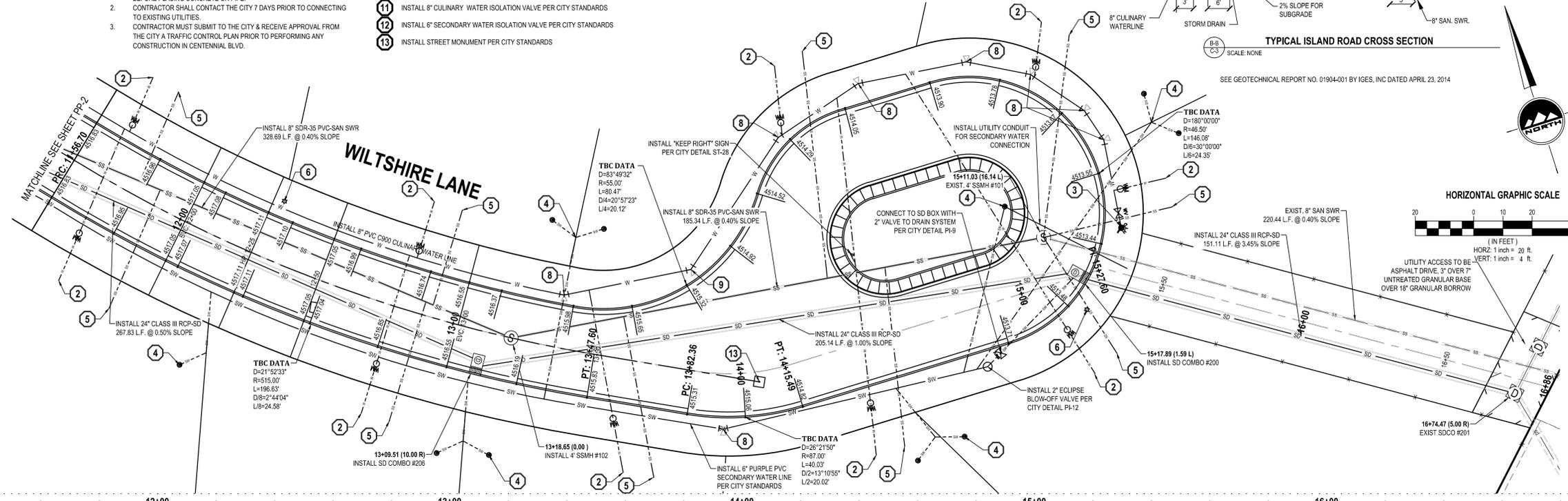
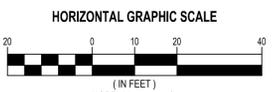
**BENCHMARK**  
NORTH QUARTER CORNER  
SECTION 2,  
T6S, R1W  
SLB&M  
ELEVATION = 4578.79 PER NGVD 1929  
PER UTAH COUNTY SURVEYORS OFFICE

- GENERAL NOTES**  
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1. WATERLINES SHOULD BE CONSTRUCTED USING PVC C900 CLASS 150 OR 200
  2. MAXIMUM OPERATING PRESSURE IS TO BE 100 PSI
  3. MINIMUM COVER SHALL BE 48 INCHES FOR CULINARY AND 36 INCHES FOR SECONDARY WATERLINES
  4. WATERLINES THAT CONFLICT WITH OTHER UTILITIES SHALL BE LOOPED ACCORDING TO CITY DETAIL CW-3
  5. THE INSTALLATION OF ALL WATERLINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS
- SANITARY SEWER:**
1. SEWER LINES TO BE CONSTRUCTED USING PVC, TYPE PSM PLASTIC PIPE SDR-35
  2. THE INSTALLATION OF ALL SEWER LINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS
- STORM DRAIN:**
1. THE INSTALLATION OF ALL STORM DRAIN LINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS
  2. STORM DRAIN LINES TO BE CONSTRUCTED USING TYPE III RCP PIPE
- NOTE**
1. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR PIPE.
  2. CONTRACTOR SHALL CONTACT THE CITY 7 DAYS PRIOR TO CONNECTING TO EXISTING UTILITIES.
  3. CONTRACTOR MUST SUBMIT TO THE CITY & RECEIVE APPROVAL FROM THE CITY A TRAFFIC CONTROL PLAN PRIOR TO PERFORMING ANY CONSTRUCTION IN CENTENNIAL BLVD.

- KEY NOTES**
1. INSTALL ADA ACCESSIBLE RAMP PER CITY DETAIL ST-58
  2. INSTALL 3/4" CTS POLY PIPE (SDR-9) CULINARY WATER SERVICE W/ 3/4" METER PER CITY DETAIL CW-5
  3. INSTALL FIRE HYDRANT PER CITY DETAIL CW-4
  4. INSTALL 1 1/2" (DOUBLE) OR 1" (SINGLE) PURPLE POLY PIPE SECONDARY WATER SERVICE W/ 1" METER PER CITY DETAILS PI-3, PI-5A, & PI-5B
  5. INSTALL 4" PVC SDR-35 SEWER LATERAL @ 2% MIN SLOPE PER CITY DETAIL SS-3
  6. INSTALL STREET LIGHT PER CITY DETAILS LP-1, LP-1B, LP-1C, & LP-4
  7. INSTALL 11.25" BEND WITH THRUST BLOCK PER CITY STANDARDS
  8. INSTALL 22.5" BEND WITH THRUST BLOCK PER CITY STANDARDS
  9. INSTALL 45" BEND WITH THRUST BLOCK PER CITY STANDARDS
  10. INSTALL TEE WITH THRUST BLOCK PER CITY STANDARDS
  11. INSTALL 6" CULINARY WATER ISOLATION VALVE PER CITY STANDARDS
  12. INSTALL 6" SECONDARY WATER ISOLATION VALVE PER CITY STANDARDS
  13. INSTALL STREET MONUMENT PER CITY STANDARDS



- LEGEND**
- XXXXXX PRO TBC ELEVATION
  - PRO STREET SIGN
  - PRO WATER METER
  - EXIST WATER VALVE
  - EXIST FIRE HYDRANT
  - PRO FIRE HYDRANT
  - EXIST SECONDARY WATER VALVE
  - PRO SECONDARY WATER VALVE
  - EXIST SANITARY SEWER MANHOLE
  - PRO SANITARY SEWER MANHOLE
  - EXIST STORM DRAIN CLEAN OUT
  - PRO STORM DRAIN CLEAN OUT
  - EXIST STORM DRAIN CATCH BASIN
  - PRO STORM DRAIN CATCH BASIN
  - EXIST STORM DRAIN COMBO BOX
  - PRO STORM DRAIN COMBO BOX
  - EXISTING CURB AND GUTTER
  - PROPOSED CURB AND GUTTER
  - EXIST EDGE OF ASPHALT
  - PRO EDGE OF ASPHALT
  - EXIST SANITARY SEWER
  - PRO SANITARY SEWER LINE
  - EXIST SAN. SWR. SERVICE LINE
  - PRO SAN. SWR. SERVICE LINE
  - EXIST WATER LINE
  - PRO WATER LINE
  - EXIST CULINARY WATER SERVICE LINE
  - PRO CULINARY WATER SERVICE LINE
  - EXIST SECONDARY WATER LINE
  - PRO SECONDARY WATER LINE
  - EXIST SEC. WATER SERVICE LINE
  - PRO SEC. WATER SERVICE LINE



**ENSIGN**

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FOR:  
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MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-263-9674  
FAX:

**WILTSHIRE ESTATES**

**CENTENNIAL BLVD**

**SARATOGA SPRINGS, UTAH**



09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
1			
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**STREET PLAN & PROFILE**

PROJECT NUMBER: U123TD  
 PRINT DATE: 9/8/14  
 DRAWN BY: D. COWLEY  
 CHECKED BY: C. MCFARLANE  
 PROJECT MANAGER: C. MCFARLANE

**PP-3**



CALL BLUESTAKES  
@ 1-800-662-4111 AT LEAST 48  
HOURS PRIOR TO THE  
COMMENCEMENT OF ANY  
CONSTRUCTION.

**BENCHMARK**  
NORTH QUARTER CORNER  
SECTION 2,  
T6S, R1W  
SLB&M  
ELEVATION = 4578.79 PER NGVD 1929  
PER UTAH COUNTY SURVEYORS OFFICE

**GENERAL NOTES**  
**CULINARY & SECONDARY WATER:**  
1. WATERLINES SHOULD BE CONSTRUCTED USING PVC C300 CLASS 150 OR 200  
2. MAXIMUM OPERATING PRESSURE IS TO BE 100 PSI  
3. MINIMUM COVER SHALL BE 48 INCHES FOR CULINARY AND 36 INCHES FOR SECONDARY WATERLINES  
4. WATERLINES THAT CONFLICT WITH OTHER UTILITIES SHALL BE LOOPED ACCORDING TO CITY DETAIL CW-3  
5. THE INSTALLATION OF ALL WATERLINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS

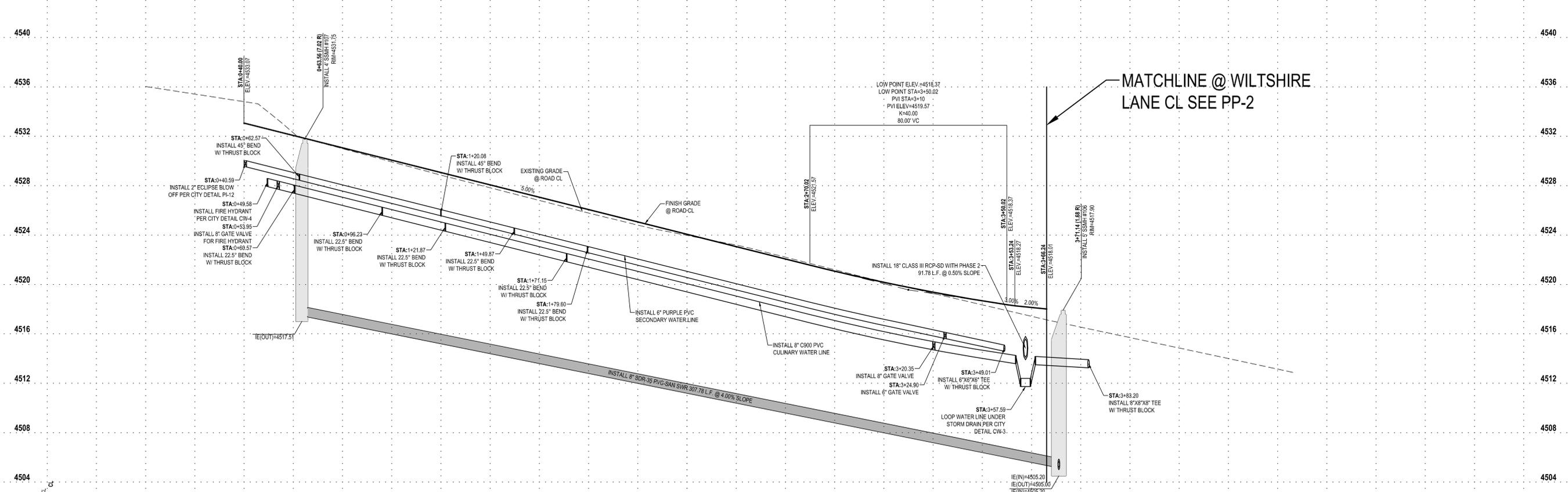
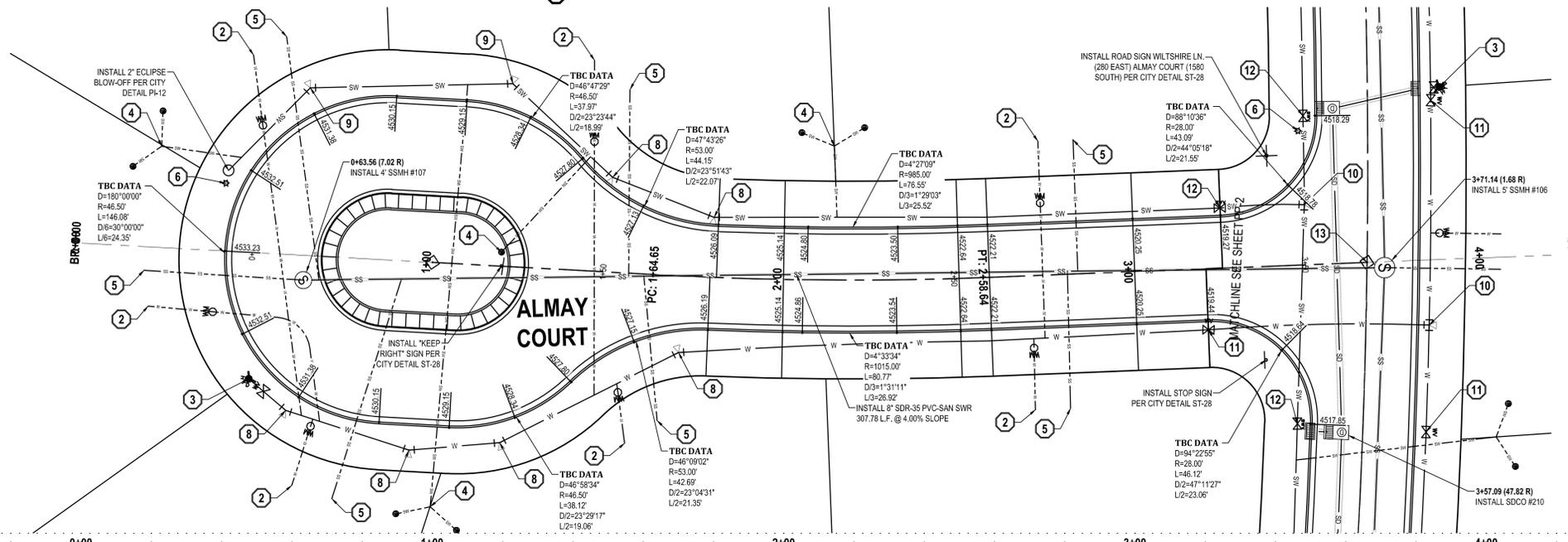
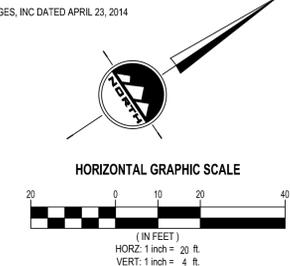
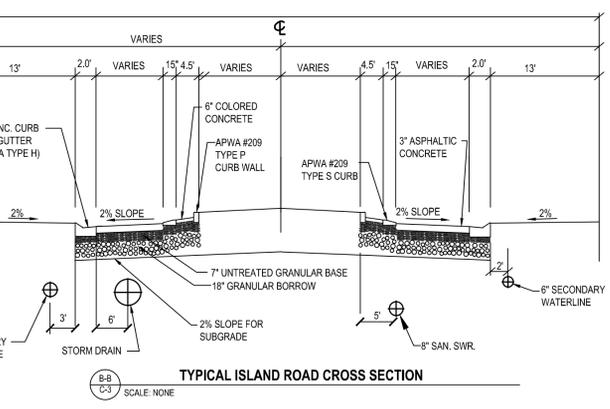
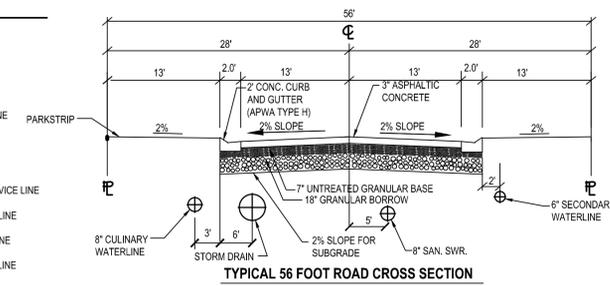
**SANITARY SEWER:**  
1. SEWER LINES TO BE CONSTRUCTED USING PVC, TYPE PSM PLASTIC PIPE SDR-35  
2. THE INSTALLATION OF ALL SEWER LINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS

**STORM DRAIN:**  
1. THE INSTALLATION OF ALL STORM DRAIN LINES SHALL CONFORM WITH ALL SARATOGA SPRINGS CITY STANDARDS  
2. STORM DRAIN LINES TO BE CONSTRUCTED USING TYPE III RCP PIPE

**NOTE**  
1. ALL GRADES TO TBC UNLESS NOTED OTHERWISE  
2. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR PIPE  
3. CONTRACTOR SHALL CONTACT THE CITY 7 DAYS PRIOR TO CONNECTING TO EXISTING UTILITIES  
4. CONTRACTOR MUST SUBMIT TO THE CITY & RECEIVE APPROVAL FROM THE CITY A TRAFFIC CONTROL PLAN PRIOR TO PERFORMING ANY CONSTRUCTION IN CENTENNIAL BLVD.

- KEY NOTES**
1. INSTALL ADA ACCESSIBLE RAMP PER CITY DETAIL ST-58
  2. INSTALL 3/4" CTS POLY PIPE (SDR-9) CULINARY WATER SERVICE W/ 3/4" METER PER CITY DETAIL CW-5
  3. INSTALL FIRE HYDRANT PER CITY DETAIL CW-4
  4. INSTALL 1 1/2" (DOUBLE) OR 1" (SINGLE) PURPLE POLY PIPE SECONDARY WATER SERVICE W/ 1" METER PER CITY DETAILS PI-3, PI-5A, & PI-5B
  5. INSTALL 4" PVC SDR-35 SEWER LATERAL @ 2% MIN SLOPE PER CITY DETAIL SS-3
  6. INSTALL STREET LIGHT PER CITY DETAILS LP-1, LP-1B, LP-1C, & LP-4
  7. INSTALL 11.25" BEND WITH THRUST BLOCK PER CITY STANDARDS
  8. INSTALL 22.5" BEND WITH THRUST BLOCK PER CITY STANDARDS
  9. INSTALL 45" BEND WITH THRUST BLOCK PER CITY STANDARDS
  10. INSTALL TEE WITH THRUST BLOCK PER CITY STANDARDS
  11. INSTALL 8" CULINARY WATER ISOLATION VALVE PER CITY STANDARDS
  12. INSTALL 6" SECONDARY WATER ISOLATION VALVE PER CITY STANDARDS
  13. INSTALL STREET MONUMENT PER CITY STANDARDS

- LEGEND**
- |        |                              |   |                               |     |                                 |
|--------|------------------------------|---|-------------------------------|-----|---------------------------------|
| XXXXXX | PRO TBC ELEVATION            | ⊙ | EXIST STORM DRAIN CLEAN OUT   | --- | PRO EDGE OF ASPHALT             |
| ⊙      | PRO STREET SIGN              | ⊙ | PRO STORM DRAIN CLEAN OUT     | --- | EXIST SANITARY SEWER            |
| ⊙      | EXIST WATER METER            | ⊙ | EXIST STORM DRAIN CATCH BASIN | --- | PRO SANITARY SEWER LINE         |
| ⊙      | PRO WATER METER              | ⊙ | PRO STORM DRAIN CATCH BASIN   | --- | PRO SAN. SWR. SERVICE LINE      |
| ⊙      | EXIST WATER VALVE            | ⊙ | EXIST STORM DRAIN COMBO BOX   | --- | EXIST WATER LINE                |
| ⊙      | PRO WATER VALVE              | ⊙ | EXIST STORM DRAIN COMBO BOX   | --- | PRO WATER LINE                  |
| ⊙      | EXIST FIRE HYDRANT           | ⊙ | EXIST UTILITY POLE            | --- | PRO CULINARY WATER SERVICE LINE |
| ⊙      | PRO FIRE HYDRANT             | ⊙ | EXISTING CURB AND GUTTER      | --- | EXIST SECONDARY WATER LINE      |
| ⊙      | EXIST SECONDARY WATER VALVE  | ⊙ | PROPOSED CURB AND GUTTER      | --- | PRO SECONDARY WATER LINE        |
| ⊙      | PRO SECONDARY WATER VALVE    | ⊙ | EXIST EDGE OF ASPHALT         | --- | PRO SEC. WATER SERVICE LINE     |
| ⊙      | EXIST SANITARY SEWER MANHOLE |   |                               |     |                                 |
| ⊙      | PRO SANITARY SEWER MANHOLE   |   |                               |     |                                 |



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CONTACT:  
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PHONE: 801-253-9674  
FAX:

**WILTSHIRE ESTATES**  
CENTENNIAL BLVD  
SARATOGA SPRINGS, UTAH

PROFESSIONAL ENGINEER  
BOYD PREECE  
9/10/14  
STATE OF UTAH  
09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
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**STREET PLAN & PROFILE**

PROJECT NUMBER: U1237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

**PP-4**



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**BENCHMARK**

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- LEGEND**
- |        |                              |   |                               |     |                                 |
|--------|------------------------------|---|-------------------------------|-----|---------------------------------|
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| ---    | EXIST WATER METER            | ⊠ | PRO STORM DRAIN CLEAN OUT     | --- | PRO SANITARY SEWER LINE         |
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| ---    | EXIST FIRE HYDRANT           | ⊠ | PRO STORM DRAIN COMBO BOX     | --- | PRO CULINARY WATER SERVICE LINE |
| ---    | PRO FIRE HYDRANT             | ⊠ | EXIST UTILITY POLE            | --- | EXIST SECONDARY WATER LINE      |
| ---    | EXIST SECONDARY WATER VALVE  | ⊠ | EXISTING CURB AND GUTTER      | --- | PRO SECONDARY WATER LINE        |
| ---    | PRO SECONDARY WATER VALVE    | ⊠ | PROPOSED CURB AND GUTTER      | --- | PRO SEC. WATER SERVICE LINE     |
| ---    | EXIST SANITARY SEWER MANHOLE | ⊠ |                               |     |                                 |

- GENERAL NOTES**
- CULINARY & SECONDARY WATER:**
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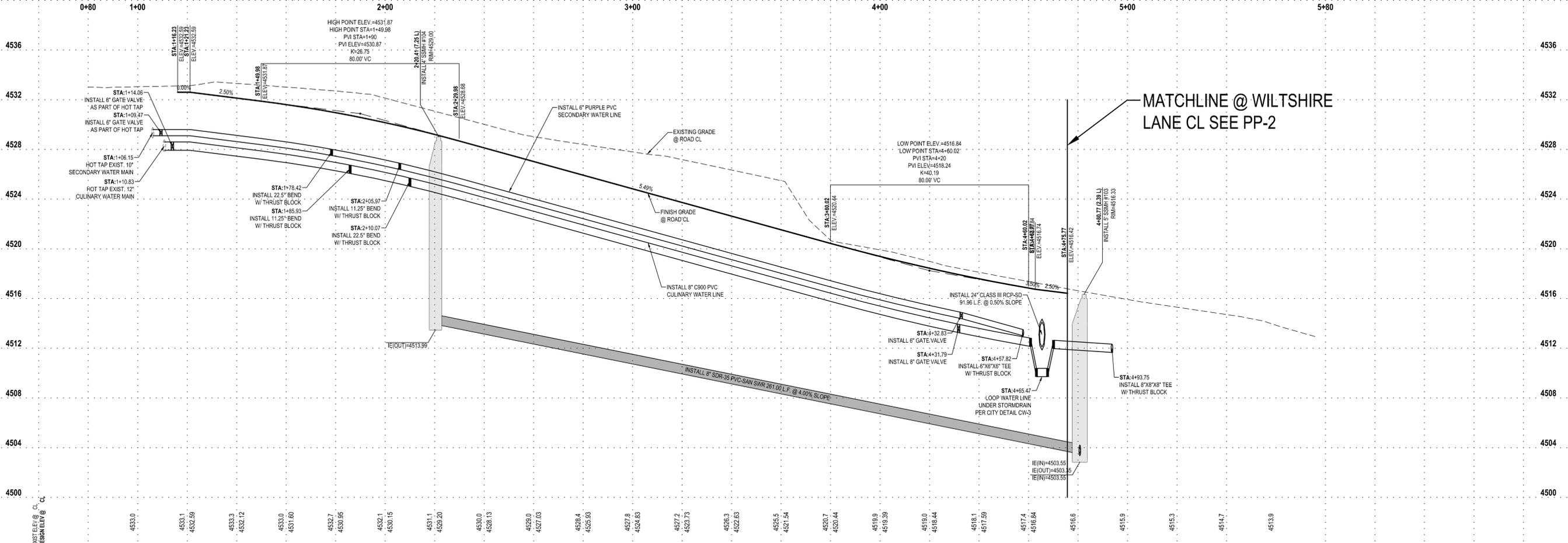
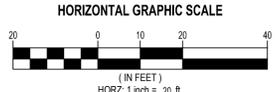
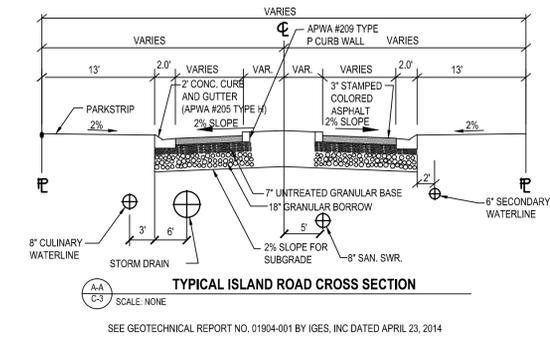
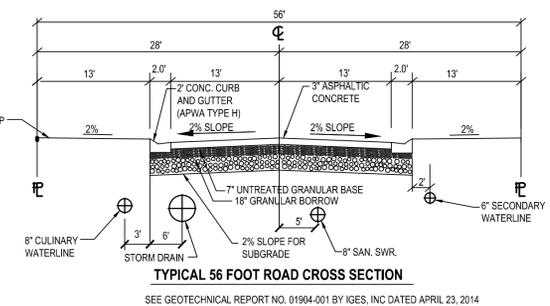
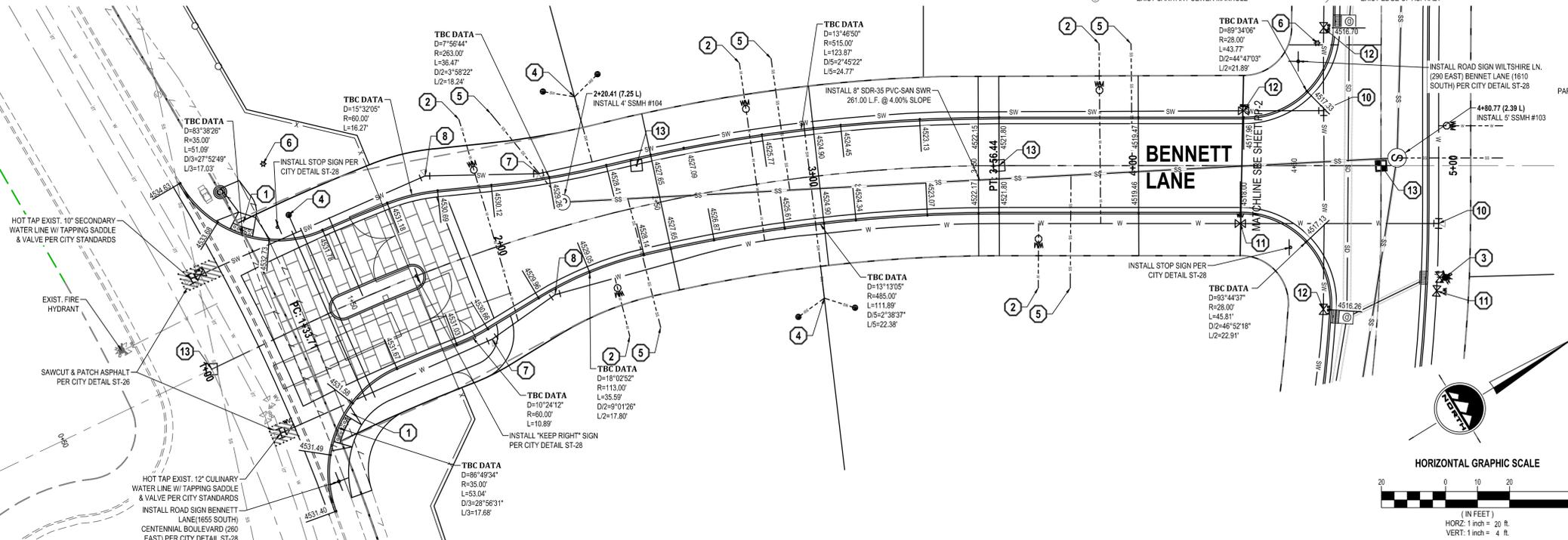
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Phone: 435.590.0187

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FAX:



**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**



09-08-2014 5TH SUBMITTAL

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**STREET PLAN & PROFILE**

PROJECT NUMBER: U1237D  
DRAWN BY: D. COWLEY  
PROJECT MANAGER: C. MCFARLANE

PRINT DATE: 9/8/14  
CHECKED BY: C. MCFARLANE

**PP-5**



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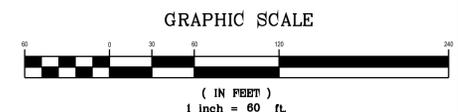
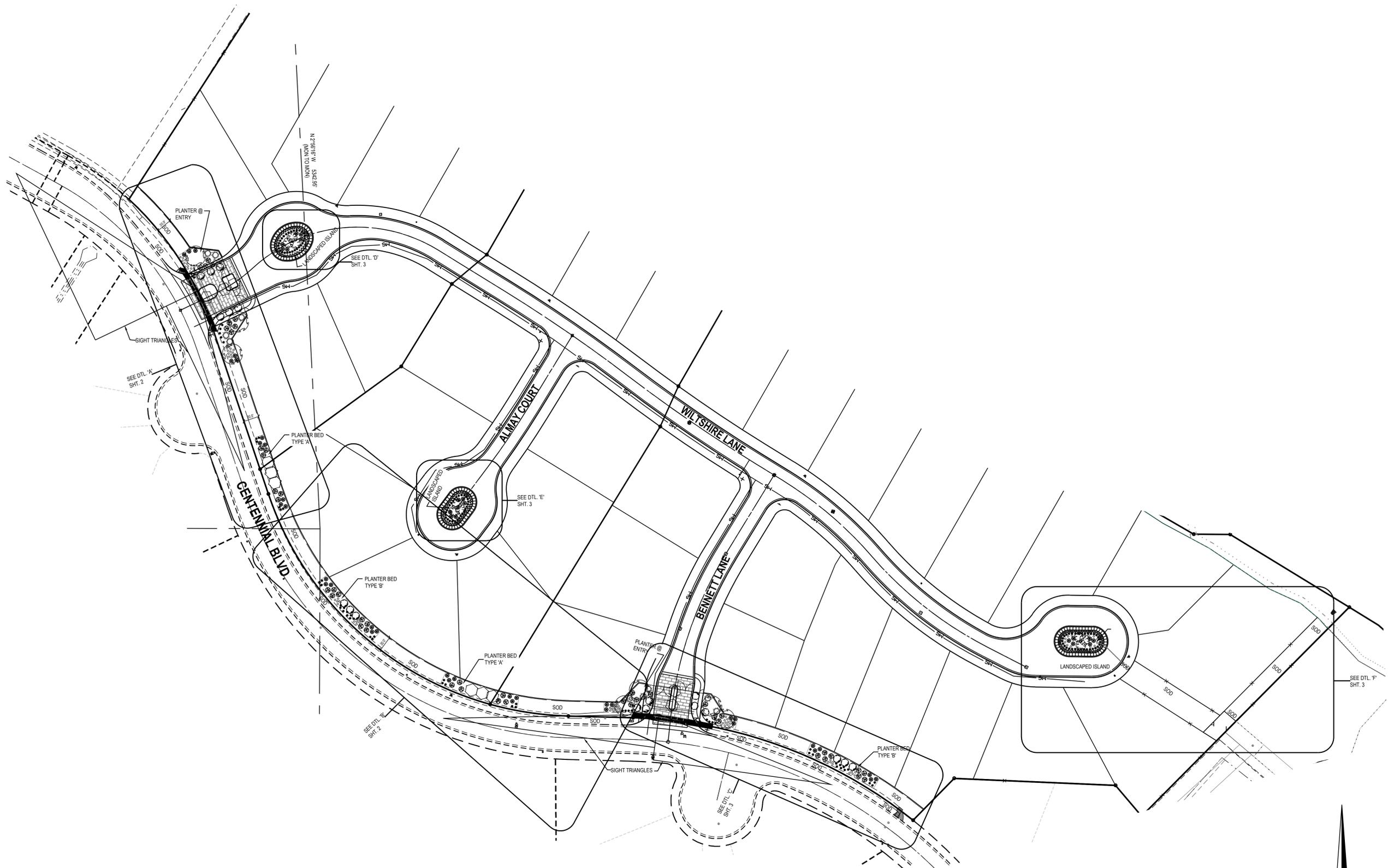
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 PHONE: 801-293-9674  
 FAX:



**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**

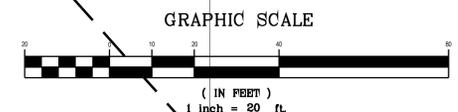
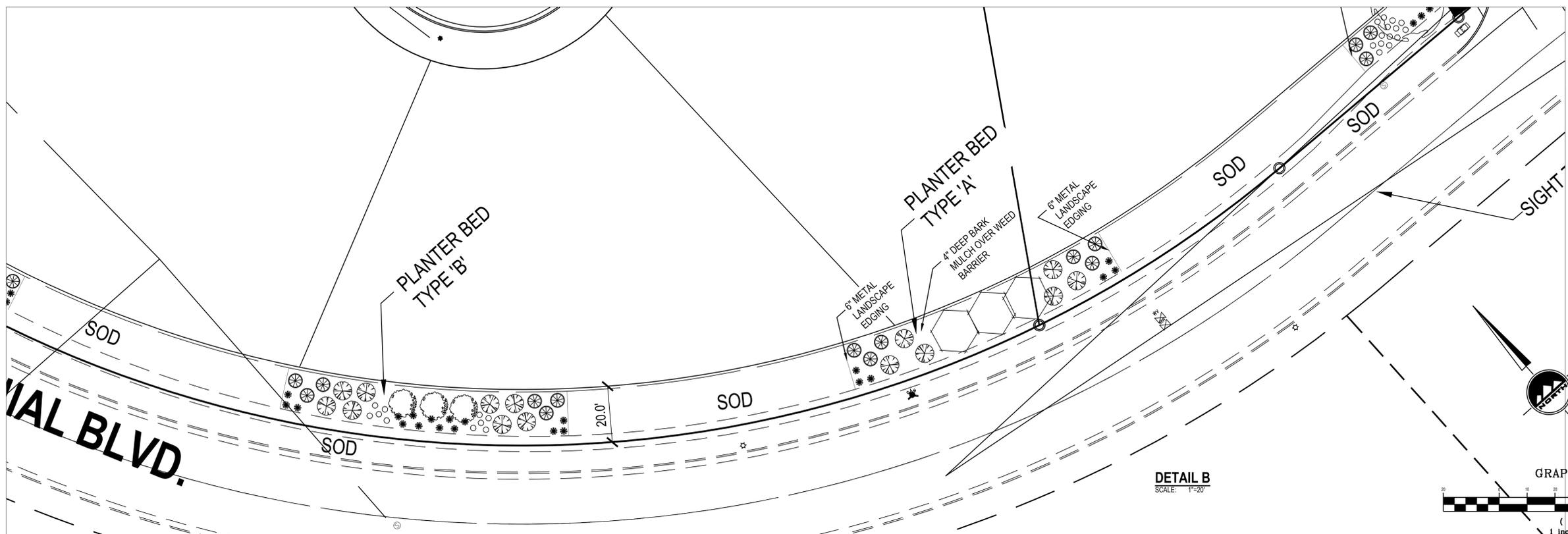
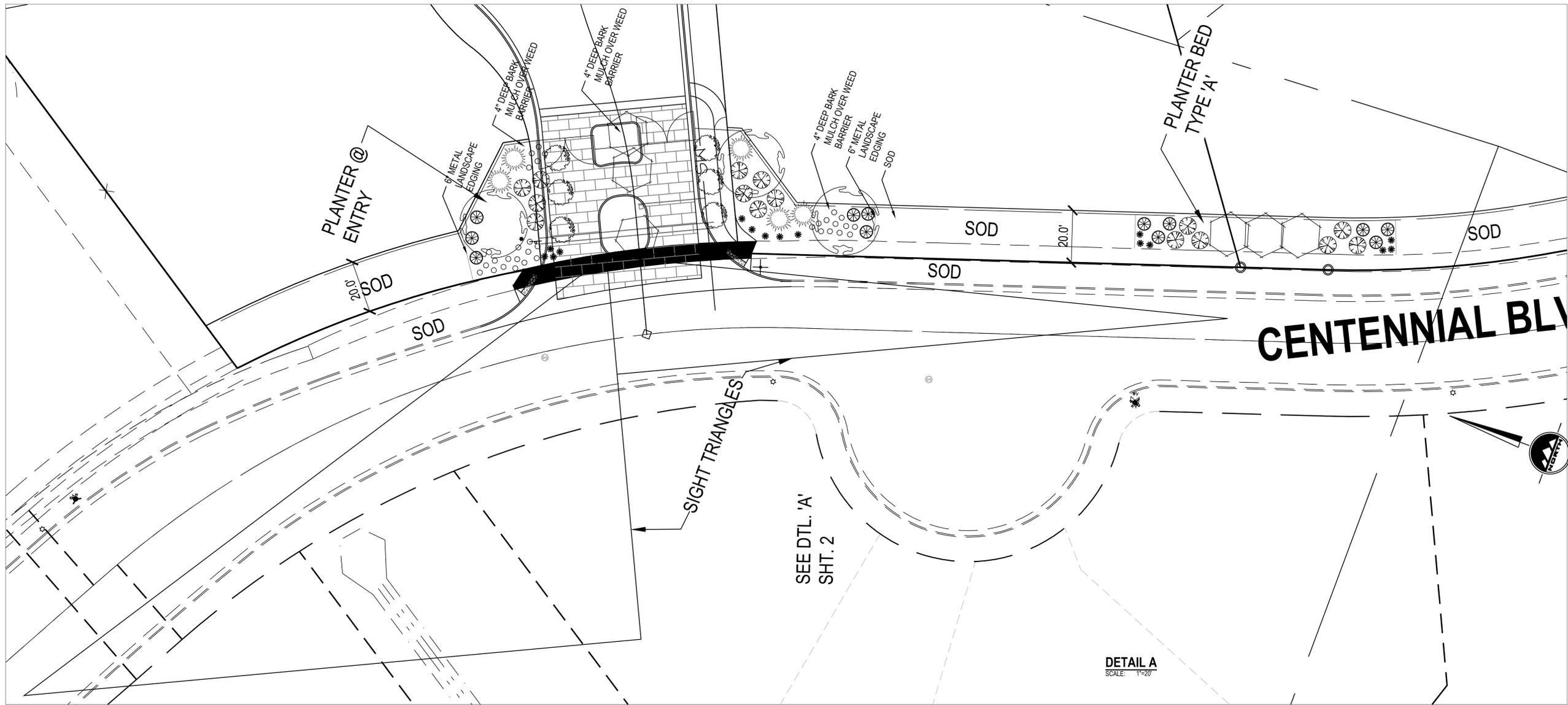
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**LANDSCAPE PLAN**

PROJECT NUMBER: U1237D      PRINT DATE: 9/8/14  
 DRAWN BY: D. COWLEY      CHECKED BY: C. MCFARLANE  
 PROJECT MANAGER: C. MCFARLANE

**L1.0**



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PHONE: 801-293-9674  
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WILTSHIRE ESTATES  
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09-08-2014 5TH SUBMITTAL

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LANDSCAPE PLAN

PROJECT NUMBER  
U1237D

PRINT DATE  
9/8/14

DRAWN BY  
D. COWLEY

CHECKED BY  
C. MCFARLANE

PROJECT MANAGER  
C. MCFARLANE

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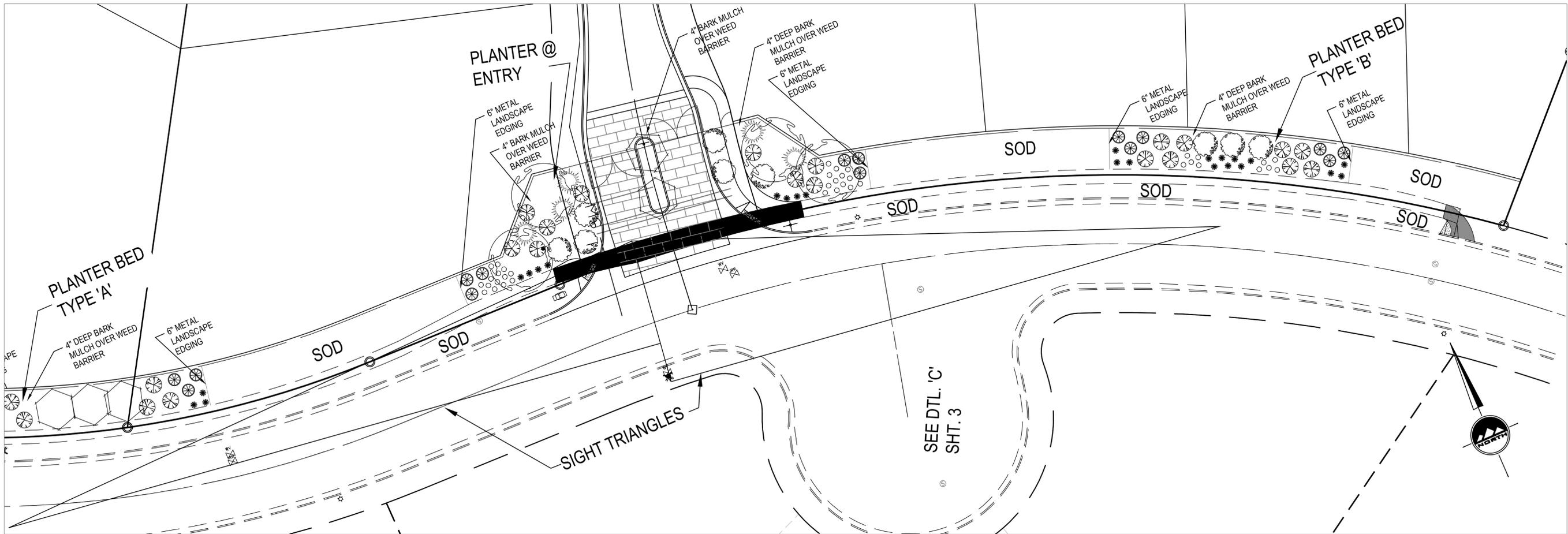
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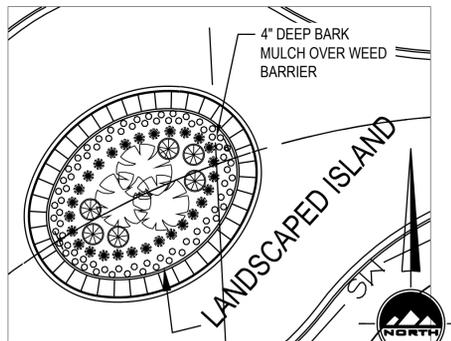
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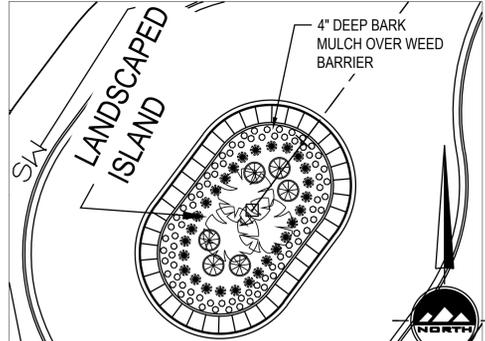
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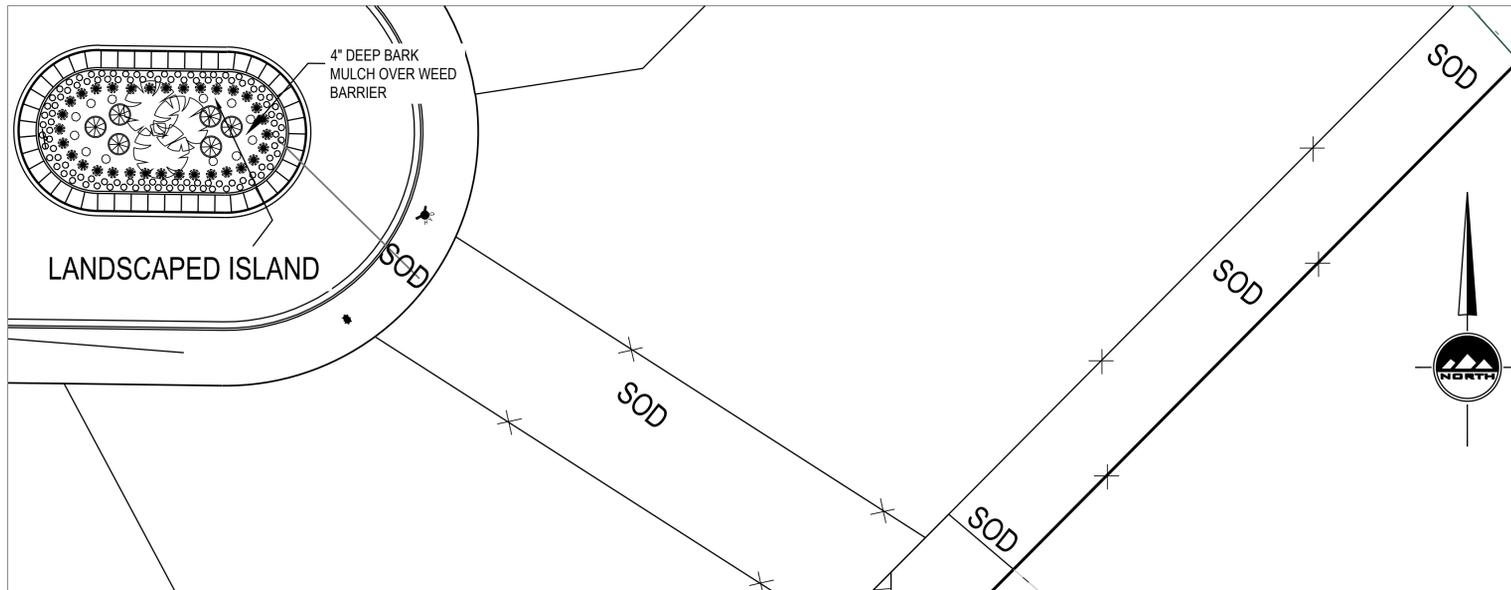
DETAIL C  
SCALE: 1"=20'



DETAIL D  
SCALE: 1"=20'



DETAIL E  
SCALE: 1"=20'



DETAIL F  
SCALE: 1"=20'

Landscape Table

Broadleaf Deciduous

Quantity	Symbol	Scientific Name	Common Name	Planting Size
9		Acer platanoides 'Columnare'	Norway Maple	2.5"-Cal
18		Cercis canadensis	Eastern redbud	2.5"-Cal
11		Prunus cerasifera 'Thundercloud'	Flowering Plum	2.5"-Cal
7		Tilia cordata 'Green Spire'	Littleleaf Linden 'Green Spire'	2.5"-Cal

Conifer Evergreen

Quantity	Symbol	Scientific Name	Common Name	Planting Size
54		Juniperus chinensis 'Blue Point'	Chinese juniper	2.5"-Cal
10		Pinus nigra 'Compacta'	Austrian pine compact	2.5"-Cal

Grass

Quantity	Symbol	Scientific Name	Common Name	Planting Size
145		Calamagrostis acutiflora 'Karl Foerster'	Feather Reed Grass	2-Gal

Perennial

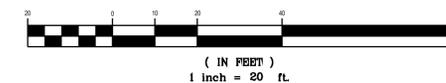
Quantity	Symbol	Scientific Name	Common Name	Planting Size
300		Hemerocallis	Daylily	2-Gal

Shrub

Quantity	Symbol	Scientific Name	Common Name	Planting Size
91		Berberis thunbergii atropurpurea nana	Crimson Pygmy Barberry	2-Gal
46		Juniperus sabina 'Broadmoor'	Broadmoor juniper	2-Gal

Sod Type: Bionative by Biogross

GRAPHIC SCALE



WILTSHIRE ESTATES

CENTENNIAL BLVD  
SARATOGA SPRINGS, UTAH

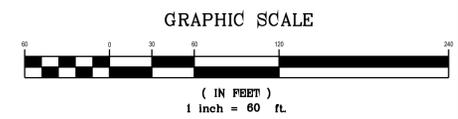
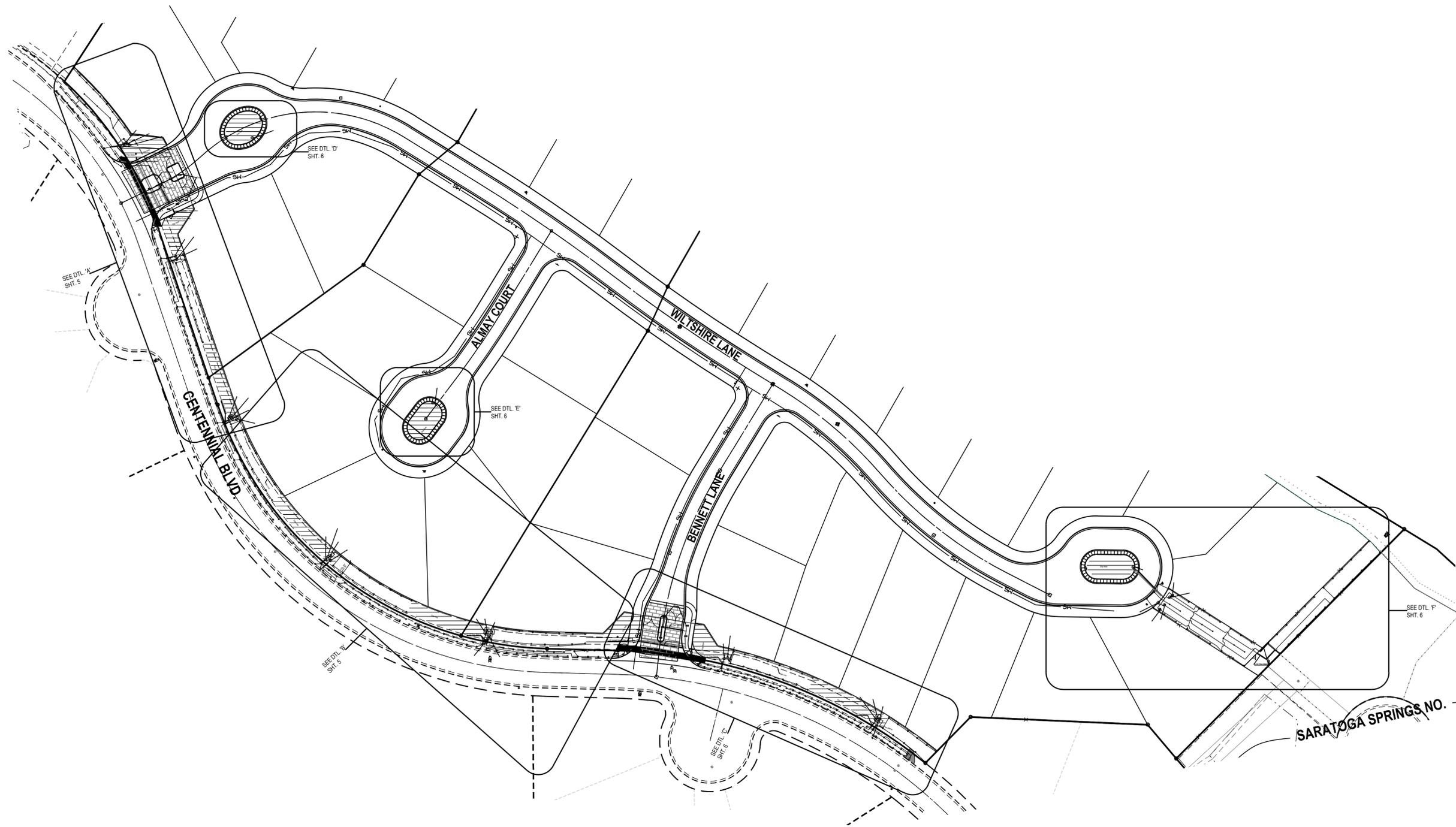
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LANDSCAPE PLAN

PROJECT NUMBER: U1237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

L3.0



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CONTACT:  
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**WILTSHIRE ESTATES**  
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**IRRIGATION PLAN**

PROJECT NUMBER: U1237D  
 PRINT DATE: 9/8/14  
 DRAWN BY: D. COWLEY  
 CHECKED BY: C. McFARLANE  
 PROJECT MANAGER: C. McFARLANE

**L4.0**



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TOOELE  
Phone: 435.843.3590

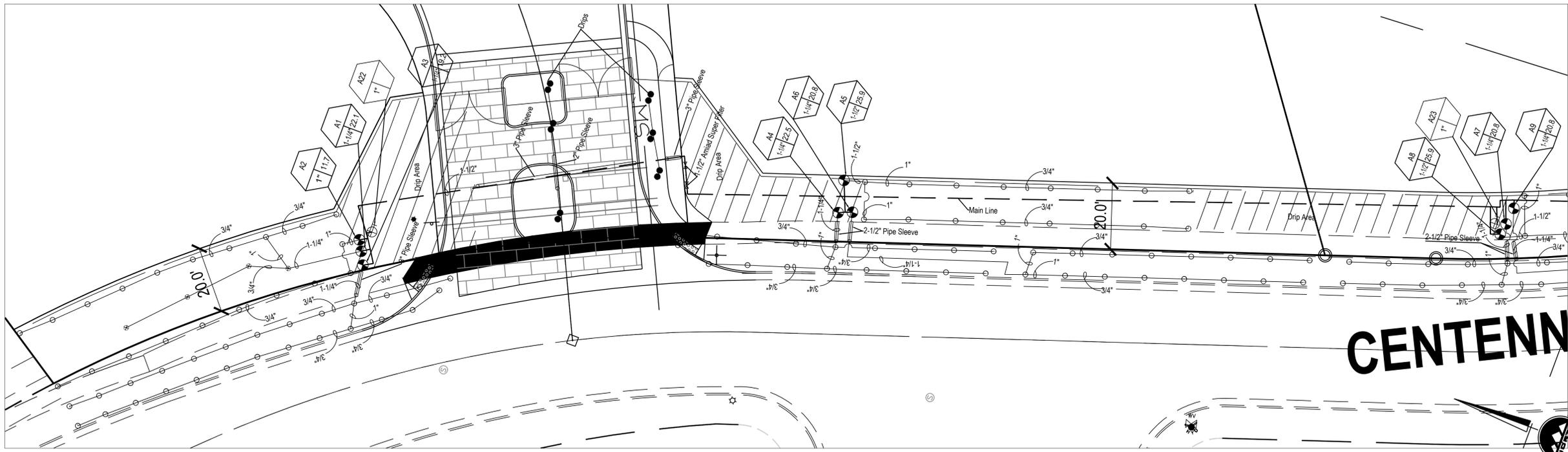
CEDAR CITY  
Phone: 435.865.1453

RICHFIELD  
Phone: 435.590.0187

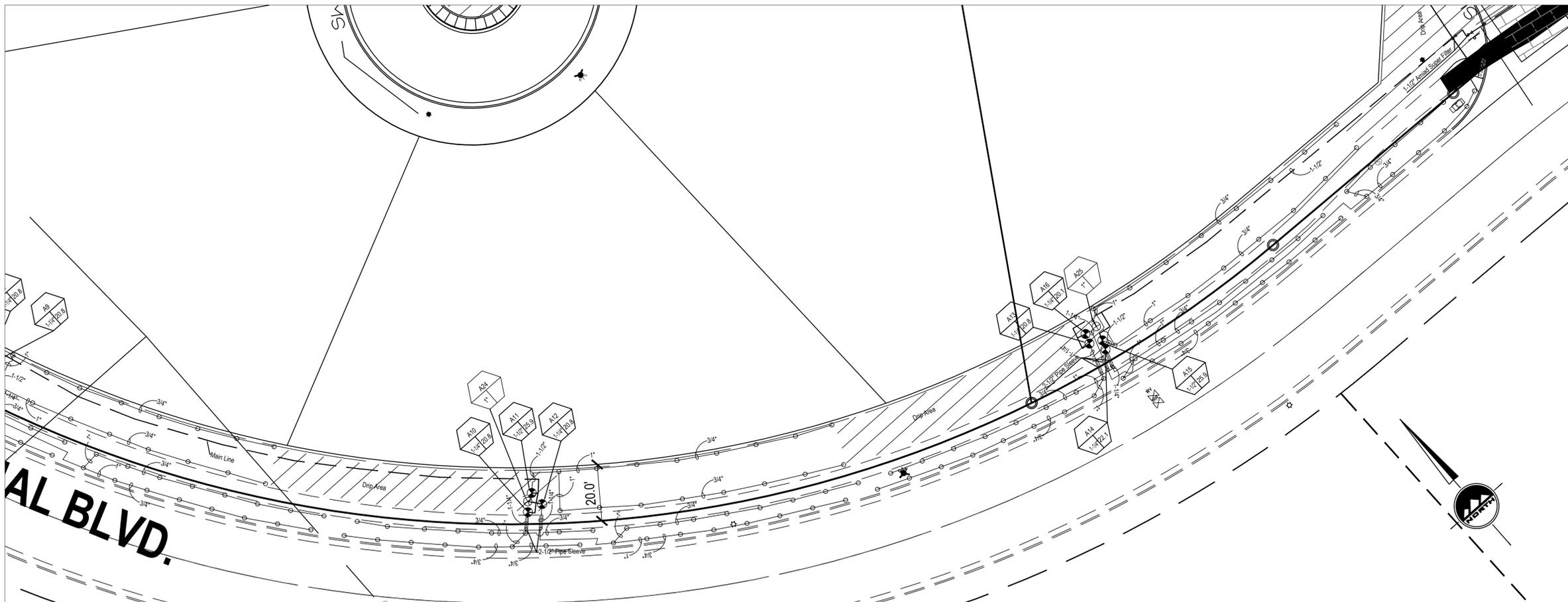
WWW.ENSIGNENG.COM

FOR:  
WARDLEY DEVELOPMENT SARATOGA INC.  
5296 S COMMERCE DR. STE 202  
MURRAY, UTAH

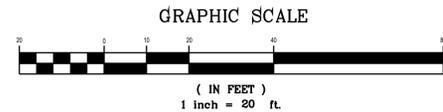
CONTACT:  
LYNN WARDLEY  
PHONE: 801-293-9674  
FAX:



**DETAIL A**  
SCALE: 1"=20'



**DETAIL B**  
SCALE: 1"=20'



**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**

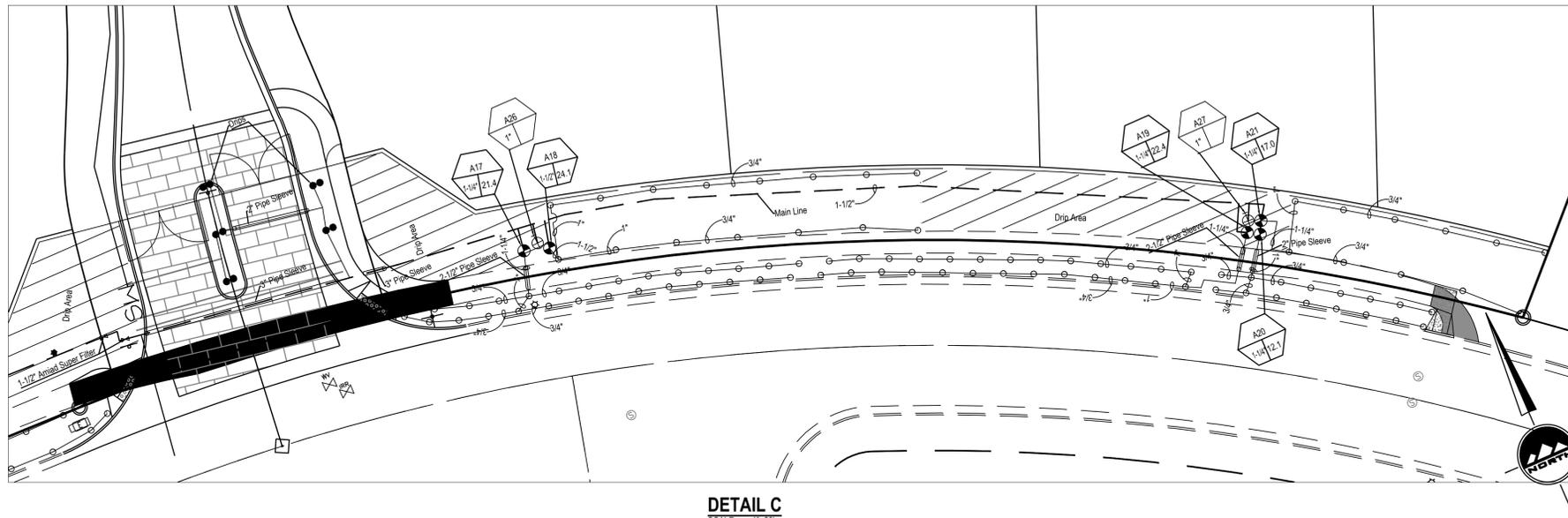
09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
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2			
3			
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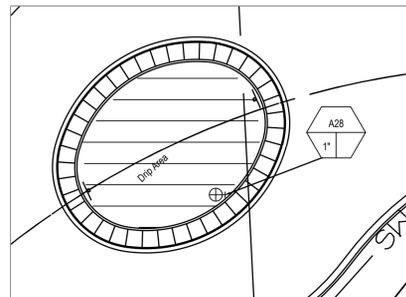
**IRRIGATION PLAN**

PROJECT NUMBER: U1237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. MCFARLANE  
PROJECT MANAGER: C. MCFARLANE

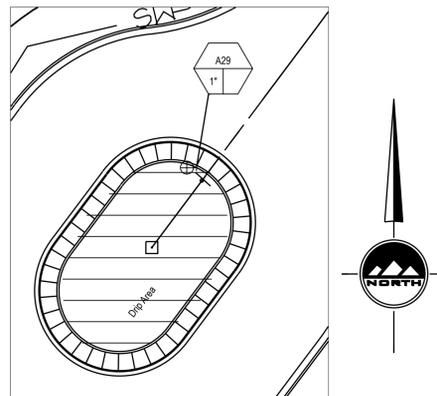
**L5.0**



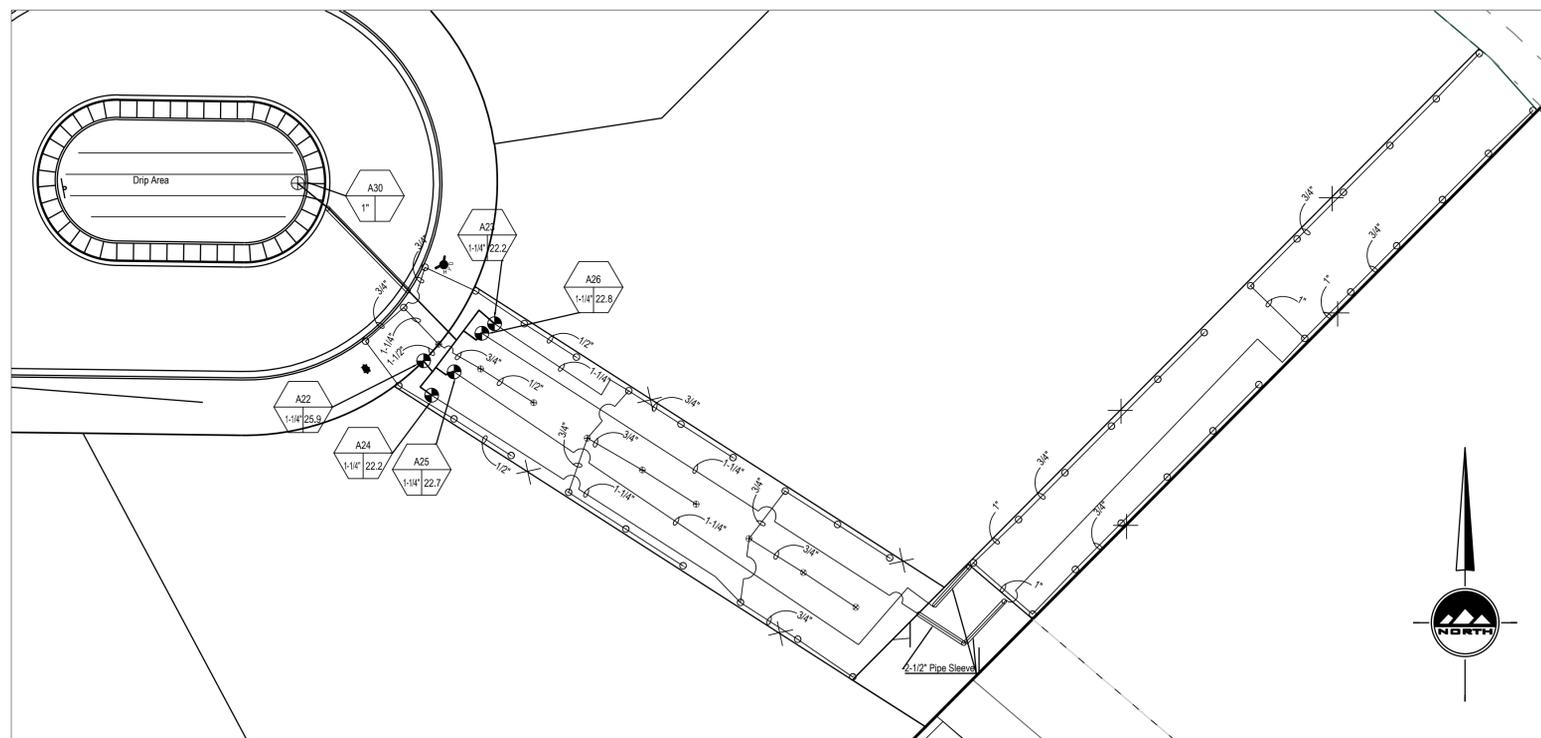
**DETAIL C**  
SCALE: 1"=20'



**DETAIL D**  
SCALE: 1"=20'



**DETAIL E**  
SCALE: 1"=20'



**DETAIL F**  
SCALE: 1"=20'

**Irrigation Equipment Table**

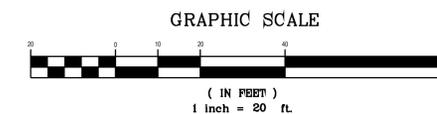
Quantity	Symbol	Equipment
27	⊕	Valve Label
9	⊕	Drip Valve
26	⊕	Sprinkler Valve
4	⊗	1-1/2" Amiad Super Filter
	---	1-1/2" Main Line Schedule 40 PVC Pipe

**Irrigation Heads Table**

Quantity	Symbol	Sprinkler Heads
3	⊕	RAINBIRD 1800 SERIES 8 Series 6" above finish grade trajectory 5 deg 090
9	⊕	RAINBIRD 1800 SERIES 8 Series 6" above finish grade trajectory 5 deg 120
198	⊕	RAINBIRD 1800 SERIES 8 Series 6" above finish grade trajectory 5 deg 180
6	⊕	RAINBIRD 1800 SERIES 10 Series trajectory 15 deg 090
66	⊕	RAINBIRD 1800 SERIES 10 Series trajectory 15 deg 180
6	⊕	RAINBIRD 1800 SERIES 10 Series trajectory 15 deg 120
15	⊕	RAINBIRD 1800 SERIES 12 Series trajectory 30 deg 090
9	⊕	RAINBIRD 1800 SERIES 12 Series trajectory 30 deg 120
465	⊕	RAINBIRD 1800 SERIES 12 Series trajectory 30 deg 180
12	⊕	RAINBIRD 1800 SERIES 12 Series trajectory 30 deg 360
7	⊕	RAINBIRD 1800 SERIES 15 Series trajectory 30 deg 090
38	⊕	RAINBIRD 1800 SERIES 15 Series trajectory 30 deg 180
9	⊕	RAINBIRD 1800 SERIES 15 Series trajectory 30 deg 360

**Irrigation Drip Table**

Quantity	Symbol	Drip Emitters
66	●	1.00 GPH



SALT LAKE CITY  
45 W. 10000 S., Suite 500  
Sandy, UT 84070  
Phone: 801.255.0529  
Fax: 801.255.4449

LAYTON  
Phone: 801.547.1100

TOOELE  
Phone: 435.843.3590

CEDAR CITY  
Phone: 835.865.1453

RICHFIELD  
Phone: 435.590.0187

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FOR:  
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5208 S COMMERCE DR. STE 202  
MURRAY, UTAH

CONTACT:  
LYNN WARDLEY  
PHONE: 801-293-9674  
FAX:

**WILTSHIRE ESTATES**  
**CENTENNIAL BLVD**  
**SARATOGA SPRINGS, UTAH**

09-08-2014 5TH SUBMITTAL

NO.	DATE	REVISION	BY
1			
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**IRRIGATION PLAN**

PROJECT NUMBER: U1237D  
PRINT DATE: 9/8/14  
DRAWN BY: D. COWLEY  
CHECKED BY: C. McFARLANE  
PROJECT MANAGER: C. McFARLANE

**L6.0**

**Staff received these questions via email. A follow-up phone call was made and the following answers were conveyed to Ms. Jablonski on August 13, 2014.**

Questions from Laura and Don Jablonski  
1684 Centennial Blvd. Lot 1310

After review of the plans on line I have the following questions and concerns

1. I do not see a start and finish time frame for each phase? Once a phase is started how much time do they have to finish it? Address having 1/2 finished phases sit a long time.

**Answer:** The phasing will be market driven. Each phase has been designed to stand on its own. Per Code, the applicant will have 24 months to record each of the Final Plats once approval has been granted by the City Council. At the time of plat recordation, the developer is required to post bonds that assure the approved infrastructure will be completed.

2. Condition of construction site; piles of rubble, dirt and construction materials. Address how the site should look on an ongoing basis including dust control.

**Answer:** The developer must meet all local, state, and federal requirement regarding dust control, storm water runoff, and mud/dirt tracking from the site. City inspectors will be onsite frequently to assure compliance with these standards.

3. Elevation of projected homes to protect the view of existing homes.

**Answer:** The developer has not submitted home elevations, as most of these homes will be custom built. The height limit of this zone, R-3 zone, is 35 feet.

4. Elevation steps down toward the lake. I don't understand the plans for this.

**Answer:** Staff has reviewed the grading plan with Ms. Jablonski and has explained that the general slope of the development will be downward moving west to east.

5. Walking trail I don't see where it is planned. Will it run along the lake from Eagle Park through the entire development of Wiltshire?

**Answer:** Staff explained that if the canal running next to the lake is covered, there will be trail that runs along the lake shore. Until that happens, the City Council has approved a Master Development Agreement (Lakeside MDA) which allows the existing trail along Centennial Blvd. to count as the required trail.

6. The planned fence backs up on lot 105, 106, 107 the part that backs up to our lot 1310 we have an existing fence. Will our fence be part of the new fence, as it is on our property line? Or, will it be improved and attached to the new fence?

**Answer:** The developer will coordinate with property owners that have existing fencing. There is not a requirement to fence between private lots.

7. Terms of when the lots can be sold are not clear. Is it after all phases are complete or is it phase by phase?

**Answer:** The developer may only legally sell individual lots once they have been approved and recorded at the Utah County Recorder's Office. Recordation will take place phase by phase.

8. As to out buildings and playground equipment we already have not approved play sets in yards in the area. I would not like to have 30 plus homes each having its own play ground in the back yard. How is this addressed? Is it included in "outbuildings" part of the statement of being more than 10 feet from property line? This being asked as I believe that the Eagle Park is being used as part of the 20% open space for this project.

**Answer:** Regulation of private yard play equipment is an HOA requirement. The City does not have any prohibition regarding playground equipment. Accessory buildings are permitted in the Land Development Code. The property is zoned R-3, which means that there is a requirement of 15% open space. The City Council approved the Lakeside MDA (Sept. 2013) which states that the open space requirements for this subdivision have been met with the existing open space in the SSD development (which includes Eagle Park).

Respectfully,

Laura and Don Jablonski  
1684 Centennial Blvd.  
Saratoga Springs, UT 84045

**City of Saratoga Springs**  
**Planning Commission Meeting**  
**August 28, 2014**

Regular Session held at the City of Saratoga Springs City Offices  
1307 North Commerce Drive, Suite 200, Saratoga Springs, Utah 84045

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**Planning Commission Minutes**

**Present:**

Commission Members: Jeff Cochran, Jarred Henline, Kirk Wilkins, Sandra Steele, Hayden Williamson, Kara North

Staff: Scott Langford, Kimber Gabryszak, Kevin Thurman, Eric Lundell, Nicolette Fike

Others: Peter Staks, Bart Gardiner, Tom Davis, Barbara Gaona, Joe Kelley, R. Egbert, Craig Call, Dave Webber, David Brown, John Farrer, Delon Sorenson, Brett Wilson

**Call to Order** - 6:32 p.m. by Jeff Cochran

**Pledge of Allegiance** - led by Barbara

**Roll Call** – Quorum was present

**Public Input Open** by Jeff Cochran

No public input was brought forward.

**Public Input Closed** by Jeff Cochran

**4. Public Hearing and Possible Recommendation: Crossroads Ranchette Amended Plat located at 1547 North Redwood Road, Thomas Davis, applicant.**

Scott Langford presented the proposal to amend the original plat and staff recommendations. It separates a new lot behind the current structures. Staff noted the need to keep neighborhood connectivity through the lot where people already use it for access to nearby businesses.

Tom Davis, applicant was present to answer questions. He noted that they had no one at this point who has applied for the lot but they had two interested parties.

**Public Hearing Opened** by Chairman Cochran

No comments at this time

**Public Hearing Closed** by Chairman Cochran

Sandra Steele disclosed that she had done some consulting work for the engineering firm on record in the past but felt she had no conflict of interest. She asked who owned the remainder parcel property and worried that the area would not be maintained.

Scott Langford responded that Amsource were the owners, Applicant was working with them for necessary easements. There was the nuisance code they could enforce. Hopefully with correspondence it can be taken care of.

Tom Davis responded that he had been in contact with the adjacent owners and he has informed them that it is the intent of the developers to landscape that.

Sandra Steele asked who would maintain the 20 foot strip connected to the Cell tower area.

Scott Langford replied that they would need to work on that detail.

Sandra Steele noted that there were parking issues but she is aware that there is no owner/business in mind as yet. She would like to see the Concept plan come back when there is an owner and a building plan.

Tom Davis responded that the interest currently is for a Vet Clinic and they would be willing to come back and show them their plan.

Hayden Williamson commented that what he sees does or will comply with code and he is ok with it.

Kirk Wilkins is fine with the plan.

Kara North is fine with the plan.

Jarred Henline is fine with the plan.

Jeff Cochran asked if there was a requirement to maintain pedestrian access across the area.

Staff noted that the rules for site plans it was required that the Urban Planning was look at that pedestrian connectivity and safety.

Jeff Cochran confirmed with staff that with the lot split the 20 ft. Cell tower buffer would be a part of Lot one, currently the storage buildings, and that it was very possible that it would remain uncared for.

Kevin Thurman noted that it's not owned by current applicant and anything they could do with the code would not apply to him.

Sandra Steele wanted to know if they could get an easement for that property if the new lot owners wanted to care for it.

Kevin Thurman said they could look into that possibility as they look at the site plan.

Motion by Sandra Steele to recommend approval to the City Council of the Crossroads Ranchettes Lot 1-A Amended Final Plat, located at approximately 1547 North Redwood Road, based on the findings and conditions listed in the staff report and with the condition that a concept plan come back when there is a final user. Seconded by Haden Williamson. **Aye: Sandra Steele, Hayden Williamson, Jeffrey Cochran, Kirk Wilkins, Kara North, Jarred Henline. Motion passed unanimously.**

##### **5. Continued Public Hearing and Possible Recommendation: Preliminary Plat for Wiltshire located at 1600 South Centennial Boulevard, Peter Staks, applicant.**

Scott Langford noted this was continued from the last meeting while they waited for some further clarification.

Kevin Thurman noted that there is a change to condition 8 with an addition that needs to be included in the recommendation. **If the canal is not vacated prior to expiration of this Agreement, the cash shall be returned to Developer after expiration of this Agreement provided that all Plat 14 and Plat 16A improvements have been completed and the 1-year warranty period has expired per City regulations.**

Scott Langford continued, noting that this was a gated community and they have worked with applicant to have a gate controller turn around entrance so a car would not need to back onto the main road. He noted that there are sensitive lands that have steeper slopes on some lots. These areas will be placed in a protected easement that is no build and no disturb.

Peter Staks, applicant, was present and pointed out a few other details on the plan. He hoped they could ask for no fences along the lake because it blocked the view.

##### **Public Hearing Open by Chairman Cochran**

Barbara Gaona is concerned about the solid fence that is planned and would like to see instead a rod-iron semiprivate.

Dave Webber is grateful for the developer and their work in the community. He wanted to speak on the sensitive lands area and wonders who is going to take care of that land. He feels that if no one can touch that land than no one can take care of it. He thinks this issue will hold up the subdivision. He is in favor of the subdivision but feels everyone will want that area taken care of.

David Brown was happy that the developer was coming in to do a higher end project. He is not as excited for the solid wall that would block views but notes that there is a jogging trail and that as a private community they would probably like the solid fencing.

Delon Sorenson noted that the blocked view of the lake is undesirable with a solid fence. He thinks that needs to be taken into consideration. He thinks the sensitive lands should be turned into a green space instead.

##### **Public Hearing Closed by Chairman Cochran**

Peter Staks commented on the solid wall. He believes the amount of setbacks for the houses will help to not block the view. They had talked about doing rod iron semi-private along the entrance that would open up the corridor.

Jeff Cochran asked staff about the code for solid fencing and to speak on the regulations on sensitive lands.

Scott Langford indicated that the main issue of disturbing the sensitive lands is erosion.

Eric Lundell noted that protecting the sensitive lands was in everyone interest because of erosion and possible issues in a flood event.

Scott Langford cited code that stated fencing should be along property lines abutting open space etc. He noted that we are looking at that code tonight and could possibly change things.

Jared Henline asked about the sensitive lands code and asked why they could not access the back of the lots in question.

Scott Langford replied they could access it but not disturb the native vegetation and no regarding.

Kevin Thurman said they could follow up with the engineering standards before it goes to council.

Jared Henline asked applicant what are some alternatives they could do in the sensitive area.

Peter Staks replied that these lots are above the flood plain but it is unbuildable.

Jared Henline said than his concern is that there may be a way to not build on it but use it somehow. He asked about the fencing requirement along trails, and he thinks the solid fencing looks nice and could be allowed as long it complies with the code.

Kimber Gabryszak noted reasons why semi-private was required, it helps with maintenance and safety.

Kara North asked about the application already in and if it was subjected to the current code, not to any changes that may be made with the new code changes.

Kevin Thurman said if we changed the code to be more lenient we could give him the benefit of the doubt but if it became more stringent than he could be grandfathered into the old code.

Kara North asked about the permission coming from state or city on the boundary line trail.

Kevin Thurman said it would have to come from state to change it.

Kara North likes the idea of a rod iron fence at the entrances so you have a view of the road corridor. She is fine with the solid wall on the rest of it.

Kirk Wilkins tried to clarify on the sensitive land issue that if it couldn't be disturbed than no one needed to worry about taking care of it. It needs to be a nice product for the people who purchase the lots.

Kevin Thurman replied maybe that wasn't the right view. It needs to be protected open space. It's something we should follow up on.

Kirk Wilkins He asked if the flag lots complied with frontage. He is appreciative that the applicant is willing to work with the city and neighbors.

Hayden Williamson asked about the fencing along the trail. He is noting the area along the trail to the north of this property and that it was fairly steep, with generally no fencing. He thinks we could take that into consideration on the fencing. He is torn on the sensitive lands issue. He recognizes the need to protect the property owners but on the other hand no one wants a large part of their yard to be weeds. There should be a happy medium there somewhere. He understands that the undisturbed space is maybe a gray area, that owners could maybe be allowed landscaped or gardening and grading.

Kevin Thurman says the code states that sensitive land shall be placed in protective open space and it doesn't define that well. He is not sure that that would prevent landscaping.

Hayden Williamson thinks there could be a happy medium between a happy homeowner and happy developer on the sensitive lands. They could educate the homeowners on what changes may happen by disturbing the property and how to protect the land. He asked if there were concerns on lots 301, 307 and 118 and asked about them backing out right near the entrance. He asked that the developer consider putting those drives as far from the entrance as possible.

Sandra Steele asked if there was anything that would stop an owner from putting a fence in at the drop-off, and then it becomes no man's land. She thought that as expensive lots they would be paying taxes on a large portion of their lot that they couldn't use. She thinks someone needs to maintain the area but doesn't think that putting the area in the lots would mean it would be maintained. She commented that on the entrances she does not necessarily agree that the north entrance will be the main entrance and that she would like to see the same type of turn around entry on the south entrance as well. She asked if they had considered using colored concrete instead of stamped or painted asphalt. She likes the view window at all the entrances and thinks that is a good compromise.

Peter Staks noted that they had checked on the concrete it and it seemed to be a best alternative combining all the issues they researched into it.

Jeff Cochran thinks that the property owner needs to be very aware with what he can and cannot do with the sensitive land. He does not see a problem with the solid wall in the front. He doesn't see a problem with

the trail area and asked about space in the cul-de-sacs and if it could be opened up with maybe a flush island.

Peter Staks said the outside few feet of the islands would be a paved area and they want to do a strong job on landscaping and he hadn't thought of them as extra parking.

Commissioners discussed and clarified the language and conditions that needed to be included in a recommendation. Items discussed were entrance turn-arounds, land disturbance and condition 5, fencing and code changes, and entrance signs.

**Motion made by Kara North that based upon the evidence and explanations received today, I move that the Planning Commission forward a positive recommendation to the City Council to approve the Saratoga Springs Plat 14, Wiltshire Estates Preliminary Subdivision Plat, on property generally located at 1530 South Centennial Boulevard, with the findings and conditions contained in the report, with the additional conditions or exceptions that the language of condition #8 be as stated by Kevin Thurman on the record; that the revised entrance on the southern access point as provided to staff by applicant on August 28<sup>th</sup> be included; that condition #5 be consistent with city code and any restrictions to develop on sensitive lands be noted on plat; that the applicant be afforded the benefit, should they desire, of any fencing code restriction to the time of recording of the plat; and that the south gate entrance not have a call box or keypad entrance assuming compliance with the approval of the fire chief; and that the fence have signage designating that that entrance is for owners only. Seconded by Kirk Wilkins.**

Hayden Williamson questioned on the second provision she mentioned the south entrance, it should be the north entrance.

Kara North accepted that the **North access point** be included, not south as stated.

Kirk Wilkins also accepted.

**Aye: Sandra Steele, Hayden Williamson, Jeffrey Cochran, Kirk Wilkins, Kara North, Jarred Henline. Motion passed unanimously.**

A short break was taken at this time.

Meeting resumed at 8:24 p.m.

**6. Continued Public Hearing and Possible Recommendation: Code Amendments for Sections 19.01,-General Provisions, 19.02-Definitions, 19.04- Establishment of Land Use Zones and Official Map, 19.05-Supplementary Regulations, 19.06-Landscaping & Fencing, 19.11- Lighting, 19.12-Subdivisions, 19.13-Development Review Process, 19.14-Site Plan and 19.15-Conditional Use Permit.** Kimber Gabryszak noted it was a continued notice and that they are doing a comprehensive re-notice of the whole code for the next meeting on Sept 11<sup>th</sup>. They have added 19.05 but Commission can't make a recommendation on it because it was not noticed, but they can make comments. They are adding that as a new section that addresses accessory buildings. She explained what had led to looking at this code. She said they are trying to make it better for the accessory buildings, and allow most of those buildings. She had comparisons from other city's codes. What they are proposing is the least restrictive of any surrounding jurisdiction. She noted that State code does not specify any setbacks, only PUE requirements. The city has an emphasis on front yard setbacks. She had some photos from around the city to help illustrate the different scenarios.

Hayden Williamson wanted to know about the definition of motor vehicle for the minimum driveway. Does that include a 4-wheeler.

Staff replied that it's generally an automobile. It could be interpreted to be an ATV.

Kara North asked about matching the primary structure.

Kimber Gabryszak responded that that was discussed in committee and the main problem with that was many of these are purchased pre-fabricated.

Kara North thought they could have a broad definition of matching the main structure, like similar color.

Jarred Henline thought maybe there should be a secondary exception of when two corner lots back each other.

It didn't seem to be an issue in those cases.

Kara North asked if we could clarify the language about pads not having footings.

Kirk Wilkins asked about the risk of a company using the PUE and that it's at the property owners expense.

Staff responded that this goes along with state code.

Kirk Wilkins asked how the structures already built in those side yard areas would be enforced.

Kevin Thurman said they can issue a policy statement that staff not enforce the existing structures up to a change in code date.

Kimber Gabryszak said on Sept 11th it will become pending legislation.

Sandra Steele felt property values (lowered because of structures blocking front areas of neighboring homes/lots) needed to be protected and put away any political leanings. She supports staff in the code changes.

Hayden Williamson likes the added conditions of having a structure in a side lot. He supports being able to use that area. He thinks special consideration could be where a side yard abuts a front yard. He thinks in the majority of the cases it won't be a big deal and doesn't think a few exceptions should prohibit all.

Jeff Cochran likes the current code but can respect the rights of the property owners and would support the current code and changes only with the fencing requirement. He supports the 10' height requirement, and the fence requirement. He is hesitant with allowing them in the corner, with the fencing requirement.

Kirk Wilkins supports being able to build within area that is behind the house and in back corner of side yard unless it blocks the clear view triangle, back yards to back yard is not an issue.

Kara North would not have a problem with having a structure on the side lot if there was a fence that doesn't block clear view triangle.

Jarred Henline we have a problem with a full size fence more often than with structures. If we were to vote I would go with changes proposed in the alternative staff report. He would want an exception for when two back yards faced. He would make a recommendation to grandfather existing structures, including those currently under construction.

#### **Public Hearing Opened** by Chairman Cochran

Bart Gardiner felt the timing was bad for his investment. He feels that diminishing property values is not an issue when effort is put into the rest of the lot. He thinks with RV pads there is the same issue of clear view triangles. The purpose of his shed is to park his 4wheeler to get in and out easily to plow the walkways. He thinks a gate should be given as an option. He thinks the definition of the side yard should include being able to use the back side yard. He thinks it should not be a privacy fence only. He thought 10' height was from mid-slope not the highest point. Thanks for the time the Commission has given to this. He made plans based on the permission he was given by the city when he first approached. He has made sure his neighbors are ok with it. The back yard to back yard situation should not have this issue.

#### **Public Hearing Closed** by Chairman Cochran

Kimber Gabryszak continued with 19.06 – Landscaping and Fencing.

Kirk Wilkins had a question about the rock and if it applied to everyone or just commercial.

Kimber Gabryszak said everyone is subject to planting standards. for residential they just have to have landscaping according to 19.06.08, actual number requirements at R6 and higher. There would most likely not be an issue if there was some sort of balance.

Sandra Steele asked about parking next to a street having a 10 foot berm. Is that wide or high?

Kimber Gabryszak said they can cross reference that.

Hayden Williamson appreciated the efforts to make it less restrictive. He thinks that is the direction the city needs to go and thinks it could go a little further. He understands the needs to restrict heat islands etc. but he doesn't think it needs to be legislative at this level, that we could leave it open and let neighborhoods and HOA's regulate it more at that level. He would like to see fewer restrictions on rock and 50% live vegetation, it's too hard to measure and enforce. He thinks the public areas and tree preservation requirement are good.

Kirk Wilkins agreed with Commissioner Williamson's comments about less restriction. He agrees with local groups regulating those. He would move to strike all the new additions.

Kara North has no problems with changes.

Jarred Henline had no problems with the changes.

Jeff Cochran was also good with the changes.

Commissioner North was excused.

Kimber Gabryszak discussed the 19.11 Lighting. It is mostly dark sky chapter. Many of the standards are in the engineering standards and basically it's all downward directed with some exceptions and fixture heights.

Sandra Steele asked about standards that say you can have a different light fixture for residential streets.

Hayden Williamson commented on residential lights with flood lighting being prohibited and if it included security lighting.

Jeff Cochran had the same question

Kimber Gabryszak said it shouldn't.

Hayden Williamson asked why poles need to be black.

Kimber Gabryszak replied it was for consistency.

Kirk Wilkins agreed with flood lighting comments and making sure it wasn't pointed at neighbors.

Jarred Henline was good with the changes.

Jeff Cochran thought it was a great start. He feels it's more of a general theme that we should give leeway when we can to the property owner.

**Motion by Hayden Williamson that based on findings and discussions today that we forward a positive recommendation for 19.01 19.11 of the Saratoga Springs Development Code to the City Council with conditions of lighting that security lights for residential is not prohibited by flood-light restrictions. Second by Kirk Wilkins. Aye: Sandra Steele, Hayden Williamson, Jeffrey Cochran, Kirk Wilkins, Jarred Henline. Motion passed unanimously.**

**7. Approval of Reports of Action.** - No reports tonight.

**8. Approval of Minutes:**

**1. August 14, 2014.**

Motion by Sandra Steele that we approve the minutes of as amended seconded by Hayden Williamson. **Aye: Sandra Steele, Hayden Williamson, Jeffrey Cochran, Kirk Wilkins, Jarred Henline. Motion passed unanimously.**

**9. Commission Comments.** - No comments.

**10. Director's Report.** - Kimber reviewed what would be coming up

**Meeting adjourned by Jeff Cochran**

**Adjourn 9:45 p.m.**

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Date of Approval

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Planning Commission Chair  
Jeff Cochran

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Lori Yates, City Recorder

**RESOLUTION NO. R14-42 (9-16-14)**

**ADDENDUM TO RESOLUTION OF THE CITY OF SARATOGA SPRINGS PERTAINING TO THE CITY STREET LIGHTING SPECIAL IMPROVEMENT DISTRICT TO INCLUDE ADDITIONAL SUBDIVISION LOTS. (Wiltshire Phase 1-3)**

WHEREAS, on May 10, 2001, the City Council adopted Resolution No. 01-0510-01 creating a street lighting special improvement district (the "Lighting SID") consisting of all lots and parcels included within the Subdivisions set out in said Resolution for the maintenance of street lighting within the Lighting SID.

WHEREAS, *Utah Code Ann.* § 17A-3-307 provides that additional properties may be added to the special improvement district and assessed upon the conditions set out therein.

WHEREAS, the City Council has given final plat approval to Wiltshire Phase 1-3, (the "Subdivision") conditioned upon all lots in the Subdivision being included in the Lighting SID.

WHEREAS, the City Council finds that the inclusion of all of the lots covered by the Subdivision in the Lighting SID will benefit the Subdivision by maintaining street lighting improvements, after installation of such by the developer of the Subdivision, which is necessary for public safety, and will not adversely affect the owners of the lots already included within the Lighting SID.

WHEREAS, the owners of the property covered by the Subdivision have given written consent: (i) to have all lots and parcels covered by that Subdivision included within the Lighting SID, (ii) to the improvements to that property (maintenance of the street lighting), (iii) to payment of the assessments for the maintenance of street lighting within the Lighting SID, and (iv) waiving any right to protest the Lighting SID and/or assessments currently being assessed for all lots in the Lighting SID (which consent is or shall be attached as Exhibit 1 to this Resolution).

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SARATOGA SPRINGS THAT:

1. All lots and parcels in the Subdivision be added to and included in the Lighting SID based upon the above findings and the written consent attached as Exhibit 1 to this Resolution.
2. City staff is directed to file a copy of this Resolution, as an Addendum to Resolution No. 01-0510-01 creating the Lighting SID, as required by *Utah Code Ann.* § 17A-3-307.
3. Assessments will be hereafter levied against owners of all lots within the Subdivision on the same basis as assessments are being levied against other lots included in the Lighting SID.
4. The provisions of this Resolution shall take effect upon the passage and publication of this Resolution as required by law.



CONSENT OF OWNER OF PROPERTY  
TO BE INCLUDED IN STREET LIGHTING SPECIAL IMPROVEMENT DISTRICT

WHEREAS the City of Saratoga Springs (the “City”), by and through its City Council, has created a Street Lighting Special Improvement District (the “Lighting SID”) to pay for maintenance of street lighting within the subdivisions covered by the Lighting SID.

WHEREAS the undersigned (“Developer”) is the developer of Wiltshire Phase 1-3 (the “Subdivision”) located within the City for which the City Council has given or is expected to give final plat approval.

WHEREAS, *Utah Code Ann.* § 17A-3-307 provides that before the completion of the improvements covered by a special improvement district, additional properties may be added to the special improvement district and assessed upon the conditions set out therein. Since the improvements covered by the Lighting SID are the maintenance of street lighting in the Lighting SID, said improvements are not completed so additional properties may be added to the Lighting SID pursuant to said § 17A-3-307.

WHEREAS, the Developer wishes that the Subdivision be included within the Lighting SID in order to provide for the maintenance of street lighting within the Subdivision and the City has conditioned such as a condition of final approval of the Subdivision.

WHEREAS, Developer, as the owner of the property covered by the Subdivision, is required by *Utah Code Ann.* § 17A-3-307 to give written consent to having the property covered by that Subdivision included within the Lighting SID and to consent to the proposed improvements to the property covered by the Subdivision and to waive any right to protest the Lighting SID.

NOW THEREFORE, Developer hereby consents to including the lots and parcels within the Subdivision in the Lighting SID. On behalf of itself and all lot purchasers and/or successors in interests, Developer consents and agrees as follows:

1. Consents to have all property covered by the Subdivision and all lots and parcels created by the Subdivision included within the Lighting SID. The legal description and the tax identification number(s) of the property covered by the Subdivision are set out in Exhibit A attached to this Consent.
2. Consents to the improvements with respect to the property covered by the Subdivision -- that is the maintenance of street lighting within the Subdivision. The street lighting within the Subdivision will be installed by Developer as part of the “Subdivision Improvements.”
3. Agrees to the assessments by the Lighting SID for the maintenance of street lighting within the Lighting SID.

4. Waives any right to protest against the Lighting SID and/or the assessments currently being assessed for all lots in the Lighting SID.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2014.

DEVELOPER:

Name:  
Authorized  
Signature:  
Its:

**City Council  
Staff Report**

**Author: Jeremy D. Lapin, P.E., City Engineer**  
**Subject: Amendment to City's Sanitary Sewer Rates**  
**Date: September 16, 2014**  
**Type of Item: Ordinance**



**A. Topic:**

This item is for an ordinance approving amendments the City's Sanitary Sewer Rates and Fees within the City's Consolidated Fee Schedule.

**B. Background:**

In 2012, the City of Saratoga Springs hired Zion's Bank Public Finance to conduct a utility rate study to determine if the City's utility rates are sufficient to meet its current and future service delivery and infrastructure needs. On June 3<sup>rd</sup> and July 14<sup>th</sup>, 2014 Zion's Bank Public Finance made presentations to the City Council during the work sessions and provided a comprehensive rate study that recommended the following changes to the Sanitary Sewer rates. The City's Existing Rates are as Follows:

<i>Minimum Monthly Charge</i>	<i>\$15.99</i>
<i>Monthly Usage Rate</i>	<i>\$2.88 per 1000 gallons culinary water used</i>

Zion's Bank Public Finance has proposed the following rates to take effect October 1, 2014:

- *Residential Minimum Monthly Charge (Includes 1<sup>st</sup> 3,000 gal.)* *\$28.00*
- *Residential Minimum Monthly Charge (Master Metered) (Includes 1<sup>st</sup> 3,000 gal. multiplied by # of Units Served)* *\$28.00 x # of Units Served*
- *Residential Monthly Usage Rate (per 1,000 gal.)* *\$3.30 for gal. 3,001 – 7,000*  
*\$3.50 for gal. 7,001 – 12,000*  
*\$3.65 for gal. 12,001 - ∞*
- *Non-residential Minimum Monthly Charge*

<i>¾"</i>	<i>\$18.00</i>
<i>1"</i>	<i>\$18.00</i>
<i>1.5"</i>	<i>\$23.40</i>
<i>2"</i>	<i>\$28.80</i>
<i>3"</i>	<i>\$46.80</i>
<i>4"</i>	<i>\$180.00</i>
<i>6"</i>	<i>\$228.60</i>
<i>8"</i>	<i>\$343.80</i>
- *Non-Residential Monthly Usage Rate (per 1,000 gal.)* *\$3.45*

Zion's Bank Public Finance has proposed the following rates to take effect July 1, 2015:

- *Residential Minimum Monthly Charge (Includes 1<sup>st</sup> 3,000 gal.)* *\$31.36*

- Residential Minimum Monthly Charge (Master Metered) \$31.36 x # of Units Served  
(Includes 1<sup>st</sup> 3,000 gal. multiplied by # of Units Served)
- Residential Monthly Usage Rate (per 1,000 gal.) \$3.70 for gal. 3,001 – 7,000  
\$3.92 for gal. 7,001 – 12,000  
\$4.09 for gal. 12,001 - ∞
  
- Non-residential Minimum Monthly Charge
 

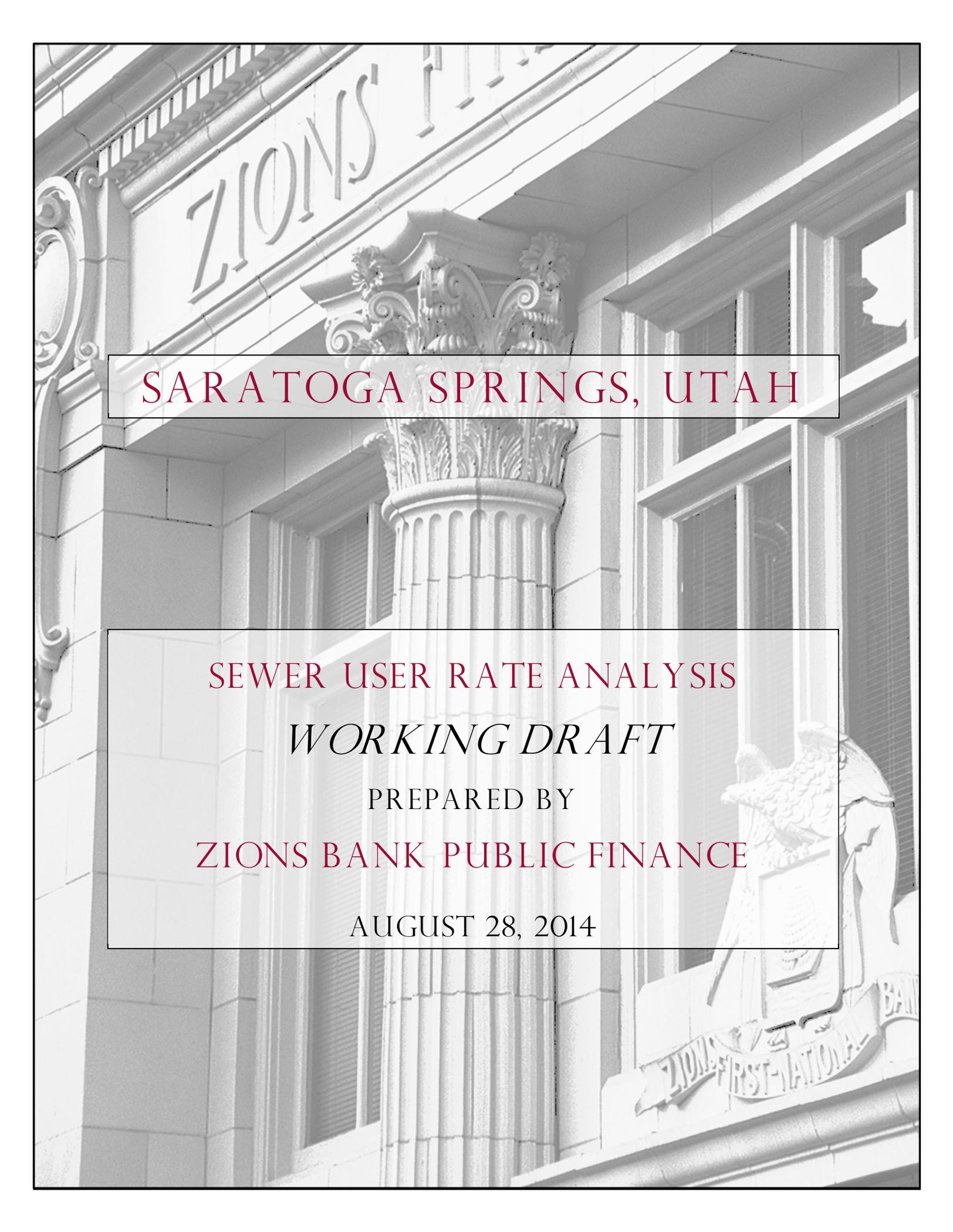
¾"	\$20.16
1"	\$20.16
1.5"	\$26.21
2"	\$32.26
3"	\$52.42
4"	\$201.60
6"	\$256.03
8"	\$385.06
- Non-Residential Monthly Usage Rate (per 1,000 gal.) \$3.86

**C. Analysis:**

Saratoga Springs continues to be one of the fastest growing cities in Utah and based on the recommendations from Zion's Bank, the proposed rates are necessary in order for the City to meet the growing demands on the system while maintaining a high level of service to existing residents.

**D. Recommendation:**

I recommend that the City Council approve Ordinance 14- 23 amending the City's Consolidated Fee Schedule for Sanitary Sewer Rates.



SARATOGA SPRINGS, UTAH

SEWER USER RATE ANALYSIS

*WORKING DRAFT*

PREPARED BY

ZIONS BANK PUBLIC FINANCE

AUGUST 28, 2014

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## RATEPAYERS' OVERVIEW OF THE USER RATE ANALYSIS

### WHY IS THE CITY PREPARING A USER RATE ADJUSTMENT?

Saratoga Springs City (the City) is a growing community with continual new development and many sewer projects yet to be constructed to meet the demands of growth and maintenance. This user rate adjustment has been prepared to ensure that adequate funds are available to continually fund operations expense and pay for necessary expansion projects while establishing a fee structure that is fair to those paying the rate.

### WHO PREPARED THE USER RATE ANALYSIS?

Zions Bank Public Finance has been hired by the City to perform an objective review of the sewer utility's costs, make recommendations on how to best fund future capital projects, review the demands of each user class, and recommend a rate that will generate the funds needed. The professionals at Zions Bank have combined experience of 25 years in ratemaking work.

### HOW ARE SEWER USER RATES CALCULATED?

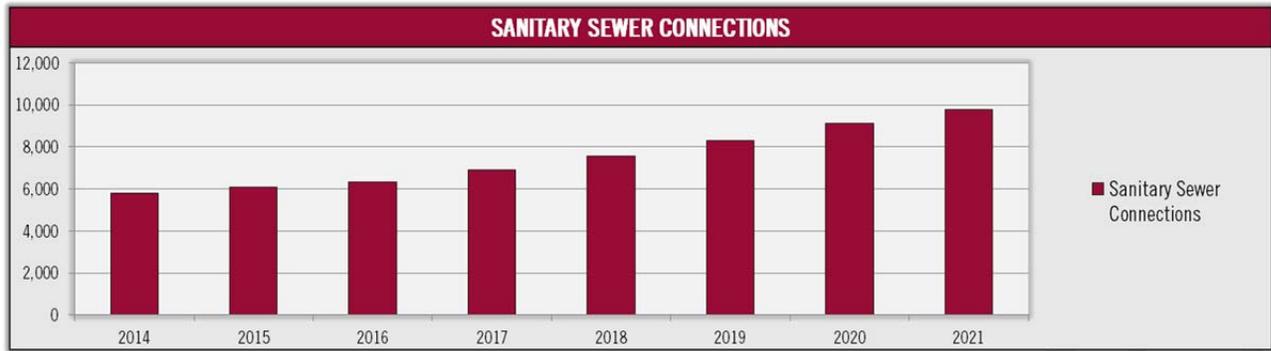
This sewer utility rate study follows the general methodologies prescribed by the Water Environment Federation (WEF) to be consistent with industry standard practices, provide uniform reporting, and documentation of calculations and findings. The rate study follows the City's budgetary format and will easily be incorporated into budget documents.

### WHAT IS THE SEWER SYSTEM?

A well-functioning and properly designed sanitary sewer system is essential to the health of a community as it transfers household, commercial, and industrial wastes away from the population to treat the wastewater and ultimately release the water safely again into the environment. Sewer lines, lift stations, treatment facilities operated by the City and Timpanogos Special Service District (TSSD), etc. are continually degrading with time and use which requires the City to reinvest in these facilities to make sure that they provide safe and reliable service indefinitely. Cities that do not maintain their systems run the risk of line breaks, backups, flooding, or service interruption that can result in illnesses, loss of property, or even loss of life.

In 2014 the City has 5,812 sewer connections. The table below graphs the growth in connections that the City anticipates. It is projected that by 2021 the City will have 9,801 connections.

FIGURE ES.1: UTILITY CUSTOMERS CONNECTIONS



### WHAT ARE OUR CURRENT SEWER USER RATES AND WHAT DO THEY FUND?

Saratoga Springs City currently collects monthly sewer user rates. Revenue collected is used to pay the following key costs of maintaining good utility service for the City:

- Salaries and wages of City employees that operate and maintain the system;
- Costs of power to operate lift stations;
- Costs of keeping the existing infrastructure in good and safe condition;
- Cost of annual debt service payments for the outstanding Series 2011 bonds and the future Series 2015 and 2018 bonds which have or will fund capital projects; and
- Maintenance of enterprise fund cash reserves equivalent to 150 days of operations expense coverage to maintain financial stability and protect against emergencies or cost overruns.

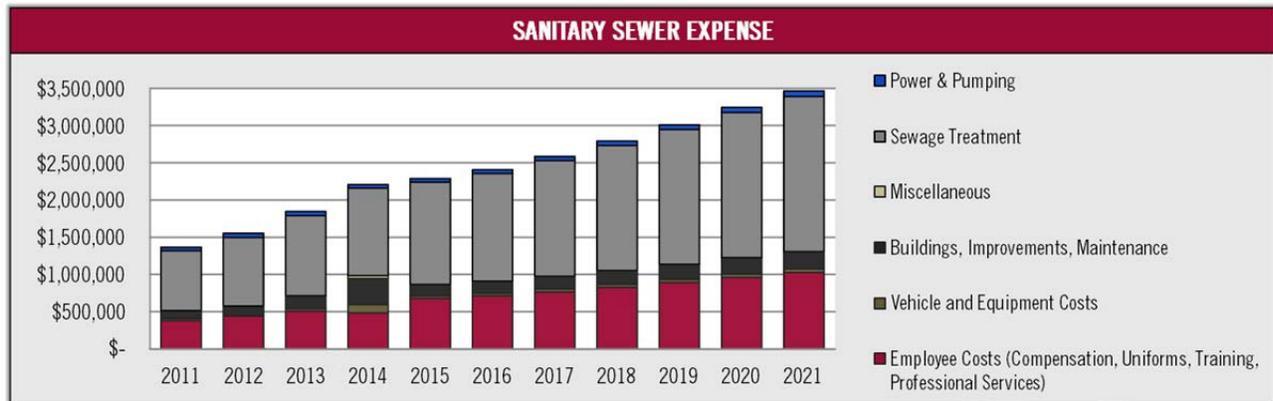
The current sewer rate structure is found in Figures ES.2 below.

FIGURE ES.2: CURRENT SEWER RATE STRUCTURE

Sewer					
	Price per 1Kgal	Table No.			Base Fee
Price Per 1,000	\$ 2.88	301	Saratoga Springs - Sewer		\$ 15.99
	2.73	304	Sewer - Condominiums		\$ 15.99
	2.73	305	Sewer - Daybreak Bypass Meter		\$ 15.99

Figure ES.3 below shows the historic and projected annual sewer utility costs for fiscal years 2011-2021.

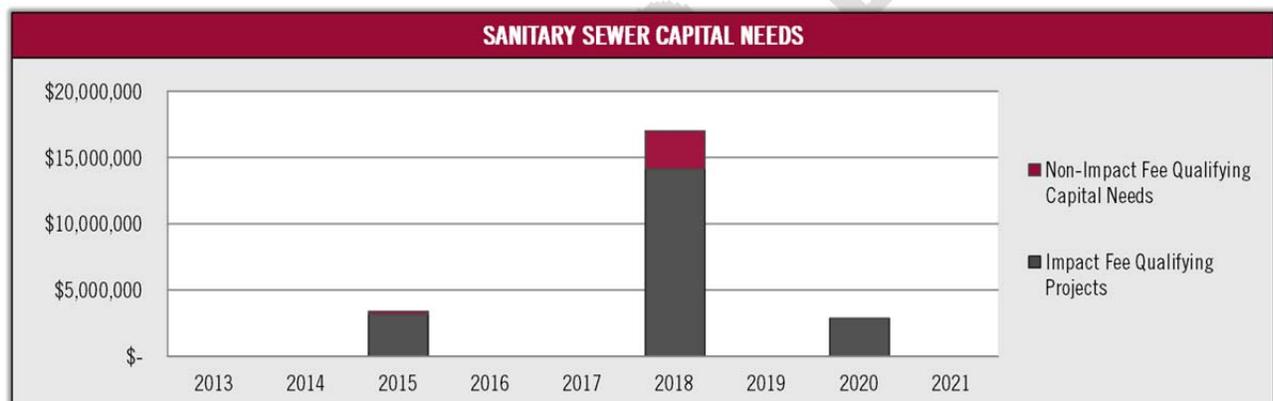
FIGURE ES.3: PROJECTED ANNUAL OPERATIONS & MAINTENANCE COSTS



### WHY DOES THE CITY NEED THE PLANNED CAPITAL PROJECTS?

The City needs to undertake multiple capital projects to provide sufficient capacity for new growth and to a small extent repair and replace some existing facilities that need to be upgraded or replaced as they have reached their useful life. The City’s initial rate increases will allow the City to build the initial 2015 capital projects shown below and start to accumulate funds and plan for the large group of projects scheduled for 2018.

FIGURE ES.4: ANNUAL CAPITAL PROJECTS

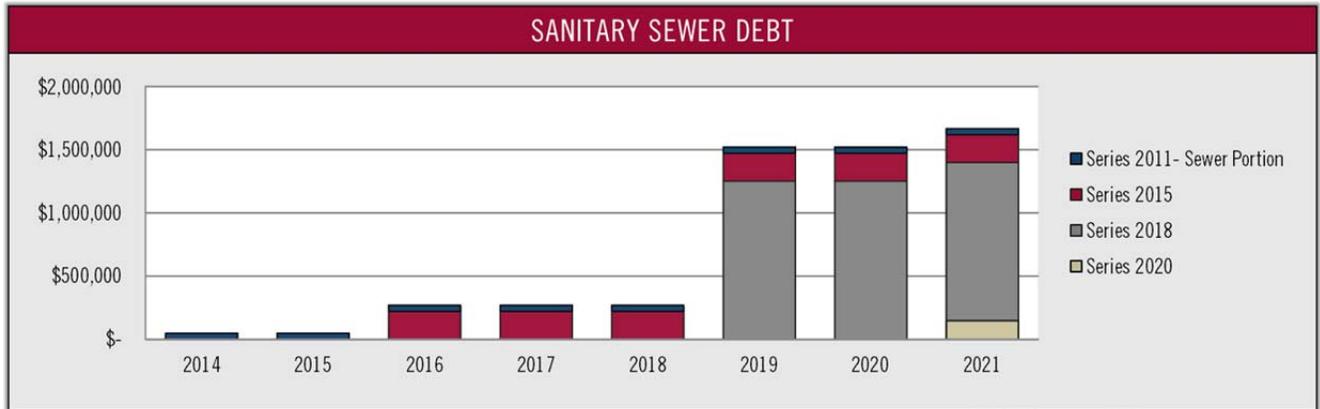


### WILL THE CITY NEED TO ISSUE BONDS TO BUILD CAPITAL PROJECTS?

The City has maintained a good financial position by making all bond payments resulting from money borrowed through bonds to build capital projects. Growth will certainly continue within the City and although impact fees will help to fund the bulk of the growth-related costs the timing of the impact fee collections will likely not match the timing of growth-related capital expenses. User rate revenues will offset any mismatches between slow impact fee collections and the immediate need for impact fee qualifying projects.

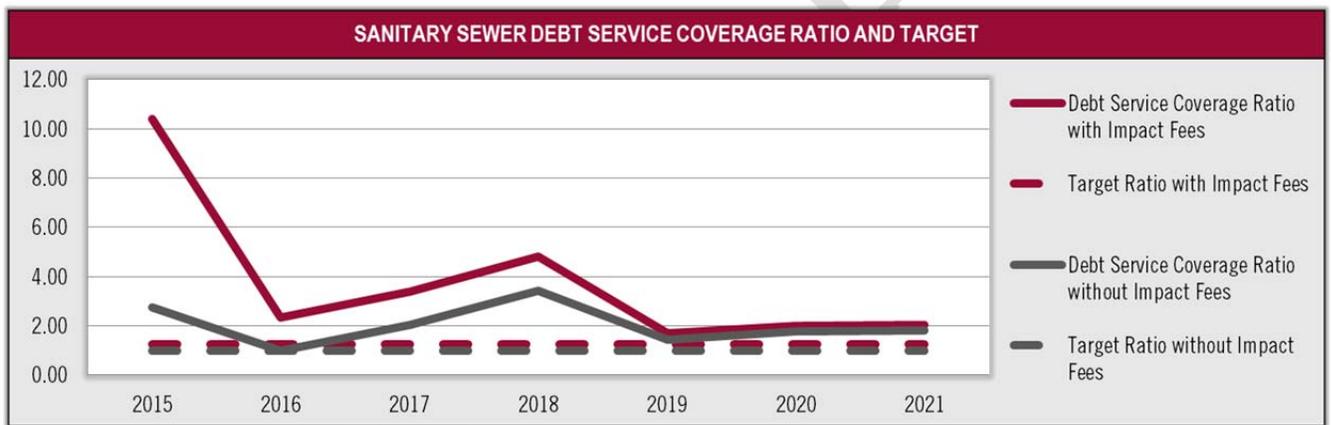
The City has one outstanding debt issue associated with the sewer utility, the Series 2011 Sales Tax Revenue Bond. It is anticipated that the City will also issue Series 2015, Series 2018, and Series 2020 Sewer Revenue Bonds. Figure ES.5 summarizes the City’s sewer debt payment schedule. Annual bond payments will increase significantly in 2019.

FIGURE ES.5: SUMMARY OF FUTURE DEBT PAYMENTS



Credit analysts use debt service coverage ratios to assess the financial strength of a utility system. The debt service coverage ratio represents the ratio of revenues (less O&M excluding depreciation expense) compared to annual debt service payments. The minimum coverage ratio is 1.25X, which means the system generates enough revenue, after O&M expenses excluding depreciation, to pay 125% of the debt service. The table below graphs the target coverage ratios considering impact fee revenues (red dotted line) and without impact fee revenues included in the calculation (gray dotted line).

FIGURE ES.6: FORECASTED DEBT SERVICE COVERAGE GRAPH



### HOW ARE SEWER RATES CALCULATED?

Rates are determined by first calculating how much money the City must generate each year to adequately meet all financial goals. Second, the usage patterns of customer classes (i.e. residential, commercial, churches, schools, governmental users, etc.) are reviewed to know how much impact or demand each type of user places on the system. Finally a rate structure that will generate the necessary income is tailored for each user class that charges a fair price for the service provided given average demands.

## WHAT CHANGES WILL BE MADE TO CUSTOMER CLASSES, TIERS, OR OTHER RATE COMPONENTS?

The proposed monthly user rate has been updated to consider inflation, capital needs and the changes to the rate structure. The monthly base fee includes a 3,000 gallon allotment and a consumption fee per 1,000 gallons will be charged for any usage over 3,000 gallons. Sewer user rates are intended to generally match the water rate structure.

## WHAT ARE THE RECOMMENDED RATES?

The complete rate schedule for the sewer utility is found in the attachments of this analysis. Figures ES.7 shows the proposed rates. Single family and multi-family residential units will be assessed a base monthly fee of \$28.00 per unit plus a demand fee for culinary water use above 3,000 gallons.

FIGURE ES.7: PROPOSED RESIDENTIAL SEWER RATES

<b>Residential Sewer With 3,000 Gal Allotment</b>				
<b>Demand Fee</b>			<b>Monthly Base Fee</b>	
Minimum Use	Maximum Use	Price per 1Kgal of Culinary Water	Assessed per Residential Unit	
-	3,000	\$ -	Per Unit	\$ 28.00
3,001	7,000	3.30		
7,001	12,000	3.50		
12,001	999,999,999	3.65		
<b>Multi-Family/Condominiums - Per Unit With 3,000 Gal Allotment</b>				
<b>Demand Fee</b>			<b>Monthly Base Fee</b>	
Minimum Use	Maximum Use	Price per 1Kgal of Culinary Water	Assessed per Residential Unit	
-	3,000	\$ -	Per Unit	\$ 28.00
3,001	7,000	3.30		
7,001	12,000	3.50		
12,001	999,999,999	3.65		

FIGURE ES.8: NON-RESIDENTIAL SEWER RATES

Sewer Commercial/Industrial per Connection - All Usage Billed				
Demand Fee			Monthly Base Fee	
	Price per 1Kgal of Culinary Water		Assessed According Culinary Water Meter Size	
All Usage	3.45	3/4"	\$	18.00
		1"		18.00
		1.5"		23.40
		2"		28.80
		3"		46.80
		4"		180.00
		6"		228.60
		8"		343.80

**WHEN WILL SEWER RATES BE CHANGED AGAIN?**

The operations and maintenance and capital expenses proposed in this analysis are intended to be reasonably accurate for the next five years assuming a gravity flow system and few shifts in capital project timings or costs, or major changes in how the City operates the utility. Changes in these assumptions would affect operations and maintenance cost projections. The rates in this analysis are recommended for fiscal years 2015 and 2016. Rates for 2017 and beyond will need to be reevaluated based upon the future system capital project plans. Rates for 2015 and 2016 are shown in Figure ES.9. The rates reflect a larger bump today to set the revenues in a trend that will likely prevent the need for major increases later as long as the City carefully monitors expenses and regularly adjusts the rates to ensure adequate rate revenue is collected. If there is a major change in project planning or user rate assessment, then the rate analysis will need to be redone sooner.

FIGURE ES.9: ANNUAL RATE INCREASE

Sewer	2014	2015	2016
Increase to Sewer Revenues		18.52%	16.35%
Growth Rates	4.82%	4.56%	4.35%
<b>Net Change to Rates</b>		<b>13.96%</b>	<b>12.00%</b>
Annual Increase to Average Monthly Sewer Rates		\$ 5.05	\$ 4.94
<b>Annual Average Monthly Sewer Rates</b>	<b>\$ 36.15</b>	<b>\$ 41.20</b>	<b>\$ 46.14</b>

**WHAT IS THE IMPACT UPON RESIDENTS OF SARATOGA SPRINGS CITY?**

Figures ES.10 compares the current residential bills with the proposed bills given different usage patterns. The graphs show that 50% of the City’s sewer users consumer 7,000 gallons or less per month. With the proposed changes to the City’s sewer rate a 7,000 gallon user’s monthly bill would increase by about \$5.05 from \$36.15 per month to \$41.20 per month. 97% of the City’s users will see an average increase to their current monthly bill of less than \$11.23 per month.

FIGURE ES.10: COMPARISON OF CURRENT AND PROPOSED SEWER DEMAND BASED ON CULINARY WATER CONSUMPTION

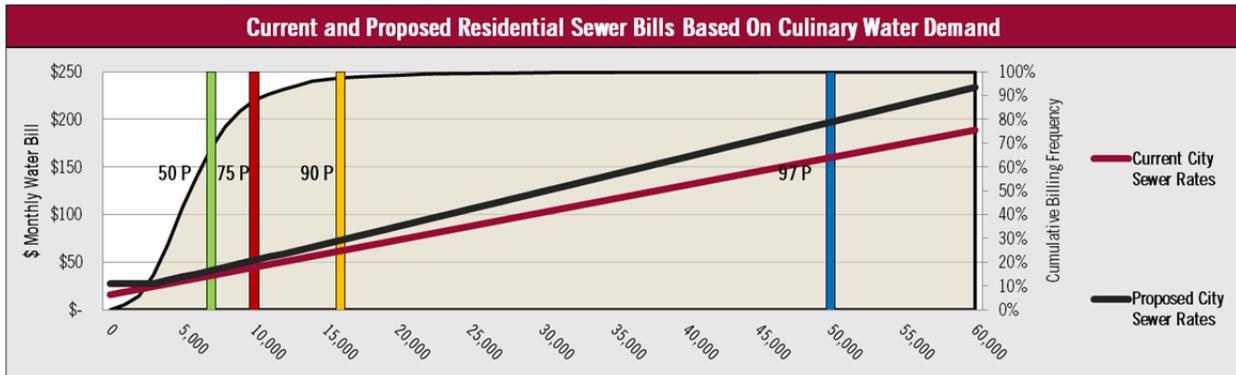
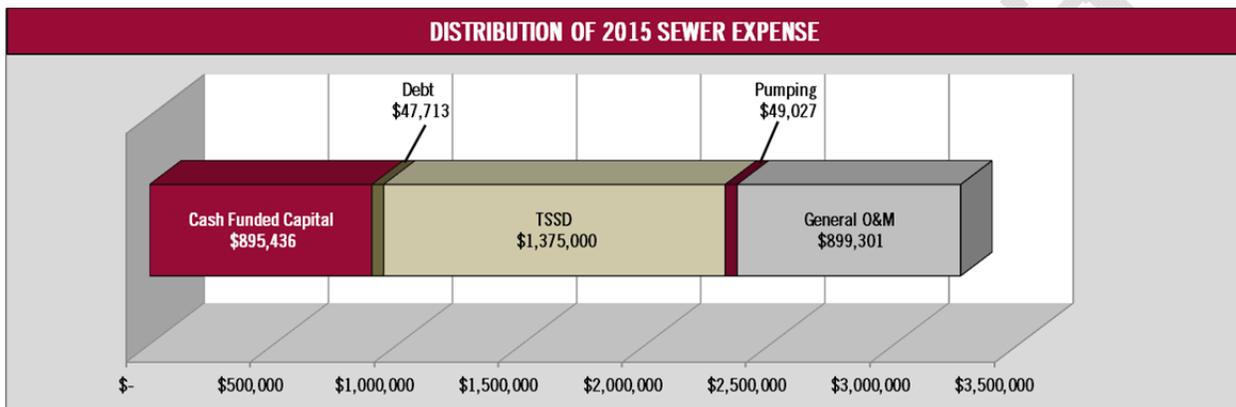


FIGURE ES.11: DISTRIBUTION OF SEWER EXPENSE BY COMPONENT



## CHAPTER 1: UTILITY RATE ANALYSIS OVERVIEW

Saratoga Springs City (City) hired Zions Bank Public Finance (Zions) to conduct a utility user rate study, including an evaluation of the current user rate structures, an updated revenue requirement analysis, and corresponding user rates for the sewer utility. The purpose of this analysis was to provide a fair and equitable rate structure that provides for healthy, financially sustainable utilities. The data for this analysis was provided by Saratoga Springs City and the study was conducted in cooperation with City staff.

### OVERVIEW OF THE USER RATE ANALYSIS

#### **BACKGROUND OF CITY UTILITIES**

Saratoga Springs was incorporated in December of 1997. The City contains over 21 square miles and runs from Pelican Point on the west side of Utah Lake over eleven miles north to the Camp Williams US Army facility in the foothills between Utah and Salt Lake Counties. Saratoga Springs City provides sewer services within the City boundaries. The City has an estimated 23,019 residents and 5,812 sewer connections.

#### **RATE-SETTING PROCESS**

The rate setting process consisted of the following three phases:

1. **Revenue Requirement Analysis:** In this phase, Zions worked with the City's public works staff to project expenses from 2012 to 2021. Expenses include operating and maintenance expenses, capital expenditures, maintenance of cash reserves, and future debt service;
2. **User Demand and Cost of Service Analysis:** Following the calculation of the revenue requirements, Zions analyzed the City's historic billing and usage data to determine the demand for the utility; and
3. **Rate Design Analysis:** In the final phase of the study, Zions structured a schedule of rates based on the revenue requirements and historical user data. The proposed rates were double checked by testing them in the Treasurer's billing database against last year's water records.

### GENERAL USER RATE ANALYSIS OBJECTIVES

#### **REVENUE SUFFICIENCY AND FINANCIAL STRENGTH**

An objective of the rate analysis is to determine rates for the utility that provide revenue sufficiency, meet bond debt service requirements, fund capital projects, and build reserves.

#### **FAIR AND EQUITABLE USER RATES**

Each city is unique and each of its utilities has its own characteristics that need to be considered in a rate analysis. Considerable research and analysis must be undertaken to understand and analyze the costs of the sewer utility and user demands. The City is working to draw new business in and promote economic development. The rate design process should not hamper these goals, but provide a tool to meet the City's key objectives.

#### **CONSIDER FUTURE INFLATIONARY COSTS OF OPERATIONS**

The costs of operating the system increases each year with cost inflation just as the expenses of food, cars, power, clothing, and other day to day goods increase over time. If the City were not able to increase utility rates on an annual basis then the amount of buying power would decrease each year due to inflation and eventually the City would be forced to operate the system less effectively. To maintain the same great service that the City provides the rates must be increased for inflation.

The City also needs to be sure that the capital projects will be adequately funded and that the costs of operating the system are met.

### **CITY COUNCIL'S OBJECTIVES**

Zions worked with the City Council to discuss options regarding policy that would be used to guide the development of an improved utility user rate structure. The following are the general results of the efforts to define a rate structure:

- User rates should be divided into more user rate classes according to the different user and demand characteristics to achieve a more equitable cost allocation;
  - New rate categories could include Single Family Residential, Multifamily Residential, and Non-Residential;
- The recommended sewer rate structure is intended to generally mirror the water rate structure.

### **REVENUE REQUIREMENT ANALYSIS**

The first important step in the rate setting process is to determine a utility's revenue requirement. A revenue requirement is the level of user rate revenues required for a utility to adequately operate and maintain its system, meet its financial obligations, and maintain appropriate reserves. Utility user rates must generate sufficient revenue to cover expenses and maintain the financial integrity of the utility. The revenue requirement analysis includes operating and maintenance (O&M) expenses, capital expenditures, debt service payments, specified reserves, and related bond covenants.

The revenue requirement analysis includes the following five key areas of focus to create an annual amount that the sewer utility must generate to keep the system financially sound:

1. **Rate and Non-Rate Revenue Projections;**
2. **Operations and Maintenance Expense Forecast;**
3. **Funding Future Capital Projects;**
4. **Outstanding and Future Debt Service Payments; and**
5. **Maintenance of Adequate Cash Balances**

### **USER RATE AND NON-RATE REVENUE PROJECTIONS**

The City collects a range of revenue sources that help pay the costs of the utilities in addition to the revenues collected from the user rates. These revenues include operating and non-operating revenues that help reduce the amount that must be collected from rates.

#### **UTILITY RATE REVENUES**

Rate revenues are a combination of a monthly base fee paid per connection and a variable demand charge assessed according to consumption. Rate revenues from the monthly base fees are very stable and predictable while the revenues from the consumption fees become more unstable as consumption increases beyond what is needed for indoor consumption.

#### **NON-RATE UTILITY REVENUES**

Non-rate revenues include sources such as interest income paid on cash balances, impact fees collected according to the rate of growth, connection fees, disconnection fees, penalties for late payment, and other administrative charges. Non-rate revenues are small in comparison with rate revenues. Some charges, such as impact fees and connection fees, fluctuate with growth while others tend to remain stable or slightly increase as the total number of City connections increases.

## **OPERATIONS AND MAINTENANCE EXPENSE FORECAST**

O&M expenses are the costs necessary to operate and maintain sewer collection lines, wastewater pumping, transmission to TSSD and the cost of TSSD treatment facilities, as well as the City's costs of customer service, administrative, and general expenses. The O&M expenses are projected based on historical expenditures with adjustments to reflect any known and anticipated changes in expenditures, including inflationary costs. The operational expenses to be covered by the utility were identified and divided by utility.

## **SEWER SYSTEM'S CAPITAL NEEDS**

### **CAPITAL PROJECTS IDENTIFIED THROUGH 2021**

Capital expenditures are those expenditures that result in the repair, acquisition, or addition of fixed assets. The City's Capital Facilities Plan, prepared by Bowen & Collins Associates and reviewed by City staff, outlines the growth-related and maintenance capital projects required through 2021. These capital projects may be paid for through a combination of current year revenues, debt financing, and cash reserves.

### **FUNDING GROWTH-RELATED AND MAINTENANCE CAPITAL PROJECTS**

The Capital Facilities Plan has laid out the projects that will be needed to expand the current capacities of the City's utilities for future citizens, and repair and, when necessary, replace existing facilities that serve current customers. It is important to categorize projects in this manner because impact fee revenues (charged to new development) are reserved for expansion related costs and therefore cannot be used for repair and replacement projects. It is important that the City plan for anticipated repair and replacement projects, as well as build a reserve fund for unanticipated projects.

Capital facilities are to be funded through a combination of several different funding mechanisms listed below:

- Bond proceeds
- Pay-as-you-go revenues— rates and rate funded reserves
- Grant receipts
- Contributions
- Interest earnings
- Impact Fees

### **FUNDING GROWTH-RELATED PROJECTS WITH IMPACT FEES**

The City's capital improvement plan has distinguished between repair and replacement and expansion costs to properly apply revenue sources. New customers will benefit from capacity created by expansion projects. These projects will be funded (in part) by impact fees and bond proceeds. However, impact fees are not always a stable source of revenue as growth patterns change and sufficient funds may not have been collected to fund an entire project. This rate analysis also includes a financing plan to fund high dollar projects from the capital facilities plan.

## **OUTSTANDING AND FUTURE DEBT SERVICE PAYMENTS**

Debt service includes principal and interest payments on existing and future bonds. The City's capital facilities plan outlines multiple capital projects that are anticipated to be paid for with bonds at some point in the future. The exact timing of the projects is unknown and the costs of the projects will vary from year to year due to inflation, which can be a challenge for creating stable rates. City staff/Consulting Engineers provided reasonable estimations of capital project timings. Financing the projects through bonds will help provide uniform expenses from year to year, which allows for more rate stability.

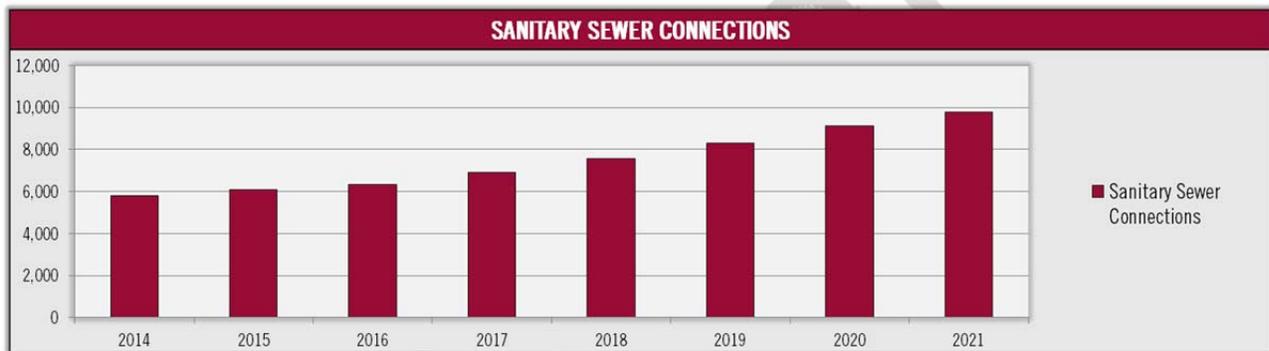
## GENERAL CITY-WIDE POPULATION GROWTH PROJECTIONS

Figure 1.1 shows the population growth rate projection for Saratoga Springs City.

FIGURE 1.1: SARATOGA SPRINGS CITY POPULATION GROWTH (2010 TO 2017)

POPULATION GROWTH PROJECTIONS										
		Average Building Permits 2008-2011					2010 - 2020 GOPB Growth Rate			
		1	2	3	4	5	6	7	8	9
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Residential Units	-	269	269	269	269	269	561	605	653	705
Population Growth	-	941	941	941	941	941	1,964	2,119	2,286	2,467
Total Population	20,197	21,138	22,079	23,019	23,960	24,900	26,865	28,984	31,270	33,737

FIGURE 1.2: PROJECTED GROWTH IN CONNECTIONS



## CHAPTER 2: SANITARY SEWER RATES

### CURRENT SANITARY SEWER USER RATE STRUCTURE

#### RESIDENTIAL/ NON-RESIDENTIAL SANITARY SEWER RATE STRUCTURE

The City’s current sanitary sewer user rates are structured according to the following:

- A monthly base fee of \$15.99 is paid by each connection;
- A single tier of \$2.88 for each 1,000 gallon of water used.

### SANITARY SEWER RATE DESIGN OPTIONS AND RECOMMENDATIONS

Sanitary sewer rates are structured with a base monthly fee and a consumption fee based on winter culinary water usage. Winter culinary water demand from the months of November to February is a good indicator of the amount of wastewater each connection releases into the sewer system each month. The sewer fee is structured this way to promote indoor water conservation by charging a higher wastewater fee plus a higher culinary water fee as domestic culinary water increases. This reduces the demand on the culinary water system and reduces the wastewater flows treated by TSSD. Conservation is promoted by sewer rates through an increasing sewer bill as more water is used in the winter months.

#### RECOMMENDED SANITARY SEWER USER GROUPS

The following sewer rate structure is recommended for the new sanitary sewer rate structure. The recommended sewer rate structure is intended to generally mirror the water rate structure. 3,000 gallons allotment are included in the base fee with a tiered cost per 1,000 gallons used above 3,000. Non-residential users will be billed a base monthly fee according to the culinary water meter size and a demand charge of \$3.30 per 1,000 gallons of culinary water used each month.

FIGURE 2.1: RECOMMENDED SANITARY SEWER RESIDENTIAL RATE STRUCTURE

<b>Residential Sewer With 3,000 Gal Allotment</b>					
<b>Demand Fee</b>			<b>Monthly Base Fee</b>		
Minimum Use	Maximum Use	Price per 1Kgal of Culinary Water	Assessed per Residential Unit		
-	3,000	\$ -	Per Unit	\$	28.00
3,001	7,000	3.30			
7,001	12,000	3.50			
12,001	999,999,999	3.65			
<b>Multi-Family/Condominiums - Per Unit With 3,000 Gal Allotment</b>					
<b>Demand Fee</b>			<b>Monthly Base Fee</b>		
Minimum Use	Maximum Use	Price per 1Kgal of Culinary Water	Assessed per Residential Unit		
-	3,000	\$ -	Per Unit	\$	28.00
3,001	7,000	3.30			
7,001	12,000	3.50			
12,001	999,999,999	3.65			

FIGURE 2.2: RECOMMENDED SANITARY SEWER NON-RESIDENTIAL RATE STRUCTURE

Sewer Commercial/Industrial per Connection - All Usage Billed				
Demand Fee			Monthly Base Fee	
	Price per 1Kgal of Culinary Water		Assessed According Culinary Water Meter Size	
All Usage	3.45	3/4"	\$	18.00
		1"		18.00
		1.5"		23.40
		2"		28.80
		3"		46.80
		4"		180.00
		6"		228.60
		8"		343.80

### SANITARY SEWER DEMAND ANALYSIS

The Saratoga Springs City sanitary sewer system delivers 2.46 million gallons per day (MGD) to TSSD in an average day. A peak day demand increases flows substantially during a period of wet weather when storm runoff is flowing into sewer manholes or seeping into the sewer lines. This average day demand will continue to increase with growth as will the cost the TSSD will charge for annual wastewater treatment.

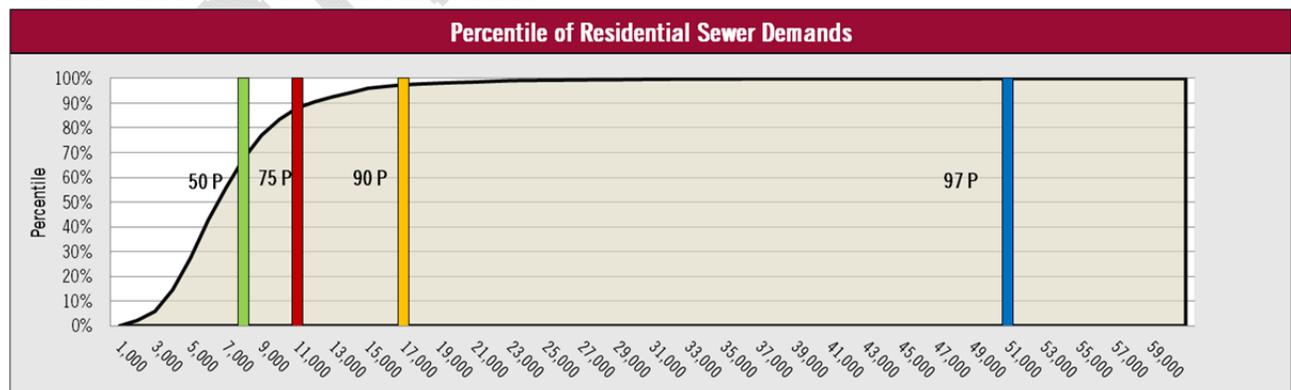
### PROJECTED RATE OF CONNECTION

It is projected that the City's sewer connections will grow an average of 7.5% from new development through the planning horizon of this analysis which is through the year 2021.

### CUSTOMER DEMAND PATTERNS

Winter water equates to the typical monthly sewer demand. Therefore, winter time averaging provides a good picture of expected sewer demand. The figure below shows the typical residential single-family culinary water consumption by percentile. The median or 50% percentile of all bills is at approximately 7,000 gallons.

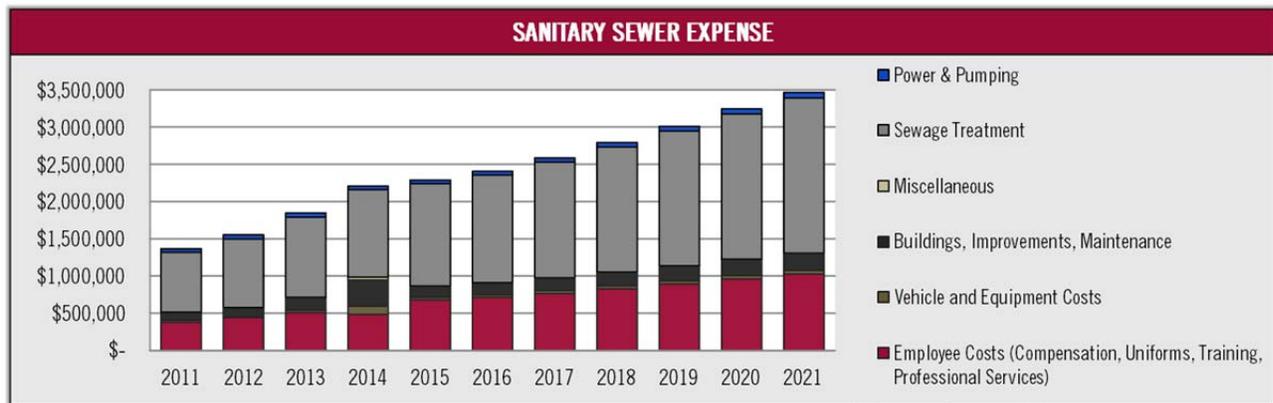
FIGURE 2.3: RESIDENTIAL CULINARY WATER BILLING FREQUENCY



## SANITARY SEWER REVENUE REQUIREMENTS

### SANITARY SEWER OPERATIONS AND MAINTENANCE EXPENSE

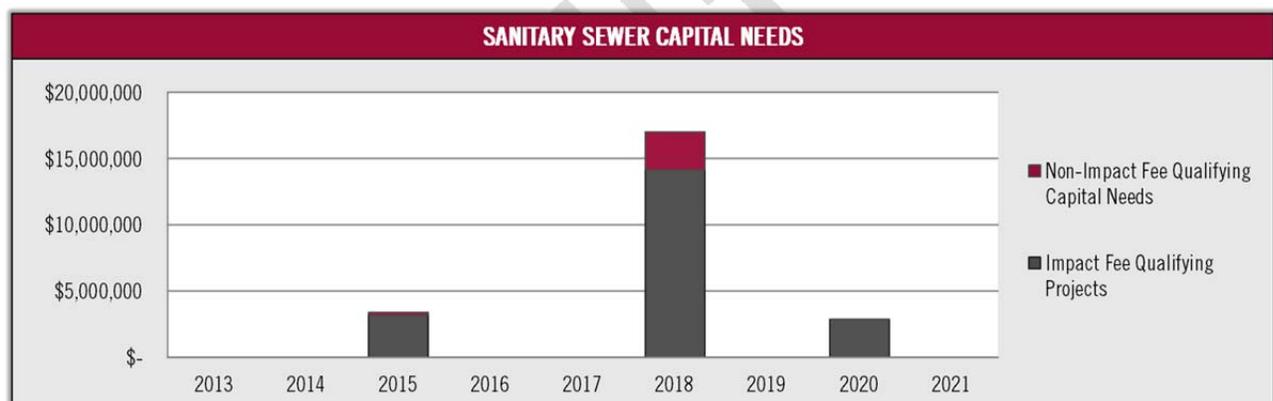
FIGURE 2.4: SANITARY SEWER OPERATIONS & MAINTENANCE EXPENSE



### SANITARY SEWER CAPITAL PROJECTS

The City has identified over \$23M (FV) in sewer capital projects. As Figure 2.5 indicates, the majority of the sewer CFP will be constructed in 2018 with smaller projects in 2015 and 2020. These projected costs include a 2.5% annual inflation factor due to anticipated increases in construction costs over time. This inflation rate is a conservative estimate and ensures that the City has adequate resources reserved to complete the necessary projects.

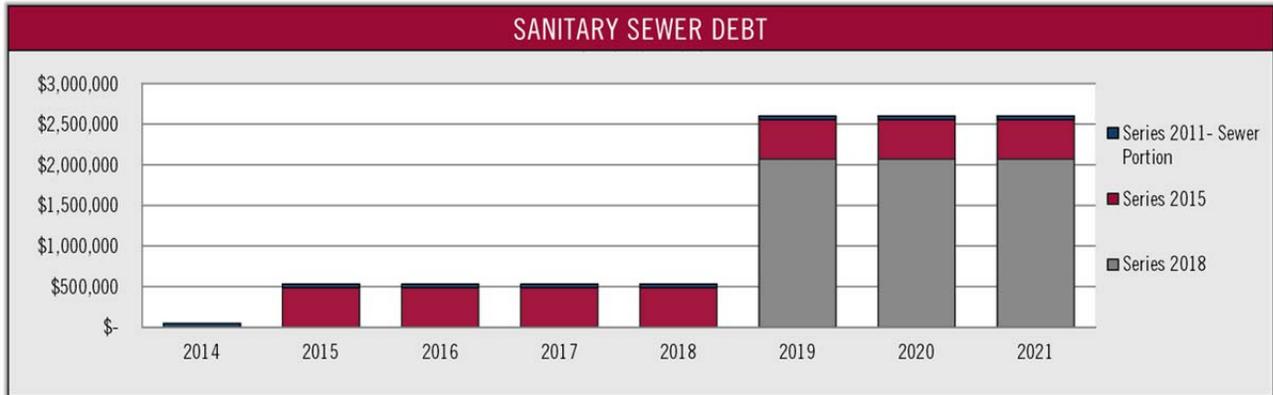
FIGURE 2.5: SANITARY SEWER CAPITAL PROJECT EXPENSE



### OUTSTANDING AND FUTURE DEBT SERVICE PAYMENTS

The sewer utility must fund approximately 40% of the annual debt service payments for the Public Works Building (Series 2011 Bond). The sewer CFP outlines multiple capital projects that are anticipated to be built with three bonds issued in 2015, 2018 and 2020 to fund \$22 in capital projects. Financing the projects through bonds will help provide uniform expenses from year to year, which allows for more rate stability.

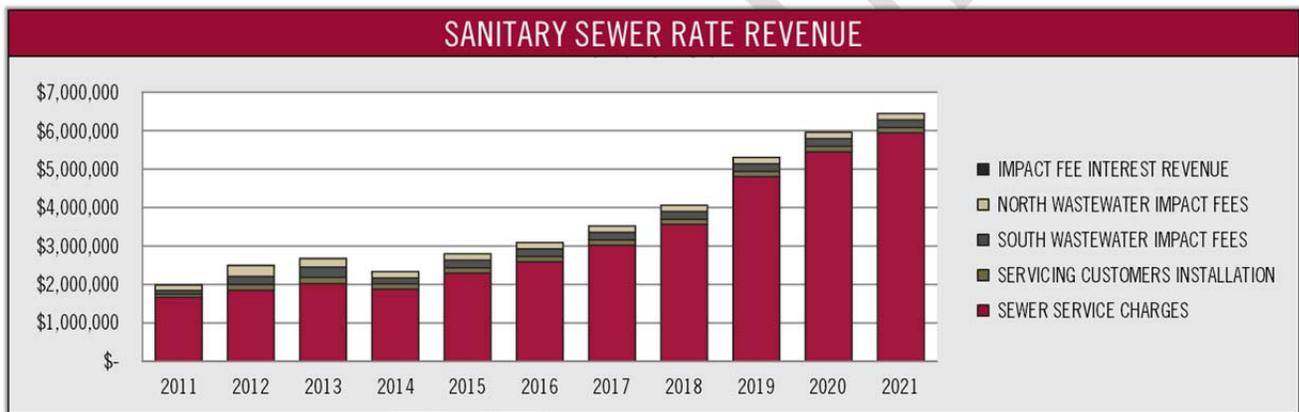
FIGURE 2.6: SCHEDULE OF FUTURE SANITARY SEWER DEBT PAYMENTS



**ANNUAL REVENUE REQUIREMENT TO BE COLLECTED**

As shown below, the City needs to generate approximately \$2.29M in 2013 up to approximately \$5.9M by 2021 to cover the costs of the sanitary sewer systems.

FIGURE 2.7: RECOMMENDED SANITARY SEWER ANNUAL REVENUE REQUIREMENT (2011 TO 2021)



**CASH RESERVE LEVELS (DAYS OPERATION & MAINTENANCE IN RESERVE)**

As explained in Chapter 1, DO&MR is a key ratio to analyze when calculating user rates. The City’s target ratio is 150 days of funds in reserve. The graph below shows the DO&MR coverage ration for the sanitary sewer utility fund both including the consideration of impact fee revenues and excluding the dependence on impact fee revenues.

FIGURE 2.9: SANITARY SEWER DEBT SERVICE COVERAGE RATIO AND TARGET

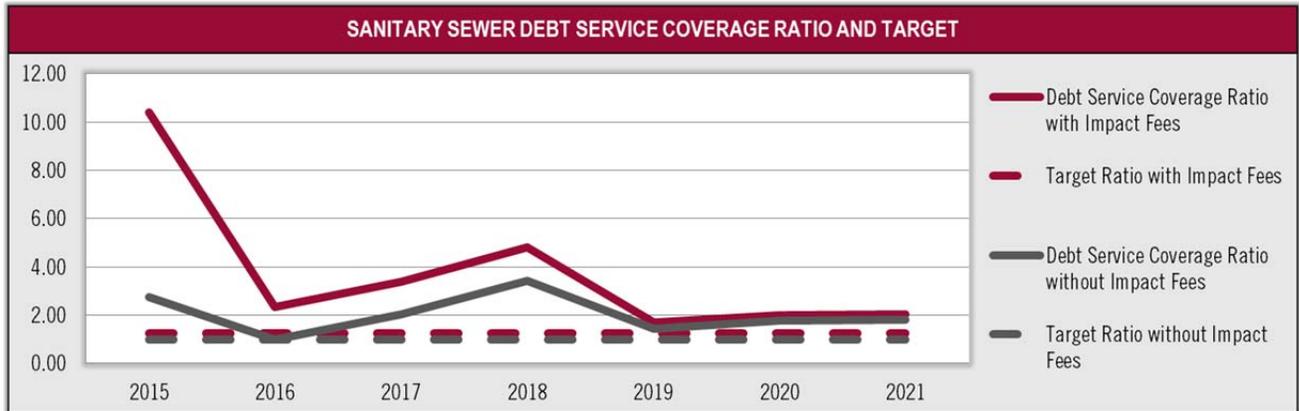


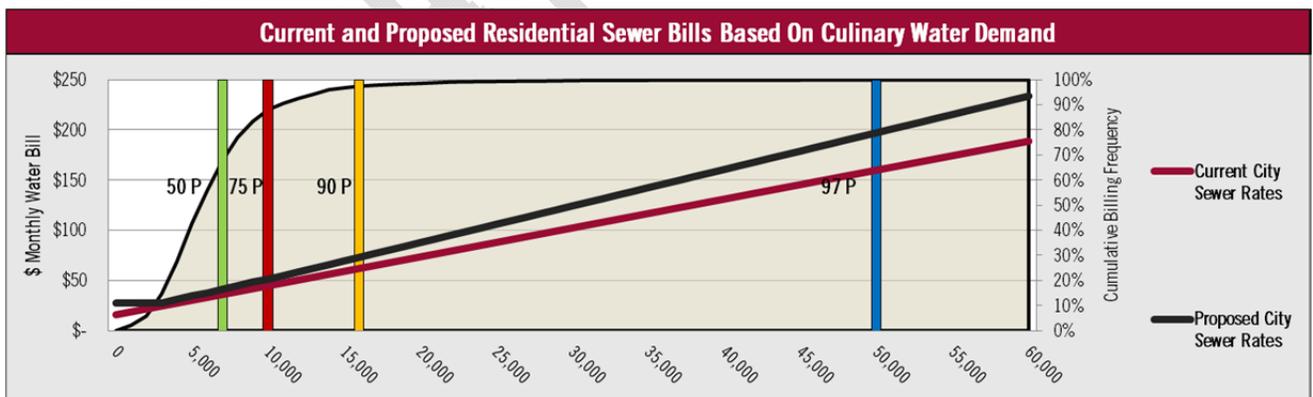
FIGURE 2.10: SANITARY SEWER RATE SUMMARY

SANITARY SEWER					
Year	2014	2015	2016	2017	2018
Increase to Sewer Revenues	4.8%	18.5%	16.4%	16.7%	17.9%
ERUs	5,812	6,077	6,341	6,894	7,579
Growth Rates	4.82%	4.56%	4.35%	8.71%	9.94%
Net Change to Rates	0.00%	13.96%	12.00%	8.00%	8.00%
Coverage Ratio	-	10.41	2.23	2.94	3.90
Days Operation & Maintenance Funds in Reserve (Target: 150)	279	196	217	250	286

### IMPACT ON RESIDENTIAL AND NON-RESIDENTIAL USER RATES

The faster that the connections occur then the quicker that the sanitary sewer system will strengthen its financial position.

FIGURE 2.11: CHANGE IN RESIDENTIAL SANITARY SEWER BILLS



## APPENDICES

WORKING DRAFT

SEWER APPENDIX A: CURRENT AND PROPOSED SEWER USER RATES

Saratoga Springs City Utility User Rate Analysis - September 2014

CURRENT	A	B	C	D	E	F
1	<b>Sewer</b>					
2						
3		Price per 1Kgal	Table No.		Base Fee	
4		\$ 2.88	301	Saratoga Springs	\$ 15.99	
5	Price Per	2.73	304	Sewer - Multi-Fan	15.99	
6	1,000 Gallons	2.73	305	Sewer - Daybreak	15.99	

PROPOSED	H	I	J	K	L
1	<b>Residential Sewer With 3,000 Gal Allotment</b>				
2	<b>Demand Fee</b>			<b>Monthly Base Fee</b>	
3	Minimum Use	Maximum Use	Price per 1Kgal of Culinary Water	Assessed per Residential Unit	
4	-	3,000	\$ -	Per Unit	\$ 28.00
5	3,001	7,000	3.30		
6	7,001	12,000	3.50		
7	12,001	999,999,999	3.65		
8					
9					
10	<b>Multi-Family/Condominiums - Per Unit With 3,000 Gal Allotment</b>				
11	<b>Demand Fee</b>			<b>Monthly Base Fee</b>	
12	Minimum Use	Maximum Use	Price per 1Kgal of Culinary Water	Assessed per Residential Unit	
13	-	3,000	\$ -	Per Unit	\$ 28.00
14	3,001	7,000	3.30		
15	7,001	12,000	3.50		
16	12,001	999,999,999	3.65		
17					
18					
19	<b>Sewer Commercial/Industrial per Connection - All Usage Billed</b>				
20	<b>Demand Fee</b>			<b>Monthly Base Fee</b>	
21			Price per 1Kgal of Culinary Water	Assessed According Culinary Water Meter Size	
22	All Usage		3.45	3/4"	\$ 18.00
23				1"	18.00
24				1.5"	23.40
25				2"	28.80
26				3"	46.80
27				4"	180.00
28				6"	228.60
29				8"	343.80

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# SEWER APPENDIX B: RATE DEBT SERVICE COVERAGE ANALYSIS - GRAVITY FLOW

## Saratoga Springs City Utility User Rate Analysis - September 2014

	2013	2014	2015	2016	2017	2018	2019	2020	2021
1 - September 2014 Adoption, Implement October 1, 2014	4.96%	4.82%	18.52%	16.35%	16.71%	17.94%	34.75%	13.58%	9.00%
Growth Rates	4.96%	4.82%	4.56%	4.35%	8.71%	9.94%	9.75%	5.00%	5.00%
Net Change to Rates	0.00%	0.00%	13.96%	12.00%	8.00%	8.00%	25.00%	4.00%	4.00%
Change to Non-Rate Revenues	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Coverage Ratio	-	-	10.41	2.23	2.94	3.90	1.43	1.64	1.65
Days Operational Expense Cash on Hand (Target: 150)	111	279	196	217	250	286	331	309	367

Sewer Revenue Requirement - Cash Basis											
Fiscal Year	2011	2012	2013	2014	BUDGET 2015	2016	2017	2018	2019	2020	2021
Beginning Annual Operating Cash Balance			\$1,943,774	\$746,810	\$2,400,000	\$1,653,693	\$1,983,417	\$2,505,527	\$3,165,354	\$3,816,144	\$3,930,722
Target Cash Balances	1,963,503	1,552,601	1,846,180	2,365,560	2,323,328	2,511,566	2,755,509	3,046,483	3,170,104	3,501,479	3,747,982
Operational Revenues											
SEWER SERVICE C	1,667,539	1,848,336	2,020,218	1,879,500	2,294,670	2,591,793	3,024,882	3,567,546	4,807,268	5,460,095	5,951,503
SERVICING CUSTO	79,800	150,150	162,050	136,500	136,500	136,500	136,500	136,500	136,500	136,500	136,500
SOUTH WASTEWAT	97,200	209,141	268,924	150,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
NORTH WASTEWAT	141,600	280,800	223,200	165,000	165,000	165,000	165,000	165,000	165,000	165,000	165,000
<b>Total Operational Revenues</b>	<b>\$ 1,986,139</b>	<b>\$ 2,488,427</b>	<b>\$ 2,674,392</b>	<b>\$ 2,331,000</b>	<b>\$ 2,796,170</b>	<b>\$ 3,093,293</b>	<b>\$ 3,526,382</b>	<b>\$ 4,069,046</b>	<b>\$ 5,308,768</b>	<b>\$ 5,961,595</b>	<b>\$ 6,453,003</b>
Annual % Change		25.82%	7.42%	-12.84%	19.90%	16.63%	14.00%	15.89%	30.47%	12.90%	8.42%
Non-Operational Revenues and Expenses											
INTEREST EARNINGS	10,884	12,189	10,993	7,468	24,000	16,537	19,834	25,055	31,654	38,161	39,307
MISCELLANEOUS 31	23,092	-	-	-	-	-	-	-	-	-	-
MISCELLANEOUS 33	200,000	-	-	-	-	-	-	-	-	-	-
IMPACT FEE INTERE	5,098	5,465	4,819	-	-	-	-	-	-	-	-
<b>Total Non-Operational Revenue</b>	<b>\$ 239,074</b>	<b>\$ 17,654</b>	<b>\$ 15,811</b>	<b>\$ 7,468</b>	<b>\$ 24,000</b>	<b>\$ 16,537</b>	<b>\$ 19,834</b>	<b>\$ 25,055</b>	<b>\$ 31,654</b>	<b>\$ 38,161</b>	<b>\$ 39,307</b>
Annual % Change		-92.62%	-10.44%	-52.77%	221.97%	-31.10%	18.94%	26.32%	26.53%	20.90%	3.06%
Operational Expenses											
INTEREST EXPENSE	-	-	-	-	-	-	-	-	-	-	-
SALARIES & WAGE	(231,429)	(45,166)	(79,436)	(84,136)	(80,080)	(83,527)	(88,216)	(93,493)	(99,032)	(104,850)	(109,568)
ADMINISTRATIVE &	-	-	-	-	-	-	-	-	-	-	-
EMPLOYEE BENEFIT	(88,591)	(19,815)	(33,549)	(45,077)	(45,653)	(47,618)	(50,291)	(53,300)	(56,458)	(59,774)	(62,464)
OVERTIME PAY	(2,800)	(1,201)	(3,930)	(6,366)	(6,366)	(6,640)	(7,013)	(7,432)	(7,873)	(8,335)	(8,710)
UNIFORMS / CLOTH	(527)	(800)	(1,581)	(2,220)	(2,220)	(2,316)	(2,446)	(2,592)	(2,745)	(2,907)	(3,037)
ADMINISTRATIVE C	(54,256)	(374,833)	(389,046)	(341,439)	(536,738)	(559,845)	(591,269)	(626,638)	(663,767)	(702,756)	(734,380)
VEHICLES	(18,153)	349	(329)	(94,749)	(5,686)	(5,931)	(6,264)	(6,638)	(7,032)	(7,445)	(7,780)
VEHICLE MAINTEN	(1,286)	(2,169)	(1,630)	(2,000)	(2,000)	(2,086)	(2,203)	(2,335)	(2,473)	(2,619)	(2,736)
GAS CARD	(3,557)	(4,008)	(17,911)	(4,200)	(17,700)	(18,462)	(19,498)	(20,665)	(21,889)	(23,175)	(24,218)
EQUIPMENT	(4,795)	(369)	(11,740)	(5,000)	(5,000)	(5,215)	(5,508)	(5,837)	(6,183)	(6,547)	(6,841)
NON-CAPITALIZED	-	-	(2,000)	(2,000)	(2,000)	(2,086)	(2,203)	(2,335)	(2,473)	(2,619)	(2,736)
POWER & PUMPIN	(45,955)	(55,940)	(55,923)	(48,066)	(49,027)	(58,208)	(64,459)	(70,939)	(78,226)	(85,756)	(93,782)
SCADA SYSTEM EX	(2,240)	(2,200)	(864)	(38,100)	(3,000)	(3,129)	(3,305)	(3,502)	(3,710)	(3,928)	(4,105)
PROFESSIONAL &	-	-	-	-	-	-	-	-	-	-	-
PROF & TECH SER	-	-	-	-	-	-	-	-	-	-	-
EDUCATION/TRAIN	(2,156)	(2,061)	(1,703)	(4,860)	(5,360)	(5,591)	(5,905)	(6,258)	(6,629)	(7,018)	(7,334)
CONTRACT SERVIC	(114)	(1,400)	(1,400)	(1,400)	(1,400)	(1,460)	(1,542)	(1,634)	(1,731)	(1,833)	(1,916)
SHOP AND MAINTN	(982)	(1,083)	(7,463)	(1,000)	(1,000)	(1,043)	(1,102)	(1,167)	(1,237)	(1,309)	(1,368)
SHOP AND MAINTN	(60,376)	(98,030)	(153,187)	(226,525)	(149,171)	(194,872)	(215,800)	(237,494)	(261,897)	(289,859)	(319,859)
SHOP AND MAINTN	(45,431)	(16,094)	(6,246)	(124,000)	-	-	-	-	-	-	-
GRAVITY SEWER M	-	-	-	(35,000)	(35,000)	(36,507)	(38,556)	(40,862)	(43,283)	(45,826)	(47,888)
SEWAGE TREATME	(804,658)	(919,300)	(1,077,442)	(1,175,000)	(1,375,000)	(1,476,063)	(1,648,909)	(1,862,278)	(2,099,719)	(2,363,863)	(2,552,972)
MISCELLANEOUS E	-	-	-	-	-	-	-	-	-	-	-
MISC - TSSD PASS	3,689	(9,769)	(4,200)	(883)	(927)	(967)	(1,021)	(1,082)	(1,146)	(1,214)	(1,268)
BAD DEBT EXPENSE	-	-	-	(117,000)	(100,000)	(104,305)	(110,160)	(116,749)	(123,667)	(130,931)	(136,823)
CAPITAL OUTLAY - EQUIPMENT	-	-	-	(6,539)	(6,539)	(6,821)	(7,203)	(7,634)	(8,087)	(8,562)	(8,947)
TRANSFER OUT - CAPITAL PROJECTS	-	-	-	-	-	-	-	-	-	-	-
<b>Total Operational Expenses</b>	<b>\$ (1,363,503)</b>	<b>\$ (1,552,601)</b>	<b>\$ (1,846,180)</b>	<b>\$ (2,365,560)</b>	<b>\$ (2,323,328)</b>	<b>\$ (2,511,566)</b>	<b>\$ (2,755,509)</b>	<b>\$ (3,046,483)</b>	<b>\$ (3,170,104)</b>	<b>\$ (3,501,479)</b>	<b>\$ (3,747,982)</b>
Annual % Change		19.67%	18.91%	28.13%	-1.79%	8.10%	9.77%	10.56%	4.06%	10.45%	7.06%
Net Revenues Available for Op	\$ 861,710	\$ 953,481	\$ 844,024	\$ (27,092)	\$ 496,842	\$ 598,285	\$ 790,707	\$ 1,047,618	\$ 2,170,318	\$ 2,498,277	\$ 2,744,329
Future and Outstanding Debt											
Public Works Buildi	-	-	(47,476)	(47,607)	(47,713)	(47,795)	(47,852)	(47,885)	(47,893)	(47,599)	(47,598)
Series 2015	-	-	-	-	-	(220,745)	(220,745)	(220,745)	(220,745)	(220,745)	(220,745)
Series 2018	-	-	-	-	-	-	-	-	(1,250,890)	(1,250,890)	(1,250,890)
Series 2020	-	-	-	-	-	-	-	-	-	(147,164)	(147,164)
<b>Total Outstanding and Future</b>	<b>-</b>	<b>-</b>	<b>(47,476)</b>	<b>(47,607)</b>	<b>(47,713)</b>	<b>(268,540)</b>	<b>(268,597)</b>	<b>(268,630)</b>	<b>(1,519,528)</b>	<b>(1,519,234)</b>	<b>(1,666,397)</b>
Rate Stabilization Fund											
Coverage Ratio with Impact					10.41	2.23	2.94	3.90	1.43	1.64	1.65
Coverage Ratio Without Imp					2.76	0.87	1.58	2.54	1.19	1.40	1.43
Net Revenues After Debt Serv	\$ 861,710	\$ 953,481	\$ 796,548	\$ (74,699)	\$ 449,129	\$ 329,724	\$ 522,110	\$ 778,988	\$ 650,790	\$ 979,043	\$ 1,077,932
Impact Fee Qualifying Capital Expense	-	-	-	-	(3,162,520)	-	-	(14,134,717)	-	(2,864,465)	-
Non-Impact Fee Qualifying Capital Expense	-	-	-	-	(232,916)	-	-	(2,984,443)	-	-	-
Sewer Development Agreement Payout	-	-	-	-	(800,000)	-	-	-	-	-	-
<b>Sewer Capital Expenses</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(4,195,436)</b>	<b>-</b>	<b>-</b>	<b>(17,119,160)</b>	<b>-</b>	<b>(2,864,465)</b>	<b>-</b>
Impact Fee Qualifying Bond Proceeds					\$ 3,000,000			\$ 17,000,000		\$ 2,000,000	
Ending Annual Operating Cash Balance			\$ 746,810	\$ 2,400,000	\$ 1,653,693	\$ 1,983,417	\$ 2,505,527	\$ 3,165,354	\$ 3,816,144	\$ 3,930,722	\$ 5,008,654

2015 Rate Increases to begin on October 1, 2014

A B C D E F G H I J K L L

# SEWER APPENDIX C: SEWER CAPITAL PROJECTS - GRAVITY

Saratoga Springs City Utility User Rate Analysis - September 2014

	A	B	C	D	E	F	G	H	I	J	K	L	M
Year			Inflation Rate	2.50%	103%	105%	108%	110%	113%	116%	119%	122%	125%

**Table 1: Total Sewer Rate and Impact Fee Eligible Projects**

Description	Total Cost	Construction Year (FY)	2014 Cost	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>8 Year Capital Projects</b>												
SS-S1.1 River Crossing Trunk Phase 1: Alignment & Preliminary Design Study	100,000	2015	\$ 100,000	\$ -	\$ -	\$ 107,689	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SS-S 1.2 River Crossing Trunk Phase 2, Suspended Sewer or Siphon	1,150,822	2018	1,150,822	-	-	-	-	-	1,334,601	-	-	-
SS-S 1.3 River Crossing Trunk Phase 3, Outfall	3,765,158	2018	3,765,158	-	-	-	-	-	4,366,429	-	-	-
SS-S 2.1 Inlet Park Trunk Phase 1, Near Lift Station	1,399,000	2015	1,399,000	-	-	1,506,570	-	-	-	-	-	-
SS-S 2.2 Golf Course Main Replacement	1,654,000	2015	1,654,000	-	-	1,781,177	-	-	-	-	-	-
SS-N 1.0 North Trunk	9,545,818	2018	9,545,818	-	-	-	-	-	11,070,222	-	-	-
SS-L1 Lift Station 1 Pump Upgrade	300,000	2018	300,000	-	-	-	-	-	347,908	-	-	-
SS-N 2 200 West Trunk	2,351,000	2020	2,351,000	-	-	-	-	-	-	-	2,864,465	-
SS-S2.3 Inlet Park Trunk Phase 3	2,716,000	2023	2,716,000	-	-	-	-	-	-	-	-	-
SS-S4.1 700 South Trunk First Half	4,650,554	2022	4,650,554	-	-	-	-	-	-	-	-	-
Inlet Park Wet Well Expansion	300,000	2032	300,000	-	-	-	-	-	-	-	-	-
<b>Capital Facilities Plan Total</b>	<b>27,932,352</b>		<b>\$ 27,932,352</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,395,436</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 17,119,160</b>	<b>\$ -</b>	<b>\$ 2,864,465</b>	<b>\$ -</b>

**Table 2: Total Sewer Impact Fee Eligible Projects**

Description	% To Growth	Blank	Blank	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>8 Year Capital Projects</b>												
SS-S1.1 River Crossing Trunk Phase 1: Alignment & Preliminary Design Study	92%			\$ -	\$ -	\$ 99,201	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SS-S 1.2 River Crossing Trunk Phase 2, Suspended Sewer or Siphon	92%			-	-	-	-	-	1,229,606	-	-	-
SS-S 1.3 River Crossing Trunk Phase 3, Outfall	58%			-	-	-	-	-	2,549,723	-	-	-
SS-S 2.1 Inlet Park Trunk Phase 1, Near Lift Station	100%			-	-	1,506,570	-	-	-	-	-	-
SS-S 2.2 Golf Course Main Replacement	87%			-	-	1,556,749	-	-	-	-	-	-
SS-N 1.0 North Trunk	90%			-	-	-	-	-	10,007,481	-	-	-
SS-L1 Lift Station 1 Pump Upgrade	100%			-	-	-	-	-	347,908	-	-	-
SS-N 2 200 West Trunk	100%			-	-	-	-	-	-	-	2,864,465	-
SS-S2.3 Inlet Park Trunk Phase 3	100%			-	-	-	-	-	-	-	-	-
SS-S4.1 700 South Trunk First Half	100%			-	-	-	-	-	-	-	-	-
Inlet Park Wet Well Expansion	0%			-	-	-	-	-	-	-	-	-
<b>Capital Facilities Plan Total</b>		\$ -	\$ -	\$ -	\$ -	\$ 3,162,520	\$ -	\$ -	\$ 14,134,717	\$ -	\$ 2,864,465	\$ -

**Table 3: Total Sewer Non-Impact Fee Projects**

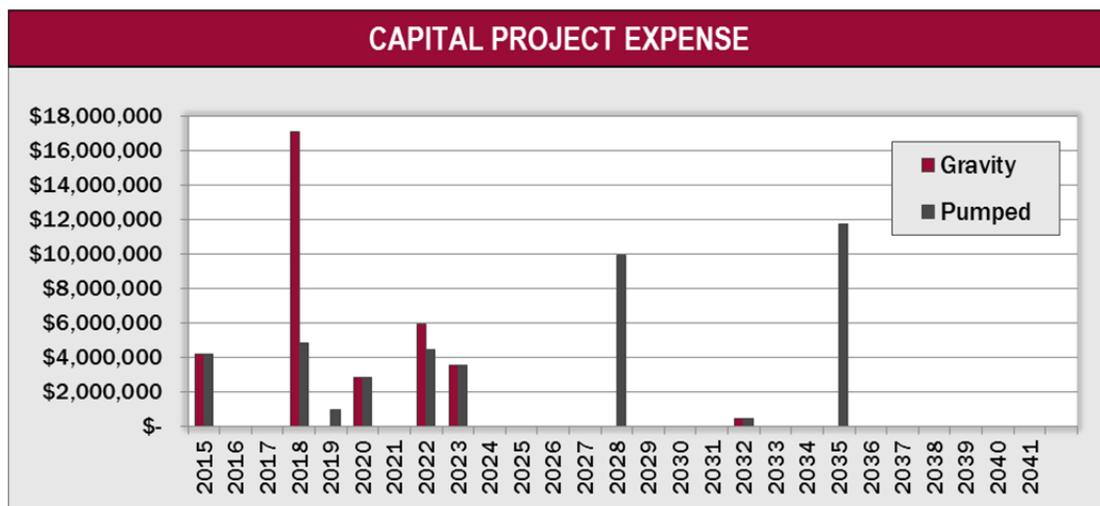
Description	% To Non-Growth	Blank	Blank	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>5 Year Capital Projects</b>												
SS-S1.1 River Crossing Trunk Phase 1: Alignment & Preliminary Design Study	8%			\$ -	\$ -	\$ 8,488	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SS-S 1.2 River Crossing Trunk Phase 2, Suspended Sewer or Siphon	8%			-	-	-	-	-	104,995	-	-	-
SS-S 1.3 River Crossing Trunk Phase 3, Outfall	42%			-	-	-	-	-	1,816,706	-	-	-
SS-S 2.1 Inlet Park Trunk Phase 1, Near Lift Station	0%			-	-	-	-	-	-	-	-	-
SS-S 2.2 Golf Course Main Replacement	13%			-	-	224,428	-	-	-	-	-	-
SS-N 1.0 North Trunk	10%			-	-	-	-	-	1,062,741	-	-	-
SS-L1 Lift Station 1 Pump Upgrade	0%			-	-	-	-	-	-	-	-	-
SS-N 2 200 West Trunk	0%			-	-	-	-	-	-	-	-	-
SS-S2.3 Inlet Park Trunk Phase 3	0%			-	-	-	-	-	-	-	-	-
SS-S4.1 700 South Trunk First Half	0%			-	-	-	-	-	-	-	-	-
Inlet Park Wet Well Expansion	100%			-	-	-	-	-	-	-	-	-
<b>Capital Facilities Plan Total</b>		\$ -	\$ -	\$ -	\$ -	\$ 232,916	\$ -	\$ -	\$ 2,984,443	\$ -	\$ -	\$ -

## Cost Comparison of Pumped and Gravity Systems

Saratoga Springs has requested that Zions prepare a long-term cost comparison of two different sewer collection system designs to evaluate the long-term impact on sewer user rates. The two alternatives are either a pumped system, which the City currently operates, or conversion to a gravity system. This comparison is an extension of the Saratoga Springs Sewer Rate Analysis prepared by Zions Bank Public Finance. There are four primary considerations: 1) Capital Projects and Related Financing, 2) Cost of Power for Each Scenario and 3) Cost of Lift Station Maintenance and 4) the long-term effect on user rates. The analysis of the system alternatives was analyzed through the year 2041.

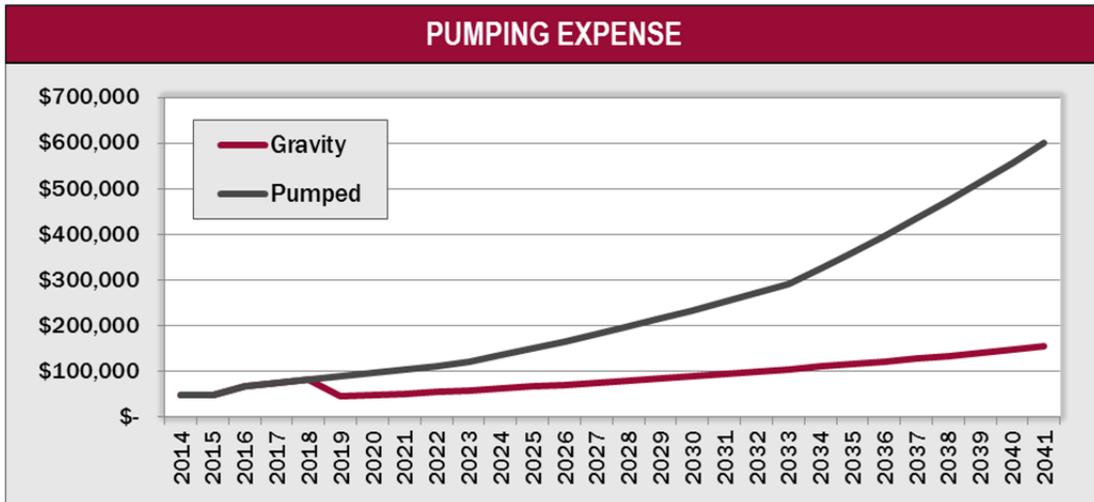
### CAPITAL PROJECTS AND RELATED FINANCING

The cost of converting from the current pumped system to gravity required \$28M of capital infrastructure through 2035. Many projects would need to be constructed in the next ten years. Approximately \$30.4M of capital projects are required if the City chooses to continue developing the pumped system but they can be phased over a longer period of time. The graph below compares the annual capital project requirements for each alternative. The projects required in 2015 are the same under either scenario as they are necessary projects are related to sewer collection improvements that will be needed if the City pursues either a pumped or gravity system.



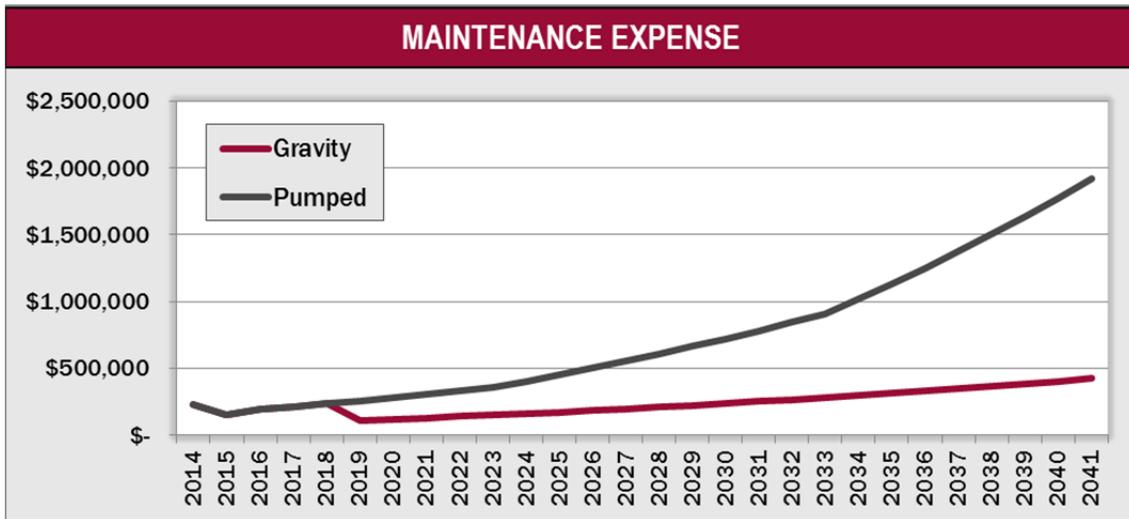
### COST OF POWER

The difference in power costs for the two systems is significant. Under the gravity scenario there is minimal pumping cost while the pumped system is completely dependent upon power and therefore subject to fluctuations in power costs and availability. Both scenarios use power since the gravity scenario still considers the use of existing pump stations. The gravity system will have minimal increases in power as growth occurs while the power costs for the pumped system will increase proportionally with growth. Cost inflation for power is assumed to be 4%, but given the escalation of costs seen in other states, the actual annual rate of inflation for power could easily exceed the 4% figure used in this analysis.



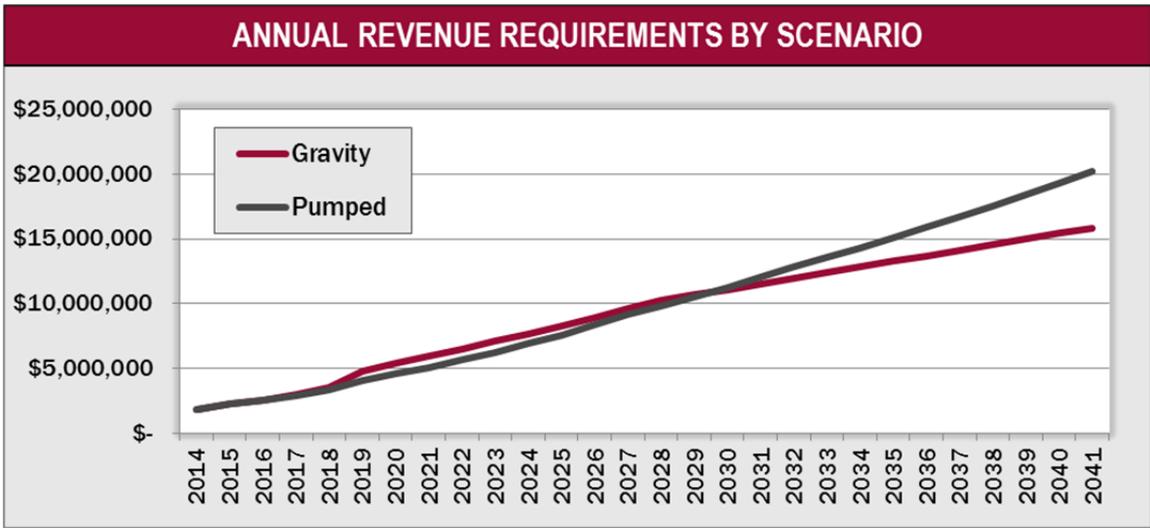
### COST OF LIFT STATION MAINTENANCE

Both scenarios include the annual cost of maintenance which will be increased by inflation and by scale. If the system continues as a pumped system then additional lift stations will be required. Lift stations require regular maintenance, inspection, repair and replacement and other expenses related to mechanical equipment that would generally not exist in a full gravity system. The cost of maintenance with a pumped system will increase more rapidly with growth than maintenance costs of a gravity system. There will be more pump stations constructed as growth occurs in the pumped scenario and more maintenance will be required as the pumps are run longer. The graph below shows the difference in maintenance costs under each scenario.



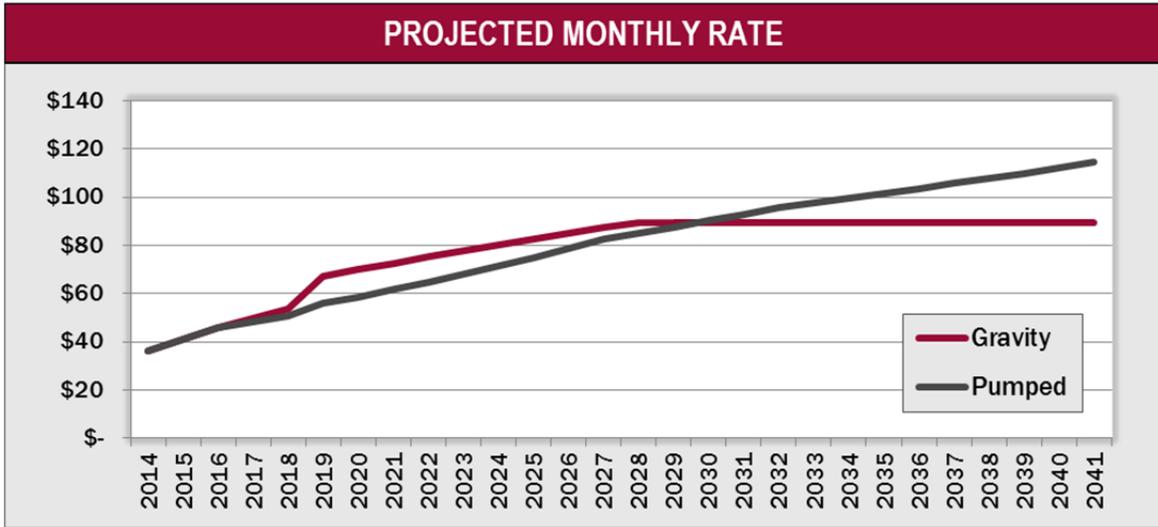
### REVENUE REQUIREMENT

The revenue requirement analysis shows that the annual gravity system costs are slightly higher until 2030 given the upfront cost of capital required for the City to convert to a gravity system. At this breakeven point, the pumped system costs increase at a higher rate than the gravity system costs due to the need for more power and more maintenance. The gravity system has higher upfront cost capital costs but lower long-term operational expenses. The graph of the annual revenue requirement for each alternative is shown below.



### CONCLUSION

The final graph shows the monthly user rate for each scenario. After 2029 the gravity system user rates would stay essentially flat. It appears that even though the gravity system is more expensive in the short-term, it will be the more affordable alternative in the long-run. We would expect the cost gap between gravity and pumping to continue to widen overtime. If capital costs or power costs were to change significantly from the figures we have available presently then we would recommend that the City revisit the alternatives and rate projections.



**ORDINANCE 14-23 (9-16-14)**

**AN ORDINANCE OF THE CITY OF SARATOGA SPRINGS, UTAH  
AMENDING SANITARY SEWER COLLECTION RATES AND FEES IN  
THE CONSOLIDATED FEE SCHEDULE AND ESTABLISHING AN  
EFFECTIVE DATE.**

**WHEREAS**, the City of Saratoga Springs operates a sanitary sewer collection system to ensure the public health, safety, and welfare of its citizens; and

**WHEREAS**, Utah Code Annotated § 10-8-14 authorizes the City to establish and provide sanitary sewer collection services; and

**WHEREAS**, Utah Code Annotated § 10-8-38 authorizes the City to operate a sanitary sewer collection system and charge a fee for use of the same; and

**WHEREAS**, Section 8.02.10 of the City Code authorizes the City to charge a sanitary sewer service charge to its residents; and

**WHEREAS**, the City previously adopted sanitary sewer collection fees and now desires to amend the same; and

**WHEREAS**, growth in population of the City of Saratoga Springs has resulted in the need to construct and expand the sanitary sewer collection system; and

**WHEREAS**, said expansion, as well as increase in operation and maintenance costs, has necessitated an increase in the sanitary sewer collection rates and fees; and

**WHEREAS**, it is the responsibility and obligation of the City Council of the City of Saratoga Springs to ensure that the costs of the sanitary sewer collection improvements and the increased operation and maintenance costs are paid for through the City's Sewer Enterprise Fund and that said fund remains solvent; and

**WHEREAS**, from 2012 to 2014, Zions Bank Public Finance conducted a utility rate study to determine if the City's sanitary sewer rates and fees are sufficient to meet its current and future service delivery and infrastructure needs; and

**WHEREAS**, on June 3<sup>rd</sup> and July 14<sup>th</sup>, 2014, Zions Bank Public Finance made presentations to the City Council during work sessions outlining the comprehensive rate study that recommended amendments to the sanitary sewer rates and fees; and

**WHEREAS**, the City Council finds that amending the sanitary sewer collection fees and charges as specifically provided herein is in accordance with Utah law and City ordinances and furthers the public health, safety, and welfare.

**NOW, THEREFORE, BE IT ORDAINED** by the Saratoga Springs City Council as follows:

**SECTION I – SEWER USER RATE ANALYSIS**

The Sewer User Rate Analysis prepared by Zions Bank Public Finance, attached as Exhibit A hereto and incorporated herein by this reference, is hereby adopted.

**SECTION II – ENACTMENT**

The sanitary sewer rates and fees in the Consolidated Fee Schedule are replaced by the following rates and fees:

**A. Sanitary Sewer Rates and Fees for Fiscal Year 2014-2015 (effective October 1, 2014)**

Residential Minimum Monthly Charge (includes 1 <sup>st</sup> 3,000 gal.)	\$28.00
Residential Minimum Monthly Charge – Master Metered (includes 1 <sup>st</sup> 3,000 gal. multiplied by # of Units Served)	\$28.00 x # of Units Served
Residential Monthly Usage Rate (per 1,000 gal.)	\$3.30 for gal. 3,001 – 7,000 \$3.50 for gal. 7,001 – 12,000 \$3.65 for gal. 12,001 - ∞
Non-residential Minimum Monthly Charge	
¾ ”	\$18.00
1”	\$18.00
1.5”	\$23.40
2”	\$28.80
3”	\$46.80
4”	\$180.00
6”	\$228.60
8”	\$343.80
Non-Residential Monthly Usage Rate (per 1,000 gal.)	\$3.45

**B. Sanitary Sewer Rates and Fees for Fiscal Year 2015-2016 (effective July 1, 2015)**

Residential Minimum Monthly Charge (includes 1 <sup>st</sup> 3,000 gal.)	\$31.36
Residential Minimum Monthly Charge – Master Metered (includes 1st 3,000 gal. multiplied by # of Units Served)	\$31.36 x # of Units Served
Residential Monthly Usage Rate (per 1,000 gal.)	\$3.70 for gal. 3,001 – 7,000 \$3.92 for gal. 7,001 – 12,000 \$4.09 for gal. 12,001 - ∞
Non-residential Minimum Monthly Charge	
¾ ”	\$20.16
1”	\$20.16
1.5”	\$26.21
2”	\$32.26
3”	\$52.42
4”	\$201.60
6”	\$256.03
8”	\$385.06
Non-Residential Monthly Usage Rate (per 1,000 gal.)	\$3.45

**SECTION III – AMENDMENT OF CONFLICTING ORDINANCES**

If any ordinances, resolutions, or policies of the City of Saratoga Springs heretofore adopted are inconsistent herewith they are hereby amended to comply with the provisions hereof. If they cannot be amended to comply with the provisions hereof, they are hereby repealed.

**SECTION IV – EFFECTIVE DATE**

This ordinance shall take effect on October 1, 2014.

**SECTION V – SEVERABILITY**

If any section, subsection, sentence, clause, phrase, or portion of this ordinance is, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such provision

shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

**SECTION VI – PUBLIC NOTICE**

The Saratoga Springs Recorder is hereby ordered, in accordance with the requirements of Utah Code §§ 10-3-710—711, to do as follows:

- a. deposit a copy of this ordinance in the office of the City Recorder; and
- b. publish notice as follows:
  - i. publish a short summary of this ordinance for at least one publication in a newspaper of general circulation in the City; or
  - ii. post a complete copy of this ordinance in three public places within the City.

**ADOPTED AND PASSED** by the City Council of the City of Saratoga Springs, Utah, this \_\_\_ day of \_\_\_\_\_, 2014.

Signed: \_\_\_\_\_  
                    Jim Miller, Mayor

Attest: \_\_\_\_\_  
                    Lori Yates, City Recorder

\_\_\_\_\_  
Date

**VOTE**

Shellie Baertsch	_____
Rebecca Call	_____
Michael McOmber	_____
Stephen Willden	_____
Bud Poduska	_____