SANDY CITY COMMUNITY DEVELOPMENT

JAMES SORENSEN
COMMUNITY DEVELOPMENT
DIRECTOR

MONICA ZOLTANSKI
MAYOR

SHANE E. PACE
CHIEF ADMINISTRATIVE
OFFICER

Staff Report Memorandum

July 20, 2023

To:	City Council via Planning Commission	
From:	Community Development Department	
Subject:	Amendments to Title 21 of the Land Development Code, Chapter 19, Special Development (SD) Districts, Section 20, SD (Carnation) -10600 S. 1000 E.	CA05252023-0006537

Public Hearing Notice: This item has been noticed on public websites, sent to affected entities and property owners within 500 feet of the zoning district and posted in three public locations at least 10 days prior to the Public Hearing.

Request

Adam Nash, representing several property owners that are part of the area zoned SD (Carnation), has applied to amend Title 21, *Land Development Code*, Chapter 19, *Special Development (SD) Districts,* Section 20, *SD (Carnation)-10600 S. 1000 E.* of the Sandy Municipal Code. The SD Carnation zone only affects approximately 2 acres of land located around 984 East 10600 South (see map insert). The proposed code change would allow gasoline service stations in the SD Carnation zone, where they are currently prohibited. The applicant intends to develop a gas station with a convenience store in the future if the code amendment is approved. This proposal is included with this report as Exhibit "A" (redlined version) and Exhibit "B" (clean version).

Background

In 2004, the SD Carnation Zone was established specifically for this site and is not used in any other location in the city. The purpose of the SD Carnation Zone is "*to provide an area for convenience commercial retail services and professional and business offices with development standards compatible with those of contiguous properties*" (Sec. 21-19-20). The properties are bordered to the north by single-family homes and churches (jurisdiction of White City); to the west and south by the Dimple Dell Recreation Center (OS Zone); and to the east is a school and a church (R-1-8 Zone).

Case History	
Case Number	**Case Summary**
Ord. No. 04-25 CA-04-L Ord. No. 04-26 R-04-04	Creation of the SD (Carnation) zone, and a rezone from CVC and Open Space (OS) to the SD (Carnation) zone, May 2004.
SPR-04-20	Site Plan Review for the 106th South Retail Center, Phase 1, Big 5 Sports, September 2004.
Ord. No. 19-34 CODE-10-19-5752	Amendments to the SD (Carnation) zone to allow Pharmacies and Medical Office as permitted uses in the zone and to reduce the code required landscaped front yard setbacks from 10 feet to 8 feet. Approved, December 2019.

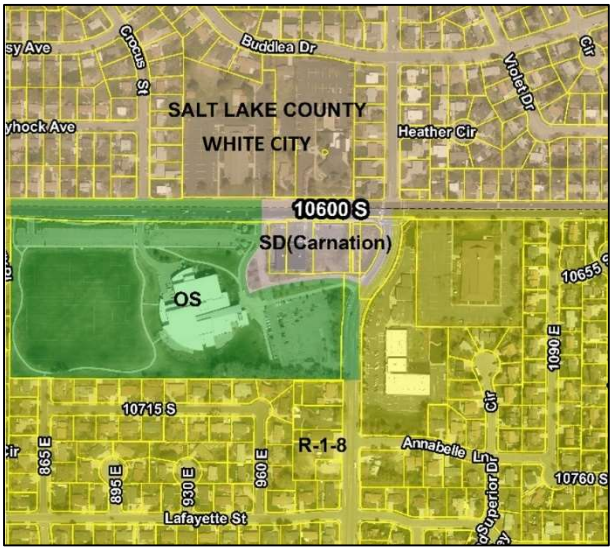
Public Notice

The city issued notice of the public hearing for the proposed code amendments on public websites, mailed notice to affected entities and property owners within 500 feet of the zoning district, and posted in three public locations at least 10 days prior to the Planning Commission public hearing in accordance with the Land Development Code Sec. 21-36-1 and the Utah State Code § 10-9a-205.

A neighborhood meeting was held on Tuesday, June 27, 2023, at 6 pm. In attendance was the applicant Adam Nash, his business partner Troy Johansen, and one participant. Participant Jackie Smith stated that she lived nearby, and she was concerned about the possibility of having another 24-hour business with gas station in the neighborhood and that it would increase traffic. An email was also received from Tom Burns, who was unable to attend the neighborhood meeting. Mr. Burns stated in an email that he is opposed to the proposal because there are already enough gas stations in the area and that it would only add to the noise and traffic at this location. His comments are included as Exhibit "E".

Analysis

As proposed by the applicant, the code change would allow gasoline service stations in the SD Carnation zone (see Section 21-19-20). The specific amendments to the Land Development Code are included as Exhibit "A" (red-lined version) and Exhibit "B" (clean version). The applicant's narrative for the proposal is included as Exhibit "C."

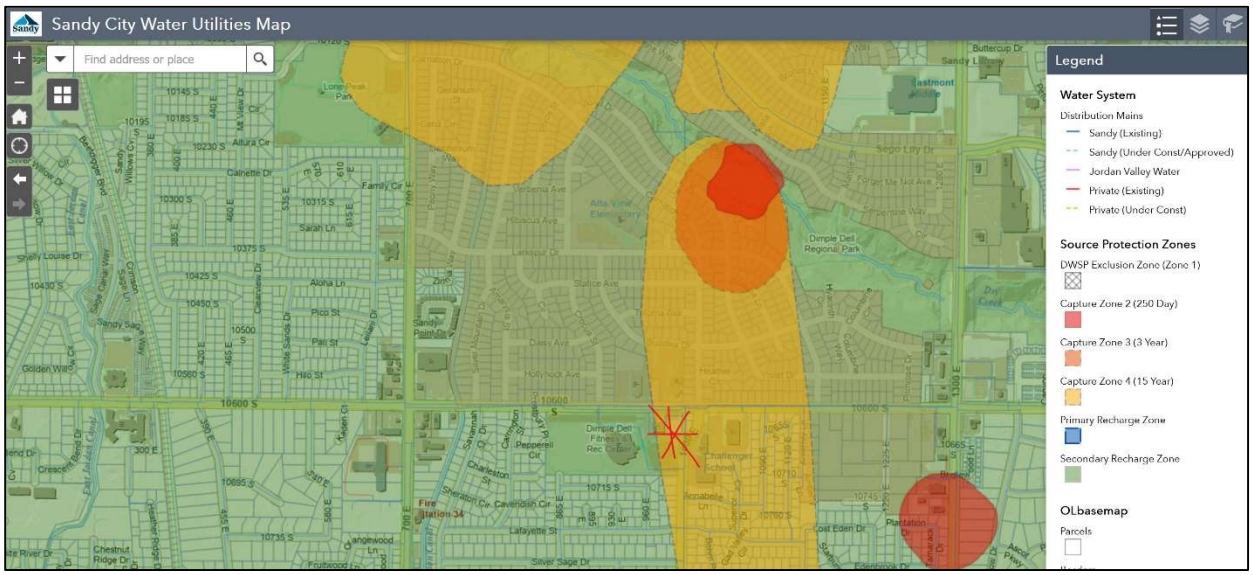


Currently, the SD Carnation zone states that permitted and conditional uses shall follow the land use list for the CvC zone (Planned Center-Convenience Zoning District), as listed in Section 21-8-2, with the exception of automotive uses; all automotive-related land uses were intentionally excluded from the zone by the City Council at the time this special district was established.

In the CvC zone, automotive service stations and automotive self-service stations are allowed with a conditional use permit; however, all other automotive-related land uses are not permitted in the zone. Therefore, the proposed code change would effectively allow gasoline service stations with conditional use permit approval, but all other automotive-related uses (i.e., auto sales and rentals, auto service and repair) would remain prohibited in the SD Carnation zone.

The White City Water Improvement District (WCWID) was notified that the applicant proposed to construct and operate a service station in the SD Carnation zone, which is just outside WCWID's service area. Mr. Paul Ashton, General Manager/General Counsel of the WCWID provided comments to Sandy City opposing a service station in this area due to its proximity to existing ground-water resources (Exhibit "D"). Mr. Ashton states: "*In this situation, the potential consequence of leakage and contamination would be catastrophic to water wells within the area including, but not limited to those owned and run by WCWID, but also wells owned and run by Sandy City and the Jordan Valley Water Conservation District. In that regard, the underground aquifer from which those wells draw pristine drinking water would be severely damaged if petroleum products leak and contaminate the aquifer. The proposed gas station lies directly in groundwater source protection zone 4 of White City Water Improvement District's Well No. 3A. …. I have brought this matter up to the elected WCWID Board of Trustees and they have instructed us to petition Sandy City to* ***not*** *grant approval for construction of the proposed gas station*."

The Sandy City Code helps protect all water sources, regardless of agency. The Sandy Public Utilities Department is charged with the responsibility of ensuring that those water sources are protected and has agreed with the WCWID letter. While the SD Carnation zone is not within the White City Water Service District, the affected properties are still within a Drinking Water Source Protection Overlay Zone (see Sec. 21-17). The map below shows the subject properties are located within Drinking Water Source Protection Overlay Zone #4, which is described in the code under Sec. 21-17-3, *Extent and Designation of Recharge Areas and Protection Zones*.



The Land Use Matrix for Potential Contamination Sources (Sec. 21-17-6) states that "Gasoline Service Stations" proposed within Drinking Water Source Protection Overlay Zone #4 require Public Utilities Department approval. The Public Utilities Department has reviewed the proposal and they will not grant approval of a gasoline service station at this location due to the proximity to ground-water resources. Sandy City Public Utilities Department Assistant Director/Engineering Manager Richard Benham, P.E., states that this area is known to have sandy soils that would allow contaminants to travel to multiple wells in the area. The city has lost wells to contaminant sources, and it is vital that the City protect these important investments.

Non-Conforming Uses

This code amendment would not create any non-conforming situations.

Land Development Code Purpose Compliance

The Sandy City Land Development Code in 21-1-3 lists the criteria explaining the intent and purpose of the Ordinance. The purpose is:

> ***21-1-3 Purpose***
>
> *This Code is adopted to implement Sandy City's General Plan and to promote public health, safety, convenience, aesthetics, welfare; efficient use of land; sustainable land use and building practices; transportation options and accessibility; crime prevention; timely citizen involvement in land use decision making; and efficiency in development review and land use administration. Specifically, this Code is established to promote the following purposes:*
>
> 1. ***General***
>   a. *To facilitate the orderly growth and development of Sandy City.*
>   b. *To facilitate adequate provision for transportation, water, sewage, schools, parks, and other public requirements.*
>   c. *To stabilize property values.*
>   d. *To enhance the economic well-being of Sandy City and its inhabitants.*
> 2. ***Implementation of General Plan***
>   *To coordinate and ensure the implementation of the City's General Plan through effective execution of development review requirements, adequate facility and services review and other goals, policies, or programs contained in the General Plan.*
> 3. ***Comprehensive, Consistent and Equitable Regulations***
>   *To establish a system of fair, comprehensive, consistent and equitable regulations, standards and procedures for review and approval of all proposed land development within the City.*
> 4. ***Efficiently and Effectively Managed Procedures***
>   a. *To promote fair procedures that are efficient and effective in terms of time and expense.*
>   b. *To be effective and responsive in terms of the allocation of authority and delegation of powers and duties among ministerial, appointed, and elected officials.*
>   c. *To foster a positive customer service attitude and to respect the rights of all applicants and affected citizens.*

The proposed code amendment is inconsistent with the purpose of the Land Development Code because the proposal does not promote public health, safety, and welfare. Based on the findings stated previously in this report, the proposal to allow gasoline service stations in the SD Carnation zone creates the potential for ground-water contamination. Neither the WCWID nor the Sandy Public Utilities Department will grant approval for a gasoline service station in this area.

General Plan Compliance

Water Source Protection Goals and Policies were adopted into the Sandy General Plan under Ordinance 98-21. These include a goal to adopt Drinking Water Source Protection Regulations, and policies to apply zoning that protect wells from potential contamination sources and that regulate new businesses from locating within certain zones. Based on these goals and policies, a Drinking Water Source Protection Overlay Zone (Sec. 21-17) was adopted into the Sandy Municipal Code, and through its implementation a gasoline service station is not an appropriate use within the SD Carnation zone.

Recommendation

Staff recommends that the Planning Commission recommend to the City Council to deny the application to amend Section 21-19-20 of the Sandy Municipal Code to allow gasoline service stations in the SD Carnation zone, based on the following findings:

Findings:

1. The City Council may amend land use ordinances consistent with the purposes of the Sandy Land Development Code, the Sandy City General Plan, and the Utah Code, Municipal Land Use, Development, and Management Act per Title 21 Chapter 5 of the Sandy Municipal Code.
2. The proposal is reviewed by the Planning Commission and City Council in accordance with the requirements of Title 21 Chapter 5 of the Sandy Municipal Code.
3. The proposal does not comply with the purpose of the Land Development Code under Section 21-1-03 because it would create the potential for ground-water contamination, and thus poses a threat the public health, safety, and welfare.
4. The proposal does not comply with the Sandy City General Plan because it is contrary to the Water Source Protection Goals and Policies.

Planner:

Melissa Anderson
Zoning Administrator

Exhibits:

A. Proposed code amendments (red-lined version)
B. Proposed code amendments (clean version)
C. Applicant's Proposal and Narrative
D. Letter from the White City Water Improvement District (dated 5/15/2023)
E. Comment from Tom Burns (dated 6/29/2023)

File Name: S:\USERS\PLN\STAFFRPT\2023\CA05252023-0006537 CODE AMEND FOR SD-CARNATION ZONE\STAFF REPORT\STAFF REPORT -SD CARNATION ZONE CODE AMEND.FINAL.DOCX

Sec. 21-19-20. SD (Carnation)-10600 S. 1000E.

(a) *Purpose.* The SD(Carnation) Zone is established to provide an area for convenience commercial retail services and professional and business offices with development standards compatible with those of contiguous properties.

(b) *Uses Allowed.*

(1) *Permitted and Conditional Uses.* Permitted or Conditional Uses shall follow the use list for the CvC Zone, as listed in Section 21-8-2, with the following exceptions:

a. All alcoholic beverage related land uses shall be not permitted within this district with the exception of alcoholic beverage off-premises beer retailer licenses.

~~b. All automotive-related land uses, including repair, oil change, gasoline dispensing, rental and other service activities, shall be not permitted within this district.~~

~~c~~b. All pharmacy (including ancillary compounding) and medical and health care office uses shall be permitted within this district.

~~d~~c. Drive-up window (non-food) uses (limited to banks, ATMs, dry cleaners, pharmacy, etc.) shall be permitted within this district.

(c) *Development Standards.* The following standards shall apply specifically to development in the SD(Carnation) Zone. Where a specific standard is not mentioned, the development requirements of the CvC Zone District shall apply, in addition to general standards provided in Chapter 21-23. Where conflict may be found to exist, the provisions of this zone district shall prevail.

(1) *Planning Commission Review.* Review of all preliminary and final site plans in the SD(Carnation) Zone is required by the Planning Commission according to the standards outlined in Chapter 21-32. A Traffic Study shall be submitted before Planning Commission review, as may be required by the Transportation Engineer.

(2) *Building Setbacks.*

a. *From All Streets.* All buildings shall be set back at least 30 feet from the 10600 South Street right-of-way line. All buildings shall be set back at least 15 feet from the 1000 East realignment right-of-way line.

b. *Interior Yard.* There shall be at least a ten-foot setback from each interior property line.

(3) *Landscaping.* The minimum depth of landscaping along the 10600 South street frontage shall be eight feet. The minimum depth of landscaping adjacent to all drive access points for the Dimple Dell Recreation Center Drive access roads shall be ten feet. Landscaping along the 1000 East Realignment shall be at least 15 feet.

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Exhibit "C"

From: **Adam NASH** adamnash2022@gmail.com
Subject: Code Amendment
Date: May 23, 2023 at 10:23 AM
To: Adam adam@growthaid.com

AN

Attached please find the General Development Application and the Code Amendment to be applied to property we own adjacent to the Big 5 on 10600 South 1000 East. It is the property that has sat year after year, 24 do be exact, without being developed to finish off the shopping center.

The property was assembled by Sandy City, Salt Lake County and NuPetco over 20 years ago. This was done to realign 1000 East and create a safe intersection with a traffic light going north. 1000 East was vacated where it crossed the property and that land given to NuPetco in exchange for the land where 1000 East was moved onto..

Sec. 21-19-20. - SD (Carnation)-10600 S. 1000E.

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(LDC 2008, § 15A-19-17; Ord. No. 17-09, 3-9-2017; Ord. No. 19-34 , § 1(exh. A), 12-17-2019; Ord. No.20-06 , § 1(exh. B), 7-7-2020)

The property created by this assemblage and was zoned by the planners with a unique zone that is only on our property. No One else in the city has the same zoning and restrictions. Carnation with the CvC zone underlying the Carnation Zone and then they randomly restricted normal businesses from being to experience our awesome property.

As a matter of fact, Big 5 has been hanging on by a shoe string. They are very excited about another business to bring in shoppers but they have only extended their lease to December of 2025.

THE LAST THING THE CITY WANTS IS ANOTHER BIG BOX RETAILER TO GO OUT OF BUSINESS AND LEAVE THE EMPTY BUILDING BEHIND.

We can't put a gym here because of the Dimple Dell Recreation Center. Other sub par retailers are not appealing to us. ie Zuchers, All a Dollar, Thrift Stores and the like.

The SD(Carnation) Zone is established to provide an area for convenience commercial retail services

Certainly C-Store with Self Service Gas is a convenience commercial retail service. This was a big mistake to limit the different type of retailers. I had to fight all the way to the top to get a Pharmacy with Drive up window approved. Again a huge mistake. I spent three years to finally get this approved. It was finally approved in the middle of COVID and because Jolleys didn't have a new store to compete with the national chains, or a drive up window they almost went bankrupt. There was absolutely no help from the planners or public utilities oother than James Sorensen and Andrea in Traffic.

In order to discuss the application further, I would like to answer the questions proposed in the application:

a- Is the change reasonably necessary? Yes, for the survival of Big 5 and to buiuld out a shopping center that has sat vacant for the past 24 years.

Exhibit "C"

b- Is it in the public interest? Absolutely. The c-store represents competition with other c-stores to keep prices down. Several times throughout the year the athletic field is way over packed. The c-store would provide refreshments to the parents and fans without having to drive several blocks.

c- Is it in harmony with the objectives and purposes of the future development of Sandy City? It is. Sandy City prescribes fair and equal land ownership as does the US Constitution. Sandy City wants new Businesses to come to they city. They bring enormous sales and property taxes.

d- Is the change consistent with the General Plan? Yes. Other than the restrction placed on the property by the Carnation Zone, It matches the General Plan exactly.

Adam NASH
Adam NASH
adamnash2022@gmail.com

White City Water Improvement District

999 E. Galena Dr.
Sandy, Utah 84094
801-571-3991

General Manager
Paul H. Ashton, J.D.

Board of Trustees
Paulina F. Flint, Chair
Robert Johansen, Vice Chair
Christy Seiger-Webster, Clerk
Garry True, Treasurer
Cody Cutler, Trustee

May 15, 2023

Via: email mwilcox@sandy.utah.gov
lennie@sandy.utah.gov

Mike Wilcox
Planning Director - Sandy City
10000 S. Centennial Parkway
Sandy City, UT 84070

Lennie Chanthaphuang
Chief Engineer - Sandy City
10000 S. Centennial Parkway, Suite 241
Sandy City, UT 84070

Subject: Proposed Service Station at 10600 South 1000 East

Dear Mr. Wilcox and Mr. Chanthaphuang,

White City Water Improvement District (hereafter "WCWID") has been informed that Adam Nash has proposed the construction and operation of a service station (hereafter "gas station") just outside WCWID's service area at approximately 10600 South 1000 East, Sandy, Utah. Mr. Nash reached out to WCWID's Operations Manager Ryan Johnson at the end of March. Mr. Johnson informed him that while WCWID is generally "not opposed to underground storage tanks as long as all precautions are taken to protect our drinking water[,]" the underground storage tanks must comply with the Sandy City Source Protection Ordinance.

The technology for underground storage tanks have improved through the years and the change of petroleum leakage and contamination has been greatly mitigated. However, any risk of contamination, however minimal, must be evaluated in conjunction with the potential consequences of such contamination. In this situation, the potential consequence of leakage and contamination would be catastrophic to water wells within the area including, but not limited to those owned and run by WCWID, but also wells owned and run by Sandy City and the Jordan Valley Water Conservation District. In that regard, the underground aquifer from which those wells draw pristine drinking water would be severely damaged if petroleum products leak and contaminate the aquifer.

The proposed gas station lies directly in groundwater source protection zone 4 of WCWID's Well No. 3A. As a special district, WCWID does not have general zoning and police power to enforce source protection beyond source protection zones 1 and 2 for its wells. As a consequence, it must rely upon counties and cities to protect source protection zones 3 and 4 for its wells. Mr. Johnson and I have brought this matter up to the elected WCWID Board of Trustees and they have instructed us to petition Sandy City to not grant approval for construction of the proposed gas station. WCWD recognizes that other service stations

are present in the community, some of which may also fall within source protection zones of various well sites. However, there is no need to further increase the risk, however minimal, given the consequences of leakage and contamination. Even if Sandy City determines that it will grant approval to construction and operation of the gas station, then WCWID respectfully requests that insurance be obtained that will protect WCWID from potential harm that may arise as a result of construction and operation of a gas station.

If either of you have any questions, please feel free to advise me.

Sincerely

Paul H Ashton

General Manager/ General Counsel

Sent via e-mail to the following:
Tom Ward -- tward@sandy.utah.gov
Paulina F Flint, Chair -- pbflint@yahoo.com
Cliff Linford -- clinford@sunrise-eng.com

Melissa Anderson

From: Tom Burns <tburnsrn146@gmail.com>
Sent: Thursday, June 29, 2023 4:21 PM
To: Melissa Anderson
Cc: adam@gowthaid.com
Subject: [EXTERNAL] Feedback on CA052502023-0006537

Ms. Anderson & Mr. Nash,
I was not able to attend the meeting held on 6/27/23 regarding Code Amendment of CA052502023-0006537 984E 10600 S - where a proposal for a new gas station to be built on the corner of 1000E/Carnation and 10600S in the city of Sandy.

May I voice most **ardently** to NOT allow this zoning?! Within < 1 mile in either direction to the east and west of 1000E/Carnation, there are THREE gas stations/mini marts. That for this location and population is sufficient. I would implore that the proposed parcel of land be used and zoned for something else. I would prefer something that would not add the already busyness and noise of traffic to that intersection. May it be a park, Memorial garden dedicated to war veterans, a useful orchard or public garden or simply left alone as a natural space?

I don't see the removal of a retail space like Big 5 as a benefit either.
Thanks for your consideration.
Regards,
Tom

Sent from my iPad
Tom Burns, RN BSN
TBurnsRN146@gmail.com
(801) 448-4466
Seatbelt TOO Confining??? Consider a COFFIN...! Buckle-Up!

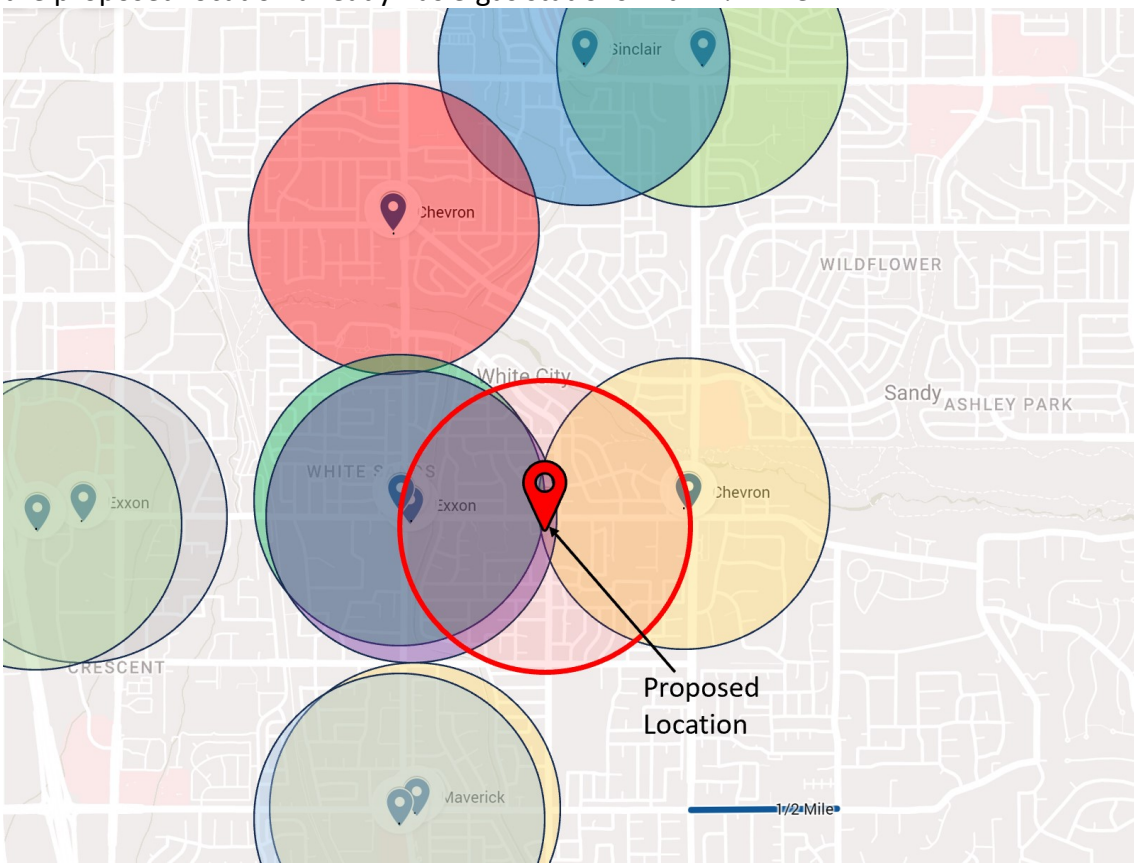
Melissa Anderson

From: Tyler Huish <tlhuish@hotmail.com>
Sent: Tuesday, July 18, 2023 7:00 PM
To: Melissa Anderson
Cc: schutja@msn.com
Subject: [EXTERNAL] Public comment regarding 984 E 10600 S zoning change

Hello Melissa,

First, thank you for taking the time to review my public comment. I will be out of town and not able to attend the July 20th Sandy City Planning Commission public hearing. Can you please see that the information below is shared on the 20th?

I am opposed to a gas station being considered at 10600 S 1000E. A gas station is not needed here. I took the time to map out all the surrounding gas stations and put 1/2-mile radius circles around them. You can see that the proposed location already has **3** gas stations within ½ mile.



I don't see any value in adding another gas station considering the following:

1. The environmental impact it can have
2. The added light pollution and noise it will bring, especially at night.
3. I don't see it bringing any competitive advantage for consumers (prices won't be lowered)
4. Move vehicles are becoming electric and/or hybrid. The need for fuel demand is decreasing.

An additional item to note - The image above only considers locations with fuel pumps. I did not include the 7-Eleven convenience store which would further overlap the radius of the proposed location.

I do look forward to seeing some light commercial business being added at this location, but not a gas station. I did look forward to the pharmacy being added because there isn't one nearby, especially within walking distance. I would love to see that come to fruition.

Thank you for your time.

Tyler Huish
1040 E Larkspur Dr.
Sandy, UT 84094
480-848-3457
tlhuish@hotmail.com

cc: Jan Schutt, neighbor and friend.

Sent from Outlook

From:	Jan A. Schut
To:	Melissa Anderson
Cc:	paulina.flint@whitecity-ut.org
Subject:	[EXTERNAL] Public Hearing July 20, 2023
Date:	Wednesday, July 19, 2023 10:27:49 PM

Dear Melissa Anderson

First of all we wish to thank you for your service to the community. We will not be available to attend the July 20, 2023 Sandy City Planning Commission public hearing, nor be able to add our comments via ZOOM regarding the property at 1000 East & 10600 South being considered as a gas station location. However we would like to add our input via this email and be made a matter of record at this public hearing. We make the following points.

1. NO NEED FOR ADDITIONAL GAS STATIONS ON 10600 South. From the I-15 exit Eastbound to 1300 East on 10600 South (a distance of approximately 2.3 miles) there are 6 gas stations including the closed one. Maverik recently opened with additional 7 pump islands and the Chevron on 1300 East has been completely remodeled and added pumps. The gas station on 700 East in recent memory has been rebranded as a Tesoro, Shell, Speedway, Exxon, etc. just to stay in business. We ask, how many more gas stations are needed in that short distance?

2. LOCATION, LOCATION, LOCATION. It appears that the proposal would mean that the Big 5 Sporting Goods store would become the "convenience store" for the gas station and that the now vacant part of the property would be gas pump islands. It has not been that many years ago that there was a berm on that part of the property and a vehicle missed the 1000 East curve to the intersection, hit that berm, went airborne over 10600 South, continued 3 houses down Carnation Drive before hitting a block wall. What if there would have been gas pumps there? That is an awkward intersection to put in and out driveways for a gas station. There have been many times when we have been eastbound in the left-turn lane to Carnation Dr. only to meet a westbound vehicle head-to-head in that lane trying to turn into the Big 5 driveway. We ask, if there was not enough room to build Jolley Pharmacy on that corner, what justifies building a gas station there?

3. PUBLIC SAFETY. Residents in the area use the walking trail around the Dimple Dell Recreation Center. To get to the trail they would have to navigate the in and out traffic from that gas station to even get to the trail. During youth soccer season there is traffic congestion along 10600 South, adding a gas station on the corner is going to make it even worse. Crossing the intersection at 10600 South or 1000 East is hard enough with motorists speeding and pushing the red light. In addition there are 3 churches within 500 feet of that intersection, one includes a daycare/pre-school.

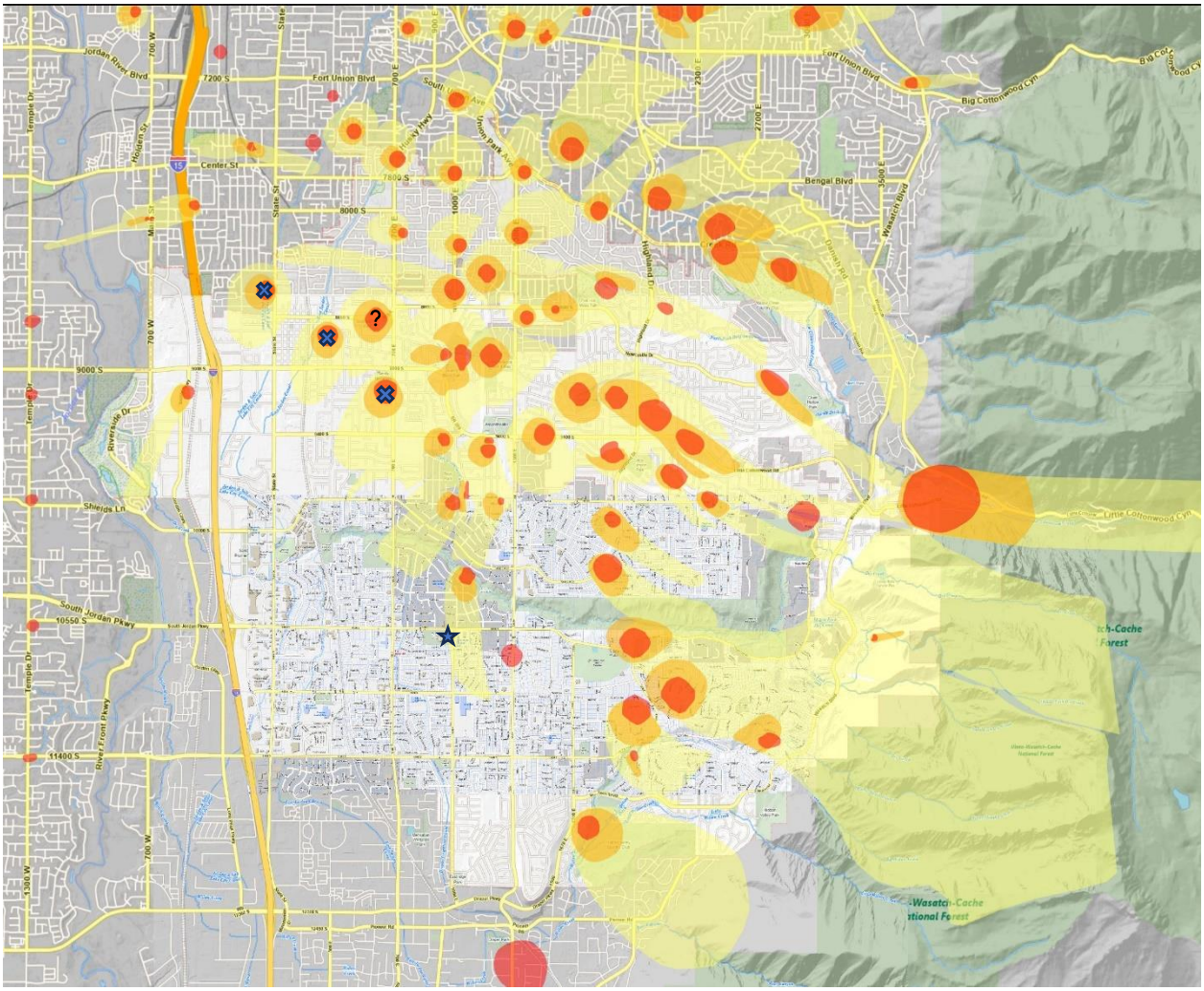
4. IMPACT TO THE RESIDENTIAL AREA. Light pollution, noise pollution, traffic congestion, possible gasoline seepage or spillage, etc. are all things that need to be addressed.

We are OPPOSED to the rezoning and development of this property as a gas station site.

Thank you.
Jan A. & Arlene D. Schut
1035 E Heather Circle
Sandy UT 84094

Sent from Mail for Windows

ABANDONDED SANDY CITY WELLS



From: Deidre Beck <dbeck@utah.gov>
Subject: Re: Zones 1 2 3 4
Date: July 17, 2023, at 3:51:23 PM MDT
To: Adam NASH <adamnash2022@gmail.com>
Cc: mberger@utah.gov, barns@utah.gov, tammieallen@utah.gov, Noah Zorsky <nzorsky@utah.gov>

Hi Adam,

Zone one is a 100-foot radius around a groundwater source (well or spring). Zone two is a 250-day groundwater time of travel, zone three is a 3-year groundwater time of travel, and zone four is a 15-year groundwater time of travel. The zones are developed with a hydrogeologic model that uses as-built construction characteristics of the source and aquifer characteristics in the region. So zones 2-4 can vary in length and width depending on a variety of factors. To view source protection zones across the state, please visit the DEQ Interactive Map.

The Division of Drinking Water regulates public water systems. We are not a land use authority. Division rules don't specifically have prohibitions on USTs in source protection zones, the Division has no ability to prohibit the potential contamination source (PCS) from moving into or locating within any given zone. Generally, USTs can be considered "adequately controlled" PCSs if they have a valid permit with the Utah Division of Environmental Response and Remediation (regulatory controls) and/or have been constructed with some physical controls like leak detection, dual walled tank, secondary containment, etc. So we often see USTs classified as "adequately controlled" from a Division of Drinking Water perspective.

You will need to contact the land use authority in the area in question to determine if their rules prohibit the placement of USTs in certain source protection zones.

Edited to include only the subject at hand.

From: Adam Nash
To: Melissa Anderson
Subject: [EXTERNAL] White City Water - not opposed to UST
Date: Thursday, July 20, 2023 8:31:49 AM

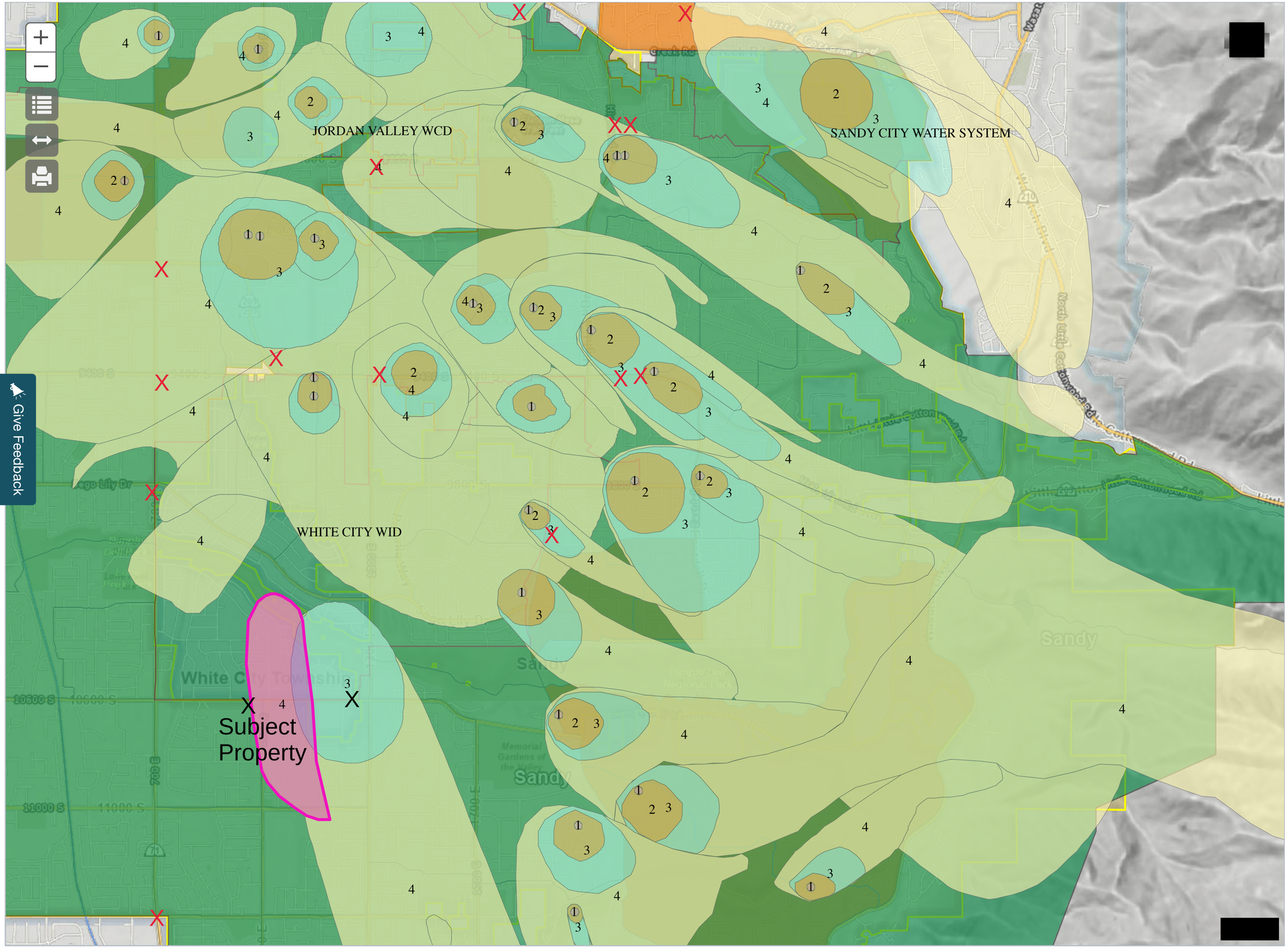
Please include in the illustrations

Adam NASH
adamnash2022@gmail.com

On Mar 29, 2023, at 1:07 PM, Ryan Johnson <RyanJohnson@wcwid.org> wrote:

Hi Adam,
Being outside of White City Water's service area, all we request is you abide by Sandy City's Source protection ordinance. There are links to that ordinance on our website WCWID.org under the "forms and reports" tab. We are not opposed to underground storage tanks as long as all precautions are taken to protect our drinking water. Please let me know if there's any additional information needed. Thank you.
Ryan
WCWID

Utah Environmental Interactive Map 1.9.1



Select Map Data

Drinking Water

- [ ] Public Water System Facilities
- [x] Ground Water Protection Zones
- [ ] Source Water Assessment Zones
- [ ] Surface Water Protection Zones
- [ ] Irrigated Crop Consumptive Use Zones
- [x] Drinking Water System Ratings

Water Quality

Air Quality

Environmental Response & Remediation

Waste Management and Radiation Control

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select format

Process Download

AGEC

Applied GeoTech

GEOTECHNICAL INVESTIGATION
PROPOSED COMMERCIAL DEVELOPMENT
984 EAST 10600 SOUTH
SANDY, UTAH

PREPARED FOR:

NORDIC ALLIANCE, LLC.
4376 SOUTH 700 EAST, SUITE 205
SALT LAKE CITY, UTAH 84107

ATTENTION: ADAM NASH

PROJECT NO. 1180462

JULY 10, 2018

600 West Sandy Parkway • Sandy, Utah 84070 • (801) 566-6399 • FAX (801) 566-6493

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FIGURES

EXPLORATORY BORING LOCATIONS	FIGURE 1
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EXECUTIVE SUMMARY

1. The subsurface conditions encountered in the borings consist of approximately ½ foot of topsoil in Boring B-1, and 8 inches and 10 feet of fill in Borings B-2 and B-3, respectively. Sand was encountered below the topsoil and fill and extends the full depth investigated, approximately 15½ feet. An approximately 1-foot thick layer of gravel was encountered in Boring B-1 at a depth of approximately 1 foot.

2. No subsurface water was encountered in the borings.

3. Footings for the proposed buildings may be supported on the natural undisturbed soil or on compacted structural fill extending down to the natural undisturbed soil and may be designed using the following relationship:

   $q_a = 650B + 1{,}000D$ where:
   q_a = net allowable bearing pressure in psf,
   B = footing width in feet and
   D = footing depth in feet.

   The net allowable bearing pressure should be limited to not exceed 3,500 psf.

4. Based on mottling of the soil in Boring B-3, there appears to have been approximately 10 feet of fill in Boring B-3. Review of historical aerial photographs of the site show a possible driveway in this area and thus the fill could be backfill for a utility. The extent and condition of the fill was not investigated as part of this study. Low N-values were obtained in the fill, suggesting that the fill was not well compacted. The fill should be removed from below proposed buildings, exterior flatwork, pavement and other site development sensitive to settlement. The fill encountered in Boring B-3 consists of sand and could be reused as fill if the organics, debris and other deleterious materials are removed.

5. Geotechnical information related to foundations, subgrade preparation, pavement design and materials is included in the report.

SCOPE

This report presents the results of a geotechnical investigation for buildings planned to be constructed at 984 East 10600 South in Sandy, Utah. The report presents the subsurface conditions encountered, laboratory test results and recommendations for foundations and pavement. The study was conducted in general accordance with our proposal dated June 6, 2018.

Field exploration was conducted to obtain information on the subsurface conditions. Samples obtained from the field investigation were tested in the laboratory to determine physical and engineering characteristics of the on-site soil and to define conditions at the site for our engineering analysis. Results of the field exploration and laboratory testing were analyzed to develop recommendations for the proposed buildings and pavement.

This report has been prepared to summarize the data obtained during the study and to present our conclusions and recommendations based on the proposed construction and the subsurface conditions encountered. Design parameters and a discussion of geotechnical engineering considerations related to construction are included in the report.

SITE CONDITIONS

At the time of our field study, there were no permanent structures or pavement on the site. The site consists of an undeveloped field. Review of historical aerial photographs of the site indicate that 1000 East Street extended through the proposed parking area between the proposed buildings. There is a circular driveway extending off 1000 East Street for a house to the southeast. Most of the rest of the site appears to be undeveloped fields.

The ground surface generally slopes gently down to the west.

Vegetation at the site consists of weeds and a few trees.

There are asphalt-paved parking lots to the south and north of the west end of the site. The west side of the property is bordered by 1000 East Street and the north side by 10600 South Street. There is a single-story, masonry retail building with a slab-on-grade floor to the west.

FIELD STUDY

Three borings were drilled at the approximate locations shown on Figure 1 using 8-inch diameter, hollow-stem auger powered by a truck-mounted drill rig. The borings were logged and soil samples obtained by an engineer from AGEC. Logs of the subsurface conditions encountered in the borings are graphically shown on Figure 2.

SUBSURFACE CONDITIONS

The subsurface conditions encountered in the borings consist of approximately ½ foot of topsoil in Boring B-1, and 8 inches and 10 feet of fill in Borings B-2 and B-3, respectively. Sand was encountered below the topsoil and fill and extends the full depth investigated, approximately 15½ feet. An approximately 1-foot thick layer of gravel was encountered in Boring B-1 at a depth of approximately 1 foot.

A description of the soil encountered in the borings follows:

Fill - The fill consists of silty sand. It is slightly moist, brown to dark brown and mottled.

Laboratory tests performed on a sample of the fill indicate it has a moisture content of 3 percent and dry density of 100 pounds per cubic foot (pcf).

Topsoil - The topsoil consists of silty sand, which is moist, dark brown and contains organics.

Poorly-graded Sand with silt - The sand is medium dense to dense, slightly moist and brown.

Laboratory tests performed on samples of the sand indicate it has natural moisture contents ranging from 3 to 6 percent and natural dry densities ranging from 102 to 104 pcf.

Silty Gravel with Sand - The gravel is medium dense, slightly moist and brown.

Results of the laboratory tests are summarized on Table I and are included on the logs of the borings.

SUBSURFACE WATER

No subsurface water was encountered in the borings.

PROPOSED CONSTRUCTION

We anticipate the buildings will be one- to two-story structures with slab-on-grade floors. We have assumed maximum column loads of 100 kips and maximum wall loads of 5 kips per lineal foot.

We have assumed two traffic conditions; one consisting predominantly of car traffic, a second consisting of 10 delivery trucks and one semi per day and two garbage trucks per week.

If the proposed construction, building loads or anticipated traffic is significantly different from what is described above, we should be notified so that we can reevaluate our recommendations.

RECOMMENDATIONS

Based on the subsoil conditions encountered, laboratory test results, and the proposed construction as described above, the following recommendations are given:

A. Site Grading

1. Existing Fill

   Based on mottling of the soil in Boring B-3, there appears to have been approximately 10 feet of fill in Boring B-3. Review of historical aerial photographs of the site show a possible driveway in this area and thus the fill could be backfill for a utility. The extent and condition of the fill was not investigated as part of this study. Low N-values were obtained in the fill, suggesting that the fill was not well compacted. The fill should be removed from below proposed buildings, exterior flatwork, pavement and other site development sensitive to settlement. The fill encountered in Boring B-3 consists of sand and could be reused as fill if the organics, debris and other deleterious materials are removed.

2. Pavement Subgrade Preparation

   Prior to placing grading fill or base course, the organics, topsoil, unsuitable fill, debris and other deleterious material should be removed.

3. Excavation

   We anticipate that excavation at the site can be accomplished with typical excavation equipment.

4. Cut and Fill Slopes

Temporary, unretained cut slopes may be constructed at 1½ horizontal to 1 vertical or flatter.

Permanent, unretained cut and fill slopes may be constructed at 2 horizontal to 1 vertical or flatter. Slopes should be protected from erosion by revegetation or other methods. Surface drainage should be directed away from cut and fill slopes.

5. Compaction

Compaction of materials placed at the site should equal or exceed the minimum densities as indicated below when compared to the maximum dry density as determined by ASTM D 1557.

Fill Location	Compaction
Below Building Foundations	≥ 95%
Below Concrete Flatwork	≥ 90%
Pavement - Subgrade Fill	≥ 90%
Pavement - Base Course	≥ 95%
Retaining Wall Backfill	≥ 90%
Landscape Areas	≥ 85%

To facilitate the compaction process, fill should be compacted at a moisture content within 2 percent of the optimum moisture content. Fill should be placed in thin enough lifts to allow for adequate compaction.

Fill and pavement materials placed for the project should be frequently tested for compaction.

6. Materials

Material placed as fill to support foundations should be non-expansive granular soil.

Listed below are materials recommended for imported structural fill.

Fill to Support	Recommendations
Footings	Non-expansive granular soil Passing No. 200 Sieve < 35% Liquid Limit < 30% Maximum size 4 inches
Floor Slabs (Upper 4 inches)	Sand and/or Gravel Passing No. 200 Sieve < 5% Maximum size 2 inches
Slab Support	Non-expansive granular soil Passing No. 200 Sieve < 50% Liquid Limit < 30% Maximum size 4 inches

The sand and gravel at the site meeting the criteria given above for imported structural fill may be used as structural fill, site grading fill, fill below proposed pavement areas and as utility trench or wall backfill if the topsoil, organics, over-sized particles, debris and other deleterious materials are removed or they may be used in landscaping areas.

The moisture of the soil used as fill should be adjusted to within 2 percent of optimum prior to compaction. Drying of the soil may not be practical during cold or wet times of the year.

7. Drainage

The ground surface surrounding the proposed buildings should be sloped away from the buildings in all directions. Roof downspouts and drains should discharge beyond the limits of backfill.

The collection and diversion of drainage away from the pavement surface is important to the satisfactory performance of the pavement section. Proper drainage should be provided.

B. Foundations

1. Bearing Material

With the proposed construction and the subsurface conditions encountered, the proposed buildings may be supported on spread footings bearing on the undisturbed, natural soil or on compacted structural fill extending down to the undisturbed, natural soil. Structural fill should extend out away from the edge of footings at least a distance equal to the depth of fill beneath footings.

The topsoil, unsuitable fill, debris and other deleterious materials should be removed from below proposed foundation areas.

2. Bearing Pressure

Footings for the proposed buildings may be designed using the following relationship:

$q_a = 650B + 1{,}000D$ where:

q_a = net allowable bearing pressure in psf,

B = footing width in feet and

D = footing depth in feet.

The net allowable bearing pressure should be limited to not exceed 3,500 psf.

3. Settlement

Based on the subsurface conditions encountered and the building loads as described in the proposed construction section of the report, we estimate that total and differential settlement for foundations designed as indicated above will be approximately 1 inch and ½ inch, respectively.

Care will be required to not disturb the natural soil in the base of foundation excavations in order to maintain settlement within tolerable limits.

4. Temporary Loading Conditions

The allowable bearing pressure may be increased by one-half for temporary loading conditions such as wind or seismic loads.

5. Frost Depth

Exterior footings and footings beneath unheated areas should be placed at least 30 inches below grade for frost protection.

6. Foundation Base

The base of footing excavations should be cleared of loose or deleterious material prior to structural fill or concrete placement.

7. Construction Observation

A representative of the geotechnical engineer should observe footing excavations prior to structural fill or concrete placement.

C. Concrete Slab-on-Grade

1. Slab Support

Concrete slabs may be supported on the undisturbed natural soil or on compacted structural fill extending down to the undisturbed natural soil.

Topsoil, organics, unsuitable fill and other deleterious materials should be removed from below proposed floor slab areas.

2. Underslab Sand and/or Gravel

A 4-inch layer of free-draining sand and/or gravel (less than 5 percent passing the No. 200 sieve) should be placed below the concrete slabs for ease of construction and to promote even curing of the slab concrete.

3. Vapor Barrier

A vapor barrier should be placed under the concrete floor if the floor will receive an impermeable floor covering. The barrier will reduce the amount of water vapor passing from below the slab to the floor covering.

D. Lateral Earth Pressures

1. Lateral Resistance for Footings

Lateral resistance for spread footings placed on the natural soil or on compacted structural fill is controlled by sliding resistance between the footing and the foundation soil. A friction value of 0.45 may be used in design for ultimate lateral resistance for footings.

2. Subgrade Walls and Retaining Structures

The following equivalent fluid weights are given for design of subgrade walls and retaining structures. The active condition is where the wall moves away from the soil. The passive condition is where the wall moves into the soil and the at-rest condition is where the wall does not move. The values listed below assume a horizontal surface adjacent the top and bottom of the wall and drained conditions behind the wall.

Soil Type	Active	At-Rest	Passive
Clay & Silt	50 pcf	65 pcf	250 pcf
Sand & Gravel	40 pcf	55 pcf	300 pcf

3. Seismic Conditions

Under seismic conditions, the equivalent fluid weight should be increased by 38 pcf for the active condition and 23 pcf for the at-rest condition and decreased by 38 pcf for the passive condition. This assumes a peak ground acceleration of 0.64g, which represents a 2 percent probability of exceedance in a 50-year period (IBC, 2015).

4. Safety Factors

The values recommended above assume mobilization of the soil to achieve the assumed soil strength. Conventional safety factors used for structural analysis for such items as overturning and sliding resistance should be used in design.

E. Seismicity, Faulting and Liquefaction

1. Seismicity

Listed below is a summary of the site parameters for the 2015 International Building Code.

a.	Site Class	D
b.	Short Period Spectral Response Acceleration, S_S	1.46g
c.	One Second Period Spectral Response Acceleration, S_1	0.51g

2. Faulting

There are no mapped active faults extending near or through the site. The mapped surface trace of the Wasatch Fault is located approximately 3.3 miles to the east (Utah Geological Survey, 2018).

3. Liquefaction

The site is located in an area mapped as having a "very low" potential for liquefaction (Salt Lake County, 2002). Research indicates that the soil type most susceptible to liquefaction during a large magnitude earthquake is loose, clean sand. In order for liquefaction to occur the soil must be saturated. The liquefaction potential for soil tends to decrease with an increase in fines content and density.

Based on the subsurface conditions encountered to the depth investigated and our understanding of the geologic conditions in the area, it is our professional opinion that liquefaction is not a hazard at the site.

F. Water Soluble Sulfates

One sample of the natural soil was tested for water soluble sulfate content. Results of the test indicate the soil has less than 0.1 percent water soluble sulfate. Based on the results of the testing and published literature, the natural soil possesses a negligible sulfate attack potential for concrete. No special cement type is required for concrete placed in contact with the soil. Other conditions may dictate the type of cement to be used in concrete for the project.

G. Pavement

Based on the subsoil conditions encountered, laboratory test results and the assumed traffic as indicated in the Proposed Construction section of the report, the following pavement support recommendations are given.

1. Subgrade Support

The near surface subgrade soil consists predominantly of sand. We have assumed a CBR value of 5 percent which assumes a silty sand subgrade.

2. Pavement Thickness

Based on the subsoil conditions, assumed traffic as described in the Proposed Construction section of this report, a design life of 20 years for flexible pavement and 30 year for rigid pavement, and methods presented by the Utah Department of Transportation, the following pavement sections are calculated:

Daily Traffic	Rigid Pavement	Flexible Pavement	
	Portland Cement Concrete Thickness	Asphaltic Concrete Thickness	Base Course Thickness
Cars	5"	3"	6"
10 Delivery Trucks and 1 semi	5"	3"	8"

A pavement section consisting of 6½ inches of Portland cement concrete over 4 inches of base course is recommended for dumpster approach slabs.

3. Pavement Materials and Construction

a. Flexible Pavement (asphaltic concrete)

The pavement materials should meet the material gradation and quality specifications for the applicable jurisdiction. The use of other materials may result in the need for different pavement material thicknesses.

b. Rigid Pavement (Portland cement concrete)

The pavement thickness indicated assumes that the pavement will have aggregate interlock joints and that a concrete shoulder or curb will be provided.

The pavement materials should meet the specifications for the applicable jurisdiction. The pavement thickness indicated above assumes that the concrete will have a 28-day compressive strength of at least 5,000 pounds per square inch. Concrete should be air entrained with approximately 6 percent air. The maximum allowable slump will depend on the method of placement, but should not exceed 4 inches.

4. Jointing

Joints for concrete pavement should be laid out in a square or rectangular pattern. Joint spacings should not exceed 30 times the thickness of the slab. The joint spacings indicated should accommodate the contraction of the concrete and under these conditions steel reinforcing will not be required. The depth of joints should be approximately one-fourth of the slab thickness.

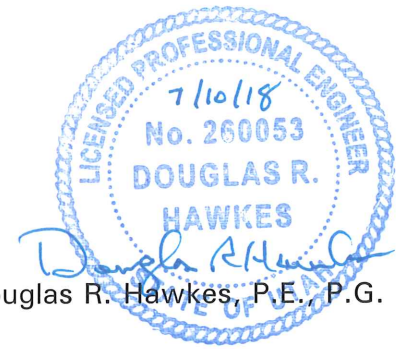
H. Preconstruction Meeting

A preconstruction meeting should be held with representatives of the owner, project architect, geotechnical engineer, general contractor, earthwork contractor and other members of the design team to review construction plans, specifications, methods and schedule.

LIMITATIONS

This report has been prepared in accordance with generally accepted geotechnical engineering practices in the area for the use of the client for design purposes. The conclusions and recommendations included within the report are based on the proposed construction, the information obtained from the borings drilled at the approximate locations indicated on the site plan and the laboratory test results. Variations in the subsurface conditions may not become evident until additional exploration or excavation is conducted. If the subsurface conditions or groundwater level is found to be significantly different from what is described above, we should be notified to reevaluate our recommendations.

APPLIED GEOTECHNICAL ENGINEERING CONSULTANTS, INC.



Douglas R. Hawkes, P.E., P.G.

Reviewed by Jay R. McQuivey, P.E.

DRH/rs

REFERENCES

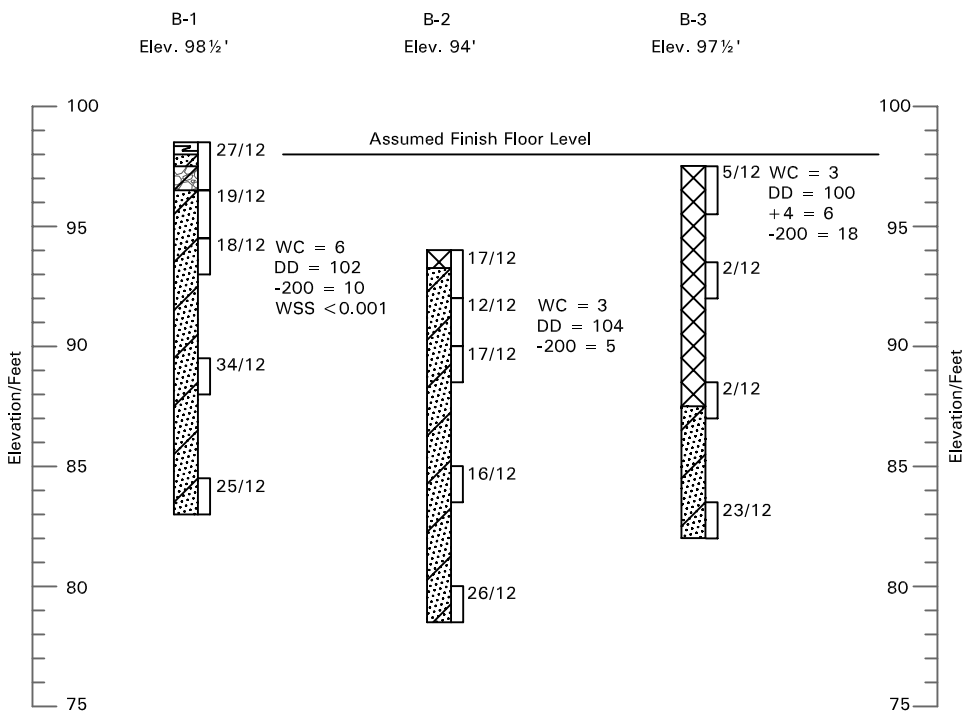
International Building Code, 2015; International Code Council, Inc., Falls Church, Virginia.

Salt Lake County, 2002; Surface Rupture and Liquefaction Potential Special Study Areas Map, Salt Lake County, Utah, adopted March 31, 1989, updated March 2002, Salt Lake County Public Works - Planning Division, 2001 South State Street, Salt Lake City, Utah.

Utah Geological Survey, 2018; Utah Quaternary Fault and Fold Database, http://geology.utah.gov/resources/data-databases/qfaults/ Accessed January 4, 2018.

PROPOSED COMMERCIAL DEVELOPMENT
984 EAST 10600 SOUTH
SANDY, UTAH

1180462	AGEC	Exploratory Boring Locations	Figure 1



Approximate Vertical Scale 1" = 8"

LEGEND:

Fill; silty sand, slightly moist, brown to dark brown, mottled.

Topsoil; silty sand, slightly moist, dark brown, organics.

Poorly-graded Sand with Silt (SP-SM); medium dense to dense, slightly moist, brown.

Silty Gravel with Sand (GM); medium dense, slightly moist, brown.

10/12 California Drive sample taken. The symbol 10/12 indicates that 10 blows from a 140 pound automatic hammer falling 30 inches were required to drive the sampler 12 inches.

NOTES:

1. The borings were drilled on June 25, 2018 with 8-inch diameter hollow-stem auger.
2. The locations of the borings were measured approximately by pacing from features shown on the site plan provided.
3. The elevations of the borings were measured by automatic level and refer to the benchmark shown on Figure 1.
4. The boring locations and elevations should be considered accurate only to the degree implied by the method used.
5. The lines between materials shown on the boring logs represent the approximate boundaries between material types and the transitions may be gradual.
6. No free water was encountered in the borings at the time of drilling.
7. WC = Water Content (%);
   DD = Dry Density (pcf);
   +4 = Percent Retained on the No. 4 Sieve;
   -200 = Percent Passing the No. 200 Sieve;
   WSS = Water Soluble Sulfates (%).

APPLIED GEOTECHNICAL ENGINEERING CONSULTANTS, INC.

TABLE I

SUMMARY OF LABORATORY TEST RESULTS

PROJECT NUMBER: 1180462

SAMPLE LOCATION		NATURAL MOISTURE CONTENT (%)	NATURAL DRY DENSITY (PCF)	GRADATION			ATTERBERG LIMITS		UNCONFINED COMPRESSIVE STRENGTH (PSF)	WATER SOLUBLE SULFATE (%)	SAMPLE CLASSIFICATION
BORING	DEPTH (FEET)			GRAVEL (%)	SAND (%)	SILT/ CLAY (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)			
B-1	4	6	102			10				<0.001	Poorly-graded Sand with Silt
B-2	2	3	104			5					Poorly-graded Sand with Silt
B-3	0	3	100	6	76	18					Fill; Silty Sand