



Community & Economic Development Department
Planning & Development
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Development Team Review Comments

The following comments have been provided by reviewers of your land use application. At this time, a resubmittal of your application is required before this case is ready to be scheduled for public hearing.

To prepare your resubmittal, you will be expected to provide:

- A response to each comment with a description of the revisions and the page of the response on the site plan;
- Any revised plans or renderings; and
- A list identifying any additional changes made to the original submission other than those required by staff.

Resubmittal documents must be provided electronically through e-mail or a flash drive delivered to the One-Stop Customer Service Center. The following items will be expected by our One-Stop Customer Service Center:

- One digital copy of all new materials
 - All digital materials shall be in a single PDF document
 - The single PDF document shall be bookmarked
 - If a Subdivision Improvements Agreement, Legal Description, or Development Agreement is required, then an additional Microsoft Word version of these documents shall also be provided
 - Electronic copies can be emailed to epermitcenter@adcogov.org as a PDF attachment. If the files are too large to attach, the email should include an unlocked Microsoft OneDrive link. Alternatively, the resubmittal can be delivered to the One-Stop counter on a flash drive.

BOARD OF COUNTY COMMISSIONERS

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DISTRICT 4

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DISTRICT 5



Re-submittal Form

Case Name/ Number: _____

Case Manager: _____

Re-submitted Items:

- ☐ Development Plan/ Site Plan
- ☐ Plat
- ☐ Parking/ Landscape Plan
- ☐ Engineering Documents
- ☐ Subdivision Improvements Agreement (Microsoft Word version)
- ☐ Other: _____

*** All re-submittals must have this cover sheet and a cover letter addressing review comments.**

Please note the re-submittal review period is 21 days.

The cover letter must include the following information:

- Restate each comment that requires a response
- Provide a response below the comment with a description of the revisions
- Identify any additional changes made to the original document

For County Use Only:

Date Accepted:

Staff (accepting intake):

Resubmittal Active: **Engineering; Planner;** ~~Right-of-Way; Addressing; Building Safety;~~

~~Neighborhood Services; Environmental; Parks; Attorney; Finance;~~ **Plan Coordination**

Responses to comments

PLN01: In a revised project Narrative include the following information: • Hours and days of operation • Maximum numbers of dogs that the facilities will be able to take care of • How will the site address animal waste disposal, pest control, • Any license that is needed for this use, and if available please provide a copy of those licenses for review • How many kennels will be on the building and their corresponding Kennel sizes

Camp Bow Wow typical hours are 7am to 7pm.

The site will accommodate 80 overnight dogs. We can accommodate up to 100 dogs for day care (to include any overnight dogs) with proper staffing levels. Colorado requires 1 staff to 15 dogs. This of course will take months to work up to.

Animal waste disposal – trash cans with lids containing compactor bags will be placed in each play yard. Staff are to immediately place waste into trash cans. Bags will be properly tied off and put into a 3 yard dumpster with a lid twice a day. Minimum of once a week trash removal service. Each night, the outdoor play yards are to be deep cleaned with approved chemicals. We have included the chemical detailed specifications for additional information.

Kennel license will be obtained.

We will have up to 80 kennels that will range in size. (70) 6x4, (16) 4x4, (2) 6x8 and (2) luxury suites. to 4'x6', all interior with no exterior doggie doors in the kennels. Note that Camp Bow Wow language refers to kennels as cabins.

PLN02: Please provide a layout of the interior of the proposed building to understand how this facility will operate. The following information must show the location of the kennels and their corresponding dimensions.

Please see the attached 5 pages of building drawings. We have the estimated interior drawing for an 8000 square foot building. It will be modified to move the lobby to the front section of our building. The back section will be very similar to the drawing, the portion of the building with kennels and indoor play areas is rectangular shaped rather than square as presented in the estimated interior drawing.

PLN03: A management plan detailing how the facility will be operated will need to be provided per Sec. 4-25-05 Commercial Kennel and Catteries

Please see attached “North America’s Leading Pet Care Franchise” printout

PLN04: The neighborhood meeting summary is from November 2022 when the applicant was looking to annex into the City of Brighton. Applicant will need to hold a new neighborhood meeting to properly inform the residents of the area of the project. Staff has provided the mailing list with this letter for ease of access.

We had one meeting with the immediate neighbors 2/5/2025. I met separately with 2 of the neighbors on 2/1/2025. We will continue to set up periodic meetings with the neighbors to inform

them of updates to our plans. At this time, none of the neighbors in the Welsh-Hilltop subdivision are in favor but are also not properly informed of the waste cleanup, noise mitigation, pest control, or really any of the proper management of Camp Bow Wow facilities. When we tried to explain and answer questions, the neighbors just informed us that they would be fighting to not have our lot developed.

PLN05 Staff has concerns with the proposed location of the leach field that appears will be used for the proposed commercial building due to its proximity to residential properties and recommends moving this component further into the site to avoid potential nuisance to adjacent neighbors.

We have reduced the size of the building and therefore provide more room to leach field further east into the property so that it is not as near to the fence line of the neighbors.

PLN06: Per Sec. 3-07-02 Summary of Dimensional requirements for Agricultural-1 (A-1) properties that are serviced by well and septic can only have a maximum structure coverage of 7.5% of the lot area. According to the plat provided with the application and county records, the acreage of the property is 4.04 acres, or 175,982 square feet (Sq. Ft.) Based on this acreage, the maximum lot coverage for the property is 13,198 sq. ft. The proposed building (100'x180') surpasses the lot coverage allocation. Please note that the residential dwelling also counts to the lot coverage maximum. Applicant will need to downsize the building footprint to meet compliance with lot coverage maximums.

We have downsized the building to conform to this standard. Please see attached drawings

PLN0X: A formal landscape plan for the commercial use will be required for this project. Applicant will need to explain how the landscape meets compliance with the following code standards: 4-19-07 Required Lot Landscaping "All developments shall be required to landscape a minimum of ten (10) percent of the lot area. At least fifty (50) percent of the required landscape area shall be placed so it abuts adjoining public rights-of way, excluding alleys and drives". 4-19-06-01 Bufferyards As a new Commercial use adjacent to residential uses, applicant will need to provide the following landscape bufferyard: Bufferyard C: Fifteen (15) foot minimum bufferyard width with two (2) trees per eighty (80) linear feet of lot line and six (6) foot high sight obscuring fence or wall located on the interior line of the bufferyard. 4-19-07-01 Street Frontage Landscaping The area along any property line abutting a public road right-of-way shall be landscaped using one (1) or any combination of the following landscape options: 1. Option 1: Install a twenty-five (25) foot wide area along the road right-of-way. Within the landscape area, one (1) tree and two (2) shrubs shall be planted per forty (40) linear feet of frontage. Drive aisles shall be counted as zero (0) feet in depth. 2. Option 2: Install a twenty (20) foot landscape area along the road right-of-way. Within the landscape area, one (1) tree and two (2) shrubs shall be planted per forty (40) linear feet of frontage. Drive aisles shall be counted as zero (0) feet in depth. 3. Option 3: Install a ten (10) foot landscape area along the road right-of-way. Within the landscape area, two (2) trees and five (5) shrubs shall be planted per forty (40) linear feet of frontage. Drive aisles shall be counted as zero (0) feet in depth. 4. Option 4: Install a five (5) foot landscape area along the road right-of-way. Within the landscape area, one (1) tree and two (2) shrubs shall be placed per forty (40) linear feet of frontage. A thirty (30) inch high decorative wall or the building shall be located between the parking area and the road frontage. Drive aisles shall be counted as zero (0) feet in depth. 5. Option 5: Install a landscape berm with a two (2) foot minimum average height. The berm shall have a slope of no greater than one (1) foot of

rise to every four (4) feet of run. Within the landscape area, one (1) tree and five (5) shrubs shall be planted per sixty (60) linear feet of frontage.

We will use option 5 for the area between our property and the neighbors who back to the property. There will be fencing on the South side of the building to contain the outdoor play yards and that fencing will be solid white PVC fencing as noted in the attached documents. We will also place 2 rain gardens to capture and irrigate the run off from the roof and parking areas. One rain garden will be on the north/east corner area of the property and the other will be on the south/east side of the property next to the dwelling already located on the property. The rain garden will be constructed in accordance with the recommendations of Colorado State Stormwater Center.

<http://stormwatercenter.colostate.edu/wp-content/uploads/2020/04/Colorado-Rain-Garden-Guide-2017-8-8.pdf>

PLN07: East 152nd Avenue is a section line. Per section 3-07-02 Summary of Dimensional Requirements, for A-1 properties, a setback of 120 ft from the road is required for all proposed buildings. The current proposed building is only 45 ft. from the ROW. A revised site plan showing the correct setback distance is required.

The reduced size of the building will allow for the 120ft setback from Bromley.

PLN08: A set of elevations for the proposed building needs to be provided with your next resubmittal

Please see attached

PLN09: Is the applicant proposing signage as part of the proposed use, if so, please provide the location of the proposed signage. Please note that a formal building permit will be required to locate any proposed signage on the property.

Please see the standard signage that would be on the front of the building (north facing). We would also like to put a monument sign closer to the north entrance to the property. Both examples are attached.

PLN10: Please review all citizen and outside agency review and provide responses to all applicable comments.

To the applicable comments of the neighbors, I have attempted to explain how the business would run however they are not in a frame of mind to hear our answers. The comments about waste and septic tell me that they don't understand that we will not be using the septic system for any pet waste. The septic system will be for normal employee use of toilets, washing machines, etc. Not much more than normal household use. The other concerns are based on the fact that many of the neighbors bought the rural homes years ago, long before commercial properties were built in the area, such as the hospital, shopping center, restaurants, fire station, and including the mechanic and 7-11 already at the corner at Bromley and Tower. I will attempt to have a face to face meeting with the neighbors at our home on the property to see if they can come with an open mind and listen to how we intend to run the business. When I attempted to explain in any of the previous

meetings, I was cut off and told they don't want us. Even the two meetings that I did have face to face, I was met with blunt responses that they will continue to fight any development.

ENG1: Applicant has submitted a traffic study. Submitted TIS appears to assume a much more intensive use than what is proposed (Strip Retail Plaza), and thus appears to not accurately reflect the proposed development. The TIS states that this land use was used due to the proposed building being used for a variety of commercial uses instead of as solely part of the kennel. Please revise using a more appropriate land use. Additional comments regarding traffic to happen at the time of Development Engineering Review.

Please see the attached traffic study for another Camp Bow Wow Location. The building size is slightly smaller than ours and calculates 58 Peak AM vehicles (29 in and 29 out) and then 68 Peak PM vehicles (33 in and 35 out). I have also attached the email from City of Brighton to move our entrance to the north culdesac owned by City of Brighton. We will be required to do 6 foot sidewalk and curbing along our property on Tower. We will only need to curb our driveway rather than develop the entire culdesac. Brighton felt it was premature to submit a Right of Way permit until our conditional use permit was approved.

ENG2: Applicant has submitted a drainage report. Applicant has proposed detention by infiltration, which is not allowed per Adams County standards. Please revise showing a viable outfall for stormwater. Additional comments regarding drainage will happen at the time of Development Engineering Review.

Please see my additional comments regarding rain gardens to manage the runoff from the building and parking areas.

ENG3: Prior to scheduling the BoCC hearing for RCU2024-00026, the developer is required to submit for review and receive approval of all Construction Documents (CDs), Drainage Report and Drainage Plan, and Traffic Impact Study (TIS). All CDs must meet the requirements of the Adams County Development Standards and Regulations (ADCO DSR). CDs shall include, at a minimum, onsite and public improvements construction plans. The Drainage Report and Drainage Plan must be in accordance with and meet the requirements of Chapter 9 of the ADCO DSR. The TIS must be in accordance with and meet the requirements of Chapter 8 of the ADCO DSR. The CD's, Drainage Report and Drainage Plan, and TIS must all be signed and stamped by a Professional Engineer licensed in the State of Colorado.

We are awaiting the review of these comments and reduced building size before committing to engineered drawings.

ENG8: Applicant is required to contact City of Brighton regarding their requirements for access off Tower Rd.

Please see copy of email from City of Brighton

ENV1. An updated site plan, to-scale, is required to show the actual location of each septic system component to include the vault tank(s), soil treatment area (leach field), and piping, water well, existing buildings, proposed building(s), proposed parking area(s), as well as horizontal distances in

feet between septic components and site features (well, buildings, property lines, parking areas, etc.).

Please see the attached septic system report. However please note that due to the reduced size of the building and parking spaces, we will be able to move the leach field to the east so that we can accommodate the berm between our property and the neighbors fence line.

ENV4. ACHD review has indicated issues with existing residential septic being used for animal waste and fur. These comments will require addressing:

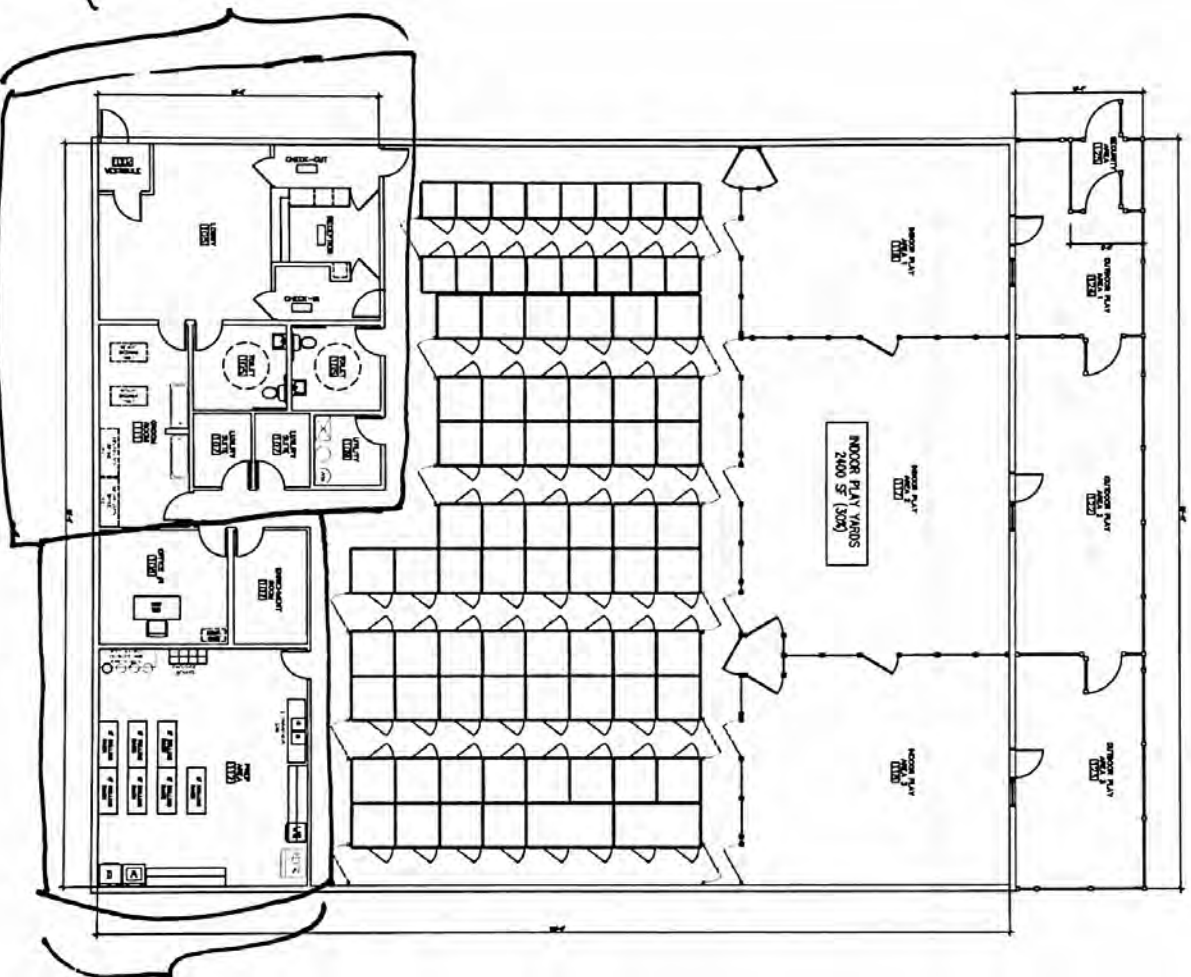
I believe this has been addressed in previous comment responses. The septic will not be used for animal waste and fur. We have also attached information about the chemical treatment used to neutralize the urine so that any runoff can be utilized in the rain garden.

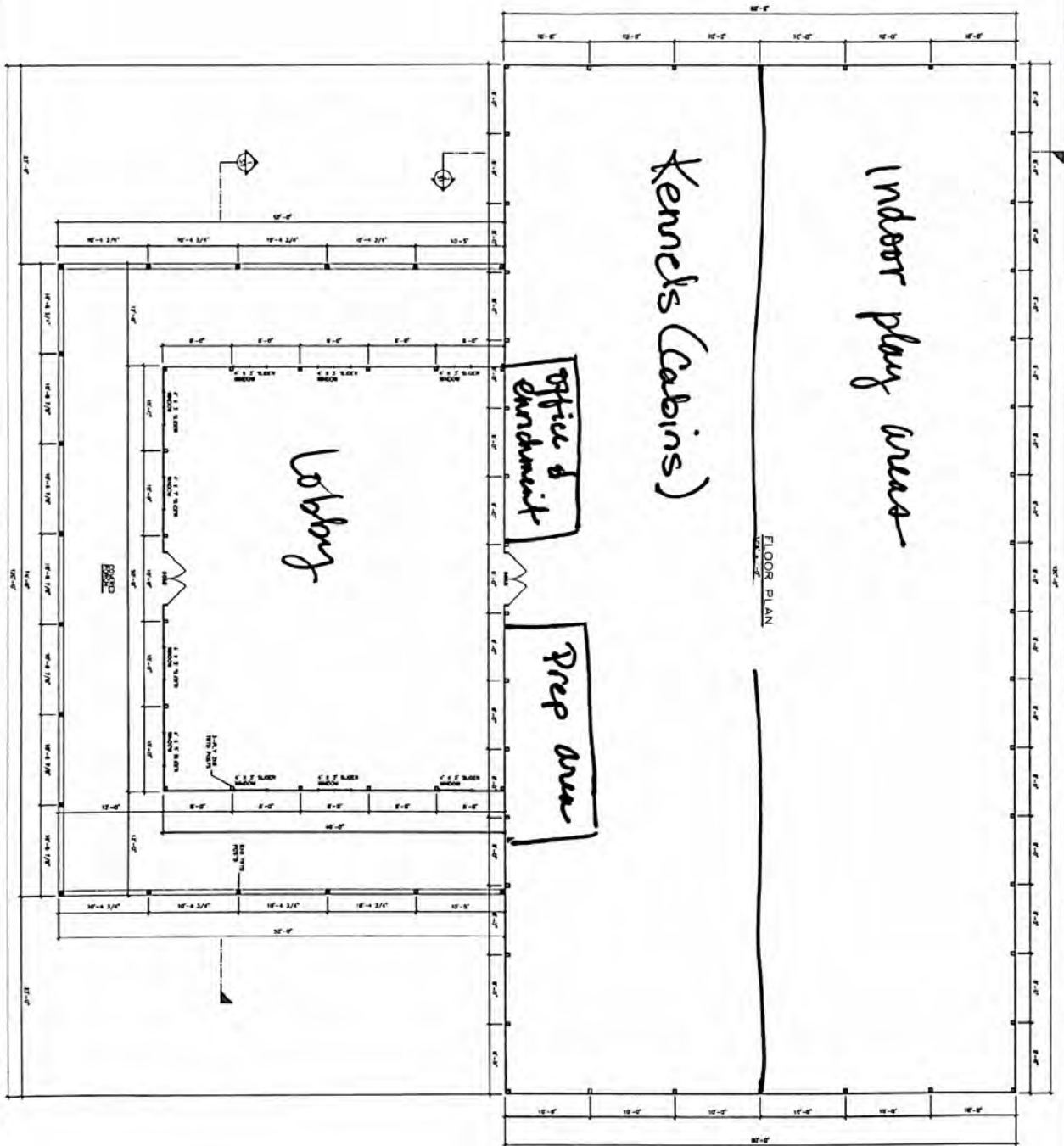
Note our building will be shaped slightly different. Our lobby will be out front. See the following page for drawings

- 8000 SF Prototype
11.14.2022
- PRIEFERT CABINS
 - 60 (5X5) CABINS
 - 16 (4X4) CABINS
 - 2 (5x10) CABINS
 - 2 Luxury Suites
- this is one cabana brand of the other & brand is the best for the large cabins

this portion will be accommodated in the larger 7,200 square foot section of the building

We will put this area in the front 2000 square foot section of the building





CAMP BOW-WOW

18405 E 152nd AVE
 BRIGHTON, CO 80601



241-727-8817
 www.alpinedrafting.com

CONTRACTOR

PROJECT NO. 24102

ISSUED 10/28/24

SHEET NO. 1

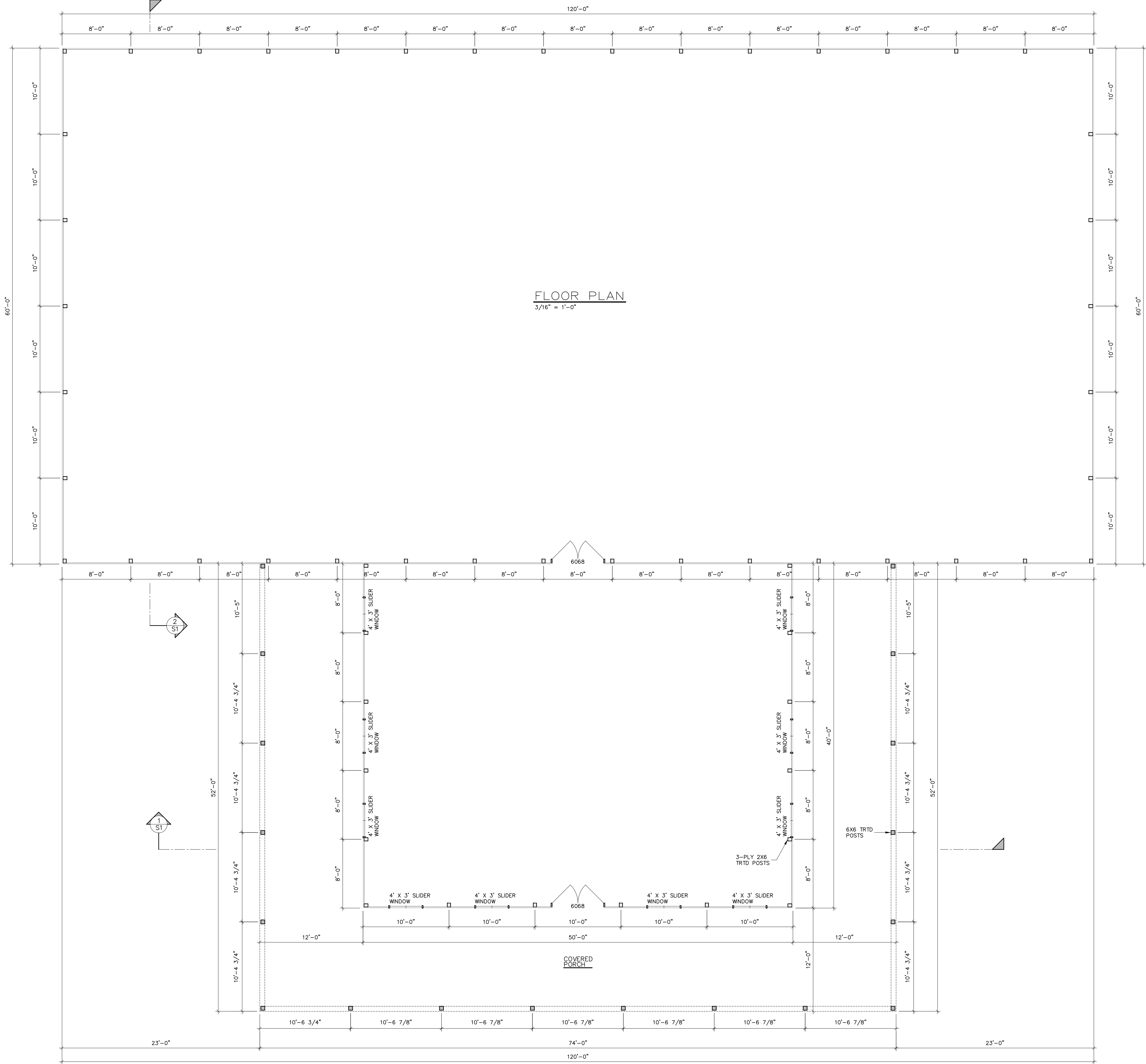
FLOOR PLAN

A1

CODE ANALYSIS

● Snow Load 30 PSF

● Wind Speed 115 MPH



719-221-6621
drafting@ele.email

CAMP BOW-WOW
18405 E 152nd AVE
BRIGHTON, CO 80601

CONTRACTOR

PROJECT NO.

24102

ISSUED

10/28/24

SHEET TITLE

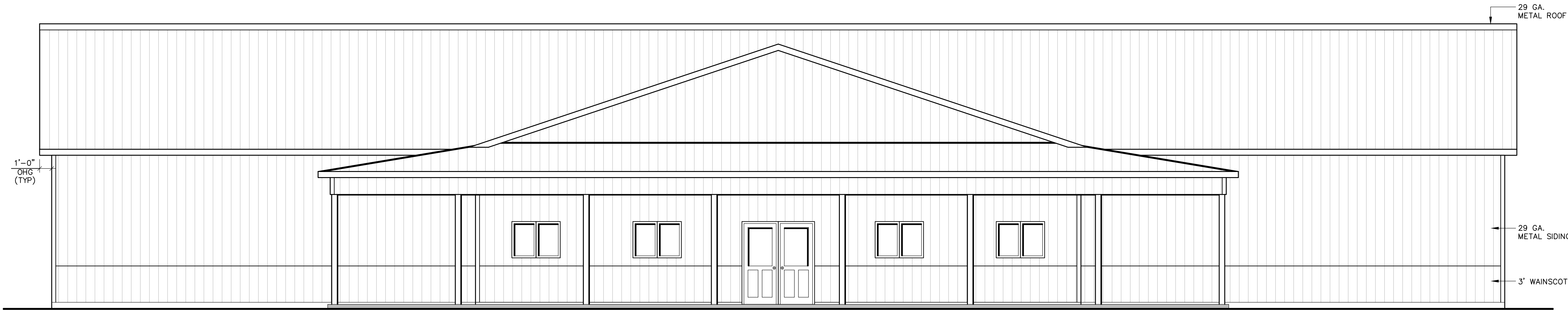
FLOOR PLAN

SHEET NO.

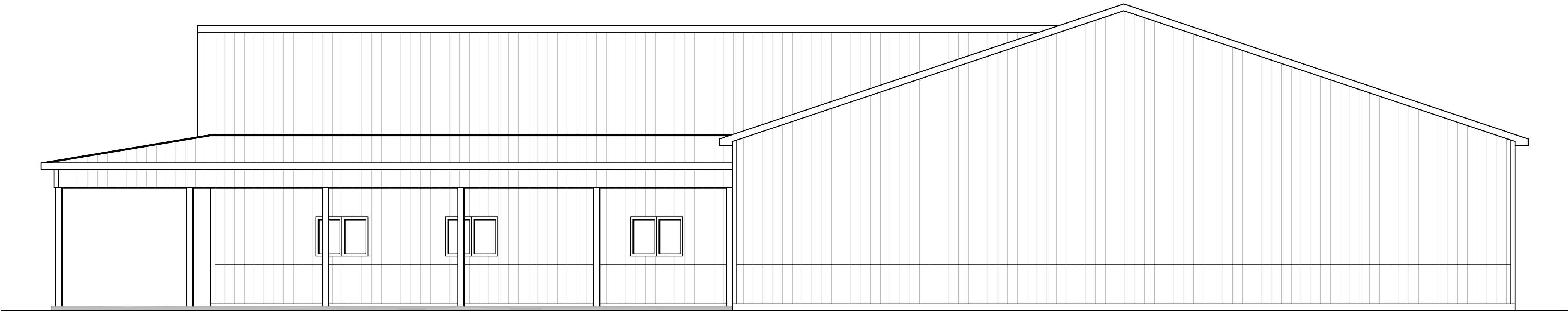
A1



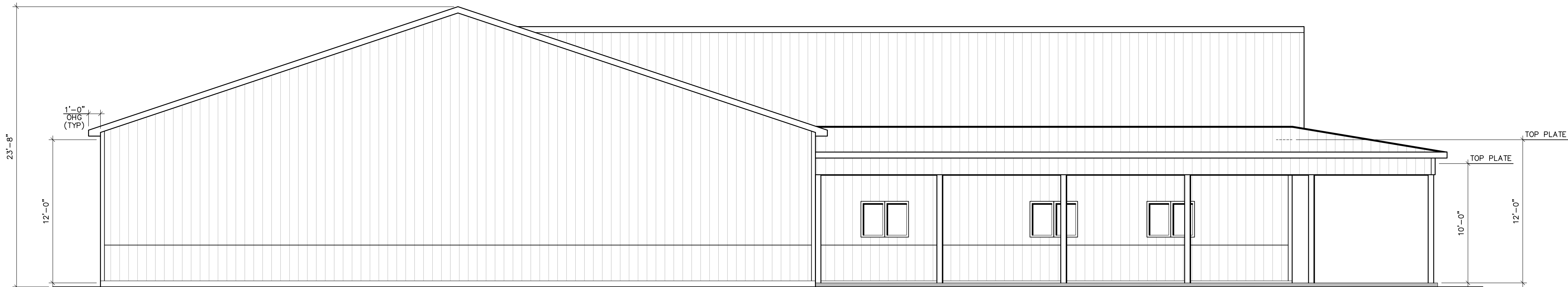
BACK ELEVATION
3/16" = 1'-0"



FRONT ELEVATION
3/16" = 1'-0"



LEFT ELEVATION
3/16" = 1'-0"



RIGHT ELEVATION
3/16" = 1'-0"



719-221-6621
drafting@ele.email

CAMP BOW-WOW
18405 E 152nd AVE
BRIGHTON, CO 80601

CONTRACTOR

PROJECT NO.

24102

ISSUED

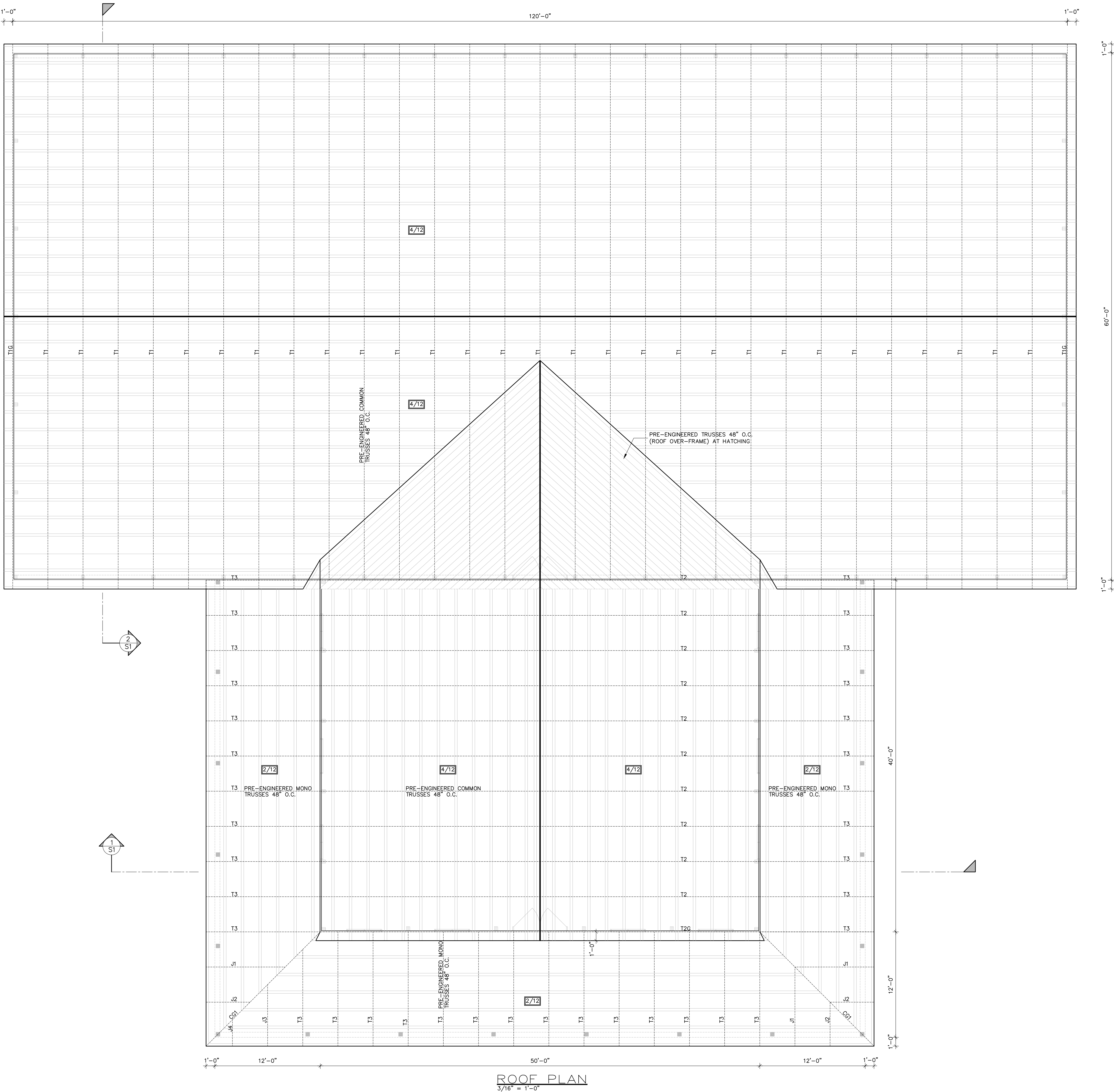
10/28/24


SHEET TITLE

ELEVATIONS

SHEET NO.

A2





plans for your future

719-221-6621
drafting@ale.email

CAMP BOW-WOW

18405 E 152nd AVE
BRIGHTON, CO 80601

CONTRACTOR

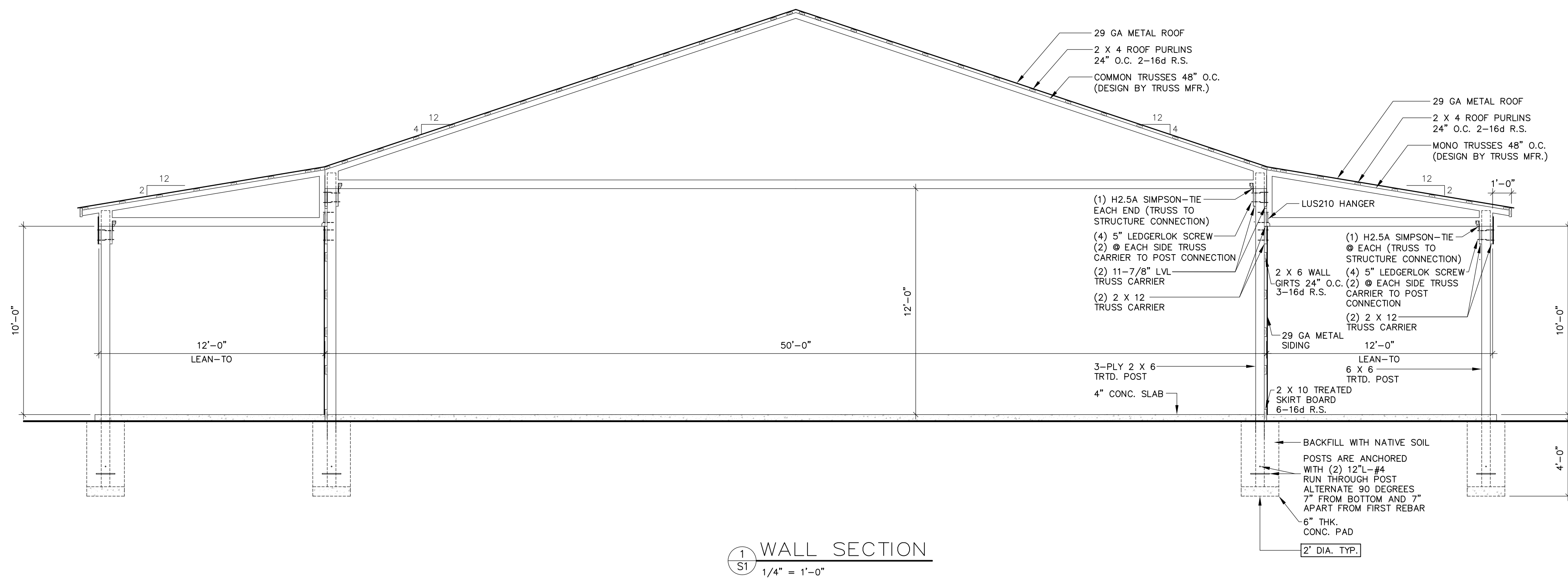
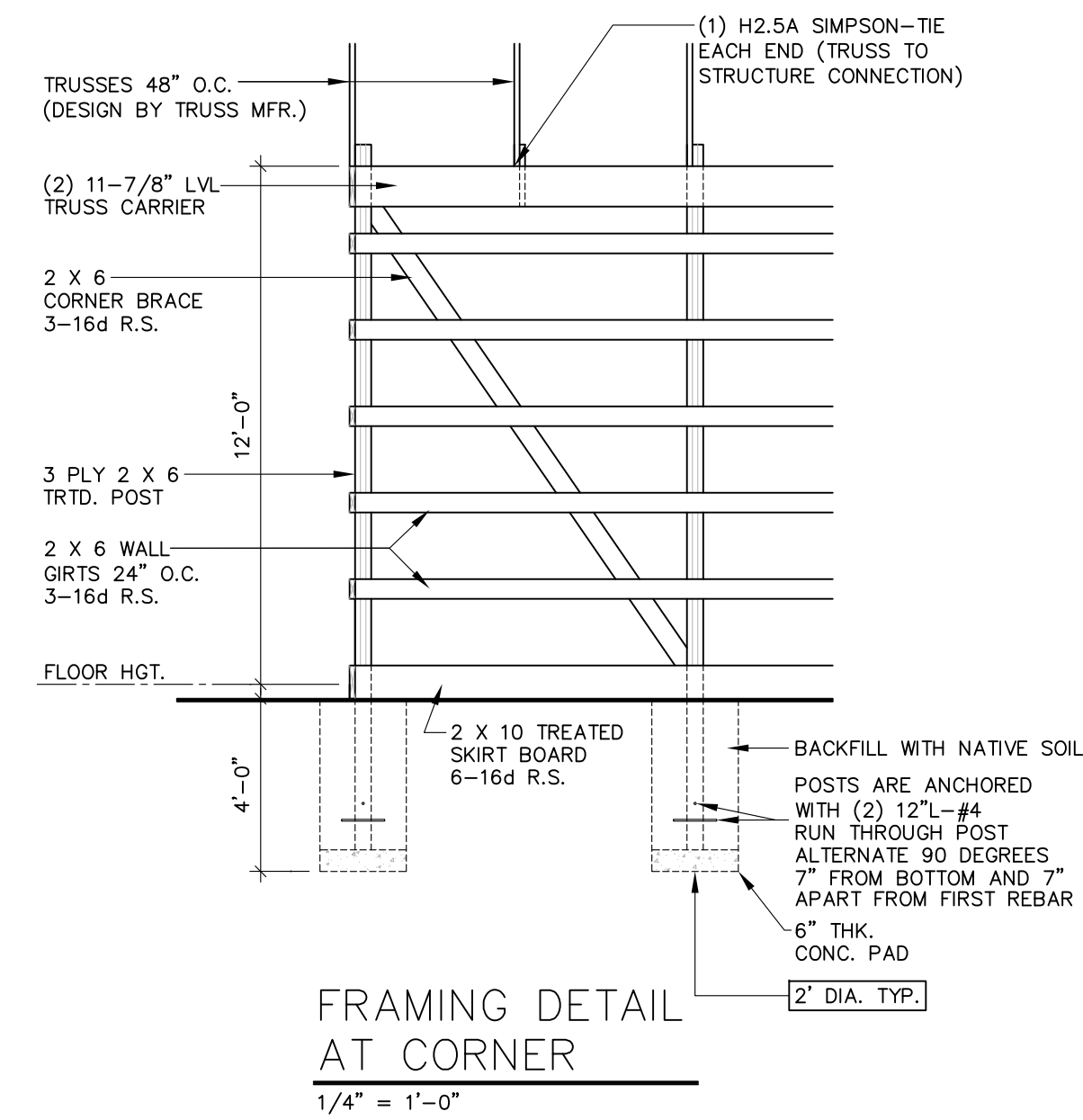
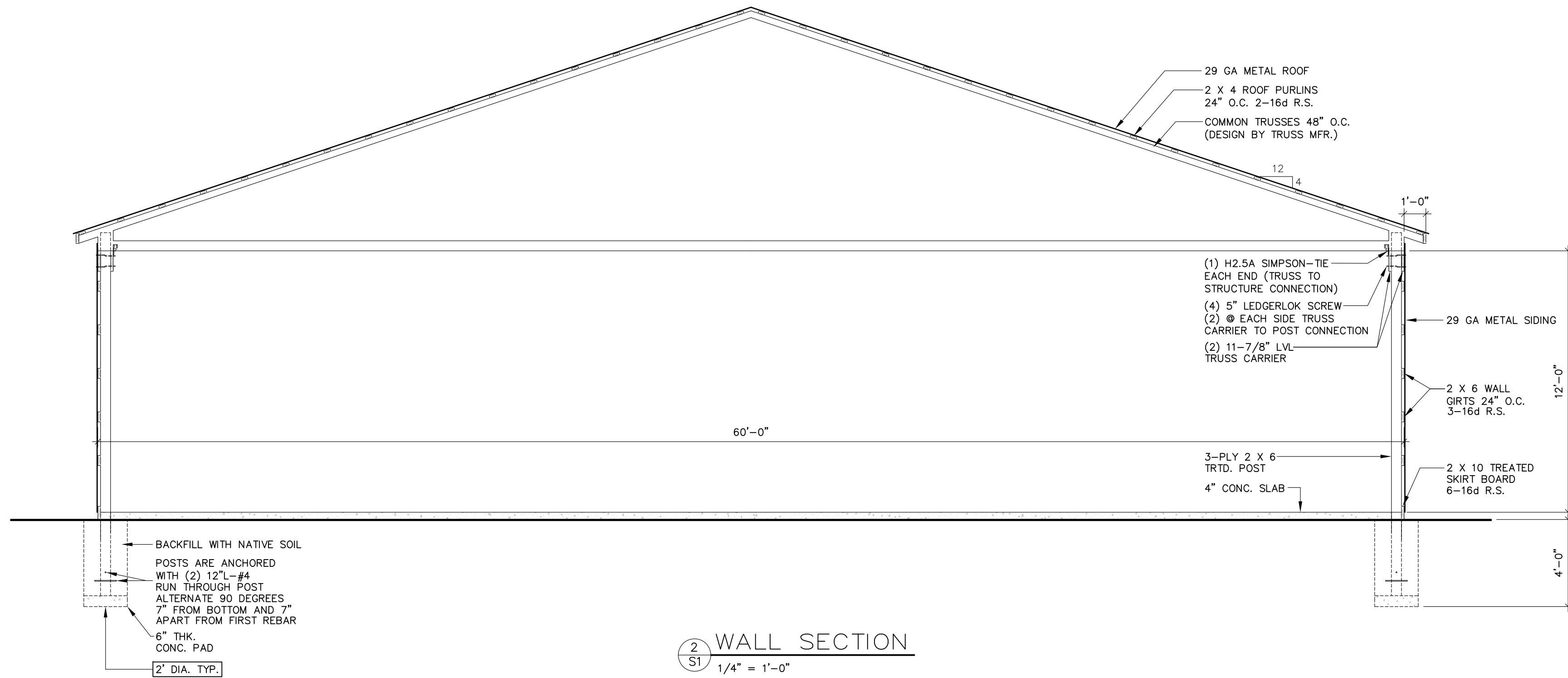
PROJECT NO.
24102

ISSUED
10/28/24

SHEET TITLE
ROOF PLAN

SHEET NO.

A3



CAMP BOW-WOW

18405 E 152nd AVE
BRIGHTON, CO 80601

CONTRACTOR

PROJECT NO.

24102

ISSUED

10/28/24

SHEET TITLE

SECTION

SHEET NO.

S1

REPORT

Camp Bow Wow Traffic Impact Study

April 25, 2019

H. Lee & Associates, PLLC

CAMP BOW WOW TRAFFIC IMPACT STUDY



Prepared for:

Dan Imthurn
JCDI Properties, LLC
21101 NE 122nd Street
Brush Prairie, WA 98606

Prepared by:

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(360) 727-3119**

April 25, 2019

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SECTION I STUDY SUMMARY

INTRODUCTION

This traffic impact analysis has been prepared to assess transportation impacts related to the proposed Camp Bow Wow development in Ridgefield, Washington. The project site is located approximately 0.29 miles west of the S. 11th Street/S. Timm Road intersection and is comprised of tax lot 215607008. Figure 1 shows the project vicinity.

Project Description

The proposed project is the development of a 6,000 square foot dog daycare facility with a capacity of 60 dogs on approximately 2.6 acres. Access will be from a newly constructed driveway onto S. 11th Street. Figure 2 shows the project site plan.

Scope of Traffic Impact Study

The scope of the traffic impact study included the following intersections:

- Pioneer Street (SR 501)/I-5 Northbound Ramps
- Pioneer Street (SR 501)/I-5 Southbound Ramps
- S. Royle Road/S. Hillhurst Road
- Pioneer Street (SR 501)/S. 56th Place
- S. 6th Way/S. Timm Road
- S. 11th Street/S. Timm Road
- S. 15th Street/S. Wells Drive/S. 45th Avenue
- S. 11th Street/Project Access

The remainder of this report presents the following analysis:

- Existing traffic conditions in the project study area.
- 2024 “Without Project” condition was established for the concurrency analysis and to define a baseline by which project impacts could be determined. The 2024 “Without Project” condition traffic volumes were derived by using a 0.5 percent compounded growth factor as established in previous studies. In addition, in-process trips from previously approved but unbuilt developments were added to develop the 2024 “Without Project” traffic volumes.

- Trip generation estimates for the proposed development.
- Trip distribution and assignment for the proposed development at the study area intersections.
- 2024 “With Project” condition to determine project traffic impacts in the future project build out year and concurrency analysis year.

SUMMARY OF FINDINGS

Findings

The following are the findings from the traffic analysis:

- The proposed development is expected to generate 206 daily, 58 A.M peak hour (29 in, 29 out), and 68 P.M. peak hour (33 in, 35 out) net new trips.
- All of the study area intersections are projected to meet the City of Ridgefield’s level of service standards in the 2024 “Without Project” and 2024 “With Project” conditions with the assumption that the previously required improvements at the Pioneer Street (SR 501)/S. 56th Place intersection will be constructed by the end of the concurrency year (2024).
- Turn lane warrants at the S. 11th Street/Project Access intersection were not conducted due to a center two-way left turn lane existing along S. 11th Street.
- Based on field measurements conducted by H. Lee & Associates, PLLC, the project access intersection should be able to meet the sight distance requirements as long as any vegetation within the sight distance triangles are properly maintained after construction and no obstructions are placed within the sight distance triangles that could impede a driver’s vision. Because the access into the project site is not built, the corner sight distances should be re-verified in the final engineering/construction stages of development.

Recommendations

- Based on the traffic impact analysis documented in this report, the City of Ridgefield will calculate the pro-rata share based on the latest data available at the Pioneer Street (SR 501)/N. & S. 45th Avenue intersection.

Camp Bow Wow TIA
Ridgefield, WA



FIGURE 1
Site Vicinity Map

Camp Bow Wow TIA
Ridgefield, WA

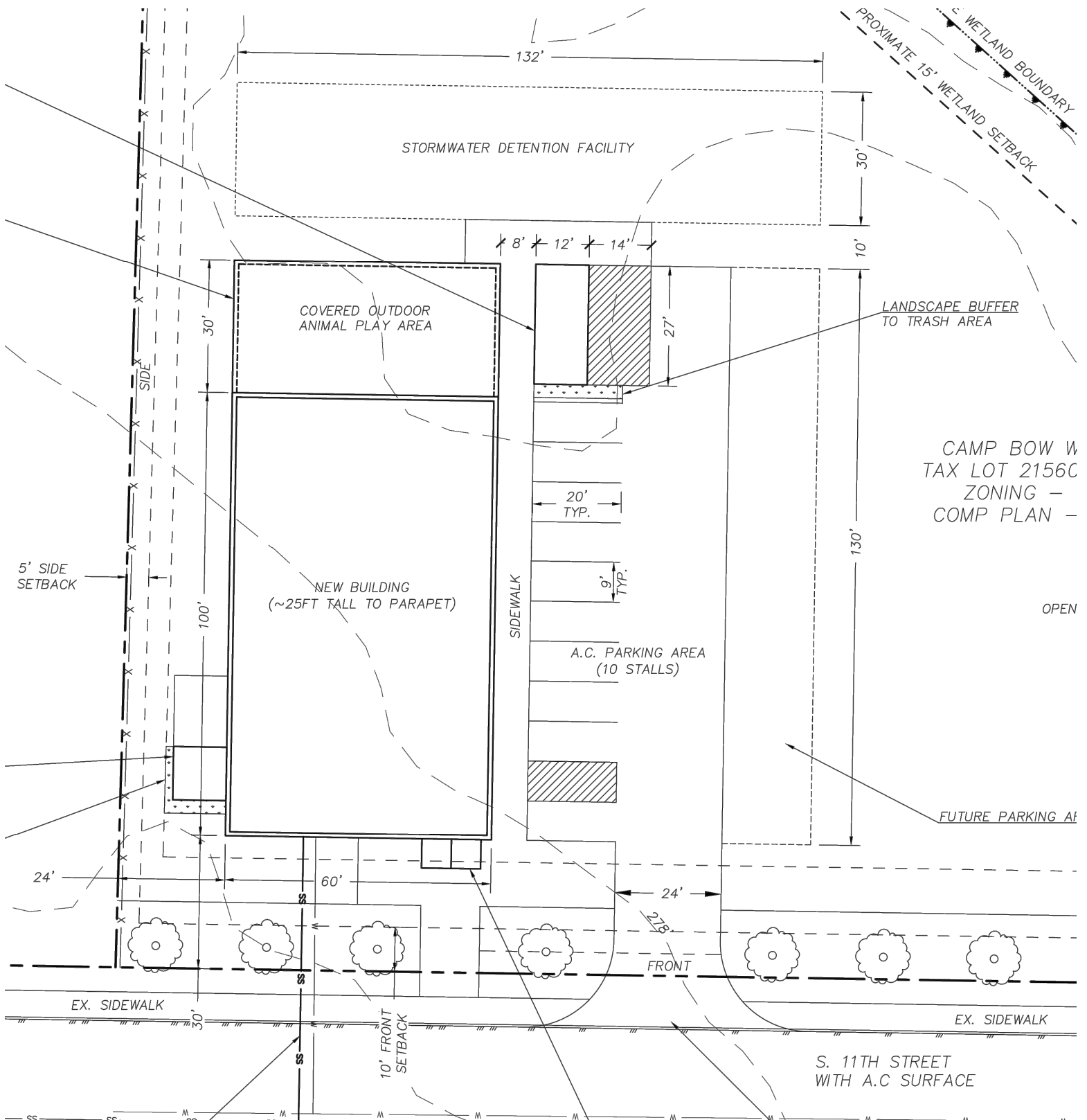


FIGURE 2
Site Plan

SECTION II EXISTING CONDITIONS

SITE CONDITION AND ADJACENT LAND USE

The project site is vacant. Industrial and commercial uses exist to the north and south. Vacant land exists to the east and west.

TRANSPORTATION FACILITIES

The following provides a description of the existing street system in the study area. The roadway functional classifications are from the City of Ridgefield's 2016 Comprehensive Plan.

NW & S. Hillhurst Road: NW & S. Hillhurst Road is a two-lane minor arterial roadway north of S. Sevier Road. South of S. Sevier Road, NW & S. Hillhurst Road is a principal arterial roadway. Intermittent sidewalks exist along both sides of the roadway in developed areas. The posted speed limit is 35 mph.

Pioneer Street (SR 501): Pioneer Street is a two-to-four lane principal arterial with additional turn lanes at major intersections. Pioneer Street is also known as SR 501, which is a state highway. Intermittent sidewalks and bike lanes exist along both sides of the roadway. West of S. Old Pioneer Way, Pioneer Street (SR 501) has a posted speed limit of 25 mph. East of S. Old Pioneer Way, Pioneer Street (SR 501) has a posted speed limit of 40 mph.

S. Royle Road: S. Royle Road is two-lane minor arterial roadway. The posted speed limit is 40 mph.

S. Timm Road: S. Timm Road is two-lane industrial/commercial collector. Sidewalks exist along the west side of the roadway in developed areas. There is no posted speed limit but it is assumed to be 25 mph.

S. Wells Drive: S. Wells Drive is a two-lane minor arterial roadway. Sidewalks and bike lanes exist along both sides of the roadway. The posted speed limit is 25 mph.

S. 6th Way: S. 6th Way is a two-lane industrial/commercial collector. Sidewalks exist along both sides of the roadway in developed areas. The posted speed limit is 25 mph.

S. 11th Street: S. 11th Street is a two-lane minor arterial roadway with a two-way center left turn lane. Sidewalks and bike lanes exist along both sides of the roadway. The posted speed limit is 25 mph.

S. 15th Street: S. 15th Street is a two-lane collector roadway. The posted speed limit is 25 mph.

N. & S. 45th Avenue: N. 45th Avenue is a two-lane minor arterial roadway. Sidewalks and bike lanes exist along the west side of the N. 45th Avenue in developed areas. N. 45th Avenue has a posted speed limit of 35 mph. S. 45th Avenue is a two-lane minor arterial roadway. S. 45th Avenue has a posted speed limit of 40 mph.

S. 56th Place: S. 56th Place is a two-lane industrial/commercial collector roadway. Sidewalks exist along both sides of the roadway in developed areas. The posted speed limit is 25 mph.

As part of this study, levels of service analyses were conducted at the following intersections:

- Pioneer Street (SR 501)/I-5 Northbound Ramps
- Pioneer Street (SR 501)/I-5 Southbound Ramps
- S. Royle Road/S. Hillhurst Road
- Pioneer Street (SR 501)/S. 56th Place
- S. 6th Way/S. Timm Road
- S. 11th Street/S. Timm Road
- S. 15th Street/S. Wells Drive/S. 45th Avenue
- S. 11th Street/Project Access

The following study area intersections are signalized:

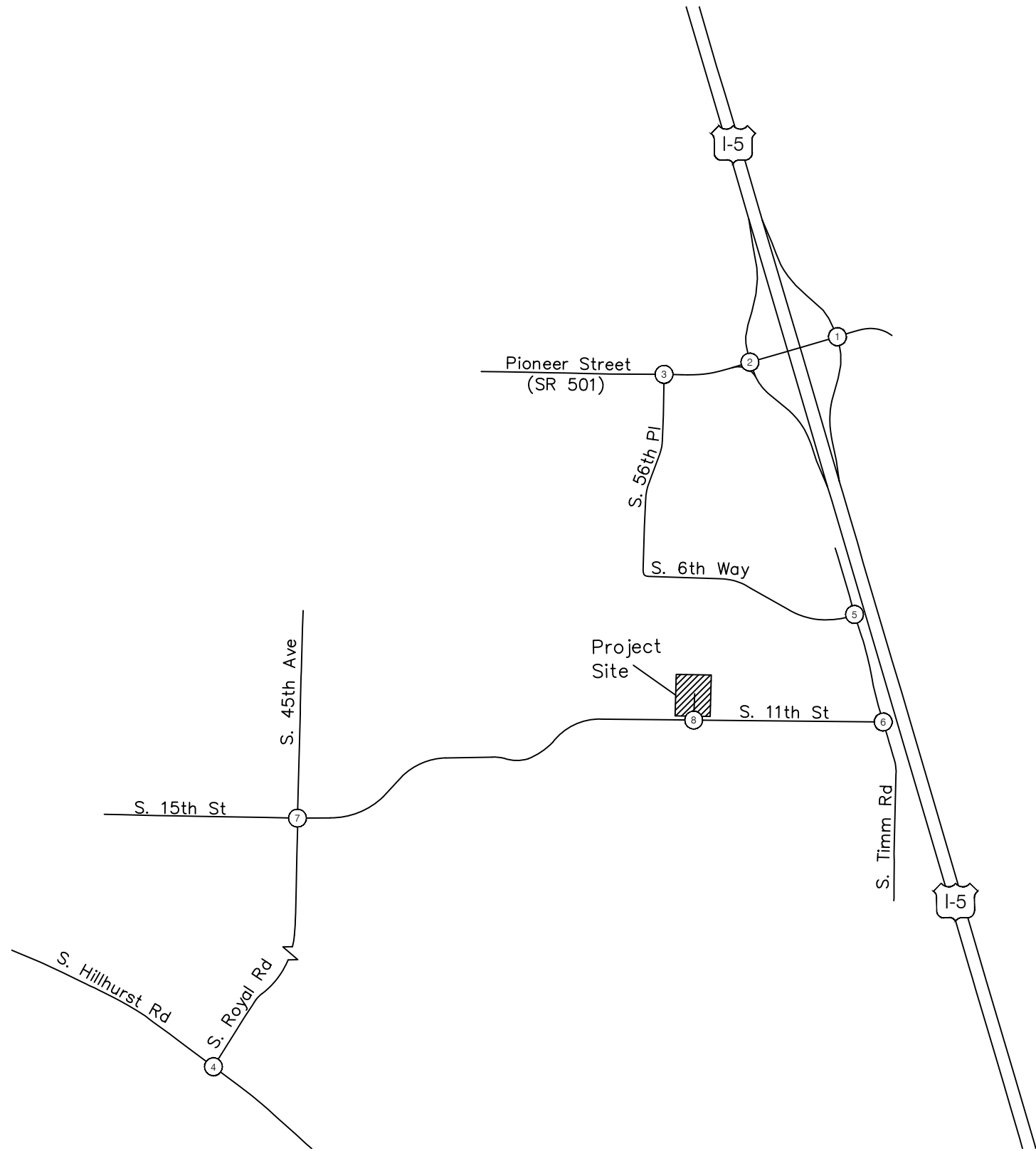
- Pioneer Street (SR 501)/I-5 Northbound Ramps
- Pioneer Street (SR 501)/I-5 Southbound Ramps
- S. Royle Road/S. Hillhurst Road

The remainder of the study area intersections are unsignalized and stop sign controlled with the exception of the Pioneer Street (SR 501)/S. 56th Place intersection which is a roundabout intersection. Figure 3 shows the existing lane configurations and traffic control at the study area intersections.

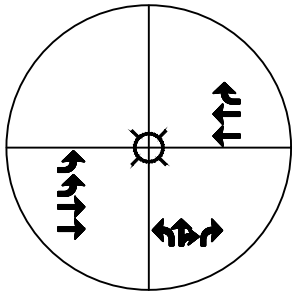
EXISTING TRAFFIC VOLUMES

A.M. and P.M. peak hour traffic counts were obtained at the study area intersections by H. Lee & Associates, PLLC in April 2019. Per the 2010 HCM¹, peak 15-minute traffic volumes were multiplied by four (4) to arrive at the peak hour traffic volumes. With this methodology of developing peak hour traffic volumes, the peak hour factor (PHF) is set to 1.00 because the peaking has already occurred by multiplying the peak 15-minute traffic volume by four (4). The existing condition traffic volumes are presented in Figure 4. The existing traffic counts can be referenced in Appendix A.

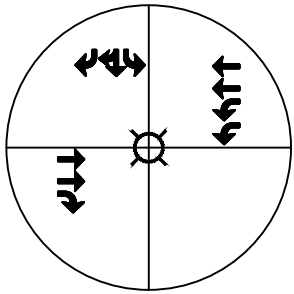
¹ 2010 Highway Capacity Manual (HCM), Volume 3, Transportation Research Board, 2010, page 18-2 and 18-3.



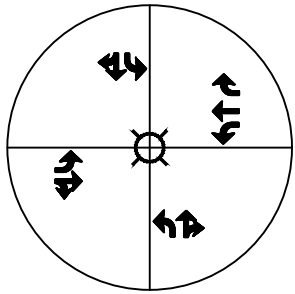
1. Pioneer Street (SR 501)/I-5 Northbound Ramps



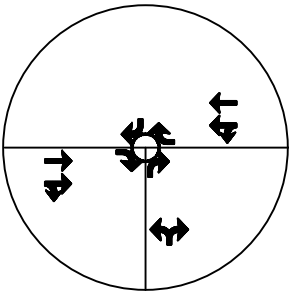
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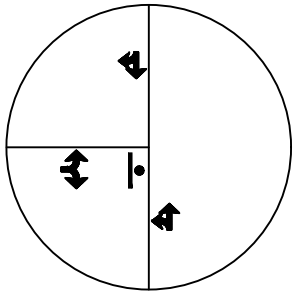
3. S. Royle Road/S. Hillhurst Road



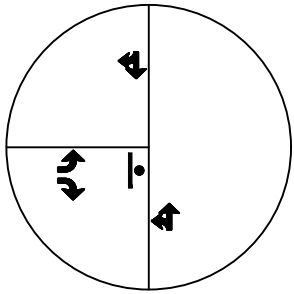
4. Pioneer Street (SR 501)/S. 56th Place



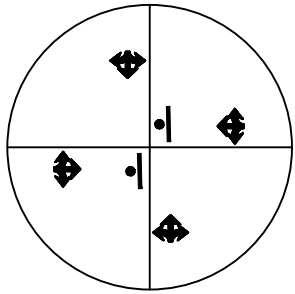
5. S. 6th Way/S. Timm Road



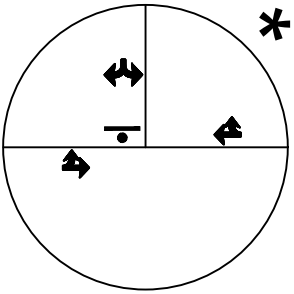
6. S. 11th Street/S. Timm Road



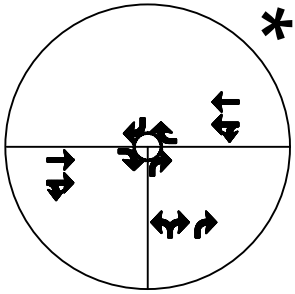
7. S. 15th Street/S. Wells Drive/S. 45th Avenue



8. S. 11th Street/Project Access



4. Pioneer Street (SR 501)/S. 56th Place



LEGEND

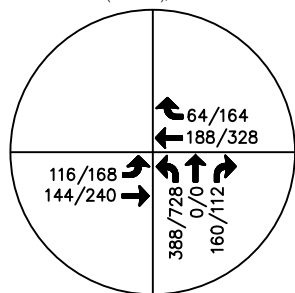
- Lane Usage
- ⊗ Traffic Signal
- Stop Sign

* 2024 "With Project" Lane Configuration/Previously Required Improvement

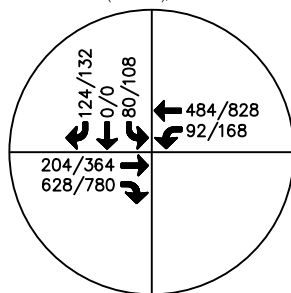
FIGURE 3
Existing Lane Configuration and Traffic Control



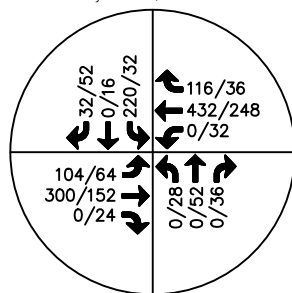
1. Pioneer Street (SR 501)/I-5 Northbound Ramps



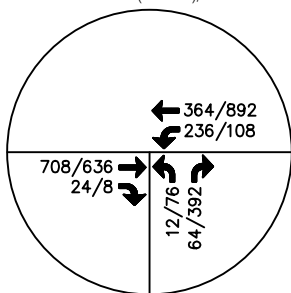
2. Pioneer Street (SR 501)/I-5 Southbound Ramps



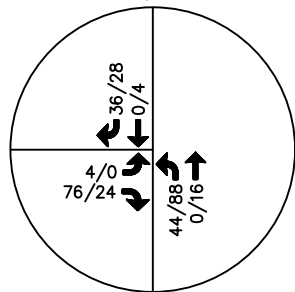
3. S. Royle Road/S. Hillhurst Road



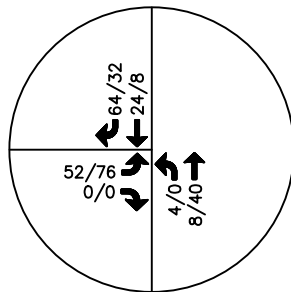
4. Pioneer Street (SR 501)/S. 56th Place



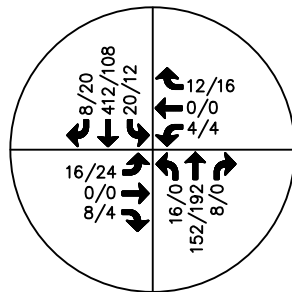
5. S. 6th Way/S. Timm Road



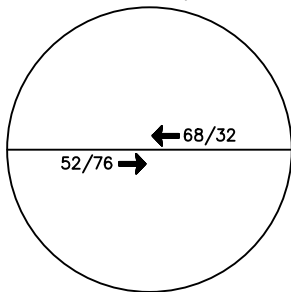
6. S. 11th Street/S. Timm Road



7. S. 15th Street/S. Wells Drive/S. 45th Avenue



8. S. 11th Street/Project Access



LEGEND

128/200

A.M./P.M. Peak Hour
Traffic Volume



NOT TO SCALE

FIGURE 4
Existing A.M. and P.M.
Peak Hour Traffic Volumes

EXISTING LEVEL OF SERVICE

Based on the traffic volumes presented in Figure 4 and the existing lane configurations presented in Figure 3, peak hour traffic operations were analyzed at the study area intersections identified previously using the methodologies outlined in the 2010 Highway Capacity Manual (HCM). According to the HCM, there are six levels of service (LOS) by which the operational performance of an intersection may be described. These levels of service range between LOS "A" which indicates a relatively free-flowing condition and LOS "F" which indicates operational breakdown.

All levels of service calculations have been conducted in Synchro 10.

LOS "D" is considered the minimum acceptable standard for signalized city intersections. With LOS D, some delays are expected for certain traffic movements. For unsignalized city intersections, the level of service standard is LOS E as long as signal warrants are not met. If signal warrants are met, then the standard is LOS D. For Pioneer Street (SR 501), the Washington State Department of Transportation (WSDOT) level of service standard is LOS E. Appendix B contains a table summarizing the level of service standards for state highways.

Per the HCM, the level of service is reported by the overall intersection at signalized, all-way stop, and roundabout intersections. For unsignalized, two-way stop controlled intersections, the level of service is reported by approach or conflicting movement.

Existing A.M. and P.M. peak hour levels of service are summarized in Table 1. As shown in Table 1, all of the study area intersections are operating within adopted levels of service standards. Appendix C contains the level of service worksheets for the existing conditions.

Table 1. Existing Levels of Service

Signalized Intersection	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Pioneer Street (SR 501)/I-5 Northbound Ramps	A	6.0	A	7.5
Pioneer Street (SR 501)/I-5 Southbound Ramps	A	6.9	A	7.3
S. Royle Road/S. Hillhurst Road	A	9.6	A	9.2
Roundabout				
Pioneer Street (SR 501)/S. 56 th Place	A	6.2	A	6.6
Unsignalized Intersection				
S. 6 th Way/S. Timm Road				
Eastbound Approach	A	8.8	A	8.5
Northbound Left	A	7.9	A	7.6

Table 1. Existing Levels of Service Continued

Unsignalized Intersection	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
S. 6 th Way/S. Timm Road				
Eastbound Left	A	9.5	A	9.2
Eastbound Right	A	0.0	A	0.0
Northbound Left	A	7.4	A	0.0
S. 15 th Street/S. Wells Drive/S. 45 th Avenue				
Eastbound Approach	C	15.0	B	10.9
Westbound Approach	B	10.6	A	9.7
Northbound Left	A	8.5	A	0.0
Southbound Left	A	7.6	A	7.6

ACCIDENT HISTORY

Accident data was obtained from WSDOT for the five-year, three-month, and eight-day period from January 1, 2014 to April 8, 2019. Table 2 summarizes the accidents that have occurred at the study area intersections during that period. Accident data can be referenced in Appendix D.

As shown in Table 2, none of the study area intersections have accident rates above 1.00 accidents per million entering vehicles. Accident rates above 1.00 accident per million entering vehicles do not necessarily indicate there is a safety problem, but it is an indicator that further analysis should be conducted. Intersections with accident rates of less than 1.00 accidents per million entering vehicles are considered acceptable and therefore no further analysis is required.

Table 2. Summary of Traffic Accident History in Study Area

Intersection	Average Annual Accidents				acc/mev ²
	PDO ¹	Injury	Fatal	Total	
Pioneer Street (SR 501)/I-5 Northbound Ramps	0.8	0.2	0.0	1.0	0.13
Pioneer Street (SR 501)/I-5 Southbound Ramps	1.3	0.4	0.0	1.7	0.16
S. Royle Road/S. Hillhurst Road	0.2	0.0	0.0	0.2	0.06
Pioneer Street (SR 501)/S. 56 th Place	1.3	0.2	0.0	1.5	0.06
S. 6 th Way/S. Timm Road	0.2	0.2	0.0	0.4	0.55
S. 11 th Street/S. Timm Road	0.0	0.0	0.0	0.0	0.00
S. 15 th Street/S. Wells Drive/S. 45 th Avenue	0.0	0.0	0.0	0.0	0.00
S. 11 th Street/Project Access	0.0	0.0	0.0	0.0	0.00

¹ PDO = property damage only

² acc/mev = accidents per million entering vehicles

EXISTING PUBLIC TRANSIT SERVICE

C-Tran provides public transit service in the City of Ridgefield. Currently there is no transit service in the project vicinity.

NON-MOTORIZED TRANSPORTATION

Sidewalks and bike lanes exist immediately adjacent to the project site along S. 11th Street.

PLANNED TRANSPORTATION IMPROVEMENTS

There are nine known transportation improvement projects planned by the City of Ridgefield in the project study area based on the City of Ridgefield's Capital Facilities Plan (2017). These projects are listed below:

Pioneer Street (SR 501)/N. 51st Avenue Intersection

This project includes constructing a two-lane roundabout. The total estimated improvement cost is \$1,444,000.

Pioneer Street (SR 501) – N. 45th Avenue Roundabout to N. 51st Avenue

This project includes widening Pioneer Street (SR 501) to four lanes from the N. 45th Avenue roundabout to N. 51st Avenue. The total estimated improvement cost is \$2,498,000.

Pioneer Street (SR 501) – N. 51st Avenue to S. 56th Place

This project includes widening Pioneer Street (SR 501) to four lanes from N. 51st Avenue to S. 56th Place. The total estimated improvement cost is \$2,498,000.

N. & S. 45th Avenue – S. 15th Street to N. 10th Street

This project includes widening N. & S. 45th Avenue to three-lanes from S. 15th Street to N. 10th Street. The total estimated improvement cost is \$6,994,000.

S. 15th Street – S. 45th Avenue to S. 35th Avenue

This project includes reconstructing S. 15th Street from S. 45th Avenue to S. 35th Avenue. The total estimated improvement cost is \$4,692,000.

S. 15th Street – S. 45th Avenue to S. 11th Street

This project includes constructing a new roadway from S. 45th Avenue to S. 11th Street. The total estimated improvement cost is \$4,441,000. This project has been recently completed.

S. Royle Road – S. Hillhurst Road to S. 15th Street

This project includes widening S. Royal Road from S. Hillhurst Road to S. 15th Street. The total estimated improvement cost is \$2,713,000.

S. Royle Road/S. Hillhurst Road Intersection

This project includes upgrading the existing unsignalized intersection to a signalized intersection. This project also includes widening the intersection to accommodate left turn lanes for each approach. The total estimated improvement cost is \$1,098,000. This project has been recently completed.

S. & NW Hillhurst Road – S. Sevier Road to NW 219th Street

This project includes upgrading the existing roadway to a five-lane principal arterial. The total estimated improvement cost is \$16,729,000.

SECTION III TRAFFIC IMPACT ANALYSIS

ANALYSIS METHODOLOGY

The traffic impacts generated by the proposed Camp Bow Wow development during the A.M. and P.M. peak hours were analyzed as follows:

- 2024 “Without Project” condition was established for the concurrency analysis and to define a baseline by which project impacts could be determined. The 2024 “Without Project” condition traffic volumes were derived by using a 0.5 percent annual compounded growth factor as established in previous traffic studies. In addition, in-process trips from previously approved but unbuilt developments were also added to develop the 2024 “Without Project” traffic volumes.
- Trip distribution of site-generated traffic was developed from existing traffic count information as well as logical travel paths to the major transportation facilities in the area.
- Trip generation estimates for the proposed development based on a special trip generation survey conducted at three similar existing facilities.
- Predicted A.M. and P.M. peak hour site-generated traffic from the proposed development was assigned to the roadway network and added to the 2024 “Without Project” traffic volumes to develop the 2024 “With Project” traffic volumes. These volumes were analyzed to determine project traffic impacts for the City of Ridgefield’s traffic concurrency analysis.

A detailed discussion of the methodology summarized above and the analysis results are contained in the remainder of this section.

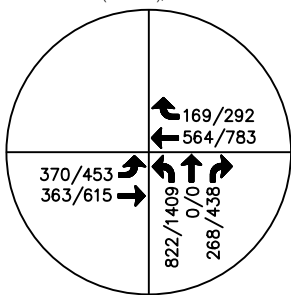
2024 “WITHOUT PROJECT” TRAFFIC VOLUMES AND LEVELS OF SERVICE

The 2024 “Without Project” condition was analyzed to establish the baseline for the concurrency analysis and to define a baseline by which project impacts could be determined. The 2024 “Without Project” traffic volumes were derived by using a nominal 0.5 percent annual compounded growth factor as established by previous traffic studies. In addition, in-process trips from previously approved but unbuilt developments were also added to develop the 2024 “Without Project” traffic volumes. The in-process traffic volumes were obtained from the City of Ridgefield and are summarized in Appendix E.

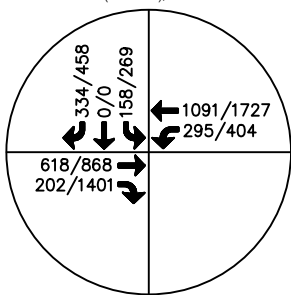
Figure 5 shows the 2024 “Without Project” traffic volumes for the A.M. and P.M. peak hours.



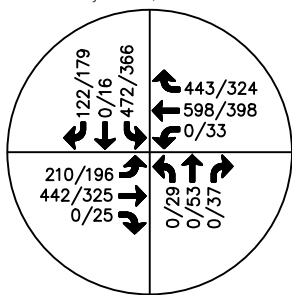
1. Pioneer Street (SR 501)/I-5 Northbound Ramps



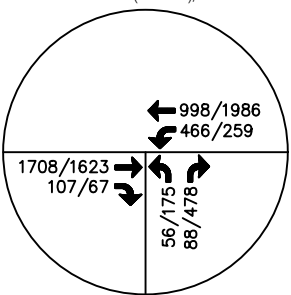
2. Pioneer Street (SR 501)/I-5 Southbound Ramps



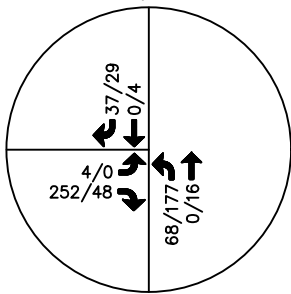
3. S. Royle Road/S. Hillhurst Road



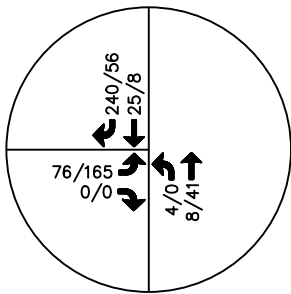
4. Pioneer Street (SR 501)/S. 56th Place



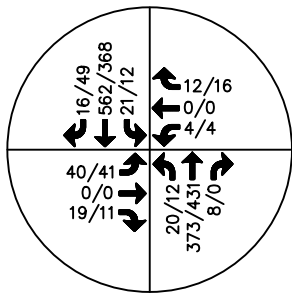
5. S. 6th Way/S. Timm Road



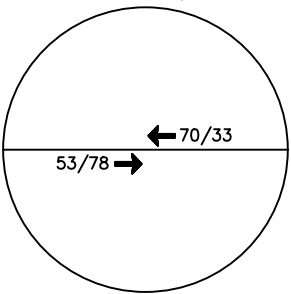
6. S. 11th Street/S. Timm Road



7. S. 15th Street/S. Wells Drive/S. 45th Avenue



8. S. 11th Street/Project Access



LEGEND

128/200
A.M./P.M. Peak Hour
Traffic Volume



NOT TO SCALE

FIGURE 5
2024 "Without Project"
A.M. and P.M. Peak Hour Traffic Volumes

Levels of service were calculated for the 2024 “Without Project” condition based on the traffic volumes shown in Figure 5, the existing lane configurations, and the previously required improvements at the Pioneer Street (SR 501)/S. 56th Place intersection shown earlier in Figure 3. Table 4 summarizes the 2024 “Without Project” levels of service analyses. Appendix F contains the level of service worksheets for the 2024 “Without Project” condition.

As shown in Table 3, all of the study area intersections are projected to operate within adopted levels of service standards in the 2024 “Without Project” condition.

Table 3. 2024 “Without Project” Levels of Service

Signalized Intersection	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Pioneer Street (SR 501)/I-5 Northbound Ramps	B	11.5	C	28.2
Pioneer Street (SR 501)/I-5 Southbound Ramps	B	12.5	C	23.6
S. Royle Road/S. Hillhurst Road	C	20.7	B	16.8
Roundabout				
Pioneer Street (SR 501)/S. 56 th Place	E	47.7	E	39.7
Unsignalized Intersection				
S. 6 th Way/S. Timm Road				
Eastbound Approach	A	9.6	A	8.5
Northbound Left	A	7.9	A	7.8
S. 6 th Way/S. Timm Road				
Eastbound Left	B	10.3	A	9.8
Eastbound Right	A	0.0	A	0.0
Northbound Left	A	7.8	A	0.0
S. 15 th Street/S. Wells Drive/S. 45 th Avenue				
Eastbound Approach	D	27.7	C	19.7
Westbound Approach	B	14.0	B	12.6
Northbound Left	A	9.0	A	8.2
Southbound Left	A	8.2	A	8.2

DEVELOPMENT PLANS

As previously stated, the proposed project is the development of a 6,000 square foot dog daycare facility with a capacity of 60 dogs on approximately 2.6 acres. Access will be from a newly constructed driveway onto S. 11th Street. As previously shown, Figure 2 shows the project site plan.

TRIP GENERATION SURVEY

The trip generation survey methodology was based on the *Trip Generation Handbook*, 3rd Edition, Chapter 9 (Institute of Transportation Engineers (ITE), August 2014). The reason for conducting the trip generation survey is that the description of a dog daycare facility use is not covered by the land use classifications presented in ITE's *Trip Generation Manual*. Therefore, the collection of local data is needed to establish a local rate for a dog daycare facility use.

The *Trip Generation Handbook* calls for at least three sites to be studied and five preferred. There are a limited number of similar facilities in the region so only the following three sites were studied.

- A Dog's Best Friend Doggy Daycare, 316 SE Hearthwood Blvd, Vancouver, WA 98684
- Approximately 5,547 square foot facility with a capacity of 100 dogs
- Tails R Waggin Doggy Daycare, 4925 NW Fruit Valley Road, Vancouver, WA 98660
- Approximately 3,750 square foot facility with a capacity of 60 dogs
- Roxy's Dog Ranch and Lounge, 5709 NW 331st Street, Ridgefield, WA 98642
- Approximately 2,720 square foot facility with a capacity of 50 dogs

Thirteen (13) hours of trip generation surveys were conducted at the survey sites on a typical Tuesday, Wednesday, or Thursday. The days each facility were counted are summarized below:

- A Dog's Best Friend Doggy Daycare – March 21, 2019
- Tails R Waggin Doggy Daycare – March 21, 2019
- Roxy's Dog Ranch and Lounge – March 21, 2019

The trip generation rates for weekday daily; peak hour of adjacent street one hour between 7:00 and 9:00 A.M.; and peak hour of adjacent street one hour between 4:00 and 6:00 P.M. were derived from the data collected based on an overall weighted average of all the sites. The independent variable chosen was the dog capacity of each facility.

Appendix G contains the data utilized to derive the daily, A.M. peak hour, and P.M. peak hour trip generation rates. The trip generation rates utilized are summarized in Table 4 with the project trip generation.

The daily trip generation rate derived for Dog Daycare Facility use is 3.44 trips per each dog capacity. The standard deviation is 1.86 which is 54% of the weighted average. The standard deviation is within the recommended range to use by the ITE *Trip Generation Handbook* which recommends the standard deviation to be within 55 percent of the weighted average.

The A.M. peak hour trip generation rate derived for the Dog Daycare Facility use is 0.97 A.M. peak hour trips per each dog capacity. The standard deviation is 0.53 which is 54% of the weighted average. The standard deviation is within the recommended range to use by the ITE *Trip Generation Handbook* which recommends the standard deviation to be within 55 percent of the weighted average.

In the P.M. peak hour, the use of all three survey sites yielded a standard deviation (66%) beyond the recommended maximum of 55 percent of the weighted average. To be in compliance with the ITE recommendation, the Roxy's Dog Ranch and Lounge data was eliminated to bring the derived P.M. peak hour trip generation rate within compliance. The adjusted P.M. peak hour trip generation rate derived for the Dog Daycare Facility use is 1.14 P.M. peak hour trips per each dog capacity.

TRIP GENERATION

Estimates of daily, A.M. peak hour, and P.M. peak hour trips generated by the proposed project were developed from the survey conducted by HLA that is detailed in the previous "Trip Generation Survey" section. The proposed project is expected to generate 206 daily, 58 A.M. peak hour (29 in, 29 out), and 68 P.M. peak hour (33 in, 35 out) net new trips. Table 4 summarizes the project's trip generation.

Table 4. Trip Generation for Camp Bow Wow

	Amount	Average Daily	A.M. Peak			P.M. Peak		
			In	Out	Total	In	Out	Total
Dog Daycare Facility – HLA								
Rate per dog		3.44	0.49	0.48	0.97	0.56	0.58	1.14
Trips	60 dog capacity	206	29	29	58	33	35	68

TRIP DISTRIBUTION AND ASSIGNMENT

A generalized trip distribution pattern for the A.M. and P.M. peak hour project-generated trips was developed from the existing traffic counts, previous traffic studies, locations of major employment and residential areas, and logical travel paths to and from major travel corridors. Figure 6 shows the resulting trip distribution pattern and assignment of A.M. and P.M. peak hour project generated trips.

SUSTAINABILITY MADE SIMPLE™

Spartan Chemical Company

Sustainable Cleaning Program

Because your
world is busy
enough.





BIORENEWABLES®



BioRenewables® Glass Cleaner pH 8.0-9.0

This versatile and easy-to-use product contains 84% bio-based material. It removes tough soils such as grease, smoke, oils, tape residue, food stains, dust and dirt from window glass and sills, mirrors, countertops, chrome, fluorescent lights and tubing, and any other glass or mirror finish.



BioRenewables® Glass Cleaner RTU pH 7.5-8.5

A convenient, ready-to-use version of BioRenewables Glass Cleaner. Ideal for work environments where dispensers are not readily available or an RTU product is desired.



BioRenewables® Restroom Cleaner pH 1.5-2.5

A citric acid-based, toilet, urinal and shower room cleaner/deodorizer that contains 83% bio-based material. It removes soap scum, water spots, light rust, and is safe to use in urinals, shower rooms, and other similar hard, non-porous restroom surfaces.



BioRenewables® Industrial Degreaser pH N/A

Formulated with soybean oil technology and boosted with d-Limonene, it contains 57% bio-based material. Removes grease, dirt, cosmoline, tar, many inks, most adhesives, and industrial oils. Safe to use on ferrous and non-ferrous metal, concrete, and ceramic.



BioRenewables® Waterless & Waterless Plus Hand Cleaners pH 7.0-8.0

These hand cleaners are made with a soybean-solvent base to remove heavy-duty soils safely and easily. Produced with 80% bio-based material, they also contain a unique blend of surfactants to emulsify soils. Waterless Plus has pumice to life away ground-in grime.



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In the six categories of our Spartan Sustainable Products, we offer many environmentally preferable options that enable you to clean for health.

Contrary to the myths of the past, these products work just as well as traditional cleaning products. Using sustainable products is not more expensive than a traditional cleaning program either, that is just another misconception.

Keeping facilities clean without negatively affecting the health of its occupants and custodial staff is the primary goal of a "green" or sustainable program.



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A 74% bio-based product, formulated with corn, coconut and palm kernel surfactants. TriBase cleans with a multitude of soils with no VOCs. It is bio-degradable and works on glass, mirrors, floors, walls, restroom and kitchen surfaces and tile; almost any surface not harmed by water.



TREE-Z™ pH N/A

TREE-Z is a ready-to-use, plant-based product that efficiently removes tough, sticky adhesives and soils, marker and paint-based graffiti, scuff marks, wax residue and so much more. Using a renewable solvent, which is naturally derived from agricultural ingredients, TREE-Z helps to replace hazardous, toxic, and environmentally harmful products.



Xcelenté® pH 7.0-8.0

Enjoy the fresh, clean fragrance of lavender while you clean with Xcelenté multi-purpose, hard surface cleaner. The phosphate-free formula is great for floors, and other surfaces where a bright, shiny, streak free finish is desired. With a long-lasting, fragrant bloom of lavender, Xcelenté will delight building residents and visitors throughout the day.



Clean by Peroxy® pH 2.0-3.0

Clean by Peroxy is a proprietary surfactant blend combined with hydrogen peroxide. This all-purpose cleaner is formulated to quickly remove everyday soils, including greasy residues.



FloorFront® pH 7.5-8.5

FloorFront is a high-gloss, low-maintenance floor finish that is also environmentally responsible. It needs half the burnishing, re-coating, and stripping necessary with other zinc-free finishes.



PRODUCTS

SPARTAN SUSTAINABILITY INITIATIVES

BRIDGING THE GAP BETWEEN CHEMISTRY & SUSTAINABILITY

Spartan is focused on continuing our leadership role within the sustainability movement. While we continue to make advancements in sustainable products, we are making adjustments in our operations to reduce our carbon footprint as well. At Spartan, we are active sustainability participants, not just a product manufacturer. Below are some of the steps we are taking to decrease our environmental impact and enhance our corporate responsibility.

RESOURCE & MATERIAL USAGE

- On-site ponds supply automated irrigation management
- 75% of Spartan's property remains naturally vegetated
- 71 acres agriculturally farmed
- Landscape debris is composted
- Facility-wide Green Cleaning Program with Green Solutions and BioRenewables
- All literature contains 10-30% recycled paper



CONSUME® NATURE'S WAY



Consume® pH 8.0-9.0

Multi-functional at its best! Consume is a cleaner, odor eliminator, stain remover, and drain maintainer. It naturally removes difficult organic soils from many surfaces including tile, concrete, steel and carpet. Regular use of Consume eliminates organic build-up in drains, keeping them clear and odor-free. Cleans and eliminates odors on floors, in dumpsters, recycling containers, and portable toilets. Ideal for cleaning and odor control in many areas, such as carpets, drains, dumpsters, and more!



Consume Eco-Lyzer® pH 6.0-7.0

All-in-one, Consume Eco-Lyzer is a neutral disinfectant cleaner with residual odor control. EPA Reg. No. 5741-24. Patented cleaning technology (US Patent #6,165,965 & #6,180,585) that reduces janitorial labor by cleaning, disinfecting, and digesting residual organic soils with one product. Multi-surface safe with a neutral pH, Eco-Lyzer is safe to use on most floors, including concrete, ceramic, terrazzo, marble, slate, rubber, VCT, and painted surfaces. Use in bathrooms, stadiums, zoos, kennels, dumpsters, trash bins, loading docks, and portable toilets.



Consume Bio-Bowl® pH 1.5-2.5

A natural acid toilet, urinal, and shower room cleaner with organic digesters and bio-based cleaning agents to effectively remove hard water, urine deposits, and related odors. The unique blend of digesters and bio-based acid controls foul odors, digesting urine build-up in pipes to keep them free-flowing and odor-free. Consume Bio-Bowl is a ready-to-use products, so there is no mixing necessary. Bio-Bowl can be used in urinals, toilets, and drains.



Consume® FWD pH N/A

Consume FWD is a farm waste digester that effectively controls foul odors at their source, reduces sludge build-up, and breaks down manure in lagoons. FWD is ideal for use in poultry, swine, dairy, and equine farms. The unique digesters efficiently control odor-causing materials such as ammonia, hydrogen sulfide, and volatile fatty acids. Consume FWD provides digesting activity even in cold weather, maintaining the waste system year-round. Use of Consume FWD speeds up the composting process, making fertilizer more readily available.

SUSTAINABLE

SPARTAN SUSTAINABILITY INITIATIVES

- Save 60 tons of virgin plastic resin annually through use of a lower weight plastic container
- 100% recyclable corrugated containers
- 2/3 corrugated containers made from sustainable sources
- Recycled office paper creates white cartons—NOT bleach



CONSUME® NATURE'S WAY



Consume® LIQ pH 8.0-9.0

Liquid wastewater treatment naturally digests organic soils (sugars, carbohydrates, proteins, and fats) in drains, grease interceptors, septic tanks, lift stations, and wastewater systems. It maximizes efficiency of grease interceptors and septic tanks to minimize operating costs.



Consume® POW pH N/A

A powdered wastewater treatment that naturally cleans by assisting in the removal of organic soils in grease interceptors, septic tanks, drain fields, lift stations, and wastewater systems. Consume POW digesters speed up the natural digestion process of organic soils and difficult compounds including phenols and cellulose, saving time.



Consume Micro-Muscle® pH 8.5-9.5

Featuring organic digesters for odor control, Consume Micro-Muscle quickly penetrates and digests petroleum-based soils such as motor oil, hydraulic fluid, stamping oils, and lubricants.



Consume Drop-in-a-Drain® pH 6.5-8.5

A convenient, single-dose natural drain treatment, Drop-in-a-Drain naturally digests drain line build-up and blockage. Its unique single dose comes in water soluble dosing packets. Drop-in-a-Drain is easy to use and great for showers, sinks, septic systems, and floor, beer, and soda tap drains.



CX3 Bio-Assist® pH 8.0-9.0

A heavy-duty soil extraction carpet cleaner with Consume® digestive power, CX3 has organic digesters that stay behind for residual odor control and waste removal. It is low-foaming, non-corrosive, phosphate-free, biodegradable, and non-flammable. Ideal for nursing homes, day cares, schools, restaurants, casinos, food handling areas, pet facilities, or anywhere carpet odor problems may be a nuisance.



PACKAGING

ESTIMATED ENVIRONMENTAL SAVINGS BASED ON ONE YEAR FOR CORRUGATED CARDBOARD PRODUCTION:



Trees conserved: 14,185



GHG conserved: 1087 metric tons



Energy conserved: 7444 million BTUs



Water conserved: 5,840,800 gallons



Wastewater creation avoided: 7,429,929 gallons



Landfill space saved: 2754 cubic yards



GREEN SOLUTIONS®



Green Solutions® All Purpose Cleaner pH 7.0–8.0

Quickly penetrates and emulsifies soils. Removes light to medium soils. No fragrance, dye or VOCs. Versatile—use on any surface not harmed by water. Spray, wipe, or mop.



Green Solutions® Floor Seal & Finish pH 7.8–8.2

Superior leveling for faster re-coat and fewer errors. Exceptional clarity, depth of gloss, and superior durability without yellowing. No heavy metals, no unpleasant odors. Save time with this easy-to-maintain finish.



Green Solutions® Carpet Cleaner pH 8.0–9.0

Penetrates quickly for fast and easy soil removal. Use in all types of extraction equipment. Dries to a crystal for easy vacuum removal. Non-residual formula prevents re-soiling. No fragrance, dye, VOCs, or solvents. Safe to use on stain-resistant, untreated, and wool carpets.



Green Solutions® Glass Cleaner pH 7.5–8.5

Penetrates soil for fast and easy removal. Dries quickly without streaking. No fragrance, no dye, no VOCs, no ammonia. Ideal for use on glass, windows, mirrors, countertops, chrome trim, display cases, fluorescent lights, and salad bar/deli/fast food sneeze guards.



Green Solutions® Floor Finish Remover pH 10.5–11.5

Use 24 hours a day—anytime and anywhere. Low VOCs and low odor—ideal for confined areas and where strong odors are a problem. Easily removes Green Solutions Floor Seal & Finish and other cross-linked finishes.



Green Solutions® Industrial Cleaner pH 9.0–10.0

Quickly penetrates and removes petroleum-based soils. No fragrance, dye or VOCs. Works effectively to clean up motor oil, hydraulic fluid, stamping oils, and lubricant. Ideal for use in manufacturing plants, printing houses, auto repair shops, dumpsters, loading docks, and mass transit systems.



SPARTAN SUSTAINABILITY INITIATIVES

ENERGY USE & GREENHOUSE GAS (GHG) EMISSIONS

- > 25% reduction in energy usage
- > 20% reduction in annual Greenhouse Gas (GHG) Emissions:
 - GHG emissions of 144 passenger cars
 - CO² emissions of 1753 barrels of oil
 - Annual energy usage of 91.5 homes
- 18–21% reduction in the GHG Emissions embedded in each gallon of product
- 54% reduction in vending machine energy usage

WASTE DISPOSAL

- Over 65% of our waste is recycled, rather than landfilled
- Over 250 tons of materials recycled annually
- Recycling Program for production, office and employee waste

LITE'N FOAMY®



Lite'n Foamy® Sunflower Fresh pH 5.5-6.5

Lite'n Foamy Sunflower Fresh is a biobased foaming hand wash, formulated with ingredients made from renewable resources. The biobased raw materials used in Lite'n Foamy Sunflower Fresh produce a luxurious foam that leaves the skin clean and soft after each use.



Lite'n Foamy® Citrus Fresh pH 5.5-6.5

Lite'n Foamy Citrus Fresh is a biobased foaming hand wash, formulated with ingredients made from renewable resources. With a refreshing citrus fragrance, Lite'n Foamy Citrus Fresh produces luxurious foam and leaves the skin clean and soft after each use.



Lite'n Foamy® Fruit Burst pH 5.0-7.0

Formulated with environmentally-preferred components, Lite'n Foamy Fruit Burst is a great choice for LEED buildings or green cleaning programs. Combined with its fantastic fruity mandarin fragrance, Fruit Burst is guaranteed to be a crowd favorite. The Lite'n Foamy system is the economical choice for end-users. With reduced packaging, it is also the sustainable choice to reduce landfill waste.



REDUCE WASTE AND SAVE MONEY

Bulk packaging means less waste in the landfill and more savings in your pocket. One Lite'n Foamy® gallon is equal to 3 refill cartridges from competitive systems, and the gallon is 100% recyclable, while cartridge refills are not.

66% REDUCTION

in plastic¹

75% REDUCTION

in corrugate²



OR



1 X 4 CASE OF GALLONS

12 REFILL CARTRIDGES

¹ 4 PCR gallons is equivalent to 12 cartridge refills, requiring 1/3 of the plastic packaging content, or 66% reduction.

² Refills packed 3 per carton is equivalent to 4 cartons for every 1 case of gallons, requiring only 25% corrugate or 75% reduction.



SUSTAINABLE

DESIGNED AND FORMULATED WITH SUSTAINABILITY IN MIND

Spartan sought to identify ingredients that fit environmentally preferable profiles established for green cleaning applications. We utilized them in our laundry care products, without compromising product performance.

SUSTAINABLE CHARACTERISTICS OF CLOTHESLINE FRESH

- All surfactants are on EPA's Safer Choice CleanGredients® list
- Readily biodegradable
- Bio-based surfactants are used whenever possible and when petroleum-derived surfactants are used; they are readily biodegradable as well
- Bio-based surfactants are derived from soy, corn, and coconut oil
- Formulated with the EPA's Presidential Green Chemistry Challenge award winning chelants
- Polymeric chelant and anti-encrustation aide entirely derived from chicory root
- Natural bio-based acids as neutralization aides (citric acid)

CLOTHESLINE FRESH®



Clothesline Fresh® Color Safe Bleach 5 pH 12.5-13.5

Formulated in partnership with the Environmental Protection Agency's Safer Choice Program, Clothesline Fresh Color Safe Bleach brightens colors and whitens whites using the environmentally-preferred power of active oxygen.



Clothesline Fresh® Softener EP 19 pH 4.0-5.0

Furthering your sustainable laundry efforts with a product formulated in partnership with the Environmental Protection Agency's Safer Choice Program. Clothesline Fresh Softener EP is a readily biodegradable, liquid fabric softener that teams a Fresh April Air scent with superior softness.



Clothesline Fresh® Oxygen Bleach EP 20 pH 4.0-5.0

An environmentally preferable oxygen-based bleach. Keeps whites white and colors bright. 85% more active than Clothesline Fresh Color Safe Bleach.



LAUNDRY

CLOTHESLINE FRESH PRODUCTS CONTAIN

- No or low VOCs
- No Phosphates
- No Silicates
- No Harsh Solvents
- No Alkylphenol Ethoxylates
- No Nitrilotriacetic Acid (NTA)
- No Toxic/Persistent Components or By-products
- No Ozone-Depleting Chemicals

HIGH EFFICIENCY FORMULATIONS

- Use high efficiency equipment
- Automatic dispensing
- Cool and cold-water temperatures
- Decreased wash cycle time
- Increase use of ozone injection systems

CLOTHESLINE FRESH®

Clothesline Fresh® No Dye-No Fragrance Laundry Detergent 13 pH 8.0-9.0



Formulated in partnership with the Environmental Protection Agency's Safer Choice Program, Clothesline Fresh No Dye - No Fragrance Laundry Detergent contains no phosphates or nonylphenol ethoxylates, both of which can have a negative environmental impact. Formulated with zero dye or fragrance components, this product is ideal for customers who may be sensitive or allergic to dyes or fragrances.



Clothesline Fresh® Detergent EP 18 pH 7.0-8.0



An Environmentally Preferable detergent option that will help you meet your sustainability goals. Clothesline Fresh Detergent EP was formulated in partnership with the Environmental Protection Agency's Safer Choice Program. Clothesline Fresh Detergent EP does not contain phosphates, silicates, solvents or nonylphenol ethoxylates, all of which can have a negative environmental impact.





What Do These Symbols Mean?



GREEN SEAL CERTIFIED

The Green Seal mark represents compliance with a rigorous set of criteria designed to achieve leadership levels in sustainability. Certified products have met the same performance and quality requirements you would expect from a traditional, non-green counterpart based on performance criteria. While having reduced toxicity to people and the environment.



SAFER CHOICE

Products with the Safer Choice label help consumers and commercial buyers identify and select products with safer chemical ingredients, without sacrificing quality or performance.



CERTIFIED BIOBASED

This symbol indicates that a product has earned USDA certification and approval to display the USDA Certified Biobased Product label. Biobased products are derived from plants and other renewable agricultural, marine, and forestry materials and provide an alternative to conventional petroleum-derived products.



KOSHER

Kosher Certification means the highest standard of kosher, built on a deep level of trust between manufacturers, producers and consumers.



WOOL SAFE APPROVED

This product has been independently tested for use on wool and meets the highest standards for performance and safety.



HIGH EFFICIENCY

Detergents bearing the HE logo are formulated to be used in high efficiency washing machines that use less water, less energy, and less detergent.



SUSTAINABILITY AT A GLANCE



BIORENEWABLES*

○ BioRenewables® Glass Cleaner	3835
○ Clean on the Go® BioRenewables® Glass Cleaner	4835
○ BioRenewables® Glass Cleaner RTU	3239
○ BioRenewables® Restroom Cleaner	3530
○ BioRenewables® Industrial Degreaser	2310
○ BioRenewables® Waterless Hand Cleaner	2960
○ BioRenewables® Waterless Plus Hand Cleaner	2974

GENERAL HOUSEKEEPING SOLUTIONS

○ Tribase® Multi Purpose Cleaner	3830
○ Clean on the Go® Tribase® Multi Purpose Cleaner	4830
○ TREE-Z™	3171
○ Xcelenté®	0019
○ Clean on the Go® Xcelenté®	4803
○ Clean by Peroxy®	0035
○ Clean on the Go® Clean by Peroxy®	4820
○ FloorFront®	4047

CONSUME® NATURE'S WAY

○ Consume®	3097
○ Consume Eco-Lyzer®	3297
○ Consume Bio-Bowl®	3397
○ Consume® FWD	3106
○ Consume® LIQ	3102
○ Consume® POW	3104
○ Consume Micro-Muscle®	3497
○ Consume Drop-in-a-Drain®	3205
○ CX3 Bio-Assist®	3110

GREEN SOLUTIONS*

○ Green Solutions® All Purpose Cleaner	3501
○ Green Solutions® All Purpose Cleaner (2-liter)	3511
○ Green Solutions® Floor Seal & Finish	3504
○ Green Solutions® Carpet Cleaner	3509
○ Green Solutions® Carpet Cleaner (2-liter)	3514
○ Green Solutions® Glass Cleaner	3507
○ Green Solutions® Glass Cleaner (2-liter)	3512
○ Green Solutions® Floor Finish Remover	3505
○ Green Solutions® Industrial Cleaner	3506
○ Green Solutions® Industrial Cleaner (2-liter)	3515

LITE'N FOAMY*

○ Lite'n Foamy® Sunflower Fresh	3305
○ Lite'n Foamy® Citrus Fresh	3308
○ Lite'n Foamy® Fruit Burst	3342

CLOTHESLINE FRESH*

○ Clothesline Fresh® Color Safe Bleach 5	7005
○ Clothesline Fresh® No Dye-No Fragrance Laundry Detergent 13	7013
○ Clothesline Fresh® Detergent EP 18	7018
○ Clothesline Fresh® Softener EP 19	7019
○ Clothesline Fresh® Oxygen Bleach 20	7020

SUSTAINABILITY MADE SIMPLE™

**Renewable
Resources**

**Environmentally
Preferred
Chemistry**

**Concentrated
Formulas**

**Recycled
Materials**

**Reduced
Packaging**



Distributed by:

Be sure to read all Directions, Precautionary and First Aid Statements on product labels before use of these or any Spartan products. Safety Data Sheets for all Spartan products are available from your authorized Spartan Distributor or by visiting www.spartanchemical.com.

GUARANTEE: Spartan's modern manufacturing and laboratory control insure uniform quality. If dissatisfied with performance of product, any unused portion may be returned for credit within one year of the date of manufacture. Use product as directed and read all precautionary statements.





CONSUME[®] ECO-LYZER

neutral disinfectant

Consume Eco-Lyzer is a revolutionary quaternary based disinfectant concentrate formulated to destroy pathogenic and odor causing bacteria and viruses*, remove soils and leave natural digesters behind for residual control of nuisance odors. The product is teal in color and slightly viscous.



Providing Quality Maintenance and Chemical Specialty Solutions with Unparalleled Customer Service



Spartan Chemical Company, Inc.
1110 Spartan Drive
Maumee, OH 43537
1-800-537-8990
www.spartanchemical.com

HOW DOES IT WORK?

Ceramic, quarry tile and concrete floors are hard surfaces and generally easy to clean. However, the grouting around ceramic and quarry tile, as well as the pits and cracks which cause uneven surfaces that are porous and consequently, are a breeding ground for various pathogens and harbor soils and organics that cause unsightly appearance and foul odors. It usually takes several products to clean, disinfect and deodorize the surfaces and none provide long-term odor elimination. Normal cleaning with Consume Eco-Lyzer degrades the trapped organics, in effect providing continuous deep cleaning and deodorizing over an extended period of time.

HOW DOES THIS MONUMENTAL ADVANCED TECHNOLOGY BENEFIT YOU?

Consume Eco-Lyzer does the job of three traditional products!

- Destroys pathogenic and odor causing bacteria.
- Leaves behind natural digesters for continuous and extended control of persistent, offensive odors.
- Cleans & disinfects.
- Simplifies training procedures because one product does many tasks for different applications.
- May reduces risk and liability. Neutral pH. One product i.e. less employee confusion / less chance of error.
- Reduces chemical inventory. Replaces two or three products.

- Continuous odor control saves labor hours.
- Saves money! Economical concentrate dilutes 2 oz. to 6 oz. Facility remains odor free longer which can reduce frequency of maintenance schedule.

STILL MORE BENEFITS!

Aggressive Disinfectant Action! Effective against pathogenic and odor-causing bacteria: *Proteus vulgaris*, *Pseudomonas putrefaciens*, *Serratia odorifera*, *Staphylococcus aureus* and *Salmonella choleraesuis*.

Virucidal: Effective against HIV-1 (AIDS Virus), Herpes Simplex Type 1, and Influenza A2.

EPA Reg. No. 5741-24
EPA Est. No. 5741-OH-1

DIRECTIONS FOR USE:

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

GENERAL PURPOSE CLEANING AND DEODORIZING:

For pre-cleaning or degreasing of heavily soiled surfaces, dilute Consume Eco-Lyzer from 2 oz. per gallon to 6 oz. per gallon depending on the soil load. Apply the product with a cloth, mop, sponge, or by coarse foaming. Scrub surface. Rinse with water or allow to air dry.

GENERAL PURPOSE DISINFECTION

Remove gross filth and heavy soil deposits before disinfection. Prepare use-solution of Consume Eco-Lyzer at 2 oz. per gallon of water. Thoroughly saturate surfaces for 10 minutes using a cloth,

mop, sponge, or coarse foamer. For virucidal* activity a 5-minute contact time is adequate. Rinse with water or allow to air dry. Prepare fresh use-solution for each use, then discard.

Be sure to read all Directions, Precautionary and First Aid Statements on product labels before use of this or any Spartan product. If questions remain, consult your employer or a physician. Material Safety Data Sheets for all Spartan products are available from your authorized Spartan distributor or by visiting www.spartanchemical.com.

SPECIFICATION DATA:

Specific Gravity – 0.994 @ 24°C/75°F
pH (Concentrate) – 6.5 - 7.5
Density – 8.27 lbs./gal. @ 24°C/75°F
Viscosity – 15-30 cps
Stability:

- a. Shelf @ 24°C/75°F – one year
- b. Accelerated @ 38°C/100°F – three months
- c. Freeze/Thaw Cycle – If frozen, shake to remix ingredients

Contains over 500 billion microorganisms per gallon

Certified Salmonella Free

Biodegradable

Phosphate free



ISSA MEMBER
The Experts
on Cleaning and Maintenance

Distributed by:

PACKAGING

329755	55-gallon drum
329730	30-gallon drum
329715	15-gallon drum
329705	5-gallon pail
329704	1-gallon (4 per case)
459702	2-liter (4 per case)



Label copy is provided in English and Spanish. Secondary labels are also available.

GUARANTEE: Spartan's modern manufacturing and laboratory control insure uniform quality. If dissatisfied with performance of product, any unused portion may be returned for credit within one year of date of manufacture.

For institutional and industrial use only.

© SCC 4/11 L3297



HDQ NEUTRAL[®]

One-step disinfectant cleaner



HDQ Neutral is designed for general cleaning and disinfecting on hard, non-porous surfaces. Formulated to provide effective cleaning strength that will not dull high gloss floor finishes with repeated use, HDQ Neutral is ideal for airports, classrooms, hospitals and public facilities. Effective against a broad spectrum of viruses, bacteria, mildew, and fungi, HDQ Neutral cleans, disinfects and deodorizes in one labor-saving step.

EPA Registration Number: 10324-155-5741

HDQ NEUTRAL®

FEATURES

- Neutral disinfectant cleaner concentrate designed for all hard, non-porous surfaces
- Meets the recommendations of OSHA blood borne pathogen standard
- Kills Human Coronavirus and SARS associated Coronavirus
- Effective against Canine Parvovirus** (Type 2b)

** Indicates that a dilution of 4.5 oz. per gal. of water is required for this claim

BENEFITS

- Cleans, disinfects, and deodorizes in one step
- Economical to use - dilute at 1 ounce per gallon of water
- Will not dull high-gloss floors
- Broad-spectrum disinfectant, mildewstat, fungicide, and virucide

SPECIFICATION DATA

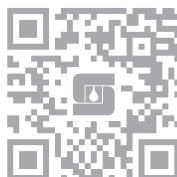
Dilution	1 oz/gal
pH	7.2 – 8.2
Color	Red
Fragrance	Citrus
Specific Gravity @ 24°C/75°F	1.00
Stability: Shelf @ 24°C/75°F	1 year minimum
Stability: Freeze/Thaw	3 cycles
EPA Registration Number	10324-155-5741

ORDERING INFORMATION

					
#120204	#120205	#120215	#120230	#120255	#120265

ADDITIONAL RESOURCES

Scan the QR code to access this product's safety information and documentation.



EFFICACY DATA

DISINFECTION PERFORMANCE

This product kills the following bacteria in 10 minutes at 1 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces: *Acinetobacter baumannii*, *Acinetobacter lwoffii*, *Bordetella bronchiseptica*, *Citrobacter freundii*, *Enterobacter agglomerans*, *Enterobacter aerogenes*, *Enterobacter cloacae*, *Escherichia coli*, *Escherichia coli* 0157:H7, *Escherichia coli* (Extended Spectrum B-Lactamase) (ESBL), *Escherichia coli* (Tetracycline Resistant), *Enterococcus faecalis*, *Enterococcus hirae*, *Fusobacterium necrophorum*, *Klebsiella oxytoca*, *Klebsiella pneumoniae*, *Klebsiella pneumoniae* (Carbapenem-Resistant), *Listeria monocytogenes*, *Micrococcus luteus*, *Pasturella multocida*, *Proteus vulgaris*, *Pseudomonas aeruginosa*, *Pseudomonas aeruginosa* (Tetracycline Resistant), *Pseudomonas cepacia*, *Salmonella enterica*, *Salmonella enterica* serotype pullorum, *Salmonella typhi*, *Salmonella typhimurium*, *Serratia marcescens*, *Shigella flexneri*, *Shigella sonnei*, *Staphylococcus aureus*, *Staphylococcus aureus* (Community Associated Methicillin Resistant) (CA-MRSA), *Staphylococcus aureus* (Methicillin Resistant) (MRSA), *Staphylococcus epidermidis* (Ampicillin, Cefazolin, Oxacillin Resistant), *Staphylococcus epidermidis*, *Streptococcus agalactiae*, *Staphylococcus haemolyticus*, *Streptococcus pneumoniae* (Penicillin Resistant), *Streptococcus pyogenes*, *Streptococcus mutans*, *Enterococcus faecalis* (Vancomycin Resistant) (VRE), *Staphylococcus aureus* (Vancomycin Intermediate Resistant) (VISA), *Vibrio cholera*, *Yersinia enterocolitica*.

VIRUCIDAL* PERFORMANCE

This product kills the following viruses in 10 minutes at 1 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces: Avian Influenza A (H3N2) Virus, Avian Influenza A (H5N1) Virus, Cytomegalovirus, Coronavirus (SARS-associated), Hepatitis B Virus, Hepatitis C Virus, Herpes Simplex Virus Type 1, Herpes Simplex Virus Type 2, Human Coronavirus, Influenza A Virus (H3N2), Human Immunodeficiency Virus Type 1 (HIV 1), Influenza A Virus (H1N1), Respiratory Syncytial Virus, Vaccinia Virus.

ANIMAL PREMISE VIRUCIDAL* PERFORMANCE

This product kills the following viruses in 10 minutes at 1 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces: Avian Infectious Bronchitis Virus, Avian Influenza A Virus, Canine Coronavirus, Canine Distemper Virus, Feline Picornavirus, Infectious Bovine Rhinotracheitis Virus, Pseudorabies Virus, Swine Influenza A Virus, Transmissible Gastroenteritis Virus.

This product kills the following viruses in 10 minutes at 4.5 oz. per gal. of 400 ppm hard water (2970 ppm active) and 5% soil on hard, non-porous surfaces: Canine Parvovirus (Type 2b), Rabies Virus.

***Kills HIV, HBV and HCV on pre-cleaned hard, non-porous surfaces/objects previously soiled with blood/body fluids** in health care settings or other settings in which there is an expected likelihood of soiling of hard, non-porous surfaces/objects with blood or body fluids and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of Human Immunodeficiency Virus Type 1 (HIV-1) (associated with AIDS), Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV).

FUNGICIDAL PERFORMANCE

This product kills the following fungi in 10 minutes at 1 oz. per gal. of 400 ppm (660 ppm active) and 5% soil on hard, non-porous surfaces: *Candida albicans*, *Trichophyton mentagrophytes* (Athlete's foot fungus).

MILDEWSTATIC PERFORMANCE

This product controls the following mold at 1 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces for up to 7 days: *Aspergillus niger*.

SAFETY: For institutional and industrial use only. Be sure to read all directions, precautionary and first aid statements on product labels before using this or any other Spartan product. If questions remain, consult your employer or a physician. Safety Data Sheets for all Spartan products are available from your authorized Spartan distributor and at www.spartanchemical.com. Workplace labels are available in English, Spanish, and French.

GUARANTEE: Spartan's modern manufacturing and laboratory control ensures uniform quality. If dissatisfied with performance of product, any unused portion may be returned for credit within 12 months of the date of manufacture.



June 6, 2024

Carol Ingraham
18405 East 152nd Avenue
Brighton, Colorado 80601

Re: Site Evaluation and Engineered Septic System Design
On-Site Wastewater Treatment System (OWTS)
Proposed Dog Daycare & Boarding Facility
Lot 2, Petersen-Knago Tract - Parcel # 0156909004024
18405 East 152nd Avenue, Adams County (Brighton), Colorado
Soilogic Project # 24-1093

Ms. Ingraham:

Soilogic, Inc. (Soilogic) personnel have completed the test pit observation and site evaluation you requested to determine the suitability of the above referenced property to support an On-Site Wastewater Treatment System (OWTS). We understand the system will treat wastewater generated by the proposed dog daycare and boarding facility to be constructed at 18405 East 152nd Avenue near Brighton in unincorporated Adams County, Colorado. Results of the completed site evaluation and OWTS design details are included with this report.

As part of our preliminary evaluation, the Web Soil Survey service provided by the United States Department of Agriculture (USDA), Soil Conservation Service (SCS) was accessed. The included soil type delineation diagram outlines those soil groupings identified at the site by Adams County SCS maps. SCS descriptions of those soil types are included with this report. According to the SCS, the near surface soils at this site consist of sandy loam to loamy sand from the Vona loamy sand series.

At the time of our site explorations completed on May 1, 2024, the ground surface in the proposed Soil Treatment Area (STA) was observed to be lightly vegetated with grasses and weeds and had an approximate one to two-percent slope downward to the west/northwest. Evidence of prior building construction was not observed in the proposed Soil Treatment Area (STA) at that time. No known easements exist within the area of the proposed septic system. In addition, unsuitable, disturbed and/or compacted soils were not observed in the test pit areas.

Site Evaluation and Engineered Septic System Design
On-Site Wastewater Treatment System (OWTS)
Proposed Dog Daycare & Boarding Facility
18405 East 152nd Avenue, Adams County (Brighton), Colorado
Soilogic Project # 24-1093

2

As part of our site evaluation, Soilogic personnel observed four (4) test pit excavations completed by others in the area of the proposed STA's. Graphic logs of the profile test pits are included with this report as test pit TP-1 through TP-4. The materials encountered in the profile test pits consisted of approximately 8 to 10 inches of vegetation and topsoil underlain by brown/dark-brown Sandy Clay Loam with a Granular structure shape and a Weak structure grade (Soil Type 3A) which extended to a depth of approximately 3 feet below present site grade where it was underlain by light-brown Sandy Loam with a Granular structure shape and a Weak structure grade (Soil Type 2A) which extended to the bottom of profile test pit's TP-1 and TP-2 at a depth of approximately 8 feet below present site grade. In test pit's TP-3 and TP-4 the Sandy Loam extended to a depth of approximately 7 feet below present site grade, where it was underlain by light-brown/grey Sandy Clay with a Granular structure shape and a Moderate structure grade (Soil Type 4) which extended to the bottom of profile test pit's TP-3 and TP-4 at a depth of approximately 8 feet below present site grade. Soil samples were obtained from the profile test pits, sealed, and returned to the laboratory for further evaluation. Groundwater was not encountered in the completed profile test pits at the time of our site observation. We do not expect periodically saturated soils exist within the upper 8 feet of subgrade soils in the area of the test pit excavations.

As part of our services, a visual and tactile soil evaluation was completed on a representative portion of the minus #10 (2 mm) fraction of the soil samples obtained to determine soil classification as described by Table 10, of the Colorado Department of Public Health and Environment Water Quality Control Commission, Regulation Number 0-17. Less than 35% of the soil samples were retained on the #10 (2 mm) size sieve precluding the need for soil replacement procedures. In our opinion, the four (4) feet of subsurface materials underlying the proposed infiltrative surface level can be classified as 'Soil Type 2A' with a corresponding Long-Term Acceptance Rate (LTAR) value of 0.50 gpd/sf and a LTAR value of 0.50 was used for system sizing.

Adams County Health Department (ACHD) guidelines require a percolation rate in the range of 5 to 60 minutes per inch for use of a non-engineered conventional On-Site Wastewater Treatment System (OWTS). The 'Soil Type 2A' classification and corresponding percolation rate of 26-40 minutes per inch meets that criterion. In

Site Evaluation and Engineered Septic System Design
On-Site Wastewater Treatment System (OWTS)
Proposed Dog Daycare & Boarding Facility
18405 East 152nd Avenue, Adams County (Brighton), Colorado
Soilogic Project # 24-1093

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addition, ACHD guidelines require that neither groundwater nor crystalline bedrock be encountered within 4 feet of the ground surface in the proposed STA. The test pit excavations completed indicate the thickness of overburden soils is sufficient and meets the groundwater and bedrock separation criteria at the test locations.

Due to the commercial nature of this facility, Soilogic personnel completed an engineered septic system design. Based on discussion with the owners, we estimate the dog daycare and boarding facility once fully operational will generate a total average daily wastewater flow of 460 gallons per day. The design flow outlined above is based on ten (10) full-time employees at a rate of 20 gallons per day per employee, per eight-hour shift and 40 short-term visitors per day at a rate of 5 gallons per day, per visitor. In addition, we understand there will be approximately 2 grooming appointments per day at a rate of 30 gallons per appointment. As a precaution a seven (7) day work week was used in design. A summary of design flow calculations is included with this report.

In accordance with ACHD design criteria and using a 'Soil Type 2A' classification and corresponding Long-Term Acceptance Rate (LTAR) value of 0.50 gpd/sf, the dog daycare and boarding facility utilizing a gravity-fed chamber system in a bed configuration would require a minimum STA of 773 square feet. Utilizing an equivalent footprint area value of 12 square feet per standard 'Quick-4 Plus' Infiltrator® unit, a 773 square foot STA would require 65 'Quick-4 Plus' Standard or Low-Profile Infiltrator® units in a bed configuration with a minimum septic tank capacity of 1,000 gallons. As a precaution to assist the additional settling of solids within the septic tank, we recommend the septic tank be upsized to 1500 gallons resulting in greater than a 3-day detention time. An effluent filter will be required at the septic tank outlet. In addition, to help reduce biochemical oxygen demand (BOD), we recommend all grooming sink drains be equipped with screens to help collect solids before they make their way to the septic tank. BOD calculations are also included with this design. A proposed system layout including one (1) bed with four (4) rows of 17 units per row for a total of 68 units is included with this report.

In order to utilize the sizing as outlined above, the infiltrative surface will need to be established at a minimum depth 36-inches below present site grade and a maximum depth

Site Evaluation and Engineered Septic System Design
On-Site Wastewater Treatment System (OWTS)
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18405 East 152nd Avenue, Adams County (Brighton), Colorado
Soilogic Project # 24-1093

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of 48-inches below present site grade in the area of test pits TP-1 and TP-2. Moisture conditioning and compaction of the subgrade soils within the bed areas should not be completed and heavy equipment should not be allowed to operate within the excavation. In addition, care should also be taken to avoid smearing of the infiltrative surface soils.

We recommend a minimum soil cover of 12-inches be developed over the top of the septic tank and other system components including effluent lines and chamber units. We understand ACHD regulations require the top of the septic tank be buried no deeper than 4-feet below grade. The soil cover overlying the Infiltrator® units should be graded to provide positive drainage across and away from the STA.

Care should be taken at the time of system installation to ensure ACHD requirements concerning minimum required separation distances between system components and site features and amenities are maintained. Offset distances are shown in their approximate location on the included diagrams. A minimum 25-foot setback is required between the STA and potable water supply lines and a minimum 10-foot setback is required between the STA and buildings without basements or footing drains. A minimum 10-foot setback is required between the STA and property lines and lined drainage laterals. According to the Colorado Division of Water Resources, no water wells are present on this property within 100-feet of the STA. No setbacks other than those indicated on the attached diagrams are known to affect the proposed system.

The owner should realize an OWTS is different from public sewer service and assume the responsibility for maintenance of the OWTS. The system is relatively maintenance free although periodic pumping of the septic tanks will be required. Water use must be monitored so toilets and other fixtures are not allowed to continuously run. A freely running toilet can consume in excess of 1,000 gallons per day. An excess 1,000 GPD can flood and irreparably harm the onsite septic system. In addition, toxic or chemically treated pool and or spa water and plastic and other non-biodegradable materials should not be introduced into the OWTS.

Sprinkler systems should not be installed or allowed to irrigate over the STA. In addition, livestock should not be allowed to graze over the STA and the field and

Site Evaluation and Engineered Septic System Design
On-Site Wastewater Treatment System (OWTS)
Proposed Dog Daycare & Boarding Facility
18405 East 152nd Avenue, Adams County (Brighton), Colorado
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associated system components should not be subjected to vehicle traffic. We recommend the surface of the STA be seeded after installation using a dry-land seed which does not require irrigation water. In addition, the absorption bed area should be mowed to maintain vegetation in the range of 6 to 12 inches in height.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the enclosed information or if we can be of further service to you in any way, please do not hesitate to contact us.

Very Truly Yours,
Soilogic, Inc.

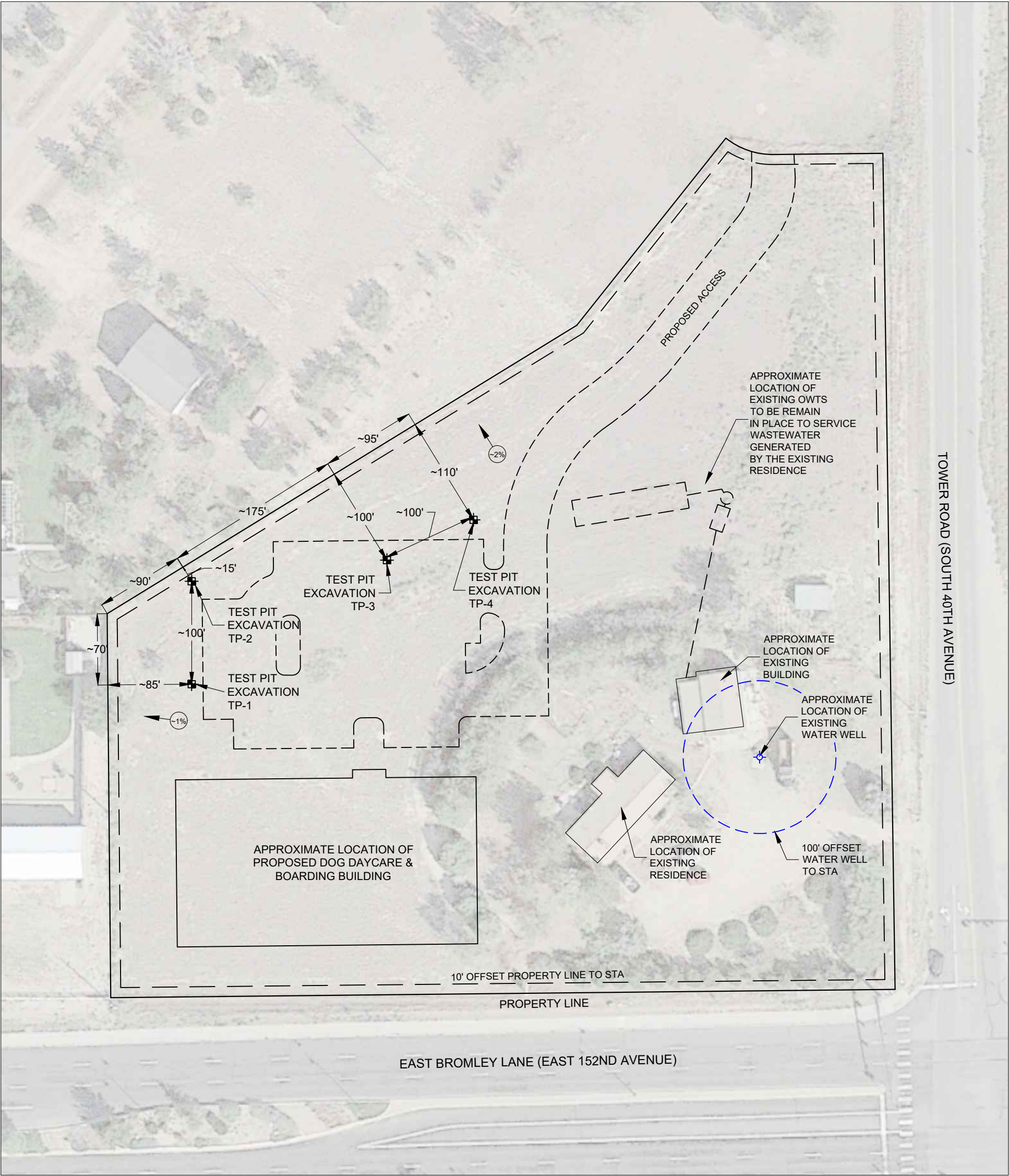


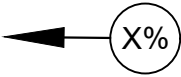
Josh Schmidt
Engineering Technician

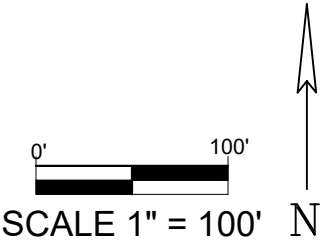
Reviewed by:



Wolf von Carlowitz, P.E.
Principal Engineer




DENOTES DIRECTION OF SLOPE
AND APPROXIMATE GRADE

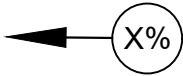
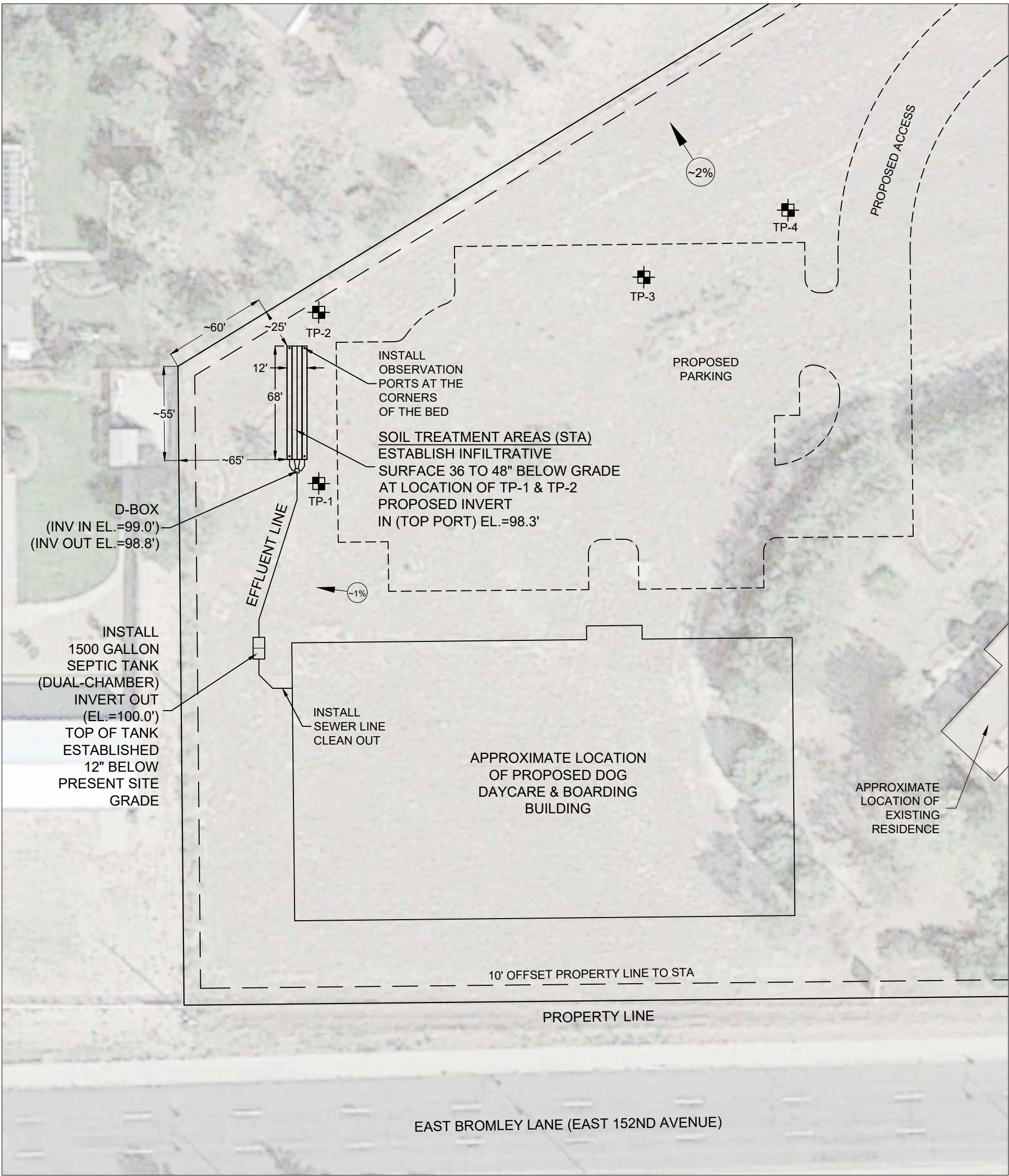


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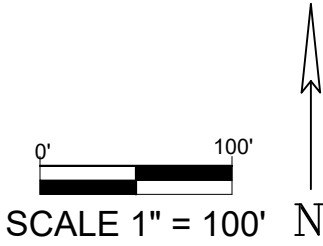
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DENOTES DIRECTION OF SLOPE
AND APPROXIMATE GRADE





NOT TO SCALE

NOT TO SCALE



SECTION

PROPOSED DOG DAYCARE & BOARDING FACILITY - PARCEL # 0156909004024
18405 EAST 152ND AVENUE, WELD COUNTY (BRIGHTON), COLORADO

PROPOSED DOG DAYCARE & BOARDING FACILITY - PARCEL # 0156909004024

18405 EAST 152ND AVENUE, WELD COUNTY (BRIGHTON), COLORADO

Soilogic Project # 24-1093

June 2024

SITE EVALUATION SUMMARY AND DESIGN CALCULATIONS ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS)

Soilogic Personnel Information

Wolf von Carlowitz, P.E.

3522 Draft Horse Court - Loveland, Colorado 80538

970.535.6144 - Wolf@Soilogic.com

Josh Schmidt - CPOW Certified Competent Technician

970.691.0568 - Josh@Soilogic.com

Date of Site Visit - (5/01/2024)

Septic System Design Calculations

Factories and plants exclusive of industrial wastewater

per employee per eight-hour shift - no showers provided = 20 gallons per day

10 full-time employees per day (7 Days/Week) * 20 gallons per day = **200** gallons (.05 BOD5 lbs/day, per employee)

Short-Term Visitors = 5 gallons per day

40 Short-Term Visitors per day (7 Days/Week) * 5 gallons per visitor per day = **200** gallons (.02 BOD5 lbs/day, per visitor)

Dog Grooming = 30 gallons per day (per dog)

Dog Grooming Appts per day (7 Days/Week) * 30 gallons per appointment per day = **60** gallons (.20 BOD5 lbs/day, per appt)

Total Design Flow = Q = **460** gallons per day (200 gallons + 200 gallons + 60 gallons)

'Soil Type 2A' and LTAR = 0.50 g/d/sf

A = Q/LTAR = 460 / 0.50 = 920 sf

Size Adjustment Calculations

920 sf * 1.2 (Gravity Bed) * 0.7 (Chamber Bed) = 773 sf

773 sf / 12 sf per Quick-4 Infiltrator® Unit = 65 Units

Soilogic proposes one (1) bed with four (4) rows of 17 units each for a total of 68 units

Alternative configurations could be considered.

BOD5 Calculations: 0.50 + 0.80 + 0.40 = 1.7 pounds of BOD5/day

1.7 / 460 gallons per day = 0.0037 lbs/gal

453,592 mg/lb and 3.78 liters in 1 gallon 0.0037 x 453,592 = 1,676.32 mg/gal 1,676.32 / 3.78 = 443.47 mg/L BOD5

Est. Septic Tank Influent = 443.47 mg/L BOD5 - 60% BOD retained in the Septic Tank* (443.47 x 0.60) = 266.08 mg/L

Estimated Septic Tank Effluent = (443.47 - 266.08) = 177.39 mg/L BOD5

*References: HENV-14-W, Wastewater Biological Oxygen Demand in Septic Systems,

https://www.co.hendricks.in.us/egov/documents/1488484240_91505.pdf





SOIL INVESTIGATION SUMMARY FORM

Property Address:

18405 EAST 152ND AVENUE, WELD COUNTY (BRIGHTON), COLORADO

Legal Description:

LOT 2, PETERSEN-KNAGO TRACT, PARCEL # 0156909004024

Property Owner Information

Name: Carolyn Ingraham, Mary C Devaney & Cathleen A Devaney

Address: 691 MCAFEE COURT, ERIE, COLORADO 80516

Phone: 303-641-7782

Email: Jcemingraham@Gmail.com, devaneymaryc@Gmail.com, devaneycpa@Gmail.com

Indicate Which Soil Investigation Method You Performed: (check one)

- ☒ 1. Visual and tactile evaluation from two or more soil profile test pit excavations.
- ☐ 2. Percolation test plus one or more soil profile test pit excavations.
- ☐ 3. Percolation test plus one or more soil profile holes (Note: Not allowed after 07/01/2016).

If you checked 1: Complete Form S-435, Soil Profile Test Pit Log for **each** profile test pit.

If you checked 2: Complete Form S-431, Percolation Test Summary and Result Form and S-435, Soil Profile Test Pit Log for **each** profile test pit.

If you checked 3: Complete Form S-431 Soil Percolation Test Summary and Result Form.

Soil Investigation Results Summary

Is there a limiting condition with low permeability, bedrock, ground water or other condition that restricts the treatment capability of the soil? ☐ Yes ☒ No

If yes, design document must explain how the limiting condition is addressed.

Recommended Infiltrative Surface Elevation or Depth: 36" (min) to 48" (max depth) below present site grade

Recommended Long Term Acceptance Rate (LTAR), From Table 9: 0.50 gpd/sq ft

(Note: If method 2 is used, and the average percolation rate and soil class fall into different rows in Table 9, the lesser LTAR shall be used).

Aurora
15400 E. 14th Place
Suite 309
Aurora, CO 80011
303-341-9370

Castle Rock
4400 Castleton Court
Castle Rock, CO 80109
303-663-7650

Commerce City
4201 E. 72nd Avenue
Commerce City, CO 80022
303-288-6816

Greenwood Village
6162 S. Willow Drive, Suite 100
Greenwood Village, CO 80111
720-200-1670



SOIL PROFILE TEST PIT LOG

(A SEPARATE LOG SHALL BE COMPLETED FOR EACH SOIL PROFILE TEST PIT)

Test Pit Number: TP-1

Date of Logging: 5/01/2024

Range of Depth of Soil Horizon, Relative to Ground Surface	USDA Soil Texture	USDA Soil Structure - Shape	Soil Structure-Grade	Redoximorphic Features Present? (Y/N)	Soil Type (from Table 9, In O-14)
0 to 3', Sa Cl Loam	Sa Clay Lo.	Granular	Weak	N	3A
3' to 8', Sa Loam	Sandy Loam	Granular	Weak	N	2A

Notes:

Is there a limiting condition with low permeability, ground water, bedrock, or other condition that restricts the treatment capability of the soil? ☐ Yes ☒ No

If yes, design document must explain how the limiting condition is addressed.

Evidence of Past Groundwater (Redoximorphic Features): ☐ Yes ☒ No

Excavation Equipment: Backhoe

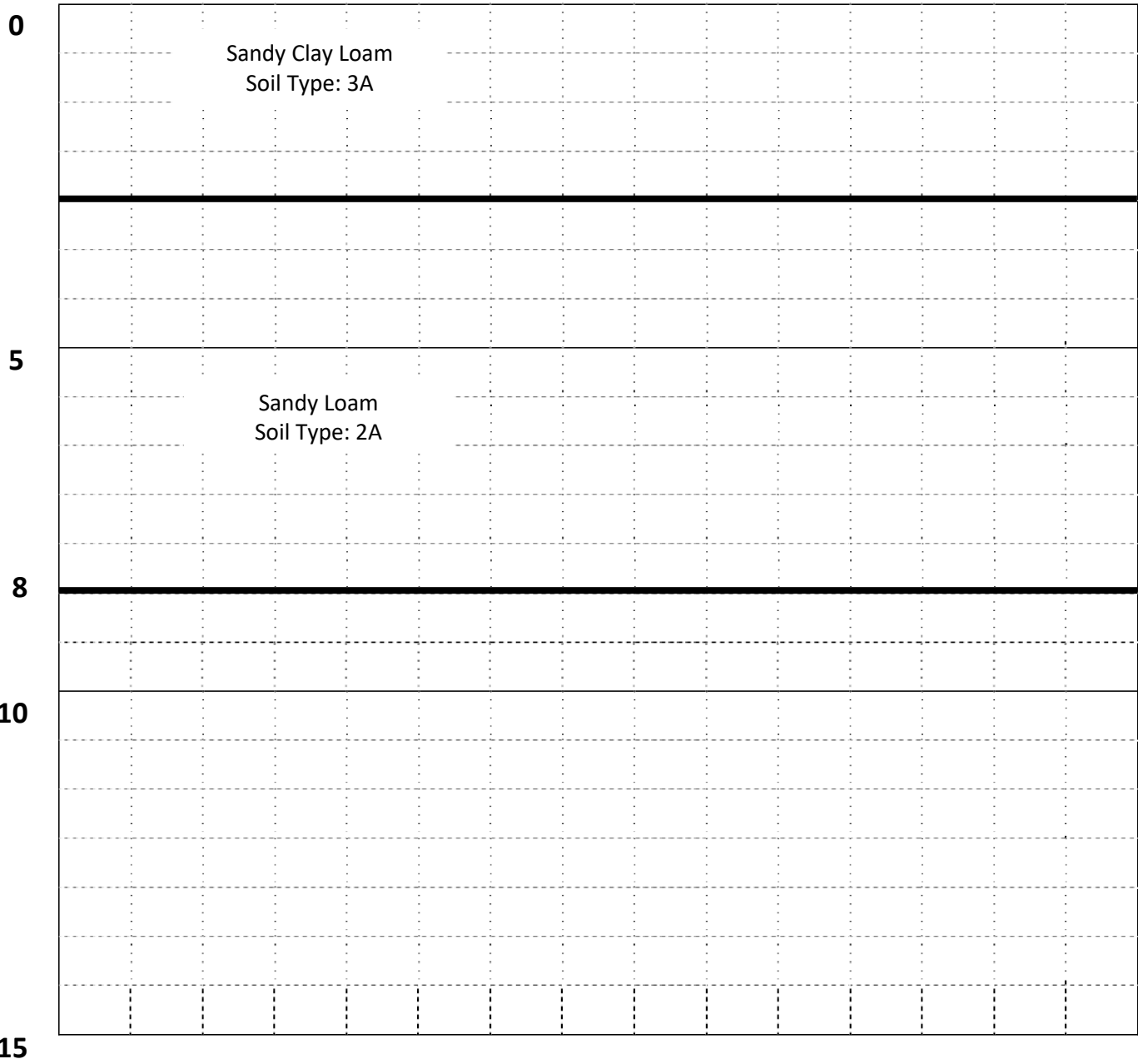
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720-200-1670


Soil Profile Test Pit Graphic Log



Certification

I certify that the information on this form is correct and complete to the best of my knowledge and that I performed all tests in accordance with the provisions of Tri-County Health Department Regulation O-14. I certify that I have all the competencies needed in accordance with Section 7.13 C. of O-14.

Original Signature
Wolf von Carlowitz
Print Name
6/06/2024
Date



Soilogic, Inc.
Company Name
3522 Draft Horse Court, Loveland, CO 80538
Address
970-412-2811
Phone
wolf@soilogic.com
Email



SOIL PROFILE TEST PIT LOG

(A SEPARATE LOG SHALL BE COMPLETED FOR EACH SOIL PROFILE TEST PIT)

Test Pit Number: TP-2

Date of Logging: 5/01/2024

Range of Depth of Soil Horizon, Relative to Ground Surface	USDA Soil Texture	USDA Soil Structure - Shape	Soil Structure-Grade	Redoximorphic Features Present? (Y/N)	Soil Type (from Table 9, In O-14)
0 to 3', Sa Cl Loam	Sa Clay Lo.	Granular	Weak	N	3A
3' to 8', Sa Loam	Sandy Loam	Granular	Weak	N	2A

Notes:

Is there a limiting condition with low permeability, ground water, bedrock, or other condition that restricts the treatment capability of the soil? ☐ Yes ☒ No

If yes, design document must explain how the limiting condition is addressed.

Evidence of Past Groundwater (Redoximorphic Features): ☐ Yes ☒ No

Excavation Equipment: Backhoe

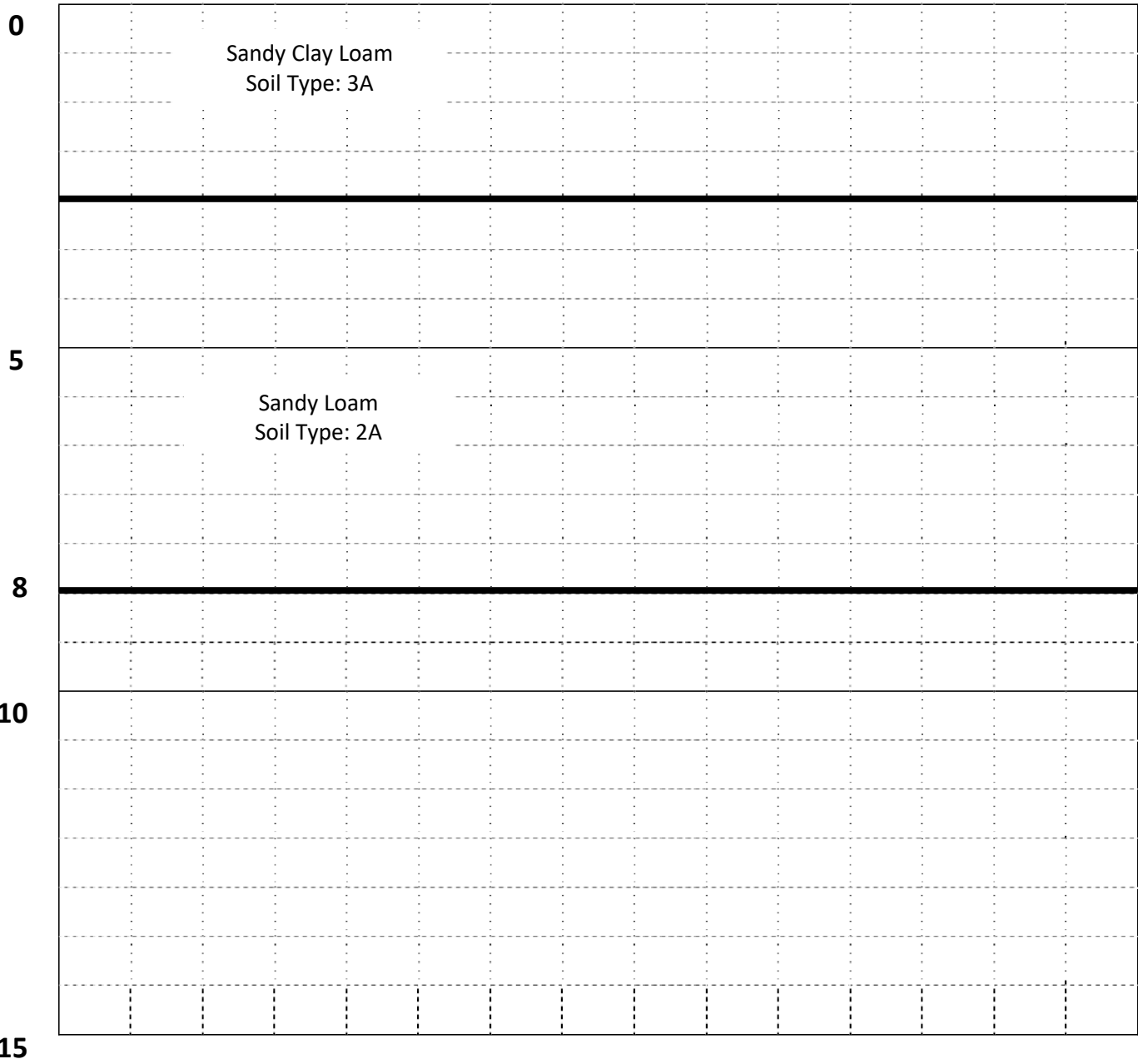
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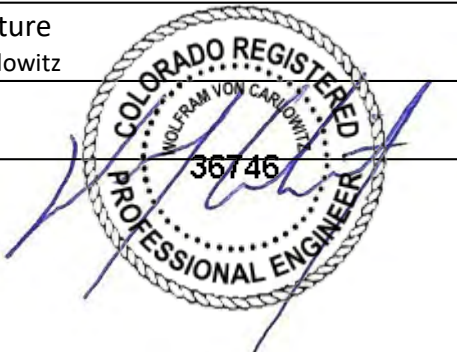
Soil Profile Test Pit Graphic Log



Certification

I certify that the information on this form is correct and complete to the best of my knowledge and that I performed all tests in accordance with the provisions of Tri-County Health Department Regulation O-14. I certify that I have all the competencies needed in accordance with Section 7.13 C. of O-14.

Original Signature
Wolf von Carlowitz
Print Name
6/06/2024
Date



Soilogic, Inc.
Company Name
3522 Draft Horse Court, Loveland, CO 80538
Address
970-412-2811
Phone
wolf@soilogic.com
Email



SOIL PROFILE TEST PIT LOG

(A SEPARATE LOG SHALL BE COMPLETED FOR EACH SOIL PROFILE TEST PIT)

Test Pit Number: TP-3

Date of Logging: 5/01/2024

Range of Depth of Soil Horizon, Relative to Ground Surface	USDA Soil Texture	USDA Soil Structure - Shape	Soil Structure-Grade	Redoximorphic Features Present? (Y/N)	Soil Type (from Table 9, In O-14)
0 to 3', Sa Cl Loam	Sa Clay Lo.	Granular	Weak	N	3A
3' to 7', Sa Loam	Sandy Loam	Granular	Weak	N	2A
7' to 8', Sa Clay	Sandy Clay	Granular	Moderate	N	4

Notes:

Is there a limiting condition with low permeability, ground water, bedrock, or other condition that restricts the treatment capability of the soil? ☐ Yes ☒ No

If yes, design document must explain how the limiting condition is addressed.

Evidence of Past Groundwater (Redoximorphic Features): ☐ Yes ☒ No

Excavation Equipment: Backhoe

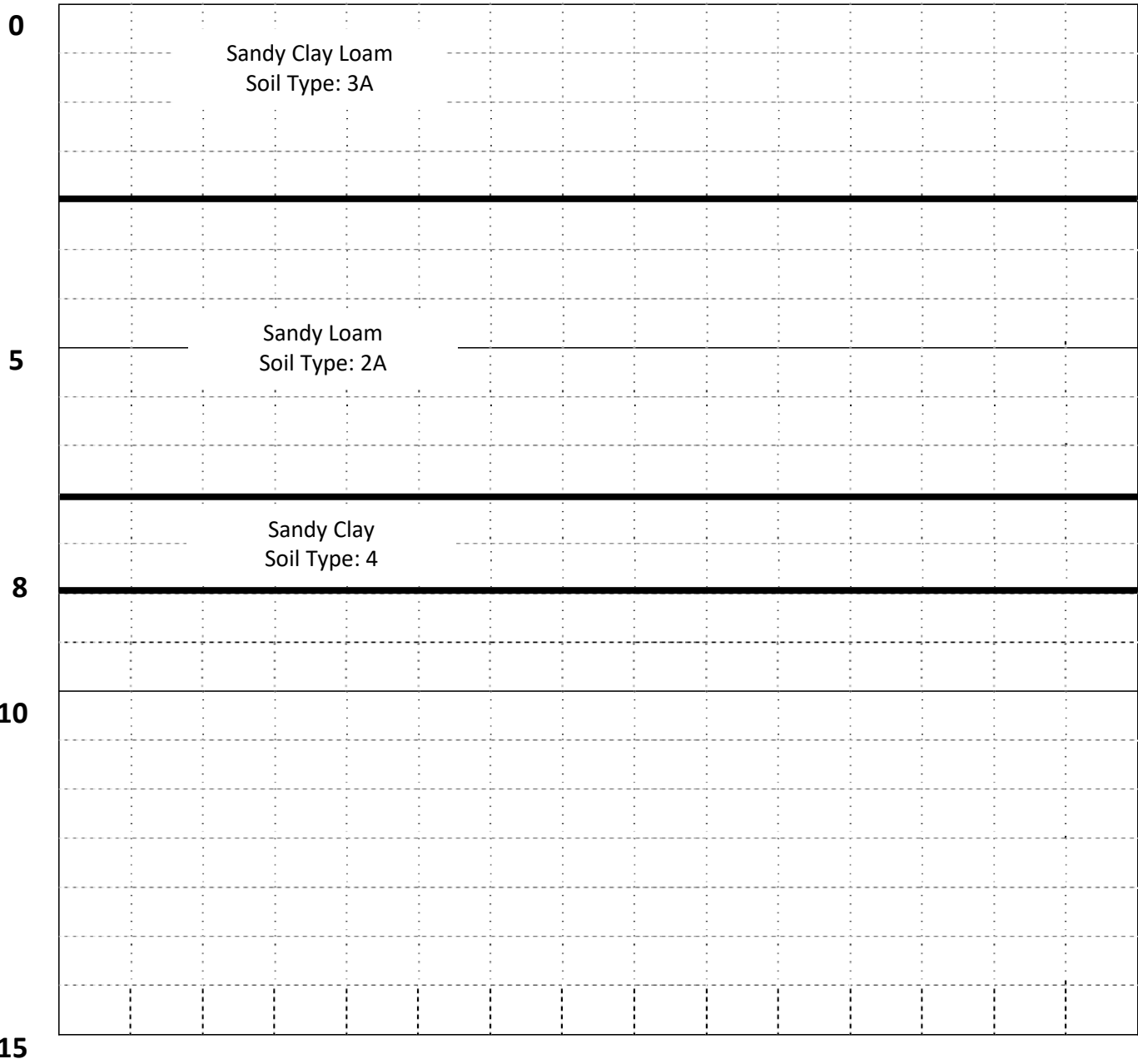
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720-200-1670


Soil Profile Test Pit Graphic Log



Certification

I certify that the information on this form is correct and complete to the best of my knowledge and that I performed all tests in accordance with the provisions of Tri-County Health Department Regulation O-14. I certify that I have all the competencies needed in accordance with Section 7.13 C. of O-14.

Original Signature
Wolf von Carlowitz
Print Name
6/06/2024
Date



Soilogic, Inc.
Company Name
3522 Draft Horse Court, Loveland, CO 80538
Address
970-412-2811
Phone
wolf@soilogic.com
Email



SOIL PROFILE TEST PIT LOG

(A SEPARATE LOG SHALL BE COMPLETED FOR EACH SOIL PROFILE TEST PIT)

Test Pit Number: TP-4

Date of Logging: 5/01/2024

Range of Depth of Soil Horizon, Relative to Ground Surface	USDA Soil Texture	USDA Soil Structure - Shape	Soil Structure-Grade	Redoximorphic Features Present? (Y/N)	Soil Type (from Table 9, In O-14)
0 to 3', Sa Cl Loam	Sa Clay Lo.	Granular	Weak	N	3A
3' to 7', Sa Loam	Sandy Loam	Granular	Weak	N	2A
7' to 8', Sa Clay	Sandy Clay	Granular	Moderate	N	4

Notes:

Is there a limiting condition with low permeability, ground water, bedrock, or other condition that restricts the treatment capability of the soil? ☐ Yes ☒ No

If yes, design document must explain how the limiting condition is addressed.

Evidence of Past Groundwater (Redoximorphic Features): ☐ Yes ☒ No

Excavation Equipment: Backhoe

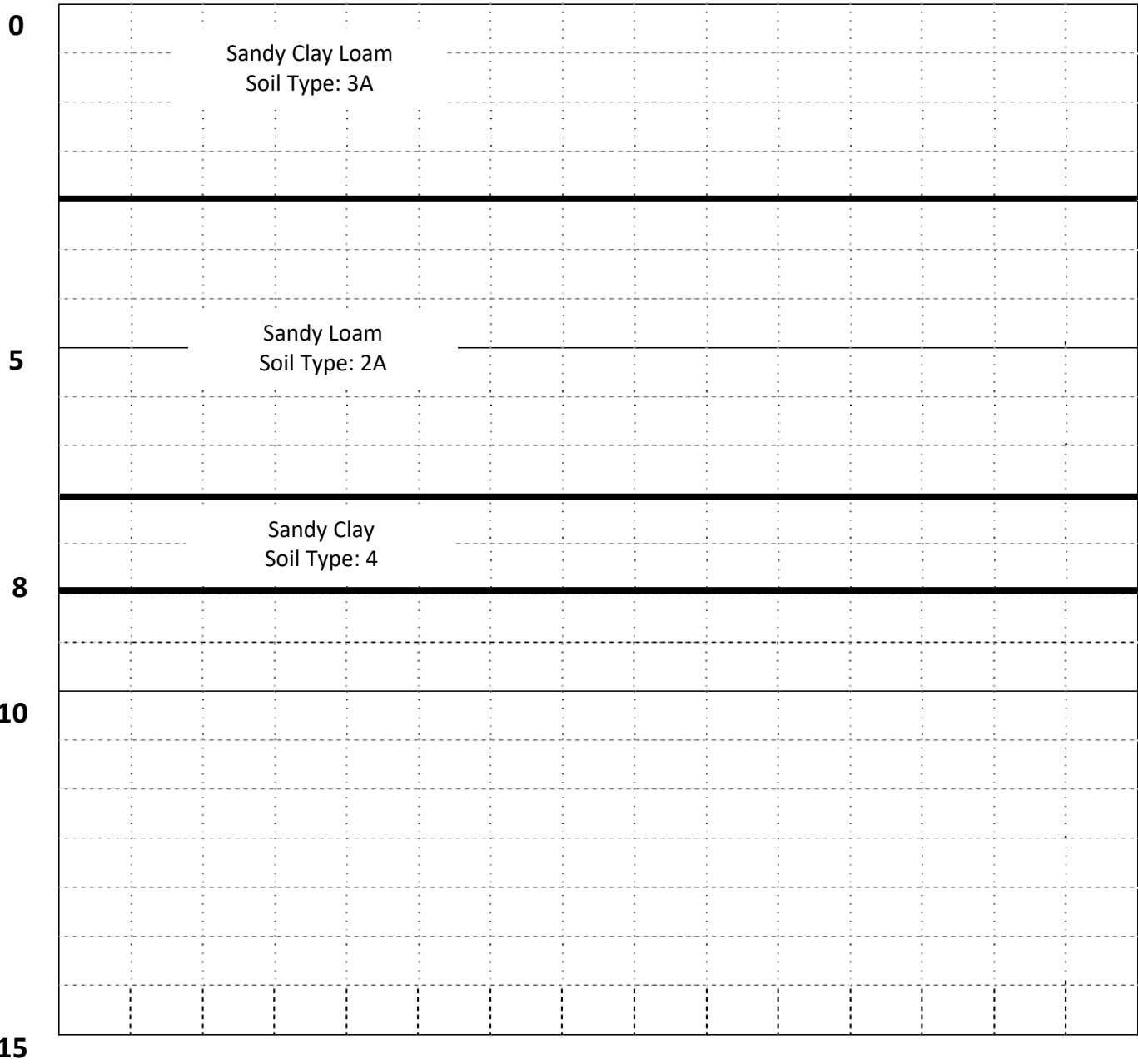
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Soil Profile Test Pit Graphic Log



Certification

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Original Signature
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Print Name
6/06/2024
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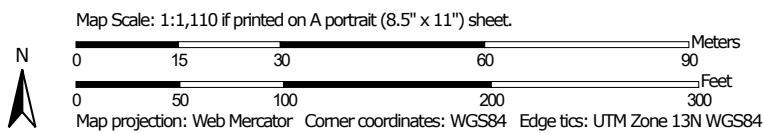


Soilogic, Inc.
Company Name
3522 Draft Horse Court, Loveland, CO 80538
Address
970-412-2811
Phone
wolf@soilogic.com
Email

Soil Map—Adams County Area, Parts of Adams and Denver Counties, Colorado



Soil Map may not be valid at this scale.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

6/3/2024
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Adams County Area, Parts of Adams and Denver Counties, Colorado

Survey Area Data: Version 20, Aug 24, 2023

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

Date(s) aerial images were photographed: Mar 1, 2023—Sep 1, 2023

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
VnB	Vona loamy sand, 0 to 3 percent slopes	4.0	100.0%
Totals for Area of Interest		4.0	100.0%

Adams County Area, Parts of Adams and Denver Counties, Colorado

VnB—Vona loamy sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 34x8

Elevation: 4,000 to 5,600 feet

Mean annual precipitation: 13 to 15 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 125 to 155 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Vona and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Vona

Setting

Landform: Plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Eolian sands

Typical profile

H1 - 0 to 9 inches: loamy sand

H2 - 9 to 22 inches: sandy loam

H3 - 22 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High
(1.98 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Gypsum, maximum content: 2 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0
mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: A
Ecological site: R067BY024CO - Sandy Plains
Hydric soil rating: No

Minor Components

Valent

Percent of map unit: 10 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Adams County Area, Parts of Adams and Denver Counties,
Colorado
Survey Area Data: Version 20, Aug 24, 2023



Cathleen Devaney <devaneycpa@gmail.com>

Questions for City of Brighton: Access and Stormwater for 18405 E 152 Ave

Martinez, Noe <NAMartinez@brightonco.gov>
To: Cathleen Devaney <devaneycpa@gmail.com>
Cc: "McCann, Summer" <SAMcCann@brightonco.gov>

Thu, Feb 6, 2025 at 11:35 AM

Good morning,

Thank you for the conversation today. As discussed in the meeting the City will allow access with the proper public improvements. Those improvements include the design/construction of the curb and gutter adjacent to the proper, detached sidewalk construction, and any ADA ramp accommodations in the public Right-of-way. The construction would need a ROW permit that would also be categorize as an access permit to that section of the street. Let me know if you have any questions. Thank you.

Best regards,



Noe Martinez
Public Works Engineering Manager
City of Brighton
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From: Cathleen Devaney <devaneycpa@gmail.com>
Sent: Tuesday, February 4, 2025 6:04 PM
To: Martinez, Noe <NAMartinez@brightonco.gov>
Cc: McCann, Summer <SAMcCann@brightonco.gov>

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CBW / CBW_Monument_Standard Design_Mockup_2020 JPG



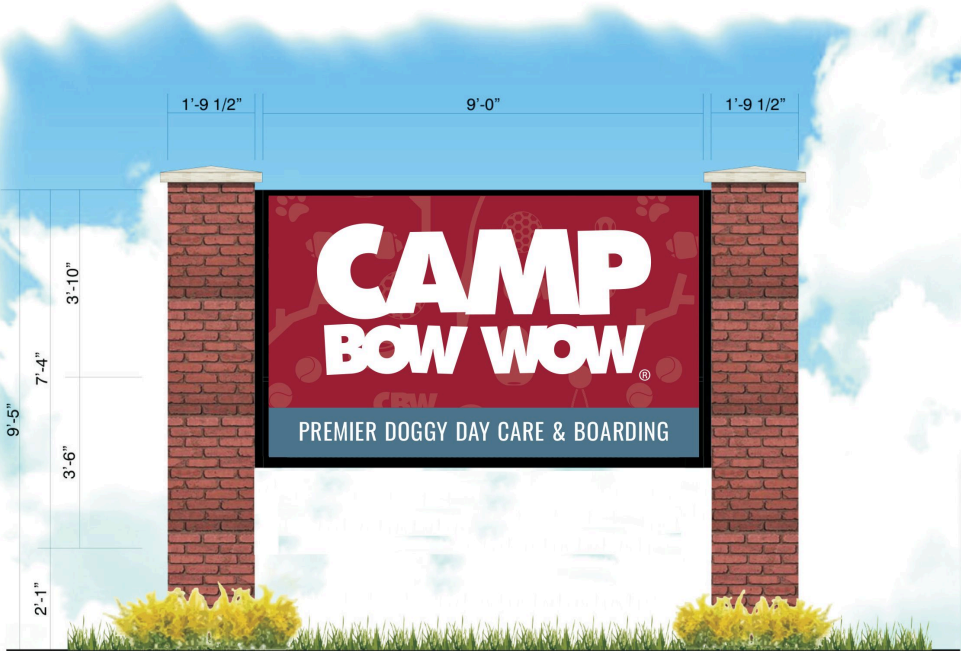
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NEW D.F. INT. FLUORESCENT ILLUMINATED MONUMENT SIGN W/ 19MM MONOCHROME 48 X 128 EMC'S 3/8" = 1'-0"
NOTE: MONUMENT CABINET AND RETAINERS TO BE PAINTED BLACK. WHITE LEAN FACES DECORATED WITH VINYL GRAPHICS
COLORS T.B.D. FAUX BRICK PILLARS, "Old Chicago Brick Veneer Panels." NEW MONUMENT SIGN TO BE MOUNTED TO EXISTING SUPPORTS.



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page 2 of 2

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36.5 X 144" lexan sign face
with translucent vinyl lettering

