

HEBER CITY CORPORATION
75 North Main Street
Heber City, UT 84032
Planning Commission Meeting Amended

June 10, 2025

6:00 p.m. – Regular Meeting

-Time and Order of Items are approximate and may be changed as Time Permits-

Public notice is hereby given that the monthly meeting of the Heber City Planning Commission will be in the Heber City Office Building, 75 North Main, South door, in the Council Chambers upstairs.

1. Regular Meeting:

- I. Call to Order
- II. Roll Call
- III. Pledge of Allegiance: By Invitation
- IV. Prayer/Thought by Invitation ()
- V. Recuse for Conflict of Interest

2. Consent Agenda:

- I. 05.13.2025 Draft Minutes for Approval

3. Action Items:

- I. Public Hearing for Jordanelle Ridge MDA Amendment Transportation Master Plan Exhibit Update (Aubrey Larsen)

4. Work Meeting:

- I. Housing Report by Josh Lythgoe

5. Administrative Items:

- I. **APA UT- 2025 Fall Conference**

Date: October 9-10, 2025

Location: Gateway- SLC, UT

Snag Your Early Bird Tickets Today!

[APA UT: Fall Conference](#)

6. Adjournment:

Ordinance 2006-05 allows Commission Members to participate in meetings via telecommunications media. In accordance with the Americans with Disabilities Act, those needing special accommodations during this meeting or who

are non-English speaking should contact Meshelle Kijanen at the Heber City Offices at 435.657.7898 at least eight hours prior to the meeting.

Posted on 06.05.2025, in the Heber City Municipal Building located at 75 North Main, the Heber City Website at www.heberut.gov, and on the Utah Public Notice Website at <http://pmn.utah.gov>.

HEBER CITY CORPORATION
75 North Main Street
Heber City, UT 84032
Heber City Council Meeting
May 13, 2025

DRAFT Minutes

6:00 p.m. – Regular Meeting

1. Regular Meeting:

I. Call to Order

Chairman Phil Jordan called the Planning Commission Meeting to order at 6:00 p.m. and welcomed everyone present.

II. Roll Call

Planning Commission Present:

Chairman Phil Jordan
Vice-Chair Tori Broughton
Commissioner Dave Richard
Commissioner Darek Slagowski
Commissioner Josh Knight
Commissioner Robert Wilson
Commissioner Greg Royall
Commissioner Robert Mckinley

Planning Commission Absent:

Commissioner Dennis Gunn

Staff Present:

Planning Manager Jamie
Baron Planner Jacob Roberts
Planning Admin Meshelle Kijanen

Staff Participating Remotely:

Robin Bond

Also Present:

Elisha McKenzie, Kim Snyder, Mary Snyder, Jon Buss, Julie Franklin, Bridget Whiting, Oakley Franklin, Cal Johnson, Kris Parker, Kasey Plourde, Ralph Stanislaw

Also Attending Remotely:

Brittany Renshaw, D. Harris, Deb, Eric Bunker Grace Doerfler, Jamie Hewlett, Kelli, Lindsey, Marianne, Mr. Garner

III. Pledge of Allegiance: By Invitation

Vice-Chair Broughton led the recitation of the Pledge of Allegiance.

IV. Prayer/Thought: by Invitation

[Audio does not begin until 00:01:35] Commissioner Broughton shared some comments about State and federal grants that Heber City had recently received to improve their park amenities.

V. Recuse for Conflict of Interest N/A

2. Consent Agenda: N/A

3. Action Items:

I. Public Hearing for 1874 South Daniels Road Zoning Map Amendment (Jacob Roberts)

Planner Roberts presented this item. He explained this was a zone change request from R-1/I-1 to I-1 Industrial only and oriented the Commission to the location of the site. He shared maps of the current zoning as well as the proposed zoning. Planner Roberts also shared maps of the General Plan land use designation. He added that the applicant wished to use the house on the site as their personal residence and he explained this could be grandfathered in as a permitted use.

Applicant Chris Parker stated that he owned the property and planned to eventually use it for an industrial use, which was why he had requested the zone change. He said at some point in the future, the house on the land would be torn down and then the use of the land would be purely industrial.

Planning Admin Kijanen read the rules for the public comment section. Chairman Jordan then opened the floor for a public hearing.

Jami Hewlett gave an online comment. She asked how many acres the parcel was and where it was located. Chairman Jordan stated that had been explained in Planner Robert's overview. The applicant added his property was one acre. Ms. Hewlett asked where the parcel was located and the applicant stated it was within Heber City's boundaries. Ms. Hewlett continued to ask questions about the specifics of the proposal and Chairman Jordan encouraged her to look over the provided materials which outlined all of the information.

Hearing no further comments, Chairman Jordan closed the public hearing.

Commissioner Richards commented that another applicant had recently come before the Commission with a parcel similar to this one and there had been questions with that application about sewer and road connections. He asked City Engineer Hansen if he foresaw similar issues with this application and City Engineer Hansen indicated that everything seemed good from an engineering perspective. Commissioner Richards asked if the property was part of the public sewer line or had a septic tank and City Engineer Hansen replied the property had a septic tank. Commissioner Richards expressed that given Engineering's approval, he was in favor of the proposal since the area was mostly industrial already.

Chairman Jordan asked if changes could be made to the house if it passed to another owner. Planner Roberts explained that the house would be considered legal non-conforming, so as long as no substantial changes were made to the house it could continue to be used as a residence, even if the ownership changed hands.

Planning Admin Kijanen noted there was a question in the online chat that asked about the intended use of the property. Mr. Parker replied that he planned to continue using the house on the property as a personal residence, and parts of the land behind the home would be leased out to a towing company and a landscaper.

Motion: Commissioner Knight moved to approve the 1874 South Daniels rezone with the findings and conditions as presented in the Staff report. Commissioner Royall made the second.

Discussion: N/A

Voting Yes: Chairman Phill Jordan, Vice-Chair Tori Broughton, Commissioner Dave Richards, Commissioner Darek Slagowski, Commissioner Josh Knight, Commissioner Robert Wilson, Commissioner Greg Royall

Voting No: None. The motion carried.

II. Public Hearing for Body Art Facility Text Amendment (Jacob Roberts)

Planner Roberts presented this item as well and recalled that the Commission had previously discussed this item. He provided background on this item and stated that a business owner had approached the Council after finding out that tattoo shops were not permitted anywhere in Heber City. He reported that the business owner had called attention to the fact that there was no definition in the Code about body art facilities, and the word “tattoo” was vaguely defined. Planner Roberts explained that the question to consider was if Heber City should adopt a new ordinance that updated the definition of body art facilities. Planner Roberts discussed that body art facilities were not considered to be a sexually-oriented business. He said that the central issue was aligning their definitions with State Code and he indicated the section of State Code that dealt with body art facilities like microblading, permanent cosmetics, and other similar services.

Planner Baron listed the proposed changes to Heber City’s Code. He explained the proposal was to create a new definition of body art facilities and he read the new definition aloud. He recalled that the Commission and Staff had determined to not include branding or scarification in the new definition at a previous meeting. He also read the definition for permanent cosmetics and microblading and opined that their definition covered the services that were already taking place throughout Heber City.

Planner Roberts then noted that the new ordinance would affect certain zones and said that a large portion of the City had been noticed about the possible changes. He said that they had not made any changes to home-occupied businesses at this time, in part because it was not cost-effective to notice such a large part of the City at once and also because the home-occupation Code needed to be reviewed in greater depth, so they planned to go through it at a later time.

Planner Roberts listed the zones that had been proposed to allow body art facilities with no conditions, which included certain industrial zones, commercial zones, and business and medical park zones. He said that these zones already allowed services that were similar to body art facilities. He said that City Staff recommended approval based on

the findings and conditions identified and recommended to adopt the proposed language and change the existing ordinance in order to clear up the confusion about definition. He expressed he was happy to answer any questions before they moved into a public hearing.

Chairman Jordan asked the applicant if they had any comments and if they felt the presentation aligned with what they had been asking for. The applicant's comments were not captured as they were in the audience, though they indicated that the presentation aligned with their initial request.

Chairman Jordan opened the floor for the public hearing and reminded the public of the rules.

Planning Admin Kijanen read aloud the comments that had been submitted via email.

The first comment was from Megan Harris: "I would like to show my support for the necessary zoning changes that will allow more body art services in the community: tattoos, microblading, permanent makeup, etc. Body art might not be for everyone, but there are many people who want or need these services. We would rather keep our business in our valley than drive 30-60 minutes somewhere else. Thank you for your time."

Comment from Denise Harris: "In case I am not able to make the meeting on May 13th, I want to express our family's support for the zoning change that will allow for more body art services in our community, whether it is tattoo, microblading, piercings, or permanent makeup. Sadly, many people have negative connotations surrounding body art- if so, that is their choice, but I would like to see more options for it here in Heber for people who do support it. Then they won't have to travel 30-60 minutes."

Comment from Jeanie Richards: "I'm writing to express my strong support for the proposed change to the City Code that would allow for the operation of body art facilities within our community. This change represents more than just a regulatory update, it acknowledges the evolving culture, artistic and economic landscape of our city. The women leading the initiative have shown remarkable dedication and patience in their efforts to make a positive difference. Their leadership has been rooted in professionalism, community engagement, and a deep respect for health and safety standards. Body art is a legitimate and respected form of personal and artistic expression. Allowing licensed and well-regulated facilities in our city will not only provide new opportunities for local artists and entrepreneurs, but ensure that this practice is carried out in safe, clean, and professional environments. I commend the City for considering this change and urge you to vote in favor of updating the Code to support these businesses. The individuals behind this movement have shown a sincere commitment to our community and I stand with them in their support of progress.

Comment from Nicole Robinson: "I am writing in support of changing (changing back?) zoning that would allow body artists more freedom in Heber City. I understand that tattoo parlors may once have been a shop that carried negative connotations and culture, but not only have times changed, so has the body art industry. A more liberal zoning situation giving them the ability to practice in multiple places without outdated ideas of tattooing are what we need in Heber City. Additionally I am in deep support of Oakley Franklin and the work she has done, and she should be allowed to practice in

the location they reside. I don't know the details of this quiet change made in October of 2021, but it frustrates me that changes like this aren't clearly changed with business owners. Thanks for your time, hope that small businesses thrive."

Jami Hewlett made a comment online. She did not understand what actual changes were being made and asked if she could open tattoo shops wherever she wanted in the industrial and commercial zones. Chairman Jordan clarified her question. Planner Roberts explained that tattoo shops had once been allowed in commercial zones, but this had been changed in 2021 as part of a major Code rewrite. Planner Baron added that it was his understanding that tattooing had once been permitted in some industrial zones, though the current ordinance did not allow tattoo shops in any zone. Planner Baron explained that with land use law, it was considered best practice to permit tattoo shops in at least some parts of the City. Ms. Hewlett expressed confusion about the changes made in 2021 and reiterated her original question about opening tattoo shops in the City. Commissioner Broughton commented there were many regulations through the Health Department and the State that would need to be followed to operate a tattoo shop, in addition to the business license.

Commissioner Richards said that he was not opposed to the idea of tattoo shops, although he personally would not be a customer. He agreed that tattoo shops should be permitted at least somewhere in the City. He commented that he was glad to know that scarification had been removed from the proposal. He also expressed that he liked that the tattooing itself would take place in back rooms, not out in view of the public and Ms. Franklin confirmed that would be the case. Chairman Jordan clarified there was nothing in the ordinance that required the tattooing be kept out of public view and Ms. Franklin replied that although it was not required, it was generally done in private out of respect for the customer.

Commissioner Knight thanked Planner Roberts for his work in clarifying the definitions. He expressed he was glad to see Heber come into alignment with the State Code. He commented that tattooing was not cheap and was a valid art form, and he felt these services would benefit many people in the community. Chairman Jordan echoed Commissioner Knight's commendation of Planner Robert's work on this item.

Chairman Jordan asked how Heber City's policies compared to other cities. Planner Roberts discussed that Provo was currently updating their Code to be more permissive, Payson City was very permissive, and Lehi was somewhat permissive. Chairman Jordan asked Planner Roberts to update the list of other cities' Codes and distribute it to the Commissioners.

Chairman Jordan asked the other Commissioners if they were willing to move forward with this item since they had discussed it several times. The Commissioners all indicated they were willing to move forward with a vote.

Motion: Vice Chair Broughton moved to approve the Body Art Facility Text Amendment with the findings and conditions as presented in the Staff report. Commissioner Josh Knight made the second.

Discussion: N/A

Voting Yes: Chairman Phil Jordan, Vice-Chair Tori Broughton, Commissioner Dave Richards, Commissioner Darek Slagowski, Commissioner Josh Knight, Commissioner Robert Wilson, Commissioner Greg Royall

Voting No: None. The motion carried.

III. Public Hearing for Karl Malone Polaris MDA located at 900 South and Main Street

Planner Baron presented this item and indicated that David Hicks, General Manager of Karl Malone, and Cal Johnson, engineer of the project, were present that evening. Planner Baron explained that the applicant Karl Malone wished to expand their facility and said that the proposed expansion would push their setback out of compliance with what was required by the City. Planner Baron said that Karl Malone was requesting an MDA that would allow them to circumvent this setback requirement. Planner Baron explained the need for the expansion and shared architectural renderings of the proposed design, noting that the design was within the City's guidelines.

Planner Baron highlighted that there was a chain-link fence, which had actually been prohibited by the City Code since the time the fence had been installed. As such, he said the applicant would need to add some kind of metal fencing and he indicated that City Staff and the applicant had discussed this issue. Mr. Hicks confirmed that they were willing to modify the fence design.

Commissioner Broughton commented that she had visited the property and asked what improvements the applicant planned to make to the front. She also inquired about elevation. Mr. Hicks oriented Commissioner Broughton to the cardinal directions that the property faced as well as the surrounding buildings. Mr. Hicks then addressed her question about improvements and said there was currently no landscaping, and they planned to fix the setbacks, add landscaping, and remove the chain-link fence. Mr. Hicks affirmed that their concept would blend in with the surrounding area. Commissioner Broughton asked Mr. Hicks if he still planned to display inventory in front of the building once the fence was removed and Mr. Hicks replied that they would; they would use landscaping features rather than a fence to keep the inventory secure.

Commissioner Richards asked about traffic flow and worried if there would be ample room to drive large vehicles through the parking lot with the proposed modifications. Mr. Hicks assured Commissioner Richards that he would have room to maneuver vehicles. Mr. Hicks provided more information about how to access the property.

Chairman Jordan asked Planner Baron about noticing procedures for the public hearing. He asked if the immediate neighbors had been noticed and Planner Baron replied that all adjacent neighbors had been noticed. Mr. Hicks commented that he had a positive working relationship with his closest neighbor.

The neighbor, Shawn Iverson was present online and commented. Mr. Iverson said he owned the adjacent property 906 South Main, which he reported had recently been remodeled. He expressed that he was excited for Karl Malone to improve the looks of the rest of the block and said he would appreciate it if the proposal could be given a positive recommendation.

Chairman Jordan opened the public hearing.

Jami Hewlett asked about rules for noticing. Chairman Jordan replied that noticing policies were publically available. Planner Baron added there was both a City Code and State Code for noticing procedures and he indicated Planning Admin Kijanen could pass that information along to Ms. Hewlett.

Chairman Jordan closed the public hearing.

Commissioner Knight asked if trees or other live vegetation could be added to the landscaping plan in addition to the rocks that had been proposed in the front. He thought vegetation could be more aesthetic than only having rocks. Planner Baron commented the applicant would have to comply with the Street Tree ordinance.

City Engineer Hansen acknowledged this was in a preliminary phase, but asked if there was a written record of the agreement that the applicant had with their neighbor about access to the property. Mr. Hicks replied that it was currently a verbal agreement, though said he could get a written agreement when they came back before the Commission and Staff as the process moved forward.

Chairman Jordan asked the Commissioners if they felt comfortable moving forward and the Commissioners indicated that they were.

Commissioner Richards commented there was no 'one size fits all' for different businesses and their unique needs, and he commented that a setback exemption made sense given the kind of inventory placed in front of the store. Commissioner Royall agreed and said he liked the idea of having the area become more developed.

Motion: Commissioner Royall moved to approve the Karl Malone Polaris MDA, located at 900 South and Main Street, as presented with the findings and conditions as outlined in the Staff report. Vice-Chair Broughton made the second.

Discussion: N/A

Voting Yes: Commissioner Phil Jordan, Vice-Chair Tori Broughton, Commissioner Dave Richard, Commissioner Darek Slagowski, Commissioner Josh Knight, Commissioner Robert Wilson, Commissioner Greg Royall

Voting No: None. The motion carried.

IV. Plourde Annexation & MDA (Jacob Roberts)

Planner Roberts outlined this item. He said the applicant, Casey Plourde, had submitted a request for annexation of her parcel to facilitate the construction of an event venue. He reported that the application petition had been accepted by the City Council in January of 2025 and had first been brought before the City in March of 2024. Planner Roberts explained that the purpose of the discussion that evening was to obtain a recommendation from the Planning Commission if they should move forward into a

public hearing. He then shared maps of the property and noted it was a challenging topography with several steep slopes, meaning that only part of the property could be developed. He said that the General Plan's designation of the area was currently Mountain Preservation.

Planner Roberts explained that the request was for the zone to be the Mountain Community Zone with some adjustments as part of the MDA, which he listed. He discussed some details of the landscaping and said that portions of the land would be dedicated to be part of a trail network. He noted as well that a portion of the land would be used for a caretaker's dwelling, which he explained was a residence that would be located near the event center that would house the managers of the center. Planner Roberts outlined the parking stalls, fire lane, and bathrooms that were identified in the site plan.

Planner Roberts shared the concept that the applicants had submitted. Planner Roberts explained that the site plan and building elevation would get approved as part of the MDA, so there would be little flexibility once they went through the MDA approval process. He clarified that although the MDA was not before the Commission that evening in written form, the list of adjustments that he had presented was essentially the MDA. Chairman Jordan clarified that this item would not come back before them if they made a recommendation that evening, which Planner Roberts confirmed.

Commissioner Knight asked what the purpose of the event center was and Ms. Casey Plourde replied that the center did private events like weddings. She said her company was Harvest Moon Events and noted that Commissioner Knight had worked with her in the past in his capacity as a florist.

Planner Roberts stated that the question for the Commission was if they wished to issue a positive or negative recommendation to move this application forward before the Council and to a public hearing. Planner Roberts noted that many logistical hurdles had already been overcome, such as UDOT road access, sewer connectivity, and fire safety, and said Staff had been working on these issues for over a month and now felt comfortable moving the application forward more publicly.

Ms. Plourde identified herself as the property owner and gave an overview of her event company. She said she was excited about the prospect of having her own venue in Wasatch County and said this was something she had wanted for many years. She thought this proposal was a good fit for the topography and location of the parcel. She also noted that her father, who was present that evening, was an architect and had helped with some of the planning.

Ms. Plourde explained the vision she had for the space and said that she wanted to use a lot of glass in the buildings to capitalize on the views. She imagined there would be a lot of decks, which would help with the challenging topography. She said that the venue would be small, with about 1,500 square feet and a maximum capacity of about 212 people. Ms. Plourde added there were some yurts on the property for potential overnight stays, as well as restrooms and ancillary rooms for storage. She hoped to impact the land as little as possible and use it in the best possible way. She summarized that she felt the plan was in a good place to move forward. Ms. Plourde's father commented about the small trails on the property that were intended to provide access to guests with accessibility challenges.

Commissioner Richards asked about Exhibit G, which was a concept plan that included an amphitheater. He noted this differed from the concept plan presented by Planner Roberts. Ms. Plourde replied that Exhibit G was part of their initial petition submission, and the plan had changed since then.

Commissioner Richards then asked about utilities and Ms. Plourde noted that water had proven to be a challenge. She said that they had promised the Fire Department that they would install either a fire hydrant or a retention pond, which would require pouring under the highway. She added that the sewer was on their side of the highway so that would be easier to connect. Ms. Plourde also noted that they had spoken with an electric company and said they would be able to get power to the site. Commissioner Richards asked about storm drains and City Engineer Hansen said they would be required to comply with the storm water design manual, though they had not yet reached that stage of the application. Commissioner Richards commented that storm drains often posed a challenge for applications. Commissioner Richards also commented that a gas connection was not necessary since they could use electric or propane.

Commissioner Knight asked if the parking lot was gravel and Ms. Plourde's father confirmed that was correct. Ms. Plourde's father said the goal was to avoid any non-pervious pavement and said they would hard-pack the driveways. Ms. Plourde's father said they wanted to avoid problems with water collection and disbursement. Commissioner Richards agreed this was an appropriate course of action and commented about some properties that he had developed in the past. Commissioner Richards added that he liked the vision of the proposed property and hoped they could move through any logistical issues.

Commissioner Broughton asked where the caretaker's dwelling would be located and Ms. Plourde indicated on the map where this would be located. Ms. Plourde also discussed that they wanted to donate 32 acres to a conservation easement and said the caretaker dwelling would be located within that section. Ms. Plourde acknowledged that the easement would need to be located in an area with slopes that were less than 30%, and said they needed to do further research to identify what section of the property met that requirement.

Commissioner Broughton also asked if they still planned to have portable toilets and trailers. Ms. Plourde replied that although that was the original plan since it did not impact the land, she had realized that she needed permanent facilities in order to comply with the City's requirements. Ms. Plourde noted permanent facilities would increase their cost. Chairman Jordan confirmed that Ms. Plourde had calculated the maximum capacity of 212 people based on the facilities that she planned to provide.

Commissioner Broughton asked for clarification about the maximum density given the proposed zoning and Ms. Plourde confirmed that the only part of the property that would be developed was one third of an acre. Planner Roberts spoke to the density as well. Chairman Jordan asked if the density could increase in the future and Planner Roberts replied that it would not, at least in the foreseeable future, since a majority of the property would be set aside for a conservation easement and also because the parking requirements would prevent the capacity from increasing dramatically.

Planner Roberts explained the process moving forward and explained that the
Heber City Planning Commission DRAFT Minutes May 13, 2025

Commission would not see this application again until they saw a site plan after the property's annexation. Planner Roberts outlined the annexation process.

The Commission continued to discuss the possibility of the occupancy limit increasing. Commissioner Knight emphasized that the parking requirements were such that the occupancy limit could not increase substantially, since they needed to provide parking for guests. Commissioner Knight noted that the slope of the property inhibited more parking lots from being developed.

Commissioner Broughton asked to see the zoning map. Planner Roberts pulled up the map and indicated that the surrounding zones were Mountain Community. Ms. Plourde commented that she had reached out to the landowner of a neighboring parcel to see if they were interested in being annexed, but said she had not heard back.

Ms. Plourde also offered to include language in the MDA that limited the occupancy. Chairman Jordan said that language would have to be included in their motion that evening.

Commissioner Wilson asked if the event center would operate year-round and Ms. Plourde replied that it would. Commissioner Wilson then asked about snow removal plans in the winter months, given that the paths were unpaved. Ms. Plourde replied that they should still be able to plow since the path was hard-packed. Chairman Jordan added that the paths would likely not be utilized in the winter; only the main building.

Chairman Jordan recused himself from the vote since he was participating in another assembly venue that would be operating nearby.

Motion: Vice-Chair Broughton moved to approve the Plourde annexation as presented, with the findings and conditions as presented in the conclusion of the Staff Report. Commissioner Knight made the second.

Discussion: Chairman Jordan recommended that the Planning Commission consider including an occupancy limit in their recommendation to the Council. Commissioner Knight asked if this was an unbiased opinion and Chairman Jordan acknowledged his point, but expressed he was interested in the best use of the land. Commissioner Richards thought the parking and bathroom requirements would limit the occupancy load. Commissioner Richards said he wanted to see things move forward, and added that he was more interested in ensuring that the caretaker's unit maintained its original intent.

Vice-Chair Broughton asked for clarification if the caretaker's dwelling was separate from the rest of the parcel and Ms. Plourde replied that the dwelling was part of the eight acres that had been set aside. Ms. Plourde elaborated that there was another 0.3 acre portion of the land that they hoped to sell in order to alleviate the financial burden of the development. Commissioner Broughton pointed out that if the parcel was only a third of an acre, there was nothing that could be done with the property within the Mountain Community Zone. Planner Roberts acknowledged that point and said they needed to work out those details in the MDA with the Council. Planner Roberts said the Commission needed to determine if they would be okay with a subdivided parcel with a use that was legal within the zone. Commissioner Broughton thought the Commission needed to agree on a use for the parcel now.

Vice-Chair Broughton asked if the conservation easement was part of the MDA and Planner Roberts said it currently was not, but they could add it to the MDA. Commissioner Broughton said the easement would limit the capacity to further expand the property and increase the occupancy. Planner Baron indicated where the conservation easement was located on the map.

Commissioner Knight asked for the dimensions of the main building. Ms. Plourde's father replied it was 27 by 55 feet, and he showed the structure outline. Ms. Plourde's father added there was a gathering space to the side of the building.

City Engineer RossHansen asked about the boundary of the conservation easement. He said that currently, the zone allowed for one unit per acre and asked if they would need some of the conservation easement boundary to move in order to meet that requirement of one acre. Ms. Plourde said she was flexible with changing the boundary and said they had picked 32 acres somewhat arbitrarily, so they could alter that if it allowed them to meet a requirement.

Commissioner Knight suggested that the MDA be changed to include that a one-acre portion be cut into the 32-acre conservation easement, in order to make a one-acre subdividable parcel. Commissioner Broughton thought it would be best for both the Commission and the applicant to work through this issue now.

Vice-Chair Broughton began to amend her motion to approve the Plourde annexation with the definition of the 31-acre conservation easement, eight-acre event site, with no less than one acre for the caretaker dwelling. The Commission discussed what the acreage of the conservation easement and event center would work out to be. Planner Roberts proposed that they not outline the acreage; but simply say that the parcel that was to be sold needed to be in compliance with the zone, which in this case meant that it would have to be at least an acre. Commissioner Richards agreed they did not need to clarify what the acreage for each section would be as he did not want to be overbearing on the applicant. Planner Baron agreed they could say "the remainder of the parcel be put into a conservation easement."

Vice-Chair Broughton amended her initial motion to approve the Plourde annexation with the definition that the event site be eight acres, the sellable parcel be compliant with the zone, and the remainder of the property be placed in a conservation easement. Commissioner Knight affirmed his second.

Voting Yes: Vice-Chair Tori Broughton, Commissioner Dave Richards, Commissioner Darek Slagowski, Commissioner Josh Knight, Commissioner Robert Wilson, Commissioner Greg Royall.

Chairman Jordan abstained.

Voting No: None. The motion carried.

4. Work Meeting: N/A

5. Administrative Items:

I. City Council Communication Item

Planner Baron summarized the City County Communication Item and noted he was not present for the entirety of the meeting. He reported there had been a work meeting first, which included a follow-up budget workshop. In the main meeting, he stated the Council had approved the tax recommendation project for the board and they had discussed- but not approved- the possibility of amending the Code to allow fee-in-lieus for affordable housing to go to the City, not just the Housing Board. Planner Baron said there had also been a resolution regarding Red White and Blue Festivals and America 250, as well as an annual report from the Wasatch County Health Department.

Planner Baron also reported that the Council had discussed the Commission's recommendations for the Red Rock annexation proposal and said a public hearing would be held for that item soon, likely in June. Planner Baron said there had been a public hearing as part of the budget process, as well as a public hearing about the Harvest Village Public Infrastructure District. Planner Baron summarized that the majority of the meeting had been budget related.

Chairman Jordan reminded the Commissions of their annual training requirements. Chairman Jordan also stated he would be absent for the next two meetings and Commissioner Broughton would serve as Chair.

6. Adjournment: Commissioner Slagowski motioned to adjourn and the motion carried.

Meshelle Kijanen, Administrative Assistant

DRAFT



Planning Commission Staff Report

MEETING DATE: 6/10/2025

SUBJECT: Public Hearing for Jordanelle Ridge MDA Amendment Transportation Master Plan Exhibit Update (Aubrey Larsen)

RESPONSIBLE: Aubrey Larsen

DEPARTMENT: Planning

STRATEGIC RELEVANCE: Community Development

SUMMARY

This application is to amend the existing Master Development Agreement for Jordanelle Ridge. This request is to facilitate an update to the Transportation Master Plan Exhibit to reflect significant changes to road classifications, alignments, and traffic volumes within Villages 1, 3-5 of the Jordanelle Ridge development.

Policy Question:

Should the Planning Commission forward a positive recommendation to the City Council for approval of the proposed amendment to the Jordanelle Ridge MDA Transportation Master Plan Exhibit?

RECOMMENDATION

Staff recommends a continuance to allow the City sufficient time to determine whether the updated plan aligns with its long-term vision, serves the public interest, and adequately addresses the considerations outlined in Horrocks Engineers' November 4, 2024 letter.

BACKGROUND

The Jordanelle Ridge Transportation Master Plan, adopted in 2020 as part of the Sorenson Annexation Agreement, originally envisioned Villages 1, 3-5 as private developments incorporating retail, office, and public/school spaces. This initial plan included a looped public road system (Major or Mountain Collectors) providing multiple access points through these villages, with private roads serving internal development pods. The original road sizes were minimums agreed to, based on estimated traffic volumes from traffic studies, topography, steep slopes, and curves. The original Village 1/ Village 3 Mountain Collector road cross-section was developed to allow for a third passing lane to mitigate congestion created by slow-moving vehicles and construction traffic. In the original plan, a public road connection was planned between Villages 4 & 5 and Little Pole Canyon. The

summary below outlines the key differences between the original plan and the updated proposal.

Comparison of Original/Proposed Plans (see Horrocks Engineers' November 4, 2024 letter)

1. Moved half of Village 1 into Village 3.
2. Changed half of the Village 1 public Major Collector, to a public Minor Collector.
3. Changed the Village 1/Village 3 public Mountain Collector, to private Local road.
4. Changed the Village 3 public Major Collector, to private Local road until it connects to the intermediate SR32 access road.
5. Reduced the trips through Village 3 from 9,700 ADT to 2000 - 7000 ADT.
6. Moved the intermediate SR32 access through the County further west, and designated it a public Major Collector potentially owned by City.
7. Increased the trips on the new intermediate SR32 public Major Collector from 6,000 ADT to 17,000 ADT.
8. Identified trips through Villages 4 & 5 as $\pm 10,000$ ADT.
9. Removed the public Major Collector connection to the County road in Little Pole Canyon.
10. Did not update the original traffic studies for the proposed plan.

Application Status

To date, staff have completed three of four planned review rounds in response to applicant submittals. These have included the revised Transportation Impact Study (TIS), revised roadway cross sections, and adjustments made to the updated master transportation plan. The most recent review resulted in conditional approvals, with final comments to be addressed in the next submittal. Current staff feedback reflects remaining technical concerns as well as broader considerations raised by the proposed changes.

DISCUSSION

Horrocks Engineers' November 4, 2024 letter recommends the following items be considered in discussing the approval of this amendment.

1. The City needs to understand the nature of any land use and density changes proposed in Village 1, 3-5, and any changes to public/private responsibilities and ownerships. The Villages were originally planned as private developments with some retail, office, and public / school space included. **If the plan for the area is being changed the City needs to determine if the changes are acceptable.**
2. The original plan envisioned a looped Major Collector or Mountain Collector public road through Villages 1, 3-5, providing multiple points of public access, and serving development Pods which would have private roads. The proposed plan envisions a more limited public road with one access off SR32 that loops through Villages 4 and 5 and ties into a County road to the northeast. All other roads would be private. **The City needs to determine if it wants to maintain the looped road system originally planned, if the proposed partial public road system is acceptable, or if there is little or no need for public access to the area, and all roads can be private.**

3. The original looped public road through all the Villages is proposed to be downsized in some areas from either a public Major Collector (3 lanes with shoulders, 48' asphalt) or Mountain Collector (3 lanes, 36' asphalt), to public Minor Collector (2 lanes with shoulders, 38' asphalt) and private Local roads (2 lanes, 24' asphalt). The original road sizes were minimums agreed to, based on estimated traffic volumes from traffic studies (Horrocks 3/2/20 & Hales 5/26/17 and 1/20/20), topography, steep slopes, and curves. **The City needs this same information to evaluate the capacity, safety, congestion, emergency service needs, etc. of the proposed reduced road sizes.**
4. The original plan estimated Village 1 could have 16,250 trips starting at SR32, reducing to 11,600 trips, and then to 9,700 trips traveling up into Village 3. The proposed plan projects only 2,000 trips in the Village 1 / Village 3 area. **The City needs to understand why the trips have dropped significantly and have the traffic study for the area confirm the numbers are accurate.**
5. The original Village 1 / Village 3 public road had steep grades (4% to 10%) and tight curves. The Mountain Collector road cross section was developed to allow for a third passing lane that minimized congestion created by slow-moving vehicles and construction traffic. **The City needs to understand how making this road a smaller private Local road will eliminate the congestion and safety concern.**
6. The original plan estimated the intermediate access into Villages 3–5 could have 6,000 trips coming off SR32. The new plan proposes an estimated 17,000 trips along this same road and that it be constructed as a public Major Collector or Mountain Collector. Per the 3/2/20 Horrocks capacity report, the maximum traffic capacity of a 3-lane road is 14,000 trips. **The City needs to understand how this road can function as the main public access into the development if it is only a 3-lane road, and whether it should be upsized to 4 lanes. The topography constraints also need to be provided for this access (e.g., alignment, grades, curves, walls, etc.).**
7. The proposed plan eliminates the original public road connection between Villages 4 & 5 and Little Pole Canyon. This road connection could significantly influence where traffic from development in the Little Pole / County area is routed in the future. Without a connection through the Jordanelle Ridge Villages to SR32, the only traffic route for future development or annexations would be down Lake Creek Road and onto Heber City's Center Street. **The City needs to determine how their decisions on the Villages 1, 3–5 roads will affect off-site traffic and Central Heber traffic congestion in the future.**

FISCAL IMPACT

Unknown at present

CONCLUSION

The proposed changes to the Jordanelle Ridge Village Transportation Master Plan Exhibit represent a departure from the original vision and carry significant implications for land use, transportation, and public access. Staff recommends a continuance to allow the City to determine whether the updated plan meets its long-term vision and aligns with public interest.

ALTERNATIVES

Staff Recommended Option - Approval

I move to **approve the item** as presented, with the findings and conditions as presented in the conclusion above.

Alternative 2 - Continuance

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

Alternative 3 - DENIAL

I move to **deny the item** with the following findings.

POTENTIAL MOTIONS

ACCOUNTABILITY

Department: Planning
Staff member: Aubrey Larsen , Planning Consultant

EXHIBITS

1. PC Presentation JRV MDA Amendment - 06102025
2. LT Sorensen MDA Amend Road Chgs Horrocks 241104 S
3. 2024-09-03 Jordanelle Ridge Transportation MP-ORIGINAL
4. 2024-09-03 Jordanelle Ridge Transportation MP-UPDATE
5. Heber Jordanelle East Village Roadways 20240924 Signed
6. 2025-04-28 Jordanelle Ridge East Villages TIS Signed
7. 2025-05-05 Jordanelle Ridge MDA - Ex D
8. AG JRidge - Second MDA Amendment - Transportation Plan Update Final 250506



PLANNING COMISSION PUBLIC HEARING

Jordanelle Ridge MDA Amendment

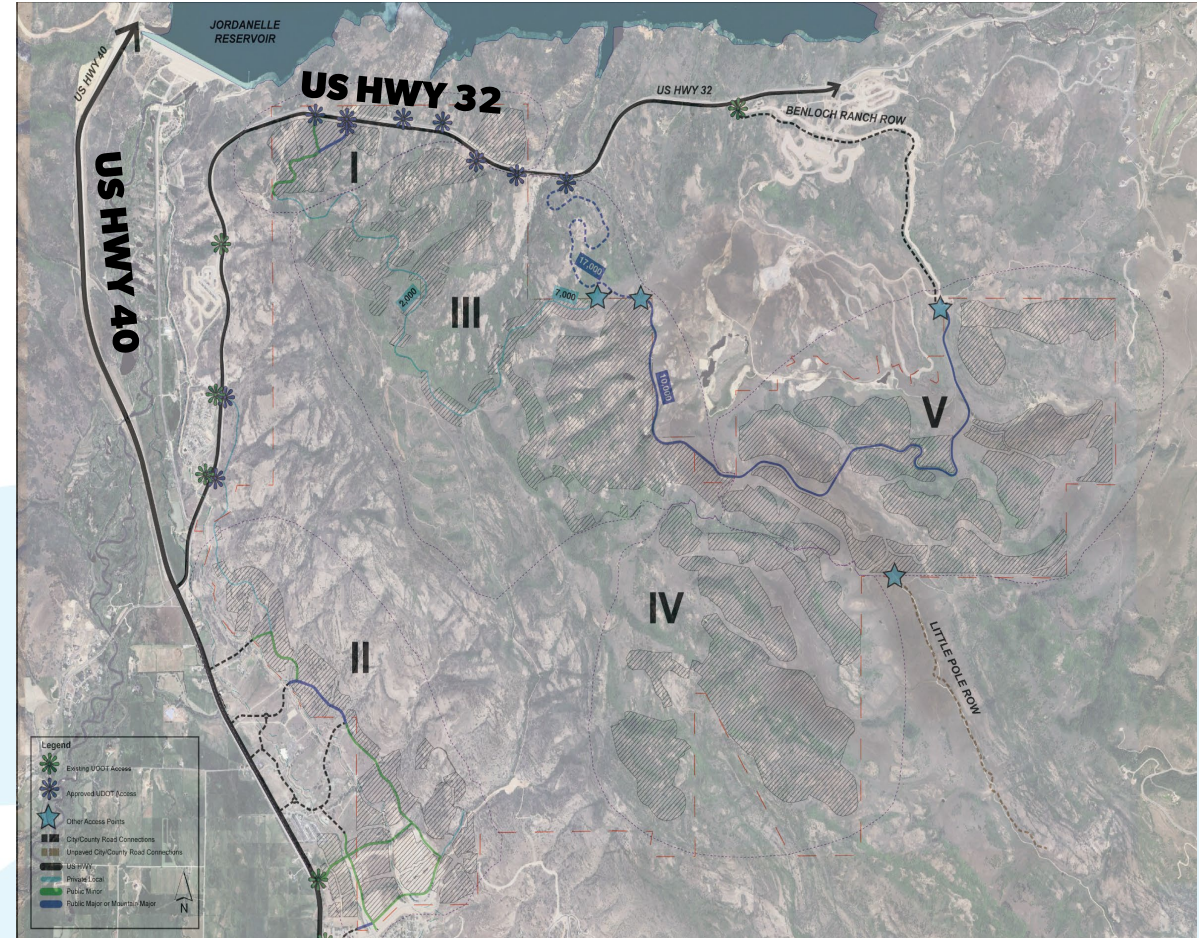
Transportation Mast Plan Exhibit Update

June 10, 2025

Project Details

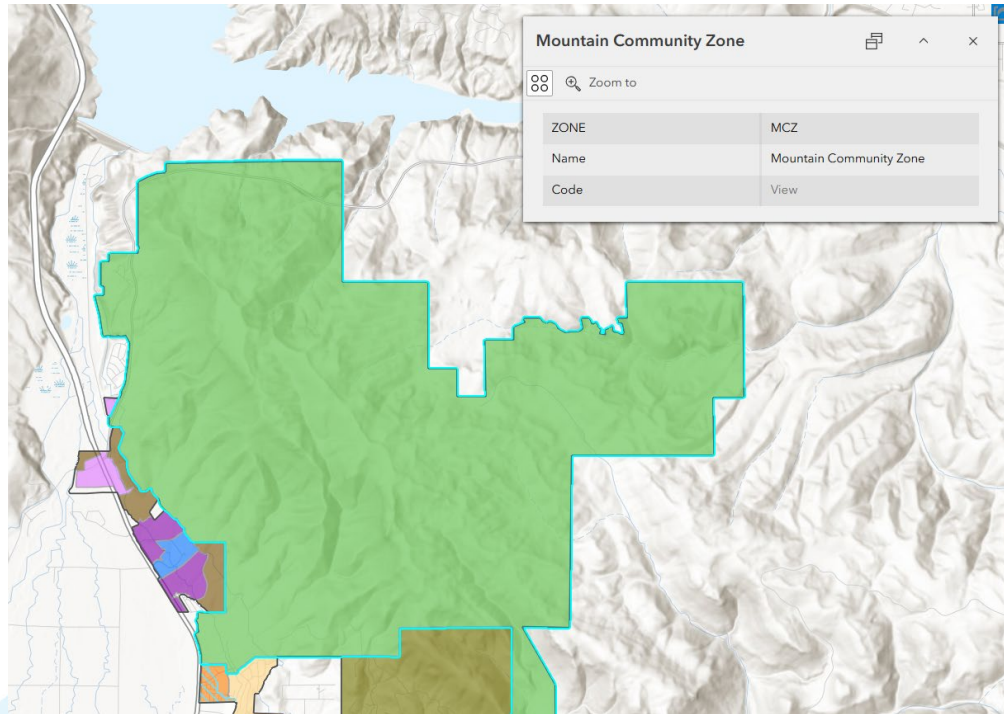
- **Location:** South side of S.R. 32 between mile markers 3 and 7
- **Zone:** Mountain Community
- **Acres:** 8,288
- **Number of Lots:** 6,052
- **Summary of proposed amendment:** The applicant would like to amend the existing Master Development Agreement for Jordanelle Ridge to facilitate an update to the Transportation Master Plan Exhibit to reflect significant changes to road classifications, alignments, and traffic volumes within Villages 1, 3-5 of the Jordanelle Ridge development.

Vicinity Map & Context

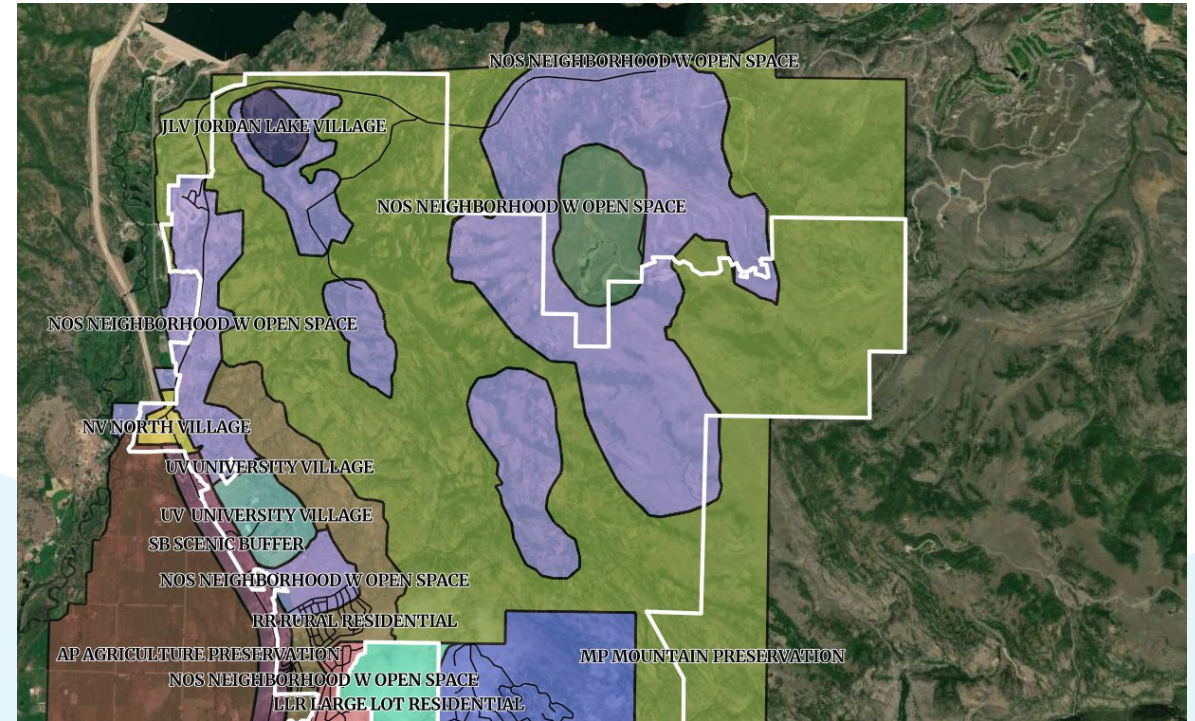


Zoning & Future Land Use Maps

ZONING

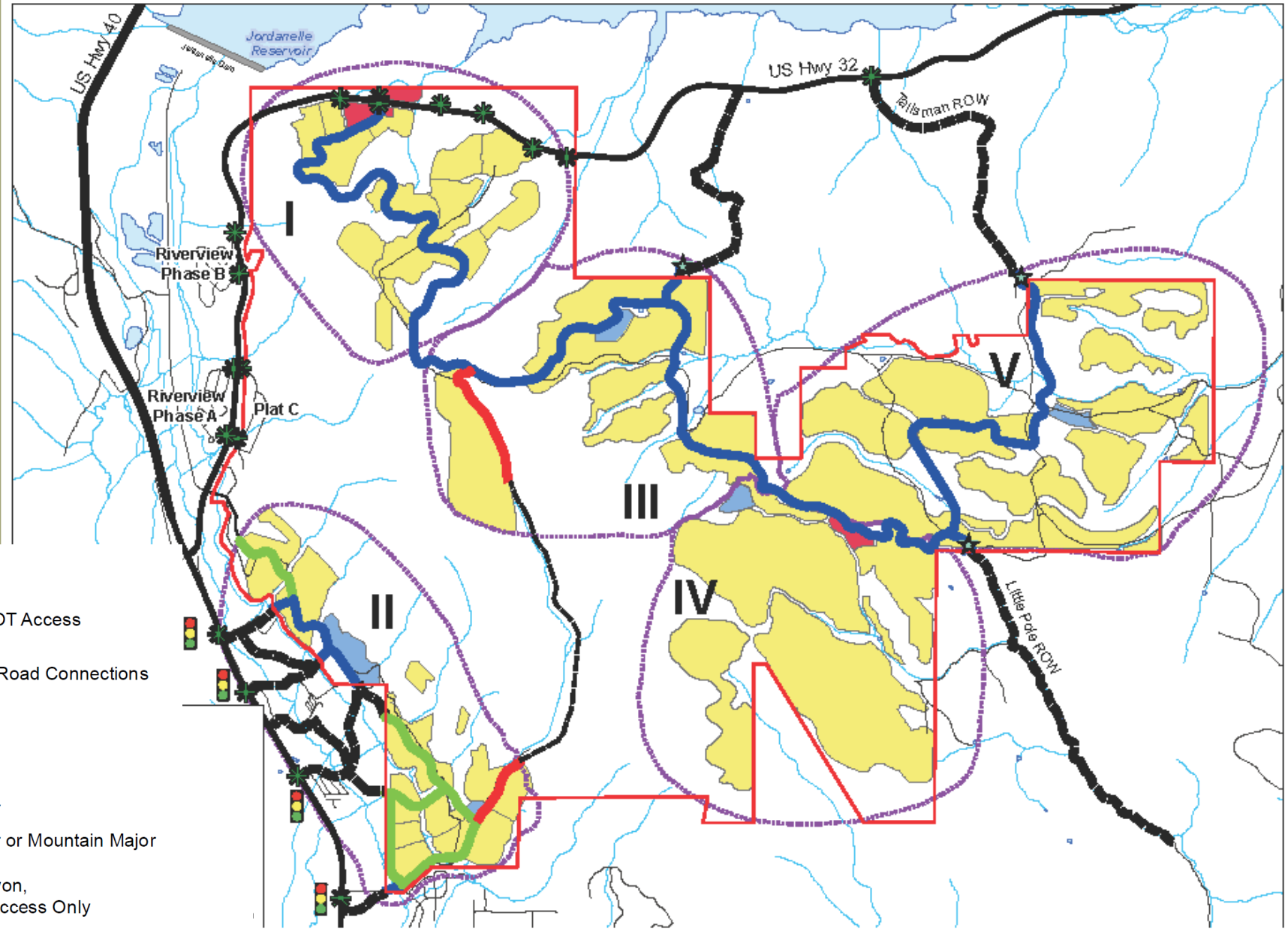


FUTURE LAND USE



RE INVESTMENT HOLDINGS JORDANELLE PROPERTY

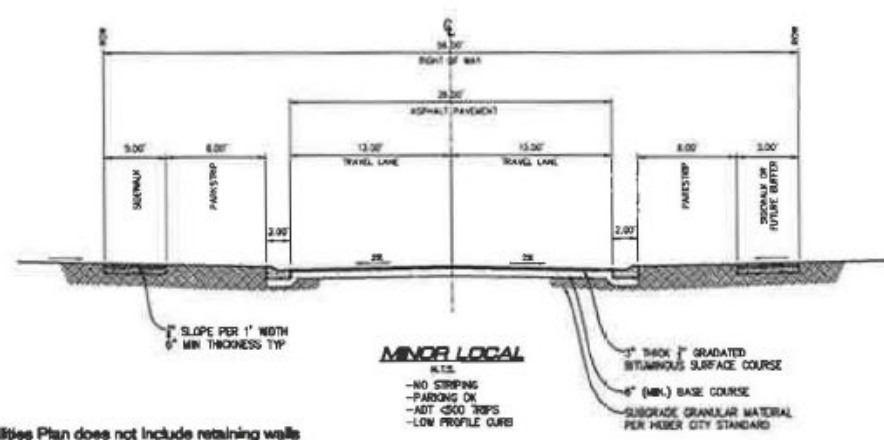
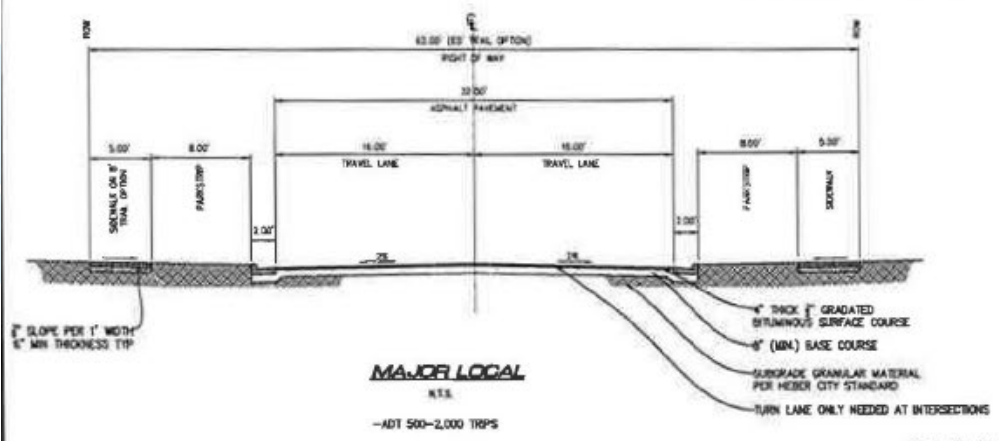
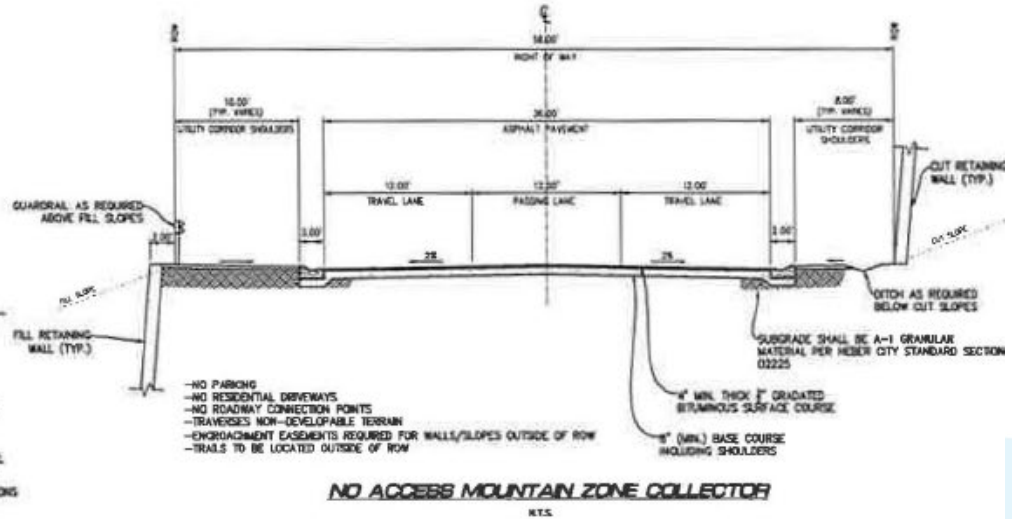
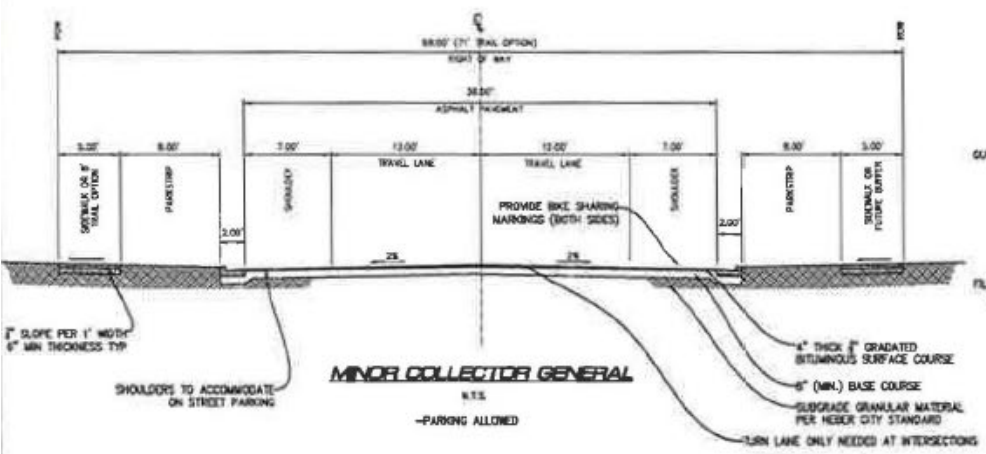
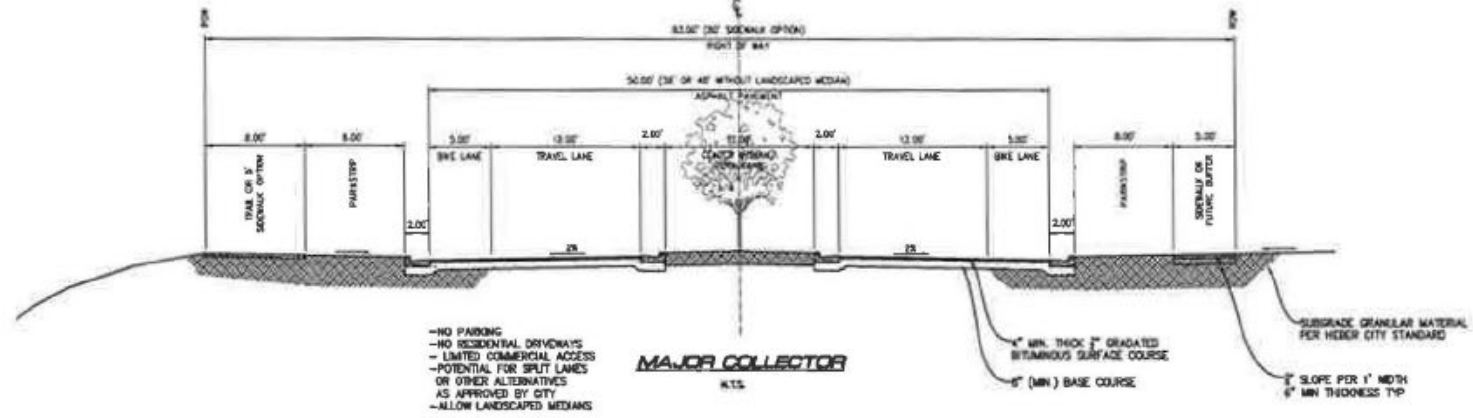
TRANSPORTATION PLAN



- Legend**
- Existing UDOT Access
 - City/County Road Connections
 - US HWY
 - Public Local
 - Public Minor
 - Public Major or Mountain Major
 - Coyote Canyon, Secondary Access Only
 - Other Access Points

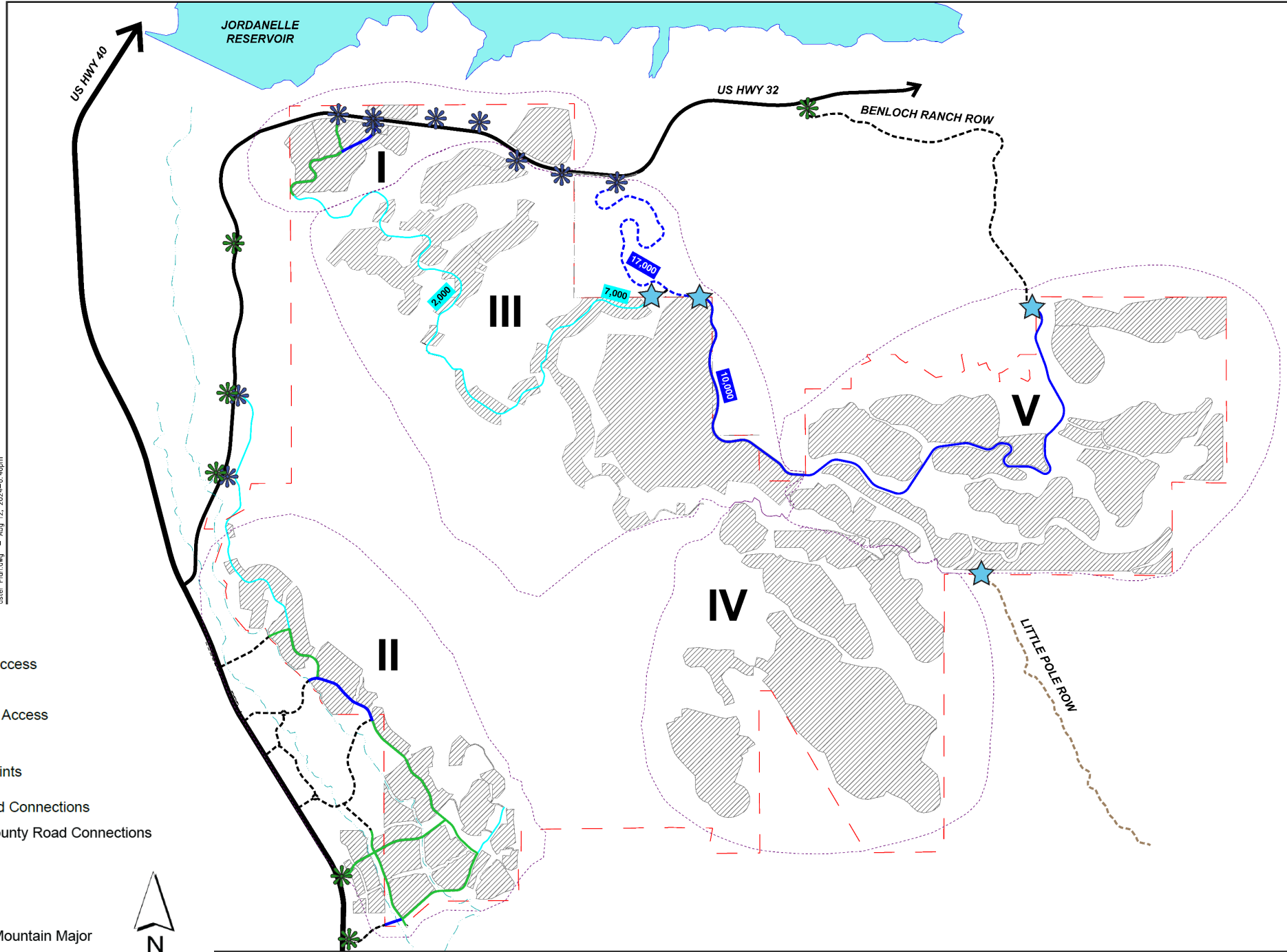
trony\jordanelle\PLANNING\GIS\DPF Master Plan

Original Public Roadway Cross Sections 05/04/2020



Note: Capital Facilities Plan does not include retaining walls

<p>JORDANELLE RIDGE TRANSPORTATION MASTER PLAN</p>	
<p>PREPARED FOR: JORDANELLE REF ACQUISITION</p>	<p>DATE SUBMITTED: 08-12-2024</p>
<p>PROJECT: JORDANELLE RIDGE <small>1401 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095</small></p>	
<p>SHEET NUMBER: 1</p>	<p>SCALE: HORIZONTAL: 1"=40' VERTICAL: 1"=10'</p>
<p>JOB NUMBER: 47-100</p>	<p>Page 26 of 309</p>



- Legend**
- Existing UDOT Access
 - Approved UDOT Access
 - Other Access Points
 - City/County Road Connections
 - Unpaved City/County Road Connections
 - US HWY
 - Private Local
 - Public Minor
 - Public Major or Mountain Major

ester Plan.dwg - Aug 12, 2024--6:46pm

The public trustee herein shall not be responsible for such an unauthorized change to any part of these plans. All changes to these plans must be in writing and must be approved by the engineer of these plans.

Review Results

(1st Round of Reviews)

- **Wasatch Fire:** Approved w/ Conditions 10/24/2024 (access requirements/hydrant location requirements)
- **Engineering:** Revisions Required 11/21/2024 (see Horrocks Engineers' November 4, 2024 letter)

What changed?

(Identified by Horrocks Engineering)

1. Changed half of the Village 1 public Major Collector, to a public Minor Collector.
2. Changed the Village 1/Village 3 public Mountain Collector, to private Local road.
3. Changed the Village 3 public Major Collector, to private Local road until it connects to the intermediate SR32 access road.
4. Reduced the trips through Village 3 from 9,700 ADT to 2000 - 7000 ADT.
5. Moved the intermediate SR32 access through the County further west and designated it a public Major Collector potentially owned by City.

What changed?

(Identified by Horrocks Engineering)

6. Increased the trips on the new intermediate SR32 public Major Collector from 6,000 ADT to 17,000 ADT.
7. Identified trips through Villages 4 & 5 as $\pm 10,000$ ADT.
8. Removed the public Major Collector connection to the County road in Little Pole Canyon.
9. Did not update the original traffic studies for the proposed plan.

Summary of Horrocks Engineering Considerations (see letter)

1. If the plan for the area is being changed, the City needs to determine if the changes are acceptable.
2. The City needs to determine if it wants to maintain the looped road system originally planned, if the proposed partial public road system is acceptable, or if there is little or no need for public access to the area, and all roads can be private.
3. The City needs road classification data (road sizes/topography/steep slopes/curve data/etc,) to evaluate the capacity, safety, congestion, emergency service needs, etc. on the proposed reduced road sizes.
4. The City needs to understand why the trips in the Village 1/Village 3 area have dropped significantly and have the traffic study for the area confirm the numbers are accurate.

Summary of Horrocks Engineering Considerations (see letter)

5. The City needs to understand how making the original Village 1 / Village 3 public road (with steep grades (4% to 10%) and tight curves) a smaller private Local road will eliminate the congestion and safety concern.
6. The City needs to understand how the intermediate access into Villages 3-5 can function as the main public access into the development if it is only a 3-lane road, and if should be upsized to a 4-lanes. The topography constraints also need to be provided for this access, e.g. alignment, grades, curves, walls, etc.
7. The City needs to determine how their decisions on the Villages 1, 3-5 roads will affect off-site traffic and Central Heber traffic congestion in the future.

Applicant Revisions

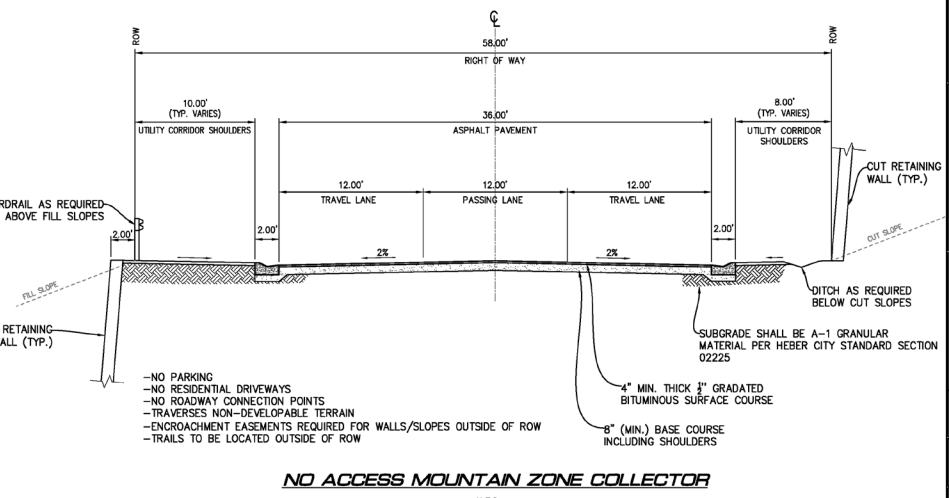
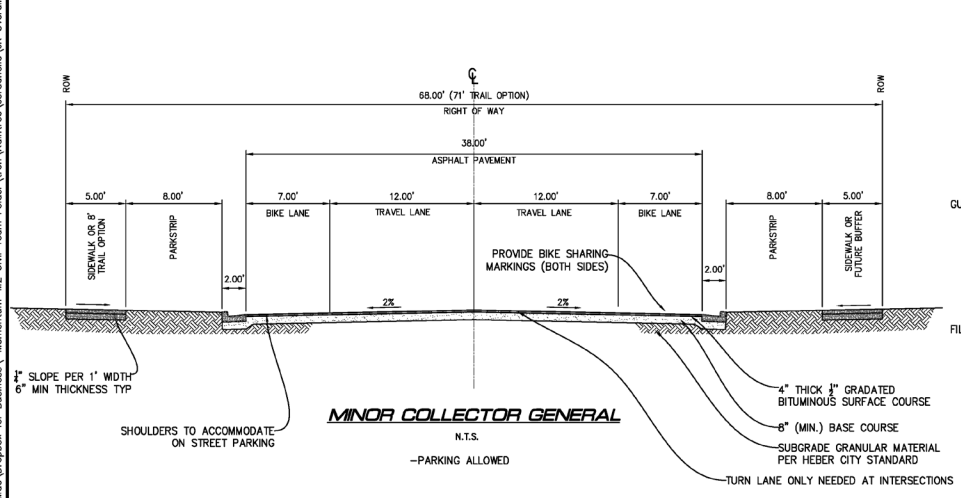
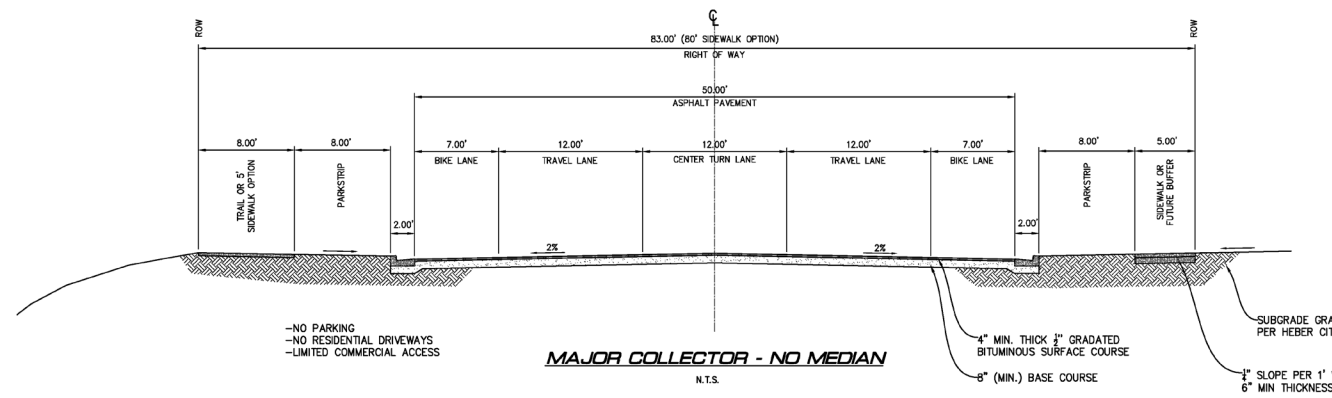
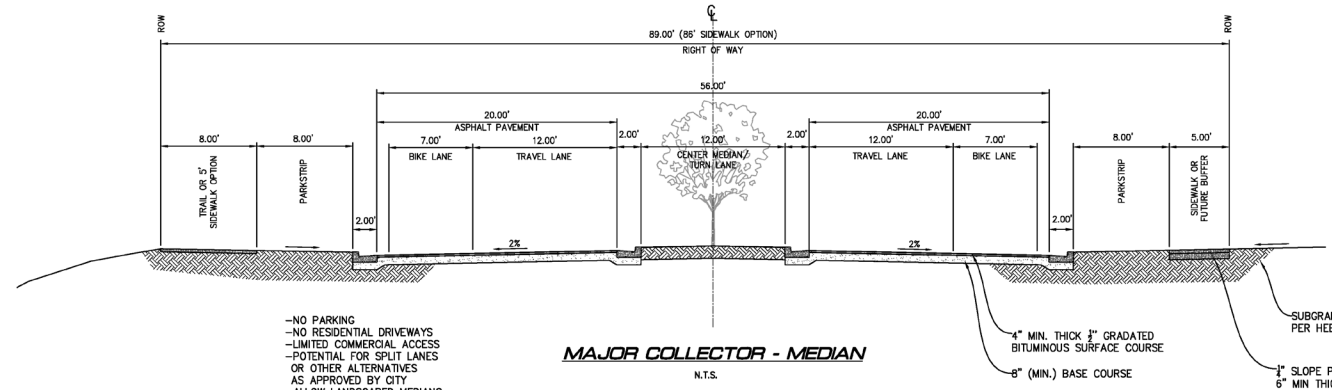
(1st Round of Reviews)

- TIS report (03/04/2025)
- Updated master transportation plan and public roadway cross sections (03/05/2025)

JORDANELLE RIDGE
PROPOSED PUBLIC HEBER CITY
COLLECTOR CROSS SECTIONS

JORDANELLE
RIDGE

SHEET NUMBER	1
SCALE	HORIZONTAL: 1" = 10'
VERTICAL: 1" = 4'	
DWG NUMBER	47-10



\\vac\Dropbox for Business\Momentum-M2 Civil Team\Folder\Iron\Iron\Drawings\Jordanelle\JR Overall\Drawings\Exhibits\2025-03-05 - Roadway Cross Sections.dwg - Mar 05, 2025-12:44pm

Review Results

(2nd Round of Reviews)

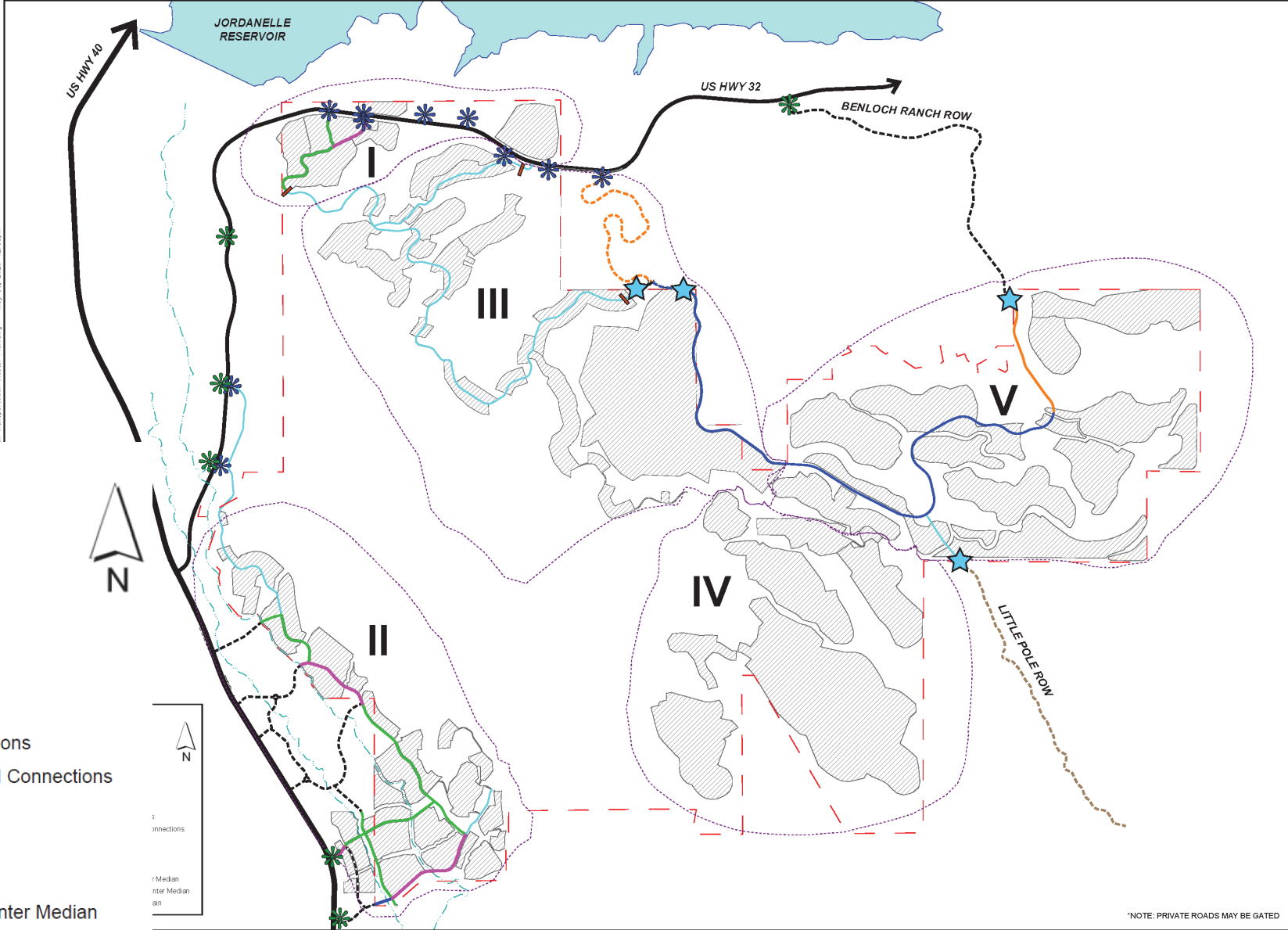
- **Engineering:** Revisions Required 03/27/2025 (regarding TIS)

Applicant Revisions

(2nd Round of Reviews)

- TIS comment response (04/28/2025)
- TIS revised (04/28/2025)
- Revised updated plan (05/05/2025)

JORDANELLE RIDGE LAND & DEVELOPMENT GATE 001 SOUTH JORDAN, UTAH 84065		PREPARED FOR: JORDANELLE REF. ACQUISITION DATE SUBMITTED: 05-05-2025
JORDANELLE RIDGE TRANSPORTATION MASTER PLAN		SHEET NUMBER: 1 SCALE: HORIZONTAL: 1"=400' VERTICAL: 1"=40' SHEET NUMBER: 47-100
REVISIONS NO. DATE DESCRIPTION	CAUTION: The information contained in this plan is for informational purposes only. It does not constitute a contract. The user of this information is advised that it may be subject to change without notice and must be approved by the engineer of record.	



- Legend**
- Existing UDOT Access
 - Approved UDOT Access
 - Other Access Points
 - Development Gate
 - City/County Road Connections
 - Unpaved City/County Road Connections
 - US HWY
 - Private Local
 - Public Minor Collector
 - Public Major Collector - Center Median
 - Public Major Collector - No Center Median
 - Public Major Collector - Mountain

*NOTE: PRIVATE ROADS MAY BE GATED

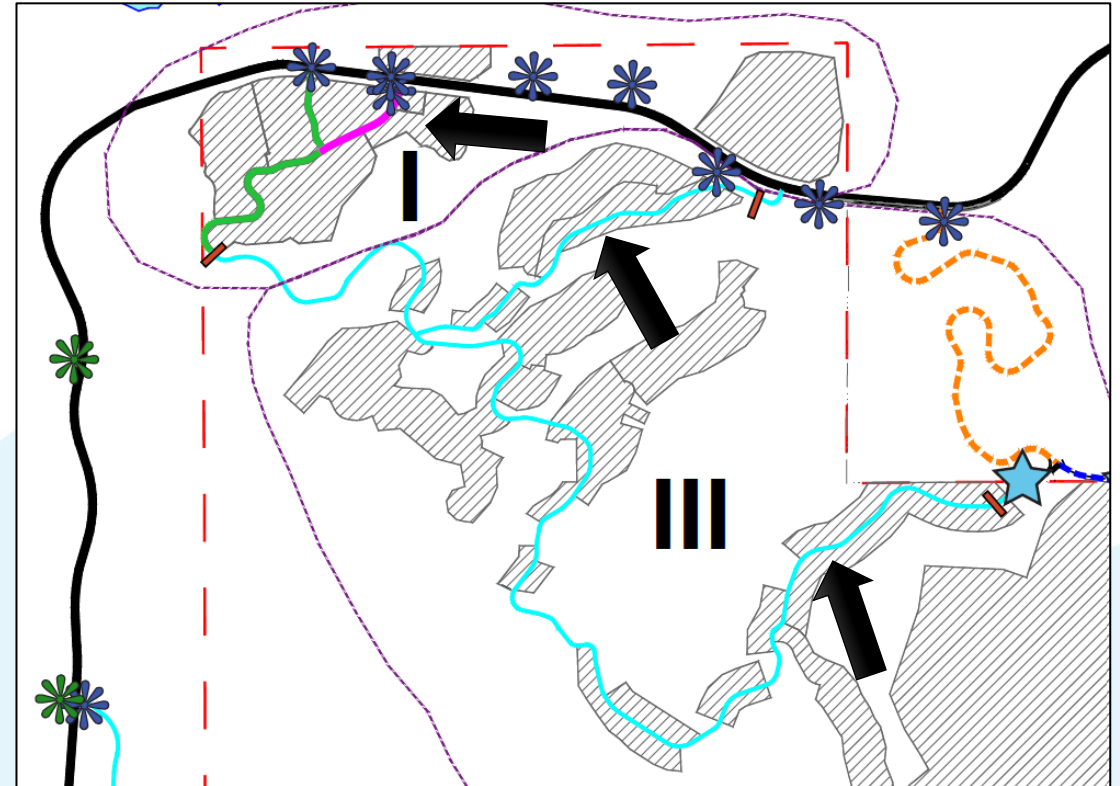
21 Transportation Master Plan.dwg - May 05, 2025 - 12:35pm

What revisions were made to the update?

(Identified by Staff)

1. Changed half of the Village 1 public Major Collector, to a public Minor Collector. *No apparent change, pink segment is clarified to be Public Major Collector, no central median*
2. Changed the Village 1/Village 3 public Mountain Collector, to private Local road. *No apparent change, however a new private road segment is shown connecting to US HWY 32 through the north portion of Village 3*
3. Changed the Village 3 public Major Collector, to private Local road until it connects to the intermediate SR32 access road. *Same classification*

REVISED UPDATE



What revisions were made to the update?

(Identified by Staff)

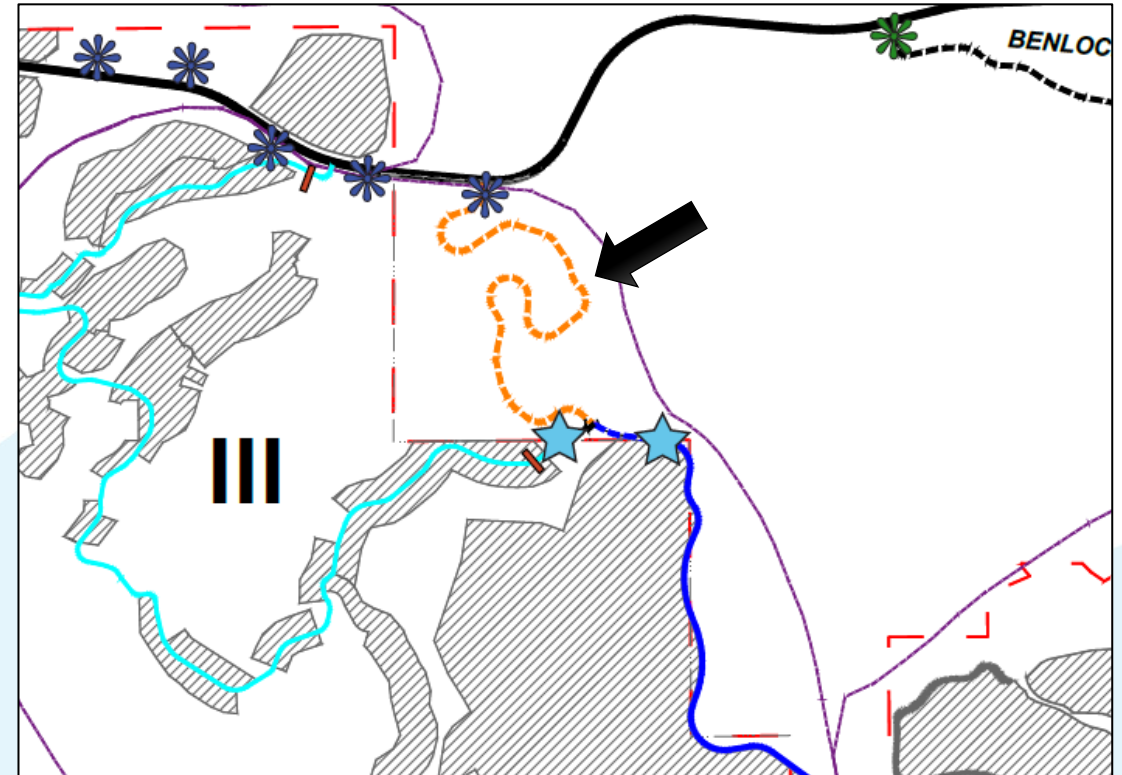
4. Reduced the trips through Village 3 from 9,700 ADT to 2000 - 7000 ADT.

No apparent change

5. Moved the intermediate SR32 access through the County further west and designated it a public Major Collector potentially owned by City.

No apparent change, segment is clarified to be a Major Collector – Mountain classification (orange)

REVISED UPDATE



What revisions were made to the update?

(Identified by Staff)

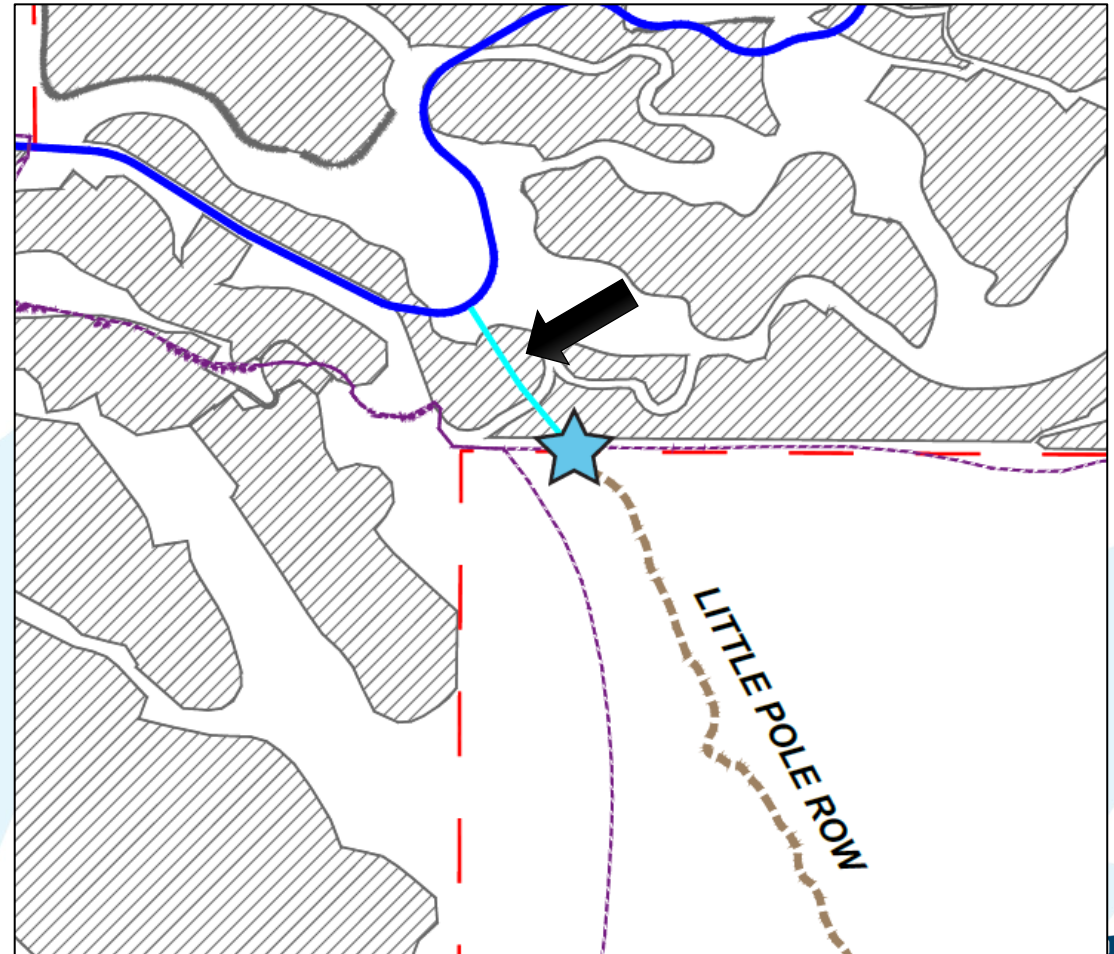
6. Increased the trips on the new intermediate SR32 public Major Collector from 6,000 ADT to 17,000 ADT. *No apparent change*

7. Identified trips through Villages 4 & 5 as $\pm 10,000$ ADT. *No apparent change*

8. Removed the public Major Collector connection to the County road in Little Pole Canyon. *A private road connection is now shown*

9. Did not update the original traffic studies for the proposed plan. *Revised*

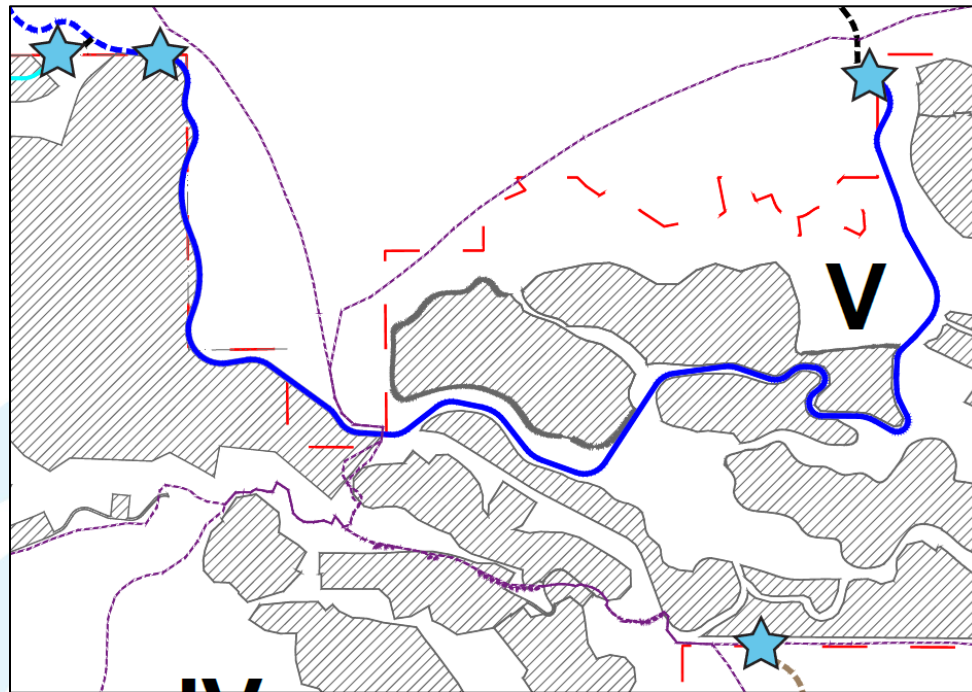
REVISED UPDATE



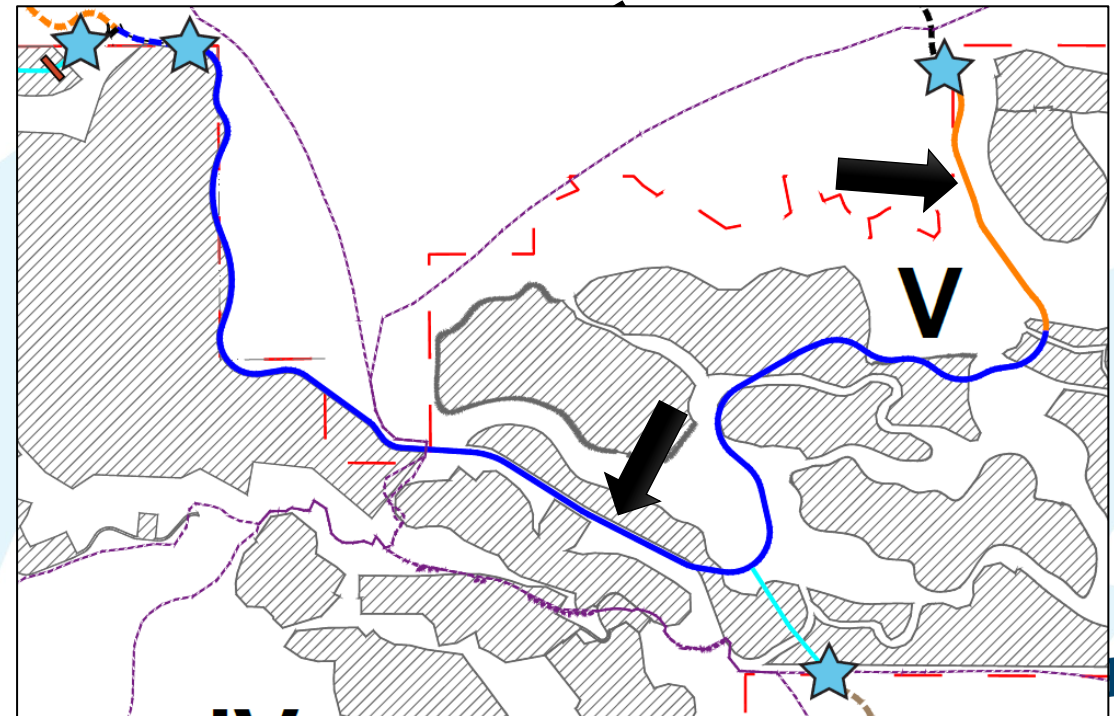
Other changes made to the updated exhibit (Identified by Staff)

- Public Major Collector has a slightly Different alignment
- Segment changed to be Public Major Collector – Mountain (orange)

UPDATE



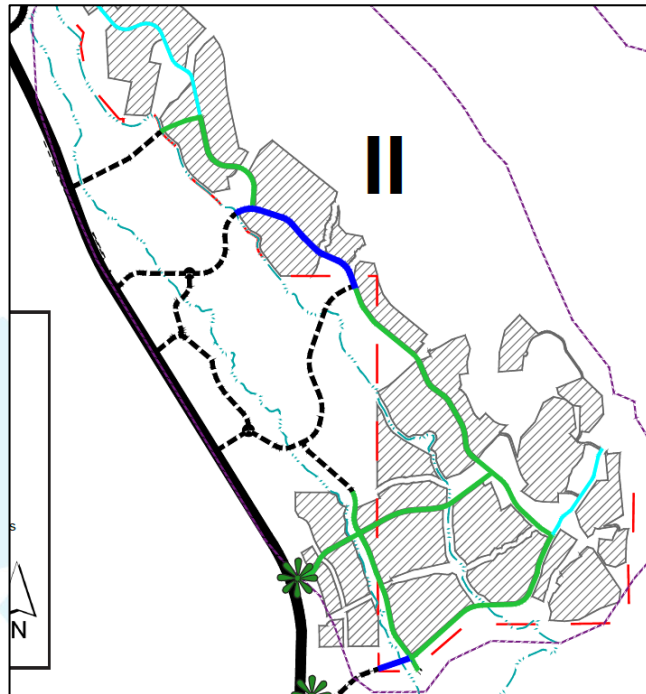
REVISED UPDATE



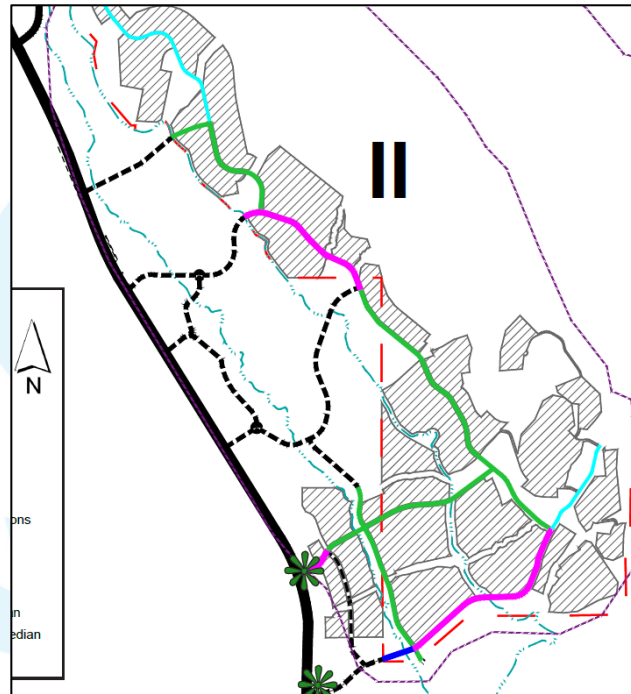
Other changes made to the updated exhibit (Identified by Staff)

- Segment classification updates/changes in Village 2












UPDATE



REVISED UPDATE



Legend

-  Existing UDOT Access
-  Approved UDOT Access
-  Other Access Points
-  Development Gate
-  City/County Road Connections
-  Unpaved City/County Road Connections
-  US HWY
-  Private Local
-  Public Minor Collector
-  Public Major Collector - Center Median
-  Public Major Collector - No Center Median
-  Public Major Collector - Mountain



Review Results

(3rd Round of Reviews)

- Wasatch Fire: Approved w/ Conditions 04/30/2025 (access requirements/hydrant location requirements)
- Engineering: Approved w/ Conditions 05/16/2025 (review comments on the JRidge 3 Marcella North Preliminary construction drawings, plat, and storm water report. These comments will need to be addressed with the Final submittals for this project.)

Staff Recommendation

- Staff recommends a continuance to allow the City sufficient time to determine whether the updated plan aligns with its long-term vision, serves the public interest, and adequately addresses the considerations outlined in Horrocks Engineers' November 4, 2024 letter.

Discussion

November 4, 2024

Heber City Corporation
Attn: Russell Funk P.E.
75 North Main
Heber City, Utah 84032

Subject: Jordanelle Ridge MDA Amendment - Village 1, 3-5 Roads

Dear Russ:

Horrocks Engineers recently reviewed the concept plan for the Jordanelle Ridge MDA amendment for roads located south of SR32 in Villages 1, 3-5. The following items need to be considered in discussing the approval of this amendment. Conceptual drawings are attached at the end of this report showing the original and proposed road plans, along with comments describing the changes mentioned below.

Comparison of Original / Proposed Plans

1. Moved half of Village 1 into Village 3.
2. Changed half of the Village 1 public Major Collector, to a public Minor Collector.
3. Changed the Village 1/Village 3 public Mountain Collector, to private Local road.
4. Changed the Village 3 public Major Collector, to private Local road until it connects to the intermediate SR32 access road.
5. Reduced the trips through Village 3 from 9,700 ADT to 2000 - 7000 ADT.
6. Moved the intermediate SR32 access through the County further west, and designated it a public Major Collector potentially owned by City.
7. Increased the trips on the new intermediate SR32 public Major Collector from 6,000 ADT to 17,000 ADT.
8. Identified trips through Villages 4 & 5 as $\pm 10,000$ ADT.
9. Removed the public Major Collector connection to the County road in Little Pole Canyon.
10. Did not update the original traffic studies for the proposed plan.

Considerations

1. The City needs to understand the nature of any land use and density changes proposed in Village 1, 3-5, and any changes to public/private responsibilities and ownerships. The Villages were originally planned as private developments with some retail, office, and public / school space included. **If the plan for the area is being changed the City needs to determine if the changes are acceptable.**
2. The original plan envisioned a looped Major Collector or Mountain Collector public road though Villages 1, 3-5, providing multiple points of public access, and serving development Pods which would have private roads. The proposed plan envisions a more limited public road with one access off SR32 that loops though Villages 4 and 5 and ties into a County road to the northeast. All other roads would be private. **The City needs to determine if it wants to maintain the looped road system originally planned, if the proposed partial public road system is acceptable, or if there is little or no need for public access to the area, and all roads can be private.**

3. The original looped public road through all the Villages is proposed to be downsized in some areas from either a public Major Collector (3 Lane with shoulders, 48' Asphalt) or Mountain Collector (3 Lane, 36' Asphalt), to public Minor Collector (2 Lanes with shoulders, 38' Asphalt) and private Local roads (2 Lanes, 24' Asphalt). The original road sizes were minimums agreed to, based on estimated traffic volumes from traffic studies (Horrocks 3/2/20 & Hales 5/26/17 and 1/20/20), topography, steep slopes, and curves. **The City needs this same information to evaluate the capacity, safety, congestion, emergency service needs, etc. on the proposed reduced road sizes.**
4. The original plan estimated Village 1 could have 16,250 trips starting at SR32, reducing to 11,600 trips, and then to 9,700 trips traveling up into Village 3. The proposed plan projects only 2000 trips in the Village 1 / Village 3 area. **The City needs to understand why the trips have dropped significantly and have the traffic study for the area confirm the numbers are accurate.**
5. The original Village 1 / Village 3 public road had steep grades (4% to 10%) and tight curves. The Mountain Collector road cross section was developed to allow for a 3rd passing lane that minimized congestion created by slow moving vehicles and construction traffic. **The City needs to understand how making this road a smaller private Local road will eliminate the congestion and safety concern.**
6. The original plan estimated the intermediate access into Villages 3-5 could have 6,000 trips coming off SR32. The new plan proposes an estimated 17,000 trips along this same road and that it be constructed as a public Major Collector or Mountain Collector. Per the 3/2/20 Horrocks capacity report, the maximum traffic capacity of a 3-lane road is 14,000 trips. **The City needs to understand how this road can function as the main public access into the development if it is only a 3-lane road, and if should be upsized to a 4-lanes. The topography constraints also need to be provided for this access, e.g. alignment, grades, curves, walls, etc.**
7. The proposed plan eliminates the original public road connection between Villages 4 & 5 and Little Pole Canyon. This road connection could significantly influence where traffic from development in the Little Pole / County area is routed in the future. Without a connection through the Jordanelle Ridge Villages to SR32, the only traffic route for future development or annexations would be down Lake Creek road and onto Heber City's Center Street. **The City needs to determine how their decisions on the Villages 1, 3-5 roads will affect off-site traffic and Central Heber traffic congestion in the future.**

Please call our office with any additional questions or concerns regarding this project.

Sincerely,

HORROCKS ENGINEERS

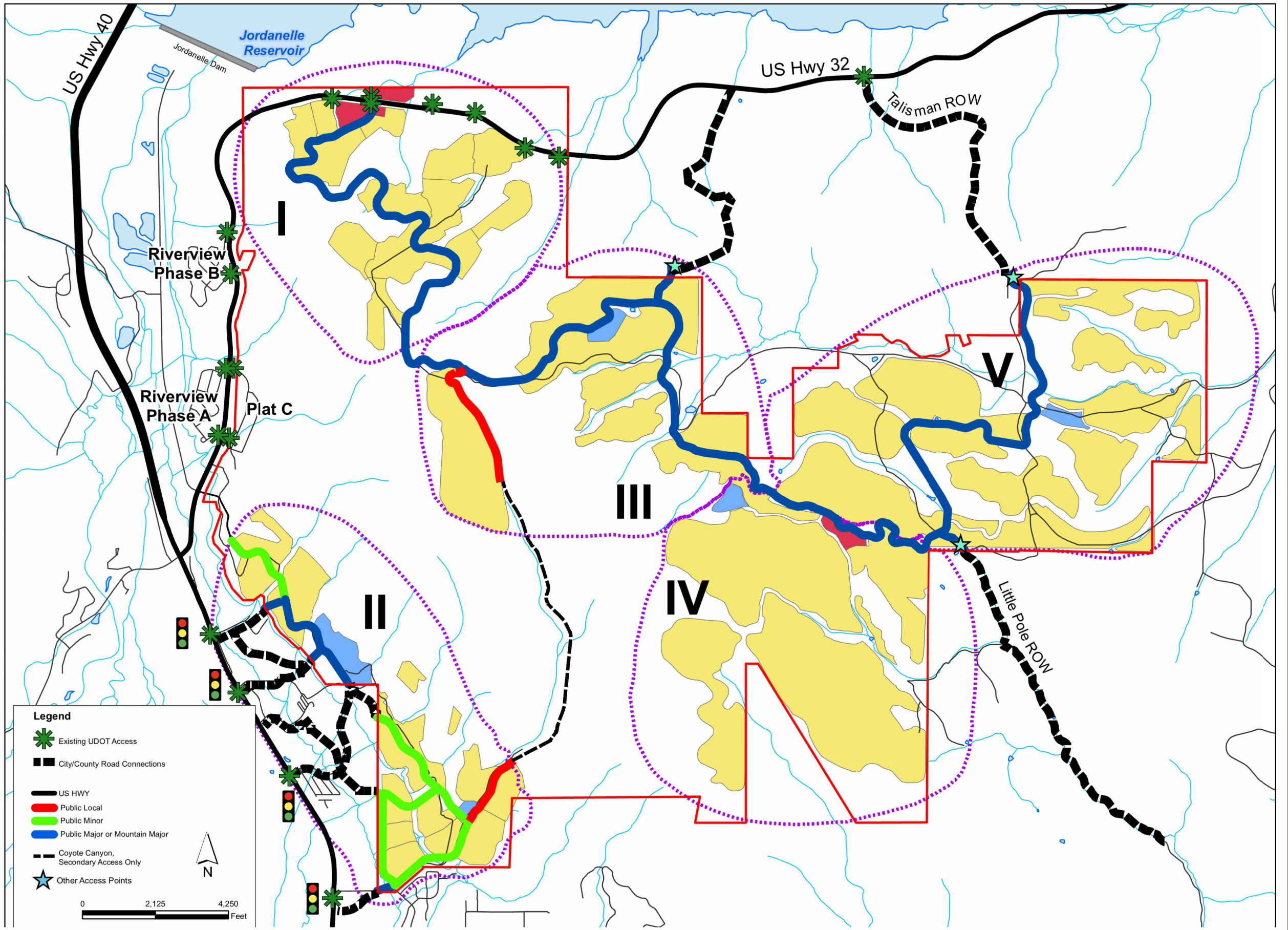


Bart Mumford, P.E.

Attachments: Original and Proposed Road Drawings

cc: File

tron\Jordanelle\PLANNING\GIS\PDFs\Master Plan



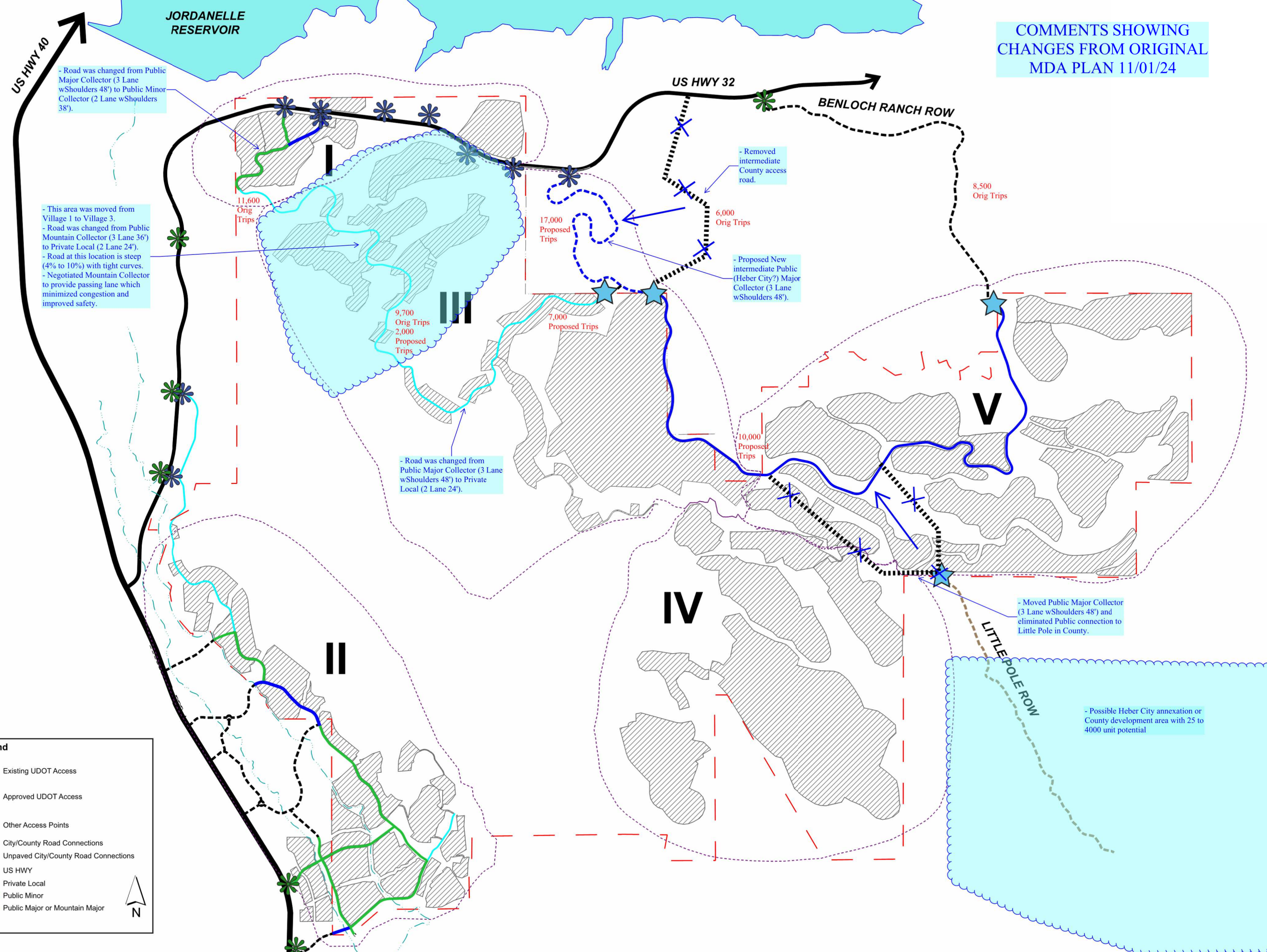
RE INVESTMENT
HOLDINGS
JORDANELLE
PROPERTY

TRANSPORTATION
PLAN



05-19-2020

COMMENTS SHOWING
CHANGES FROM ORIGINAL
MDA PLAN 11/01/24



Legend

- Existing UDOT Access (Green star)
- Approved UDOT Access (Blue star)
- Other Access Points (Light blue star)
- City/County Road Connections (Black line)
- Unpaved City/County Road Connections (Brown line)
- US HWY (Thick black line)
- Private Local (Cyan line)
- Public Minor (Green line)
- Public Major or Mountain Major (Blue line)

North arrow pointing up.

PROJ. MGR.: BW DESIGNER: MBW
X:\Iron\Pointtree\Jordanelle\JR_Overall\Drawings\Exhibits\2024-07-19_JR_Overall_Transportation_Master_Plan.dwg - Aug 12, 2024-6:46pm

JORDANELLE RIDGE TRANSPORTATION MASTER PLAN

DATE SUBMITTED: 08-12-2024

PREPARED FOR: JORDANELLE REF ACQUISITION

JORDANELLE RIDGE

10621 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095

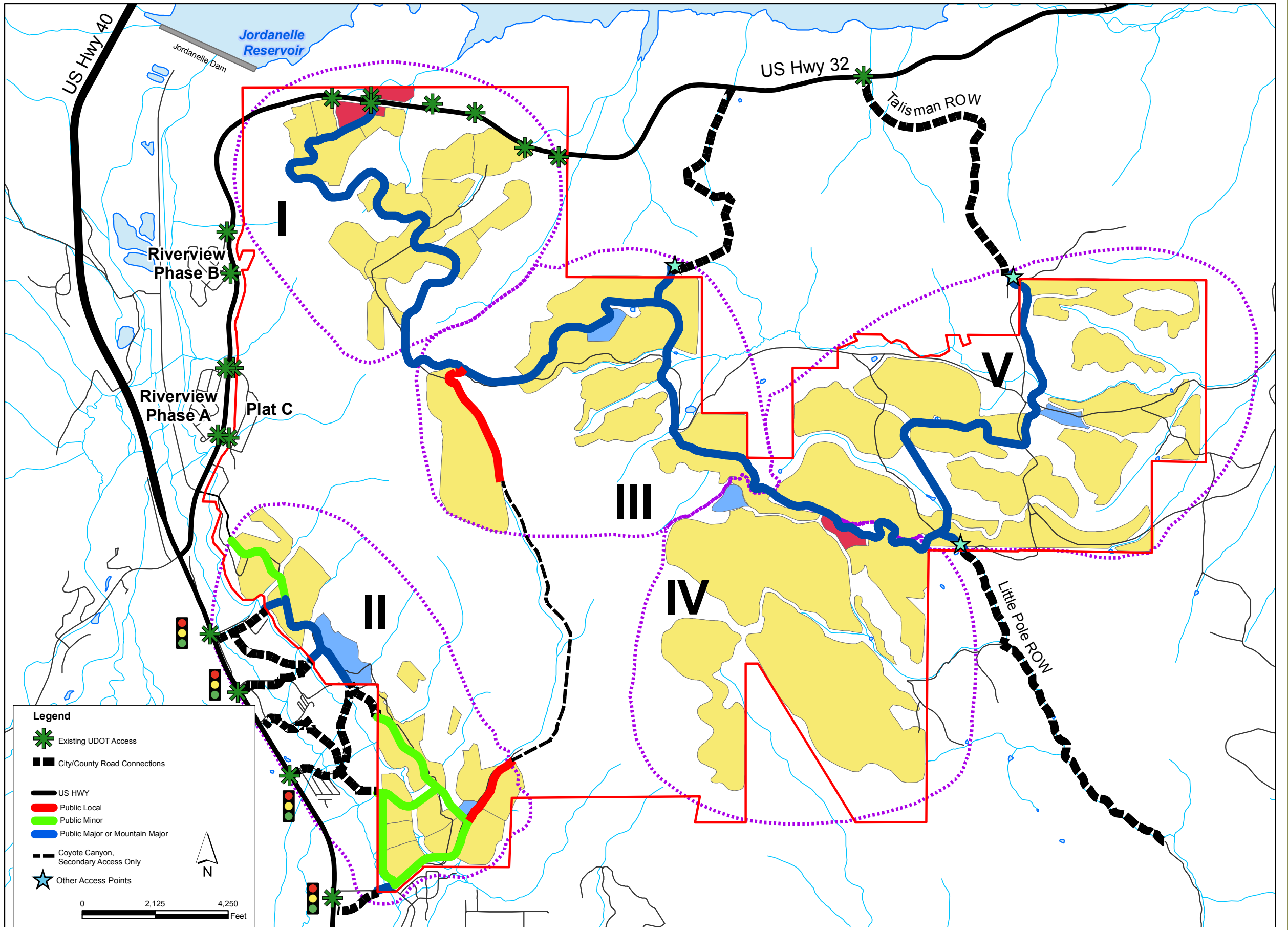
SHEET NUMBER: 1

SCALE: HORIZONTAL: 1"=NTS, VERTICAL: 1"=

JOB NUMBER: 47-100

Page 48 of 309

CAUTION: The engineer preparing these plans will not be responsible for or liable for unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

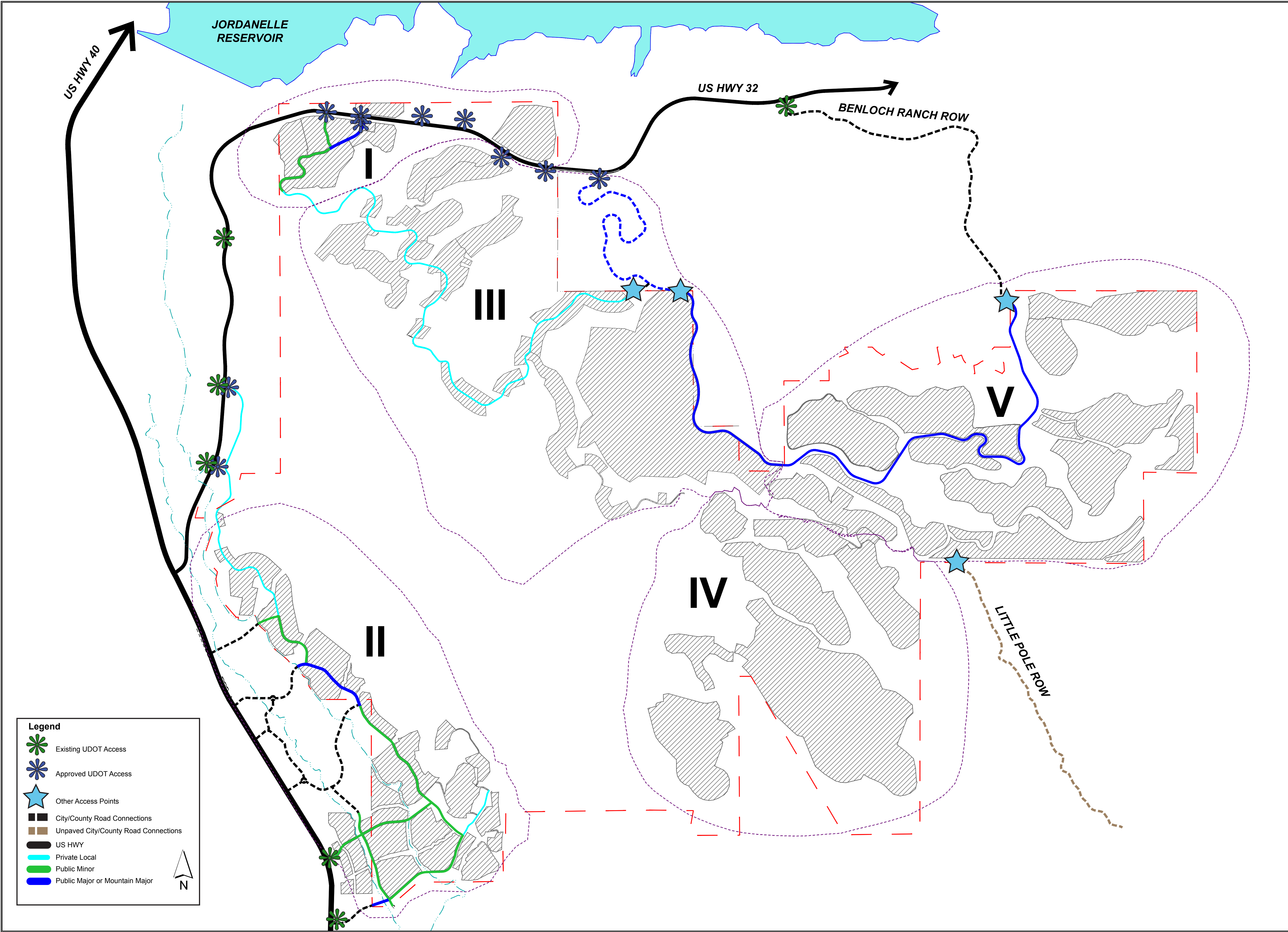


RE INVESTMENT
HOLDINGS
JORDANELLE
PROPERTY

TRANSPORTATION
PLAN



05-19-2020



Legend

- Existing UDOT Access
- Approved UDOT Access
- Other Access Points
- City/County Road Connections
- Unpaved City/County Road Connections
- US HWY
- Private Local
- Public Minor
- Public Major or Mountain Major



<p>JORDANELLE RIDGE TRANSPORTATION MASTER PLAN</p>	<p>DATE SUBMITTED: 08-12-2024</p>
<p>JORDANELLE RIDGE</p> <p>10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095</p>	<p>PREPARED FOR: JORDANELLE REF ACQUISITION</p>
<p>SHEET NUMBER 1</p>	<p>SCALE HORIZONTAL: 1"=NTS VERTICAL: 1"= -</p>
<p>JOB NUMBER 47-100</p>	<p>CAUTION The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.</p>

MEMORANDUM

Date: September 24, 2024
To: Momentum Development
From: Hales Engineering



Subject: Heber Jordanelle East Village Roadway Transportation Plan

UT23-2490

The purpose of this memorandum is to discuss the latest transportation plan for the Jordanelle Ridge development in Heber, Utah. The focus is primarily on the east villages within Heber City that will access SR-32. A comparison between the new transportation plan (dated August 2024) and the prior version (dated May 2020) is contained in Appendix A.

The primary difference between the prior and current plans is that the center access to SR-32 has been moved to the west. It is anticipated that this will be the primary route for Villages 3 and 4, and because it has been moved to the west, it takes some of the pressure off the road into Village 1.

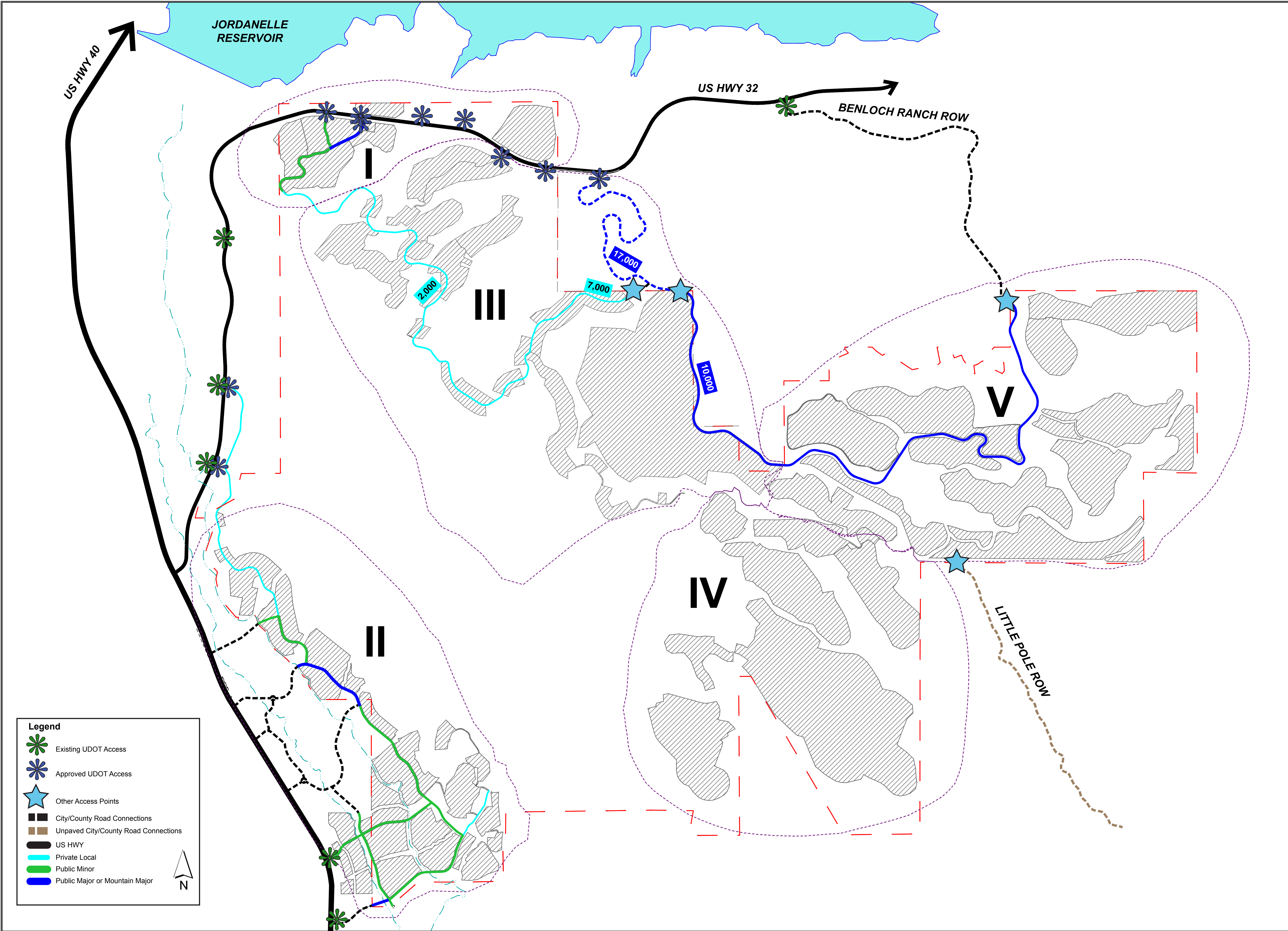
Another change is that the road on the east side of Village 3 (shown in light blue on the current plan) is planned to be a narrow, private road with gated access at either end. This road will serve the residents in the area and the golf course and will not serve as a cut-through route. A wider public road cross-section would not be ideal for this area as it is topographically challenging.

It is estimated that this private road (light blue) will carry approximately 2,000 ADT through the northwest area of Village 3 and 7,000 ADT at the east terminus. Because of the low volumes along this road, it is not anticipated that turn pockets will be needed into the various accesses.

If you have any questions regarding this memorandum, please contact us at 801.766.4343.

APPENDIX A

Transportation Plan

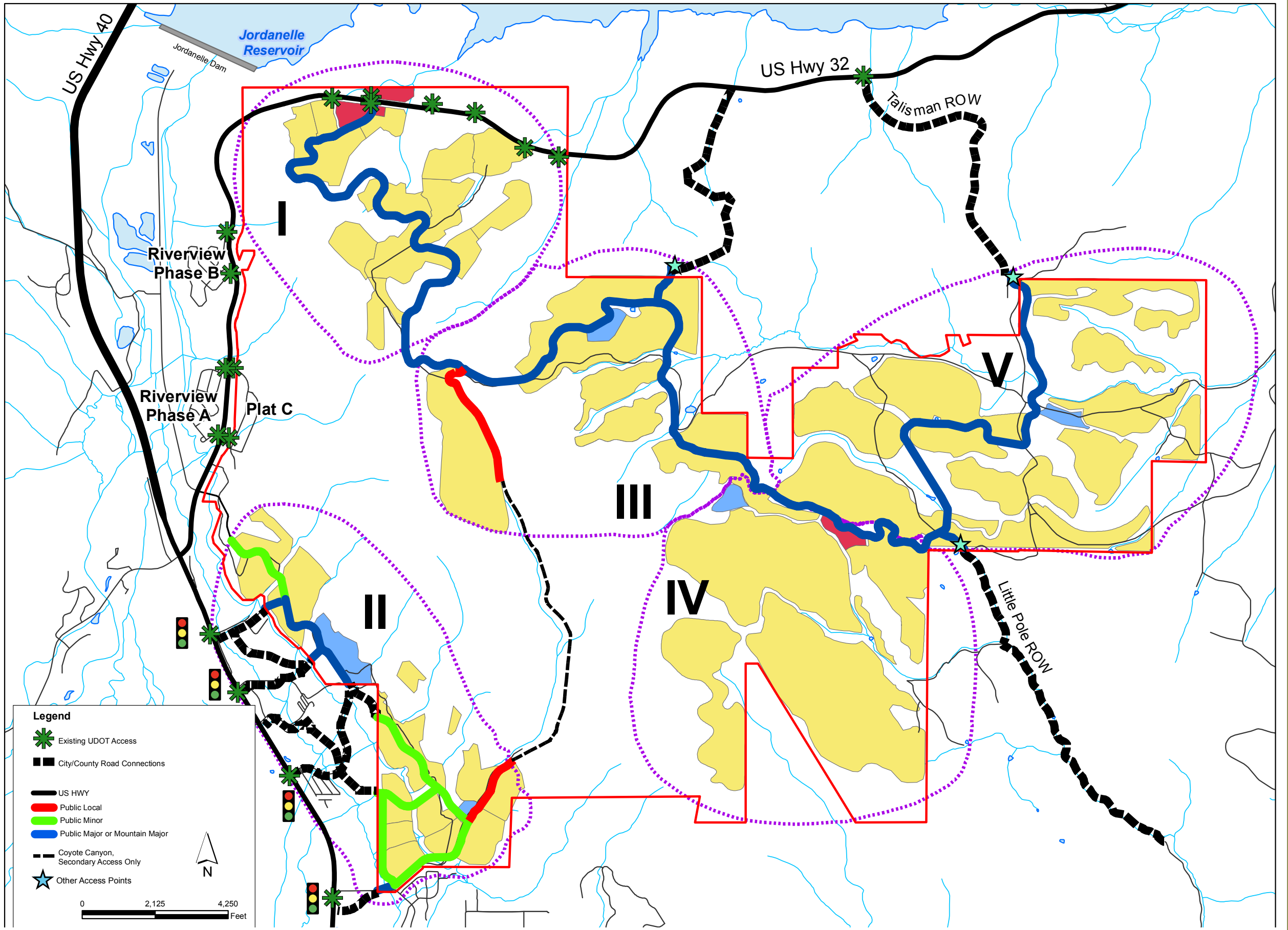


Legend

- Existing UDOT Access
- Approved UDOT Access
- Other Access Points
- City/County Road Connections
- Unpaved City/County Road Connections
- US HWY
- Private Local
- Public Minor
- Public Major or Mountain Major

N

<p>JORDANELLE RIDGE TRANSPORTATION MASTER PLAN</p>	<p>DATE SUBMITTED: 08-12-2024</p>
<p>JORDANELLE RIDGE</p> <p>10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095</p>	<p>PREPARED FOR: JORDANELLE REF ACQUISITION</p>
<p>SHEET NUMBER 1</p>	<p>SCALE HORIZONTAL: 1"=NTS VERTICAL: 1"= -</p>
<p>JOB NUMBER 47-100</p>	<p>CAUTION The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.</p>



RE INVESTMENT
HOLDINGS
JORDANELLE
PROPERTY

TRANSPORTATION
PLAN

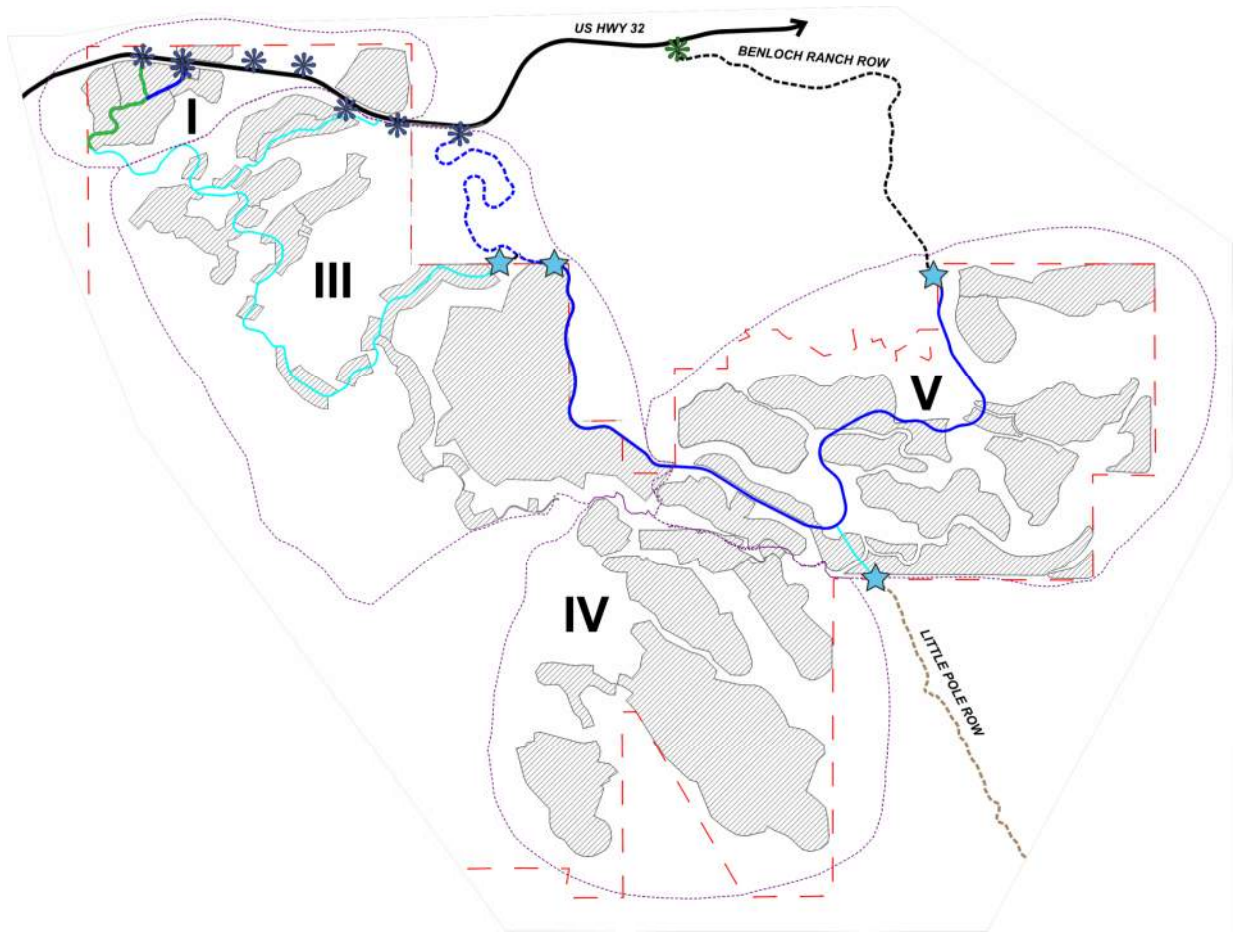


05-19-2020

08

Jordanelle Ridge East Villages

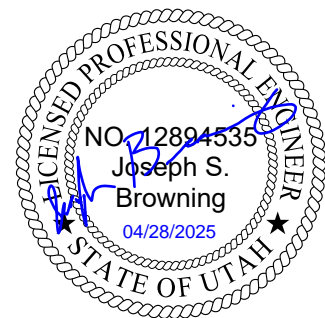
Traffic Impact Study



Heber, Utah

April 28, 2025

UT23-2490



EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed Jordanelle Ridge East Villages development located in Heber, Utah. The development is located on the south side of S.R. 32 between mile markers 3 and 7.

The purpose of this traffic impact study is to analyze traffic operations at key intersections for existing (2023), future (2028), and future (2050) conditions with and without the proposed project and to recommend mitigation measures as needed. The morning and evening peak hour level of service (LOS) results are shown in Table ES-1. An exhibit of the proposed mitigated roadway network is shown in Figure ES-1. Recommended storage lengths are shown in Table ES-2. A site plan of the project is provided in Appendix A.

Table ES-1: Peak Hour Level of Service Results

Intersection	Level of Service																					
	Existing (2023)								Future (2028)				Future (2050)									
	Background		BG Mitigated		Plus Project		PP Mitigated		Background		BG Mitigated		Plus Project		+P Mitigated							
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM						
1 West Village 3 Road / S.R. 32	a	b	a	b	a	b	a	b	a	b	a	b	d	f	A	B	c	c	B	B	B	B
2 Ambush Drive & Cummings RV Park / S.R. 32	a	a	a	a	a	b	a	b	a	b	a	b	f	f	B	B	b	c	D	E	C	C
3 West Benloch Ranch Road / S.R. 32	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	b	b	f	f	B	C
4 East Benloch Ranch Road / S.R. 32	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	f	b	B	A
5 East Village 1 Road / West Village 3 Road	-	-	-	-	a	a	a	a	-	-	-	-	a	a	a	a	-	-	a	a	a	a
6 Marcella Ridge Drive / Ambush Drive	-	-	-	-	A	A	A	A	-	-	-	-	A	A	A	A	-	-	A	A	A	A
7 West Village 1 Road / S.R. 32	-	-	-	-	-	-	-	-	-	-	-	-	f	f	b	c	-	-	e	f	a	c
8 East Village 1 Road / S.R. 32	-	-	-	-	-	-	-	-	-	-	-	-	f	f	B	B	-	-	D	E	B	C
8 S.R. 32 & River Road / U.S. 40	D	E	D	D	E	F	D	D	D	F	D	D	F	F	D	D	F	F	-	-	-	-

1. Intersection LOS values represent the overall intersection average for roundabout, signalized, and all-way stop-controlled (AWSC) intersections (uppercase letter) and the worst movement for all other unsignalized intersections (lowercase letter)
 2. BG = Background (without project traffic), +P = Plus Project (with project traffic)
 Source: Hales Engineering, April 2025

Table ES-2: Recommended Storage Length

Intersection	Recommended Storage Lengths (feet)															
	Northbound				Southbound				Eastbound				Westbound			
	LT		RT		LT		RT		LT		RT		LT		RT	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
1 West Village 3 Road / S.R. 32	-	125	-	-	-	100	-	-	-	150	-	100	-	100	-	-
2 Ambush Drive & Cummings RV Park / S.R. 32	-	250	-	-	-	100	-	-	-	100	-	-	-	175	-	-
3 West Benloch Ranch Road / S.R. 32	-	325	-	-	-	-	-	-	-	100	175	100	575	-	-	
4 East Benloch Ranch Road / S.R. 32	-	225	-	-	-	-	-	-	-	100	100	100	100	-	-	
7 West Village 1 Road / S.R. 32	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	
8 East Village 1 Road / S.R. 32	-	375	-	-	-	100	-	-	-	100	-	100	-	150	-	-

1. Storage lengths are based on 2050 95th percentile queue lengths and do not include required deceleration / taper distances
 2. E = Existing storage length (approximate), if applicable; P = proposed storage length for new turn lanes or changes to existing turn lanes, if applicable
 Source: Hales Engineering, April 2025

SUMMARY OF KEY FINDINGS & RECOMMENDATIONS






Project Conditions		
<ul style="list-style-type: none"> • The development will consist of single- and multi-family housing (including an active adult community) as well as commercial/retail, recreational, hotel, school, and fire station land uses • At full build, the project is anticipated to generate approximately 41,906 (+472 pass-by) weekday daily trips, including 3,145 (+106 pass-by) trips in the morning peak hour, and 3,942 (+126 pass-by) trips in the evening peak hour • Based on UDOT guidelines and anticipated project traffic, the following deceleration lanes are recommended: <ul style="list-style-type: none"> ○ Ambush Dr & RV Park Access / S.R. 32: EB right- & left-turn and WB left-turn ○ West Village 3 Rd / S.R. 32: EB right- & left-turn and WB left-turn ○ West Village 1 Rd / S.R. 32: EB right- and WB left-turn ○ East Village 1 Rd / S.R. 32: EB right- & left-turn and WB left-turn • Based on UDOT guidelines and anticipated project traffic, the following acceleration lanes are recommended: <ul style="list-style-type: none"> ○ Ambush Dr & RV Park Access / S.R. 32: NB-to-EB right-turn ○ West Village 3 Rd / S.R. 32: SB-to-WB right-turn ○ East Village 1 Rd / S.R. 32: NB-to-EB right-turn • Based on roadway capacity analyses: <ul style="list-style-type: none"> ○ It is recommended that Ambush Drive be built and striped with a 3-lane cross-section. Current plans show 2 lanes uphill and 1 lane downhill. ○ At full build, it is possible that additional capacity may be needed with 2 lanes uphill for the first 5,800 feet and swap with 2 lanes downhill during the remainder until the roundabout. ○ Alternatively, Ambush Drive could be striped with 2 lanes in both directions for the entire facility if the bike lanes are removed. Further details are provided in the report. • Responsibility for improvements on S.R. 32 will be determined by UDOT as highway encroachment permits are processed. 		
2023	Background	Plus Project
Assumptions	<ul style="list-style-type: none"> • Anticipated traffic from various North Village projects, Benloch Ranch, and Cummings RV Park projects added 	<ul style="list-style-type: none"> • Phase 1 project traffic added
Findings	<ul style="list-style-type: none"> • Poor LOS at: <ul style="list-style-type: none"> ○ River Rd & S.R. 32 / U.S. 40 	<ul style="list-style-type: none"> • Poor LOS at: <ul style="list-style-type: none"> ○ River Rd & S.R. 32 / U.S. 40
Mitigations	<ul style="list-style-type: none"> • Optimize signal timing at S.R. 32 & River Road / U.S. 40 	<ul style="list-style-type: none"> • Install WB dual left-turn lanes and EB and WB right-turn pockets at S.R. 32 & River Road / U.S. 40
2028	Background	Plus Project
Assumptions	<ul style="list-style-type: none"> • Anticipated 2028 traffic from various North Village projects, Benloch Ranch, and Cummings RV Park projects added 	<ul style="list-style-type: none"> • Phase 2 project traffic added
Findings	<ul style="list-style-type: none"> • Poor LOS at: <ul style="list-style-type: none"> ○ S.R. 32 & River Road / U.S. 40 	<ul style="list-style-type: none"> • Poor LOS at: <ul style="list-style-type: none"> ○ S.R. 32 & River Road / U.S. 40 ○ West Village 1 Road / S.R. 32 ○ Ambush Drive & RV Park / S.R. 32 ○ East Village 1 Road / S.R. 32 ○ West Village 3 Road / S.R. 32

2028	Background	Plus Project
Mitigations	<ul style="list-style-type: none"> • S.R. 32 & River Road / U.S. 40: <ul style="list-style-type: none"> ○ Install WB and EB dual LT lanes ○ Install separate WB and EB RT lanes 	<ul style="list-style-type: none"> • S.R. 32 & River Road / U.S. 40: <ul style="list-style-type: none"> ○ Install SB dual LT lanes and triple WB LT lanes ○ Install a NB free RT lane ○ Widen U.S. 40 to 3 lanes on either side • West Village 3 Rd / S.R. 32: <ul style="list-style-type: none"> ○ Install traffic signal • West Village 1 Rd / S.R. 32: <ul style="list-style-type: none"> ○ Install NB-to-WB LT acceleration lane • East Village 1 Rd / S.R. 32: <ul style="list-style-type: none"> ○ Install traffic signal • Ambush Dr & RV Park / S.R. 32: <ul style="list-style-type: none"> ○ Install traffic signal • Ambush Dr: <ul style="list-style-type: none"> ○ Install second uphill lane as climbing lane • Widen S.R. 32 to two lanes in each direction from U.S. 40 to approximately Mile Marker 3.5 • Stripe all project accesses along S.R. 32 separating LT lanes from thru/RT lanes
2050	Background	Plus Project
Assumptions	<ul style="list-style-type: none"> • Anticipated 2050 traffic from various North Village projects, Benloch Ranch, and Cummings RV Park projects accounted for 	<ul style="list-style-type: none"> • Project fully built • Some of the elementary and middle school traffic will be internal to the project and not impact S.R. 32
Findings	<ul style="list-style-type: none"> • Poor LOS at: <ul style="list-style-type: none"> ○ S.R. 32 & River Road / U.S. 40 	<ul style="list-style-type: none"> • Poor LOS at: <ul style="list-style-type: none"> ○ Ambush Drive & RV Park / S.R. 32 ○ West Benloch Ranch Road / S.R. 32 ○ East Benloch Ranch Road / S.R. 32 ○ West Village 1 Road / S.R. 32 ○ East Village 1 Road / S.R. 32
Mitigations	<ul style="list-style-type: none"> • Convert the S.R. 32 & River Road / U.S. 40 intersection to an interchange 	<ul style="list-style-type: none"> • Widen S.R. 32 to three lanes in each direction from approximately mile marker 2.9 and 3.5 and two lanes each direction from approximately mile marker 3.5 to 7. • West Benloch Ranch Road / S.R. 32: <ul style="list-style-type: none"> ○ Install traffic signal • East Benloch Ranch Road / S.R. 32: <ul style="list-style-type: none"> ○ Install traffic signal • Ambush Drive & RV Park / S.R. 32: <ul style="list-style-type: none"> ○ Install dual northbound left-turn lanes ○ Install EB RT overlap phase or EB channelized RT • West Village 1 Road / S.R. 32: <ul style="list-style-type: none"> ○ Restrict LT



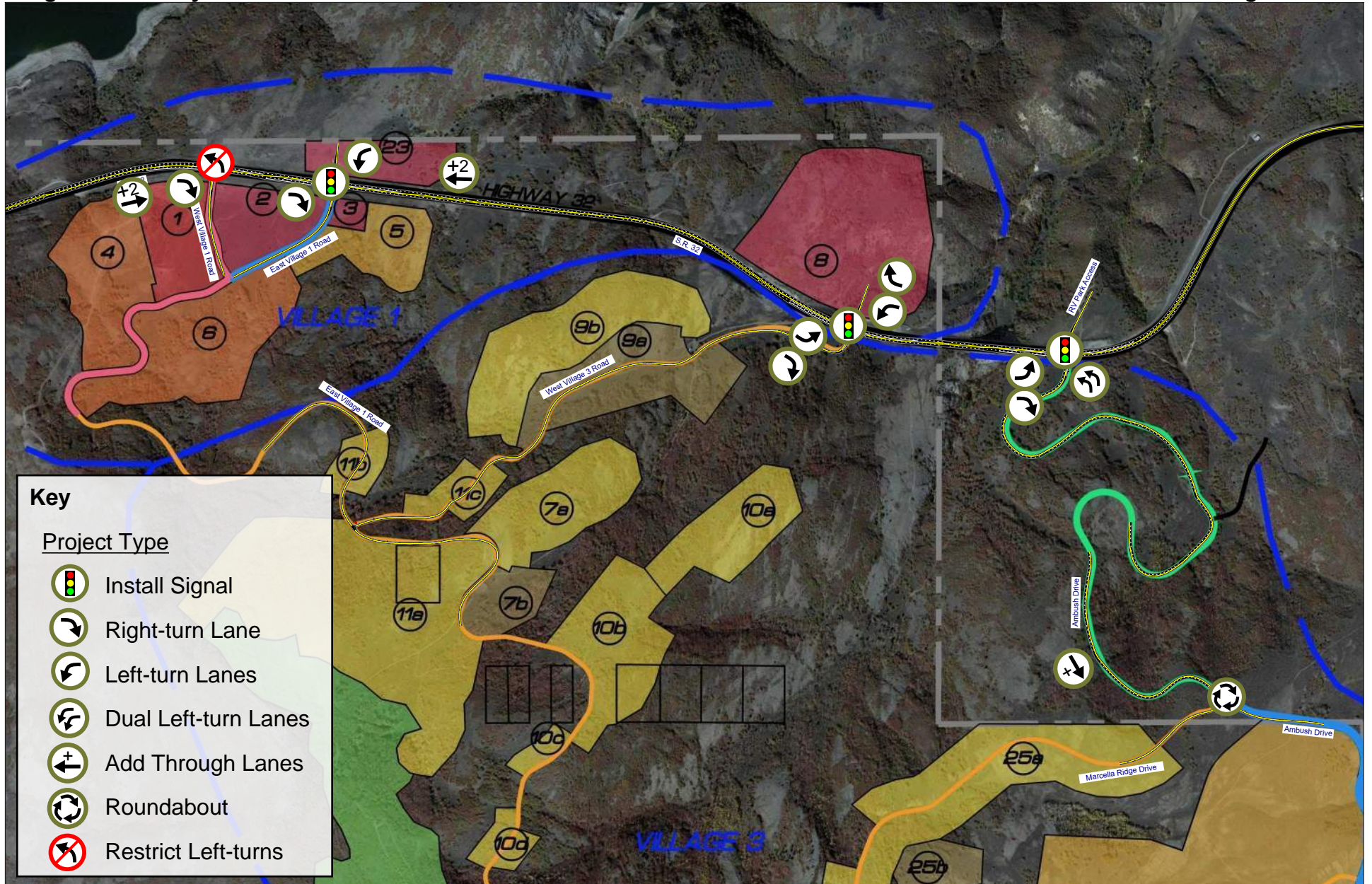
Key

Project Type

-  Future Interchange
-  Channelize Right-turn
-  Dual Left-turn Lanes
-  Triple Left-turn Lanes
-  Add Through Lane

Heber Jordanelle Ridge East Villages
Mitigated Roadway Network

Figure ES-1A



Key

Project Type

- Install Signal
- Right-turn Lane
- Left-turn Lanes
- Dual Left-turn Lanes
- Add Through Lanes
- Roundabout
- Restrict Left-turns

Heber Jordanelle Ridge East Villages
Mitigated Roadway Network

Figure ES-1B



Key

Project Type



Install Signal



Dual Left-turn Lanes

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

SUMMARY OF KEY FINDINGS & RECOMMENDATIONS ii

TABLE OF CONTENTSvii

LIST OF TABLES ix

LIST OF FIGURES ix

I. INTRODUCTION 1

A. Purpose 1

B. Scope 2

C. Analysis Methodology 2

D. Level of Service Standards 2

II. EXISTING (2023) BACKGROUND CONDITIONS..... 4

A. Purpose 4

B. Roadway System 4

C. Traffic Volumes 4

D. Level of Service Analysis 5

E. 2FQueuing Analysis 11

F. Mitigation Measures 12

G. Mitigated Scenario 12

III. PROJECT CONDITIONS 13

A. Purpose 13

B. Project Description 13

C. Trip Generation 13

D. Trip Distribution and Assignment 15

E. Access 32

F. Auxiliary Lanes 32

IV. EXISTING (2023) PLUS PROJECT CONDITIONS 34

A. Purpose 34

B. Traffic Volumes 34

C. Level of Service Analysis 34

D. Queuing Analysis 41

E. Mitigation Measures 41

F. Mitigated Scenario 41

V. FUTURE (2028) BACKGROUND CONDITIONS..... 42

A. Purpose 42

B. Roadway Network 42

C. Traffic Volumes 42

D. Level of Service Analysis 42

E. Queuing Analysis 42

F. Mitigation Measures 49

G. Mitigated Scenario 49

VI. FUTURE (2028) PLUS PROJECT CONDITIONS..... 50

A. Purpose 50

B. Traffic Volumes 50

C. Level of Service Analysis 50

D. Queuing Analysis	57
E. Mitigation Measures	57
F. Mitigated Scenario	57
VII. FUTURE (2050) BACKGROUND CONDITIONS.....	59
A. Purpose	59
B. Roadway Network	59
C. Traffic Volumes	59
D. Level of Service Analysis	59
E. Queuing Analysis	59
F. Mitigation Measures	66
VIII. FUTURE (2050) PLUS PROJECT CONDITIONS.....	67
A. Purpose	67
B. Traffic Volumes	67
C. Level of Service Analysis	67
D. Queuing Analysis	67
E. Mitigation Measures	73
F. Mitigated Scenario	73
G. Recommended Storage Lengths	74
H. Capacity Analysis	75

- Appendix A: Project Site Plan**
- Appendix B: Turning Movement Counts**
- Appendix C: LOS Results**
- Appendix D: Queuing Results**
- Appendix E: Trip Generation**
- Appendix F: Internal Capture Reduction Spreadsheet**
- Appendix G: Peak Hour Signal Warrants**
- Appendix H: Capacity Analysis Printouts**

LIST OF TABLES

Table 1: Level of Service Description 3
 Table 2: Existing (2023) Background Peak Hour LOS 5
 Table 3: Existing (2023) Mitigated Background Peak Hour LOS 12
 Table 4: Project Land Uses..... 13
 Table 5: Internal Capture Trip Reductions..... 14
 Table 6: New Trip Distribution..... 15
 Table 7: Pass-by Trip Distribution..... 15
 Table 8: Existing (2023) Plus Project Peak Hour LOS 34
 Table 9: Existing (2023) Mitigated Plus Project Peak Hour LOS 41
 Table 10: Future (2028) Background Peak Hour LOS 49
 Table 11: Mitigated Future (2028) Background Peak Hour LOS 49
 Table 11: Future (2028) Plus Project Peak Hour LOS 50
 Table 12: Future (2028) Mitigated Plus Project Peak Hour LOS 58
 Table 13: Future (2050) Background Peak Hour LOS 66
 Table 14: Future (2050) Plus Project Peak Hour LOS 73
 Table 15: Future (2050) Mitigated Plus Project Peak Hour LOS 74
 Table 16: Recommended Storage Lengths..... 74

LIST OF FIGURES

Figure 1: Vicinity map showing the project location in Heber, Utah 1
 Figure 2: Existing (2023) background peak hour traffic volumes 6
 Figure 3: Trip assignment for the peak hours..... 16
 Figure 4: Existing (2023) plus project peak hour traffic volumes 35
 Figure 5: Future (2028) background peak hour traffic volumes 43
 Figure 6: Future (2028) plus project peak hour traffic volumes..... 51
 Figure 7: Future (2050) background peak hour traffic volumes 60
 Figure 8: Future (2050) plus project peak hour traffic volumes..... 68
 Figure 9: Ambush Drive and Marcella Ridge Drive 2050 ADT volumes 72

I. INTRODUCTION

A. Purpose

This study addresses the traffic impacts associated with the proposed Jordanelle Ridge East Villages development located in Heber, Utah. The proposed project is located on the south side of S.R. 32 between mile markers 3 and 7. Figure 1 shows a vicinity map of the proposed development.

The purpose of this traffic impact study is to analyze traffic operations at key intersections for existing (2023), future (2028), and future (2050) conditions with and without the proposed project and to recommend mitigation measures as needed.

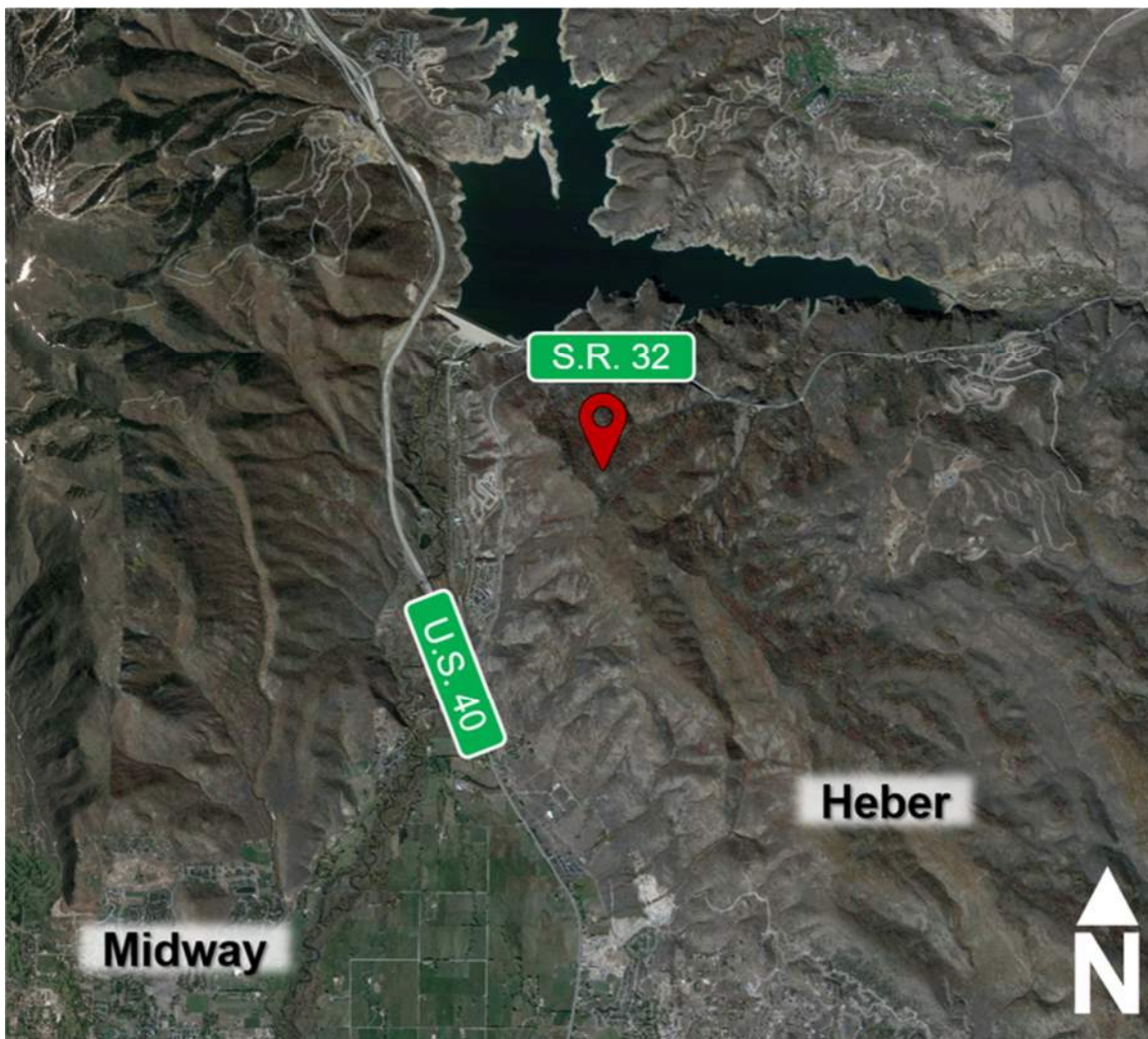


Figure 1: Vicinity map showing the project location in Heber, Utah

B. Scope

The study area was defined based on conversations with the development team. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersections:

- West Village 1 Road / S.R. 32
- East Village 1 Road / S.R. 32
- West Village 3 Road / S.R. 32
- Ambush Drive & RV Access / S.R. 32
- S.R. 32 & River Road / U.S. 40
- West Benloch Ranch Road / S.R. 32
- East Benloch Ranch Road / S.R. 32
- East Village 1 Road / West Village 3 Road
- Marcella Ridge Drive / Ambush Drive

C. Analysis Methodology

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections.

The *Highway Capacity Manual* (HCM), 7th Edition, 2022 methodology was used in this study to remain consistent with “state-of-the-practice” professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized, roundabout, and all-way stop-controlled (AWSC) intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections, LOS is reported based on the worst movement.







Using Synchro/SimTraffic software, which follow the HCM methodology, the peak hour LOS was computed for each study intersection. Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. The detailed LOS reports are provided in Appendix C. Hales Engineering also calculated the 95th percentile queue lengths for the study intersections using SimTraffic. The detailed queue length reports are provided in Appendix D.

Many of the figures in this report are printouts of the Synchro model. These figures are not meant to be a design exhibit for exact lane striping and design, due to the limitations of the Synchro software. Instead, the purpose of these figures is to show assumed peak hour turning movement volumes and the conceptual travel lane configuration of the study roadway network.

D. Level of Service Standards

For the purposes of this study, a minimum acceptable intersection performance was set at LOS C for Heber City intersections and LOS D for intersections on UDOT roads. If levels of service fall below these thresholds, an explanation and/or mitigation measures will be presented. These LOS thresholds are consistent with Heber City and UDOT standards.

Table 1: Level of Service Description

LOS	Description of Traffic Conditions	Average Delay (seconds/vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	 Free Flow / Insignificant Delay	≤ 10	≤ 10
B	 Stable Operations / Minimum Delays	> 10 to 20	> 10 to 15
C	 Stable Operations / Acceptable Delays	> 20 to 35	> 15 to 25
D	 Approaching Unstable Flows / Tolerable Delays	> 35 to 55	> 25 to 35
E	 Unstable Operations / Significant Delays	> 55 to 80	> 35 to 50
F	 Forced Flows / Unpredictable Flows / Excessive Delays	> 80	> 50

Source: Hales Engineering Descriptions, based on the *Highway Capacity Manual (HCM)*, 7th Edition, 2022 Methodology (Transportation Research Board)

II. EXISTING (2023) BACKGROUND CONDITIONS

A. Purpose

The purpose of the background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified, and potential mitigation measures can be recommended. This analysis provides a baseline condition that may be compared to the build conditions to identify the impacts of the development.

B. Roadway System

The primary roadway that will provide access to the project site is described below:

S.R. 32 – is a state-maintained roadway (classified by UDOT access management standards as a “Regional – Rural Importance” facility, or access category 4 roadway). The roadway has one travel lane in each direction. As identified and controlled by UDOT, this roadway has minimum signalized intersection spacing of one-half mile (2,640 feet), minimum unsignalized street spacing of 660 feet, and minimum driveway spacing of 500 feet. The posted speed limit is 55 mph in the study area.

C. Traffic Volumes

Weekday morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak period traffic counts were performed at the following intersections:

- East Village 1 Road / S.R. 32
- S.R. 32 & River Road / S.R. 32

The counts were performed on Thursday, April 6, 2023. The morning peak hour was determined to be between 7:30 and 8:30 a.m., and the evening peak hour was determined to be between 4:45 and 5:45 p.m. The evening peak hour volumes were approximately 22% higher than the morning peak hour volumes. Both the morning and evening peak hour volumes were used in the analysis. Detailed count data are included in Appendix B.

Traffic counts were collected when nearby schools may not have been in session due to spring break. Traffic volumes from a week and two weeks prior were compared using UDOT’s Automated Traffic Signal Performance Measures (ATSPM) data. The data showed that the volumes collected on April 6th were slightly higher than volumes collected during the same peak hours in previous weeks. Therefore, the observed volumes were not adjusted for spring break as a conservative measure.

Hales Engineering made seasonal adjustments to the observed traffic volumes. Monthly traffic volume data were obtained from a nearby UDOT automatic traffic recorder (ATR) on S.R 224 (ATR #509). In recent years, traffic volumes in April have been equal to approximately 89% of

average traffic volumes. The observed traffic volumes were adjusted accordingly to determine average turning movement counts at the study intersections.

Anticipated traffic volumes from North Village properties, Benloch Ranch property, and Cummings RV Park which are currently under development were accounted for and added to the 2023 and 2028 background traffic volumes based on timelines given by Heber City. Traffic volumes from Jordanelle Ridge Village 2, which is not part of this project, were accounted for in the background growth in future conditions.

Figure 2 shows the existing morning and evening peak hour volumes as well as intersection geometry at the study intersections.

D. Level of Service Analysis

Hales Engineering determined that the S.R. 32 & River Road / U.S. 40 intersection is currently operating at a poor level of service during the evening peak hour, as shown in Table 2.

Hales Engineering determined that all study intersections are currently operating at acceptable levels of service during the morning and evening peak hours, as shown in Table 2. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2023) conditions.

Table 2: Existing (2023) Background Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	NEB Stop	a (0.7) / WBT	b (10.5) / NEL
Cummings RV Park Access / S.R. 32	SB Stop	a (7.0) / SBL	a (8.7) / SBL
West Benloch Ranch Road / S.R. 32	NB Stop	a (5.1) / NBL	a (5.2) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	a (4.7) / NBL	a (5.0) / NBL
S.R. 32 & River Road / U.S. 40	Signal	D (39.9)	E (77.6)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
 2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, February 2025













Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. Significant 95th percentile queue lengths during the morning and evening peak hour are summarized as follows:

- S.R. 32 & River Road / U.S. 40:
 - Northbound: 650 feet (AM)
 - Eastbound: 550 feet (AM)
 - Southbound: >1,000 feet (PM)
 - Westbound: 650 feet (PM)

F. Mitigation Measures

It is recommended that the signal timing at the S.R. 32 & River Road / U.S. 40 intersection be optimized as the North Village properties, Benloch Ranch property, and Cummings RV Park developments are built, and traffic volumes increase at this intersection.

G. Mitigated Scenario

Hales Engineering ran a mitigated scenario assuming the recommended mitigation measures were implemented as a result, all intersections are anticipated to operate at an acceptable level of service as shown in Table 3. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2023) conditions.

Table 3: Existing (2023) Mitigated Background Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	NEB Stop	a (0.7) / WBT	b (10.5) / NEL
Cummings RV Park Access / S.R. 32	SB Stop	a (7.0) / SBL	a (8.7) / SBL
West Benloch Ranch Road / S.R. 32	NB Stop	a (5.1) / NBL	a (5.2) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	a (4.7) / NBL	a (5.0) / NBL
S.R. 32 & River Road / U.S. 40	Signal	D (44.9)	D (52.0)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, February 2025

III. PROJECT CONDITIONS

A. Purpose

The project conditions discussion explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in Chapter I.

B. Project Description

The proposed Jordanelle Ridge East Villages development is located on the south side of S.R. 32 between mile markers 3 and 7. The development will consist of single-family, and multi-family housing as well as commercial/retail, recreational, hotel, school, and fire station land uses. A concept plan for the proposed development is provided in Appendix A. Based on conversations with the developer, the development will occur in phases. Phase 1 is expected to be completed between now and 2028. Villages 1 and 3 are projected to be fully built within the next few years (phase 2). Villages 4 and 5 are planned for phase 3, to be completed by 2050. The proposed land use and assumed phasing for the development has been identified in Table 4.

Table 4: Project Land Uses

Land Use	Phase 1 Intensity	Phase 2 Intensity	Phase 3 Intensity
Single-family detached housing	249 Units	516 Units	2,346 Units
Golf Course	36 Holes	-	-
Townhomes	-	398 Units	-
Multifamily housing	-	344 Units	-
Commercial / Retail	-	25,000 sq. ft.	-
Hotel	-	550 Rooms	-
Restaurant	-	25,000 sq. ft.	-
Rec-Ice Ribbon	-	150 People	-
Fire Station	-	-	13,500 sq. ft.
Elementary School	-	-	550 Students
Middle School	-	-	650 Students
Active Adult Housing	-	900 Units	-

C. Trip Generation

Trip generation for the Ice Rink was calculated based on data provided from a similar ice rink located in Herriman, Utah. Trip generation for the rest of the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE), *Trip Generation*,

11th Edition, 2021. Trip reductions for pass-by trips and internal capture were estimated and applied to the project.

Pass-by trips are trips already on the road that visit the site before continuing the original route. Hales Engineering referenced average ITE pass-by rates and assumed lower percentages to be conservative in the analysis.

Internal capture trips are trips that stay within the development due to a mix of land uses instead of entering or exiting the site externally. Hales Engineering estimated internal capture based on ITE’s Internal Trip Capture Estimation Tool and assumed lower percentages to be conservative in the analysis, as shown in Table 5. Printouts of the internal capture results from the tool are provided in Appendix F.

Mountain communities generally tend to produce fewer trips than standard suburban communities, due to a combination of second homes and trip chaining. Data collected by Hales Engineering at other mountain communities in Wasatch County showed a 15% reduction in trips compared to standard ITE single-family and multi-family rates. This reduction was applied to the residential portion of the development.

In the 2050 scenarios, internal capture percentages for schools and residential areas were adjusted. Since 50% of all dwelling units within the proposed boundary would not use S.R. 32 to access the schools, it was assumed that 50% of the school traffic occurs within the project area and therefore should not be assigned to any of the access points on S.R. 32. Therefore, a 50% internal capture was used for the schools.

Additionally, it is anticipated that 9% of daily residential (non-senior) trips, including 17% during the morning peak hour and 3% during the evening peak hour will be considered internal, which is based on a number equivalent to the trips generated by the schools proportionate to the number of students potentially residing in Villages 3, 4, and 5. The NCHRP methodology does not calculate internal capture for schools so this internal capture was added separately. To remain conservative, an internal capture percentage of 15% was assumed for the morning peak hour and no change was made to the internal capture percentage for the evening peak hour in the 2050 scenarios. Some of the internal capture was reassigned to internal intersections.

Table 5: Internal Capture Trip Reductions

Time Period	Internal Capture		
	ITE	Reduced	With Schools
Daily	N/A	3%	9%
Morning	5%	2%	15%
Evening	6%	5%	5%

Trip generation for the proposed project is included in Appendix E. The total trip generation for the development when fully constructed is as follows:

- Daily Trips: 41,906 (+472 pass-by)
- Morning Peak Hour Trips: 3,145 (+106 pass-by)
- Evening Peak Hour Trips: 3,942 (+126 pass-by)

D. Trip Distribution and Assignment

Trip distribution percentages for new trips were based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection were also used to establish these distribution percentages, especially near the site. The assumed distribution of new trips during the morning and evening peak hour is shown in Table 6.

Trip distribution percentages for pass-by trips were calculated based on the existing directional traffic on the major roads near the project, as summarized in Table 7.

Table 6: New Trip Distribution

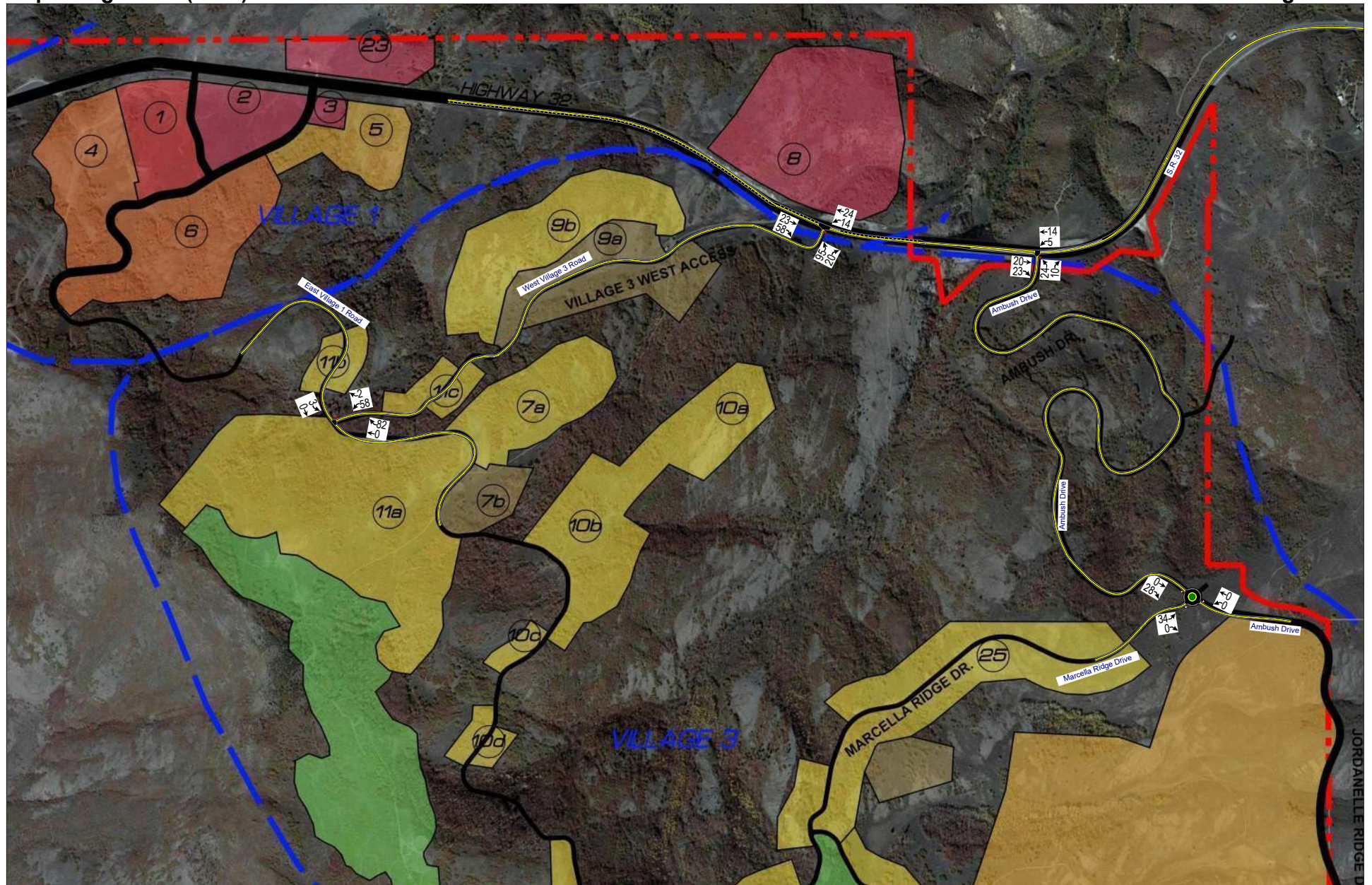
Direction	% To/From Project
North	25%
South	50%
East	20%
West	5%

Table 7: Pass-by Trip Distribution

Direction	Time Period	%
Eastbound	AM	55%
Westbound		45%
Eastbound	PM	45%
Westbound		55%

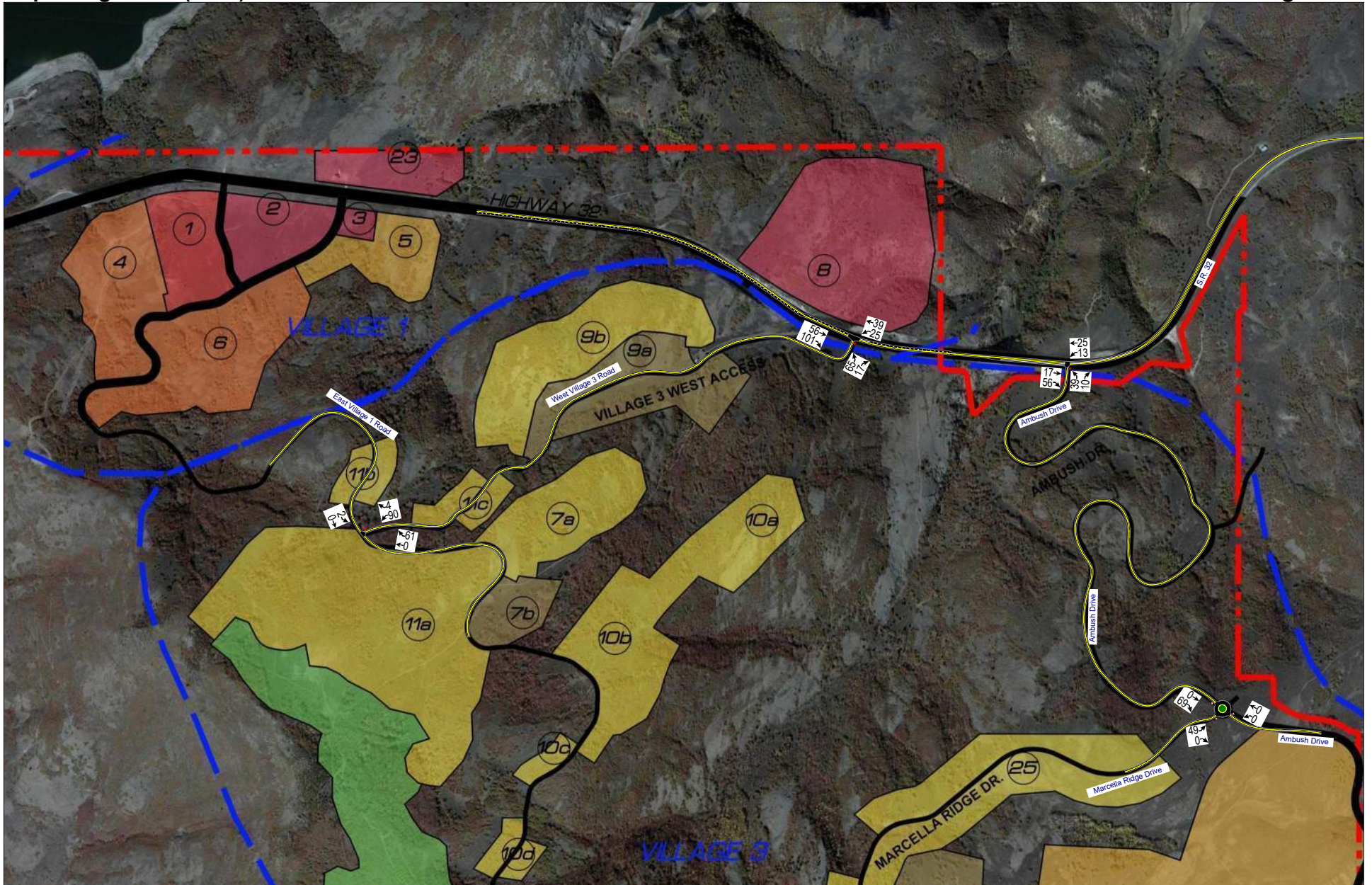
These trip distribution assumptions were used to assign the morning and evening peak hour trip generation at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 3.











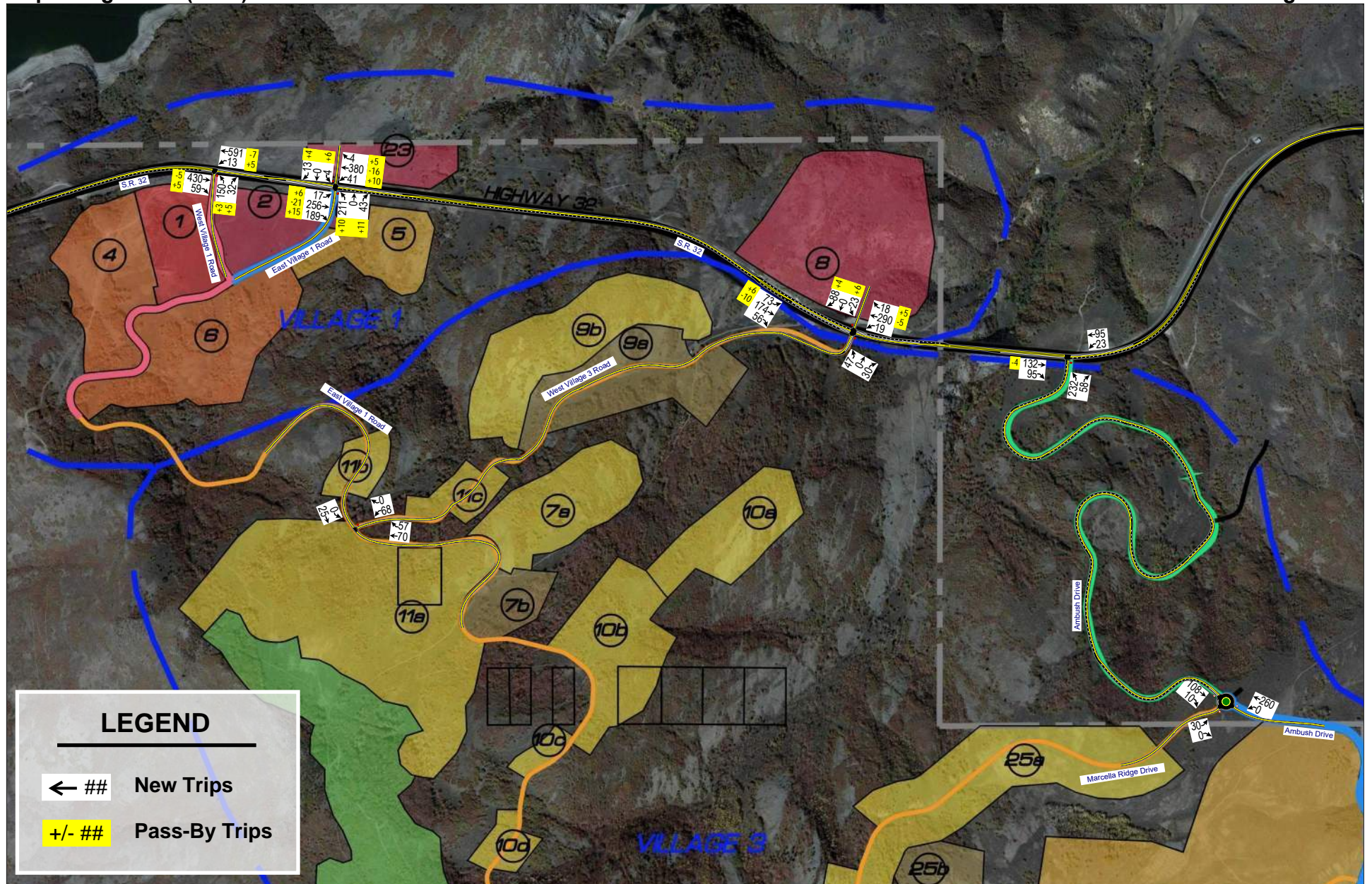




LEGEND

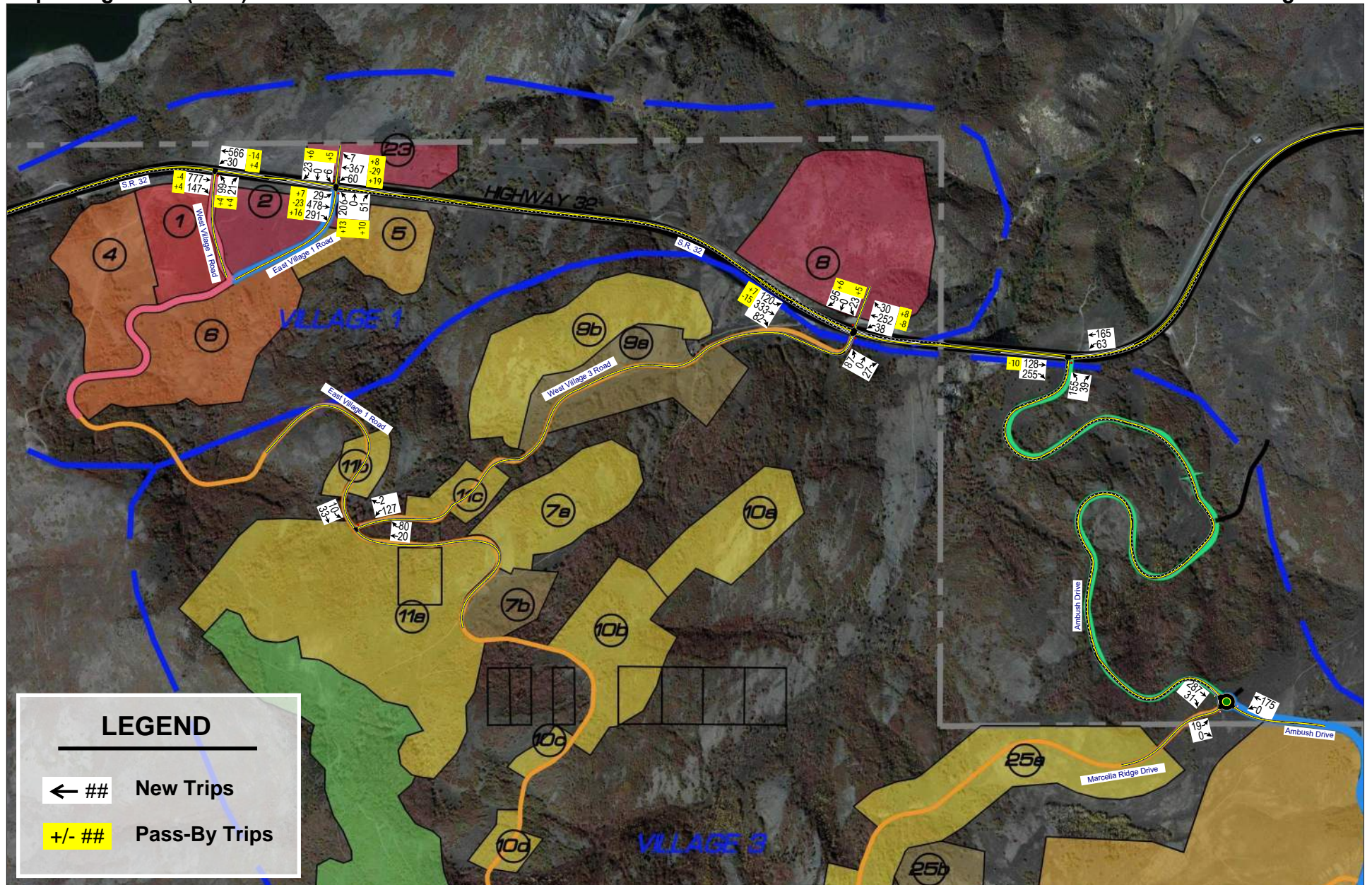
← ## New Trips

+/- ## Pass-By Trips

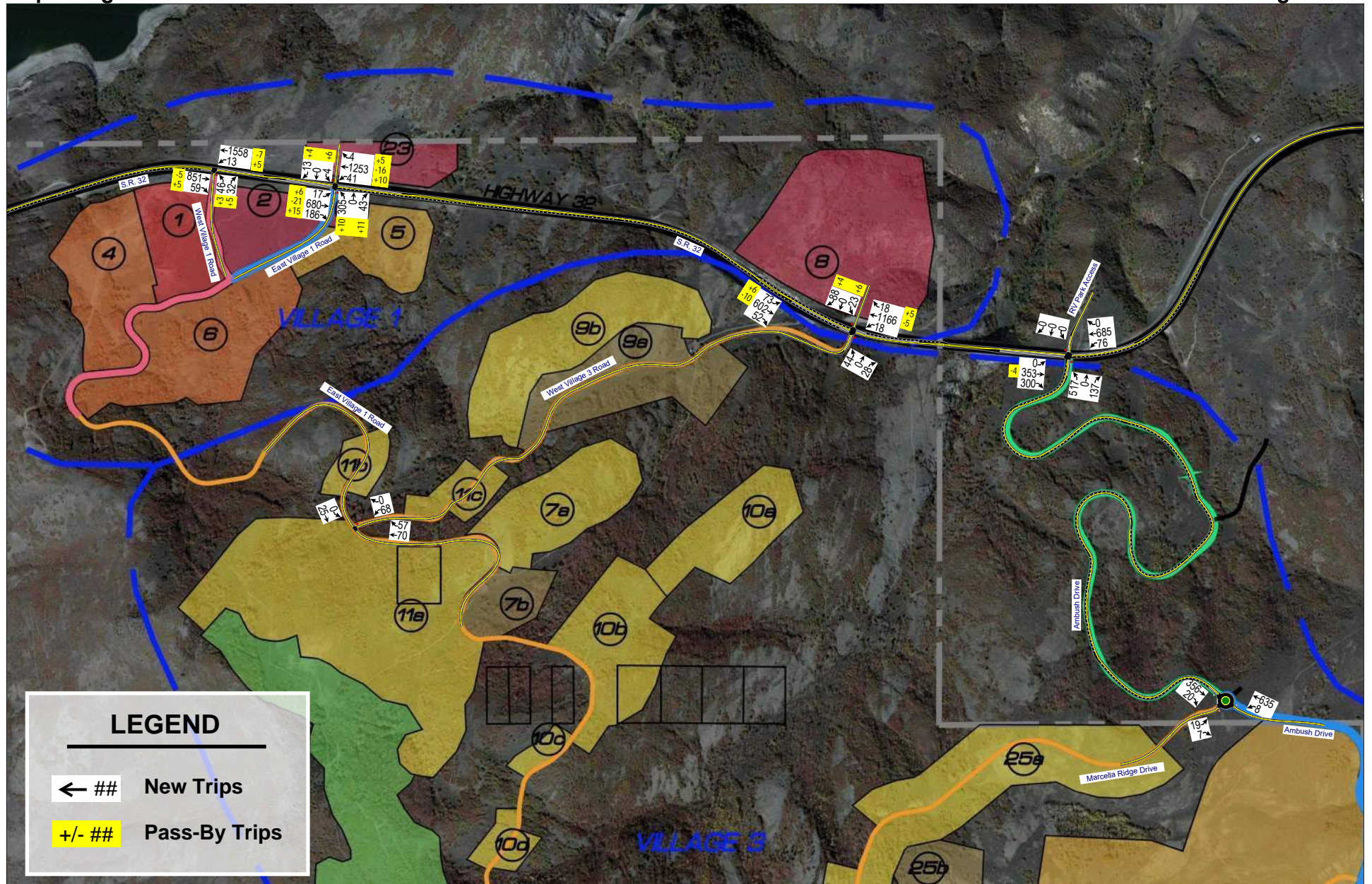












LEGEND

← ## New Trips

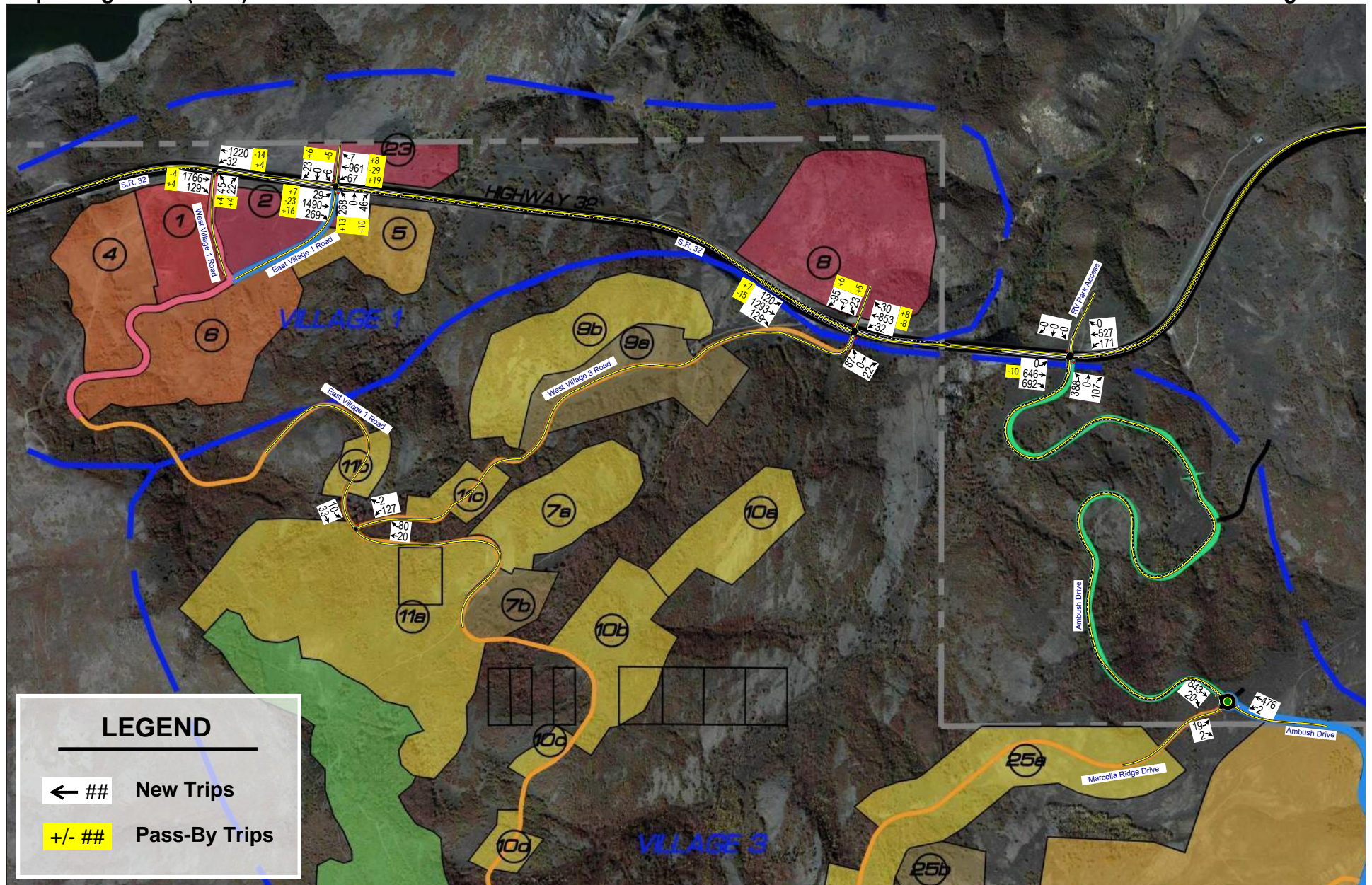
+/- ## Pass-By Trips



LEGEND

← ## New Trips

+/- ## Pass-By Trips





E. Access

The proposed access for the site will be gained at the following locations:

S.R. 32:

- West Village 1 Road will be located at approximately 3 miles north of the River Road & S.R. 32 / U.S. 40 intersection. It will access the project on the south side of S.R. 32. It is anticipated that the access will be stop-controlled.
- East Village 1 Road will be located at approximately 1,200 feet east of the West Village 1 Road / S.R. 32 intersection. It will access the project on the south side of S.R. 32. It is anticipated that the access will be stop-controlled. East Village 1 Road will be privately owned and gated from Village 1 to the roundabout at Ambush Drive. The road is expected to have adequate capacity due to the anticipated low traffic volumes.
- West Village 3 Road will be located at approximately 4,700 feet east of the East Village 1 Road / S.R. 32 intersection. It will access the project on the south side of S.R. 32. It is anticipated that the access will be stop-controlled.
- Ambush Drive will be located at approximately one half mile east of the West Village 3 Road / S.R. 32 intersection. It will access the project on the south side of S.R. 32. It is anticipated that the access will be stop-controlled.
- West Benloch Ranch Road will be located approximately 6,300 feet east of the Ambush Drive / S.R. 32 intersection. It will access the project on the south side of S.R. 32. It is anticipated that the access will be stop-controlled.
- East Benloch Ranch Road will be located approximately 3,400 feet east of the West Benloch Ranch Road / S.R. 32 intersection. It will access the project on the south side of S.R. 32. It is anticipated that the access will be stop-controlled.

F. Auxiliary Lanes

Auxiliary lanes are deceleration (ingress) or acceleration (egress) turn lanes that provide for safe turning movements that have less impact on through traffic. These lanes are sometimes needed at accesses or roadway intersections if right- or left-turn volumes are high enough.

Deceleration (ingress) lanes are generally needed when there are at least 50 right-turn vehicles or 25 left-turn vehicles in an hour. These guidelines were used for the internal roadways in the study area.

UDOT Administrative Rule R930-6 outlines minimum peak hour turn volumes to warrant auxiliary lanes on UDOT roadways. The following are the minimum requirements for these lanes on S.R. 32:

- Left-turn Deceleration (Ingress): 10 left-turn vehicles per hour
- Left-turn Acceleration (Egress): Is there a safety benefit?
- Right-turn Deceleration (Ingress): 25 right-turn vehicles per hour
- Right-turn Acceleration (Egress): 50 right-turn vehicles per hour

Based on these guidelines and the anticipated project traffic, it is recommended that the following deceleration (ingress) lanes be installed:

- West Village 1 Road / S.R. 32: Eastbound right and westbound left-turn
- East Village 1 Road / S.R. 32: Eastbound right & left, and westbound left-turn
- West Village 3 Road / S.R. 32: Eastbound right & left, westbound right & left-turn
- Ambush Drive & RV Park Access / S.R. 32: Eastbound right & left-turn and westbound left-turn

It is recommended that the following acceleration (egress) lanes be installed:

- East Village 1 Road / S.R. 32 North-to-eastbound right-turn
- West Village 3 Road / S.R. 32: South-to-westbound right-turn
- Ambush Drive & RV Park Access / S.R. 32: North-to-eastbound right turn

At intersections where new signals are warranted, or where turns are restricted, it is anticipated that acceleration lanes will not be needed.

IV. EXISTING (2023) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the existing (2023) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for existing background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

B. Traffic Volumes

Hales Engineering added the project trips discussed in Chapter III to the existing (2023) background traffic volumes to predict turning movement volumes for existing (2023) plus project conditions. Existing (2023) plus project morning and evening peak hour turning movement volumes are shown in Figure 4.

C. Level of Service Analysis

Hales Engineering determined that the S.R. 32 & River Road / U.S. 40 intersection is anticipated to operate at a poor level of service during the evening peak hour with project traffic added, as shown in Table 8.

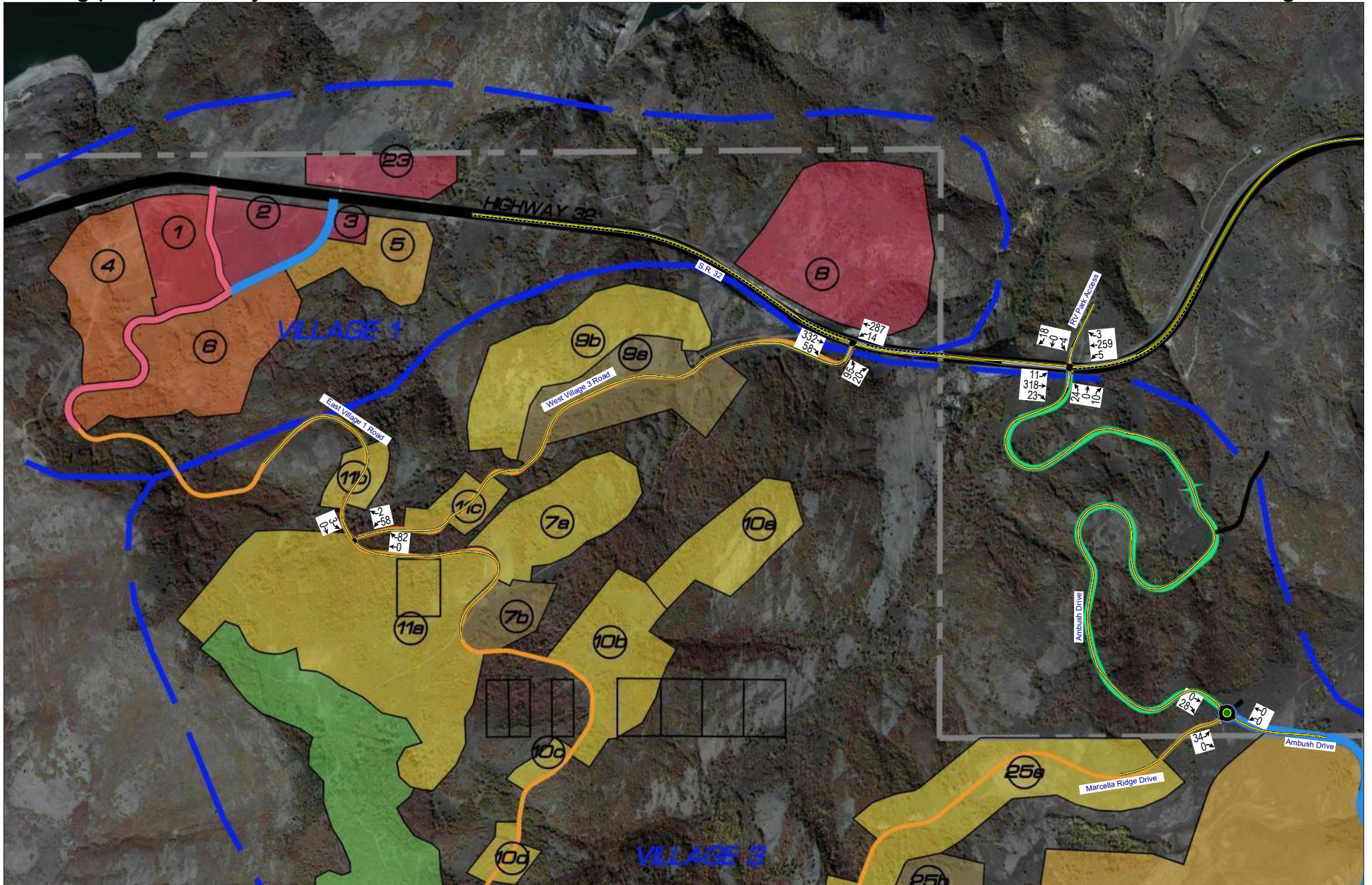
Table 8: Existing (2023) Plus Project Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	NB Stop	a (9.4) / NBL	b (11.7) / NBL
Ambush Drive & RV Park Access / S.R. 32	NB/SB Stop	a (8.1) / NBL	b (12.3) / NBL
West Benloch Ranch Road / S.R. 32	NB Stop	a (5.9) / NBL	a (5.8) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	a (5.3) / NBL	a (4.9) / NBL
West Village 3 Road / East Village 1 Road	WB Stop	a (4.5) / WBL	a (5.2) / WBL
Marcella Ridge Drive / Ambush Drive	Roundabout	A (2.1)	A (2.4)
S.R. 32 & River Road / U.S. 40	Signal	D (53.2)	F (>80)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

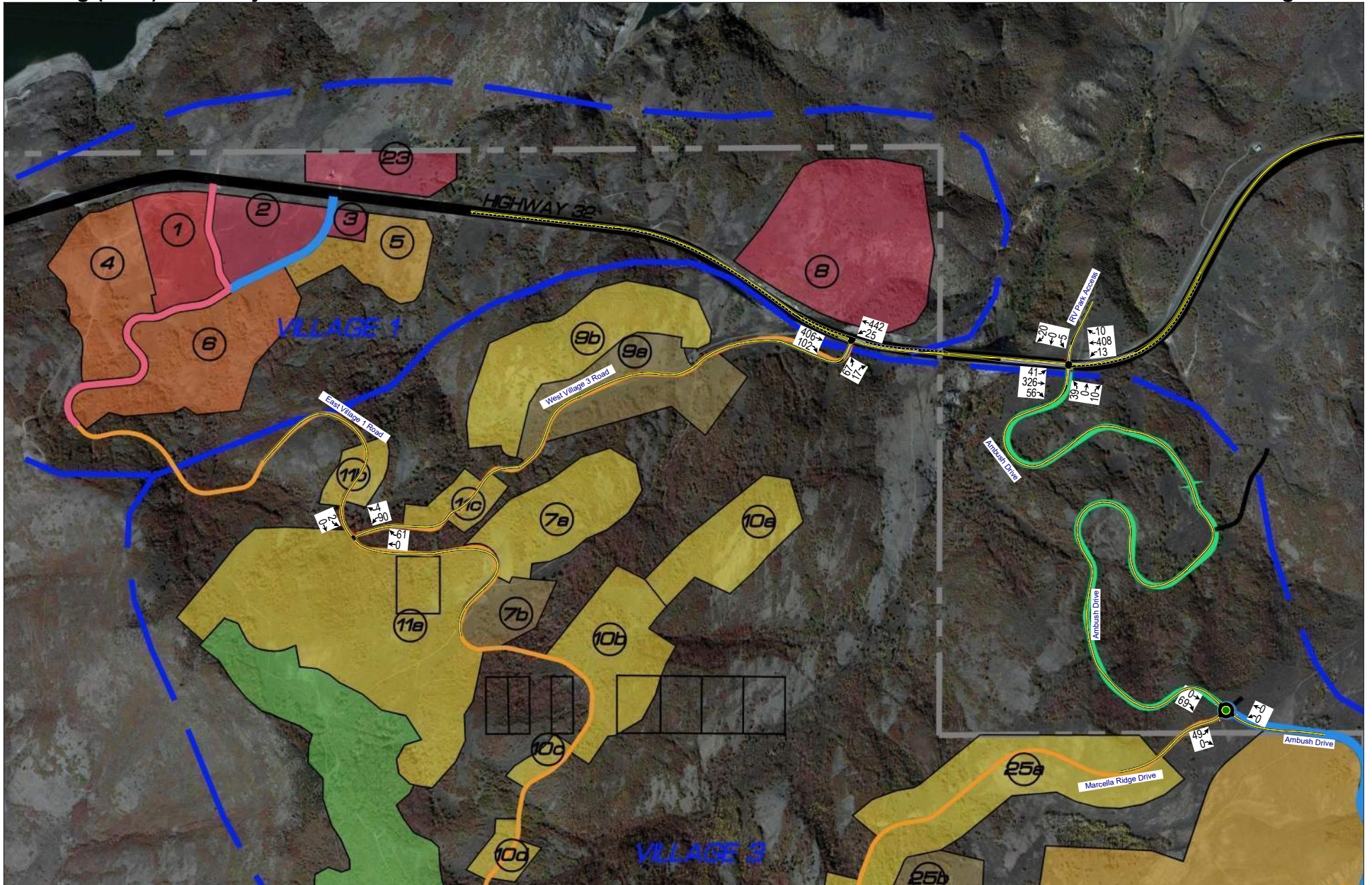
Source: Hales Engineering, February 2025













D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. Significant 95th percentile queue lengths during the morning and evening peak hour are summarized as follows:

- River Road & S.R. 32 / U.S. 40:
 - Southbound: >1,000 feet
 - Northbound: 625 feet
 - Eastbound: 550 feet
 - Westbound: 575 feet

E. Mitigation Measures

It is recommended that westbound dual left-turn lanes be installed at the River Road & S.R. 32 / U.S. 40 intersection. Separate eastbound and westbound right-turn pockets are also recommended at the River Road & S.R. 32 / U.S. 40 intersection.

F. Mitigated Scenario

Hales Engineering ran a mitigated scenario assuming that the recommended mitigation measures had been implemented. As a result, all intersections are anticipated to operate at an acceptable level of service during the morning and evening peak hours as shown in .

Table 9: Existing (2023) Mitigated Plus Project Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	NB Stop	a (9.4) / NBL	b (11.7) / NBL
Ambush Drive & RV Park Access / S.R. 32	NB/SB Stop	a (8.1) / NBL	b (12.3) / NBL
West Benloch Ranch Road / S.R. 32	NB Stop	a (5.9) / NBL	a (5.8) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	a (5.3) / NBL	a (4.9) / NBL
West Village 3 Road / East Village 1 Road	WB Stop	a (4.5) / WBL	a (5.2) / WBL
Marcella Ridge Drive / Ambush Drive	Roundabout	A (2.1)	A (2.4)
S.R. 32 & River Road / U.S. 40	Signal	D (44.7)	D (49.3)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
 2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, February 2025

V. FUTURE (2028) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2028) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified, and potential mitigation measures recommended.

B. Roadway Network

According to the Wasatch RPO plan, there are no projects planned before 2028 in the study area. Therefore, no changes were made to the roadway network for the future (2028) analysis.

C. Traffic Volumes

Hales Engineering obtained future (2028) forecasted volumes from the Wasatch / Summit County travel demand model. Peak period turning movement counts were estimated using National Cooperative Highway Research Program (NCHRP) 255 methodologies which utilize existing peak period turn volumes and future average weekday daily traffic (AWDT) volumes to project the future turn volumes at the major intersections. Anticipated traffic volumes from North Village properties, Benloch Ranch property, and Cummings RV Park which are currently under development were accounted for and added to the forecasted future (2028) volumes based on timelines given by Heber City. Future (2028) morning and evening peak hour turning movement volumes are shown in Figure 5.

D. Level of Service Analysis

Hales Engineering determined that the S.R. 32 / U.S. 40 intersection is anticipated to operate at a poor level of service during the evening peak hour in future (2028) background conditions, as shown in Table 10.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. Significant 95th percentile queue lengths during the morning and evening peak hour are summarized as follows:

- S.R. 32 & River Road / U.S. 40:
 - Southbound: >1,000 feet
 - Northbound: 800 feet
 - Eastbound: >1,000 feet
 - Westbound: 600 feet













Table 10: Future (2028) Background Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	NEB Stop	a (9.7) / NEL	b (13.8) / NEL
Cummings RV Park Access / S.R. 32	SB Stop	a (7.8) / SBL	b (10.5) / SBL
West Benloch Ranch Road / S.R. 32	NB Stop	a (6.2) / NBL	a (6.0) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	a (5.8) / NBL	a (5.8) / NBL
S.R. 32 & River Road / U.S. 40	Signal	D (53.6)	F (>80)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, February 2025

F. Mitigation Measures

As volumes continue to increase on S.R. 32 and River Road, it is anticipated that eastbound and westbound dual left turn lanes will be warranted at the S.R. 32 & River Road / U.S. 40 intersection. It is recommended that dual left-turn lanes be installed at these locations. It is also recommended that right-turn pockets be installed to separate through traffic from right-turning traffic at the S.R. 32 & River Road / U.S. 40 intersection.

G. Mitigated Scenario

Hales Engineering ran a mitigated scenario assuming the recommended mitigation measures were implemented. As a result, all intersections are anticipated to operate at an acceptable level of service as shown in Table 11. These results serve as a baseline condition for the impact analysis of the proposed development for future (2028) conditions.

Table 11: Future (2028) Mitigated Background Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	NEB Stop	a (9.7) / NEL	b (13.8) / NEL
Cummings RV Park Access / S.R. 32	SB Stop	a (7.8) / SBL	b (10.5) / SBL
West Benloch Ranch Road / S.R. 32	NB Stop	a (6.2) / NBL	a (6.0) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	a (5.8) / NBL	a (5.8) / NBL
S.R. 32 & River Road / U.S. 40	Signal	D (45.7)	D (48.5)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, February 2025

VI. FUTURE (2028) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the future (2028) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

Hales Engineering added the full build project trips discussed in Chapter III to the future (2028) background traffic volumes to predict turning movement volumes for future (2028) plus project conditions. Future (2028) plus project morning and evening peak hour turning movement volumes are shown in Figure 6.

C. Level of Service Analysis

Hales Engineering determined that the West Village 3 / S.R. 32, Ambush Drive & RV Park Access / S.R. 32, West Village 1 Road / S.R. 32, East Village 1 Road / S.R. 32, and S.R. 32 & River Road / U.S. 40 intersections are anticipated to operate at a poor level of service during the morning and evening peak hours in future (2028) plus project conditions, as shown in Table 12.

Table 12: Future (2028) Plus Project Peak Hour LOS

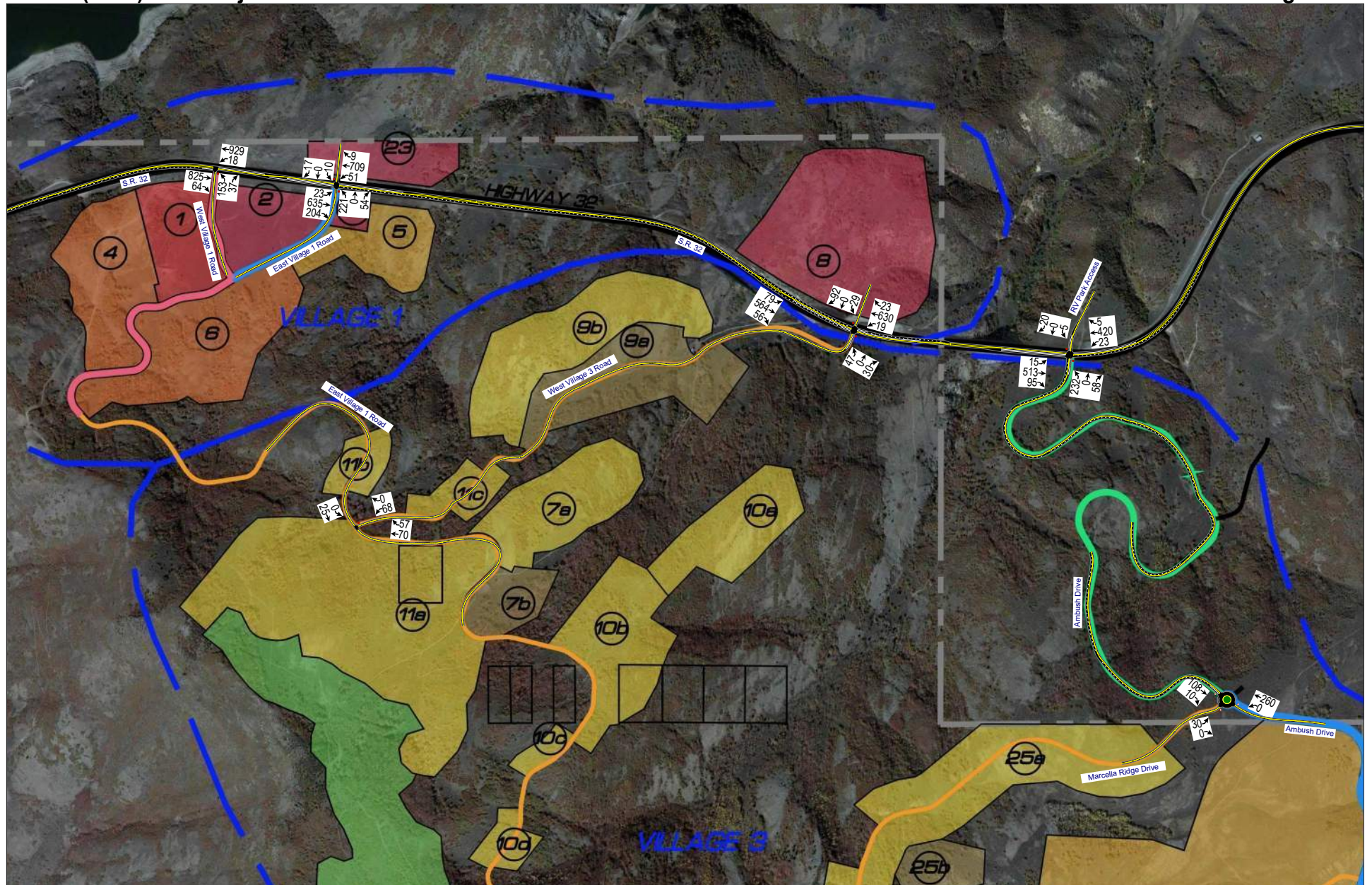
Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	NB Stop	d (29.6) / SBL	f (>50) / NBL
Ambush Drive & RV Park Access / S.R. 32	NB/SB Stop	f (>50) / NBL	f (>50) / NBL
West Benloch Ranch Road / S.R. 32	NB Stop	a (7.9) / NBL	a (6.5) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	a (7.0) / NBL	a (5.8) / NBL
West Village 3 Road / East Village 1 Road	WB Stop	a (5.1) / WBL	a (5.8) / WBL
Marcella Ridge Drive / Ambush Drive	Roundabout	A (2.8)	A (3.1)
West Village 1 Road / S.R. 32	NB Stop	f (>50) / NBR	f (>50) / NBR
East Village 1 Road / S.R. 32	NB Stop	f (>50) / NBL	f (>50) / NBR
S.R. 32 & River Road / U.S. 40	Signal	F (>80)	F (>80)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

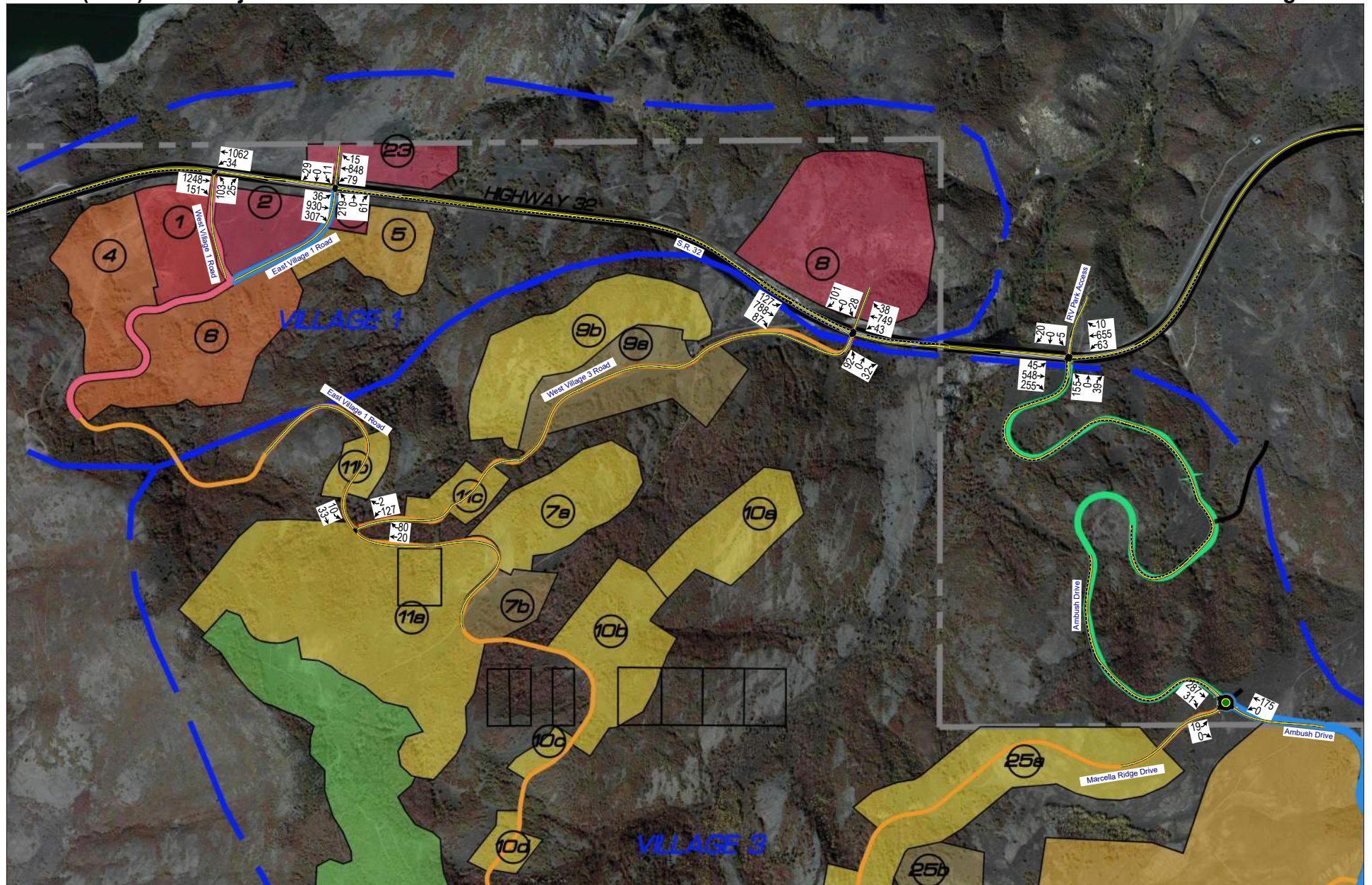
Source: Hales Engineering, February 2025













D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. Significant 95th percentile queue lengths are anticipated at the accesses along S.R. 32 during the morning and evening peak hour.

E. Mitigation Measures

As Villages 1 & 3 are completed, the following mitigation measures are recommended at the project accesses along S.R. 32:

- It is recommended that signals be installed at the East Village 1 Road / S.R. 32, West Village 3 Road / S.R. 32, and Ambush Drive / S.R. 32 intersections. It is anticipated that signals will be warranted at these locations. Peak hour signal warrants are provided in Appendix G.
- A northbound-to-westbound left-turn acceleration lane is recommended at the West Village 1 Road / S.R. 32 intersection
- It is recommended that S.R. 32 be widened to allow two eastbound and westbound lanes from the U.S. 40 intersection to approximately mile marker 3.5.
- It is also recommended that all project access roads on S.R. 32 be striped with separate left-turn lanes.

It is also recommended that Ambush Drive be widened to accommodate a second uphill lane as a climbing lane, to increase capacity. In the mitigated future (2028) plus project scenario it was assumed that the climbing lane ended as a trap right-turn lane at the Marcella Ridge Drive / Ambush Drive roundabout.

The following mitigation measures are recommended at the S.R. 32 & River Road / U.S. 40 intersection:

- It is recommended that dual southbound left-turn lanes, and triple westbound left-turn lanes be installed.
- It is recommended that U.S. 40 be widened to accommodate additional northbound and southbound through lanes.
- It is recommended that a free northbound right-turn lane be installed. S.R. 32 will need to be widened to accommodate three receiving lanes for this and the recommended dual southbound left-turn lanes.

F. Mitigated Scenario

Hales Engineering ran a mitigated scenario assuming the recommended mitigation measures were implemented. With a signal installed at the East Village 1 Road, it was assumed that approximately 65 percent of left-turning traffic assigned to the West Village 1 Road intersection would re-route to the signal.

As a result, all study intersections are anticipated to operate at an acceptable level of service as shown in Table 13

Table 13: Future (2028) Mitigated Plus Project Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	Signal	A (8.4)	B (13.5)
Ambush Drive & RV Park Access / S.R. 32	Signal	B (13.3)	B (11.1)
West Benloch Ranch Road / S.R. 32	NB Stop	a (8.0) / NBL	a (6.9) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	a (6.7) / NBL	a (6.3) / NBL
West Village 3 Road / East Village 1 Road	WB Stop	a (5.1) / WBL	a (6.4) / WBR
Marcella Ridge Drive / Ambush Drive	Roundabout	A (2.8)	A (3.2)
West Village 1 Road / S.R. 32	NB Stop	b (11.2) / NBL	c (24.4) / NBL
East Village 1 Road / S.R. 32	Signal	B (14.3)	B (14.1)
S.R. 32 & River Road / U.S. 40	Signal	D (40.5)	D (47.0)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, February 2025

VII. FUTURE (2050) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2050) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified, and potential mitigation measures recommended.

B. Roadway Network

According to the Wasatch County Regional Transportation Plan, there are no projects planned before 2050 in the study area. Therefore, no changes were made to the roadway network for the future (2050) analysis.

C. Traffic Volumes

Hales Engineering obtained future (2050) forecasted volumes from the Wasatch / Summit County travel demand model. Peak period turning movement counts were estimated using NCHRP 255 methodologies which utilize existing peak period turn volumes and future AWDT volumes to project the future turn volumes at the major intersections. Anticipated traffic volumes from the North Village properties, the Benloch Ranch property, and the Cummings RV Park which are currently under development were accounted for and added to the forecasted future (2050) volumes based on timelines given by Heber City. Future (2050) background morning and evening peak hour turning movement volumes are shown in Figure 7.

D. Level of Service Analysis

Hales Engineering determined that the S.R. 32 & River Road / U.S. 40 intersection is anticipated to operate at a poor level of service during the morning and evening peak hours in future (2050) background conditions, as shown in Table 10. These results serve as a baseline condition for the impact analysis of the proposed development for future (2050) conditions.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. Significant 95th percentile queue lengths during the morning and evening peak hour are summarized as follows:

- S.R. 32 & River Road / U.S. 40:
 - Southbound: >1,000 feet
 - Northbound: >1,000 feet
 - Eastbound: >1,000 feet
 - Westbound: >1,000 feet













Table 14: Future (2050) Background Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	NEB Stop	c (16.7) / NEL	c (24.3) / NEL
Cummings RV Park Access / S.R. 32	SB Stop	b (13.4) / SBL	c (18.1) / SBL
West Benloch Ranch Road / S.R. 32	NB Stop	b (11.5) / NBL	b (10.8) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	a (9.5) / NBL	a (7.3) / NBL
S.R. 32 & River Road / U.S. 40	Signal	F (>80)	F (>80)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, February 2025

F. Mitigation Measures

The Wasatch County Regional Transportation Plan lists that the S.R. 32 & River Road / U.S. 40 intersection could be converted to a new interchange. This improvement is listed under the phase four vision section and is not assigned a timeline. With the anticipated growth in the area, it is anticipated that this new interchange improvement will be needed sometime before 2050. It is recommended that this intersection be monitored as developments are completed and traffic volumes increase to determine when the interchange should be installed.

VIII. FUTURE (2050) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the future (2050) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

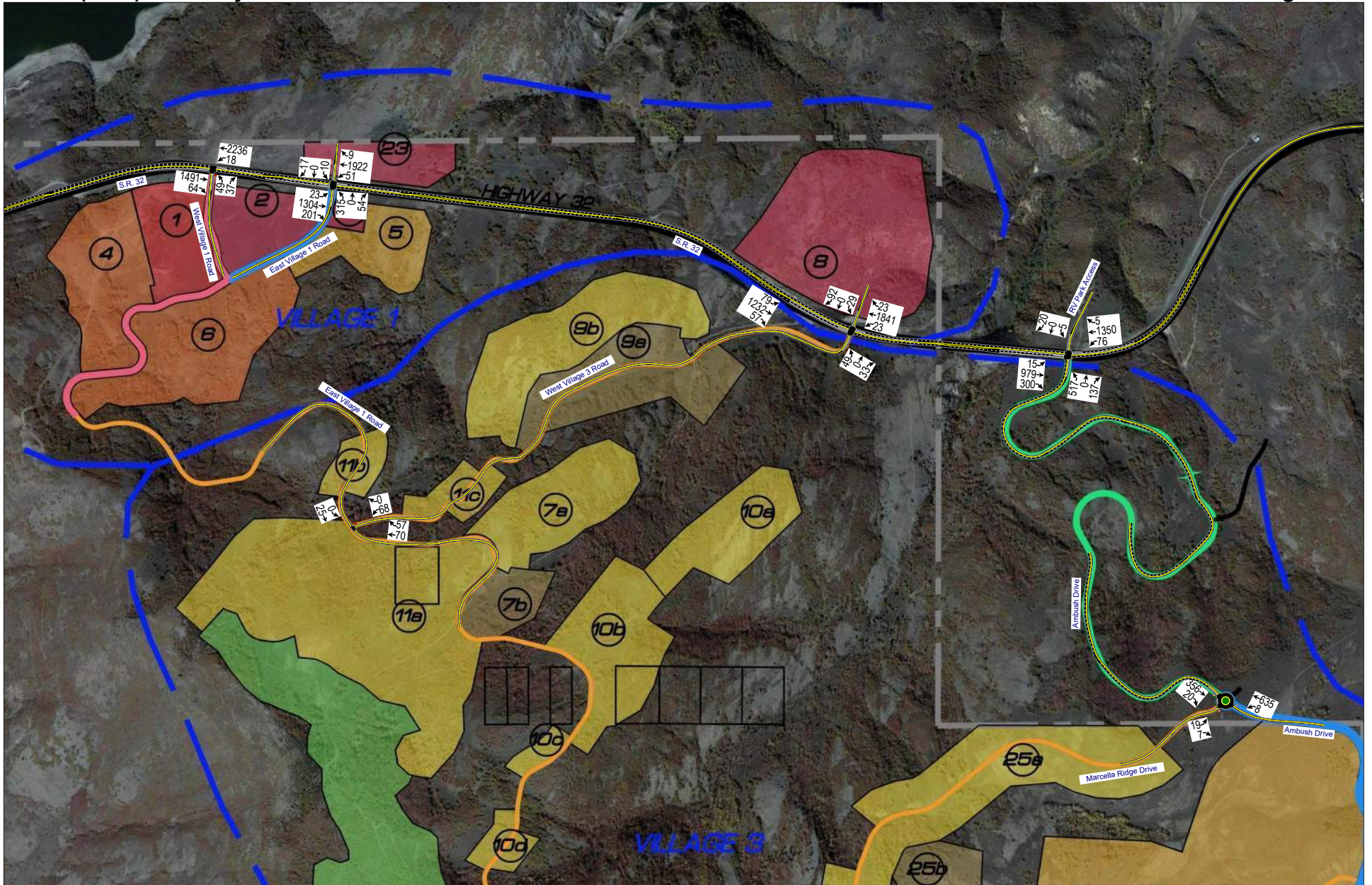
Hales Engineering added phase 1, 2, and 3 project trips discussed in Chapter III to the future (2050) background traffic volumes to predict turning movement volumes for future (2050) plus project conditions. Future (2050) plus project morning and evening peak hour turning movement volumes are shown in Figure 8. A map showing the estimated ADT volumes on Ambush Drive and Marcella Ridge Drive is shown in Figure 9. No traffic was assigned to the Little Pole connection as a conservative measure.

C. Level of Service Analysis

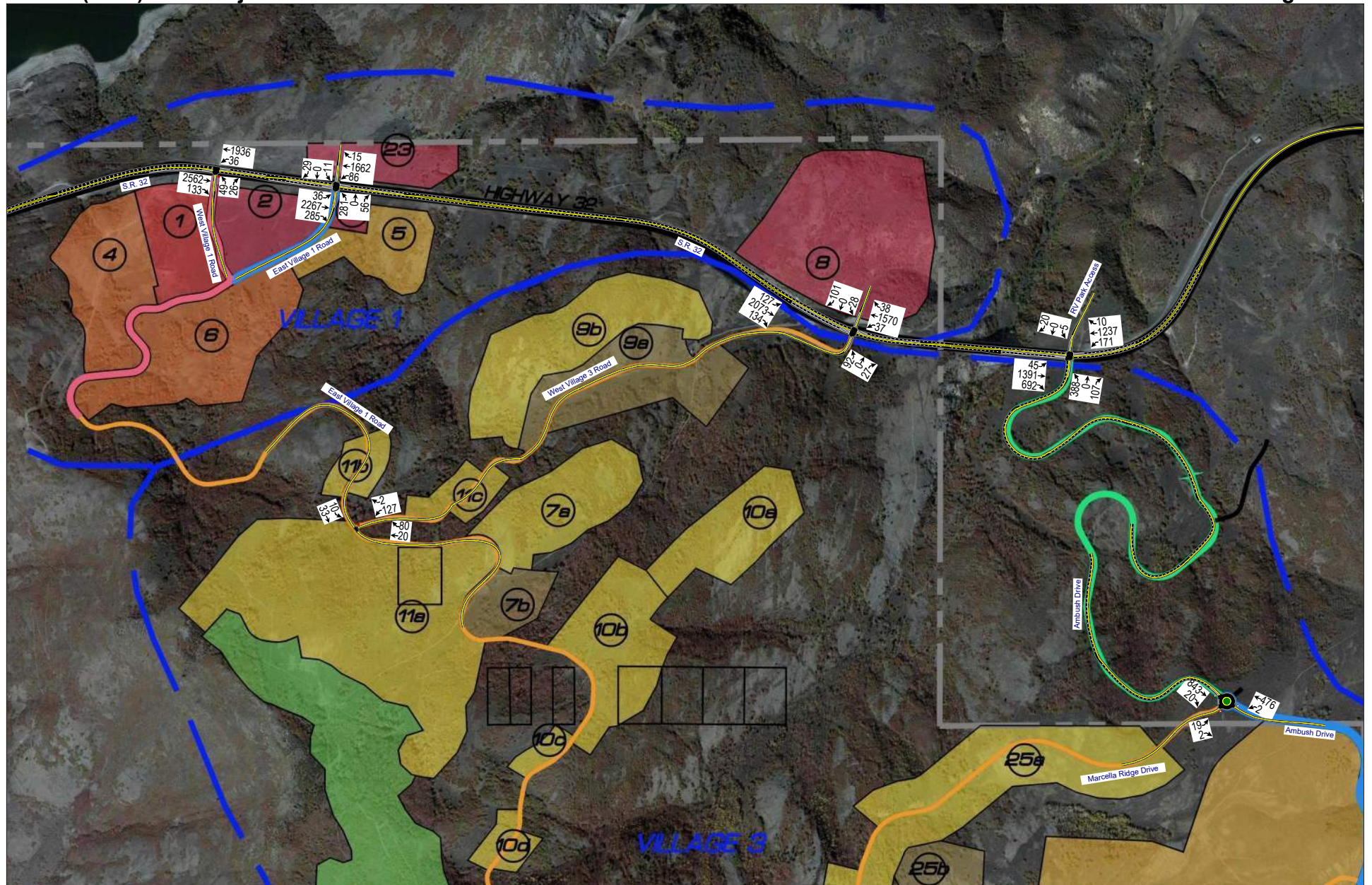
Hales Engineering determined that the Ambush Drive & Cummings RV Park / S.R. 32, West Benloch Ranch Road / S.R. 32, East Benloch Ranch Road / S.R. 32, West Village 1 Road / S.R. 32, and East Village 1 Road / S.R. 32 intersections are anticipated to operate at poor levels of service during the morning and evening peak hours in future (2050) plus project conditions, as shown in Table 15.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. Major queuing of over 1,000 feet is anticipated at several of the project roadways which intersect with S.R. 32 during the morning and evening peak hours. Detailed queue length reports are provided in Appendix D.









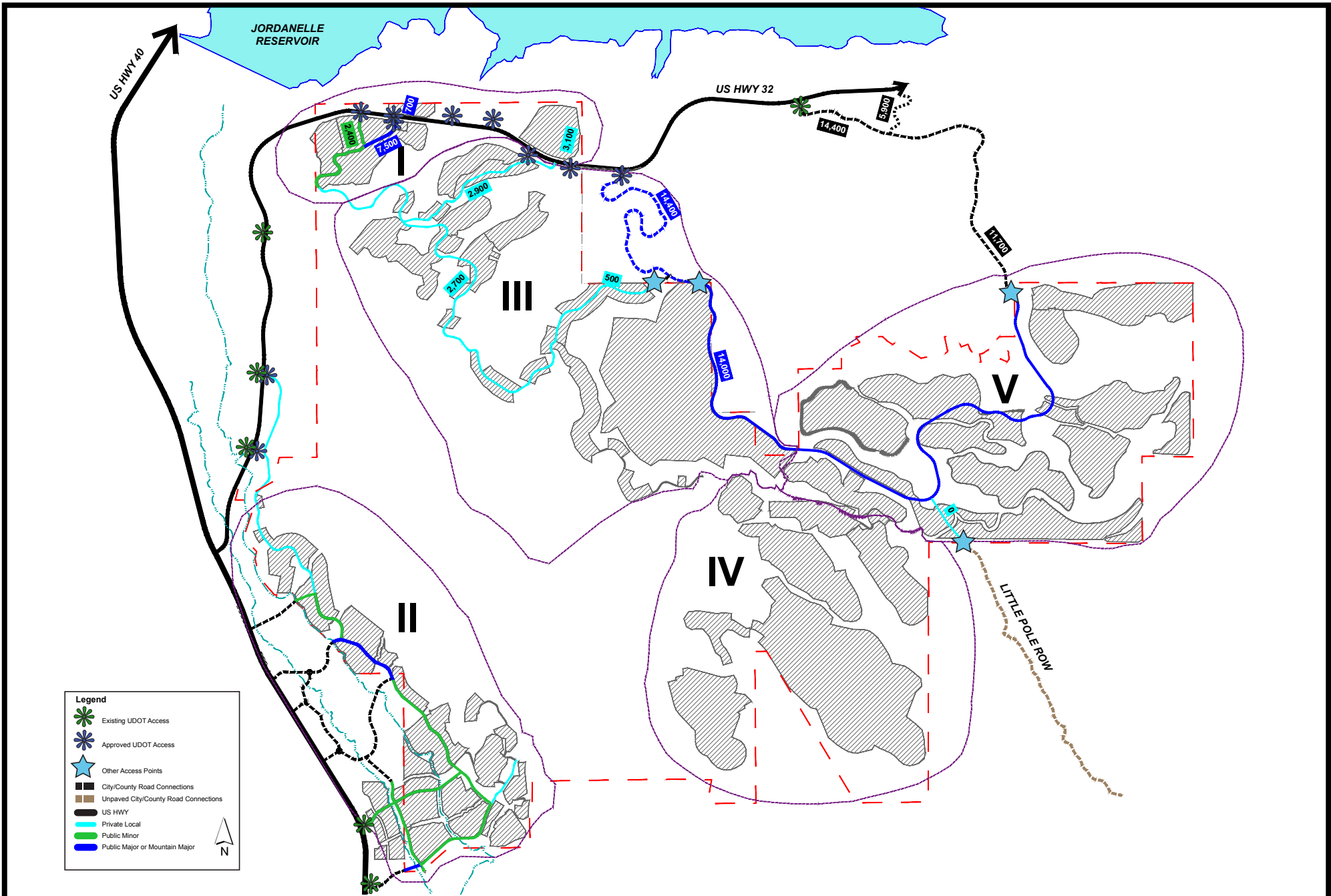


Table 15: Future (2050) Plus Project Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	Signal	B (10.7)	B (18.8)
Ambush Drive & RV Park Access / S.R. 32	Signal	D (35.7)	E (59.6)
West Benloch Ranch Road / S.R. 32	NB Stop	f (>50) / NBL	f (>50) / NBL
East Benloch Ranch Road / S.R. 32	NB Stop	f (>50) / NBR	b (14.1) / NBL
West Village 3 Road / East Village 1 Road	WB Stop	a (5.0) / WBL	a (5.6) / WBL
Marcella Ridge Drive / Ambush Drive	Roundabout	A (4.1)	A (5.6)
West Village 1 Road / S.R. 32	NB Stop	e (37.7) / NBL	f (>50) / NBL
East Village 1 Road / S.R. 32	Signal	D (46.4)	E (67.1)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, February 2025

E. Mitigation Measures

As the project is fully built out, it is anticipated that several major improvements to S.R. 32 will be needed to maintain an acceptable level of service including the following:

- It is anticipated that S.R. 32 will need to be widened along the frontage of the project to accommodate three eastbound and three westbound travel lanes between mile markers 2.9 and 3.5, and two eastbound and two westbound travel lanes between mile markers 3.5 and 7.
- It is anticipated that signals will be warranted at several intersections along S.R. 32. It is recommended that traffic signals be installed at the West Benloch Ranch Road and East Benloch Ranch Road intersections on S.R. 32. Signal warrants are provided in Appendix G.
- It is recommended that dual northbound left-turn lanes be installed at the Ambush Drive / S.R. 32 intersection. An eastbound right-turn overlap phase or channelized right-turn could also be considered at this intersection.
- It is also recommended that all left-turn movements be restricted at the West Village 1 Road / S. R. 32 intersection.

F. Mitigated Scenario

Hales Engineering ran a mitigated scenario assuming the recommended mitigation measures had been implemented. Left turns originally assigned at the West Village 1 Road /S.R. 32 intersection were rerouted to the East Village 1 Road / S.R. 32 intersection. As a result, all study intersections along S.R. 32, except for the West Village 1 Road / S.R. 32 intersection, are anticipated to operate at acceptable levels of service as shown in Table 16.

Table 16: Future (2050) Mitigated Plus Project Peak Hour LOS

Intersection		LOS (Sec. Delay / Veh.) / Movement ¹	
Description	Control	Morning Peak	Evening Peak
West Village 3 Road / S.R. 32	Signal	B (15.1)	B (14.4)
Ambush Drive & RV Park Access / S.R. 32	Signal	C (21.5)	C (24.3)
West Benloch Ranch Road / S.R. 32	Signal	B (17.2)	C (24.0)
East Benloch Ranch Road / S.R. 32	Signal	B (10.8)	A (8.2)
West Village 3 Road / East Village 1 Road	WB Stop	a (5.3) / WBL	a (6.3) / WBL
Marcella Ridge Drive / Ambush Drive	Roundabout	A (4.4)	A (5.9)
West Village 1 Road / S.R. 32	NB Stop	a (6.1) / NBR	c (19.6) / NBR
East Village 1 Road / S.R. 32	Signal	B (16.5)	C (21.8)

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, February 2025

G. Recommended Storage Lengths

Hales Engineering determined recommended storage lengths based on the 95th percentile queue lengths given in the future (2050) plus project scenario. These storage lengths do not include the taper length. Recommended storage lengths for the study intersections are shown in Table 17. Intersections shown in Table 17 include new intersections and existing intersections that have recommended storage length changes.

Table 17: Recommended Storage Lengths

Intersection	Recommended Storage Lengths (feet)															
	Northbound				Southbound				Eastbound				Westbound			
	LT		RT		LT		RT		LT		RT		LT		RT	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
1 West Village 3 Road / S.R. 32	-	125	-	-	-	100	-	-	-	150	-	100	-	100	-	-
2 Ambush Drive & Cummings RV Park / S.R. 32	-	250	-	-	-	100	-	-	-	100	-	-	-	175	-	-
3 West Benloch Ranch Road / S.R. 32	-	325	-	-	-	-	-	-	-	100	175	100	575	-	-	
4 East Benloch Ranch Road / S.R. 32	-	225	-	-	-	-	-	-	-	100	100	100	100	-	-	
7 West Village 1 Road / S.R. 32	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	
8 East Village 1 Road / S.R. 32	-	375	-	-	-	100	-	-	-	100	-	100	-	150	-	-

1. Storage lengths are based on 2050 95th percentile queue lengths and do not include required deceleration / taper distances
2. E = Existing storage length (approximate), if applicable; P = proposed storage length for new turn lanes or changes to existing turn lanes, if applicable

Source: Hales Engineering, April 2025

H. Capacity Analysis

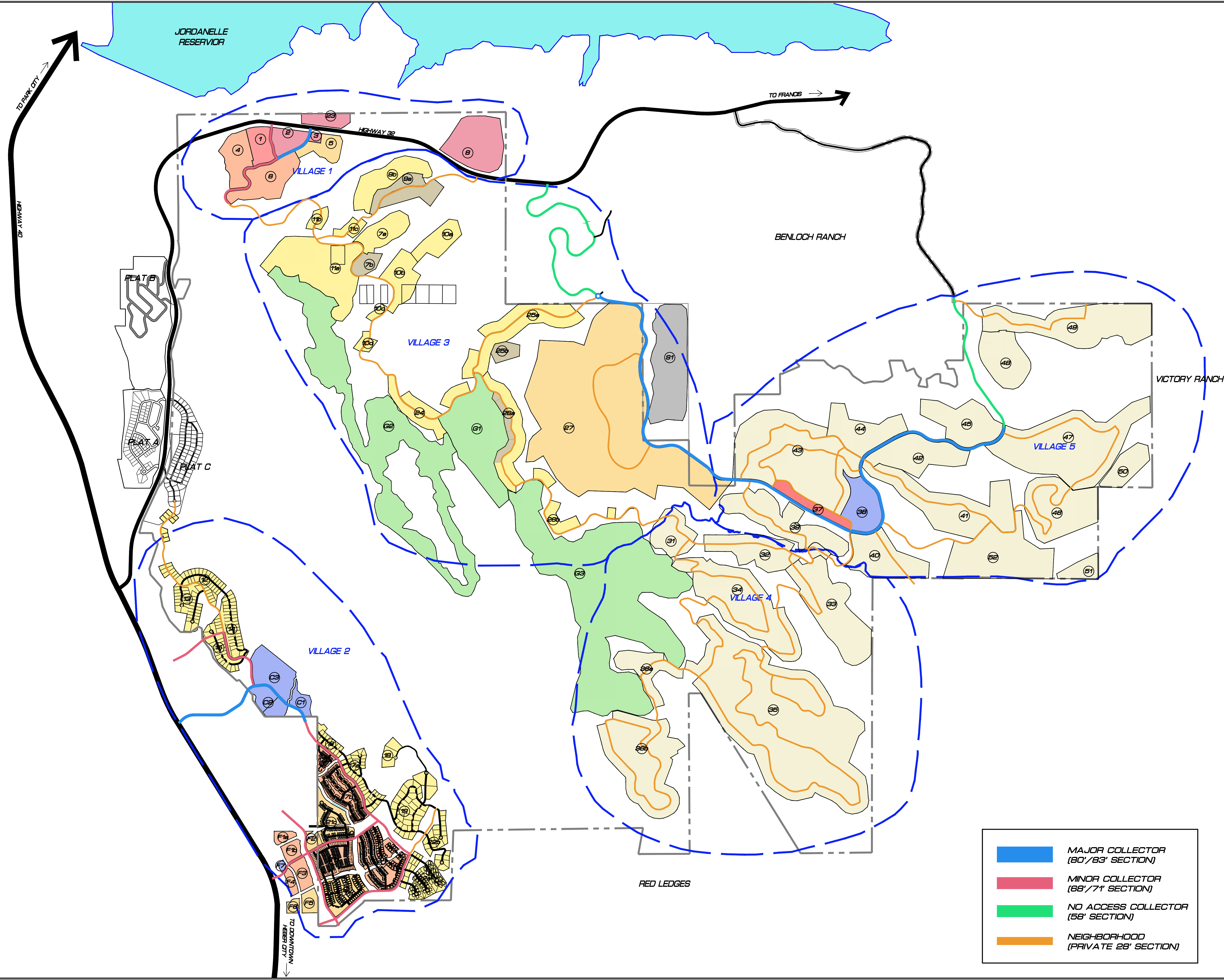
Hales Engineering performed a capacity analysis of Ambush Road to determine whether the roadway operates at an acceptable level of service. This analysis was performed using Highway Capacity Software (HCS), which uses the standards and methodologies in the latest HCM. Detailed reports are contained in Appendix H.





Current drawings show 2 lanes uphill and 1 lane downhill. If capacity issues occur in the future, it is recommended that it be striped with 2 lanes uphill for the first 5,800 feet and swap to 2 lanes downhill for the remainder, preserving the 3-lane cross-section. With this configuration, it is anticipated that Ambush Drive would have a capacity of approximately 15,000 vpd and operate at an acceptable (based on County standards) LOS D overall.

If at some point Ambush Drive is annexed into Heber City and the City desires LOS C consistent with its standards, the road can accommodate a 4-lane cross-section if the bike lanes are removed. The bike lanes were added to meet County requirements, but the 8% grade will likely deter most riders. Other jurisdictions sometimes limit bike lanes to roads with grades of 5-6%. For this reason, the bike lanes are likely not necessary if the road is annexed into Heber City. Uphill bike riders may use the sidewalk while downhill riders share the travel lane in this case. The 4-lane cross-section would have a capacity of approximately 21,000 to 22,000 vpd. It should be noted that a left-turn lane would still be needed at the single intersection between S.R. 32 and the roundabout.

APPENDIX A

Site Plan

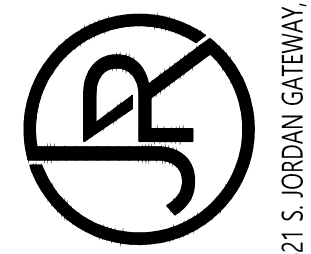


	MAJOR COLLECTOR (80'/83' SECTION)
	MINOR COLLECTOR (68'/71' SECTION)
	NO ACCESS COLLECTOR (58' SECTION)
	NEIGHBORHOOD (PRIVATE 28' SECTION)

NO.	BY	DATE	REVISIONS

JORDANELLE RIDGE
VILLAGE 1-5
TRANSPORTATION PLAN

PREPARED FOR: **JORDANELLE RIDGE NORTH LLC** DATE SUBMITTED: 1/13/2025



**JORDANELLE
RIDGE**

10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84005

SHEET NUMBER
1

SCALE
 HORIZONTAL: 1" = 40'
 VERTICAL: 1" = 40'

JOB NUMBER
47-0117

The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

CAUTION

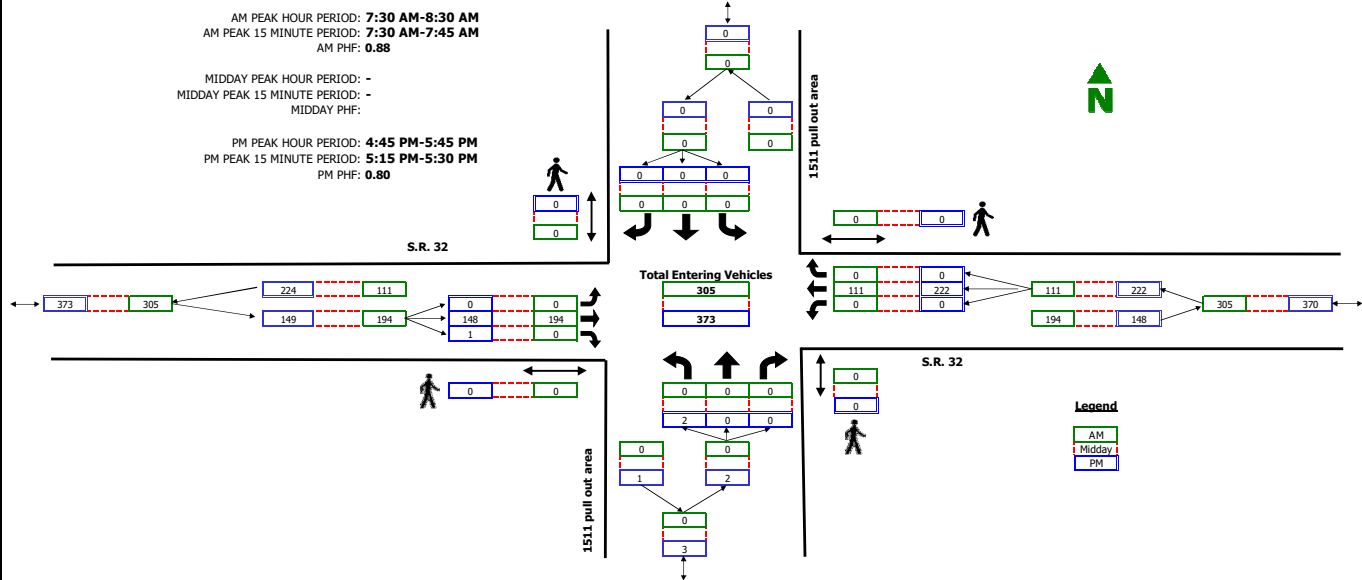
APPENDIX B

Turning Movement Counts

Intersection Turning Movement Summary

Intersection: 1511 pull out area / S.R. 32
North/South: 1511 pull out area
East/West: S.R. 32
Jurisdiction: Heber
Project Title: Jordanelle Ridge East Villages TIS
Project No: UT23-2490
Weather: Clear

Date: 4-6-23, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 89.0%
Adjustment Station #: 509



RAW COUNT SUMMARIES	1511 pull out area Northbound				1511 pull out area Southbound				S.R. 32 Eastbound				S.R. 32 Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00 - 7:15	0	0	0	0	0	0	0	1	0	19	0	0	0	25	0	0	44
7:15 - 7:30	0	0	0	0	0	0	0	0	0	42	0	0	0	20	0	0	62
7:30 - 7:45	0	0	0	0	0	0	0	0	0	53	0	0	0	34	0	0	87
7:45 - 8:00	0	0	0	0	0	0	0	0	0	54	0	0	0	28	0	0	82
8:00 - 8:15	0	0	0	0	0	0	0	0	0	43	0	0	0	15	0	0	58
8:15 - 8:30	0	0	0	0	0	0	0	0	0	44	0	0	0	34	0	0	78
8:30 - 8:45	0	0	0	0	0	0	0	0	0	40	1	0	0	20	0	0	61
8:45 - 9:00	0	0	0	0	0	0	0	0	0	35	2	0	0	34	0	0	71
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00 - 16:15	0	0	0	0	0	0	0	0	0	27	0	0	0	37	0	0	64
16:15 - 16:30	0	0	0	0	0	0	0	0	0	35	1	0	0	43	0	0	79
16:30 - 16:45	0	0	0	0	0	0	0	0	0	33	0	0	0	49	0	0	82
16:45 - 17:00	1	0	0	0	0	0	0	0	0	38	1	0	0	52	0	0	92
17:00 - 17:15	1	0	0	0	0	0	0	0	0	26	0	0	0	55	0	0	82
17:15 - 17:30	0	0	0	0	0	0	0	0	0	47	0	0	0	69	0	0	116
17:30 - 17:45	0	0	0	0	0	0	0	0	0	37	0	0	0	46	0	0	83
17:45 - 18:00	0	0	0	0	0	0	0	0	0	33	0	0	0	35	0	0	68

Traffic Counts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

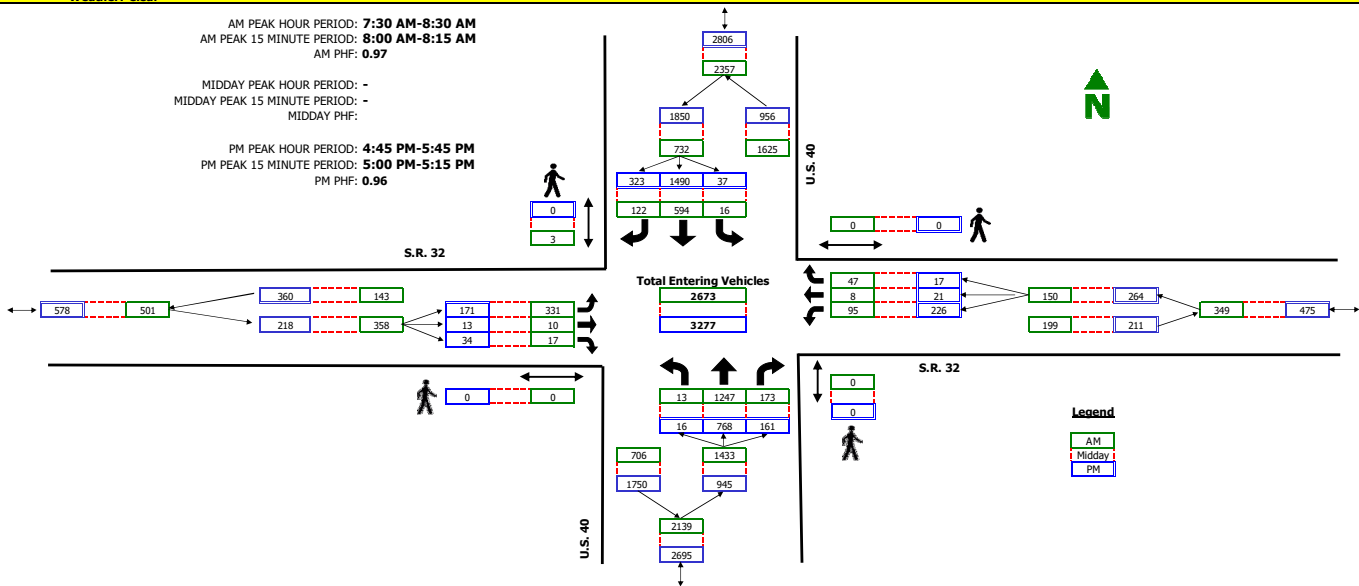
Intersection: U.S. 40 / S.R. 32
North/South: U.S. 40
East/West: S.R. 32
Jurisdiction: Heber
Project Title: Jordanelle Ridge East Villages TIS
Project No: UT23-2490
Weather: Clear

Date: 4-6-23, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 89.0%
Adjustment Station #: 509

AM PEAK HOUR PERIOD: 7:30 AM-8:30 AM
AM PEAK 15 MINUTE PERIOD: 8:00 AM-8:15 AM
AM PHF: 0.97

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF: -

PM PEAK HOUR PERIOD: 4:45 PM-5:45 PM
PM PEAK 15 MINUTE PERIOD: 5:00 PM-5:15 PM
PM PHF: 0.96



RAW COUNT SUMMARIES	U.S. 40 Northbound				U.S. 40 Southbound				S.R. 32 Eastbound				S.R. 32 Westbound				TOTAL
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00 - 7:15	3	284	27	0	4	99	10	0	55	0	0	0	28	1	9	0	520
7:15 - 7:30	0	342	47	0	3	117	12	0	69	2	2	0	25	1	9	0	629
7:30 - 7:45	4	365	45	0	3	135	27	0	63	2	2	0	27	1	9	0	683
7:45 - 8:00	4	288	48	0	4	157	22	0	92	3	3	0	22	6	11	0	660
8:00 - 8:15	1	338	42	0	6	140	35	0	92	4	4	0	19	1	9	0	691
8:15 - 8:30	4	256	38	0	3	162	38	3	84	1	8	0	27	0	18	0	639
8:30 - 8:45	3	281	33	0	7	163	29	0	64	9	4	0	18	2	11	0	624
8:45 - 9:00	6	279	36	0	8	164	30	0	47	3	6	0	34	4	9	0	626
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00 - 9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 - 9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00 - 16:15	11	162	27	0	11	316	61	0	27	4	6	0	36	2	6	0	669
16:15 - 16:30	3	183	37	0	21	302	66	0	47	2	8	0	26	2	6	0	703
16:30 - 16:45	3	165	26	0	6	360	48	0	21	1	9	0	58	7	7	0	711
16:45 - 17:00	4	200	39	0	15	354	96	0	29	7	11	0	46	8	8	0	817
17:00 - 17:15	4	206	48	0	6	384	93	0	43	1	6	0	57	3	3	0	854
17:15 - 17:30	6	189	30	0	10	379	70	0	45	1	6	0	70	7	2	0	815
17:30 - 17:45	2	173	44	0	6	373	64	0	54	4	11	0	53	3	4	0	791
17:45 - 18:00	4	180	27	0	3	360	70	0	62	4	8	0	34	7	3	0	762

APPENDIX C

LOS Results

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Background
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	309	308	100	0.1	A
	Subtotal	309	308	100	0.1	A
WB	T	264	260	99	0.7	A
	Subtotal	264	260	98	0.7	A
Total		573	568	99	0.4	A

Intersection: S.R. 32 & Cummings RV Park Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	4	3	75	7.0	A
	R	18	17	93	3.7	A
	Subtotal	22	20	91	4.2	A
EB	L	11	10	91	1.5	A
	T	299	297	99	0.9	A
	Subtotal	310	307	99	0.9	A
WB	T	249	246	99	1.5	A
	R	3	3	100	1.0	A
	Subtotal	252	249	99	1.5	A
Total		584	576	99	1.3	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Background
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	60	58	97	5.1	A
	R	15	16	105	3.9	A
	Subtotal	75	74	99	4.8	A
EB	T	280	276	99	0.9	A
	R	24	25	103	0.1	A
	Subtotal	304	301	99	0.8	A
WB	L	6	5	83	1.0	A
	T	188	187	99	0.3	A
	Subtotal	194	192	99	0.3	A
Total		574	567	99	1.2	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	30	28	93	4.7	A
	R	8	9	112	3.9	A
	Subtotal	38	37	97	4.5	A
EB	T	285	283	99	1.2	A
	R	10	10	100	0.2	A
	Subtotal	295	293	99	1.2	A
WB	L	3	2	67	1.7	A
	T	164	164	100	0.2	A
	Subtotal	167	166	99	0.2	A
Total		501	496	99	1.1	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Background
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: River Road/S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	38	39	103	85.2	F
	T	1,382	1,382	100	42.0	D
	R	324	329	101	12.8	B
	Subtotal	1,744	1,750	100	37.5	D
SB	L	54	53	99	80.0	E
	T	674	672	100	25.6	C
	R	122	123	101	4.2	A
	Subtotal	850	848	100	25.9	C
NE	L	331	332	100	61.8	E
	T	19	17	88	96.2	F
	R	33	31	93	35.1	D
	Subtotal	383	380	99	61.2	E
SW	L	303	300	99	58.5	E
	T	21	18	85	91.0	F
	R	130	132	102	48.1	D
	Subtotal	454	450	99	56.7	E
Total		3,432	3,428	100	39.9	D

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Background
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	350	347	99	0.1	A
	R	1	2	200	0.0	A
	Subtotal	351	349	99	0.1	A
WB	T	404	403	100	1.0	A
	Subtotal	404	403	100	1.0	A
NE	L	2	2	100	10.5	B
	Subtotal	2	2	100	10.5	B
Total		756	754	100	0.6	A

Intersection: S.R. 32 & Cummings RV Park Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	5	4	80	8.7	A
	R	20	23	114	4.3	A
	Subtotal	25	27	108	5.0	A
EB	L	41	40	98	2.5	A
	T	310	308	100	1.7	A
	Subtotal	351	348	99	1.8	A
WB	T	386	383	99	2.5	A
	R	10	11	110	1.3	A
	Subtotal	396	394	99	2.5	A
Total		771	769	100	2.3	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Background
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	42	37	89	5.2	A
	R	11	13	118	3.7	A
	Subtotal	53	50	94	4.8	A
EB	T	257	258	100	0.7	A
	R	63	60	95	0.1	A
	Subtotal	320	318	99	0.6	A
WB	L	15	15	98	1.1	A
	T	352	356	101	0.8	A
	Subtotal	367	371	101	0.8	A
Total		740	739	100	1.0	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	32	33	102	5.0	A
	R	5	6	120	3.3	A
	Subtotal	37	39	105	4.7	A
EB	T	231	233	101	1.0	A
	R	32	34	105	0.2	A
	Subtotal	263	267	102	0.9	A
WB	L	8	8	100	1.9	A
	T	334	340	102	0.5	A
	Subtotal	342	348	102	0.5	A
Total		642	654	102	0.9	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Background
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: River Road/S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	43	45	105	81.1	F
	T	897	892	99	36.2	D
	R	364	374	103	10.3	B
	Subtotal	1,304	1,311	101	30.4	C
SB	L	127	128	101	117.3	F
	T	1,656	1,622	98	110.5	F
	R	323	309	96	59.2	E
	Subtotal	2,106	2,059	98	103.2	F
NE	L	171	168	98	49.9	D
	T	32	34	105	81.7	F
	R	67	69	103	48.6	D
	Subtotal	270	271	100	53.6	D
SW	L	362	347	96	109.9	F
	T	35	33	94	127.0	F
	R	72	69	96	83.2	F
	Subtotal	469	449	96	107.1	F
Total		4,150	4,090	99	77.6	E

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	95	93	98	9.4	A
	T	6	6	96	0.4	A
	R	20	19	94	3.8	A
	Subtotal	121	118	98	8.0	A
EB	T	332	326	98	0.5	A
	R	58	62	107	0.1	A
	Subtotal	390	388	99	0.4	A
WB	L	14	15	105	1.7	A
	T	289	303	105	1.1	A
	Subtotal	303	318	105	1.1	A
Total		814	824	101	1.8	A

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	24	48	198	8.1	A
	R	10	27	270	3.3	A
	Subtotal	34	75	221	6.4	A
SB	L	4	4	100	8.1	A
	R	18	18	99	4.4	A
	Subtotal	22	22	100	5.1	A
EB	L	11	10	91	1.1	A
	T	319	310	97	0.8	A
	R	23	26	112	0.2	A
	Subtotal	353	346	98	0.8	A
WB	L	5	4	80	1.5	A
	T	260	252	97	1.7	A
	R	3	4	133	0.9	A
Subtotal	268	260	97	1.7	A	
Total		677	703	104	1.8	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	60	58	97	5.9	A
	R	15	17	111	4.6	A
	Subtotal	75	75	100	5.6	A
EB	T	308	314	102	2.1	A
	R	24	29	120	0.4	A
	Subtotal	332	343	103	2.0	A
WB	L	5	5	100	2.7	A
	T	207	201	97	0.6	A
	Subtotal	212	206	97	0.7	A
Total		620	624	101	1.9	A

Intersection: East Benloch Ranch Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	30	26	86	5.3	A
	R	8	9	112	4.1	A
	Subtotal	38	35	92	5.0	A
EB	T	314	318	101	3.1	A
	R	10	12	120	0.4	A
	Subtotal	324	330	102	3.0	A
WB	L	3	2	67	4.5	A
	T	182	181	100	0.4	A
	Subtotal	185	183	99	0.4	A
Total		546	548	100	2.3	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	58	60	104	4.5	A
	T	17	19	110	0.4	A
	R	2	3	150	3.4	A
	Subtotal	77	82	106	3.5	A
NW	R	82	79	96	0.3	A
	Subtotal	82	79	96	0.3	A
SE	L	3	4	133	1.5	A
	Subtotal	3	4	133	1.5	A
Total		162	165	102	2.0	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SE	R	28	58	205	2.3	A
	Subtotal	28	58	207	2.3	A
NE	L	34	37	108	1.7	A
	Subtotal	34	37	109	1.7	A
Total		62	95	152	2.1	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: River Road/S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	38	37	98	94.8	F
	T	1,382	1,390	101	44.9	D
	R	377	367	97	17.9	B
	Subtotal	1,797	1,794	100	40.4	D
SB	L	78	75	96	148.2	F
	T	674	666	99	25.7	C
	R	122	119	98	4.7	A
	Subtotal	874	860	98	33.5	C
NE	L	331	333	101	73.1	E
	T	23	23	99	102.8	F
	R	33	35	105	51.1	D
	Subtotal	387	391	101	72.9	E
SW	L	382	335	88	115.8	F
	T	30	25	83	155.9	F
	R	161	146	91	105.4	F
	Subtotal	573	506	88	114.8	F
Total		3,632	3,551	98	53.2	D

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	67	62	93	11.7	B
	T	5	5	100	0.5	A
	R	17	18	104	4.2	A
	Subtotal	89	85	96	9.5	A
EB	T	406	398	98	0.5	A
	R	102	98	96	0.1	A
	Subtotal	508	496	98	0.4	A
WB	L	25	24	95	2.2	A
	T	443	476	107	1.2	A
	Subtotal	468	500	107	1.2	A
Total		1,066	1,081	101	1.5	A

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	39	76	196	12.3	B
	R	10	20	200	3.5	A
	Subtotal	49	96	196	10.5	B
SB	L	5	4	80	7.6	A
	R	20	21	104	6.2	A
	Subtotal	25	25	100	6.4	A
EB	L	41	41	101	2.4	A
	T	328	324	99	0.9	A
	R	56	53	95	0.3	A
	Subtotal	425	418	98	1.0	A
WB	L	13	13	98	2.3	A
	T	408	402	99	2.6	A
	R	10	10	100	1.1	A
	Subtotal	431	425	99	2.6	A
Total		930	964	104	2.8	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	42	43	103	5.8	A
	R	11	11	100	5.1	A
	Subtotal	53	54	102	5.7	A
EB	T	279	282	101	1.8	A
	R	63	66	105	0.7	A
	Subtotal	342	348	102	1.6	A
WB	L	15	14	92	3.0	A
	T	390	382	98	1.4	A
	Subtotal	405	396	98	1.5	A
Total		799	798	100	1.8	A

Intersection: East Benloch Ranch Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	32	31	96	4.9	A
	R	5	8	160	3.9	A
	Subtotal	37	39	105	4.7	A
EB	T	257	256	100	2.6	A
	R	32	37	115	0.9	A
	Subtotal	289	293	101	2.4	A
WB	L	8	7	88	2.6	A
	T	372	364	98	0.6	A
	Subtotal	380	371	98	0.6	A
Total		706	703	100	1.6	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	90	90	100	5.2	A
	T	39	38	97	0.6	A
	R	4	3	75	4.3	A
	Subtotal	133	131	98	3.8	A
NW	R	61	56	92	0.2	A
	Subtotal	61	56	92	0.2	A
SE	L	2	2	100	1.4	A
	Subtotal	2	2	100	1.4	A
Total		196	189	96	2.7	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SE	R	69	138	200	2.6	A
	Subtotal	69	138	200	2.6	A
NE	L	49	47	96	1.8	A
	Subtotal	49	47	96	1.8	A
Total		118	185	157	2.4	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Existing (2023) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: River Road/S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	43	42	98	87.8	F
	T	897	907	101	37.3	D
	R	466	464	100	17.1	B
	Subtotal	1,406	1,413	100	32.2	C
SB	L	171	158	92	143.4	F
	T	1,656	1,623	98	122.8	F
	R	323	320	99	74.4	E
	Subtotal	2,150	2,101	98	117.0	F
NE	L	171	167	98	51.5	D
	T	43	42	98	108.0	F
	R	67	71	106	71.1	E
	Subtotal	281	280	100	64.9	E
SW	L	431	330	77	148.1	F
	T	39	30	77	162.2	F
	R	103	76	74	113.7	F
	Subtotal	573	436	76	143.1	F
Total		4,411	4,230	96	88.6	F

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Background
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	400	407	102	0.2	A
	R	5	6	120	0.0	A
	Subtotal	405	413	102	0.2	A
WB	L	5	4	80	2.5	A
	T	346	347	100	1.0	A
	Subtotal	351	351	100	1.0	A
NE	L	5	5	100	9.7	A
	R	5	6	120	4.2	A
	Subtotal	10	11	110	6.7	A
Total		766	775	101	0.6	A

Intersection: S.R. 32 & Cummings RV Park Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	5	3	60	7.8	A
	R	20	20	99	3.8	A
	Subtotal	25	23	92	4.3	A
EB	L	15	15	98	1.8	A
	T	391	402	103	1.1	A
	Subtotal	406	417	103	1.1	A
WB	T	340	342	101	1.8	A
	R	5	6	120	1.1	A
	Subtotal	345	348	101	1.8	A
Total		776	788	102	1.5	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Background
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	105	107	102	6.2	A
	R	15	15	98	4.7	A
	Subtotal	120	122	102	6.0	A
EB	T	359	361	101	1.0	A
	R	40	44	111	0.1	A
	Subtotal	399	405	102	0.9	A
WB	L	10	10	100	1.5	A
	T	231	230	99	0.4	A
	Subtotal	241	240	100	0.4	A
Total		760	767	101	1.6	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	30	28	93	5.8	A
	R	20	23	114	4.3	A
	Subtotal	50	51	102	5.1	A
EB	T	362	359	99	1.4	A
	R	10	10	100	0.2	A
	Subtotal	372	369	99	1.4	A
WB	L	10	10	100	1.2	A
	T	210	210	100	0.2	A
	Subtotal	220	220	100	0.2	A
Total		643	640	100	1.3	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Background
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	65	59	91	125.6	F
	T	1,580	1,570	99	45.3	D
	R	405	400	99	17.8	B
	Subtotal	2,050	2,029	99	42.2	D
SB	L	20	18	89	96.5	F
	T	625	625	100	30.6	C
	R	125	132	106	4.5	A
	Subtotal	770	775	101	27.7	C
NE	L	340	337	99	64.7	E
	T	30	31	102	95.6	F
	R	45	48	107	49.5	D
	Subtotal	415	416	100	65.2	E
SW	L	360	320	89	127.9	F
	T	30	28	93	179.4	F
	R	155	131	85	127.3	F
	Subtotal	545	479	88	130.7	F
Total		3,780	3,699	98	53.6	D

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Background
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	470	482	103	0.2	A
	R	5	4	80	0.0	A
	Subtotal	475	486	102	0.2	A
WB	L	5	4	80	4.3	A
	T	505	503	100	1.4	A
	Subtotal	510	507	99	1.4	A
NE	L	5	4	80	13.8	B
	R	5	6	120	6.1	A
	Subtotal	10	10	100	9.2	A
Total		995	1,003	101	0.9	A

Intersection: S.R. 32 & Cummings RV Park Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	5	3	60	10.5	B
	R	20	22	109	5.1	A
	Subtotal	25	25	100	5.7	A
EB	L	45	44	98	3.3	A
	T	430	442	103	2.3	A
	Subtotal	475	486	102	2.4	A
WB	T	496	492	99	2.8	A
	R	10	13	130	1.3	A
	Subtotal	506	505	100	2.8	A
Total		1,006	1,016	101	2.7	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Background
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	75	78	104	6.0	A
	R	15	15	98	4.0	A
	Subtotal	90	93	103	5.7	A
EB	T	330	335	102	0.9	A
	R	115	120	105	0.3	A
	Subtotal	445	455	102	0.7	A
WB	L	15	15	98	2.1	A
	T	427	424	99	0.9	A
	Subtotal	442	439	99	0.9	A
Total		977	987	101	1.3	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	35	37	105	5.8	A
	R	15	16	105	3.9	A
	Subtotal	50	53	106	5.2	A
EB	T	302	308	102	1.2	A
	R	35	33	94	0.2	A
	Subtotal	337	341	101	1.1	A
WB	L	20	19	94	1.6	A
	T	405	399	99	0.6	A
	Subtotal	425	418	98	0.6	A
Total		813	812	100	1.2	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Background
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	74	68	92	276.7	F
	T	1,044	1,029	99	39.2	D
	R	444	449	101	14.7	B
	Subtotal	1,562	1,546	99	42.5	D
SB	L	146	137	94	172.3	F
	T	1,878	1,777	95	137.2	F
	R	345	322	93	94.7	F
	Subtotal	2,369	2,236	94	133.2	F
NE	L	200	193	97	156.8	F
	T	41	40	98	262.2	F
	R	97	96	99	207.2	F
	Subtotal	338	329	97	184.3	F
SW	L	431	303	70	172.0	F
	T	43	31	73	185.9	F
	R	90	68	75	130.2	F
	Subtotal	564	402	71	166.0	F
Total		4,833	4,513	93	110.2	F

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	45	96	24.4	C
	T	4	5	125	0.3	A
	R	30	31	102	6.5	A
	Subtotal	81	81	100	16.1	C
SB	L	29	29	99	29.6	D
	R	92	90	98	9.9	A
	Subtotal	121	119	98	14.7	B
EB	L	79	78	99	4.7	A
	T	568	552	97	1.5	A
	R	56	51	91	0.1	A
	Subtotal	703	681	97	1.8	A
WB	L	19	19	99	2.8	A
	T	632	647	102	1.7	A
	R	23	22	95	0.1	A
	Subtotal	674	688	102	1.7	A
Total		1,580	1,569	99	3.5	A

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	232	237	102	65.8	F
	R	58	58	100	11.4	B
	Subtotal	290	295	102	55.1	F
SB	L	5	4	80	11.4	B
	R	20	21	104	9.2	A
	Subtotal	25	25	100	9.6	A
EB	L	15	13	85	2.6	A
	T	515	504	98	1.5	A
	R	95	91	96	0.5	A
	Subtotal	625	608	97	1.4	A
WB	L	23	25	108	3.8	A
	T	420	431	103	3.2	A
	R	5	6	120	1.1	A
	Subtotal	448	462	103	3.2	A
Total		1,389	1,390	100	13.7	B

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	105	104	99	7.9	A
	R	15	17	111	5.9	A
	Subtotal	120	121	101	7.6	A
EB	T	537	526	98	1.4	A
	R	40	40	101	0.2	A
	Subtotal	577	566	98	1.3	A
WB	L	10	9	90	1.9	A
	T	344	356	104	0.7	A
	Subtotal	354	365	103	0.7	A
Total		1,051	1,052	100	1.8	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	30	31	102	7.0	A
	R	20	21	104	5.1	A
	Subtotal	50	52	104	6.2	A
EB	T	542	526	97	1.8	A
	R	10	12	120	0.2	A
	Subtotal	552	538	97	1.8	A
WB	L	10	11	110	2.0	A
	T	323	334	103	0.3	A
	Subtotal	333	345	104	0.4	A
Total		936	935	100	1.5	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	68	63	93	5.1	A
	T	13	12	92	0.5	A
	Subtotal	81	75	93	4.4	A
NW	T	70	71	101	0.8	A
	R	57	59	104	0.5	A
	Subtotal	127	130	102	0.7	A
SE	T	25	26	103	0.2	A
	Subtotal	25	26	104	0.2	A
Total		233	231	99	1.8	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NW	T	260	264	102	2.9	A
	Subtotal	260	264	102	2.9	A
SE	T	108	106	98	2.7	A
	R	10	11	110	2.0	A
	Subtotal	118	117	99	2.6	A
NE	L	30	33	109	2.2	A
	Subtotal	30	33	110	2.2	A
Total		408	414	102	2.8	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	153	113	74	387.0	F
	R	37	30	82	391.6	F
	Subtotal	190	143	75	388.0	F
EB	T	825	822	100	2.8	A
	R	64	65	102	0.4	A
	Subtotal	889	887	100	2.6	A
WB	L	18	17	93	7.6	A
	T	929	873	94	3.2	A
	Subtotal	947	890	94	3.3	A
Total		2,026	1,920	95	38.4	E

Intersection: East Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	221	155	70	588.9	F
	R	54	42	78	566.1	F
	Subtotal	275	197	72	584.0	F
SB	L	10	9	90	22.8	C
	R	17	19	110	14.6	B
	Subtotal	27	28	104	17.2	C
EB	L	23	24	103	4.8	A
	T	635	624	98	1.8	A
	R	204	205	100	1.3	A
	Subtotal	862	853	99	1.8	A
WB	L	51	49	97	5.3	A
	T	713	722	101	3.5	A
	R	9	10	111	1.1	A
	Subtotal	773	781	101	3.6	A
Total		1,937	1,859	96	79.6	F

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: River Road/S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	65	49	75	424.5	F
	T	1,580	1,309	83	397.2	F
	R	746	621	83	389.4	F
	Subtotal	2,391	1,979	83	395.4	F
SB	L	184	131	71	738.2	F
	T	625	619	99	56.6	E
	R	125	125	100	9.3	A
	Subtotal	934	875	94	151.9	F
NE	L	340	335	99	67.7	E
	T	64	64	100	99.6	F
	R	45	49	109	22.3	C
	Subtotal	449	448	100	67.3	E
SW	L	945	714	76	209.0	F
	T	89	64	72	132.3	F
	R	431	325	75	142.5	F
	Subtotal	1,465	1,103	75	185.0	F
Total		5,238	4,405	84	275.4	F

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	92	89	96	236.1	F
	R	32	29	90	45.8	E
	Subtotal	124	118	95	189.3	F
SB	L	28	26	92	65.6	F
	R	101	101	100	26.8	D
	Subtotal	129	127	98	34.7	D
EB	L	127	116	92	6.6	A
	T	798	768	96	1.8	A
	R	87	87	100	0.2	A
	Subtotal	1,012	971	96	2.2	A
WB	L	43	39	91	6.2	A
	T	756	746	99	2.4	A
	R	38	38	101	0.1	A
	Subtotal	837	823	98	2.5	A
Total		2,103	2,039	97	16.2	C

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	155	152	98	67.4	F
	R	39	39	101	4.3	A
	Subtotal	194	191	98	54.5	F
SB	L	5	2	40	16.6	C
	R	20	21	104	10.4	B
	Subtotal	25	23	92	10.9	B
EB	L	45	44	98	4.1	A
	T	565	537	95	1.4	A
	R	255	244	96	1.0	A
	Subtotal	865	825	95	1.4	A
WB	L	63	61	97	4.2	A
	T	656	647	99	3.8	A
	R	10	12	120	1.4	A
	Subtotal	729	720	99	3.8	A
Total		1,813	1,759	97	8.4	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	75	76	101	6.5	A
	R	15	15	98	5.0	A
	Subtotal	90	91	101	6.3	A
EB	T	484	454	94	1.2	A
	R	115	116	101	0.4	A
	Subtotal	599	570	95	1.0	A
WB	L	15	16	105	2.6	A
	T	654	640	98	1.3	A
	Subtotal	669	656	98	1.3	A
Total		1,358	1,317	97	1.5	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	35	37	105	5.8	A
	R	15	15	98	4.2	A
	Subtotal	50	52	104	5.3	A
EB	T	458	434	95	1.4	A
	R	35	31	88	0.3	A
	Subtotal	493	465	94	1.3	A
WB	L	20	22	109	2.1	A
	T	633	616	97	0.6	A
	Subtotal	653	638	98	0.7	A
Total		1,197	1,155	96	1.1	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	127	122	96	5.8	A
	T	2	3	150	0.7	A
	R	2	2	100	5.7	A
	Subtotal	131	127	97	5.7	A
NW	T	20	17	84	0.7	A
	R	80	79	99	0.4	A
	Subtotal	100	96	96	0.5	A
SE	L	10	7	70	2.1	A
	T	33	34	102	0.3	A
	Subtotal	43	41	95	0.6	A
Total		274	264	96	3.0	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NW	T	175	177	101	2.6	A
	Subtotal	175	177	101	2.6	A
SE	T	287	292	102	3.6	A
	R	31	33	106	2.1	A
	Subtotal	318	325	102	3.4	A
NE	L	19	21	109	2.7	A
	Subtotal	19	21	111	2.7	A
Total		513	523	102	3.1	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	103	46	45	1286.6	F
	R	25	13	51	1286.8	F
	Subtotal	128	59	46	1286.6	F
EB	T	1,248	1,255	101	4.5	A
	R	151	158	105	0.8	A
	Subtotal	1,399	1,413	101	4.1	A
WB	L	34	25	73	19.9	C
	T	1,079	920	85	2.6	A
	Subtotal	1,113	945	85	3.1	A
Total		2,641	2,417	92	57.5	F

Intersection: East Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	219	62	28	1484.4	F
	R	61	17	28	1515.9	F
	Subtotal	280	79	28	1491.2	F
SB	L	11	10	91	62.1	F
	R	29	30	103	26.0	D
	Subtotal	40	40	100	35.0	D
EB	L	36	36	99	6.4	A
	T	956	957	100	2.3	A
	R	307	297	97	2.0	A
	Subtotal	1,299	1,290	99	2.3	A
WB	L	79	77	97	12.5	B
	T	856	847	99	3.2	A
	R	15	15	98	1.2	A
	Subtotal	950	939	99	3.9	A
Total		2,570	2,348	91	90.2	F

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: River Road/S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	75	59	79	435.2	F
	T	1,045	750	72	320.0	F
	R	1,029	737	72	536.5	F
	Subtotal	2,149	1,546	72	427.6	F
SB	L	429	235	55	797.7	F
	T	1,880	1,036	55	415.5	F
	R	345	190	55	365.8	F
	Subtotal	2,654	1,461	55	470.5	F
NE	L	200	199	100	59.5	E
	T	106	107	101	127.6	F
	R	100	103	103	45.8	D
	Subtotal	406	409	101	73.9	E
SW	L	848	602	71	276.3	F
	T	87	59	68	135.1	F
	R	290	209	72	76.0	E
	Subtotal	1,225	870	71	218.6	F
Total		6,434	4,286	67	376.4	F

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	46	98	16.2	B
	T	4	5	125	0.1	A
	R	30	34	112	4.9	A
	Subtotal	81	85	105	10.7	B
SB	L	29	30	103	17.7	B
	R	92	96	104	5.5	A
	Subtotal	121	126	104	8.4	A
EB	L	79	76	96	8.9	A
	T	568	564	99	6.2	A
	R	56	54	97	1.7	A
	Subtotal	703	694	99	6.1	A
WB	L	19	18	94	12.4	B
	T	648	642	99	10.4	B
	R	23	26	112	4.9	A
	Subtotal	690	686	99	10.2	B
Total		1,596	1,591	100	8.4	A

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	232	231	99	14.5	B
	R	58	60	104	4.2	A
	Subtotal	290	291	100	12.4	B
SB	L	5	5	100	19.8	B
	R	20	18	89	5.0	A
	Subtotal	25	23	92	8.2	A
EB	L	15	15	98	16.6	B
	T	517	520	101	16.1	B
	R	95	97	102	2.5	A
	Subtotal	627	632	101	14.0	B
WB	L	23	23	99	24.9	C
	T	420	415	99	12.5	B
	R	5	5	100	4.3	A
	Subtotal	448	443	99	13.1	B
Total		1,391	1,389	100	13.3	B

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	105	112	106	8.0	A
	R	15	14	92	5.6	A
	Subtotal	120	126	105	7.7	A
EB	T	541	545	101	1.2	A
	R	40	42	106	0.2	A
	Subtotal	581	587	101	1.1	A
WB	L	10	9	90	2.1	A
	T	344	332	97	0.6	A
	Subtotal	354	341	96	0.6	A
Total		1,055	1,054	100	1.8	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	30	30	99	6.7	A
	R	20	23	114	5.1	A
	Subtotal	50	53	106	6.0	A
EB	T	542	541	100	1.5	A
	R	10	10	100	0.2	A
	Subtotal	552	551	100	1.5	A
WB	L	10	8	80	2.5	A
	T	323	312	97	0.3	A
	Subtotal	333	320	96	0.4	A
Total		936	924	99	1.4	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	68	64	94	5.1	A
	T	13	14	108	0.4	A
	Subtotal	81	78	96	4.3	A
NW	T	70	74	106	0.6	A
	R	57	58	102	0.5	A
	Subtotal	127	132	104	0.6	A
SE	T	25	24	95	0.1	A
	Subtotal	25	24	96	0.1	A
Total		233	234	100	1.8	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NW	T	260	265	102	2.9	A
	Subtotal	260	265	102	2.9	A
SE	T	108	111	103	2.7	A
	R	10	11	110	1.9	A
	Subtotal	118	122	103	2.6	A
NE	L	30	33	109	2.2	A
	Subtotal	30	33	110	2.2	A
Total		408	420	103	2.8	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	53	54	102	11.2	B
	R	37	38	103	5.1	A
	Subtotal	90	92	102	8.7	A
EB	T	825	811	98	1.0	A
	R	64	67	105	0.6	A
	Subtotal	889	878	99	1.0	A
WB	L	18	18	99	9.1	A
	T	1,029	1,018	99	4.3	A
	Subtotal	1,047	1,036	99	4.4	A
Total		2,026	2,006	99	3.1	A

Intersection: East Village 1 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	321	318	99	17.8	B
	R	54	52	97	5.9	A
	Subtotal	375	370	99	16.1	B
SB	L	10	8	80	22.1	C
	R	17	19	110	6.5	A
	Subtotal	27	27	100	11.1	B
EB	L	23	20	86	26.3	C
	T	635	631	99	14.4	B
	R	204	198	97	3.3	A
	Subtotal	862	849	98	12.1	B
WB	L	51	49	97	31.1	C
	T	720	714	99	15.1	B
	R	9	11	122	8.9	A
	Subtotal	780	774	99	16.0	B
Total		2,044	2,020	99	14.3	B

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: River Road/S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	65	70	108	69.3	E
	T	1,580	1,549	98	35.6	D
	R	715	717	100	12.5	B
	Subtotal	2,360	2,336	99	29.5	C
SB	L	168	170	101	72.2	E
	T	625	622	100	22.7	C
	R	125	122	98	4.8	A
	Subtotal	918	914	100	29.5	C
NE	L	340	332	98	37.0	D
	T	61	58	95	55.0	D
	R	45	49	109	10.9	B
	Subtotal	446	439	98	36.5	D
SW	L	833	838	101	88.8	F
	T	78	78	100	40.7	D
	R	375	373	99	29.7	C
	Subtotal	1,286	1,289	100	68.8	E
Total		5,009	4,978	99	40.5	D

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	92	93	101	21.6	C
	R	32	35	109	6.7	A
	Subtotal	124	128	103	17.5	B
SB	L	28	29	103	20.2	C
	R	101	100	99	6.9	A
	Subtotal	129	129	100	9.9	A
EB	L	127	131	103	15.6	B
	T	801	799	100	10.3	B
	R	87	91	104	2.3	A
	Subtotal	1,015	1,021	101	10.3	B
WB	L	43	40	94	21.2	C
	T	755	767	102	17.5	B
	R	38	38	101	11.5	B
	Subtotal	836	845	101	17.4	B
Total		2,105	2,123	101	13.5	B

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	155	152	98	15.6	B
	R	39	40	103	4.3	A
	Subtotal	194	192	99	13.2	B
SB	L	5	3	60	22.9	C
	R	20	24	119	4.9	A
	Subtotal	25	27	108	6.9	A
EB	L	45	44	98	18.9	B
	T	565	573	101	11.7	B
	R	255	249	98	3.8	A
	Subtotal	865	866	100	9.8	A
WB	L	63	59	94	21.5	C
	T	657	664	101	11.5	B
	R	10	10	100	5.6	A
	Subtotal	730	733	100	12.2	B
Total		1,813	1,818	100	11.1	B

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	75	74	99	6.9	A
	R	15	15	98	5.7	A
	Subtotal	90	89	99	6.7	A
EB	T	484	495	102	1.1	A
	R	115	115	100	0.4	A
	Subtotal	599	610	102	1.0	A
WB	L	15	14	92	2.3	A
	T	655	658	100	1.2	A
	Subtotal	670	672	100	1.2	A
Total		1,359	1,371	101	1.5	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	35	32	91	6.3	A
	R	15	14	92	4.5	A
	Subtotal	50	46	92	5.8	A
EB	T	459	469	102	1.3	A
	R	35	36	102	0.2	A
	Subtotal	494	505	102	1.2	A
WB	L	20	19	94	1.9	A
	T	633	636	101	0.5	A
	Subtotal	653	655	100	0.5	A
Total		1,198	1,206	101	1.0	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	127	125	99	6.1	A
	T	1	2	160	0.3	A
	R	2	1	50	6.4	A
	Subtotal	130	128	98	6.0	A
NW	T	20	20	99	0.9	A
	R	80	83	104	0.4	A
	Subtotal	100	103	103	0.5	A
SE	L	10	9	90	2.4	A
	T	33	35	105	0.3	A
	Subtotal	43	44	102	0.7	A
Total		274	275	101	3.1	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NW	T	175	177	101	2.6	A
	Subtotal	175	177	101	2.6	A
SE	T	287	287	100	3.7	A
	R	31	31	99	2.1	A
	Subtotal	318	318	100	3.5	A
NE	L	19	19	99	2.8	A
	Subtotal	19	19	100	2.8	A
Total		513	514	100	3.2	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	24	27	111	24.4	C
	R	25	26	103	7.6	A
	Subtotal	49	53	108	16.2	C
EB	T	1,248	1,247	100	1.5	A
	R	151	159	105	1.2	A
	Subtotal	1,399	1,406	101	1.5	A
WB	L	34	35	102	14.3	B
	T	1,156	1,164	101	3.7	A
	Subtotal	1,190	1,199	101	4.0	A
Total		2,639	2,658	101	2.9	A

Intersection: East Village 1 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	288	289	100	33.3	C
	R	61	64	105	8.2	A
	Subtotal	349	353	101	28.7	C
SB	L	11	9	82	29.9	C
	R	29	32	109	9.0	A
	Subtotal	40	41	103	13.6	B
EB	L	36	34	93	20.9	C
	T	958	963	100	11.9	B
	R	307	307	100	4.0	A
	Subtotal	1,301	1,304	100	10.3	B
WB	L	79	82	104	39.8	D
	T	858	865	101	11.5	B
	R	15	15	98	7.3	A
	Subtotal	952	962	101	13.8	B
Total		2,643	2,660	101	14.1	B

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2028) Mitigated Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: River Road/S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	75	76	101	105.6	F
	T	1,045	1,052	101	40.3	D
	R	1,029	1,019	99	14.3	B
	Subtotal	2,149	2,147	100	30.3	C
SB	L	429	437	102	83.9	F
	T	1,880	1,895	101	39.3	D
	R	345	339	98	12.9	B
	Subtotal	2,654	2,671	101	43.2	D
NE	L	200	197	99	39.9	D
	T	106	110	104	67.1	E
	R	100	103	103	37.3	D
	Subtotal	406	410	101	46.5	D
SW	L	848	835	98	111.6	F
	T	87	85	97	48.5	D
	R	290	289	100	14.9	B
	Subtotal	1,225	1,209	99	84.0	F
Total		6,434	6,437	100	47.0	D

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Background
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	640	636	99	0.2	A
	R	5	5	100	0.0	A
	Subtotal	645	641	99	0.2	A
WB	L	5	6	120	5.2	A
	T	681	667	98	1.6	A
	Subtotal	686	673	98	1.6	A
NE	L	5	5	100	16.7	C
	R	5	5	100	7.0	A
	Subtotal	10	10	100	11.9	B
Total		1,341	1,324	99	1.0	A

Intersection: S.R. 32 & Cummings RV Park Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	5	4	80	13.4	B
	R	20	20	99	5.8	A
	Subtotal	25	24	96	7.1	A
EB	L	15	13	85	3.2	A
	T	631	629	100	1.6	A
	Subtotal	646	642	99	1.6	A
WB	T	684	673	98	2.7	A
	R	5	6	120	1.5	A
	Subtotal	689	679	99	2.7	A
Total		1,361	1,345	99	2.3	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Background
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	235	236	100	11.5	B
	R	40	39	98	9.8	A
	Subtotal	275	275	100	11.3	B
EB	T	552	551	100	1.6	A
	R	90	89	99	0.2	A
	Subtotal	642	640	100	1.4	A
WB	L	15	16	105	3.1	A
	T	437	431	99	0.7	A
	Subtotal	452	447	99	0.8	A
Total		1,370	1,362	99	3.2	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	120	117	98	9.5	A
	R	50	49	98	7.1	A
	Subtotal	170	166	98	8.8	A
EB	T	542	537	99	1.9	A
	R	45	48	107	0.4	A
	Subtotal	587	585	100	1.8	A
WB	L	20	19	94	2.5	A
	T	330	327	99	0.4	A
	Subtotal	350	346	99	0.5	A
Total		1,106	1,097	99	2.5	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Background
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: River Road/S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	210	156	74	212.1	F
	T	2,149	1,618	75	131.5	F
	R	655	494	75	108.3	F
	Subtotal	3,014	2,268	75	132.0	F
SB	L	143	110	77	744.1	F
	T	1,031	989	96	54.2	D
	R	255	238	93	16.5	B
	Subtotal	1,429	1,337	94	104.2	F
NE	L	573	405	71	356.2	F
	T	68	49	72	300.9	F
	R	147	103	70	231.9	F
	Subtotal	788	557	71	328.3	F
SW	L	615	460	75	245.5	F
	T	87	65	74	191.3	F
	R	229	169	74	149.7	F
	Subtotal	931	694	75	217.1	F
Total		6,162	4,856	79	165.2	F

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Background
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	T	795	792	100	0.3	A
	R	5	5	100	0.0	A
	Subtotal	800	797	100	0.3	A
WB	L	5	4	80	6.8	A
	T	725	717	99	1.6	A
	Subtotal	730	721	99	1.6	A
NE	L	5	6	120	24.3	C
	R	5	5	100	11.0	B
	Subtotal	10	11	110	18.3	C
Total		1,540	1,529	99	1.1	A

Intersection: S.R. 32 & Cummings RV Park Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
SB	L	5	3	60	18.1	C
	R	20	21	104	5.8	A
	Subtotal	25	24	96	7.3	A
EB	L	45	43	96	5.8	A
	T	756	754	100	3.8	A
	Subtotal	801	797	100	3.9	A
WB	T	723	715	99	3.1	A
	R	10	9	90	2.0	A
	Subtotal	733	724	99	3.1	A
Total		1,560	1,545	99	3.6	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Background
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	165	163	99	10.8	B
	R	35	36	102	8.4	A
	Subtotal	200	199	100	10.4	B
EB	T	526	519	99	1.4	A
	R	255	262	103	1.0	A
	Subtotal	781	781	100	1.3	A
WB	L	50	50	101	4.5	A
	T	558	548	98	1.1	A
	Subtotal	608	598	98	1.4	A
Total		1,589	1,578	99	2.5	A

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	95	93	98	7.3	A
	R	30	31	102	5.5	A
	Subtotal	125	124	99	6.9	A
EB	T	413	408	99	1.3	A
	R	130	123	95	0.5	A
	Subtotal	543	531	98	1.1	A
WB	L	45	45	101	3.4	A
	T	510	503	99	0.9	A
	Subtotal	555	548	99	1.1	A
Total		1,223	1,203	98	1.7	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Background
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: S.R. 32 & U.S. 40
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	455	196	43	849.8	F
	T	1,410	664	47	93.0	F
	R	890	423	48	45.0	D
	Subtotal	2,755	1,283	47	192.8	F
SB	L	355	155	44	586.9	F
	T	2,560	1,161	45	318.6	F
	R	680	319	47	243.8	F
	Subtotal	3,595	1,635	45	329.4	F
NE	L	445	188	42	288.5	F
	T	155	65	42	340.2	F
	R	515	216	42	307.1	F
	Subtotal	1,115	469	42	304.2	F
SW	L	890	345	39	132.4	F
	T	195	76	39	140.1	F
	R	235	85	36	110.2	F
	Subtotal	1,320	506	38	129.8	F
Total		8,786	3,893	44	268.3	F

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	49	47	96	27.5	C
	T	4	4	100	0.2	A
	R	33	32	96	10.1	B
	Subtotal	86	83	97	19.5	B
SB	L	29	28	96	27.7	C
	R	92	95	103	14.6	B
	Subtotal	121	123	102	17.6	B
EB	L	79	86	109	18.0	B
	T	1,236	1,246	101	7.2	A
	R	57	60	106	2.0	A
	Subtotal	1,372	1,392	101	7.6	A
WB	L	23	22	95	22.9	C
	T	1,882	1,484	79	12.2	B
	R	23	19	82	8.5	A
	Subtotal	1,928	1,525	79	12.3	B
Total		3,508	3,123	89	10.7	B

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	517	517	100	20.2	C
	R	137	140	102	8.9	A
	Subtotal	654	657	100	17.8	B
SB	L	5	5	100	29.5	C
	R	20	21	104	8.7	A
	Subtotal	25	26	104	12.7	B
EB	L	15	15	98	50.0	D
	T	984	978	99	58.6	E
	R	300	310	103	7.6	A
	Subtotal	1,299	1,303	100	46.4	D
WB	L	76	54	71	68.7	E
	T	1,351	943	70	31.9	C
	R	5	4	80	30.2	C
	Subtotal	1,432	1,001	70	33.9	C
Total		3,411	2,987	88	35.7	D

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	663	243	37	399.9	F
	R	141	54	38	395.3	F
	Subtotal	804	297	37	399.1	F
EB	T	874	870	99	2.4	A
	R	257	259	101	1.1	A
	Subtotal	1,131	1,129	100	2.1	A
WB	L	57	59	104	10.2	B
	T	769	755	98	1.7	A
	Subtotal	826	814	99	2.3	A
Total		2,761	2,240	81	60.4	F

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	283	265	94	152.5	F
	R	87	85	97	153.6	F
	Subtotal	370	350	95	152.8	F
EB	T	904	814	90	2.8	A
	R	101	99	98	0.5	A
	Subtotal	1,005	913	91	2.6	A
WB	L	34	36	105	6.4	A
	T	542	547	101	0.9	A
	Subtotal	576	583	101	1.2	A
Total		1,951	1,846	95	32.5	D

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	68	68	100	5.0	A
	T	18	19	106	0.4	A
	Subtotal	86	87	101	4.0	A
NW	T	70	69	99	0.7	A
	R	57	54	95	0.4	A
	Subtotal	127	123	97	0.6	A
SE	T	25	24	95	0.1	A
	Subtotal	25	24	96	0.1	A
Total		238	234	98	1.8	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NW	L	8	7	88	3.9	A
	T	635	639	101	4.2	A
	Subtotal	643	646	100	4.2	A
SE	T	356	362	102	4.0	A
	R	20	22	109	2.3	A
	Subtotal	376	384	102	3.9	A
NE	L	19	19	99	3.2	A
	R	7	9	129	2.9	A
	Subtotal	26	28	108	3.1	A
Total		1,045	1,058	101	4.1	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	49	51	105	37.7	E
	R	37	40	109	13.4	B
	Subtotal	86	91	106	27.0	D
EB	T	1,491	1,507	101	2.3	A
	R	64	67	105	1.4	A
	Subtotal	1,555	1,574	101	2.3	A
WB	L	18	13	71	20.5	C
	T	2,236	1,855	83	8.4	A
	Subtotal	2,254	1,868	83	8.5	A
Total		3,894	3,533	91	6.2	A

Intersection: East Village 1 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	315	316	100	23.1	C
	R	54	57	106	11.9	B
	Subtotal	369	373	101	21.4	C
SB	L	10	9	90	33.4	C
	R	17	20	116	13.0	B
	Subtotal	27	29	107	19.3	B
EB	L	23	21	90	46.1	D
	T	1,304	1,318	101	24.1	C
	R	201	206	103	5.0	A
	Subtotal	1,528	1,545	101	21.9	C
WB	L	51	42	83	75.7	E
	T	1,933	1,541	80	76.3	E
	R	9	7	78	58.0	E
	Subtotal	1,993	1,590	80	76.2	E
Total		3,917	3,537	90	46.4	D

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	92	92	100	30.0	C
	R	27	30	110	25.2	C
	Subtotal	119	122	103	28.8	C
SB	L	28	26	92	29.6	C
	R	101	99	98	14.3	B
	Subtotal	129	125	97	17.5	B
EB	L	127	105	83	23.4	C
	T	2,092	1,778	85	17.1	B
	R	134	114	85	3.8	A
	Subtotal	2,353	1,997	85	16.7	B
WB	L	37	27	73	88.7	F
	T	1,599	1,325	83	19.8	B
	R	38	30	79	14.8	B
	Subtotal	1,674	1,382	83	21.0	C
Total		4,275	3,626	85	18.8	B

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	388	385	99	24.0	C
	R	107	116	108	10.5	B
	Subtotal	495	501	101	20.9	C
SB	L	5	4	80	31.3	C
	R	20	22	109	10.1	B
	Subtotal	25	26	104	13.4	B
EB	L	45	38	85	44.3	D
	T	1,448	1,236	85	39.8	D
	R	692	601	87	11.8	B
	Subtotal	2,185	1,875	86	30.9	C
WB	L	171	98	57	691.5	F
	T	1,263	968	77	45.2	D
	R	10	8	80	28.3	C
	Subtotal	1,444	1,074	74	104.0	F
Total		4,149	3,476	84	59.6	E

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	459	142	31	720.0	F
	R	100	30	30	668.8	F
	Subtotal	559	172	31	711.1	F
EB	T	902	789	87	2.1	A
	R	650	569	88	3.1	A
	Subtotal	1,552	1,358	88	2.5	A
WB	L	147	149	101	26.6	D
	T	960	965	100	2.5	A
	Subtotal	1,107	1,114	101	5.7	A
Total		3,219	2,644	82	60.8	F

Intersection: East Benloch Ranch Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	160	156	97	14.1	B
	R	52	53	102	10.5	B
	Subtotal	212	209	99	13.2	B
EB	T	705	582	83	1.7	A
	R	262	206	79	0.8	A
	Subtotal	967	788	81	1.5	A
WB	L	78	77	99	5.0	A
	T	946	957	101	1.2	A
	Subtotal	1,024	1,034	101	1.5	A
Total		2,203	2,031	92	2.7	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	127	105	83	5.6	A
	T	42	34	81	0.6	A
	R	2	2	100	3.7	A
	Subtotal	171	141	82	4.4	A
NW	T	20	21	104	0.9	A
	R	80	83	104	0.4	A
	Subtotal	100	104	104	0.5	A
SE	L	10	8	80	2.2	A
	T	33	33	99	0.3	A
	Subtotal	43	41	95	0.7	A
Total		314	286	91	2.4	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NW	L	2	1	50	4.2	A
	T	476	481	101	3.5	A
	Subtotal	478	482	101	3.5	A
SE	T	843	823	98	7.0	A
	R	20	21	104	2.0	A
	Subtotal	863	844	98	6.9	A
NE	L	19	18	94	5.1	A
	R	2	2	100	7.4	A
	Subtotal	21	20	95	5.3	A
Total		1,362	1,346	99	5.6	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	49	18	37	1762.8	F
	R	26	17	65	1073.9	F
	Subtotal	75	35	47	1428.2	F
EB	T	2,562	2,164	84	125.4	F
	R	133	118	89	68.0	F
	Subtotal	2,695	2,282	85	122.4	F
WB	L	36	32	88	131.6	F
	T	1,960	1,730	88	5.8	A
	Subtotal	1,996	1,762	88	8.1	A
Total		4,766	4,079	86	101.4	F

Intersection: East Village 1 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	281	286	102	69.4	E
	R	56	62	111	26.6	C
	Subtotal	337	348	103	61.8	E
SB	L	11	11	100	35.0	C
	R	29	29	99	12.9	B
	Subtotal	40	40	100	19.0	B
EB	L	36	32	88	88.6	F
	T	2,294	1,928	84	106.5	F
	R	285	239	84	41.9	D
	Subtotal	2,615	2,199	84	99.2	F
WB	L	86	69	80	123.2	F
	T	1,670	1,420	85	15.9	B
	R	15	11	72	12.6	B
	Subtotal	1,771	1,500	85	20.8	C
Total		4,764	4,087	86	67.1	E

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Mitigated Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	49	50	103	42.5	D
	T	4	4	100	0.3	A
	R	33	35	105	6.9	A
	Subtotal	86	89	103	26.6	C
SB	L	29	29	99	40.5	D
	R	92	92	100	27.7	C
	Subtotal	121	121	100	30.8	C
EB	L	79	79	100	34.7	C
	T	1,236	1,252	101	7.1	A
	R	57	58	102	1.5	A
	Subtotal	1,372	1,389	101	8.4	A
WB	L	23	21	90	25.9	C
	T	1,882	1,867	99	18.3	B
	R	23	23	99	14.5	B
	Subtotal	1,928	1,911	99	18.3	B
Total		3,508	3,510	100	15.1	B

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	517	529	102	36.1	D
	R	137	141	103	12.7	B
	Subtotal	654	670	102	31.2	C
SB	L	5	5	100	43.0	D
	R	20	20	99	19.5	B
	Subtotal	25	25	100	24.2	C
EB	L	15	13	85	60.1	E
	T	984	1,005	102	23.5	C
	R	300	298	99	5.2	A
	Subtotal	1,299	1,316	101	19.7	B
WB	L	76	74	97	21.6	C
	T	1,351	1,332	99	18.4	B
	R	5	6	120	15.9	B
	Subtotal	1,432	1,412	99	18.6	B
Total		3,411	3,423	100	21.5	C

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Mitigated Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	663	644	97	29.3	C
	R	141	142	101	12.4	B
	Subtotal	804	786	98	26.2	C
EB	T	874	895	102	11.4	B
	R	257	265	103	3.6	A
	Subtotal	1,131	1,160	103	9.6	A
WB	L	57	54	95	37.4	D
	T	769	770	100	18.0	B
	Subtotal	826	824	100	19.3	B
Total		2,761	2,770	100	17.2	B

Intersection: East Benloch Ranch Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	283	291	103	18.8	B
	R	87	91	104	9.6	A
	Subtotal	370	382	103	16.6	B
EB	T	904	911	101	10.2	B
	R	101	104	103	2.8	A
	Subtotal	1,005	1,015	101	9.4	A
WB	L	34	33	96	24.3	C
	T	542	532	98	8.3	A
	Subtotal	576	565	98	9.2	A
Total		1,951	1,962	101	10.8	B

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Mitigated Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	68	65	96	5.3	A
	T	18	18	100	0.4	A
	Subtotal	86	83	97	4.2	A
NW	T	70	73	104	0.9	A
	R	57	59	104	0.5	A
	Subtotal	127	132	104	0.7	A
SE	T	25	24	95	0.1	A
	Subtotal	25	24	96	0.1	A
Total		238	239	100	1.9	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NW	L	8	8	100	3.8	A
	T	635	630	99	4.5	A
	Subtotal	643	638	99	4.5	A
SE	T	356	351	99	4.4	A
	R	20	22	109	1.8	A
	Subtotal	376	373	99	4.2	A
NE	L	19	18	94	3.2	A
	R	7	7	100	2.9	A
	Subtotal	26	25	96	3.1	A
Total		1,045	1,036	99	4.4	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Mitigated Plus Project
Time Period: Morning Peak Hour **Project #: UT23-2490**

Intersection: West Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	R	37	38	103	6.1	A
	Subtotal	37	38	103	6.1	A
EB	T	1,491	1,504	101	1.3	A
	R	64	66	103	1.2	A
WB	Subtotal	1,555	1,570	101	1.3	A
	T	2,286	2,285	100	5.3	A
Total	Subtotal	2,286	2,285	100	5.3	A
		3,877	3,893	100	3.7	A

Intersection: East Village 1 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	364	372	102	34.2	C
	R	54	56	104	9.0	A
SB	Subtotal	418	428	102	30.9	C
	L	10	9	90	23.2	C
EB	R	17	18	104	16.7	B
	Subtotal	27	27	100	18.9	B
WB	L	23	22	95	57.0	E
	T	1,304	1,318	101	16.2	B
Total	R	201	200	100	3.3	A
	Subtotal	1,528	1,540	101	15.1	B
WB	L	69	69	100	23.5	C
	T	1,915	1,905	99	14.0	B
Total	R	9	6	67	10.3	B
	Subtotal	1,993	1,980	99	14.3	B
Total		3,966	3,975	100	16.5	B

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Mitigated Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 3 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	92	84	91	46.5	D
	R	27	29	106	15.9	B
	Subtotal	119	113	95	38.6	D
SB	L	28	27	96	41.2	D
	R	101	99	98	21.2	C
	Subtotal	129	126	98	25.5	C
EB	L	127	128	101	38.1	D
	T	2,092	2,075	99	8.7	A
	R	134	137	102	2.3	A
	Subtotal	2,353	2,340	99	9.9	A
WB	L	37	39	106	80.8	F
	T	1,599	1,608	101	16.6	B
	R	38	40	106	12.3	B
	Subtotal	1,674	1,687	101	18.0	B
Total		4,275	4,266	100	14.4	B

Intersection: Ambush Drive/RV Park Access & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	388	389	100	51.8	D
	R	107	114	106	21.7	C
	Subtotal	495	503	102	45.0	D
SB	L	5	4	80	48.9	D
	R	20	25	123	15.3	B
	Subtotal	25	29	116	19.9	B
EB	L	45	46	103	45.9	D
	T	1,448	1,436	99	28.6	C
	R	692	685	99	13.1	B
	Subtotal	2,185	2,167	99	24.1	C
WB	L	171	170	99	39.2	D
	T	1,263	1,270	101	14.6	B
	R	10	11	110	11.4	B
	Subtotal	1,444	1,451	100	17.5	B
Total		4,149	4,150	100	24.3	C

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Mitigated Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Benloch Ranch Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	459	454	99	39.8	D
	R	100	99	99	9.8	A
	Subtotal	559	553	99	34.4	C
EB	T	902	896	99	7.2	A
	R	650	654	101	7.5	A
	Subtotal	1,552	1,550	100	7.3	A
WB	L	147	139	95	242.3	F
	T	960	977	102	10.3	B
	Subtotal	1,107	1,116	101	39.2	D
Total		3,219	3,219	100	24.0	C

Intersection: East Benloch Ranch Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	160	162	101	21.1	C
	R	52	57	110	6.3	A
	Subtotal	212	219	103	17.2	B
EB	T	705	706	100	6.5	A
	R	262	255	97	3.3	A
	Subtotal	967	961	99	5.7	A
WB	L	78	75	96	22.6	C
	T	946	961	102	7.5	A
	Subtotal	1,024	1,036	101	8.6	A
Total		2,203	2,216	101	8.2	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Mitigated Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: East Village 1 Road & West Village 3 Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
WB	L	127	134	106	6.3	A
	T	42	40	95	0.8	A
	R	2	2	100	5.1	A
	Subtotal	171	176	103	5.0	A
NW	T	20	20	99	0.7	A
	R	80	74	92	0.4	A
	Subtotal	100	94	94	0.5	A
SE	L	10	9	90	1.8	A
	T	33	33	99	0.3	A
	Subtotal	43	42	98	0.6	A
Total		314	312	99	3.1	A

Intersection: Marcella Ridge Drive & Ambush Drive
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NW	L	2	1	50	4.4	A
	T	476	473	99	3.5	A
	Subtotal	478	474	99	3.5	A
SE	T	843	837	99	7.3	A
	R	20	19	94	2.2	A
	Subtotal	863	856	99	7.2	A
NE	L	19	18	94	5.3	A
	R	2	2	100	6.0	A
	Subtotal	21	20	95	5.4	A
Total		1,362	1,350	99	5.9	A

SimTraffic LOS Report

Project: Heber Jordanelle Ridge East Villages
Analysis Period: Future (2050) Mitigated Plus Project
Time Period: Evening Peak Hour **Project #: UT23-2490**

Intersection: West Village 1 Road & S.R. 32
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	R	26	26	99	19.6	C
	Subtotal	26	26	100	19.6	C
EB	T	2,562	2,552	100	2.6	A
	R	133	135	102	2.2	A
	Subtotal	2,695	2,687	100	2.6	A
WB	T	2,018	2,012	100	4.2	A
	Subtotal	2,018	2,012	100	4.2	A
Total		4,739	4,725	100	3.4	A

Intersection: East Village 1 Road & S.R. 32
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	330	320	97	58.3	E
	R	56	56	100	22.5	C
	Subtotal	386	376	97	53.0	D
SB	L	11	11	100	39.4	D
	R	29	28	96	9.6	A
	Subtotal	40	39	98	18.0	B
EB	L	36	37	101	39.7	D
	T	2,294	2,285	100	24.7	C
	R	285	286	100	5.2	A
	Subtotal	2,615	2,608	100	22.8	C
WB	L	122	121	99	41.1	D
	T	1,630	1,638	100	11.7	B
	R	15	14	92	9.6	A
	Subtotal	1,767	1,773	100	13.7	B
Total		4,808	4,796	100	21.8	C

APPENDIX D

95th Percentile Queue Length Reports

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Existing (2023) Background
Time Period: Morning Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB	SB		EB	WB
	LR	L	R	LT	L
02: S.R. 32 & Cummings RV Park Access			50		
03: West Benloch Ranch Road & S.R. 32	75				
04: East Benloch Ranch Road & S.R. 32	50				

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Existing (2023) Background
Time Period: Morning Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

HALES ENGINEERING
 innovative transportation solutions

Project #: UT23-2490

Intersection	NB			NE		SB			SW	
	L	R	T	L	TR	L	R	T	L	TR
01: River Road/S.R. 32 & U.S. 40	275	450	650	325	500	125	50	275	250	500

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Existing (2023) Background
Time Period: Evening Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

Project #: UT23-2490

Intersection	NB	NE	SB		EB		WB
	LR	LR	L	R	LT	R	L
01: West Village 3 Road & S.R. 32							
02: S.R. 32 & Cummings RV Park Access				75	75		
03: West Benloch Ranch Road & S.R. 32	50						
04: East Benloch Ranch Road & S.R. 32	50						

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Existing (2023) Background
Time Period: Evening Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB			NE			SB			SW	
	L	R	T	L	LR	TR	L	R	T	L	TR
01: River Road/S.R. 32 & U.S. 40	150	175	425	225		225	725	875	2,025	225	650

Intersection	NB			NE		SB			SW	
	L	R	T	L	TR	L	R	T	L	TR
01: River Road/S.R. 32 & U.S. 40	250	425	650	325	550	200	50	300	250	625

Intersection	NB			NE			SB			SW	
	L	R	T	L	LR	TR	L	R	T	L	TR
01: River Road/S.R. 32 & U.S. 40	125	175	400	250		250	450	475	775	225	625
02: West Village 3 Road & S.R. 32											

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Existing (2023) Plus Project

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB				NE	SB		SE	EB		WB	
	L	LR	R	TR	LR	L	TR	LT	L	T	L	LR
01: West Village 3 Road & S.R. 32	75		25									
02: Ambush Drive/RV Park Access & S.R. 32	75			75			50					
03: West Benloch Ranch Road			75									
04: East Benloch Ranch Road			50									
05: East Village 1 Road & West Village 3 Road												75
06: Marcella Ridge Drive & Ambush Drive												

Intersection	NB				NE		SB				SE	SW		EB	WB		
	L	R	T	TR	L	TR	L	R	T	TR	LT	L	TR	L	L	LR	
01: River Road/S.R. 32 & U.S. 40	200	450	625		325	550	225	50	275			225	575				

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Existing (2023) Plus Project

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB				NE	SB		SE		EB		WB		
	L	LR	R	TR	LR	L	TR	LT	TR	L	R	L	LR	T
01: West Village 3 Road & S.R. 32	75		50											50
02: Ambush Drive/RV Park Access & S.R. 32	100			50		50				50				
03: West Benloch Ranch Road		75												
04: East Benloch Ranch Road		50												
05: East Village 1 Road & West Village 3 Road														75
06: Marcella Ridge Drive & Ambush Drive														

SimTraffic Queueing Report

Project: Jordanelle Ridge Villages 1 & 3

Analysis: Existing (2023) Plus Project

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

Intersection	NB				NE			SB				SE	SW		EB		WB	
	L	R	T	TR	L	LR	TR	L	R	T	TR	LT	L	TR	L	R	L	LR
01: River Road/S.R. 32 & U.S. 40	125	250	400		250		250	750	850	2,275			225	525				

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge Villages 1 & 3

Analysis: Existing (2023) Mitigated Plus Project

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

Intersection	NB				NE			SB				SE	SW			EB	WB	
	L	R	T	TR	L	R	T	L	R	T	TR	LT	L	R	T	L	L	LR
01: River Road/S.R. 32 & U.S. 40	200	500	650		325	150	575	225	50	300			325	200	200			

SimTraffic Queueing Report

Project: Jordanelle Ridge Villages 1 & 3

Analysis: Existing (2023) Mitigated Plus Project

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

Intersection	NB				NE				SB				SE	SW			EB		WB	
	L	R	T	TR	L	LR	R	T	L	R	T	TR	TR	L	R	T	L	R	L	LR
01: River Road/S.R. 32 & U.S. 40	150	250	400		275		150	225	450	350	700			475	100	500				

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Future (2028) Background
Time Period: Morning Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB	NE	SB		EB		WB	
	LR	LR	L	R	LT	R	L	LT
01: West Village 3 Road & S.R. 32		50						
02: S.R. 32 & Cummings RV Park Access				50	50			
03: West Benloch Ranch Road & S.R. 32	75							
04: East Benloch Ranch Road & S.R. 32	75							

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Future (2028) Background
Time Period: Morning Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB			NE			SB			SW		WB
	L	R	T	L	LR	TR	L	R	T	L	TR	LT
01: S.R. 32 & U.S. 40	350	550	800	325		550	75	50	300	250	600	

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Future (2028) Background
Time Period: Evening Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB	NE	SB		EB		WB	
	LR	LR	L	R	LT	R	L	LT
01: West Village 3 Road & S.R. 32		50						50
02: S.R. 32 & Cummings RV Park Access				75	75			
03: West Benloch Ranch Road & S.R. 32	50							
04: East Benloch Ranch Road & S.R. 32	75							

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Future (2028) Background
Time Period: Evening Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB			NE			SB			SW		W
	L	R	T	L	LR	TR	L	R	T	L	TR	B LT
01: S.R. 32 & U.S. 40	375	300	550	350		1,000	725	875	2,825	225	550	

Intersection	NB			NE			SB			SW		WB
	L	R	T	L	LR	TR	L	R	T	L	TR	LT
01: River Road/S.R. 32 & U.S. 40	300	475	650	325		450	75	50	300	350	400	

Intersection	NB			NE				SB			SW			WB
	L	R	T	L	LR	R	T	L	R	T	L	R	T	LT
01: River Road/S.R. 32 & U.S. 40	300	225	450	250		125	175	225	75	475	450	100	375	

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Future (2028) Plus Project

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB						NE	N W	SB			EB			WB	
	L	LR	LT	LTR	R	TR	LR	LT	L	LTR	TR	L	R	T	L	LR
01: West Village 3 Road & S.R. 32			75		50					125		75				
02: Ambush Drive/RV Park Access & S.R. 32	425					250			25		50					50
03: West Benloch Ranch Road & S.R. 32		75														
04: East Benloch Ranch Road & S.R. 32		75														
05: East Village 1 Road & West Village 3 Road																75
06: Marcella Ridge Drive & Ambush Drive								50								
07: West Village 1 Road & S.R. 32		1,075														50
08: East Village 1 Road & S.R. 32				1,725						75		50				50

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Future (2028) Plus Project
Time Period: Morning Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB			NE			SB			SW		
	L	R	T	L	R	T	L	R	T	L	R	T
01: River Road/S.R. 32 & U.S. 40	375	600	6,400	300	75	175	725	50	1,625	775	375	1,375

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Future (2028) Plus Project

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

Project #: UT23-2490

Intersection	NB						NE	N W	SB			SE	EB			WB			
	L	LR	LT	LTR	R	TR	LR	LT	L	LTR	TR	LT	L	R	T	L	LR	R	TR
01: West Village 3 Road & S.R. 32			425		200				175				75			50			
02: Ambush Drive/RV Park Access & S.R. 32	250					100				50			50			50			
03: West Benloch Ranch Road & S.R. 32		50																	
04: East Benloch Ranch Road & S.R. 32		50																	
05: East Village 1 Road & West Village 3 Road																			75
06: Marcella Ridge Drive & Ambush Drive																			
07: West Village 1 Road & S.R. 32	1,275															50			
08: East Village 1 Road & S.R. 32				1,550					75				50			75			

Intersection	NB			NE			SB			SW		
	L	R	T	L	R	T	L	R	T	L	R	T
01: River Road/S.R. 32 & U.S. 40	350	475	6,075	225	225	350	650	500	3,950	725	200	1,200

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Future (2028) Mitigated Plus Project

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB				NE	N W	SB		EB			WB			
	L	LR	R	TR	LR	LT	L	TR	L	R	T	L	LR	T	TR
01: West Village 3 Road & S.R. 32	75			50			50	75	75	50	125	50		150	150
02: Ambush Drive/RV Park Access & S.R. 32	150			50				50	50	75	225	50		125	125
03: West Benloch Ranch Road & S.R. 32		75													
04: East Benloch Ranch Road & S.R. 32		50													
05: East Village 1 Road & West Village 3 Road													75		
06: Marcella Ridge Drive & Ambush Drive						50									
07: West Village 1 Road & S.R. 32	75		50									50			
08: East Village 1 Road & S.R. 32	225			50			50	50	50	75	150	100		175	200

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge Villages 1 & 3
Analysis: Future (2028) Mitigated Plus Project
Time Period: Morning Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

HALES ENGINEERING
 innovative transportation solutions

Project #: UT23-2490

Intersection	NB			NE			SB			SW		
	L	R	T	L	R	T	L	R	T	L	R	T
01: River Road/S.R. 32 & U.S. 40	150	50	350	225	75	125	150	50	150	525	300	350

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Future (2028) Mitigated Plus Project

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB				NE	N W	SB		SE	EB			WB				
	L	LR	R	TR	LR	LT	L	TR	LT	L	R	T	L	LR	T	TR	
01: West Village 3 Road & S.R. 32	100			50			50	75		100	50	200	75		200	225	
02: Ambush Drive/RV Park Access & S.R. 32	125			50				50			75	75	200	75		125	150
03: West Benloch Ranch Road & S.R. 32		75															
04: East Benloch Ranch Road & S.R. 32		50															
05: East Village 1 Road & West Village 3 Road														75			
06: Marcella Ridge Drive & Ambush Drive																	
07: West Village 1 Road & S.R. 32	50		50										50				
08: East Village 1 Road & S.R. 32	250			75			50	50		50	75	175	125		200	200	

Intersection	NB		NE			SB			SW		
	L	T	L	R	T	L	R	T	L	R	T
01: River Road/S.R. 32 & U.S. 40	175	300	175	150	200	350	175	475	575	175	175

Intersection	NB	NE	SB		EB		WB	
	LR	LR	L	R	LT	R	L	LT
01: West Village 3 Road & S.R. 32		50						50
02: S.R. 32 & Cummings RV Park Access				50	50			
03: West Benloch Ranch Road & S.R. 32	150							
04: East Benloch Ranch Road & S.R. 32	100							

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Future (2050) Background
Time Period: Morning Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB			NE				SB			SW			WB
	L	R	T	L	LR	R	T	L	R	T	L	R	T	LT
01: River Road/S.R. 32 & U.S. 40	525	625	1,825	325		125	1,500	750	125	1,625	425	250	1,050	

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Future (2050) Background
Time Period: Evening Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB	NE	SB		EB		WB		
	LR	LR	L	R	LT	R	L	LT	TR
01: West Village 3 Road & S.R. 32		50							50
02: S.R. 32 & Cummings RV Park Access				50	125				
03: West Benloch Ranch Road & S.R. 32	100						50		
04: East Benloch Ranch Road & S.R. 32	75						50		

SimTraffic Queueing Report
Project: Heber Jordanelle Ridge East Villages
Analysis: Future (2050) Background
Time Period: Evening Peak Hour
 95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB			NE			SB			SW		WB
	L	R	T	L	LR	TR	L	R	T	L	TR	LT
01: S.R. 32 & U.S. 40	475	375	1,850	375		1,150	750	875	2,625	250	550	

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Future (2050) Plus Project

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

Project #: UT23-2490

Intersection	NB				NE	N W	SB		SE		EB			WB			
	L	LR	R	TR	LR	LT	L	TR	R	T	L	R	T	L	LR	T	TR
01: West Village 3 Road & S.R. 32	75			50			75	100			100	50	175	50		250	250
02: Ambush Drive/RV Park Access & S.R. 32	325			150				50			50	125	575	125		325	350
03: West Benloch Ranch Road & S.R. 32			1,050											75			
04: East Benloch Ranch Road & S.R. 32			925											50			
05: East Village 1 Road & West Village 3 Road															75		
06: Marcella Ridge Drive & Ambush Drive					50	75				50							
07: West Village 1 Road & S.R. 32	100		75											50			
08: East Village 1 Road & S.R. 32	250			75			50	75			75	75	350	450		1,100	1,100

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Future (2050) Plus Project

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB				NE	N W	SB		SE		EB			WB			
	L	LR	R	TR	LR	LT	L	TR	LT	T	L	R	T	L	LR	T	TR
01: West Village 3 Road & S.R. 32	125			50			75	100			100	50	300	100		350	350
02: Ambush Drive/RV Park Access & S.R. 32	250			100			50	50			75	175	500	925		1,175	1,000
03: West Benloch Ranch Road & S.R. 32		1,025										50		150		50	
04: East Benloch Ranch Road & S.R. 32		125												50			
05: East Village 1 Road & West Village 3 Road															75		
06: Marcella Ridge Drive & Ambush Drive					50	50			75								
07: West Village 1 Road & S.R. 32	1,175		300									1,175	2,225	125			
08: East Village 1 Road & S.R. 32	425			225			50	50			650	1,025	1,225	200		300	300

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Future (2050) Mitigated Plus Project

Time Period: Morning Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft



Project #: UT23-2490

Intersection	NB			NE	NW	SB		SE	EB			WB			
	L	R	TR	LR	LT	L	TR	T	L	R	T	L	LR	T	TR
01: West Village 3 Road & S.R. 32	100		50			75	125		125	50	200	50		400	425
02: Ambush Drive/RV Park Access & S.R. 32	250		125			50	50		50	100	375	100		275	300
03: West Benloch Ranch Road & S.R. 32	325	250								100	225	100		350	
04: East Benloch Ranch Road & S.R. 32	225	75								75	175	75		125	
05: East Village 1 Road & West Village 3 Road													75		
06: Marcella Ridge Drive & Ambush Drive				50	100			50							
07: West Village 1 Road & S.R. 32		75												100	
08: East Village 1 Road & S.R. 32	350		100			50	50		75	75	250	100		300	300

SimTraffic Queueing Report

Project: Heber Jordanelle Ridge East Villages

Analysis: Future (2050) Mitigated Plus Project

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

Project #: UT23-2490

Intersection	NB			NE		N W		SB		SE		EB			WB			
	L	R	TR	LR	LT	L	TR	LT	T	L	R	T	L	LR	T	TR		
01: West Village 3 Road & S.R. 32	125		50			75	100						150	50	250	100	375	375
02: Ambush Drive/RV Park Access & S.R. 32	250		150				75						100	275	500	175	275	275
03: West Benloch Ranch Road & S.R. 32	250	75											175	175	575		300	
04: East Benloch Ranch Road & S.R. 32	125	50											75	125	100		125	
05: East Village 1 Road & West Village 3 Road																75		
06: Marcella Ridge Drive & Ambush Drive				50	50				100									
07: West Village 1 Road & S.R. 32		50													50			
08: East Village 1 Road & S.R. 32	375		150			50	50						75	75	400	150	250	275

APPENDIX E

Detailed Trip Generation

**Phase 1 Trip Generation
Heber - Jordanelle Ridge Villages**

POD	Land Use ¹	# of Units	Unit Type	Trip Generation					Reductions			New Trips		
				Total	% In	% Out	In	Out	Internal Capture	% Unoccupied	Pass-by	In	Out	Total
Weekday Daily														
7a	Single-Family Detached Housing (210)	17	DU	198	50%	50%	99	99	3%	15%	0%	81	82	163
7b	Single-Family Detached Housing (210)	8	DU	100	50%	50%	50	50	3%	15%	0%	41	41	82
9a	Single-Family Detached Housing (210)	22	DU	252	50%	50%	126	126	3%	15%	0%	104	104	208
9b	Single-Family Detached Housing (210)	26	DU	294	50%	50%	147	147	3%	15%	0%	121	121	242
10a	Single-Family Detached Housing (210)	12	DU	144	50%	50%	72	72	3%	15%	0%	60	59	119
10b	Single-Family Detached Housing (210)	18	DU	210	50%	50%	105	105	3%	15%	0%	86	87	173
10c	Single-Family Detached Housing (210)	9	DU	112	50%	50%	56	56	3%	15%	0%	46	46	92
10d	Single-Family Detached Housing (210)	5	DU	66	50%	50%	33	33	3%	15%	0%	27	27	54
11a	Single-Family Detached Housing (210)	40	DU	436	50%	50%	218	218	3%	15%	0%	179	180	359
11b	Single-Family Detached Housing (210)	6	DU	76	50%	50%	38	38	3%	15%	0%	32	31	63
11c	Single-Family Detached Housing (210)	7	DU	88	50%	50%	44	44	3%	15%	0%	37	36	73
24	Single-Family Detached Housing (210)	19	DU	220	50%	50%	110	110	3%	15%	0%	90	91	181
25	Single-Family Detached Housing (210)	60	DU	632	50%	50%	316	316	3%	15%	0%	260	261	521
G	Golf Course	36	Holes	1,094	50%	50%	547	547	3%	0%	0%	530	531	1,061
TOTAL				3,922			1,961	1,961				1,694	1,697	3,391
AM Peak Hour														
7a	Single-Family Detached Housing (210)	17	DU	16	26%	74%	4	12	2%	15%	0%	3	10	13
7b	Single-Family Detached Housing (210)	8	DU	8	26%	74%	2	6	2%	15%	0%	2	5	7
9a	Single-Family Detached Housing (210)	22	DU	20	26%	74%	5	15	2%	15%	0%	5	12	17
9b	Single-Family Detached Housing (210)	26	DU	22	26%	74%	6	16	2%	15%	0%	5	13	18
10a	Single-Family Detached Housing (210)	12	DU	12	26%	74%	3	9	2%	15%	0%	3	7	10
10b	Single-Family Detached Housing (210)	18	DU	16	26%	74%	4	12	2%	15%	0%	3	10	13
10c	Single-Family Detached Housing (210)	9	DU	10	26%	74%	3	7	2%	15%	0%	2	6	8
10d	Single-Family Detached Housing (210)	5	DU	6	26%	74%	2	4	2%	15%	0%	2	3	5
11a	Single-Family Detached Housing (210)	40	DU	34	26%	74%	9	25	2%	15%	0%	7	21	28
11b	Single-Family Detached Housing (210)	6	DU	6	26%	74%	2	4	2%	15%	0%	2	3	5
11c	Single-Family Detached Housing (210)	7	DU	8	26%	74%	2	6	2%	15%	0%	2	5	7
24	Single-Family Detached Housing (210)	19	DU	18	26%	74%	5	13	2%	15%	0%	4	11	15
25	Single-Family Detached Housing (210)	60	DU	48	26%	74%	12	36	2%	15%	0%	10	30	40
G	Golf Course	36	Holes	64	79%	21%	51	13	2%	0%	0%	50	13	63
TOTAL				288			110	178				100	149	249
PM Peak Hour														
7a	Single-Family Detached Housing (210)	17	DU	20	63%	37%	13	7	5%	15%	0%	10	6	16
7b	Single-Family Detached Housing (210)	8	DU	10	63%	37%	6	4	5%	15%	0%	5	3	8
9a	Single-Family Detached Housing (210)	22	DU	24	63%	37%	15	9	5%	15%	0%	12	7	19
9b	Single-Family Detached Housing (210)	26	DU	30	63%	37%	19	11	5%	15%	0%	15	9	24
10a	Single-Family Detached Housing (210)	12	DU	14	63%	37%	9	5	5%	15%	0%	7	4	11
10b	Single-Family Detached Housing (210)	18	DU	20	63%	37%	13	7	5%	15%	0%	10	6	16
10c	Single-Family Detached Housing (210)	9	DU	12	63%	37%	8	4	5%	15%	0%	7	3	10
10d	Single-Family Detached Housing (210)	5	DU	6	63%	37%	4	2	5%	15%	0%	3	2	5
11a	Single-Family Detached Housing (210)	40	DU	42	63%	37%	26	16	5%	15%	0%	21	13	34
11b	Single-Family Detached Housing (210)	6	DU	8	63%	37%	5	3	5%	15%	0%	4	2	6
11c	Single-Family Detached Housing (210)	7	DU	10	63%	37%	6	4	5%	15%	0%	5	3	8
24	Single-Family Detached Housing (210)	19	DU	22	63%	37%	14	8	5%	15%	0%	12	6	18
25	Single-Family Detached Housing (210)	60	DU	62	63%	37%	39	23	5%	15%	0%	31	19	50
G	Golf Course	36	Holes	106	53%	47%	56	50	5%	0%	0%	53	48	101
TOTAL				386			233	153				195	131	326

¹ Land Use Code from the Institute of Transportation Engineers (ITE) *Trip Generation*, 11th Edition, 2021.
SOURCE: Hales Engineering, April 2025

**Phase 2 Trip Generation
Heber - Jordanelle Ridge Villages**

POD	Land Use ¹	# of Units	Unit Type	Trip Generation					Reductions			New Trips		
				Total	% In	% Out	In	Out	Internal Capture	% Unoccupied	Pass-by	In	Out	Total
Weekday Daily														
1	Multifamily Housing (Low-Rise) (220)	144	DU	1,000	50%	50%	500	500	3%	15%	0%	413	412	825
2	Hotel (310)	350	Rooms	2,798	50%	50%	1,399	1,399	3%	0%	0%	1,357	1,357	2,714
2	High-Turnover (Sit-Down) Restaurant (932)	15	KSF	1,608	50%	50%	804	804	3%	0%	15%	663	663	1,326
2	Strip Retail Plaza, <40k (822)	10	KSF	546	50%	50%	273	273	3%	0%	5%	251	252	503
2	Rec-Ice Ribbon	150	People	450	50%	50%	225	225	3%	0%	0%	219	218	437
3	Strip Retail Plaza, <40k (822)	5	KSF	274	50%	50%	137	137	3%	0%	5%	126	126	252
4	Single-Family Attached Housing (215)	209	DU	1,544	50%	50%	772	772	3%	15%	0%	636	637	1,273
5	Single-Family Detached Housing (210)	108	DU	1,084	50%	50%	542	542	3%	15%	0%	447	447	894
6	Single-Family Attached Housing (215)	189	DU	1,390	50%	50%	695	695	3%	15%	0%	573	573	1,146
8	Multifamily Housing (Low-Rise) (220)	200	DU	1,358	50%	50%	679	679	3%	15%	0%	560	560	1,120
8	Hotel (310)	200	Rooms	1,598	50%	50%	799	799	3%	0%	0%	775	775	1,550
8	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	536	50%	50%	268	268	3%	0%	15%	221	221	442
8	Strip Retail Plaza, <40k (822)	5	KSF	274	50%	50%	137	137	3%	0%	5%	126	126	252
23	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	536	50%	50%	268	268	3%	0%	15%	221	221	442
23	Strip Retail Plaza, <40k (822)	5	KSF	274	50%	50%	137	137	3%	0%	5%	126	126	252
7a	Single-Family Detached Housing (210)	17	DU	198	50%	50%	99	99	3%	15%	0%	81	82	163
7b	Single-Family Detached Housing (210)	8	DU	100	50%	50%	50	50	3%	15%	0%	41	41	82
9a	Single-Family Detached Housing (210)	22	DU	252	50%	50%	126	126	3%	15%	0%	104	104	208
9b	Single-Family Detached Housing (210)	26	DU	294	50%	50%	147	147	3%	15%	0%	121	121	242
10a	Single-Family Detached Housing (210)	12	DU	144	50%	50%	72	72	3%	15%	0%	60	59	119
10b	Single-Family Detached Housing (210)	18	DU	210	50%	50%	105	105	3%	15%	0%	86	87	173
10c	Single-Family Detached Housing (210)	9	DU	112	50%	50%	56	56	3%	15%	0%	46	46	92
10d	Single-Family Detached Housing (210)	5	DU	66	50%	50%	33	33	3%	15%	0%	27	27	54
11a	Single-Family Detached Housing (210)	40	DU	436	50%	50%	218	218	3%	15%	0%	179	180	359
11b	Single-Family Detached Housing (210)	6	DU	76	50%	50%	38	38	3%	15%	0%	32	31	63
11c	Single-Family Detached Housing (210)	7	DU	88	50%	50%	44	44	3%	15%	0%	37	36	73
24	Single-Family Detached Housing (210)	19	DU	220	50%	50%	110	110	3%	15%	0%	90	91	181
25	Single-Family Detached Housing (210)	60	DU	632	50%	50%	316	316	3%	15%	0%	260	261	521
G	Golf Course	36	Holes	1,094	50%	50%	547	547	3%	0%	0%	530	531	1,061
26	Single-Family Detached Housing (210)	58	DU	612	50%	50%	306	306	3%	15%	0%	253	252	505
27	Senior Adult Housing - Single-Family (251)	900	DU	3,880	50%	50%	1,940	1,940	3%	15%	0%	1,599	1,600	3,199
S1	Single-Family Detached Housing (210)	350	DU	3,196	50%	50%	1,598	1,598	3%	15%	0%	1,317	1,318	2,635
TOTAL				26,880			13,440	13,440				11,577	11,581	23,158
AM Peak Hour														
1	Multifamily Housing (Low-Rise) (220)	144	DU	68	24%	76%	16	52	2%	15%	0%	14	43	57
2	Hotel (310)	350	Rooms	168	56%	44%	94	74	2%	0%	0%	92	73	165
2	High-Turnover (Sit-Down) Restaurant (932)	15	KSF	144	55%	45%	79	65	2%	0%	40%	47	38	85
2	Strip Retail Plaza, <40k (822)	10	KSF	24	60%	40%	14	10	2%	0%	15%	12	8	20
2	Rec-Ice Ribbon	150	People	76	50%	50%	38	38	2%	0%	0%	37	37	74
3	Strip Retail Plaza, <40k (822)	5	KSF	12	60%	40%	7	5	2%	0%	15%	6	4	10
4	Single-Family Attached Housing (215)	209	DU	104	31%	69%	32	72	2%	15%	0%	27	60	87
5	Single-Family Detached Housing (210)	108	DU	80	26%	74%	21	59	2%	15%	0%	18	49	67
6	Single-Family Attached Housing (215)	189	DU	94	31%	69%	29	65	2%	15%	0%	24	54	78
8	Multifamily Housing (Low-Rise) (220)	200	DU	86	24%	76%	21	65	2%	15%	0%	18	54	72
8	Hotel (310)	200	Rooms	94	56%	44%	53	41	2%	0%	0%	52	40	92
8	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	48	55%	45%	26	22	2%	0%	40%	15	13	28
8	Strip Retail Plaza, <40k (822)	5	KSF	12	60%	40%	7	5	2%	0%	15%	6	4	10
23	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	48	55%	45%	26	22	2%	0%	40%	15	13	28
23	Strip Retail Plaza, <40k (822)	5	KSF	12	60%	40%	7	5	2%	0%	15%	6	4	10
7a	Single-Family Detached Housing (210)	17	DU	16	26%	74%	4	12	2%	15%	0%	3	10	13
7b	Single-Family Detached Housing (210)	8	DU	8	26%	74%	2	6	2%	15%	0%	2	5	7
9a	Single-Family Detached Housing (210)	22	DU	20	26%	74%	5	15	2%	15%	0%	5	12	17
9b	Single-Family Detached Housing (210)	26	DU	22	26%	74%	6	16	2%	15%	0%	5	13	18
10a	Single-Family Detached Housing (210)	12	DU	12	26%	74%	3	9	2%	15%	0%	3	7	10
10b	Single-Family Detached Housing (210)	18	DU	16	26%	74%	4	12	2%	15%	0%	3	10	13
10c	Single-Family Detached Housing (210)	9	DU	10	26%	74%	3	7	2%	15%	0%	2	6	8
10d	Single-Family Detached Housing (210)	5	DU	6	26%	74%	2	4	2%	15%	0%	2	3	5
11a	Single-Family Detached Housing (210)	40	DU	34	26%	74%	9	25	2%	15%	0%	7	21	28
11b	Single-Family Detached Housing (210)	6	DU	6	26%	74%	2	4	2%	15%	0%	2	3	5
11c	Single-Family Detached Housing (210)	7	DU	8	26%	74%	2	6	2%	15%	0%	2	5	7
24	Single-Family Detached Housing (210)	19	DU	18	26%	74%	5	13	2%	15%	0%	4	11	15
25	Single-Family Detached Housing (210)	60	DU	48	26%	74%	12	36	2%	15%	0%	10	30	40
G	Golf Course	36	Holes	64	29%	21%	51	13	2%	0%	0%	50	13	63
26	Single-Family Detached Housing (210)	58	DU	46	26%	74%	12	34	2%	15%	0%	10	28	38
27	Senior Adult Housing - Single-Family (251)	900	DU	208	33%	67%	69	139	2%	15%	0%	57	116	173
S1	Single-Family Detached Housing (210)	350	DU	234	26%	74%	61	173	2%	15%	0%	51	144	195
TOTAL				1,846			722	1,124				607	931	1,538
PM Peak Hour														
1	Multifamily Housing (Low-Rise) (220)	144	DU	84	63%	37%	53	31	5%	15%	0%	43	25	68
2	Hotel (310)	350	Rooms	232	51%	49%	118	114	5%	0%	0%	112	108	220
2	High-Turnover (Sit-Down) Restaurant (932)	15	KSF	136	61%	39%	83	53	5%	0%	40%	48	30	78
2	Strip Retail Plaza, <40k (822)	10	KSF	78	50%	50%	39	39	5%	0%	15%	32	31	63
2	Rec-Ice Ribbon	150	People	76	50%	50%	38	38	5%	0%	0%	36	36	72
3	Strip Retail Plaza, <40k (822)	5	KSF	48	50%	50%	24	24	5%	0%	15%	20	19	39
4	Single-Family Attached Housing (215)	209	DU	122	57%	43%	70	52	5%	15%	0%	57	42	99
5	Single-Family Detached Housing (210)	108	DU	108	63%	37%	68	40	5%	15%	0%	55	32	87

6	Single-Family Attached Housing (215)	189	DU	110	57%	43%	63	47	5%	15%	0%	51	38	89
8	Multifamily Housing (Low-Rise) (220)	200	DU	108	63%	37%	68	40	5%	15%	0%	55	32	87
8	Hotel (310)	200	Rooms	122	51%	49%	62	60	5%	0%	0%	59	57	116
8	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	46	61%	39%	28	18	5%	0%	40%	16	10	26
8	Strip Retail Plaza, <40k (822)	5	KSF	48	50%	50%	24	24	5%	0%	15%	20	19	39
23	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	46	61%	39%	28	18	5%	0%	40%	16	10	26
23	Strip Retail Plaza, <40k (822)	5	KSF	48	50%	50%	24	24	5%	0%	15%	20	19	39
7a	Single-Family Detached Housing (210)	17	DU	20	63%	37%	13	7	5%	15%	0%	10	6	16
7b	Single-Family Detached Housing (210)	8	DU	10	63%	37%	6	4	5%	15%	0%	5	3	8
9a	Single-Family Detached Housing (210)	22	DU	24	63%	37%	15	9	5%	15%	0%	12	7	19
9b	Single-Family Detached Housing (210)	26	DU	30	63%	37%	19	11	5%	15%	0%	15	9	24
10a	Single-Family Detached Housing (210)	12	DU	14	63%	37%	9	5	5%	15%	0%	7	4	11
10b	Single-Family Detached Housing (210)	18	DU	20	63%	37%	13	7	5%	15%	0%	10	6	16
10c	Single-Family Detached Housing (210)	9	DU	12	63%	37%	8	4	5%	15%	0%	7	3	10
10d	Single-Family Detached Housing (210)	5	DU	6	63%	37%	4	2	5%	15%	0%	3	2	5
11a	Single-Family Detached Housing (210)	40	DU	42	63%	37%	26	16	5%	15%	0%	21	13	34
11b	Single-Family Detached Housing (210)	6	DU	8	63%	37%	5	3	5%	15%	0%	4	2	6
11c	Single-Family Detached Housing (210)	7	DU	10	63%	37%	6	4	5%	15%	0%	5	3	8
24	Single-Family Detached Housing (210)	19	DU	22	63%	37%	14	8	5%	15%	0%	12	6	18
25	Single-Family Detached Housing (210)	60	DU	62	63%	37%	39	23	5%	15%	0%	31	19	50
G	Golf Course	36	Holes	106	53%	47%	56	50	5%	0%	0%	53	48	101
26	Single-Family Detached Housing (210)	58	DU	60	63%	37%	38	22	5%	15%	0%	30	18	48
27	Senior Adult Housing - Single-Family (251)	900	DU	248	61%	39%	151	97	5%	15%	0%	122	78	200
S1	Single-Family Detached Housing (210)	350	DU	324	63%	37%	204	120	5%	15%	0%	165	97	262
TOTAL				2,430			1,416	1,014				1,152	832	1,984

1. Land Use Code from the Institute of Transportation Engineers (ITE) *Trip Generation*, 11th Edition, 2021.
SOURCE: Hales Engineering, April 2025

**Full Build Trip Generation
Heber - Jordanelle Ridge Villages**

POD	Land Use ¹	# of Units	Unit Type	Trip Generation					Reductions			New Trips		
				Total	% In	% Out	In	Out	Internal Capture	% Unoccupied	Pass-by	In	Out	Total
Weekday Daily														
1	Multifamily Housing (Low-Rise) (220)	144	DU	1,000	50%	50%	500	500	3%	15%	0%	413	412	825
2	Hotel (310)	350	Rooms	2,798	50%	50%	1,399	1,399	3%	0%	0%	1,357	1,357	2,714
2	High-Turnover (Sit-Down) Restaurant (932)	15	KSF	1,608	50%	50%	804	804	3%	0%	15%	663	663	1,326
2	Strip Retail Plaza, <40k (822)	10	KSF	546	50%	50%	273	273	3%	0%	5%	251	252	503
2	Rec-Ice Ribbon	150	People	450	50%	50%	225	225	3%	0%	0%	219	218	437
3	Strip Retail Plaza, <40k (822)	5	KSF	274	50%	50%	137	137	3%	0%	5%	126	126	252
4	Single-Family Attached Housing (215)	209	DU	1,544	50%	50%	772	772	3%	15%	0%	636	637	1,273
5	Single-Family Detached Housing (210)	108	DU	1,084	50%	50%	542	542	3%	15%	0%	447	447	894
6	Single-Family Attached Housing (215)	189	DU	1,390	50%	50%	695	695	3%	15%	0%	573	573	1,146
8	Multifamily Housing (Low-Rise) (220)	200	DU	1,358	50%	50%	679	679	3%	15%	0%	560	560	1,120
8	Hotel (310)	200	Rooms	1,598	50%	50%	799	799	3%	0%	0%	775	775	1,550
8	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	536	50%	50%	268	268	3%	0%	15%	221	221	442
8	Strip Retail Plaza, <40k (822)	5	KSF	274	50%	50%	137	137	3%	0%	5%	126	126	252
23	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	536	50%	50%	268	268	3%	0%	15%	221	221	442
23	Strip Retail Plaza, <40k (822)	5	KSF	274	50%	50%	137	137	3%	0%	5%	126	126	252
7a	Single-Family Detached Housing (210)	17	DU	198	50%	50%	99	99	9%	15%	0%	76	77	153
7b	Single-Family Detached Housing (210)	8	DU	100	50%	50%	50	50	9%	15%	0%	38	39	77
9a	Single-Family Detached Housing (210)	22	DU	252	50%	50%	126	126	9%	15%	0%	98	97	195
9b	Single-Family Detached Housing (210)	26	DU	294	50%	50%	147	147	9%	15%	0%	113	114	227
10a	Single-Family Detached Housing (210)	12	DU	144	50%	50%	72	72	9%	15%	0%	55	56	111
10b	Single-Family Detached Housing (210)	18	DU	210	50%	50%	105	105	9%	15%	0%	81	81	162
10c	Single-Family Detached Housing (210)	9	DU	112	50%	50%	56	56	9%	15%	0%	44	43	87
10d	Single-Family Detached Housing (210)	5	DU	66	50%	50%	33	33	9%	15%	0%	25	26	51
11a	Single-Family Detached Housing (210)	40	DU	436	50%	50%	218	218	9%	15%	0%	168	169	337
11b	Single-Family Detached Housing (210)	6	DU	76	50%	50%	38	38	9%	15%	0%	30	29	59
11c	Single-Family Detached Housing (210)	7	DU	88	50%	50%	44	44	9%	15%	0%	34	34	68
24	Single-Family Detached Housing (210)	19	DU	220	50%	50%	110	110	9%	15%	0%	85	85	170
25	Single-Family Detached Housing (210)	60	DU	632	50%	50%	316	316	9%	15%	0%	245	244	489
G	Golf Course	36	Holes	1,094	50%	50%	547	547	3%	0%	0%	530	531	1,061
26	Single-Family Detached Housing (210)	58	DU	612	50%	50%	306	306	9%	15%	0%	236	237	473
27	Senior Adult Housing - Single-Family (251)	900	DU	3,880	50%	50%	1,940	1,940	3%	15%	0%	1,599	1,600	3,199
S1	Single-Family Detached Housing (210)	350	DU	3,196	50%	50%	1,598	1,598	9%	15%	0%	1,236	1,236	2,472
31	Single-Family Detached Housing (210)	17	DU	198	50%	50%	99	99	9%	15%	0%	76	77	153
32	Single-Family Detached Housing (210)	38	DU	416	50%	50%	208	208	9%	15%	0%	161	161	322
33	Single-Family Detached Housing (210)	55	DU	584	50%	50%	292	292	9%	15%	0%	226	226	452
34	Single-Family Detached Housing (210)	69	DU	718	50%	50%	359	359	9%	15%	0%	277	278	555
35	Single-Family Detached Housing (210)	185	DU	1,778	50%	50%	889	889	9%	15%	0%	687	688	1,375
36	Single-Family Detached Housing (210)	101	DU	1,020	50%	50%	510	510	9%	15%	0%	395	394	789
38	Single-Family Detached Housing (210)	127	DU	1,258	50%	50%	629	629	9%	15%	0%	486	487	973
39	Single-Family Detached Housing (210)	49	DU	524	50%	50%	262	262	9%	15%	0%	202	203	405
40	Single-Family Detached Housing (210)	21	DU	242	50%	50%	121	121	9%	15%	0%	93	94	187
41	Single-Family Detached Housing (210)	217	DU	2,060	50%	50%	1,030	1,030	9%	15%	0%	796	797	1,593
42	Single-Family Detached Housing (210)	99	DU	1,000	50%	50%	500	500	9%	15%	0%	387	387	774
43	Single-Family Detached Housing (210)	244	DU	2,294	50%	50%	1,147	1,147	9%	15%	0%	887	887	1,774
44	Single-Family Detached Housing (210)	318	DU	2,926	50%	50%	1,463	1,463	9%	15%	0%	1,131	1,132	2,263
45	Elementary School (520)	550	Students	1,250	50%	50%	625	625	50%	0%	0%	312	313	625
45	Fire Station	13.5	KSF	50	50%	50%	25	25	3%	0%	0%	25	24	49
46	Middle School (522)	650	Students	1,366	50%	50%	683	683	50%	0%	0%	341	342	683
46	Single-Family Detached Housing (210)	163	DU	1,582	50%	50%	791	791	9%	15%	0%	612	612	1,224
47	Single-Family Detached Housing (210)	189	DU	1,814	50%	50%	907	907	9%	15%	0%	701	702	1,403
48	Single-Family Detached Housing (210)	30	DU	334	50%	50%	167	167	9%	15%	0%	129	129	258
49	Single-Family Detached Housing (210)	115	DU	1,148	50%	50%	574	574	9%	15%	0%	444	444	888
50	Single-Family Detached Housing (210)	64	DU	670	50%	50%	335	335	9%	15%	0%	259	259	518
51	Single-Family Detached Housing (210)	20	DU	230	50%	50%	115	115	9%	15%	0%	89	89	178
52	Single-Family Detached Housing (210)	225	DU	2,128	50%	50%	1,064	1,064	9%	15%	0%	823	823	1,646
TOTAL				52,470			26,235	26,235				20,946	20,960	41,906
AM Peak Hour														
1	Multifamily Housing (Low-Rise) (220)	144	DU	68	24%	76%	16	52	2%	15%	0%	14	43	57
2	Hotel (310)	350	Rooms	168	56%	44%	94	74	2%	0%	0%	92	73	165
2	High-Turnover (Sit-Down) Restaurant (932)	15	KSF	144	55%	45%	79	65	2%	0%	40%	47	38	85
2	Strip Retail Plaza, <40k (822)	10	KSF	24	60%	40%	14	10	2%	0%	15%	12	8	20
2	Rec-Ice Ribbon	150	People	76	50%	50%	38	38	2%	0%	0%	37	37	74
3	Strip Retail Plaza, <40k (822)	5	KSF	12	60%	40%	7	5	2%	0%	15%	6	4	10
4	Single-Family Attached Housing (215)	209	DU	104	31%	69%	32	72	2%	15%	0%	27	60	87
5	Single-Family Detached Housing (210)	108	DU	80	26%	74%	21	59	2%	15%	0%	18	49	67
6	Single-Family Attached Housing (215)	189	DU	94	31%	69%	29	65	2%	15%	0%	24	54	78
8	Multifamily Housing (Low-Rise) (220)	200	DU	86	24%	76%	21	65	2%	15%	0%	18	54	72
8	Hotel (310)	200	Rooms	94	56%	44%	53	41	2%	0%	0%	52	40	92
8	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	48	55%	45%	26	22	2%	0%	40%	15	13	28
8	Strip Retail Plaza, <40k (822)	5	KSF	12	60%	40%	7	5	2%	0%	15%	6	4	10
23	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	48	55%	45%	26	22	2%	0%	40%	15	13	28

23	Strip Retail Plaza, <40k (822)	5	KSF	12	60%	40%	7	5	2%	0%	15%	6	4	10
7a	Single-Family Detached Housing (210)	17	DU	16	26%	74%	4	12	15%	15%	0%	3	9	12
7b	Single-Family Detached Housing (210)	8	DU	8	26%	74%	2	6	15%	15%	0%	2	4	6
9a	Single-Family Detached Housing (210)	22	DU	20	26%	74%	5	15	15%	15%	0%	3	11	14
9b	Single-Family Detached Housing (210)	26	DU	22	26%	74%	6	16	15%	15%	0%	4	12	16
10a	Single-Family Detached Housing (210)	12	DU	12	26%	74%	3	9	15%	15%	0%	2	7	9
10b	Single-Family Detached Housing (210)	18	DU	16	26%	74%	4	12	15%	15%	0%	3	9	12
10c	Single-Family Detached Housing (210)	9	DU	10	26%	74%	3	7	15%	15%	0%	2	5	7
10d	Single-Family Detached Housing (210)	5	DU	6	26%	74%	2	4	15%	15%	0%	1	3	4
11a	Single-Family Detached Housing (210)	40	DU	34	26%	74%	9	25	15%	15%	0%	7	18	25
11b	Single-Family Detached Housing (210)	6	DU	6	26%	74%	2	4	15%	15%	0%	1	3	4
11c	Single-Family Detached Housing (210)	7	DU	8	26%	74%	2	6	15%	15%	0%	2	4	6
24	Single-Family Detached Housing (210)	19	DU	18	26%	74%	5	13	15%	15%	0%	4	9	13
25	Single-Family Detached Housing (210)	60	DU	48	26%	74%	12	36	15%	15%	0%	9	26	35
G	Golf Course	36	Holes	64	79%	21%	51	13	2%	0%	0%	50	13	63
26	Single-Family Detached Housing (210)	58	DU	46	26%	74%	12	34	15%	15%	0%	8	25	33
27	Senior Adult Housing - Single-Family (251)	900	DU	208	33%	67%	69	139	2%	15%	0%	57	116	173
S1	Single-Family Detached Housing (210)	350	DU	234	26%	74%	61	173	15%	15%	0%	44	125	169
31	Single-Family Detached Housing (210)	17	DU	16	26%	74%	4	12	15%	15%	0%	3	9	12
32	Single-Family Detached Housing (210)	38	DU	32	26%	74%	8	24	15%	15%	0%	6	17	23
33	Single-Family Detached Housing (210)	55	DU	44	26%	74%	11	33	15%	15%	0%	8	24	32
34	Single-Family Detached Housing (210)	69	DU	54	26%	74%	14	40	15%	15%	0%	10	29	39
35	Single-Family Detached Housing (210)	185	DU	132	26%	74%	34	98	15%	15%	0%	24	71	95
36	Single-Family Detached Housing (210)	101	DU	76	26%	74%	20	56	15%	15%	0%	15	40	55
38	Single-Family Detached Housing (210)	127	DU	94	26%	74%	24	70	15%	15%	0%	17	51	68
39	Single-Family Detached Housing (210)	49	DU	40	26%	74%	10	30	15%	15%	0%	7	22	29
40	Single-Family Detached Housing (210)	21	DU	20	26%	74%	5	15	15%	15%	0%	3	11	14
41	Single-Family Detached Housing (210)	217	DU	152	26%	74%	40	112	15%	15%	0%	29	81	110
42	Single-Family Detached Housing (210)	99	DU	74	26%	74%	19	55	15%	15%	0%	13	40	53
43	Single-Family Detached Housing (210)	244	DU	168	26%	74%	44	124	15%	15%	0%	31	90	121
44	Single-Family Detached Housing (210)	318	DU	214	26%	74%	56	158	15%	15%	0%	41	114	155
45	Elementary School (520)	550	Students	408	54%	46%	220	188	50%	0%	0%	110	94	204
45	Fire Station	14	KSF	8	0%	0%	0	8	2%	0%	0%	0	8	8
46	Middle School (522)	650	Students	436	54%	46%	235	201	50%	0%	0%	117	101	218
46	Single-Family Detached Housing (210)	163	DU	118	26%	74%	31	87	15%	15%	0%	22	63	85
47	Single-Family Detached Housing (210)	189	DU	134	26%	74%	35	99	15%	15%	0%	25	72	97
48	Single-Family Detached Housing (210)	30	DU	26	26%	74%	7	19	15%	15%	0%	5	14	19
49	Single-Family Detached Housing (210)	115	DU	86	26%	74%	22	64	15%	15%	0%	16	46	62
50	Single-Family Detached Housing (210)	64	DU	50	26%	74%	13	37	15%	15%	0%	9	27	36
51	Single-Family Detached Housing (210)	20	DU	18	26%	74%	5	13	15%	15%	0%	4	9	13
52	Single-Family Detached Housing (210)	225	DU	156	26%	74%	41	115	15%	15%	0%	30	83	113
TOTAL				4,402			1,620	2,782				1,136	2,009	3,145
PM Peak Hour														
1	Multifamily Housing (Low-Rise) (220)	144	DU	84	63%	37%	53	31	5%	15%	0%	43	25	68
2	Hotel (310)	350	Rooms	232	51%	49%	118	114	5%	0%	0%	112	108	220
2	High-Turnover (Sit-Down) Restaurant (932)	15	KSF	136	61%	39%	83	53	5%	0%	40%	48	30	78
2	Strip Retail Plaza, <40k (822)	10	KSF	78	50%	50%	39	39	5%	0%	15%	32	31	63
2	Rec-Ice Ribbon	150	People	76	50%	50%	38	38	5%	0%	0%	36	36	72
3	Strip Retail Plaza, <40k (822)	5	KSF	48	50%	50%	24	24	5%	0%	15%	20	19	39
4	Single-Family Attached Housing (215)	209	DU	122	57%	43%	70	52	5%	15%	0%	57	42	99
5	Single-Family Detached Housing (210)	108	DU	108	63%	37%	68	40	5%	15%	0%	55	32	87
6	Single-Family Attached Housing (215)	189	DU	110	57%	43%	63	47	5%	15%	0%	51	38	89
8	Multifamily Housing (Low-Rise) (220)	200	DU	108	63%	37%	68	40	5%	15%	0%	55	32	87
8	Hotel (310)	200	Rooms	122	51%	49%	62	60	5%	0%	0%	59	57	116
8	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	46	61%	39%	28	18	5%	0%	40%	16	10	26
8	Strip Retail Plaza, <40k (822)	5	KSF	48	50%	50%	24	24	5%	0%	15%	20	19	39
23	High-Turnover (Sit-Down) Restaurant (932)	5	KSF	46	61%	39%	28	18	5%	0%	40%	16	10	26
23	Strip Retail Plaza, <40k (822)	5	KSF	48	50%	50%	24	24	5%	0%	15%	20	19	39
7a	Single-Family Detached Housing (210)	17	DU	20	63%	37%	13	7	5%	15%	0%	10	6	16
7b	Single-Family Detached Housing (210)	8	DU	10	63%	37%	6	4	5%	15%	0%	5	3	8
9a	Single-Family Detached Housing (210)	22	DU	24	63%	37%	15	9	5%	15%	0%	12	7	19
9b	Single-Family Detached Housing (210)	26	DU	30	63%	37%	19	11	5%	15%	0%	15	9	24
10a	Single-Family Detached Housing (210)	12	DU	14	63%	37%	9	5	5%	15%	0%	7	4	11
10b	Single-Family Detached Housing (210)	18	DU	20	63%	37%	13	7	5%	15%	0%	10	6	16
10c	Single-Family Detached Housing (210)	9	DU	12	63%	37%	8	4	5%	15%	0%	7	3	10
10d	Single-Family Detached Housing (210)	5	DU	6	63%	37%	4	2	5%	15%	0%	3	2	5
11a	Single-Family Detached Housing (210)	40	DU	42	63%	37%	26	16	5%	15%	0%	21	13	34
11b	Single-Family Detached Housing (210)	6	DU	8	63%	37%	5	3	5%	15%	0%	4	2	6
11c	Single-Family Detached Housing (210)	7	DU	10	63%	37%	6	4	5%	15%	0%	5	3	8
24	Single-Family Detached Housing (210)	19	DU	22	63%	37%	14	8	5%	15%	0%	12	6	18
25	Single-Family Detached Housing (210)	60	DU	62	63%	37%	39	23	5%	15%	0%	31	19	50
G	Golf Course	36	Holes	106	53%	47%	56	50	5%	0%	0%	53	48	101
26	Single-Family Detached Housing (210)	58	DU	60	63%	37%	38	22	5%	15%	0%	30	18	48
27	Senior Adult Housing - Single-Family (251)	900	DU	248	61%	39%	151	97	5%	15%	0%	122	78	200
S1	Single-Family Detached Housing (210)	350	DU	324	63%	37%	204	120	5%	15%	0%	165	97	262
31	Single-Family Detached Housing (210)	17	DU	20	63%	37%	13	7	5%	15%	0%	10	6	16
32	Single-Family Detached Housing (210)	38	DU	42	63%	37%	26	16	5%	15%	0%	21	13	34
33	Single-Family Detached Housing (210)	55	DU	58	63%	37%	37	21	5%	15%	0%	30	17	47

34	Single-Family Detached Housing (210)	69	DU	72	63%	37%	45	27	5%	15%	0%	36	22	58
35	Single-Family Detached Housing (210)	185	DU	178	63%	37%	112	66	5%	15%	0%	91	53	144
36	Single-Family Detached Housing (210)	101	DU	102	63%	37%	64	38	5%	15%	0%	51	31	82
38	Single-Family Detached Housing (210)	127	DU	126	63%	37%	79	47	5%	15%	0%	64	38	102
39	Single-Family Detached Housing (210)	49	DU	52	63%	37%	33	19	5%	15%	0%	27	15	42
40	Single-Family Detached Housing (210)	21	DU	24	63%	37%	15	9	5%	15%	0%	12	7	19
41	Single-Family Detached Housing (210)	217	DU	206	63%	37%	130	76	5%	15%	0%	105	61	166
42	Single-Family Detached Housing (210)	99	DU	100	63%	37%	63	37	5%	15%	0%	51	30	81
43	Single-Family Detached Housing (210)	244	DU	230	63%	37%	145	85	5%	15%	0%	117	69	186
44	Single-Family Detached Housing (210)	318	DU	296	63%	37%	186	110	5%	15%	0%	150	89	239
45	Elementary School (520)	550	Students	88	46%	54%	40	48	50%	0%	0%	20	24	44
45	Fire Station	14	KSF	12	0%	0%	0	12	5%	0%	0%	0	11	11
45	Middle School (522)	650	Students	98	48%	52%	47	51	50%	0%	0%	23	26	49
46	Single-Family Detached Housing (210)	163	DU	158	63%	37%	100	58	5%	15%	0%	81	47	128
47	Single-Family Detached Housing (210)	189	DU	182	63%	37%	115	67	5%	15%	0%	93	54	147
48	Single-Family Detached Housing (210)	30	DU	34	63%	37%	21	13	5%	15%	0%	17	10	27
49	Single-Family Detached Housing (210)	115	DU	114	63%	37%	72	42	5%	15%	0%	58	34	92
50	Single-Family Detached Housing (210)	64	DU	66	63%	37%	42	24	5%	15%	0%	34	19	53
51	Single-Family Detached Housing (210)	20	DU	22	63%	37%	14	8	5%	15%	0%	12	6	18
52	Single-Family Detached Housing (210)	225	DU	214	63%	37%	135	79	5%	15%	0%	109	64	173
TOTAL				4,924			2,950	1,974				2,364	1,578	3,942

1. Land Use Code from the Institute of Transportation Engineers (ITE) *Trip Generation*, 11th Edition, 2021.

SOURCE: Hales Engineering, April 2025

APPENDIX F

Internal Capture Reduction Spreadsheet

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Jordanelle Ridge East Villages TIS	Organization:	Hales Engineering
Project Location:		Performed By:	
Scenario Description:		Date:	
Analysis Year:		Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office			1,000 SF	0		
Retail			1,000 SF	48	28	20
Restaurant			1,000 SF	240	131	109
Cinema/Entertainment				140	89	51
Residential			Units	1,488	395	1,093
Hotel			Rooms	262	147	115
All Other Land Uses ²				0		
				2,178	790	1,388

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.06	0%	0%	1.06	0%	0%
Retail	1.17	0%	0%	1.17	0%	0%
Restaurant						
Cinema/Entertainment						
Residential	1.13	0%	0%	1.13	0%	0%
Hotel	1.26	0%	0%	1.26	0%	0%
All Other Land Uses ²	1.15	0%	0%	1.15	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		3	0	3	0
Restaurant	0	3		0	4	3
Cinema/Entertainment	0	0	0		0	0
Residential	0	6	26	0		0
Hotel	0	1	8	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	2,447	884	1,563
Internal Capture Percentage	5%	6%	4%
External Vehicle-Trips ⁵	2,073	735	1,338
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	30%	26%
Restaurant	28%	9%
Cinema/Entertainment	0%	0%
Residential	2%	3%
Hotel	2%	6%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in *ITE Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Jordanelle Ridge East Villages TIS	Organization:	Hales Engineering
Project Location:		Performed By:	
Scenario Description:		Date:	
Analysis Year:		Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office			1,000 SF	0		
Retail			1,000 SF	174	87	87
Restaurant			1,000 SF	228	139	89
Cinema/Entertainment				182	94	88
Residential			Units	1,980	1,235	745
Hotel			Rooms	354	180	174
All Other Land Uses ²				0		
				2,918	1,735	1,183

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.11	0%	0%	1.11	0%	0%
Retail	1.21	0%	0%	1.21	0%	0%
Restaurant	1.39	0%	0%	1.39	0%	0%
Cinema/Entertainment						
Residential	1.15	0%	0%	1.15	0%	0%
Hotel	1.30	0%	0%	1.30	0%	0%
All Other Land Uses ²	1.15	0%	0%	1.15	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail					3500	
Restaurant					3500	
Cinema/Entertainment					4000	
Residential		3500	3500			
Hotel					3500	

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		30	4	5	5
Restaurant	0	51		10	4	9
Cinema/Entertainment	0	4	6		1	2
Residential	0	1	3	0		26
Hotel	0	2	10	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	3,446	2,046	1,400
Internal Capture Percentage	10%	8%	12%
External Vehicle-Trips ⁵	2,642	1,597	1,045
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	55%	42%
Restaurant	25%	60%
Cinema/Entertainment	15%	15%
Residential	1%	4%
Hotel	18%	5%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in *ITE Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Jordanelle Ridge East Villages TIS	Organization:	Hales Engineering
Project Location:		Performed By:	
Scenario Description:		Date:	
Analysis Year:	2050	Checked By:	
Analysis Period:	AM Street Peak Hour	Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office			1,000 SF	0		
Retail			1,000 SF	48	28	20
Restaurant			1,000 SF	240	131	109
Cinema/Entertainment				140	89	51
Residential			Units	2,910	764	2,146
Hotel			Rooms	262	147	115
All Other Land Uses ²				0		
				3,600	1,159	2,441

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.06	0%	0%	1.06	0%	0%
Retail	1.17	0%	0%	1.17	0%	0%
Restaurant						
Cinema/Entertainment						
Residential	1.13	0%	0%	1.13	0%	0%
Hotel	1.26	0%	0%	1.26	0%	0%
All Other Land Uses ²	1.15	0%	0%	1.15	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail	0		3	0	3	0
Restaurant	0	3		0	4	3
Cinema/Entertainment	0	0	0		0	0
Residential	0	6	26	0		0
Hotel	0	1	8	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	4,054	1,301	2,753
Internal Capture Percentage	3%	4%	2%
External Vehicle-Trips ⁵	3,496	1,105	2,391
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	30%	26%
Restaurant	28%	9%
Cinema/Entertainment	0%	0%
Residential	1%	1%
Hotel	2%	6%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Jordanelle Ridge East Villages TIS	Organization:	Hales Engineering
Project Location:		Performed By:	
Scenario Description:		Date:	
Analysis Year:	2050	Checked By:	
Analysis Period:	PM Street Peak Hour	Date:	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office			1,000 SF	0		
Retail			1,000 SF	174	87	87
Restaurant			1,000 SF	228	139	89
Cinema/Entertainment				182	94	88
Residential			Units	3,779	2,369	1,410
Hotel			Rooms	354	180	174
All Other Land Uses ²				0		
				4,717	2,869	1,848

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.11	0%	0%	1.11	0%	0%
Retail	1.21	0%	0%	1.21	0%	0%
Restaurant	1.39	0%	0%	1.39	0%	0%
Cinema/Entertainment						
Residential	1.15	0%	0%	1.15	0%	0%
Hotel	1.30	0%	0%	1.30	0%	0%
All Other Land Uses ²	1.15	0%	0%	1.15	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail					12000	
Restaurant					12000	
Cinema/Entertainment					12000	
Residential		12000	12000			
Hotel					12000	

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		30	4	3	5
Restaurant	0	51		10	2	9
Cinema/Entertainment	0	4	6		1	2
Residential	0	1	3	0		28
Hotel	0	2	10	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	5,515	3,350	2,165
Internal Capture Percentage	6%	5%	8%
External Vehicle-Trips ⁵	4,444	2,732	1,712
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	55%	40%
Restaurant	25%	58%
Cinema/Entertainment	15%	15%
Residential	0%	2%
Hotel	19%	5%

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

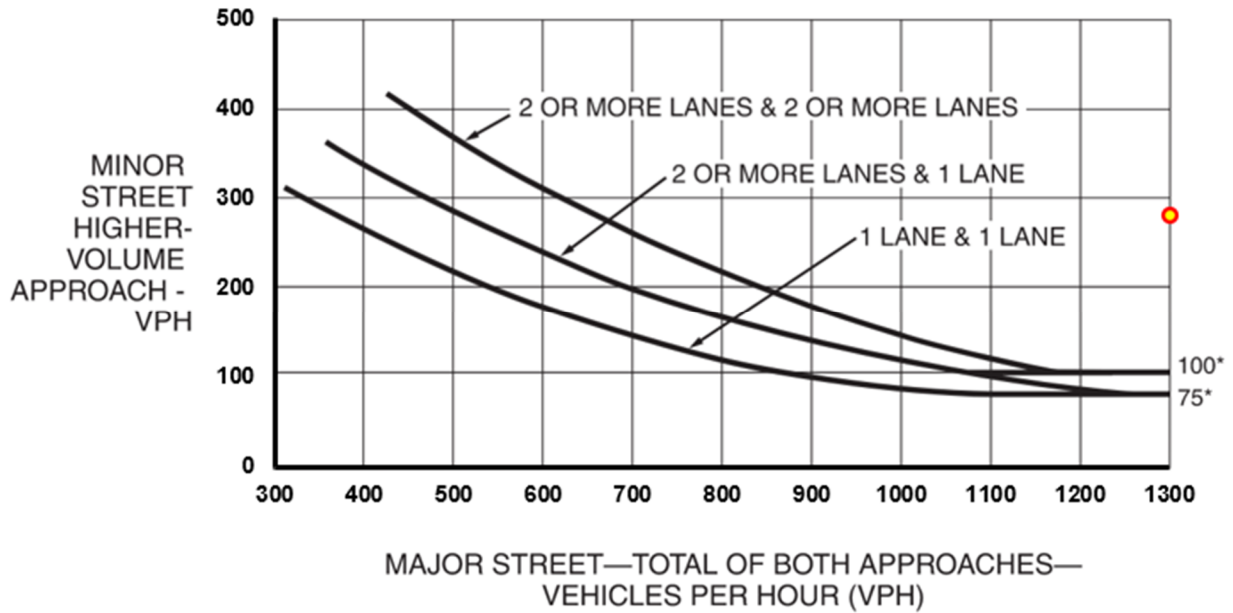
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

APPENDIX G

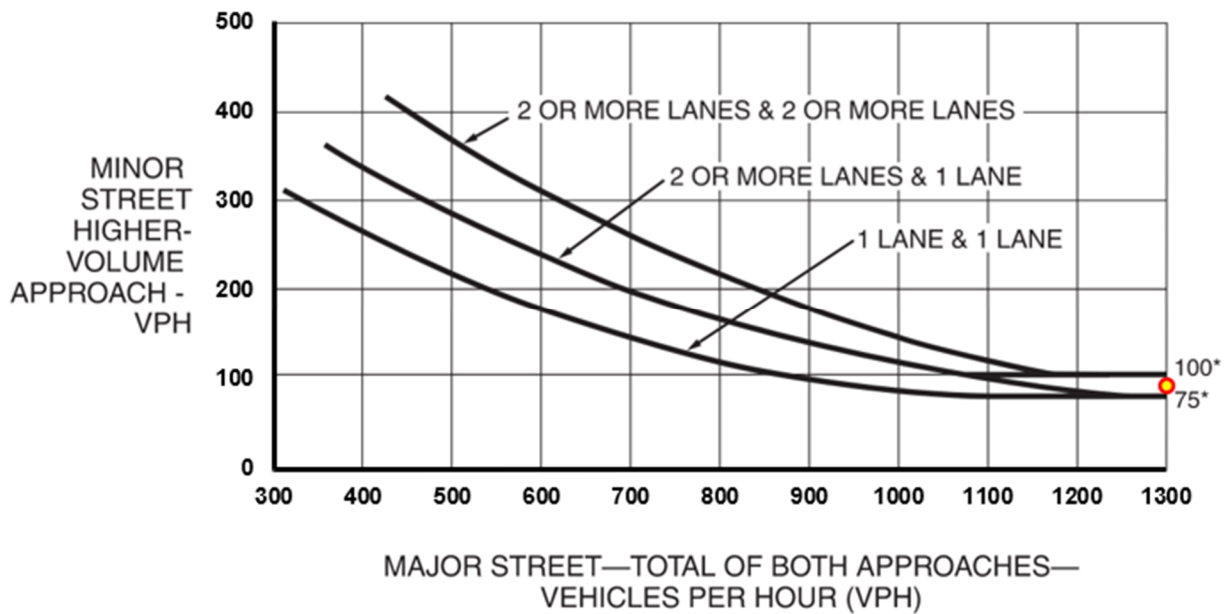
Peak Hour Signal Warrants

Peak Hour Signal Warrants

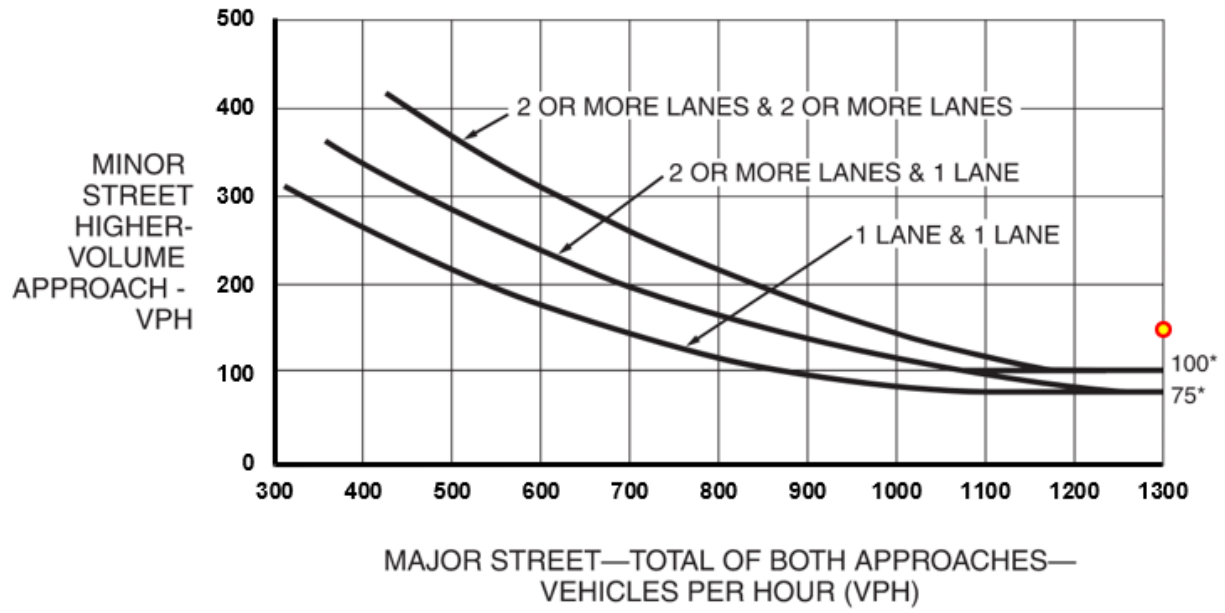
Future (2028) Plus Project



East Village 1 Road / S.R. 32 Evening Peak Hour

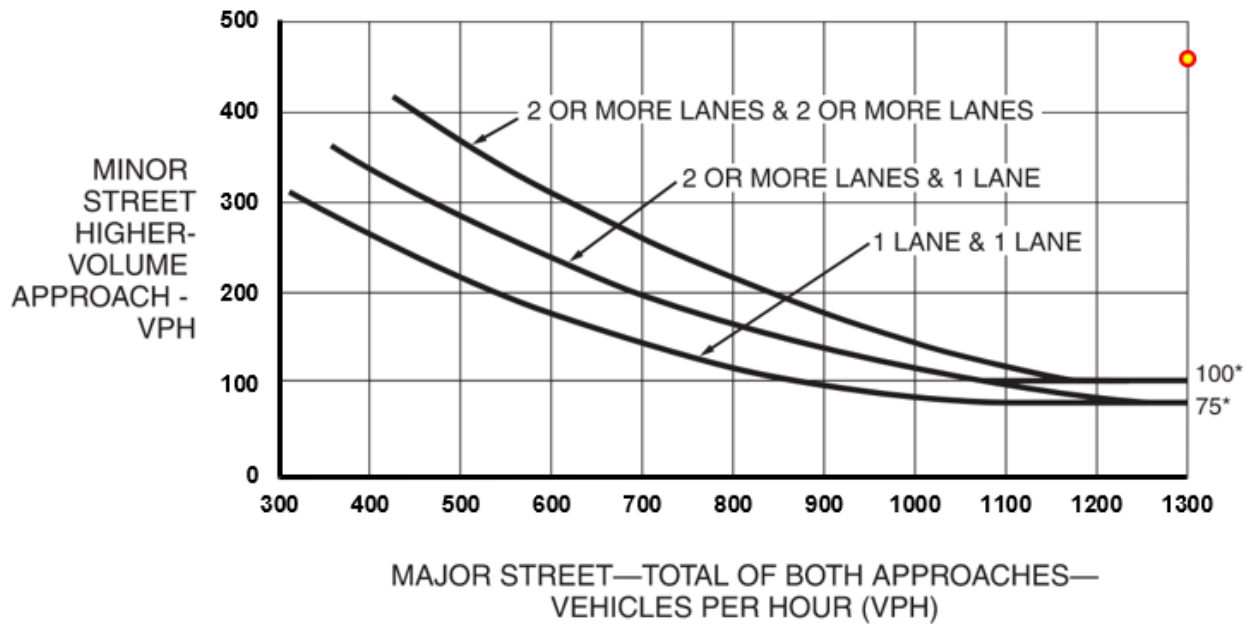


West Village 3 Road / S.R. 32 Evening Peak Hour

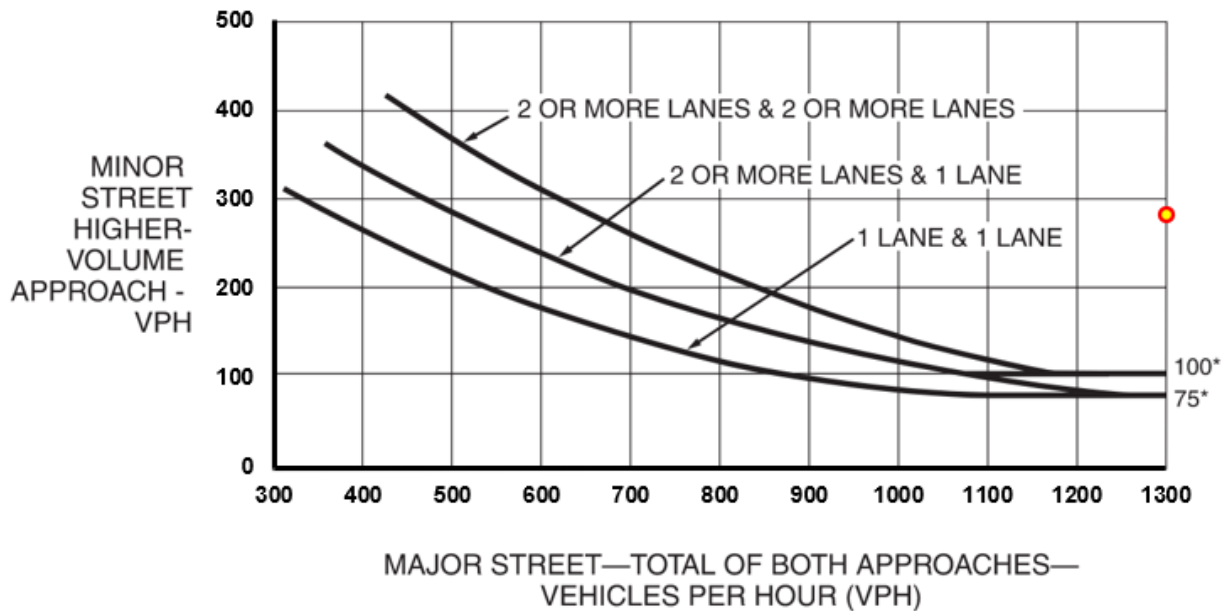


Ambush Drive & Cummings RV Park Access / S.R. 32 Evening Peak Hour

Future (2050) Plus Project



West Benloch Ranch Road / S.R. 32 Evening Peak Hour



East Benloch Ranch Road / S.R. 32 Morning Peak Hour

APPENDIX H

Capacity Analysis Printouts

HCS Two-Lane Highway Facility Report

Project Information

Analyst		Date	2/21/2025
Agency		Analysis Year	2050
Jurisdiction		Time Analyzed	Evening Peak
Facility Name		Units	U.S. Customary
Project Description	Jordanelle Ridge TIS - Ambush Dr Uphill		

Facility Segment Data

No.	Name	Type	Length ft	Lane Width ft	Shoulder Width ft	Speed Limit mi/h	Access Point Density pts/mi
1		Passing Lanes	5750	12	5	25	0.0
2		Passing Constrained	2650	12	5	25	0.0

Segment 1: Passing Lanes

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
392	-	0.96	1.00	1500	0.26	22.7	47.5	8.2	A

Segment 2: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
392	-	0.96	1.00	1700	0.23	22.8	68.7	9.3	C

Facility Results

VMT veh-mi/AP	VHD veh-h/AP	Follower Density followers/mi/ln	Travel Time min	LOS
150	1.13	4.6	4.20	B

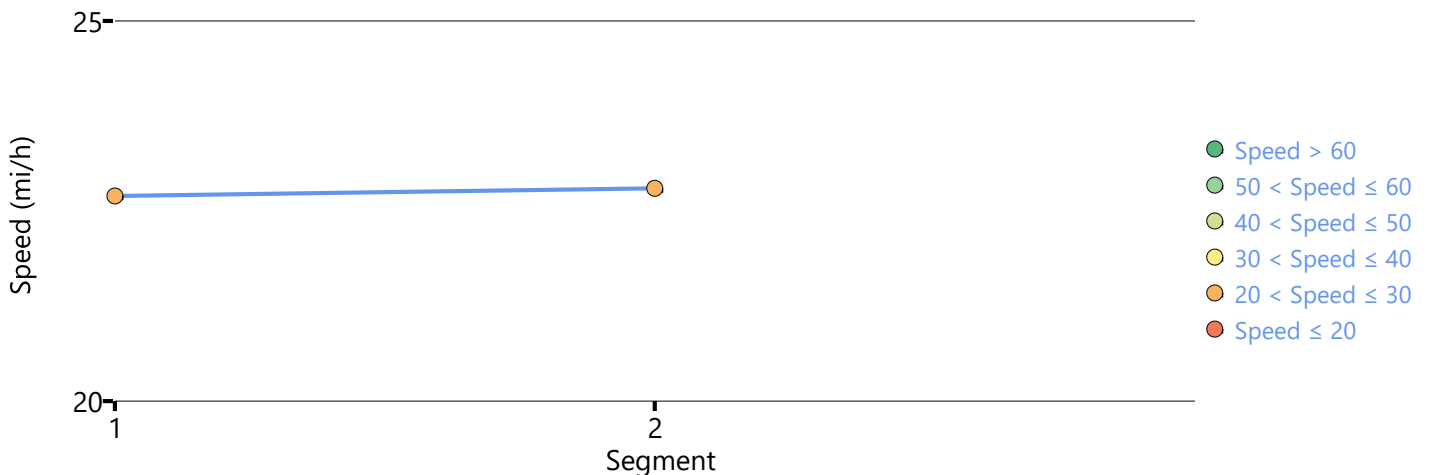
Messages

WARNING 1	Beginning the facility with a passing lane segment is not recommended. Use caution when interpreting the results of a highway facility with a passing lane segment bounding the beginning of the facility.
-----------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

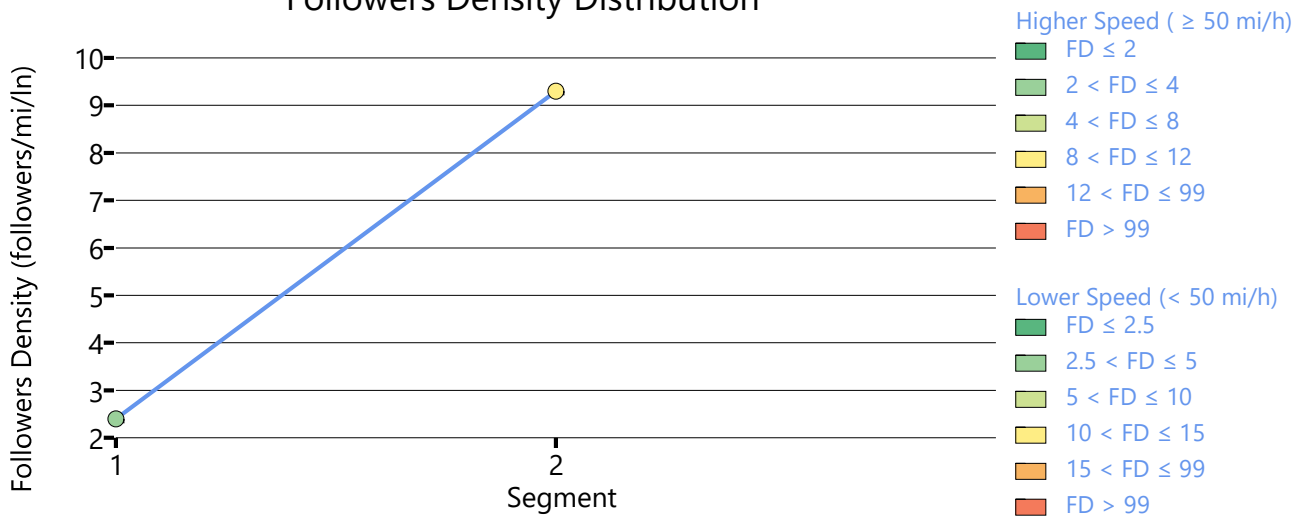
Comments

--

Speed Distribution



Followers Density Distribution



HCS Two-Lane Highway Facility Report

Project Information

Analyst		Date	2/21/2025
Agency		Analysis Year	2050
Jurisdiction		Time Analyzed	Evening Peak
Facility Name		Units	U.S. Customary
Project Description	Jordanelle Ridge TIS - Ambush Dr Uphill		

Facility Segment Data

No.	Name	Type	Length ft	Lane Width ft	Shoulder Width ft	Speed Limit mi/h	Access Point Density pts/mi
1		Passing Lanes	5750	12	5	25	0.0
2		Passing Constrained	2650	12	5	25	0.0

Segment 1: Passing Lanes

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
899	-	0.96	1.00	1500	0.60	21.7	69.6	28.9	C

Segment 2: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
899	-	0.96	1.00	1700	0.53	21.1	80.3	27.9	E

Facility Results

VMT veh-mi/AP	VHD veh-h/AP	Follower Density followers/mi/ln	Travel Time min	LOS
343	3.48	14.8	4.40	D

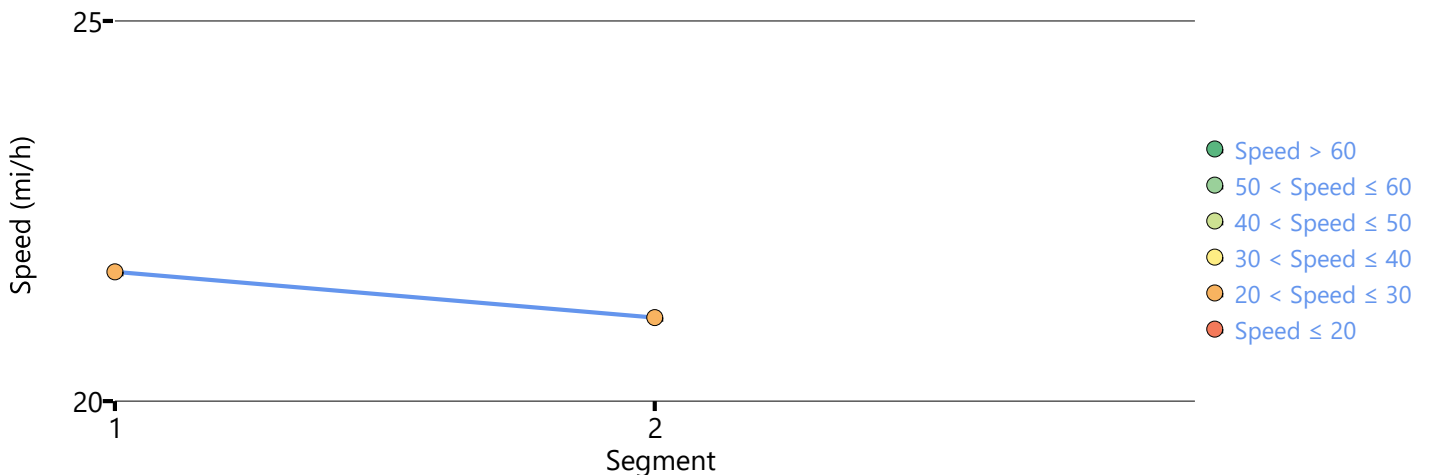
Messages

WARNING 1	Beginning the facility with a passing lane segment is not recommended. Use caution when interpreting the results of a highway facility with a passing lane segment bounding the beginning of the facility.
-----------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

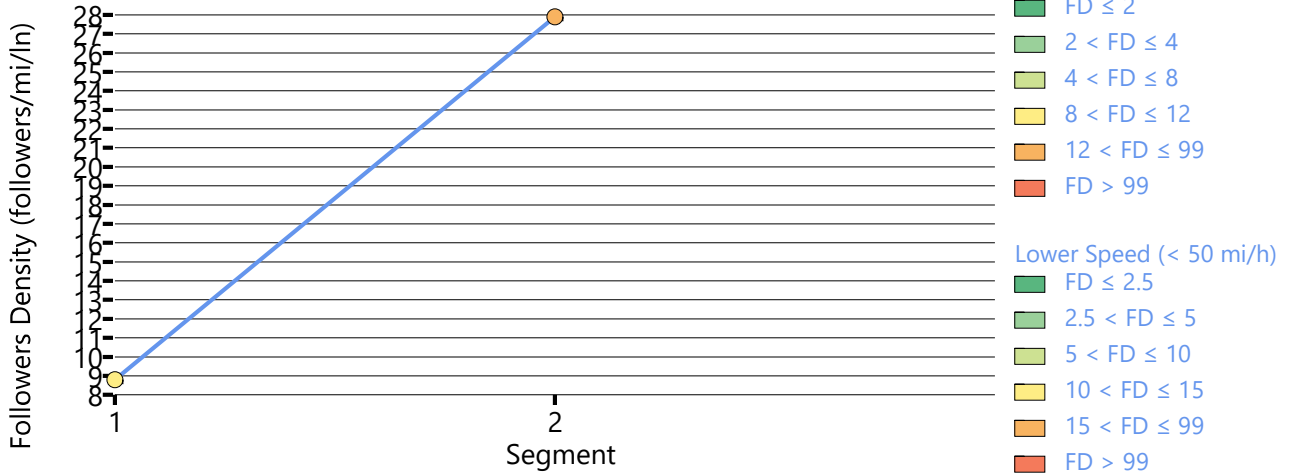
Comments

--

Speed Distribution



Followers Density Distribution



HCS Two-Lane Highway Facility Report

Project Information

Analyst		Date	2/21/2025
Agency		Analysis Year	2050
Jurisdiction		Time Analyzed	Morning Peak
Facility Name		Units	U.S. Customary
Project Description	Jordanelle Ridge TIS - Ambush Dr Downhill		

Facility Segment Data

No.	Name	Type	Length ft	Lane Width ft	Shoulder Width ft	Speed Limit mi/h	Access Point Density pts/mi
1		Passing Lanes	2650	11	5	25	0.0
2		Passing Constrained	2550	11	5	25	0.0
3		Passing Constrained	1600	11	5	25	0.0
4		Passing Constrained	900	11	5	25	0.0
5		Passing Constrained	700	11	5	25	0.0

Segment 1: Passing Lanes

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
681	-	0.96	1.00	1500	0.45	22.5	66.9	20.2	C

Segment 2: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
681	-	0.96	1.00	1700	0.40	21.3	76.6	19.2	E

Segment 3: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
681	-	0.96	1.00	1700	0.40	24.2	67.6	15.3	E

Segment 4: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
681	-	0.96	1.00	1700	0.40	21.2	73.1	19.2	E

Segment 5: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
681	-	0.96	1.00	1700	0.40	22.8	73.1	18.1	E

Facility Results

VMT veh-mi/AP	VHD veh-h/AP	Follower Density followers/mi/ln	Travel Time min	LOS
260	2.07	14.3	4.30	D

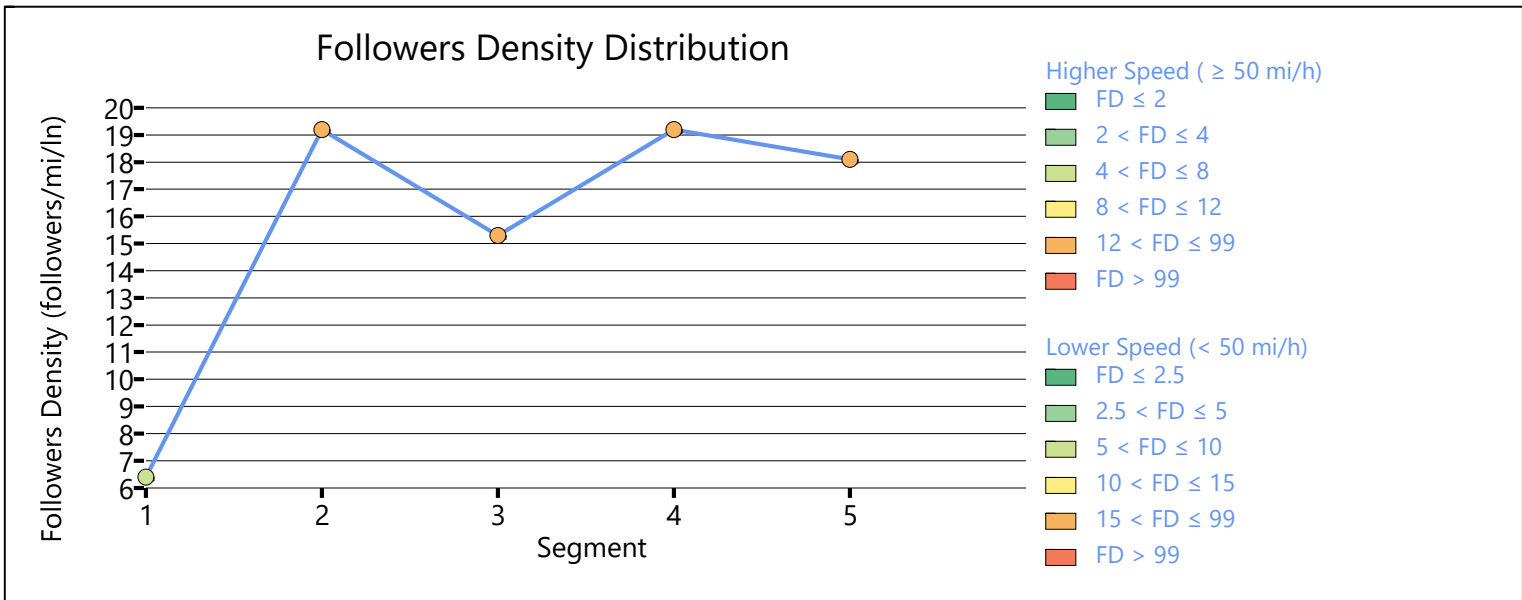
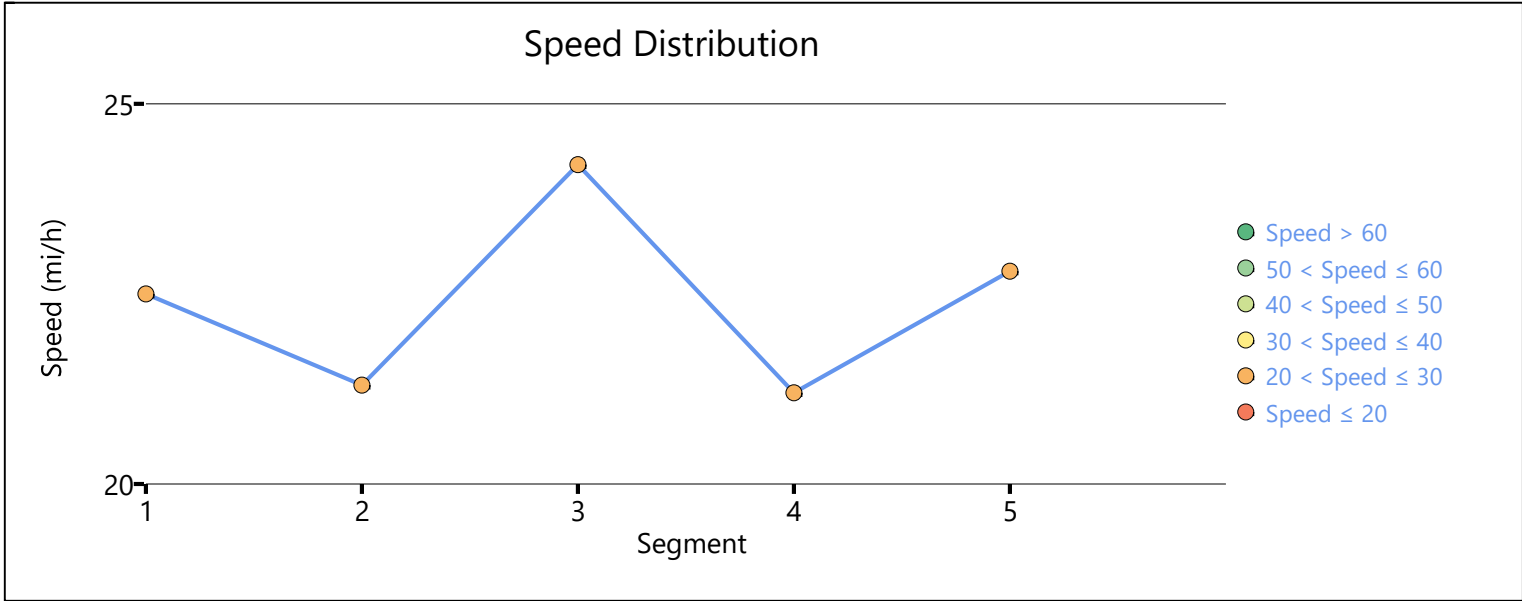
Messages

WARNING 1	Beginning the facility with a passing lane segment is not recommended. Use caution when interpreting the results of a highway facility with a passing lane segment bounding
-----------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------

the facility.

WARNING 2	Segment Length Over/Under recommended lengths on segment 2. Segment analyzed at recommended length. Split/Combine segment(s) to resolve this warning.
WARNING 3	Segment Length Over/Under recommended lengths on segment 4. Segment analyzed at recommended length. Split/Combine segment(s) to resolve this warning.
WARNING 4	Segment Length Over/Under recommended lengths on segment 5. Segment analyzed at recommended length. Split/Combine segment(s) to resolve this warning.

Comments



HCS Two-Lane Highway Facility Report

Project Information

Analyst		Date	2/21/2025
Agency		Analysis Year	2050
Jurisdiction		Time Analyzed	Morning Peak
Facility Name		Units	U.S. Customary
Project Description	Jordanelle Ridge TIS - Ambush Dr Downhill		

Facility Segment Data

No.	Name	Type	Length ft	Lane Width ft	Shoulder Width ft	Speed Limit mi/h	Access Point Density pts/mi
1		Passing Lanes	2650	11	5	25	0.0
2		Passing Constrained	2550	11	5	25	0.0
3		Passing Constrained	1600	11	5	25	0.0
4		Passing Constrained	900	11	5	25	0.0
5		Passing Constrained	700	11	5	25	0.0

Segment 1: Passing Lanes

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
516	-	0.96	1.00	1500	0.34	23.0	59.5	13.3	B

Segment 2: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
516	-	0.96	1.00	1700	0.30	21.6	72.8	13.4	D

Segment 3: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
516	-	0.96	1.00	1700	0.30	24.4	61.3	10.3	D

Segment 4: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
516	-	0.96	1.00	1700	0.30	21.3	67.2	13.1	D

Segment 5: Passing Constrained

Demand veh/h	Opp. Demand veh/h	PHF	%HV	Capacity veh/h	D/C	Speed mi/h	% Followers	Follower Density followers/mi/ln	LOS
516	-	0.96	1.00	1700	0.30	23.1	67.2	12.3	D

Facility Results

VMT veh-mi/AP	VHD veh-h/AP	Follower Density followers/mi/ln	Travel Time min	LOS
197	1.45	9.8	4.20	C

Messages

WARNING 1	Beginning the facility with a passing lane segment is not recommended. Use caution when interpreting the results of a highway facility with a passing lane segment bounding
-----------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------

the facility.

WARNING 2	Segment Length Over/Under recommended lengths on segment 2. Segment analyzed at recommended length. Split/Combine segment(s) to resolve this warning.
WARNING 3	Segment Length Over/Under recommended lengths on segment 4. Segment analyzed at recommended length. Split/Combine segment(s) to resolve this warning.
WARNING 4	Segment Length Over/Under recommended lengths on segment 5. Segment analyzed at recommended length. Split/Combine segment(s) to resolve this warning.

Comments

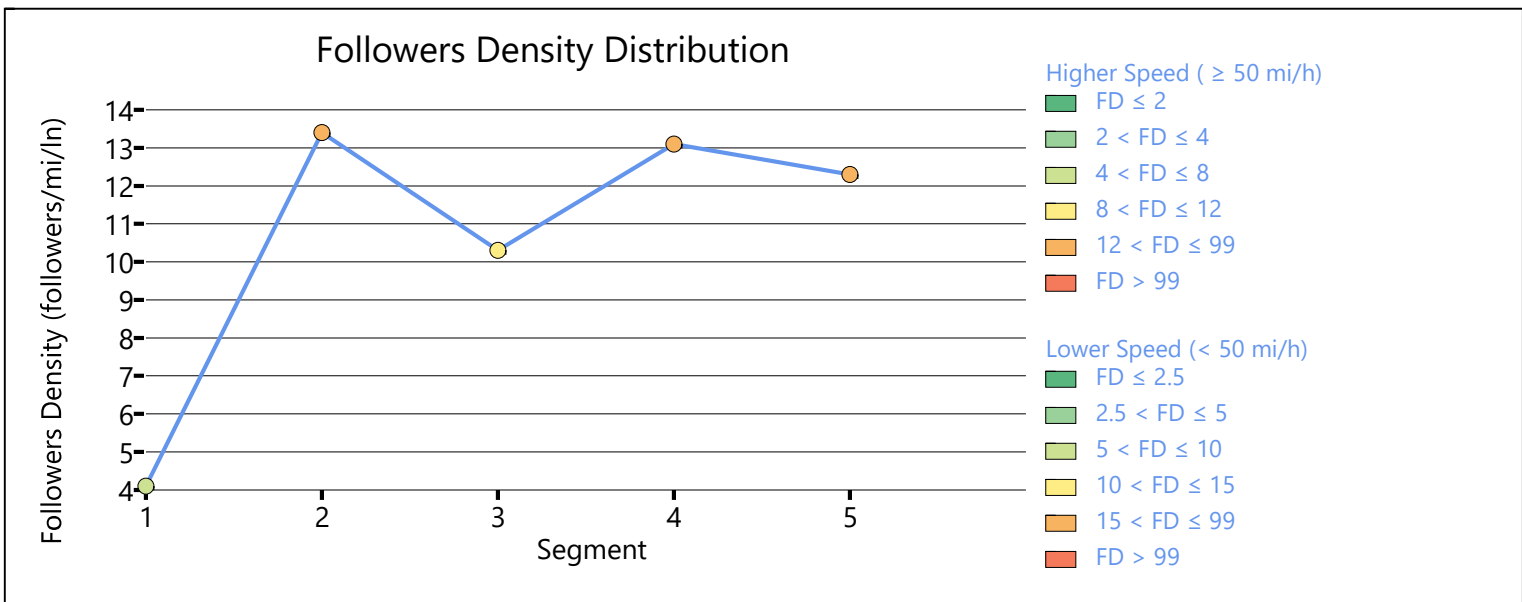
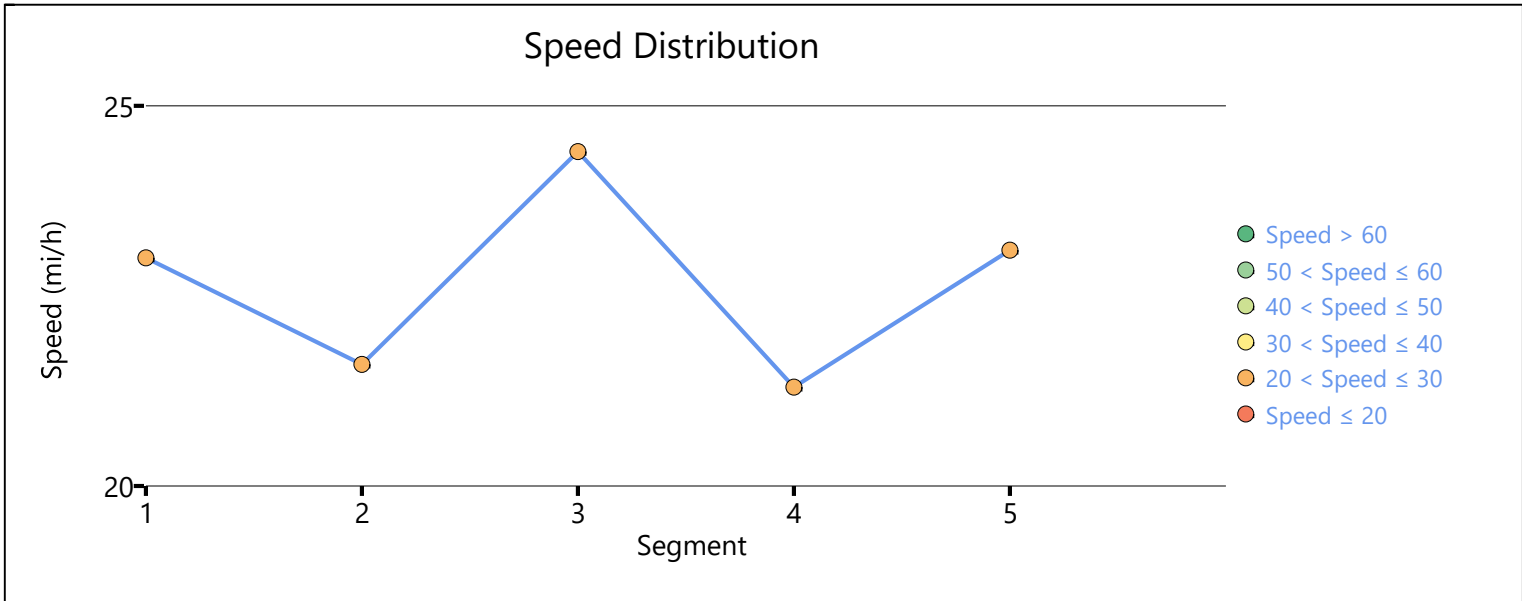
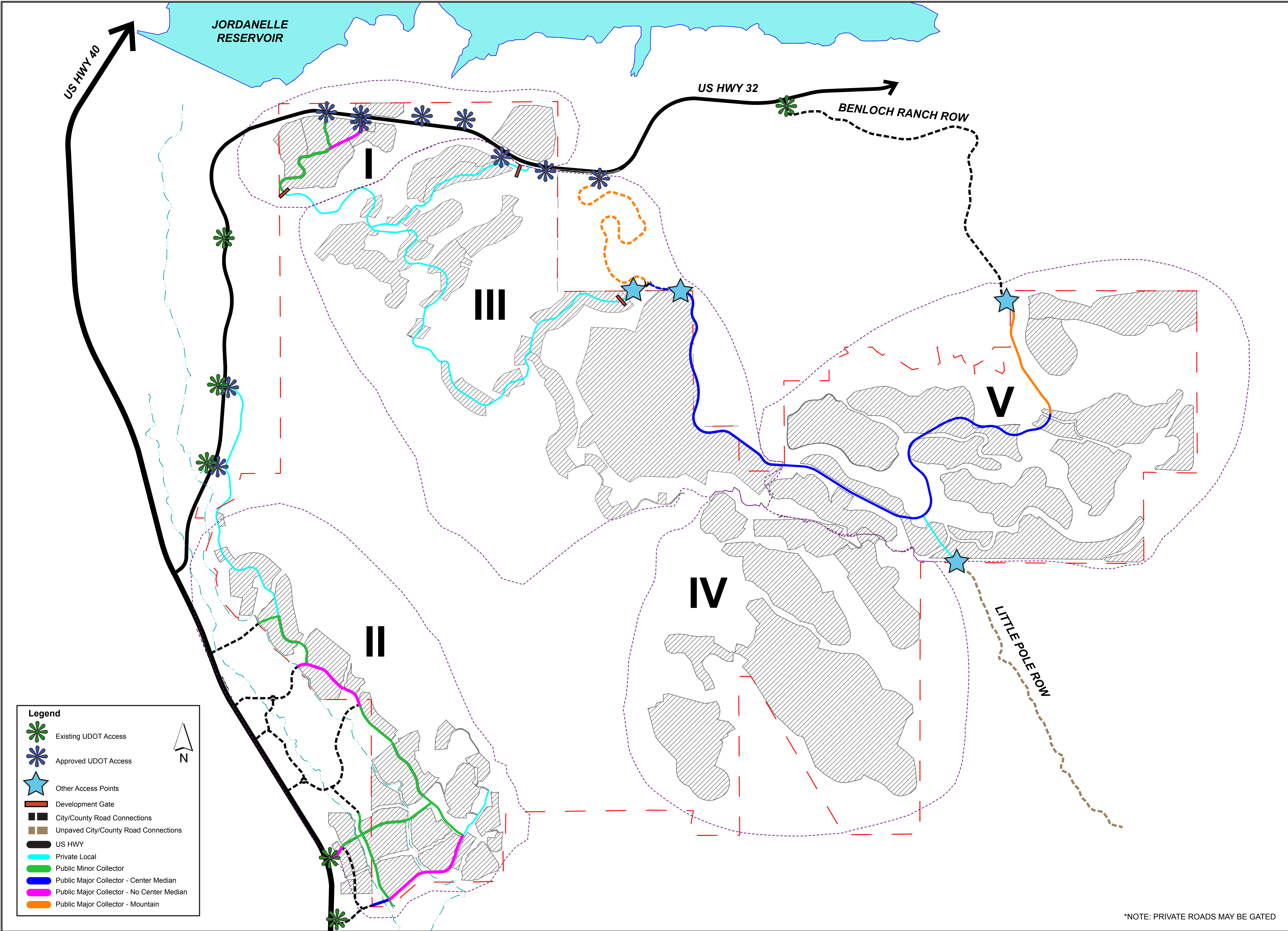


Exhibit D

Master Transportation Plan & Roadway Cross-Section

REVISED MAY XX, 2025

PROJ. MGR: BW DESIGNER: MBW
 \\Mac\Dropbox for Business\~\Momentum-M2 Civil Team Folder\Iron\RainTree\Jordanelle\JR Overall Transportation Master Plan.dwg - May 05, 2025-12:38pm



Legend

- Existing UDOT Access
- Approved UDOT Access
- Other Access Points
- Development Gate
- City/County Road Connections
- Unpaved City/County Road Connections
- US HWY
- Private Local
- Public Minor Collector
- Public Major Collector - Center Median
- Public Major Collector - No Center Median
- Public Major Collector - Mountain

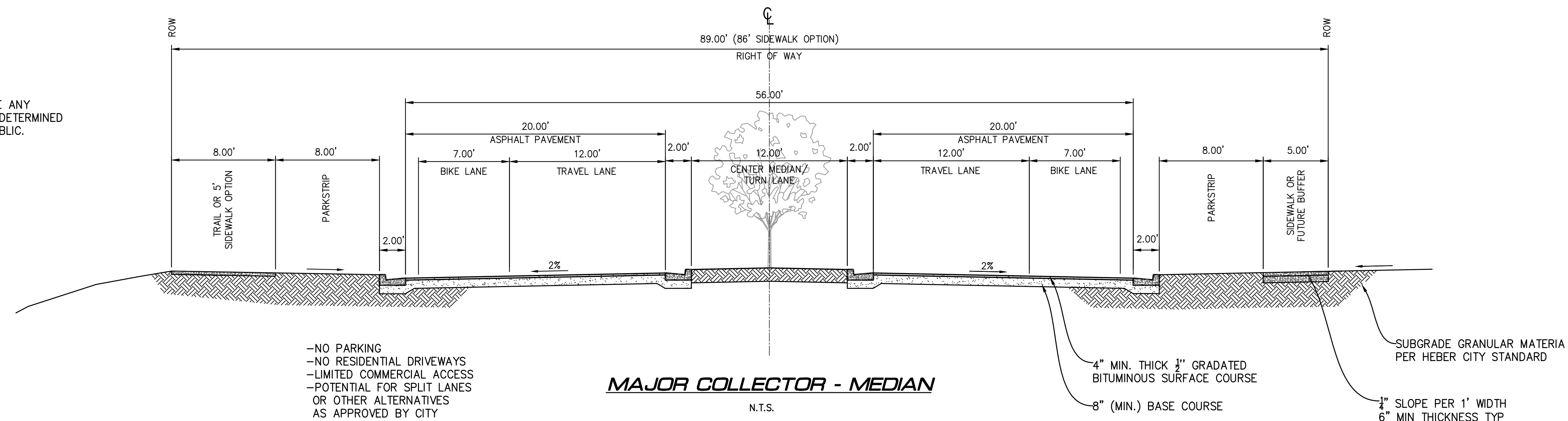


<p>JORDANELLE RIDGE TRANSPORTATION MASTER PLAN</p>	<p>DATE SUBMITTED: 05-05-2025</p>
<p>JORDANELLE RIDGE</p> <p>10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095</p>	<p>PREPARED FOR: JORDANELLE REF ACQUISITION</p>
<p>SHEET NUMBER</p> <p>1</p>	<p>SCALE</p> <p>HORIZONTAL: 1"=NTS</p> <p>VERTICAL: 1"= -</p>
<p>JOB NUMBER</p> <p>47-100</p>	<p>*NOTE: PRIVATE ROADS MAY BE GATED</p>

CAUTION
 The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

NO.	BY	DATE	REVISIONS

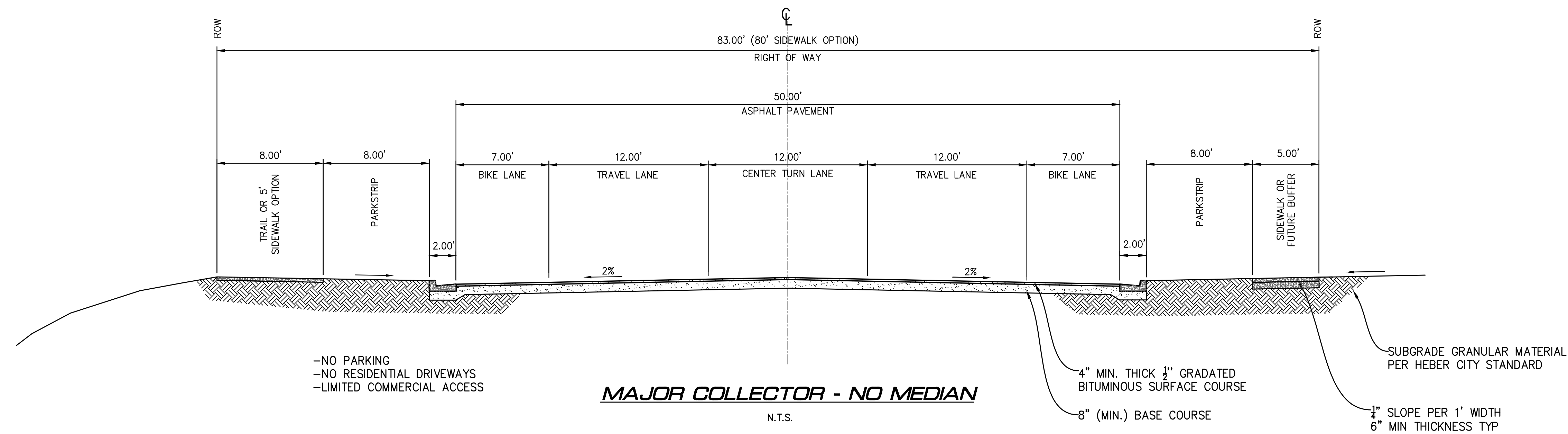
NOTE: HEBER CITY RESERVES THE RIGHT TO RE-STRIPE ANY PUBLIC ROAD AND CHANGE LANE CONFIGURATIONS AS DETERMINED BY THE CITY TO BE IN THE BEST INTEREST OF THE PUBLIC.



- NO PARKING
- NO RESIDENTIAL DRIVEWAYS
- LIMITED COMMERCIAL ACCESS
- POTENTIAL FOR SPLIT LANES OR OTHER ALTERNATIVES AS APPROVED BY CITY
- ALLOW LANDSCAPED MEDIANS

MAJOR COLLECTOR - MEDIAN

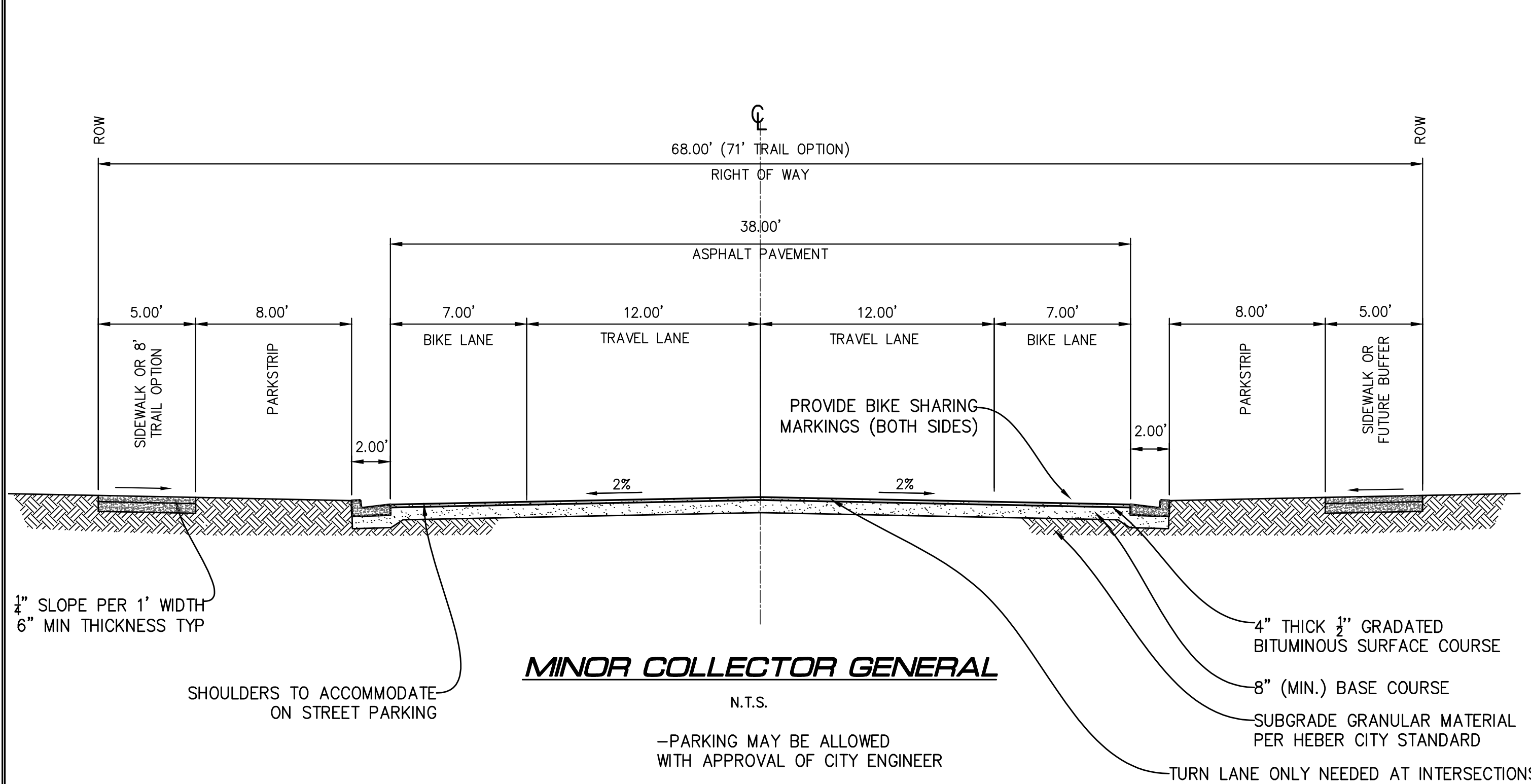
N.T.S.



- NO PARKING
- NO RESIDENTIAL DRIVEWAYS
- LIMITED COMMERCIAL ACCESS

MAJOR COLLECTOR - NO MEDIAN

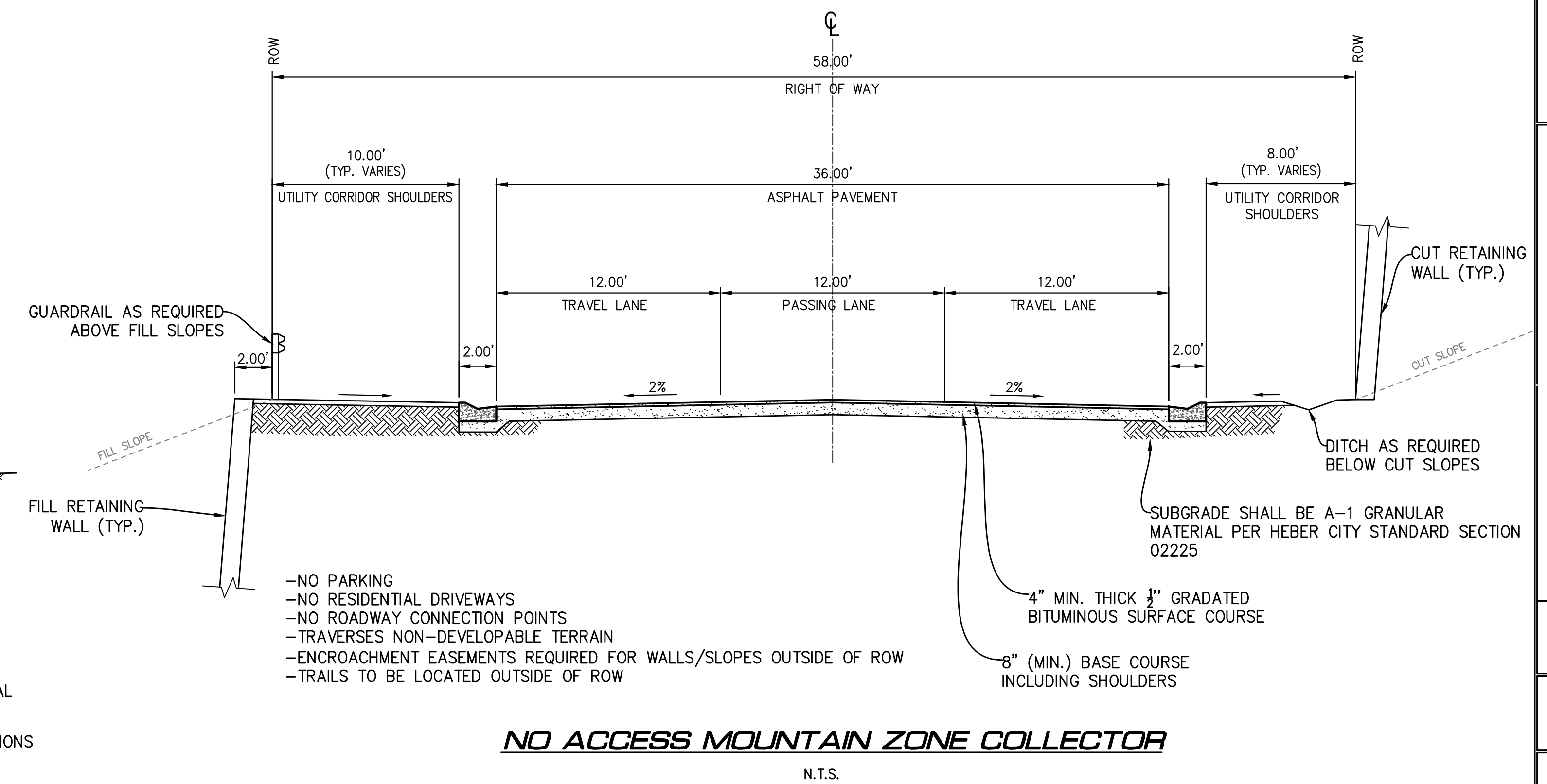
N.T.S.



MINOR COLLECTOR GENERAL

N.T.S.

- PARKING MAY BE ALLOWED WITH APPROVAL OF CITY ENGINEER



- NO PARKING
- NO RESIDENTIAL DRIVEWAYS
- NO ROADWAY CONNECTION POINTS
- TRAVERSES NON-DEVELOPABLE TERRAIN
- ENCROACHMENT EASEMENTS REQUIRED FOR WALLS/SLOPES OUTSIDE OF ROW
- TRAILS TO BE LOCATED OUTSIDE OF ROW

NO ACCESS MOUNTAIN ZONE COLLECTOR

N.T.S.

PROJ. MGR: _____ DESIGNER: RC
 \\Mac\Dropbox for Business\~\Momentum-M2 Civil Team\Folder\Iron\RainTree\Jordanelle\JR_Overall\Drawings\Exhibits\2025-03-05 - Roadway Cross Sections.dwg - Apr. 29, 2025-5:01pm

JORDANELLE RIDGE
ROADWAY CROSS SECTIONS
PUBLIC SECTIONS

PREPARED FOR: **JORDANELLE REF ACQUISITION**

DATE SUBMITTED: **4/29/2025**

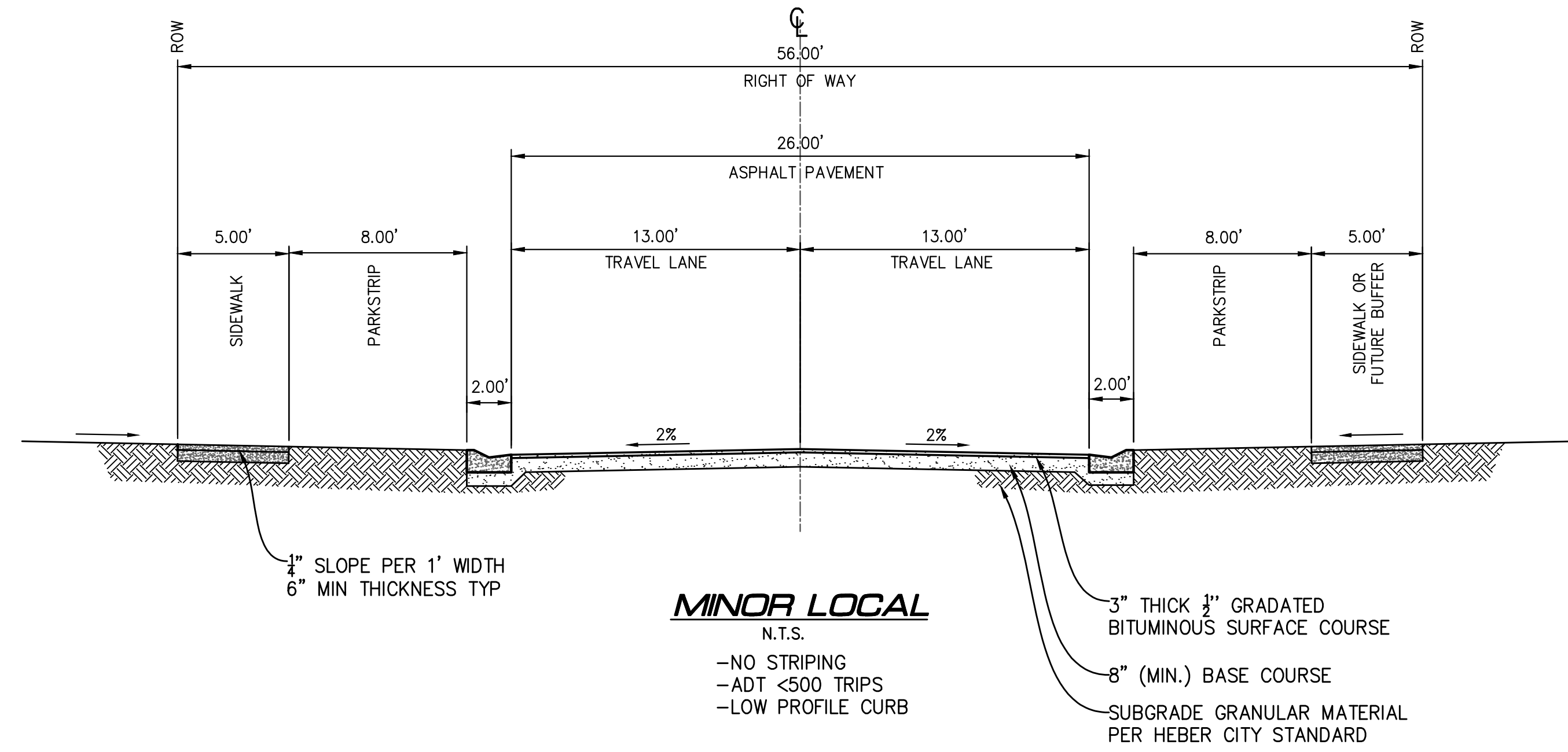
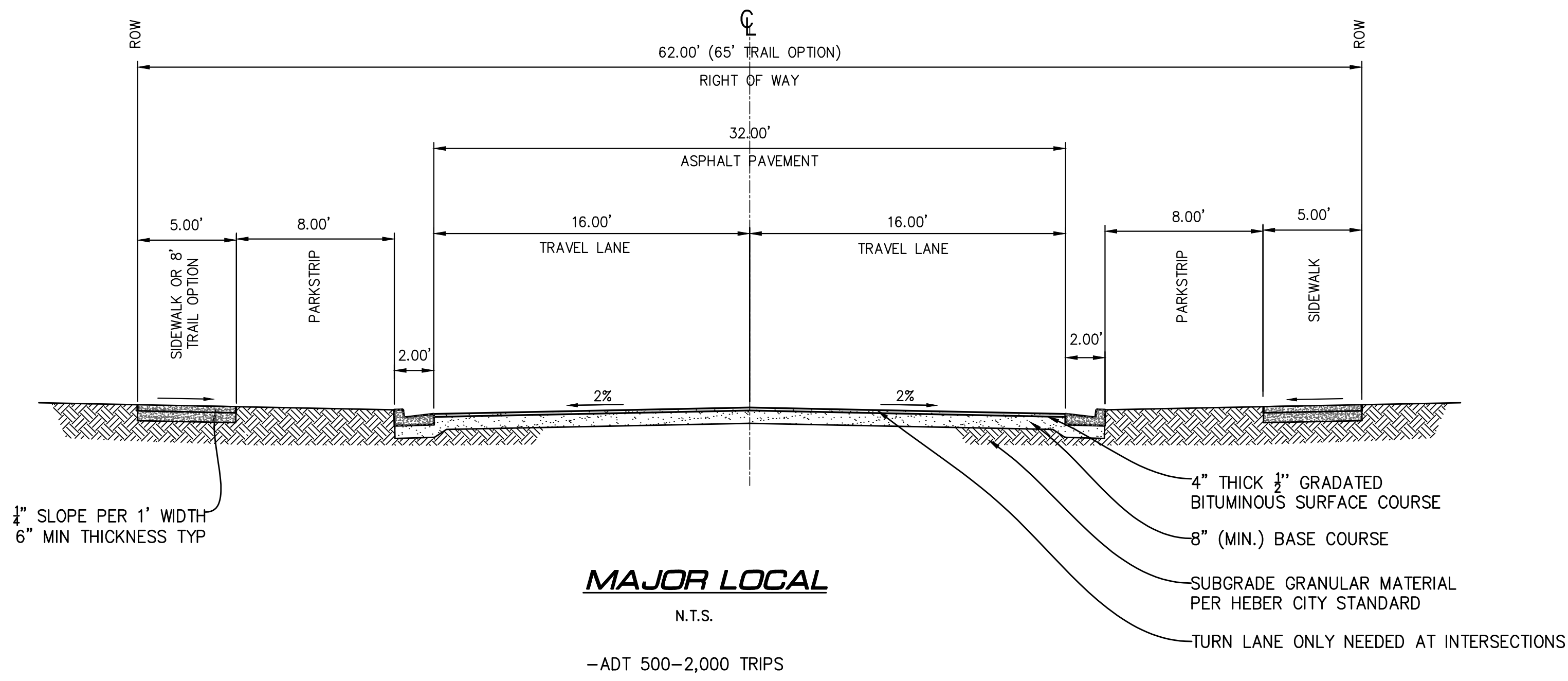


10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095

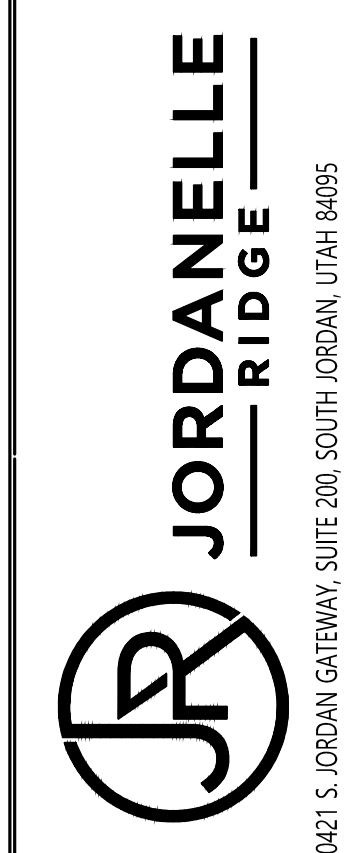
SHEET NUMBER	2
SCALE	HORIZONTAL: 1"=5' VERTICAL: 1"=NA
JOB NUMBER	47-100

CAUTION
 The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

NOTE: HEBER CITY RESERVES THE RIGHT TO RE-STRIPE ANY PUBLIC ROAD AND CHANGE LANE CONFIGURATIONS AS DETERMINED BY THE CITY TO BE IN THE BEST INTEREST OF THE PUBLIC.



**JORDANELLE RIDGE
 ROADWAY CROSS SECTIONS
 PUBLIC SECTIONS**

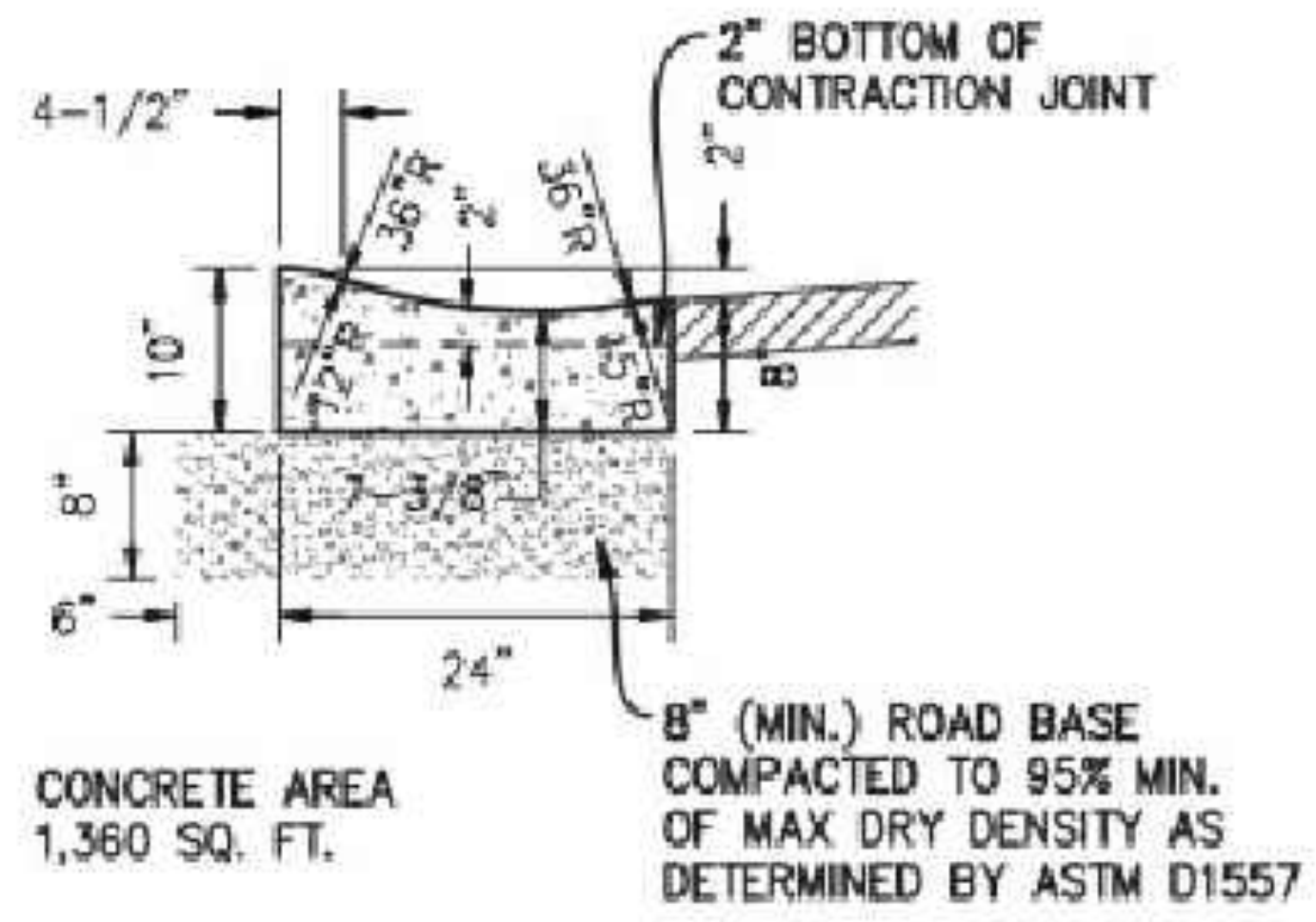
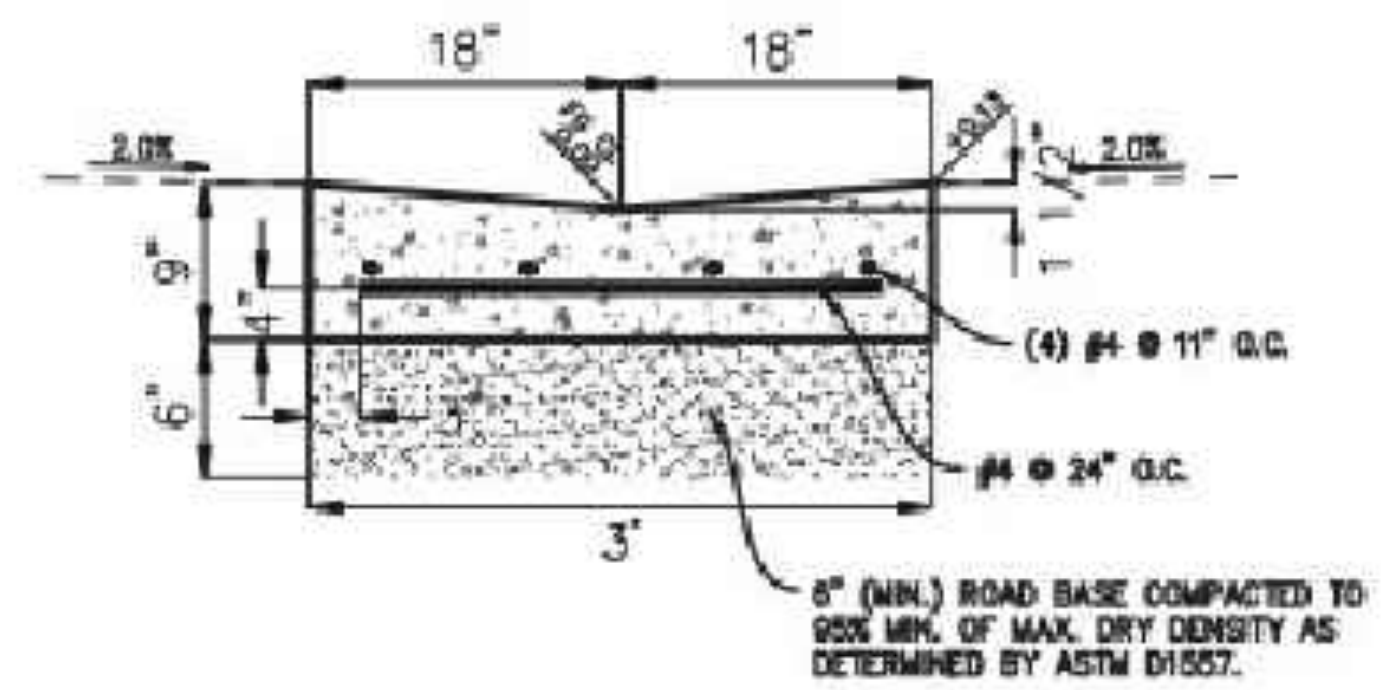
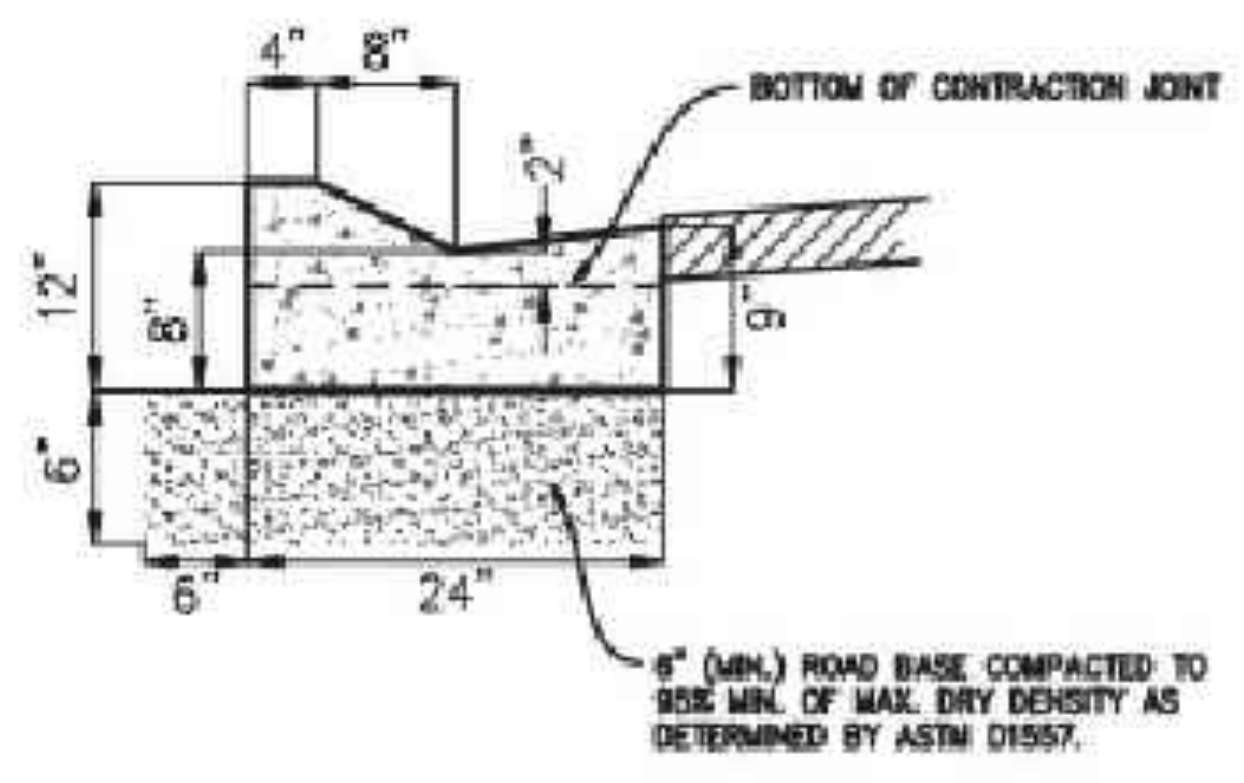
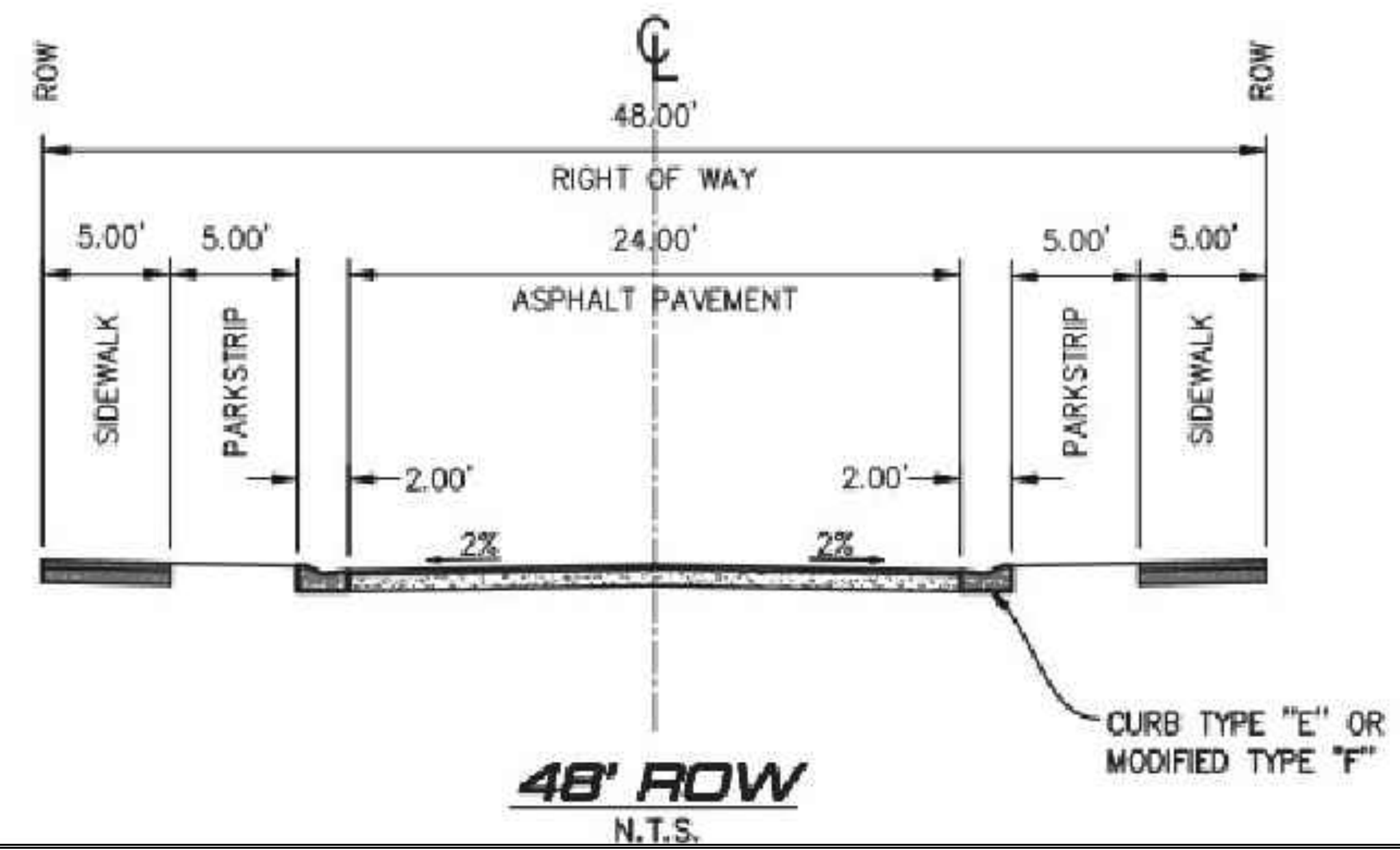
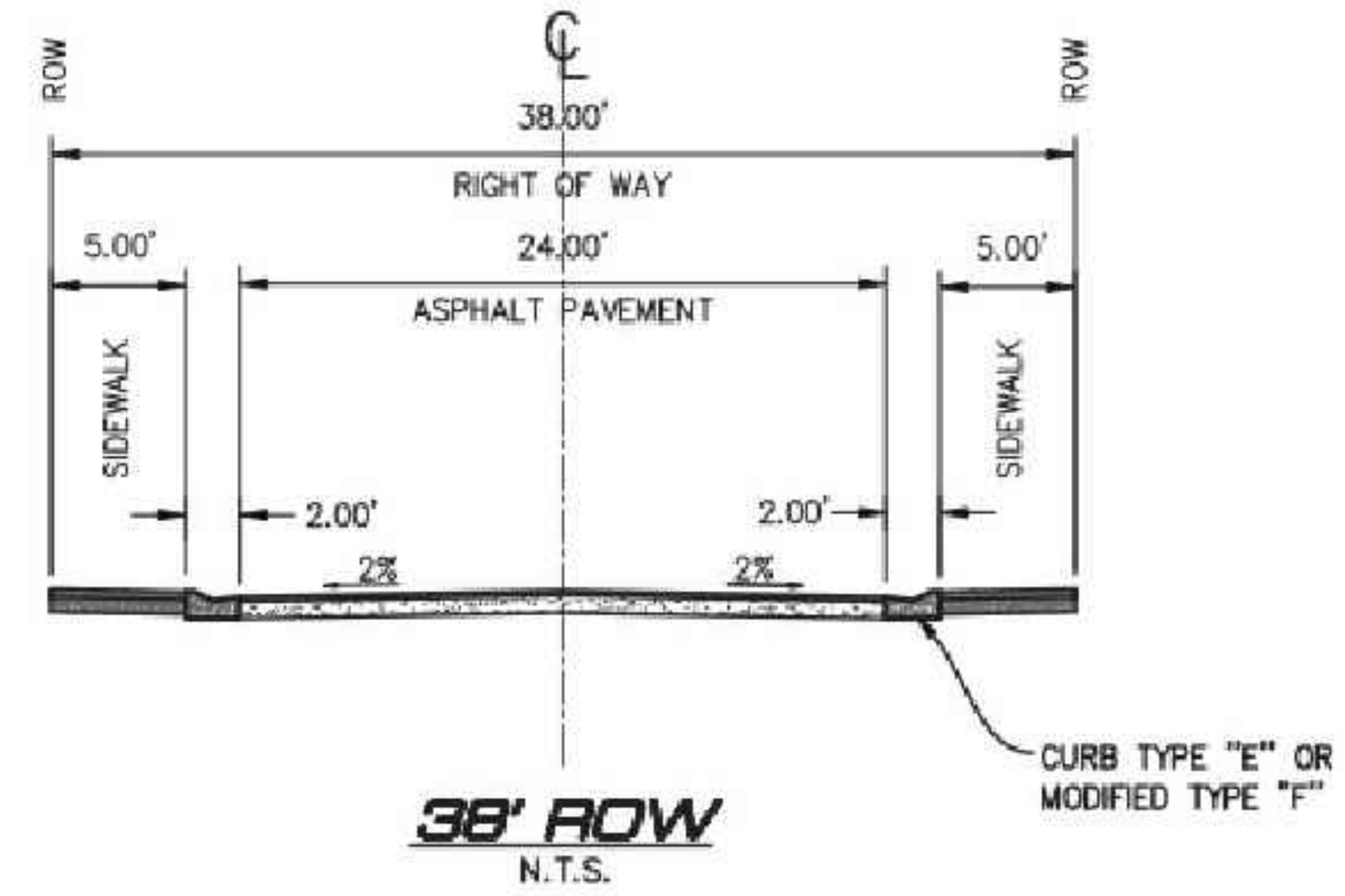
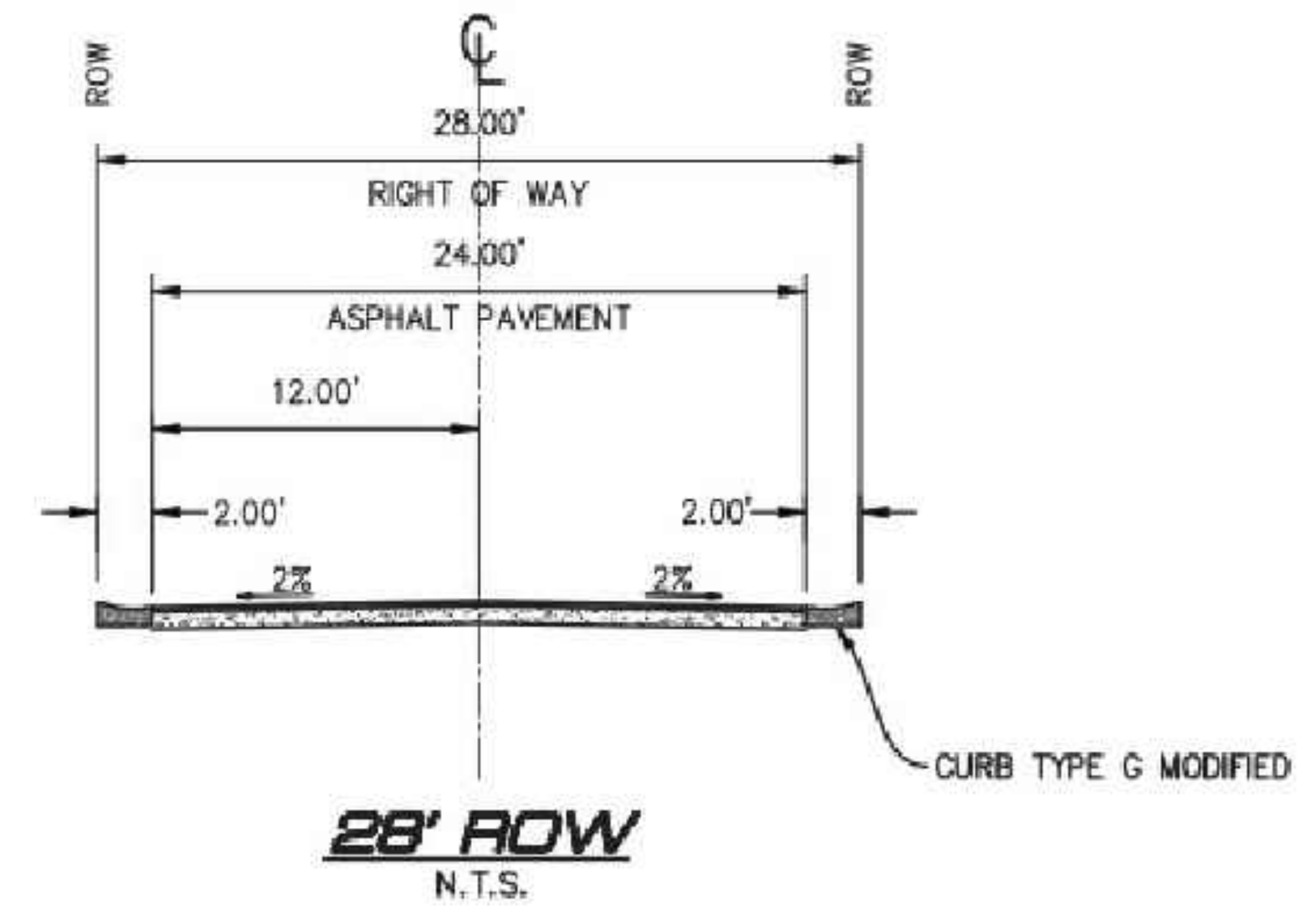
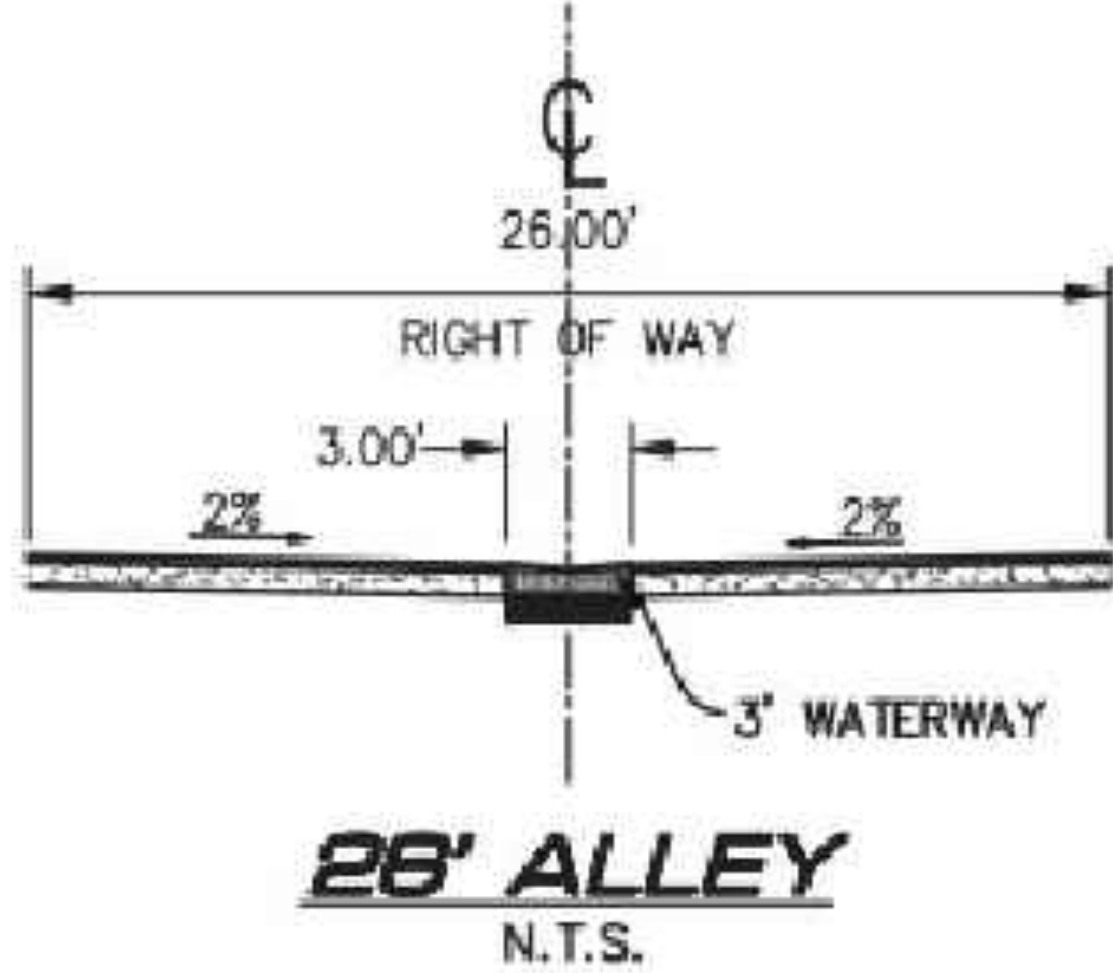
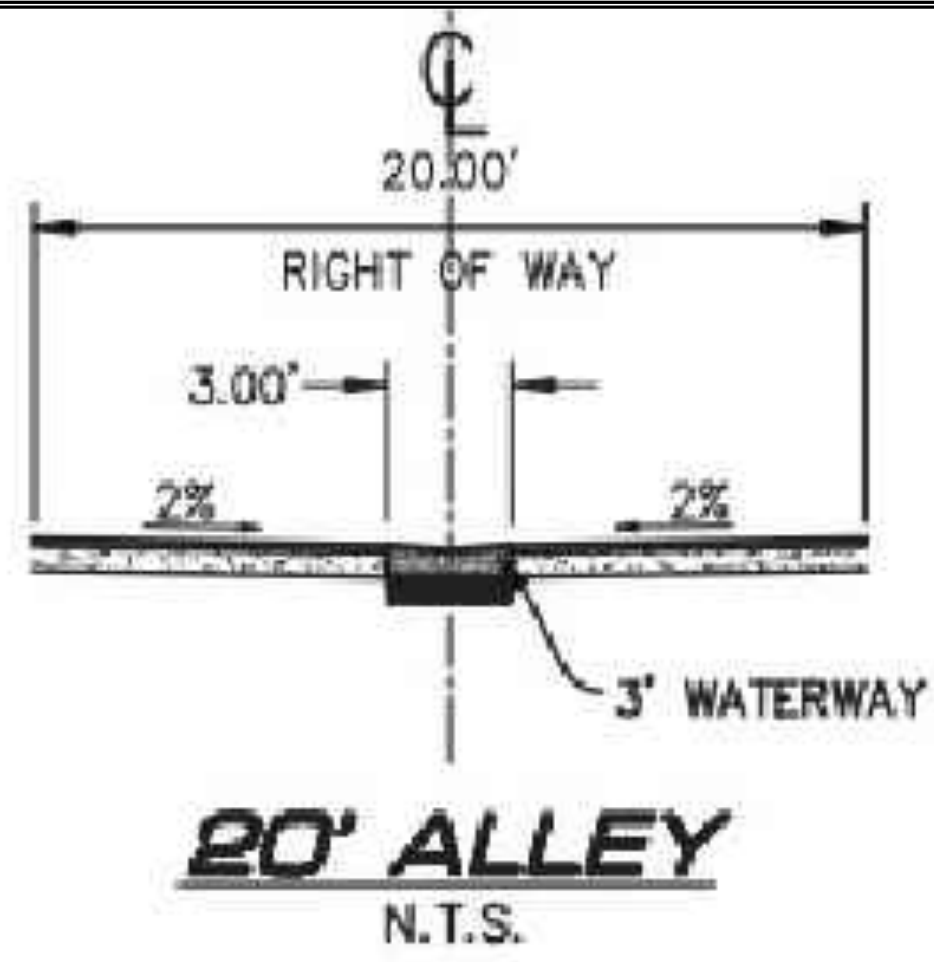


SHEET NUMBER	3
SCALE	HORIZONTAL: 1"=5' VERTICAL: 1"=NA
JOB NUMBER	47-100

NO.	BY	DATE	REVISIONS

CAUTION
 The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

PREPARED FOR: **JORDANELLE REF ACQUISITION**
 DATE SUBMITTED: 5/5/2025



NO.	BY	DATE	REVISIONS

CAUTION: The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

PREPARED FOR: JORDANELLE REF ACQUISITION DATE SUBMITTED: 4/29/2025

JORDANELLE RIDGE

10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095

SHEET NUMBER
4

SCALE
HORIZONTAL: 1"=NTS
VERTICAL: 1"=NA

JOB NUMBER
47-100

**SECOND AMENDMENT TO
THE DEVELOPMENT AGREEMENT FOR THE UPPER JORDANELLE
RIDGE MASTER PLANNED COMMUNITY**

THIS SECOND AMENDMENT TO THE DEVELOPMENT AGREEMENT FOR THE UPPER JORDANELLE MASTER PLANNED COMMUNITY (“**Amendment**”) is made and entered into effective as of the 6th day of May, 2025, by and between HEBER CITY, a Utah municipal corporation (“**City**”), and RE INVESTMENT HOLDINGS, LLC, a Utah limited liability company (“**Holdings**”)

RECITALS:

- A. The City and Holdings are parties to that certain Development Agreement for the Upper Jordanelle Master Planned Community (the “**DA**”), dated June 24, 2020.
- B. Exhibit D of the DA depicts the Transportation Plan for the Project
- C. The Parties wish to amend the Transportation Plan.

AMENDMENT:

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and Holdings agree as follows:

- 1. Change to Transportation Plan. Exhibit D of the DA is hereby removed and replaced with the Transportation Plan attached hereto as Exhibit 1.
- 2. Paragraph 8.8. The following requirements shall be added to paragraph 8.8 of the DA:
 - A. Prior to issuance of any building permits for construction of residential lots within Phase III (as shown on the Transportation Plan), Developer shall obtain written approval from Wasatch County Fire District for the Transportation Master Plan update including:
 - a. Incorporation of Fire District requirements for the proposed private roads through Phase III to ensure adequate access.
 - b. Approval of proposed paving/phasing plan.
 - c. Approval of temporary dead end of Jordanelle Ridge Road as phases are constructed.
 - B. Developer shall obtain all necessary UDOT permits for access and improvements to US40 and SR32 prior to moving forward with the Phases requiring the improvements.
 - C. Any new intersections on Jordanelle Ridge property connecting to US40 and SR32 shall be built according to build-out requirements identified in the Transportation Impact

Study (TIS) submitted by the Developer and shall have future needed lanes striped out until needed.

D. Developer shall work with City staff to update the Developer's trails master plan in the DA to reflect changes to the updated transportation plan and the City Parks and Trails Master Plan.

E. The grades for all Collector Roads as shown on the Transportation Master Plan shall not exceed 8% (regardless of whether they are initially considered private, City, or County), unless otherwise approved by the City Engineer.

F. Developer shall construct a fire access road connection to Little Pole. In addition, Developer shall dedicate a 62 foot ROW for the road connection. This road construction and dedication shall take place no later than the time when the Collector Road intersecting with the Little Pole connection is constructed.

G. Developer shall facilitate an MOU between Heber City and Wasatch County regarding the approval process, jurisdiction, and applicable standards for roads that straddle the City/County border.

H. Developer shall update the TIS with each Village and if any deficiencies are identified based on updated plans, and Developer shall be responsible to provide additional improvements to correct those deficiencies.

I. The Collector Loop shall be operated and maintained by the Developer with public access until 50% of the Village III residential units have received a Certificate of Occupancy. At which time the road shall be turned over and dedicated to the City.

J. Until the time the road is turned over to the City, Developer shall perform necessary maintenance to the Collector Loop to preserve the service life of the pavement. Maintenance shall include striping and crack sealing every 2 years, and a surface seal (Type 2 Slurry or Chip Seal) 2 years after completion and every 5 years thereafter. All maintenance work shall be according to Heber City Standards.

3. Counterpart Signatures. This Amendment may be executed in counterparts, which, when compiled together shall constitute one and the same document. The exchange of electronic or facsimile copies of signatures to this Amendment shall for all purposes constitute original signatures.

4. Full Force and Effect. Except as expressly amended herein, the Development Agreement remains in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment effective as of the day and year first written above.

HEBER CITY

ATTEST:

By: _____
Trina Cooke, City Recorder

By: _____
Heidi Franco, Mayor

RE INVESTMENT HOLDINGS, LLC

Signature

Print Name: _____

Title: _____

Exhibit 1

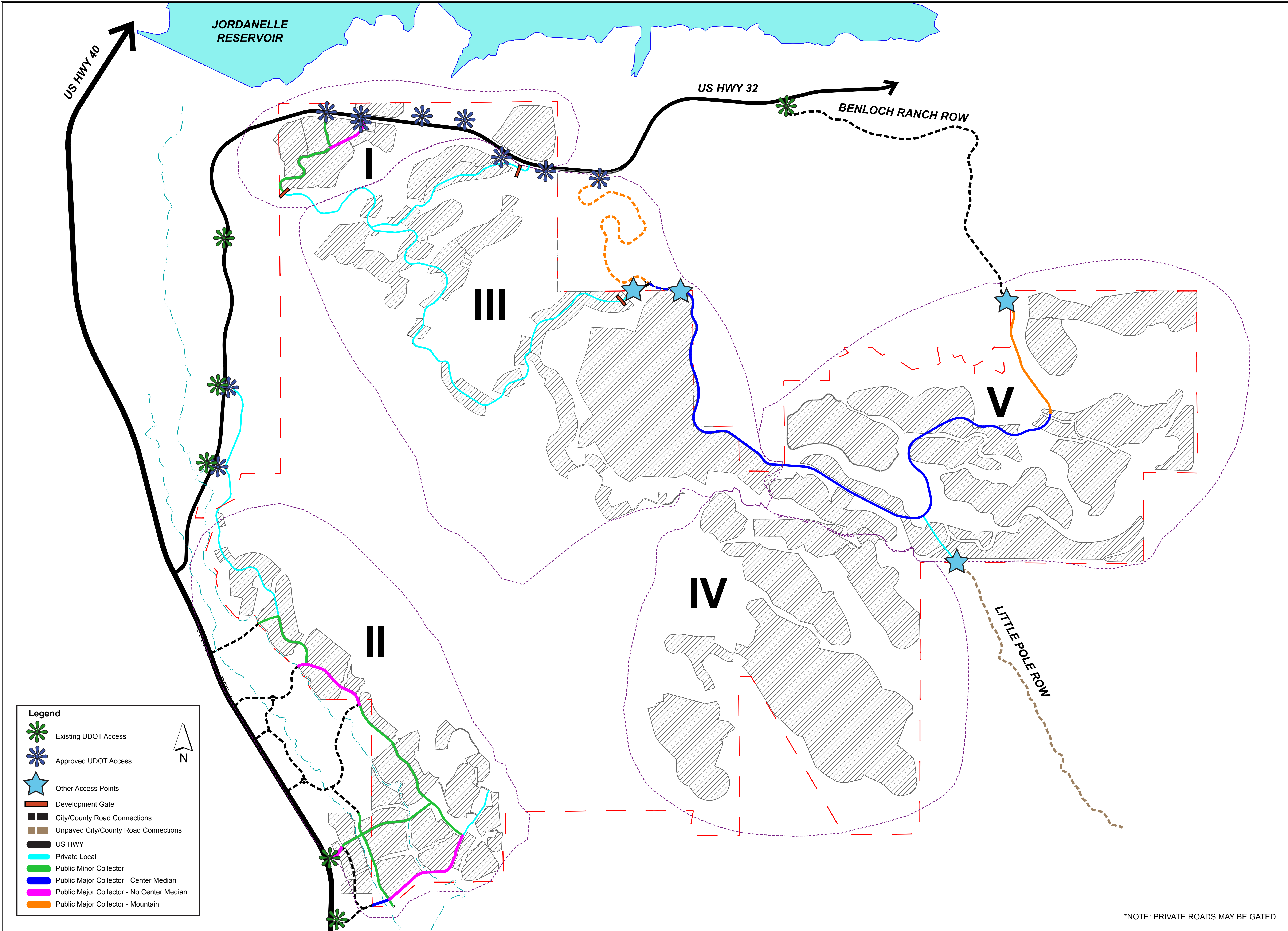
Revised Transportation Plan

Exhibit D

Master Transportation Plan & Roadway Cross-Section

REVISED MAY 6, 2025

PROJ. MGR: BW DESIGNER: MBW
 \\Mac\Dropbox for Business\~\Momentum-M2 Civil Team Folder\Iron\RainTree\Jordanelle\JR Overall Transportation Master Plan.dwg - May 05, 2025-12:38pm



Legend

- Existing UDOT Access
- Approved UDOT Access
- Other Access Points
- Development Gate
- City/County Road Connections
- Unpaved City/County Road Connections
- US HWY
- Private Local
- Public Minor Collector
- Public Major Collector - Center Median
- Public Major Collector - No Center Median
- Public Major Collector - Mountain

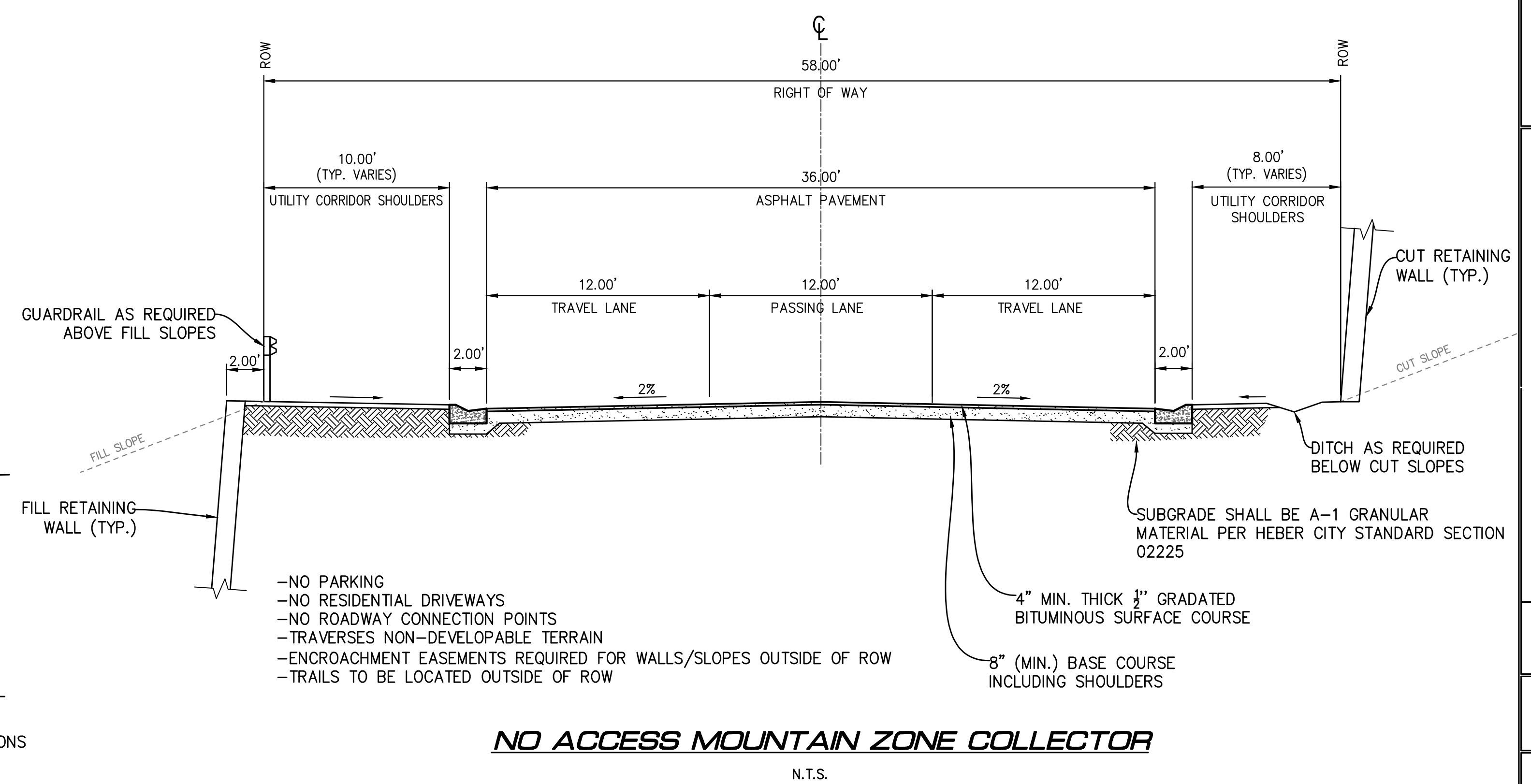
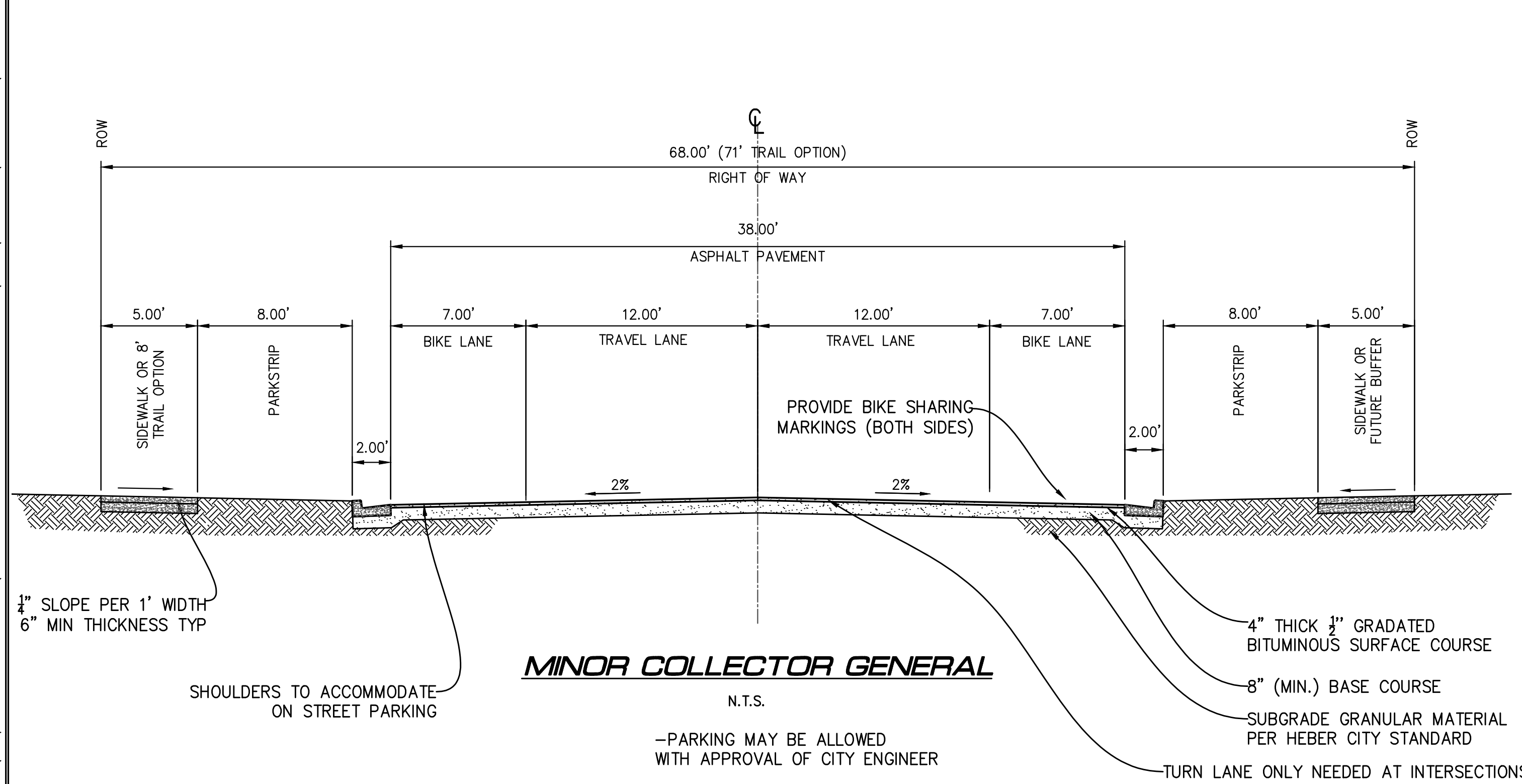
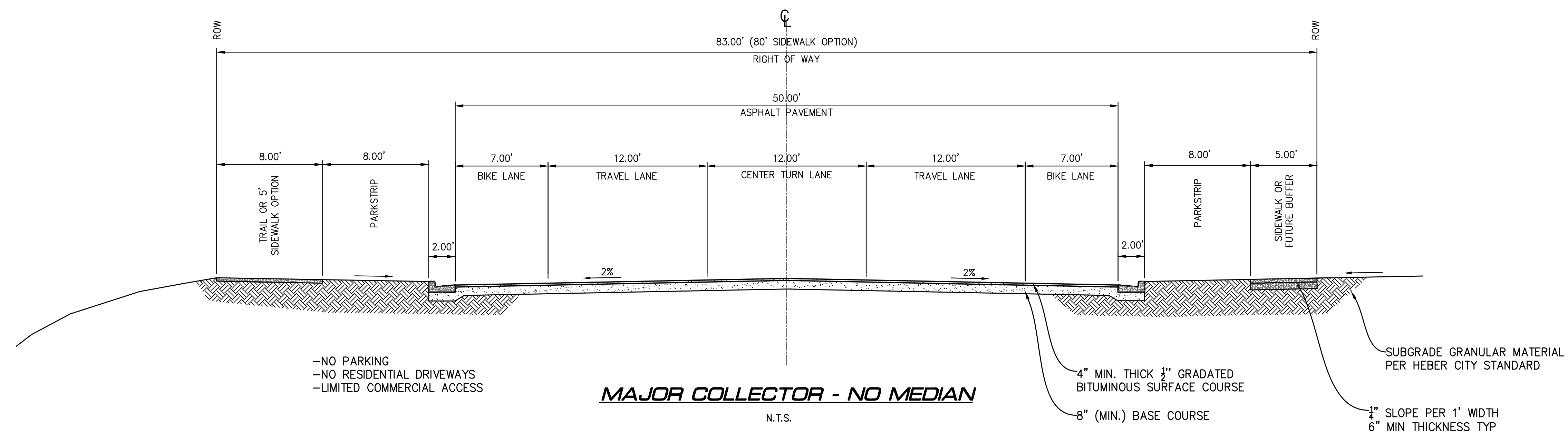
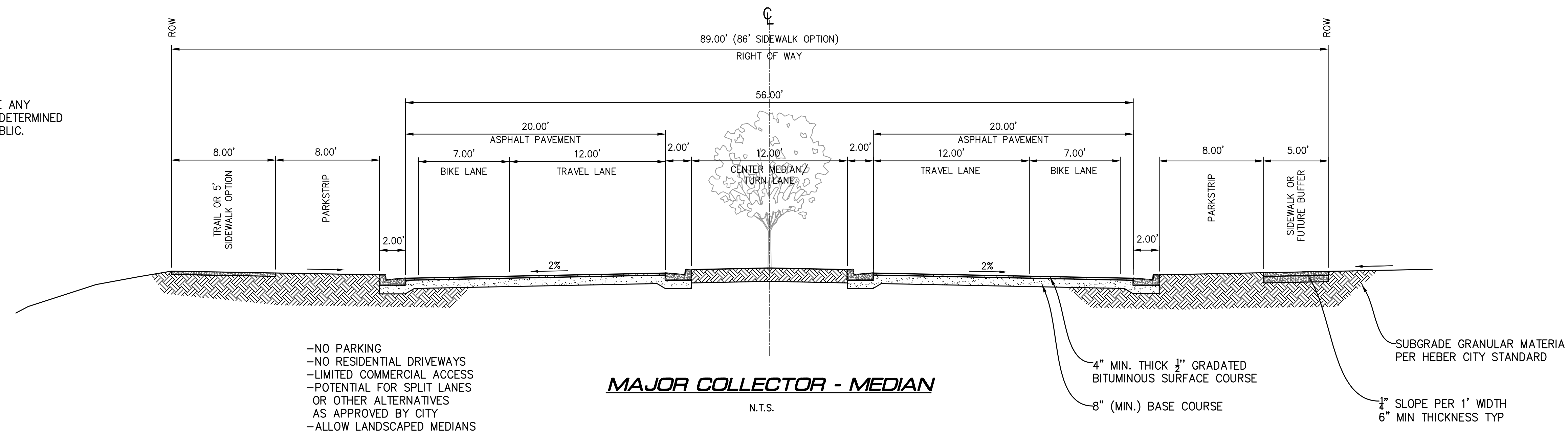


<p>JORDANELLE RIDGE TRANSPORTATION MASTER PLAN</p>	<p>DATE SUBMITTED: 05-05-2025</p>
<p>JORDANELLE RIDGE</p> <p>10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095</p>	<p>PREPARED FOR: JORDANELLE REF ACQUISITION</p>
<p>SHEET NUMBER</p> <p>1</p>	<p>SCALE</p> <p>HORIZONTAL: 1"=NTS</p> <p>VERTICAL: 1"= -</p>
<p>JOB NUMBER</p> <p>47-100</p>	<p>*NOTE: PRIVATE ROADS MAY BE GATED</p>

CAUTION
 The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

NO.	BY	DATE	REVISIONS

NOTE: HEBER CITY RESERVES THE RIGHT TO RE-STRIPE ANY PUBLIC ROAD AND CHANGE LANE CONFIGURATIONS AS DETERMINED BY THE CITY TO BE IN THE BEST INTEREST OF THE PUBLIC.



PROJ. MGR: _____ DESIGNER: RC
\\Mac\Dropbox for Business\Momentum-M2 Civil Team\Folder\Iron\RainTree\Jordanelle\JR_Overall\Drawings\Exhibits\2025-03-05 - Roadway Cross Sections.dwg - Apr. 29, 2025-5:01pm

NO.	BY	DATE	REVISIONS

CAUTION
The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.
DATE SUBMITTED: 4/29/2025
PREPARED FOR: JORDANELLE REF ACQUISITION

JORDANELLE RIDGE

ROADWAY CROSS SECTIONS
PUBLIC SECTIONS

JORDANELLE RIDGE

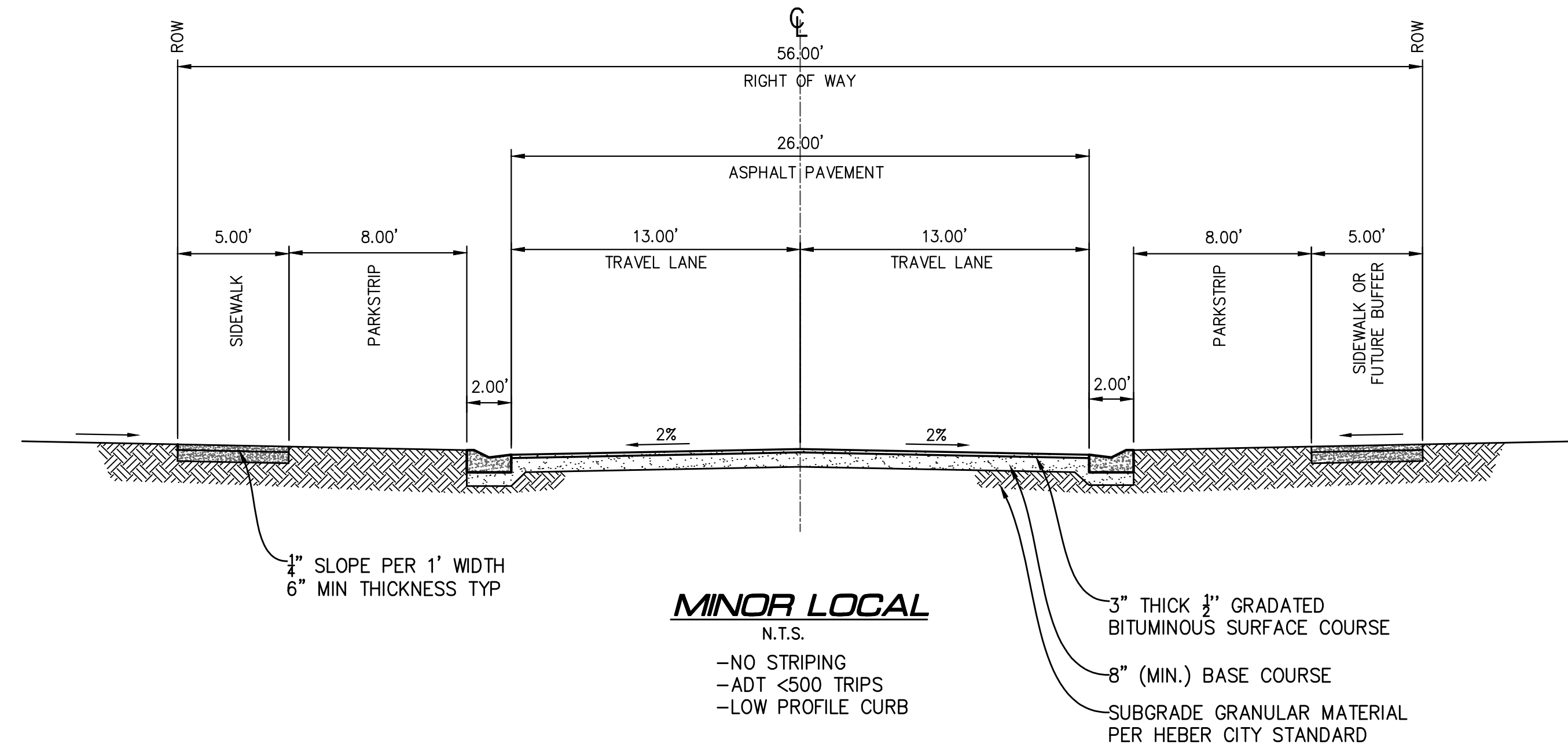
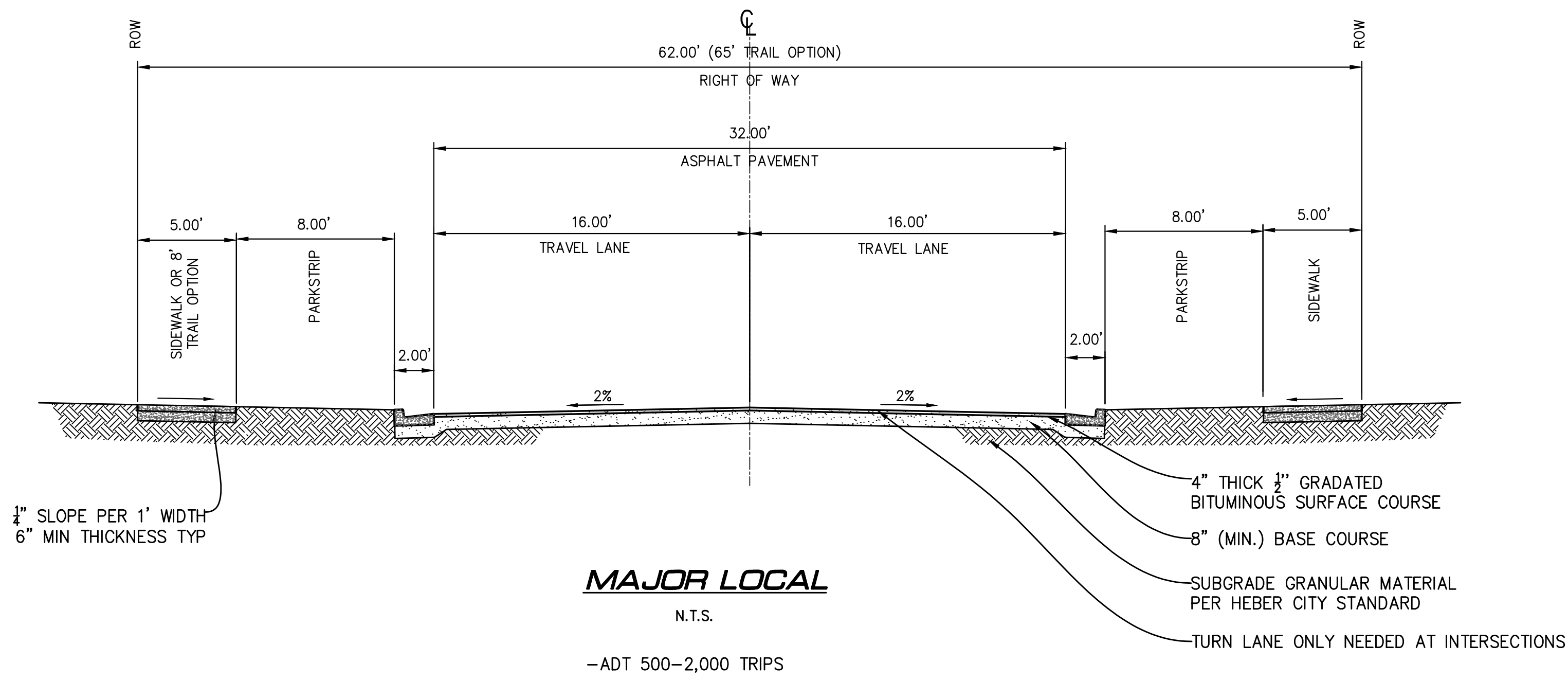
10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095

SHEET NUMBER
2

SCALE
HORIZONTAL: 1"=5'
VERTICAL: 1"=NA

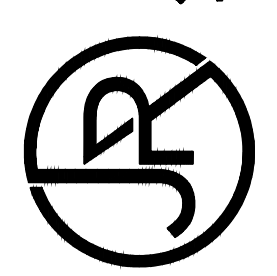
JOB NUMBER
47-100

NOTE: HEBER CITY RESERVES THE RIGHT TO RE-STRIPE ANY PUBLIC ROAD AND CHANGE LANE CONFIGURATIONS AS DETERMINED BY THE CITY TO BE IN THE BEST INTEREST OF THE PUBLIC.



NO.	BY	DATE	REVISIONS

PREPARED FOR: **JORDANELLE REF ACQUISITION**
 DATE SUBMITTED: 5/5/2025
JORDANELLE RIDGE
ROADWAY CROSS SECTIONS
PUBLIC SECTIONS



JORDANELLE RIDGE

10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095

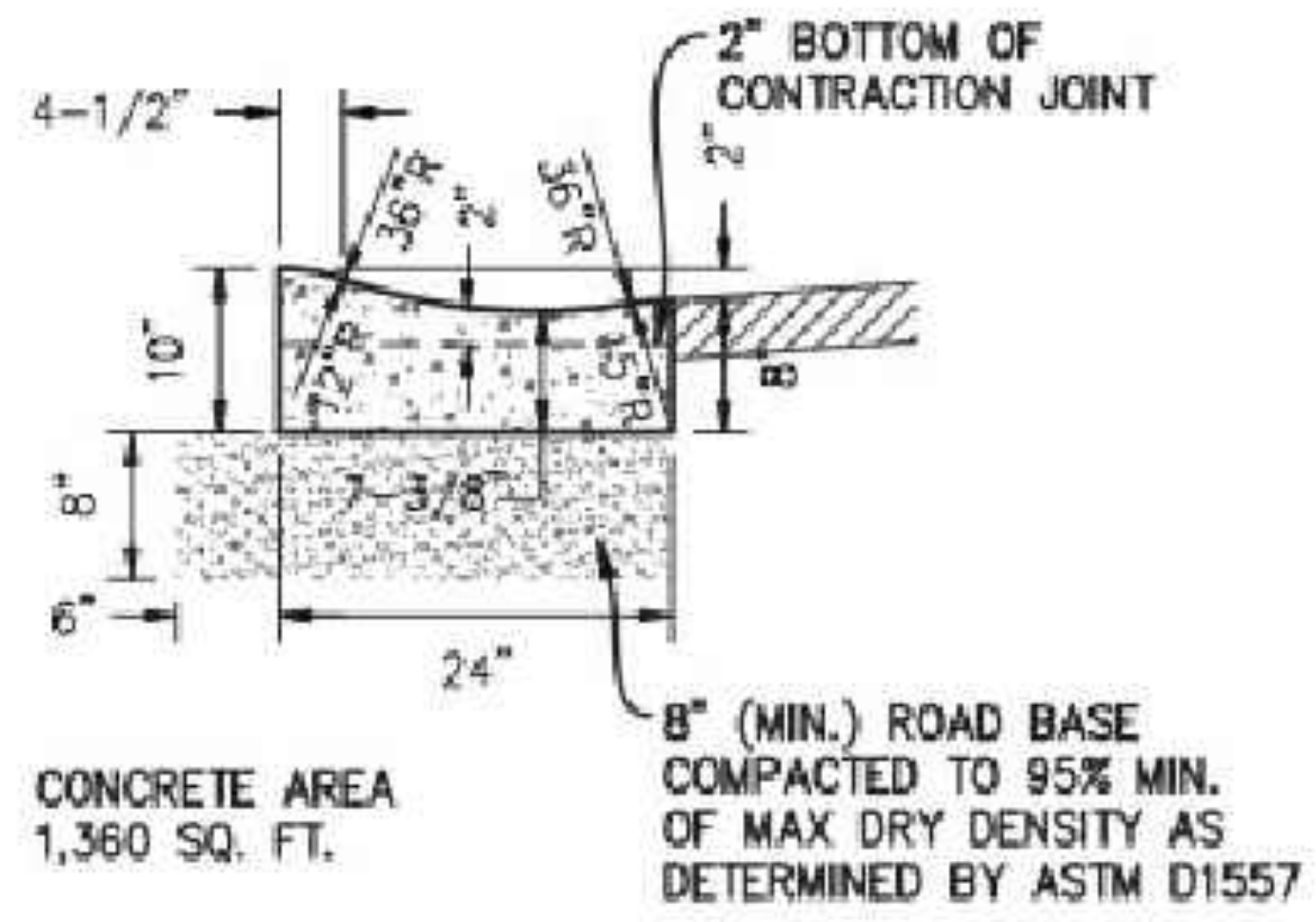
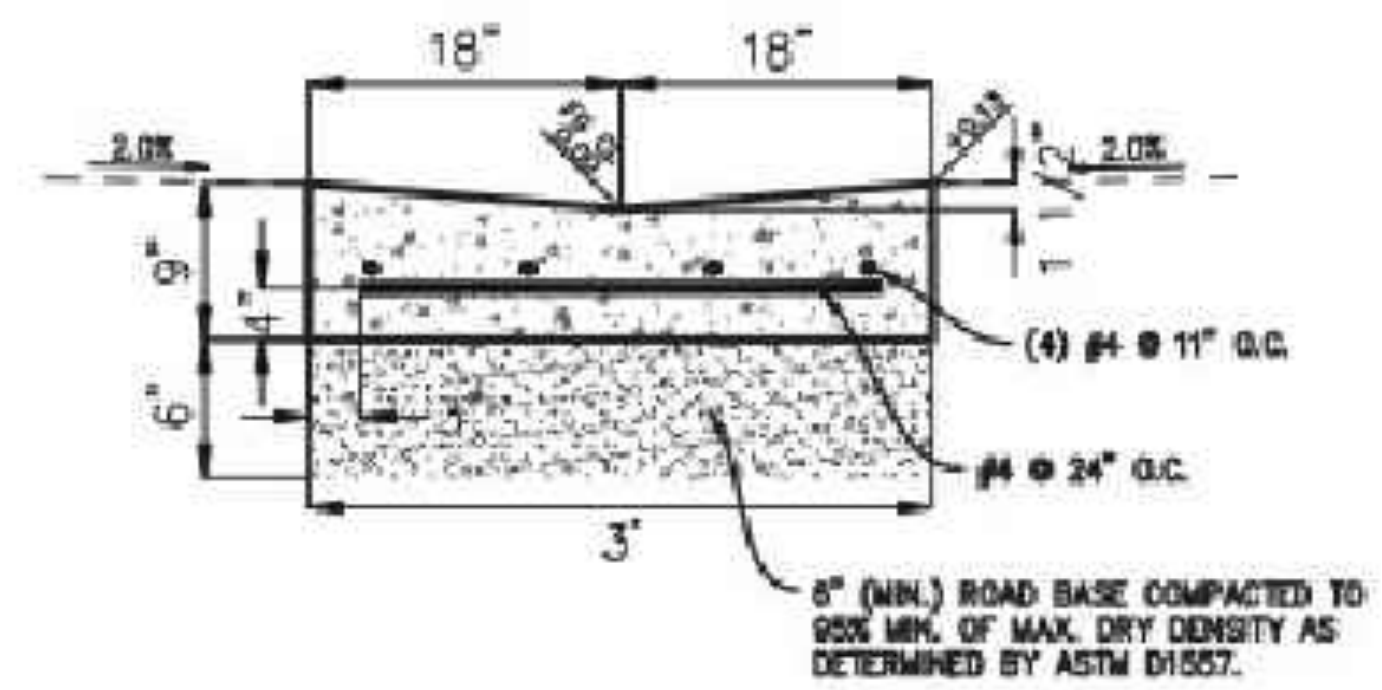
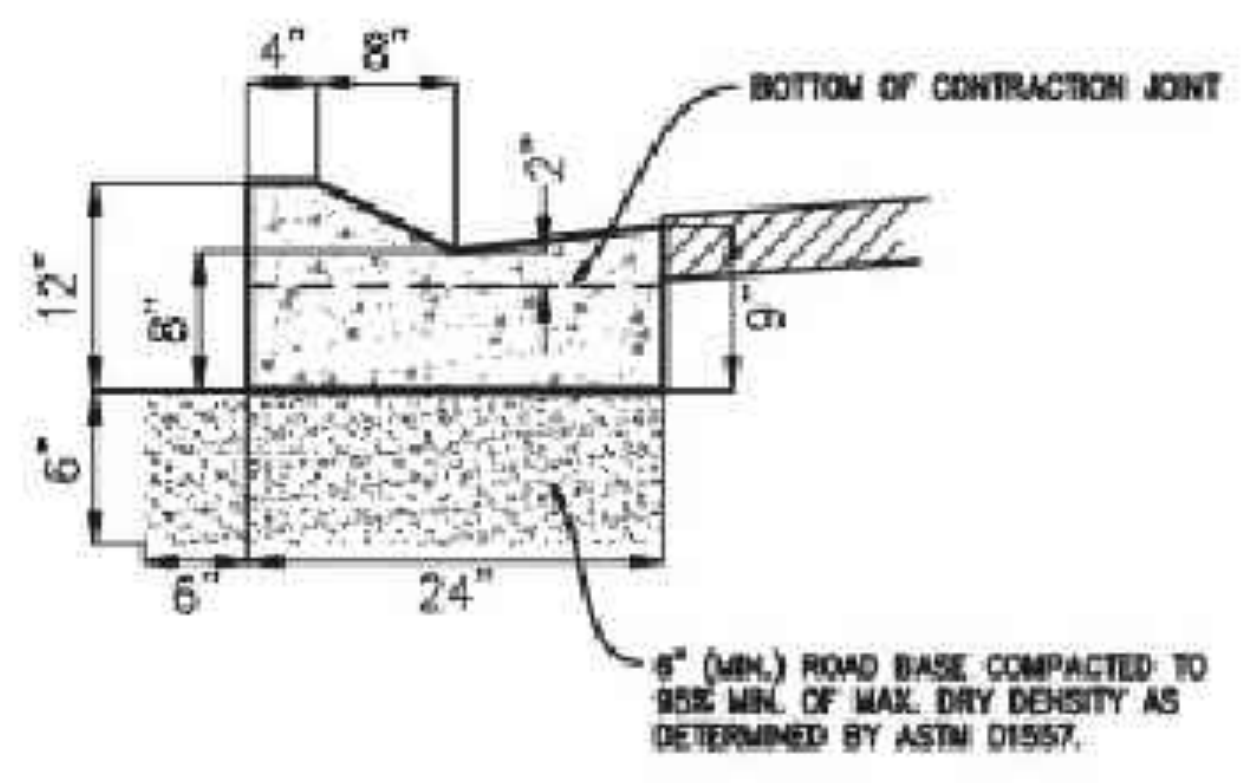
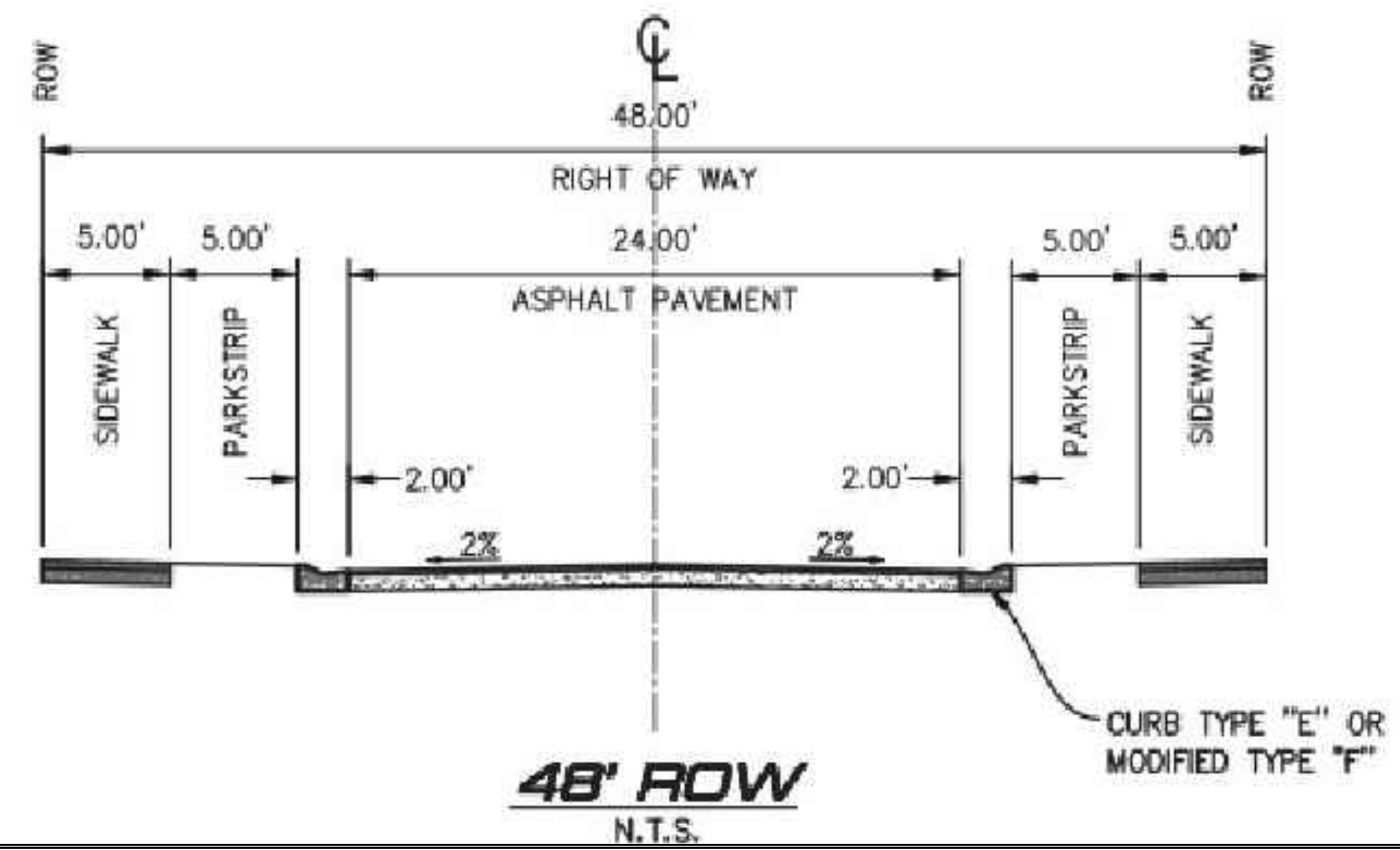
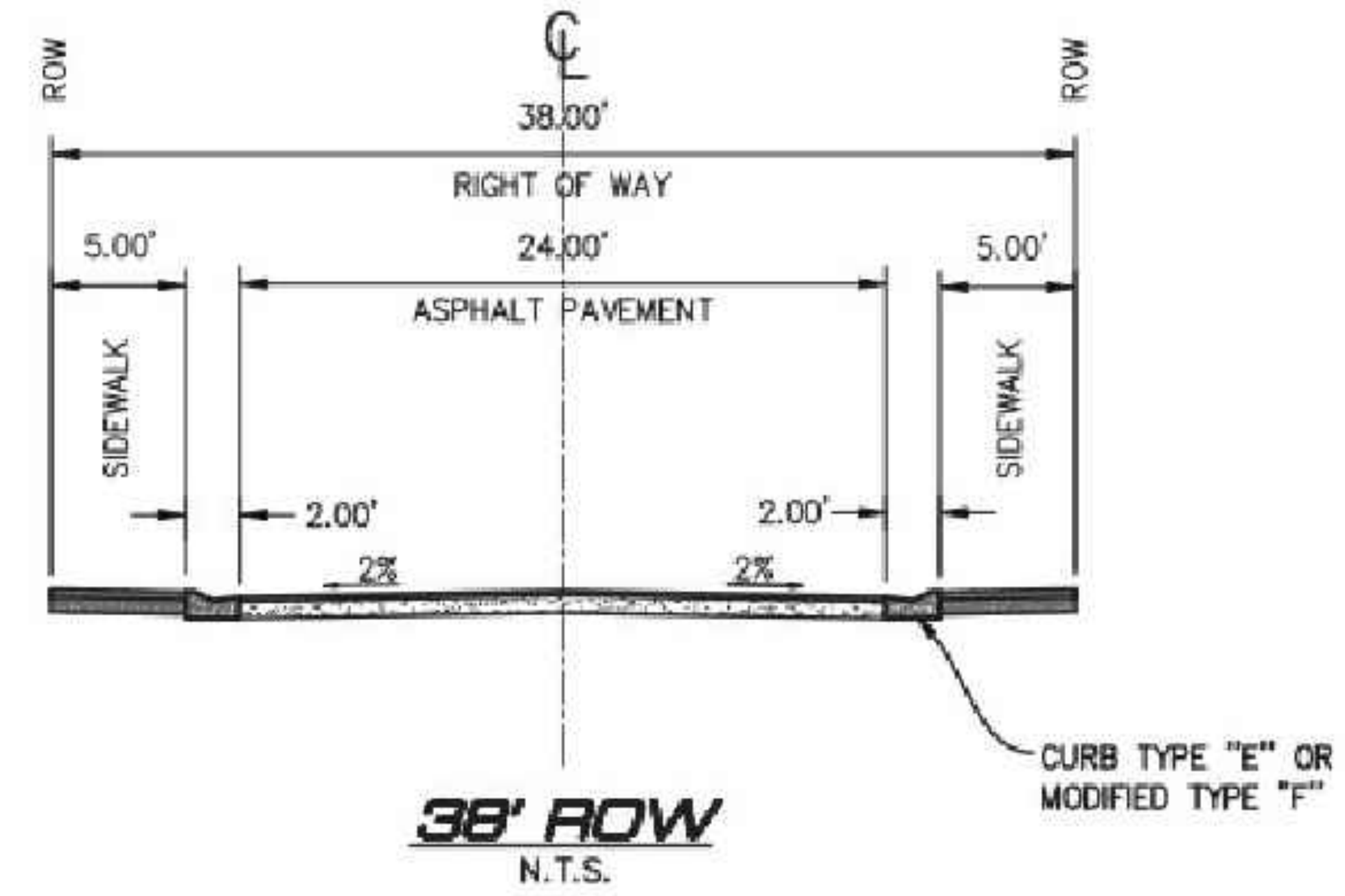
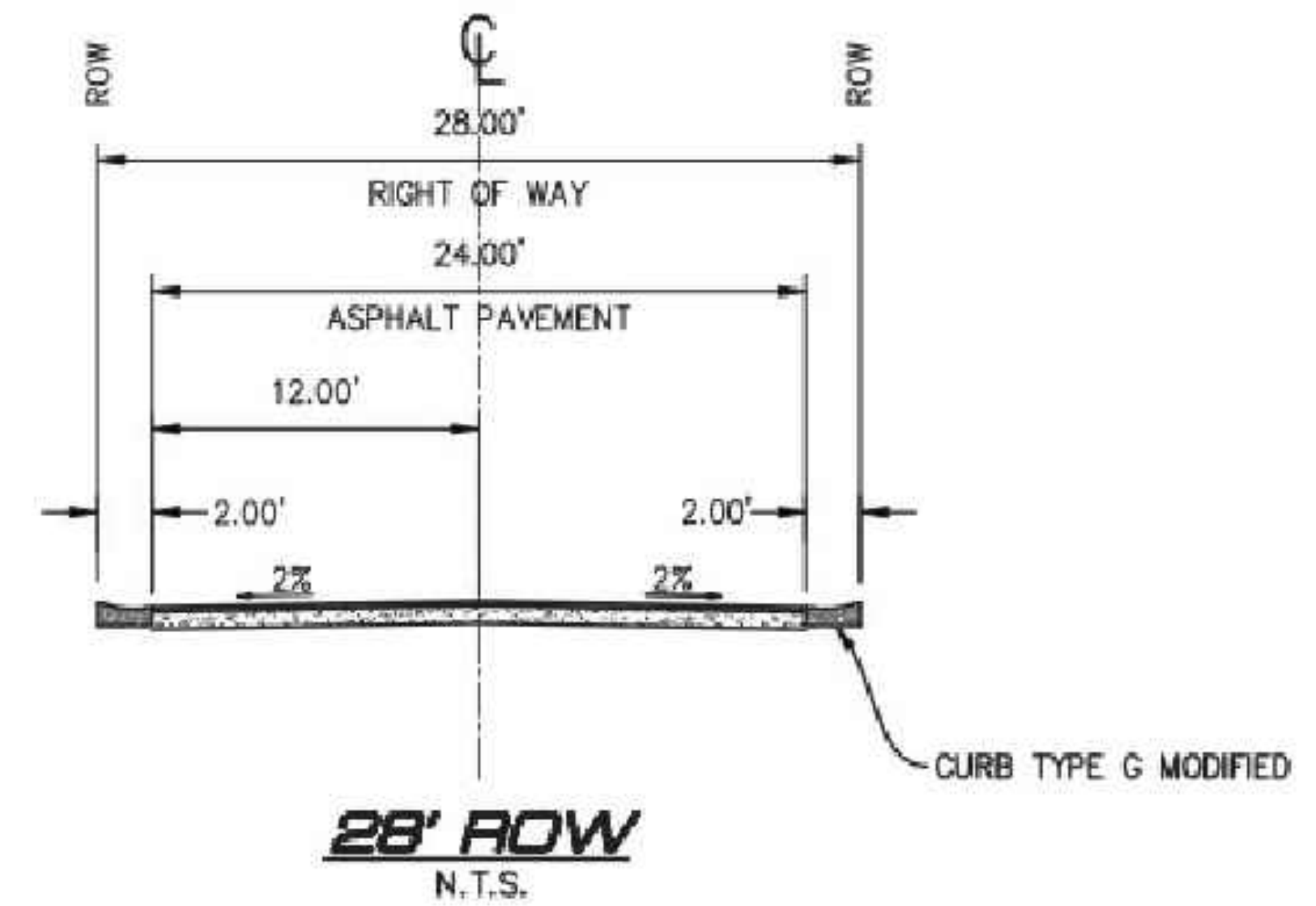
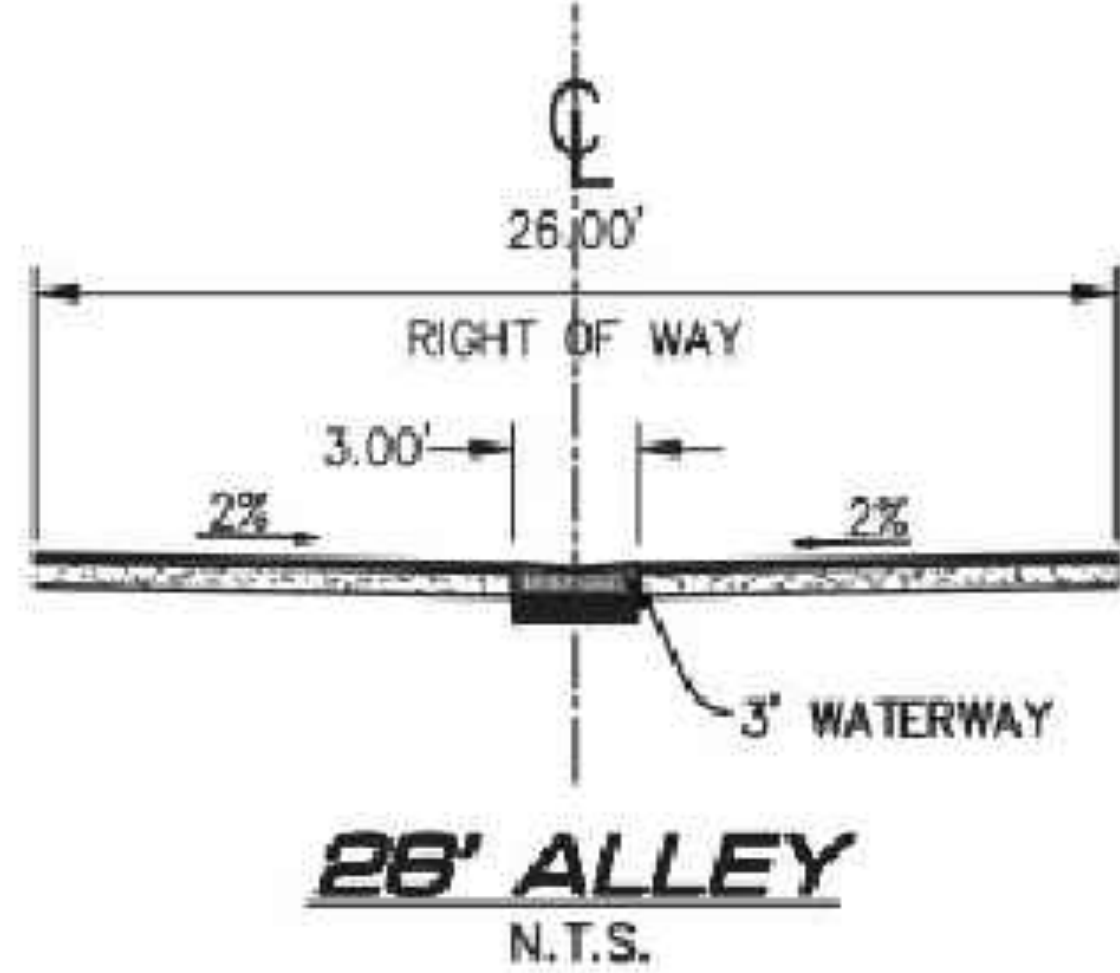
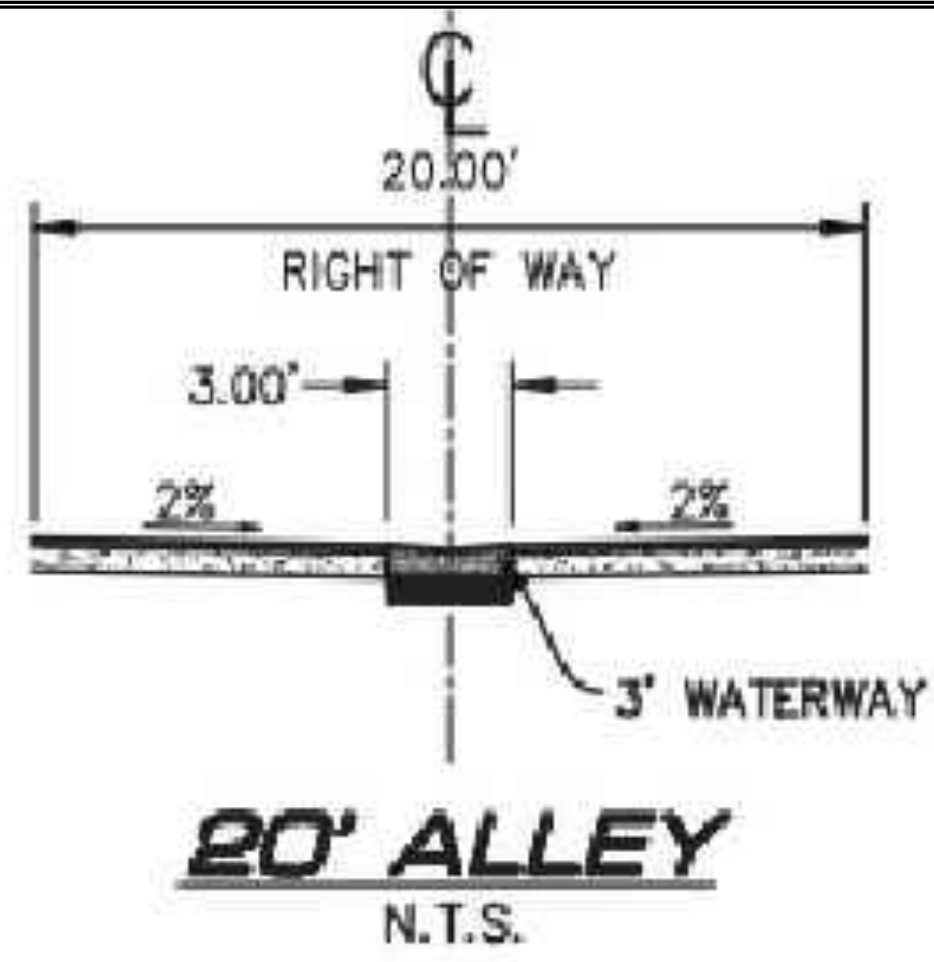
SHEET NUMBER
3

SCALE
 HORIZONTAL: 1"=5'
 VERTICAL: 1"=NA

JOB NUMBER
47-100

The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

CAUTION



NO.	BY	DATE	REVISIONS

CAUTION: The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

PREPARED FOR: **JORDANELLE REF ACQUISITION** DATE SUBMITTED: 4/29/2025

JORDANELLE RIDGE

10421 S. JORDAN GATEWAY, SUITE 200, SOUTH JORDAN, UTAH 84095

SHEET NUMBER
4

SCALE
HORIZONTAL: 1"=NTS
VERTICAL: 1"=NA

JOB NUMBER
47-100



Planning Commission Staff Report

MEETING DATE: 6/10/2025
SUBJECT: Housing Report by Josh Lythgoe
RESPONSIBLE:
DEPARTMENT: Planning
STRATEGIC RELEVANCE:

SUMMARY

RECOMMENDATION

BACKGROUND

DISCUSSION

FISCAL IMPACT

CONCLUSION

ALTERNATIVES

Staff Recommended Option - Approval

I move to **approve the item** as presented, with the findings and conditions as presented in the conclusion above.

Alternative 2 - Continuance

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

Alternative 3 - DENIAL

I move to **deny the item** with the following findings.

POTENTIAL MOTIONS

ACCOUNTABILITY

Department: Planning

Staff member:

EXHIBITS

1. Housing Presentation

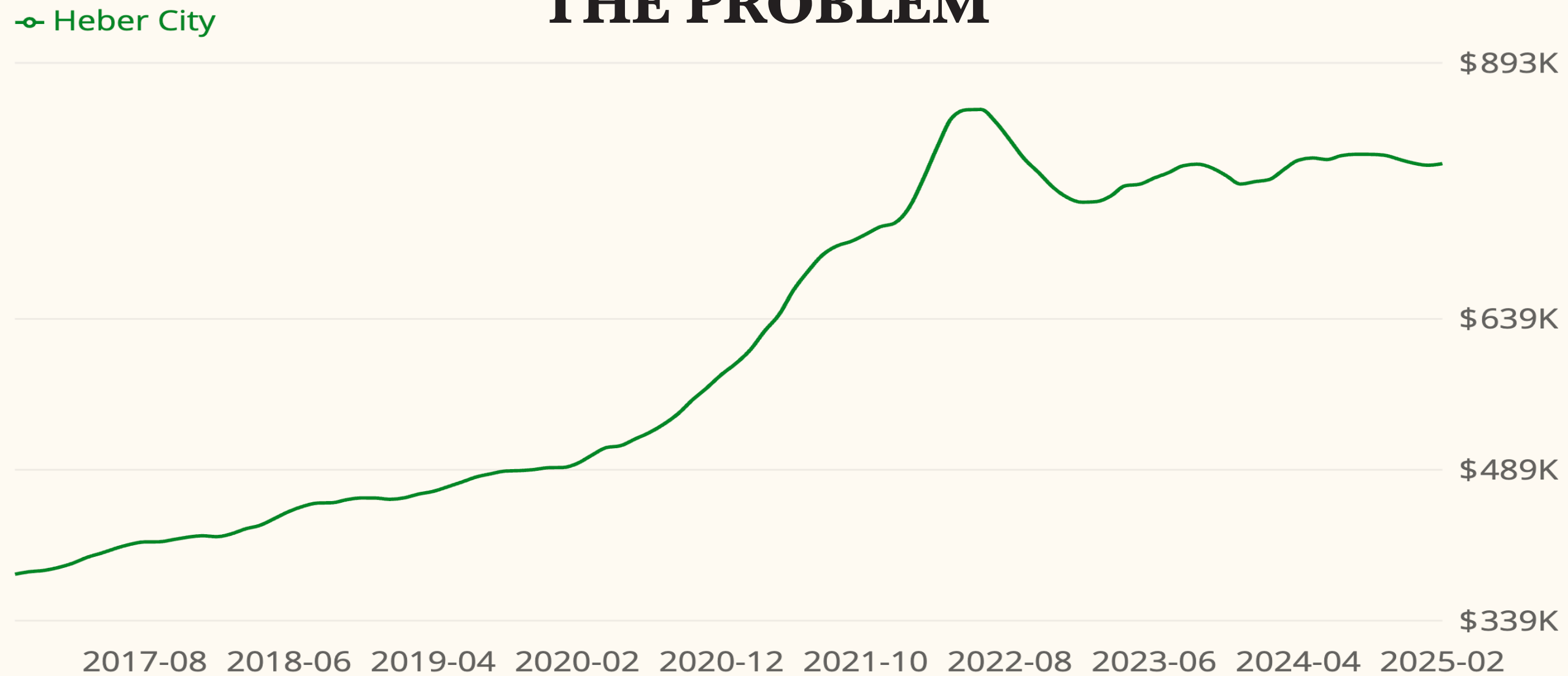


PENNY COMMONS

AN AFFORDABLE HOUSING COMMUNITY

Location: Heber City, UT

THE PROBLEM



SOURCE: <https://www.zillow.com/home-values/396506/heber-city-ut/>

- Median home sales price in Heber, Utah is **\$704,430** according to Zillow
- At a 6.5% interest rate for a 30 year mortgage that would be **\$4,449.76** per month.
- Median household income in Utah is **\$86,833** per year or **\$7,326** per month
- This would be **61%** of income going to your mortgage! (**25% is what is recommended by some finance experts**)

REDUCING CONSTRUCTION COST THROUGH DESIGN

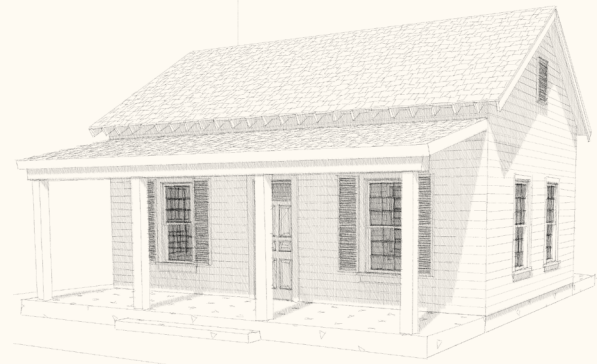
RECTANGULAR FOOTPRINT WIDE
(101 linear feet footprint)

RECTANGULAR FOOTPRINT GABLE
(101 linear feet footprint)

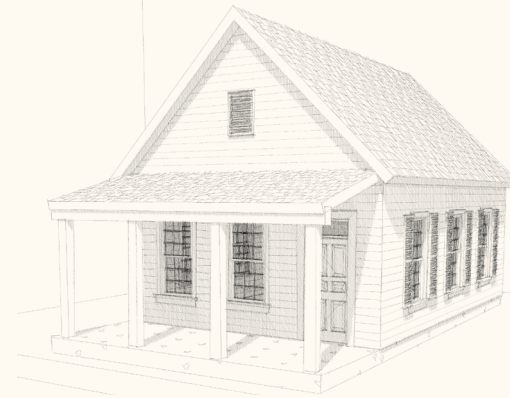
“L” SHAPED FOOTPRINT
(111 linear feet footprint)

“T” SHAPED FOOTPRINT
(110 linear feet footprint)

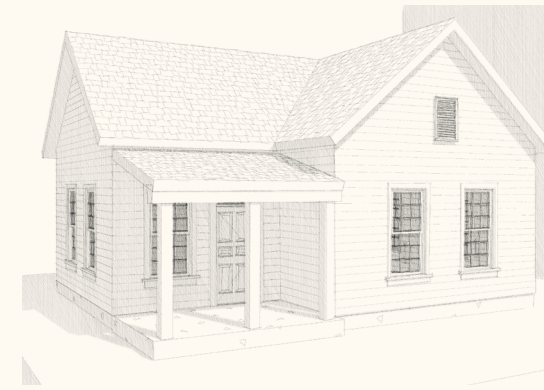
1 STORY
ABOVE
GRADE



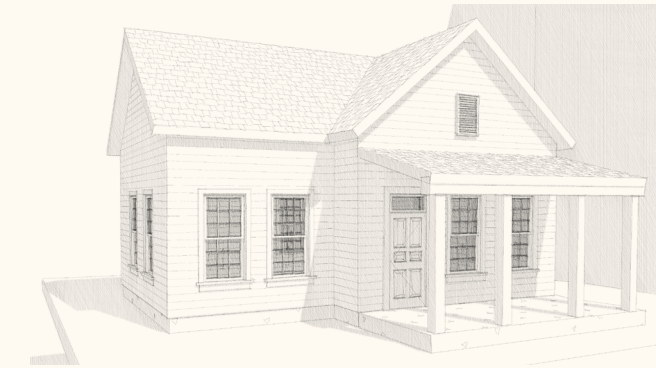
RW 1



RG 1

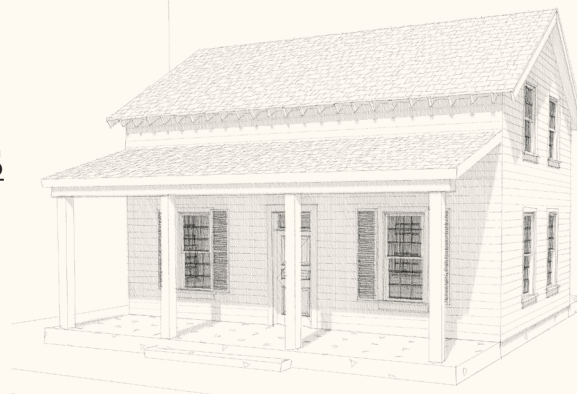


L 1

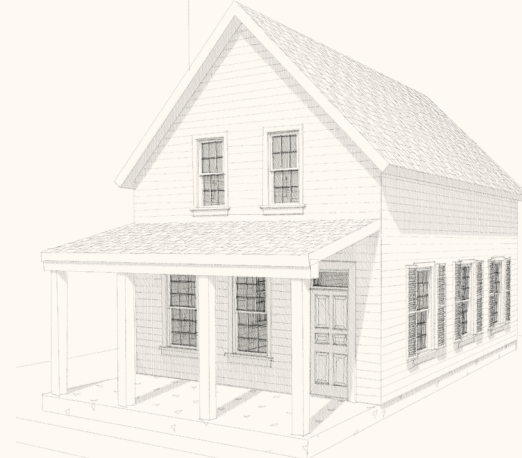


T 1

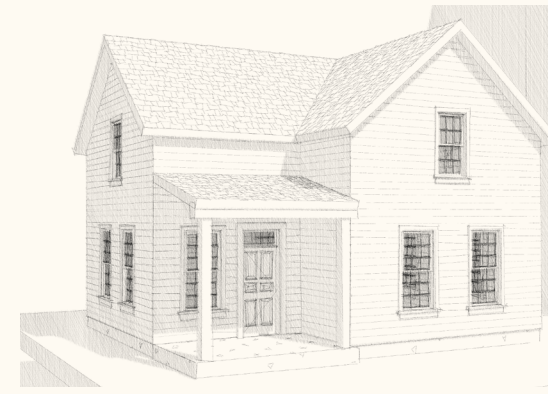
1.5 STORIES
ABOVE
GRADE



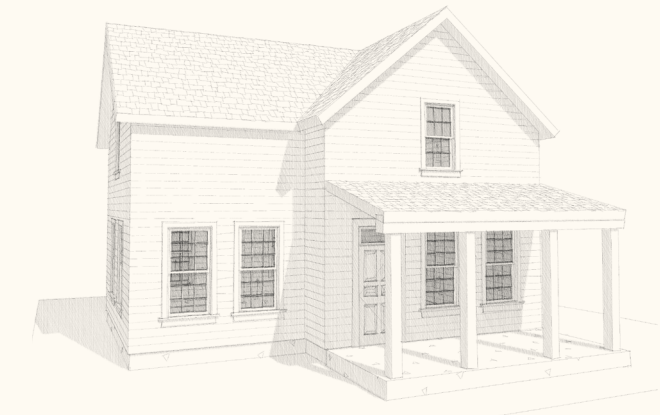
RW 1.5



RG 1.5

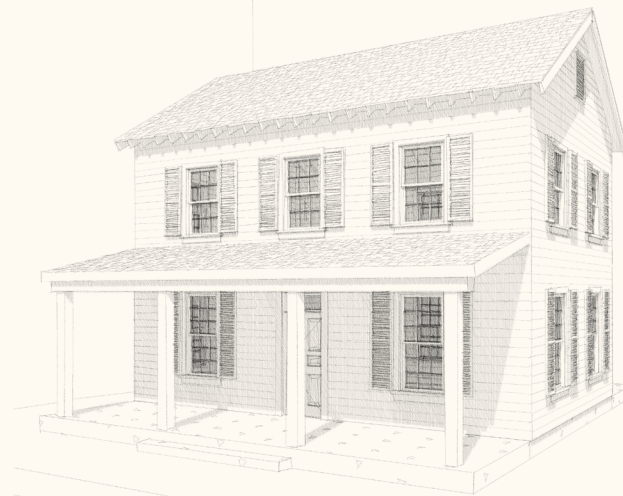


L 1.5



T 1.5

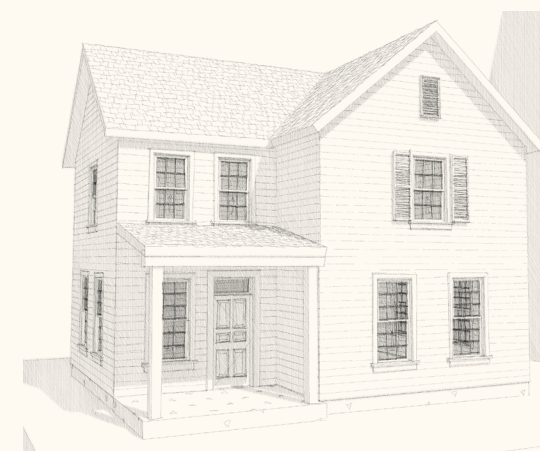
2 STORIES
ABOVE
GRADE



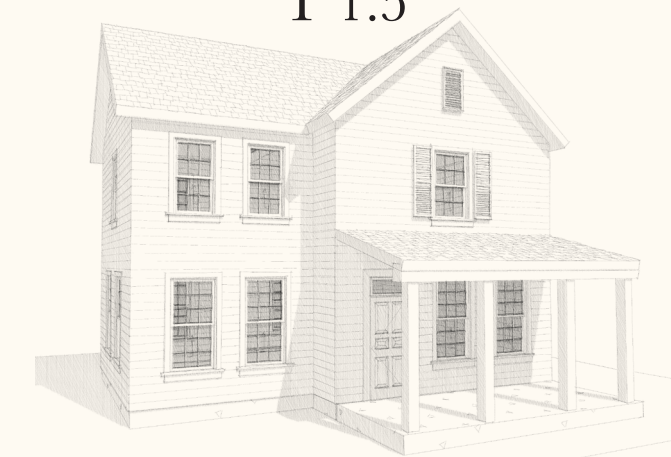
RW 2



RG 2



L 2



T 2

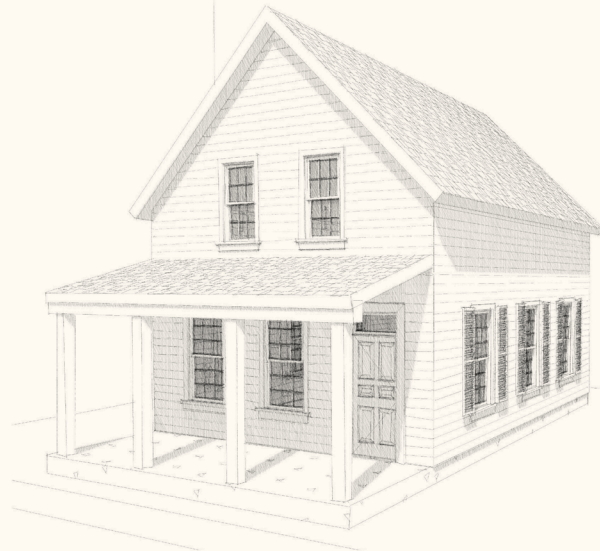
QUANTITY TAKE-OFF COST ESTIMATING



774 South Main Street
 Idaho City, Idaho 83402
 Name: RG1.5
 Number: 0304
 Date: 2024.10.4
 Residential Construction: Unit Costing \$150,988

LEVEL	Building Information	Quantity	LEVEL	Building Information	Quantity				
LOWER	Foundation wall	101 L.F.	ROOF	Roof Pitch (run length %)	B12 150.0%				
	Interior wall	0 L.F.		Roof Perimeter	108 L.F.				
	Exterior wall	0 L.F.		Roof wall surface	0 S.F.				
	Upper Level (SQUARE FOOTAGE) F' depth	0 S.F.		Roof (SQUARE FOOTAGE)	852 S.F.				
	Lower Level (SQUARE FOOTAGE) F' depth	0 S.F.		Roof Slopers (approx)	12 sq.				
MAIN	Lower Level (S.F. F' area)	0 S.F.	EXTERIOR WALL		1,717 S.F.				
	Windows / Doors (square foot)	0 S.F.		INTERIOR WALL		459 S.F.			
	Exterior 2nd wall F'	101 L.F.			Material	Qty	S-Items	Total	
	Interior 2nd wall F'	0 L.F.				2x4 stud	30 each	\$1.91	\$57.30
	Main Level (SQUARE FOOTAGE)	600 S.F.				1x4 stud	176 each	\$0.41	\$72.16
Windows / Doors (square foot)	599 S.F.	1x2 stud	54 each			\$0.89	\$48.06		
Upper Level (SQUARE FOOTAGE)	0 S.F.	1x2 stud	34 each	\$1.24		\$42.16			
UPPER	Windows / Doors (square foot)	46 S.F.	GARAGE	1x2 stud	19 each	\$1.24	\$23.56		
	Exterior 2nd wall F'	101 L.F.		1x2 stud	19 each	\$1.24	\$23.56		
	Interior 2nd wall F'	0 L.F.		1x2 stud	19 each	\$1.24	\$23.56		
	Upper Level (SQUARE FOOTAGE)	0 S.F.		1x2 stud	19 each	\$1.24	\$23.56		
	Lower Level (SQUARE FOOTAGE)	0 S.F.		1x2 stud	19 each	\$1.24	\$23.56		
TOTAL SF	Exterior 2nd wall F'	101 L.F.							
	Interior 2nd wall F'	0 L.F.							
	Upper Level (SQUARE FOOTAGE)	0 S.F.							
	Lower Level (SQUARE FOOTAGE)	0 S.F.							
	Windows / Doors (square foot)	600 S.F.							

RG1.5 | RECTANGULAR GABLE 1.5



PROGRAM:
 -Upper level 600 sf
 -Main level 600 sf
 -3 bedroom
 -Living room
 -Laundry
 -Small kitchen
 -Dining
 -Mechanical

Takeoffs:
 -Area above ground walls: 1,382.3 sf
 -Area subterranean walls: 300 sf
 -Area glazing: 243.7 sf
 -Linear feet foundation: 100'-8"

Materials:
 -Exterior finish: Cement board siding
 -Interior finish: Gypsum
 -Roofing: Asphalt
 -Windows: Vinyl
 -Counters: Wood or Laminate
 -Floor finishes: LVP (living), Carpet (bedrooms), Tile (kitchen & baths)
 -Ceiling finishes: gypsum

Construction:
 -Stick framed roof
 -2x6 exterior walls
 -2x4 interior walls
 -Lap siding
 -Asphalt shingles



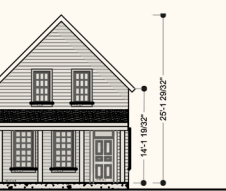
6 RG1.5 UPPER
 SCALE: 1/16" = 1'-0"



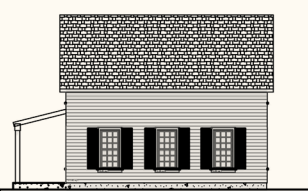
7 RG1.5 ROOF
 SCALE: 1/16" = 1'-0"

5 RG1.5 MAIN
 SCALE: 1/16" = 1'-0"

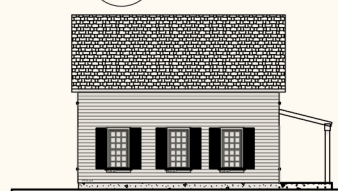
8 RG1.5 PERSPECTIVE
 SCALE: 1" = 1'-0"



1 RG1.5 FRONT
 SCALE: 1/16" = 1'-0"



4 RG1.5 RIGHT
 SCALE: 1/16" = 1'-0"



3 RG1.5 LEFT
 SCALE: 1/16" = 1'-0"



2 RG1.5 REAR
 SCALE: 1/16" = 1'-0"

Code	Description of Work	Material	Quantity	Unit	Rate	Cost	Notes
GENERAL	1. General (Property purchase)	see below of sheet					
1	General (Arch & Eng)					\$1,200.00	
2	General (Survey)					\$1,000.00	
3	General (Permit & Inspection fee)					\$1,000.00	
4	General (Plan & Foundation fee)					\$1,000.00	
5	General (Plan & Foundation fee)					\$1,000.00	
6	General (Plan & Foundation fee)					\$1,000.00	
7	General (Plan & Foundation fee)					\$1,000.00	
8	General (Plan & Foundation fee)					\$1,000.00	
9	General (Plan & Foundation fee)					\$1,000.00	
10	General (Plan & Foundation fee)					\$1,000.00	
11	General (Plan & Foundation fee)					\$1,000.00	
12	General (Plan & Foundation fee)					\$1,000.00	
13	General (Plan & Foundation fee)					\$1,000.00	
14	General (Plan & Foundation fee)					\$1,000.00	
15	General (Plan & Foundation fee)					\$1,000.00	
16	General (Plan & Foundation fee)					\$1,000.00	
17	General (Plan & Foundation fee)					\$1,000.00	
18	General (Plan & Foundation fee)					\$1,000.00	
19	General (Plan & Foundation fee)					\$1,000.00	
20	General (Plan & Foundation fee)					\$1,000.00	
21	General (Plan & Foundation fee)					\$1,000.00	
22	General (Plan & Foundation fee)					\$1,000.00	
23	General (Plan & Foundation fee)					\$1,000.00	
24	General (Plan & Foundation fee)					\$1,000.00	
25	General (Plan & Foundation fee)					\$1,000.00	
26	General (Plan & Foundation fee)					\$1,000.00	
27	General (Plan & Foundation fee)					\$1,000.00	
28	General (Plan & Foundation fee)					\$1,000.00	
29	General (Plan & Foundation fee)					\$1,000.00	
30	General (Plan & Foundation fee)					\$1,000.00	
31	General (Plan & Foundation fee)					\$1,000.00	
32	General (Plan & Foundation fee)					\$1,000.00	
33	General (Plan & Foundation fee)					\$1,000.00	
34	General (Plan & Foundation fee)					\$1,000.00	
35	General (Plan & Foundation fee)					\$1,000.00	
36	General (Plan & Foundation fee)					\$1,000.00	
37	General (Plan & Foundation fee)					\$1,000.00	
38	General (Plan & Foundation fee)					\$1,000.00	
39	General (Plan & Foundation fee)					\$1,000.00	
40	General (Plan & Foundation fee)					\$1,000.00	
41	General (Plan & Foundation fee)					\$1,000.00	
42	General (Plan & Foundation fee)					\$1,000.00	
43	General (Plan & Foundation fee)					\$1,000.00	
44	General (Plan & Foundation fee)					\$1,000.00	
45	General (Plan & Foundation fee)					\$1,000.00	
46	General (Plan & Foundation fee)					\$1,000.00	
47	General (Plan & Foundation fee)					\$1,000.00	
48	General (Plan & Foundation fee)					\$1,000.00	
49	General (Plan & Foundation fee)					\$1,000.00	
50	General (Plan & Foundation fee)					\$1,000.00	
51	General (Plan & Foundation fee)					\$1,000.00	
52	General (Plan & Foundation fee)					\$1,000.00	
53	General (Plan & Foundation fee)					\$1,000.00	
54	General (Plan & Foundation fee)					\$1,000.00	
55	General (Plan & Foundation fee)					\$1,000.00	
56	General (Plan & Foundation fee)					\$1,000.00	
57	General (Plan & Foundation fee)					\$1,000.00	
58	General (Plan & Foundation fee)					\$1,000.00	
59	General (Plan & Foundation fee)					\$1,000.00	
60	General (Plan & Foundation fee)					\$1,000.00	
61	General (Plan & Foundation fee)					\$1,000.00	
62	General (Plan & Foundation fee)					\$1,000.00	
63	General (Plan & Foundation fee)					\$1,000.00	
64	General (Plan & Foundation fee)					\$1,000.00	
65	General (Plan & Foundation fee)					\$1,000.00	
66	General (Plan & Foundation fee)					\$1,000.00	
67	General (Plan & Foundation fee)					\$1,000.00	
68	General (Plan & Foundation fee)					\$1,000.00	
69	General (Plan & Foundation fee)					\$1,000.00	
70	General (Plan & Foundation fee)					\$1,000.00	
71	General (Plan & Foundation fee)					\$1,000.00	
72	General (Plan & Foundation fee)					\$1,000.00	
73	General (Plan & Foundation fee)					\$1,000.00	
74	General (Plan & Foundation fee)					\$1,000.00	
75	General (Plan & Foundation fee)					\$1,000.00	
76	General (Plan & Foundation fee)					\$1,000.00	
77	General (Plan & Foundation fee)					\$1,000.00	
78	General (Plan & Foundation fee)					\$1,000.00	
79	General (Plan & Foundation fee)					\$1,000.00	
80	General (Plan & Foundation fee)					\$1,000.00	
81	General (Plan & Foundation fee)					\$1,000.00	
82	General (Plan & Foundation fee)					\$1,000.00	
83	General (Plan & Foundation fee)					\$1,000.00	
84	General (Plan & Foundation fee)					\$1,000.00	
85	General (Plan & Foundation fee)					\$1,000.00	
86	General (Plan & Foundation fee)					\$1,000.00	
87	General (Plan & Foundation fee)					\$1,000.00	
88	General (Plan & Foundation fee)					\$1,000.00	
89	General (Plan & Foundation fee)					\$1,000.00	
90	General (Plan & Foundation fee)					\$1,000.00	
91	General (Plan & Foundation fee)					\$1,000.00	
92	General (Plan & Foundation fee)					\$1,000.00	
93	General (Plan & Foundation fee)					\$1,000.00	
94	General (Plan & Foundation fee)					\$1,000.00	
95	General (Plan & Foundation fee)					\$1,000.00	
96	General (Plan & Foundation fee)					\$1,000.00	
97	General (Plan & Foundation fee)					\$1,000.00	
98	General (Plan & Foundation fee)					\$1,000.00	
99	General (Plan & Foundation fee)					\$1,000.00	
100	General (Plan & Foundation fee)					\$1,000.00	

Name	Form		Shape	corners	Cost			Rating	Daylight	Mass	Energy			Aesthetics		Overall Score	Overall Rating	Overall Rating		
	Stories ^ ground	Stories v ground			total sf	upfront cost	cost per sf				sf glazing above grade	Rating	inches t. mass	Rating	wall assembly (r value)				Rating	VAS analysis
RW1		1	1	Rectangle	4	1200	\$145,914.00	\$121.60	1	135	12	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	4.5	3	5
RW1.5		1.5	0	Rectangle	4	1200	\$150,177.00	\$125.15	3	180	9	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	4.25	2	3
RW2		2	0	Rectangle	4	1200	\$178,287.00	\$148.57	11	263	4	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	5	4	9
RG1		1	1	Rectangle	4	1200	\$146,686.00	\$122.24	2	169	10	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	4.25	2	3
RG1.5		1.5	0	Rectangle	4	1200	\$150,988.00	\$125.82	4	214	6	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	3.75	1	1
RG2		2	0	Rectangle	4	1200	\$179,108.00	\$149.26	12	297	1	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	4.5	2	5
L1		1	1	"L" Shape	6	1200	\$151,490.00	\$126.24	5	169	10	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	5	5	9
L1.5		1.5	0	"L" Shape	6	1200	\$156,045.00	\$130.04	8	207	7	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	5	4	9
L2		2	0	"L" Shape	6	1200	\$183,613.00	\$153.01	14	267	3	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	5.5	6	13
T1		1	1	"T" Shape	8	1200	\$152,521.00	\$127.10	6	186	8	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	4.75	4	7
T1.5		1.5	0	"T" Shape	8	1200	\$157,031.00	\$130.86	9	224	5	0	3	R19 (R24 w/ closed cell upgrade)	2	TBD	1	4.75	3	7
T2		2	0	"T" Shape	8	1200	\$184,60													

FINDINGS

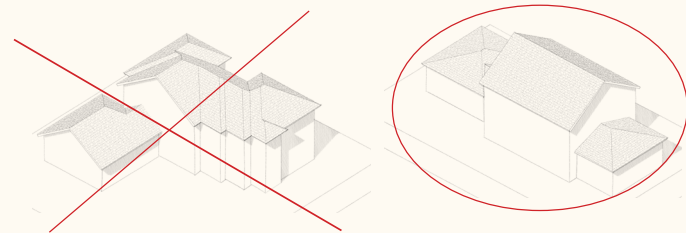
Size

- Reduce lifestyle
- Eliminating non-essential spaces
- Accepting not having main level living
- Get rid of excess belongings
- Shared amenities



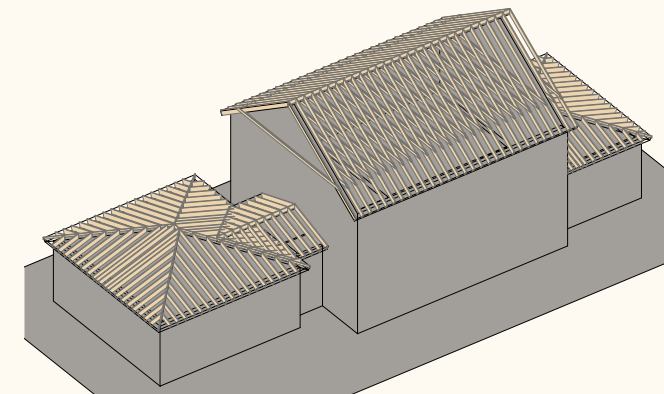
Simplicity

- Minimize wall jogs (design with the roof plan in mind)
- 4 corner houses were 4% less expensive than 6 or 8 corner houses for 1 and 1.5 story houses (Added material quantity, labor costs held constant. In reality it would be much greater than this)
- Create the simplest roof possible
- Design simple footprint shapes (a rectangle is the most affordable)
- Utilize, robust, local, and readily available finish materials



Structure

- Reduce span sizes by keeping home narrow
- Keep the roof structure simple
- Line up openings for windows and doors where possible
- Keep openings vertically oriented (long horizontal windows add cost)



Standard detailing

- Use precut studs to reduce labor expenses
- Design to layout by keeping in mind standard construction increments (ie: 4x8 sheathing)
- Use common means and methods such as wood framing to increase labor supply



Overall Takeaway:

A small wood framed house with 4 corners, 2 roof planes, small spans, and standard detailing achieves affordability.

The challenge: Can we make these homes beautiful and functional?

VERNACULAR EARLY AMERICAN BUILDINGS FOR AFFORDABLE HOUSING



Provo, UTAH



Ephraim, UTAH



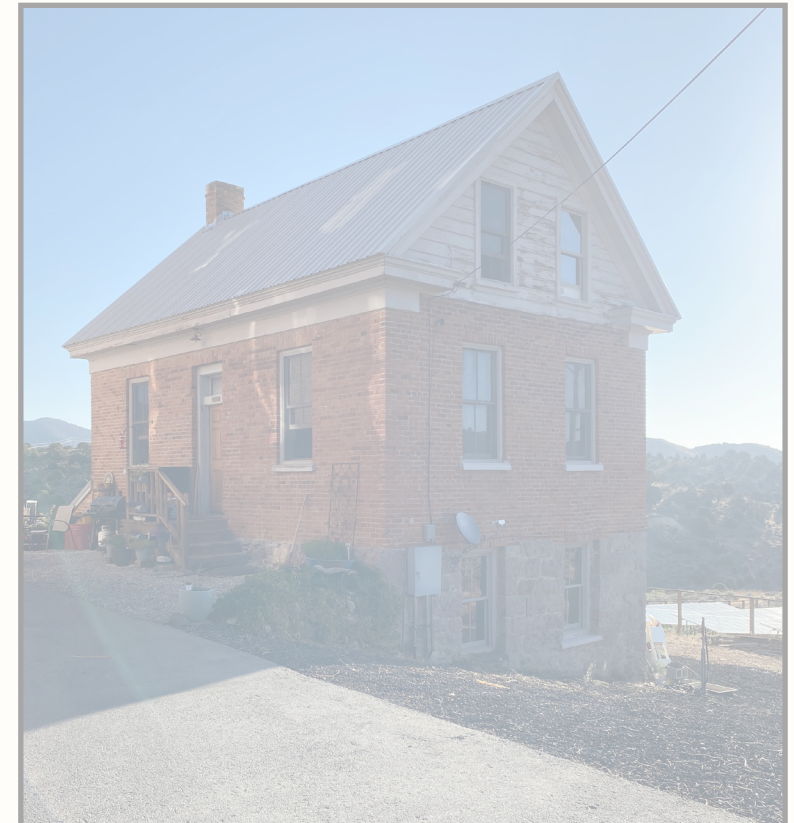
Virginia City, NEVADA



A Field Guide to American Houses

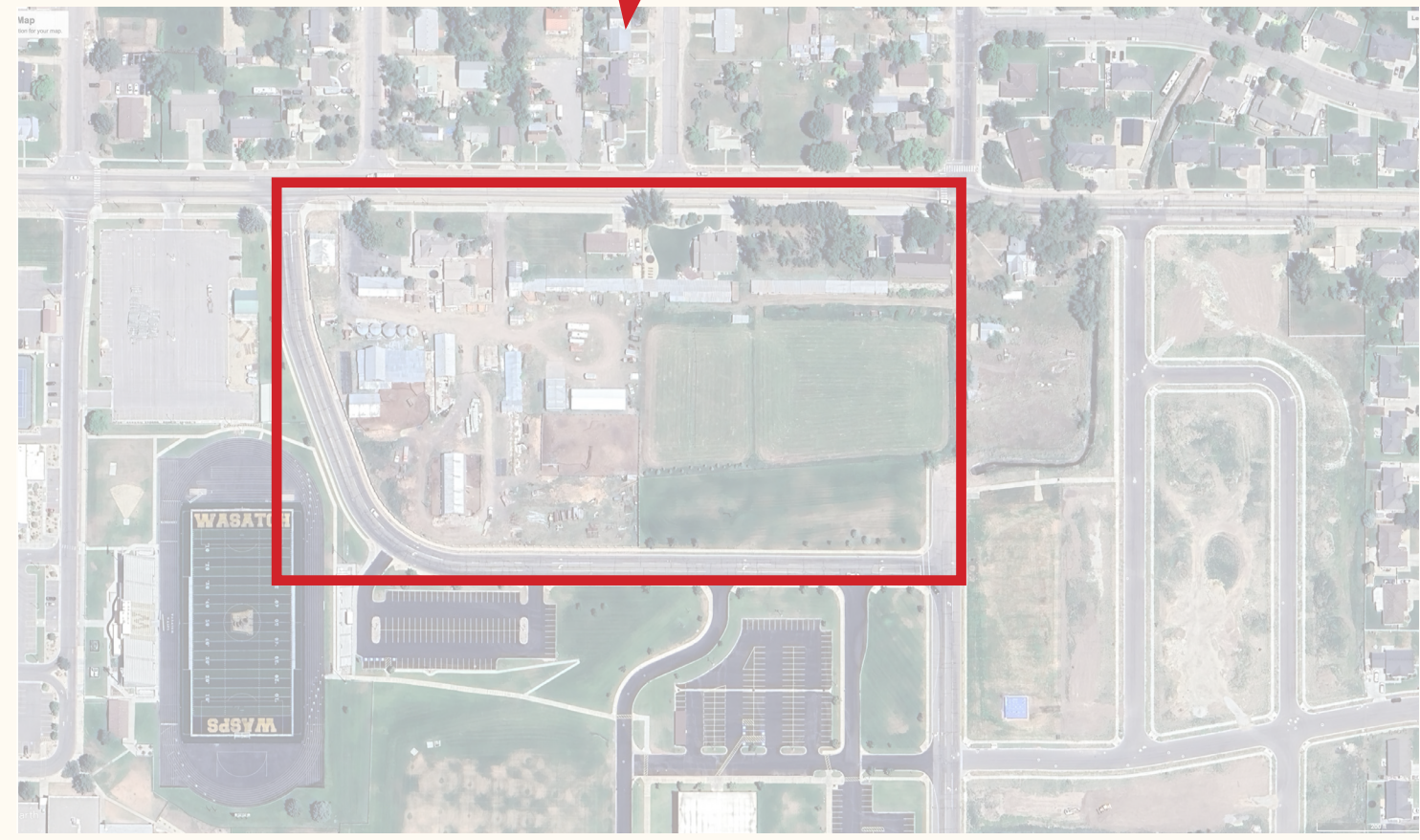
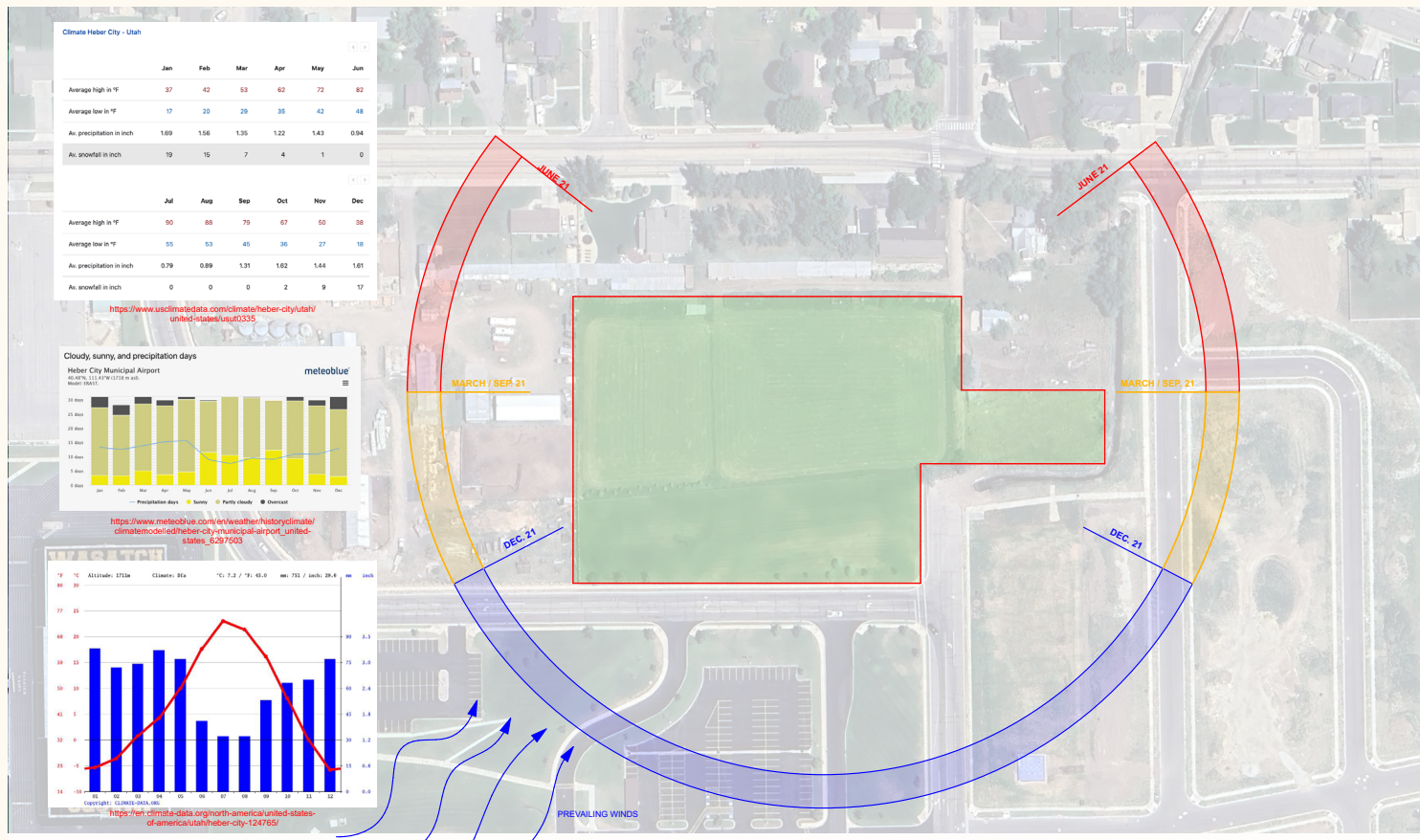
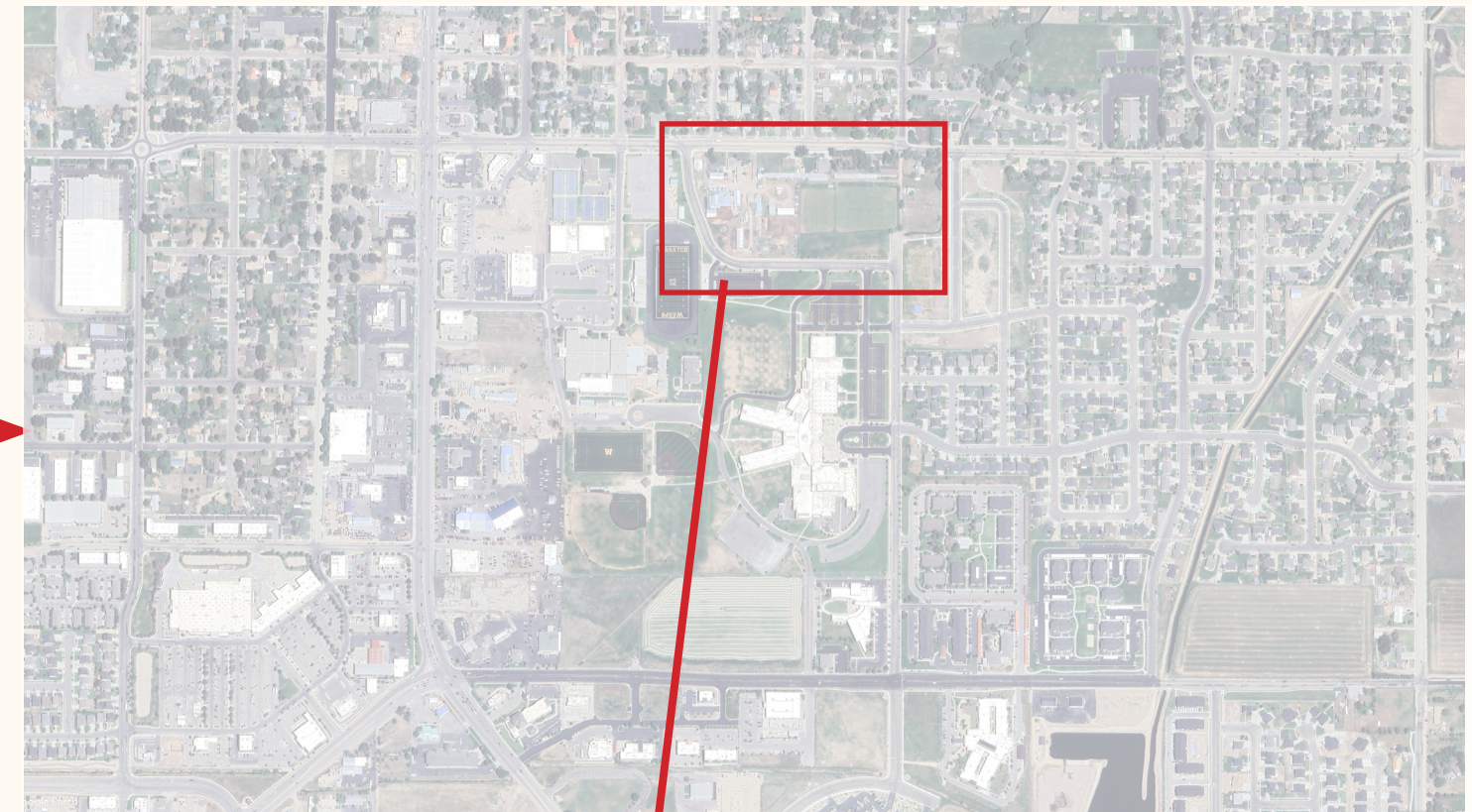
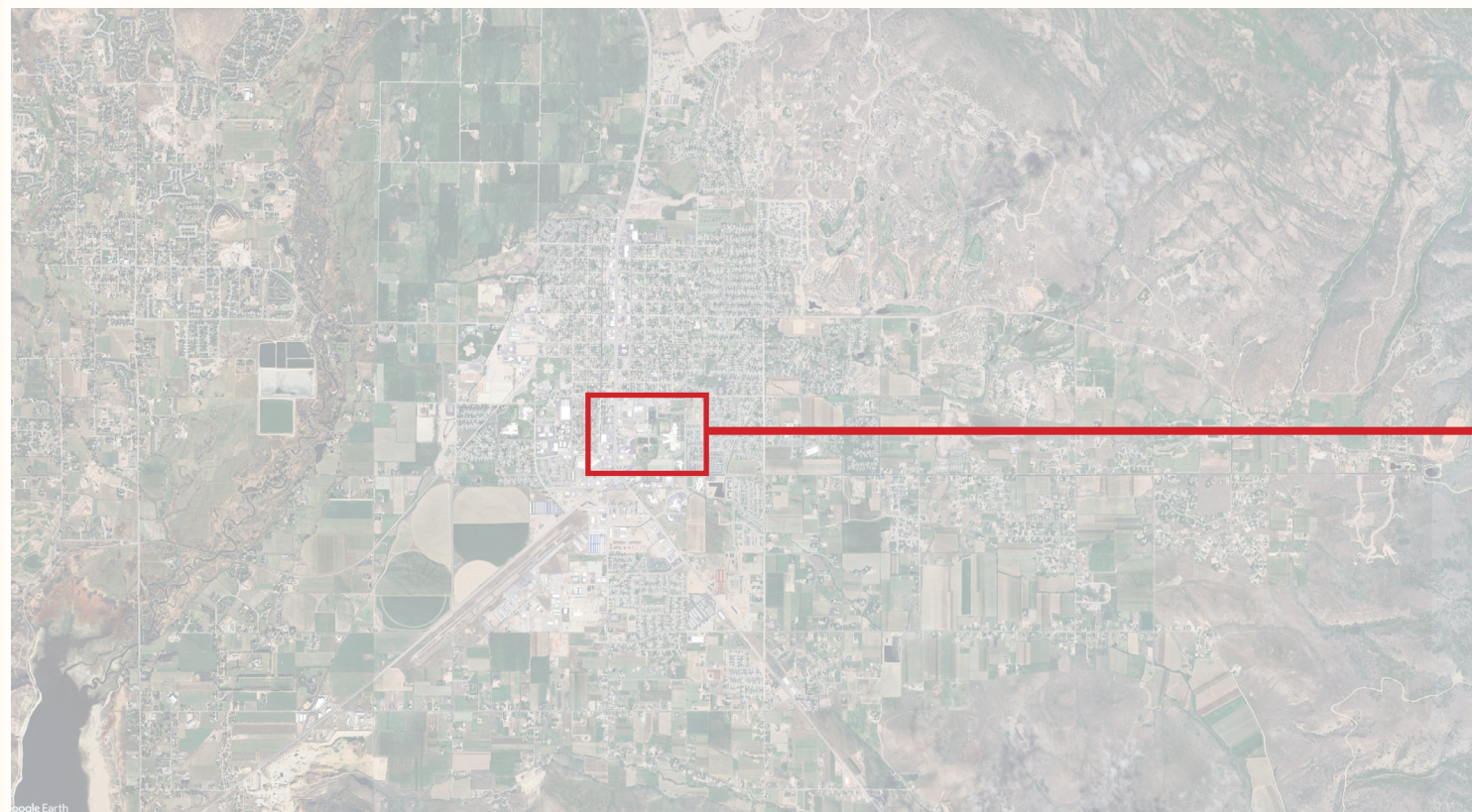


Virginia City, NEVADA

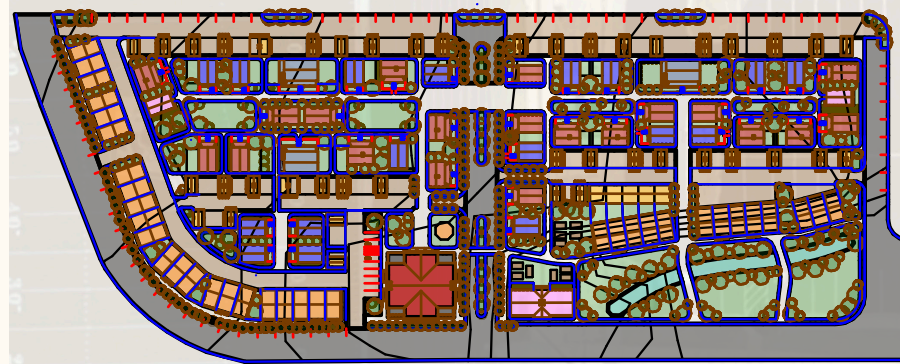
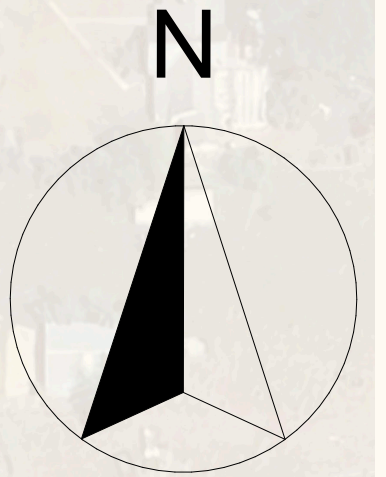


Virginia City, NEVADA

AFFORDABLE HOUSING NEIGHBORHOOD SITE & ANALYSIS



SITE PLAN



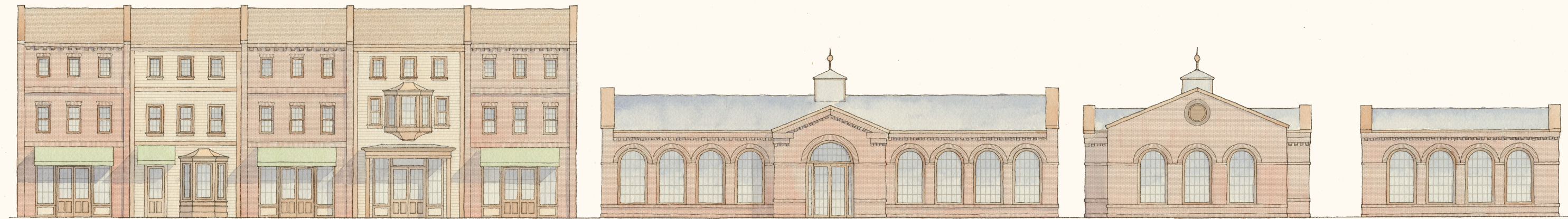
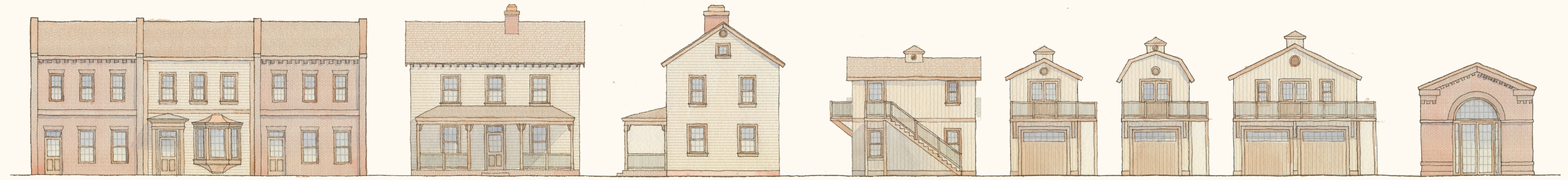
- KEY**
- SINGLE FAMILY
 - BACKYARD COTTAGE
 - GARAGE W/ LIVING
 - TOWNHOME
 - DUPLEX
 - GREENHOUSE
 - PAVILLION
 - MARKET/COMMUNITY CENTER



1
A-.4

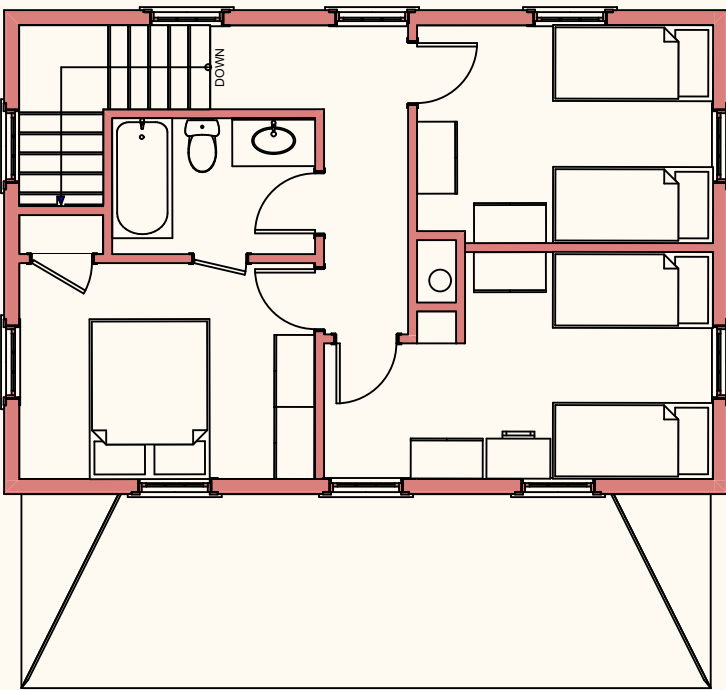
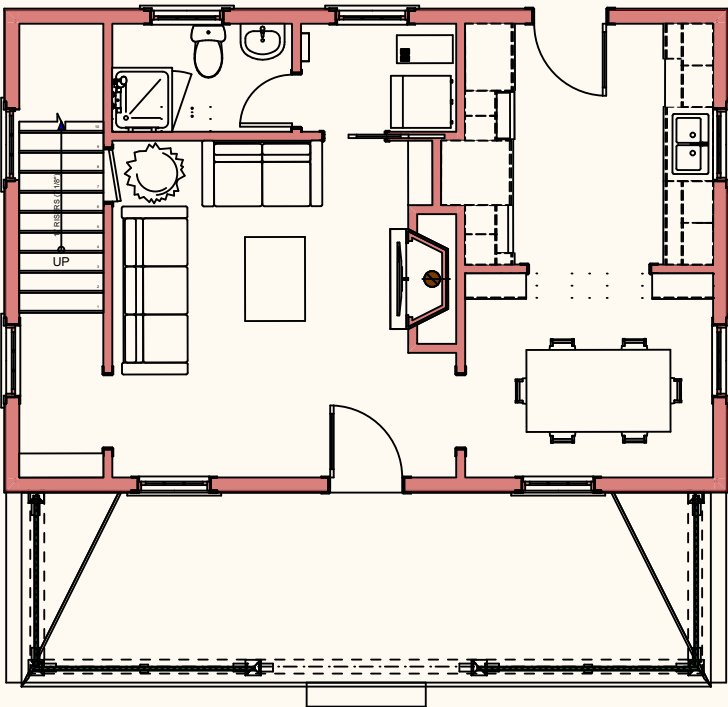
SITE CONCEPT
SCALE: 1"=75'

8.43 acres
108 units
D.U./acre: 12.8



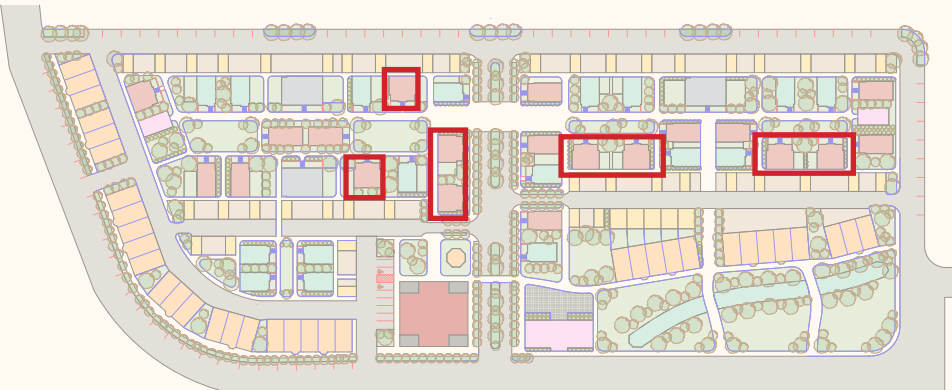


RW2 SINGLE FAMILY HOME



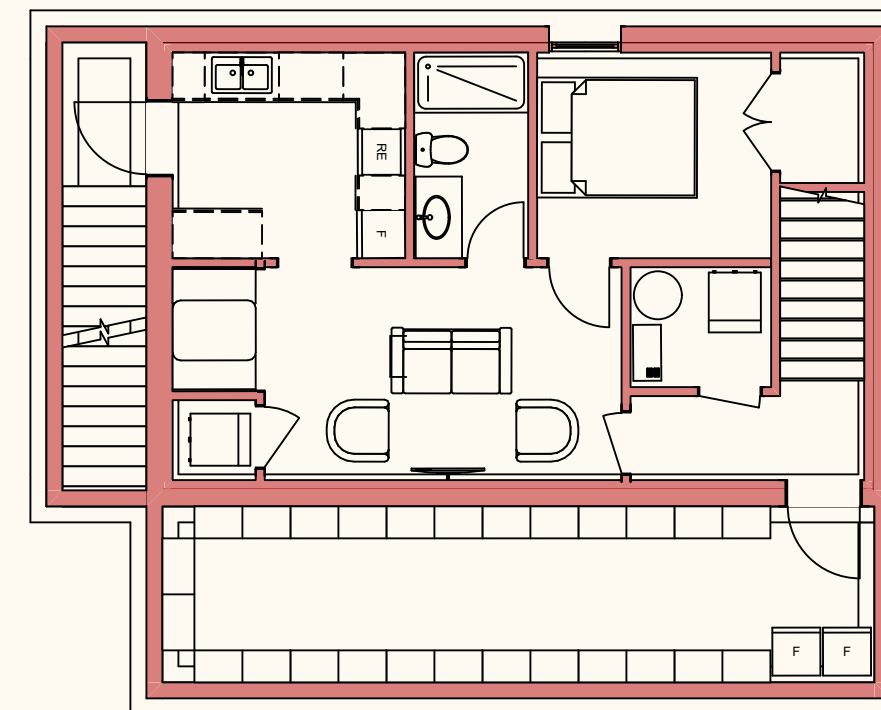
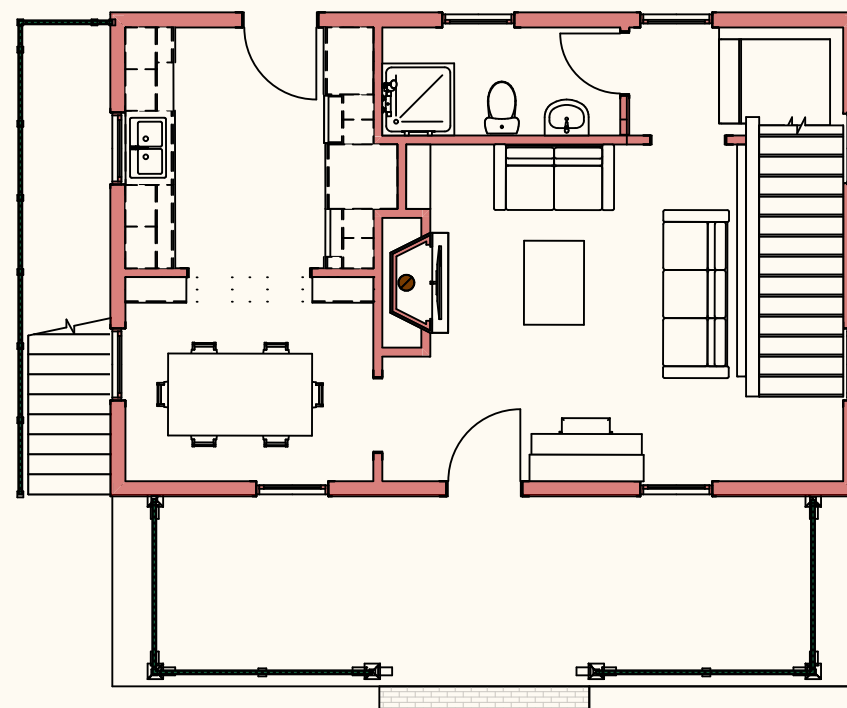
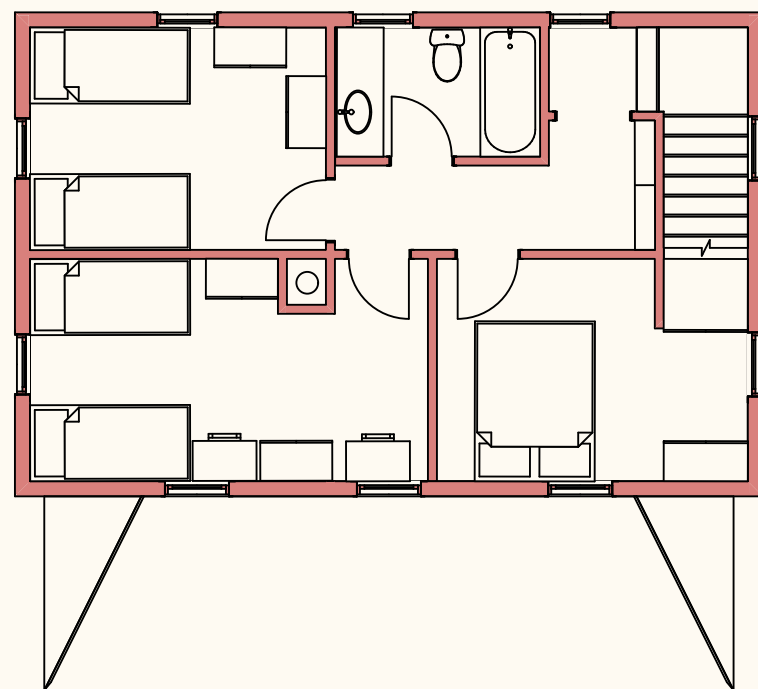
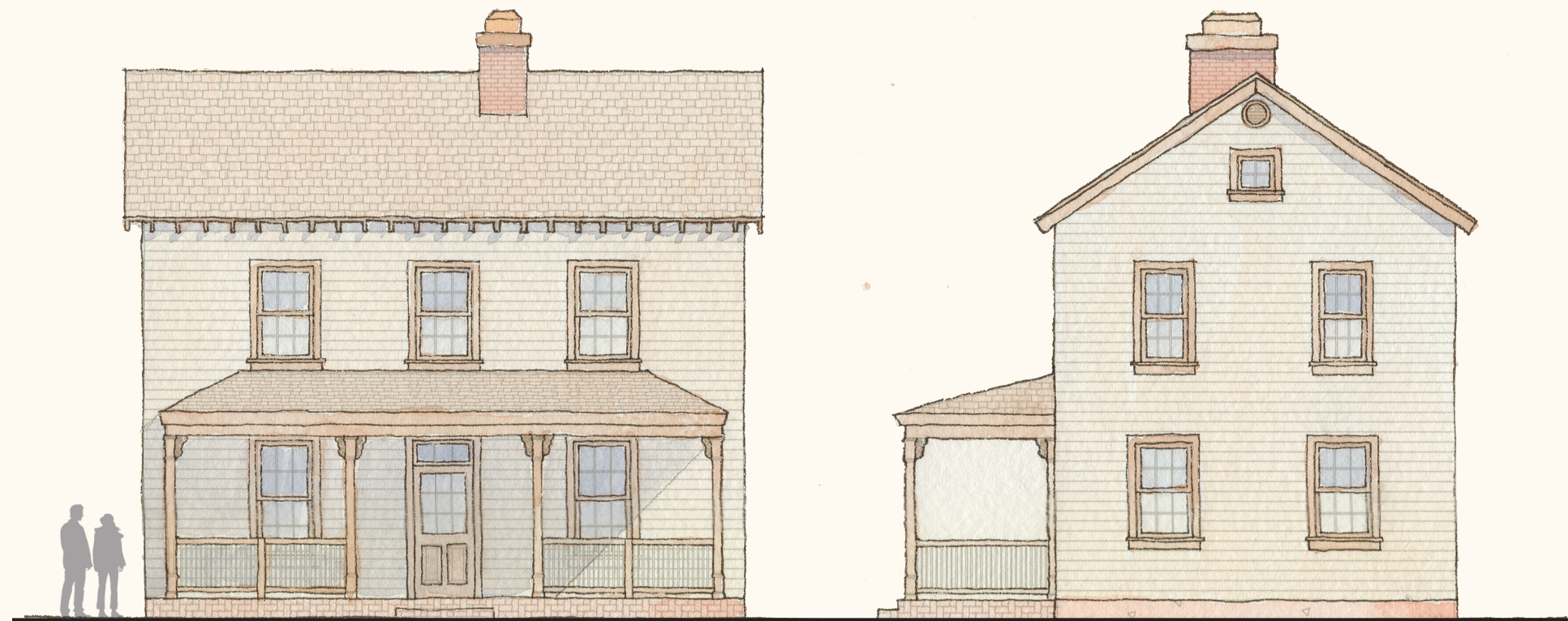
Total SF: 1,200
Est. Cost: \$178,287
Cost per SF: \$148.57

KEY PLAN

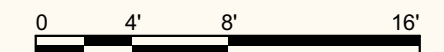


SCALE: 1/8" = 1'-0" 0 4' 8' 16'

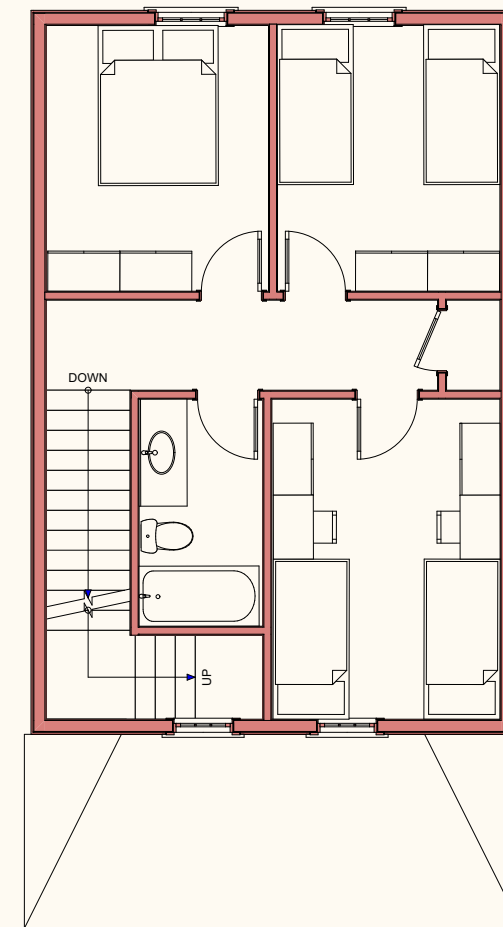
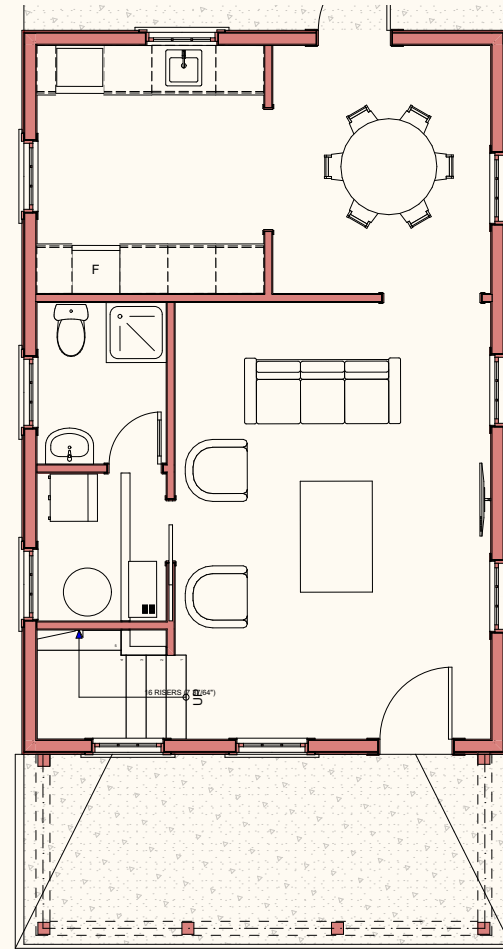
RW2 WITH BASEMENT APARTMENT



SCALE: 1/8" = 1'-0"

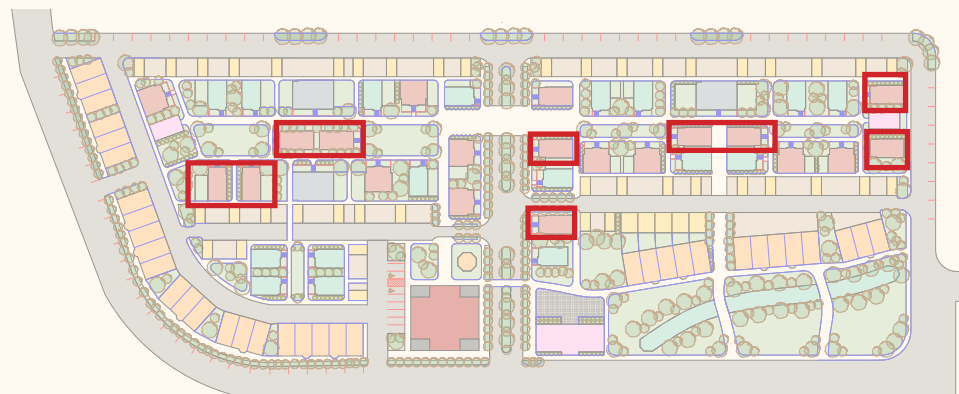


RG 1.5 SINGLE FAMILY HOME

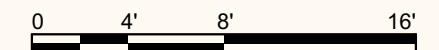


Total SF: 1,200
Est. Cost :\$150,988
Cost per SF: \$125.82

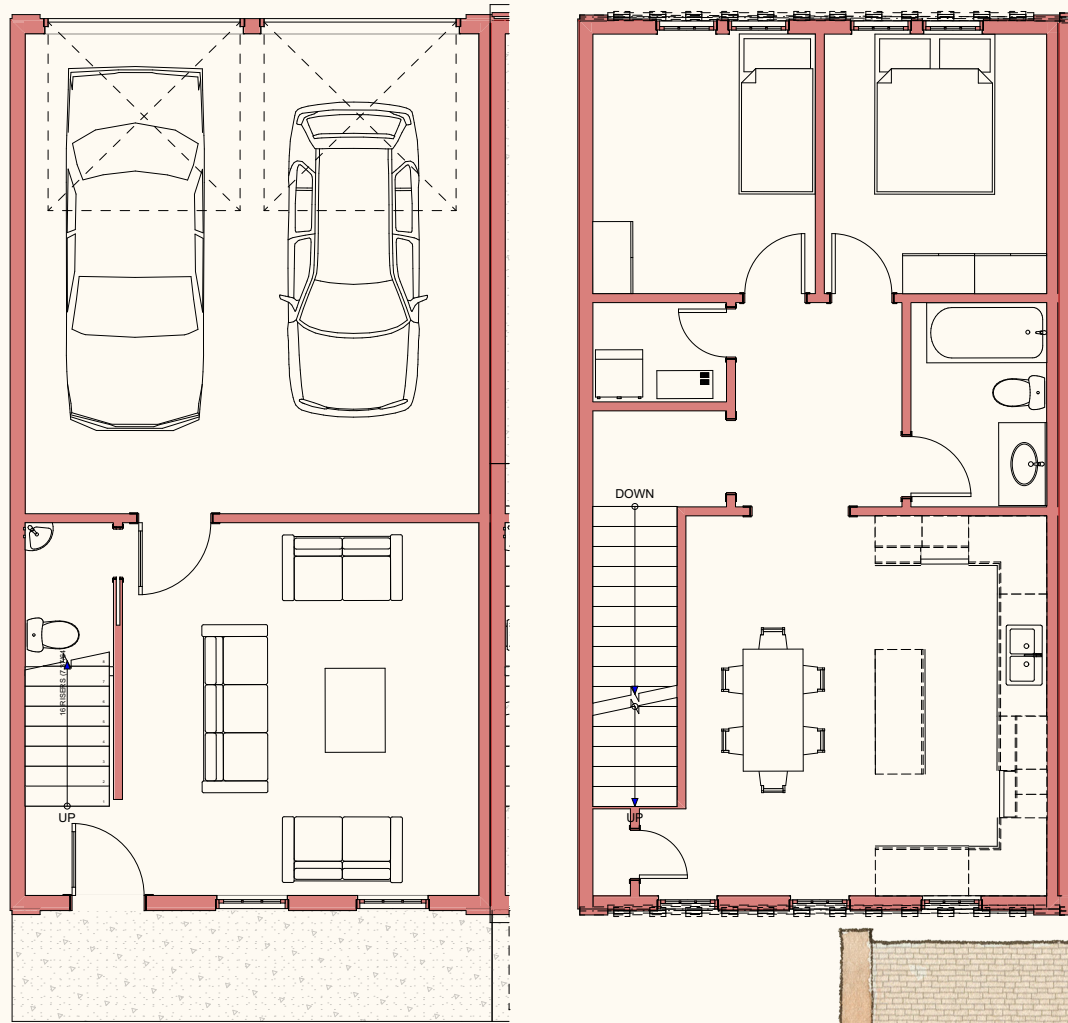
KEY PLAN



SCALE: 1/8" = 1'-0"

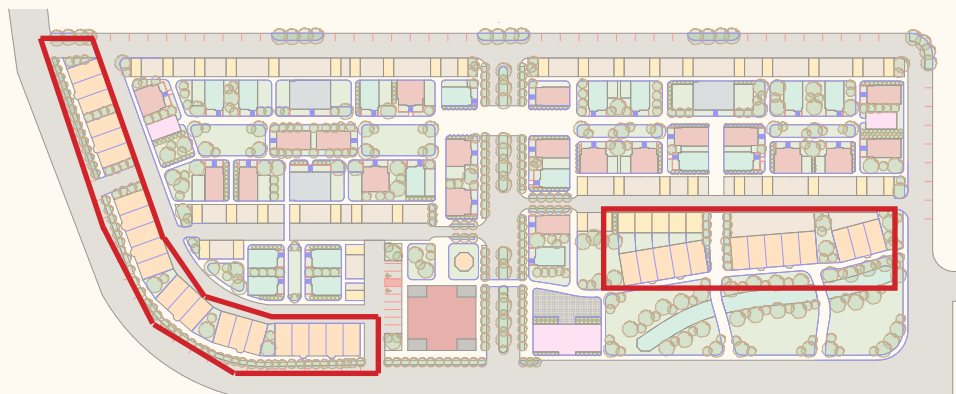


TOWNHOMES & MIXED-USE



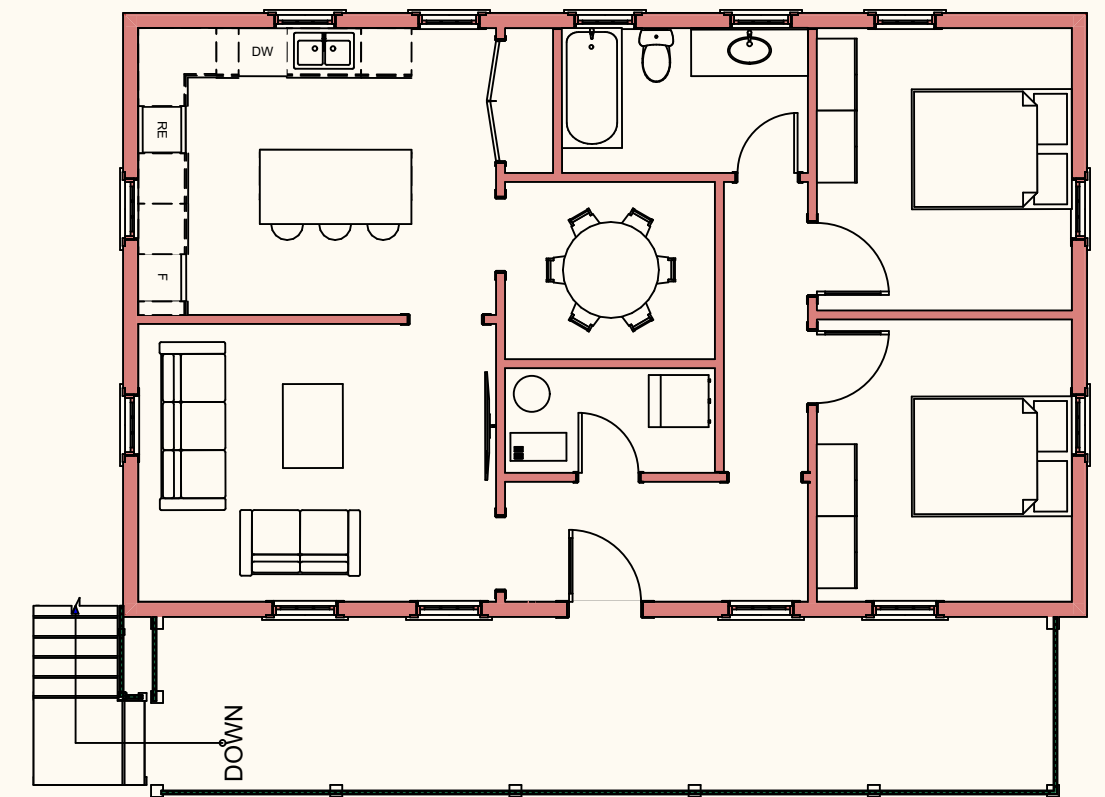
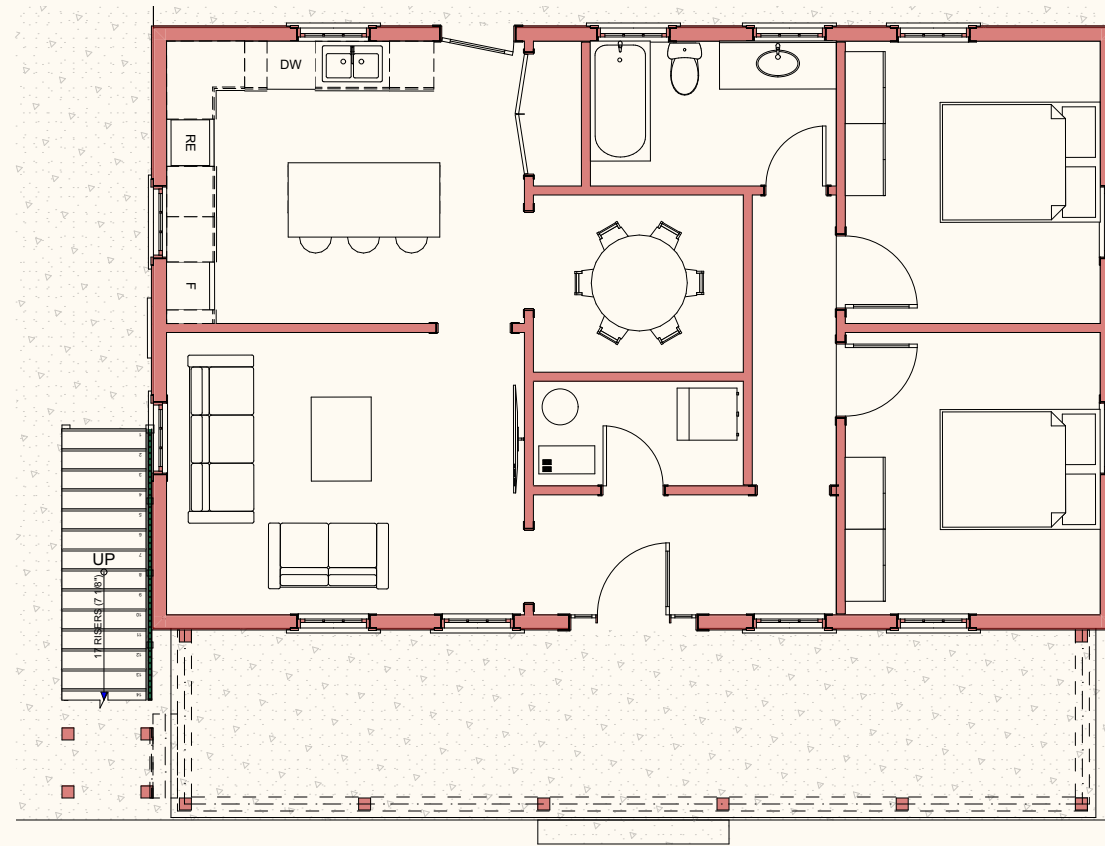
Total SF: 1,495
Est. Cost: \$176,075
Cost per SF: \$117.78

KEY PLAN



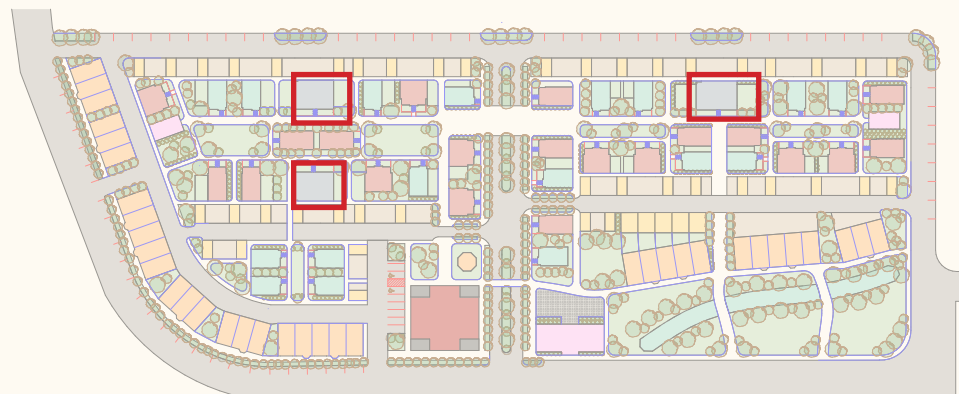
SCALE: 1/8" = 1'-0" 0 4' 8' 16'

DUPLEX

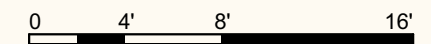


Total SF: 2,000
Est. Cost: \$268,000
Cost per SF: \$134

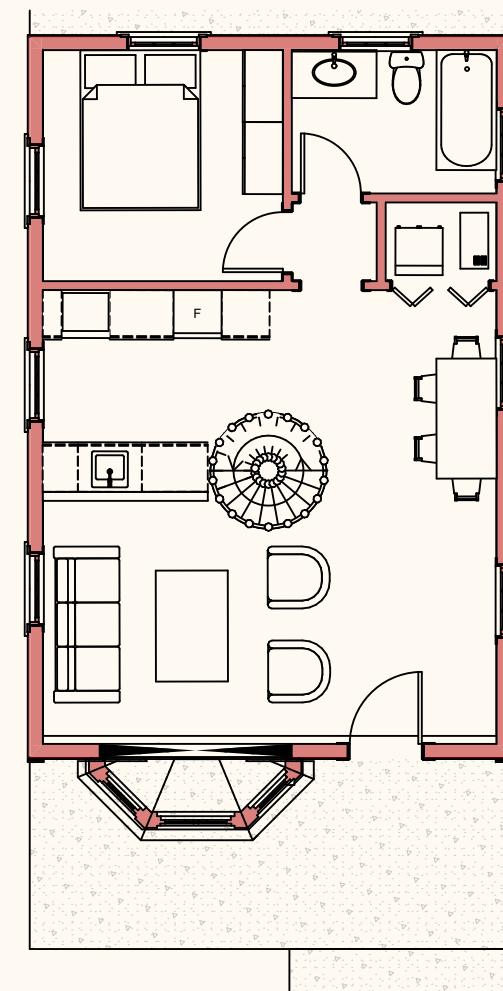
KEY PLAN



SCALE: 1/8" = 1'-0"

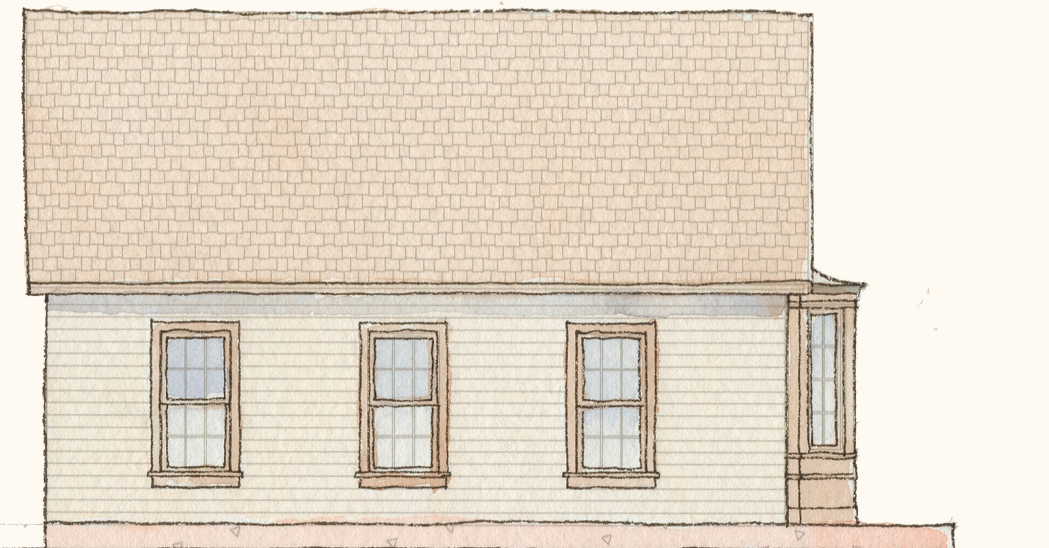
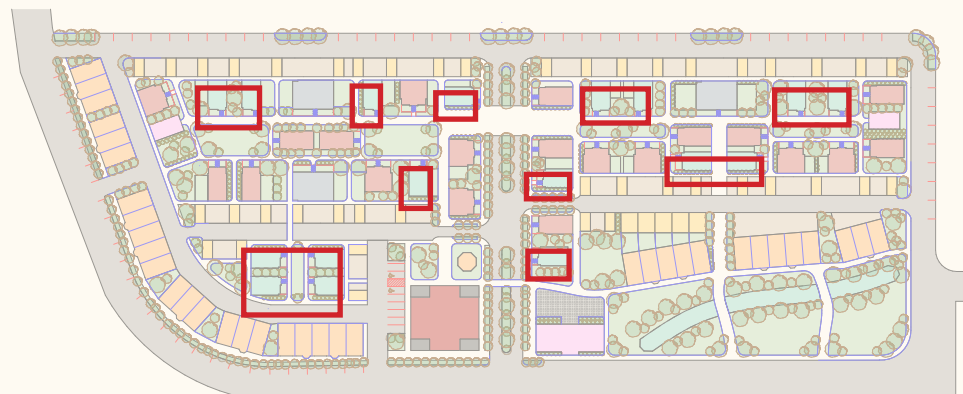


SMALL COTTAGE

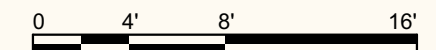


Total SF: 603
Est. Cost: \$80,802
Cost per SF: \$134

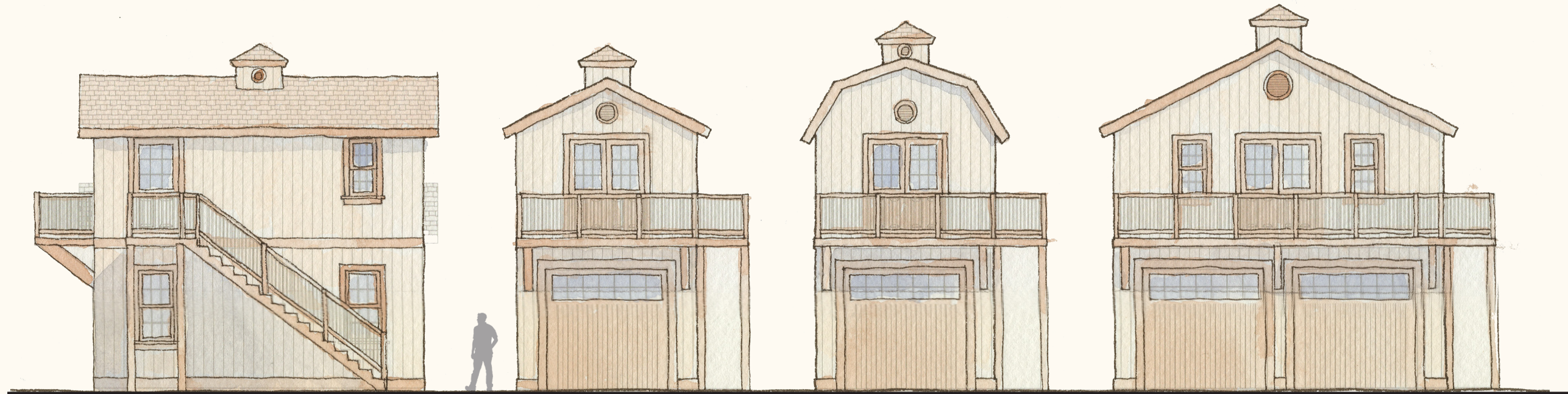
KEY PLAN



SCALE: 1/8" = 1'-0"



GARAGES WITH APARTMENTS



2 car w/ apartment

Total SF: 968

Est. Cost: \$103,576

Cost per SF: \$107

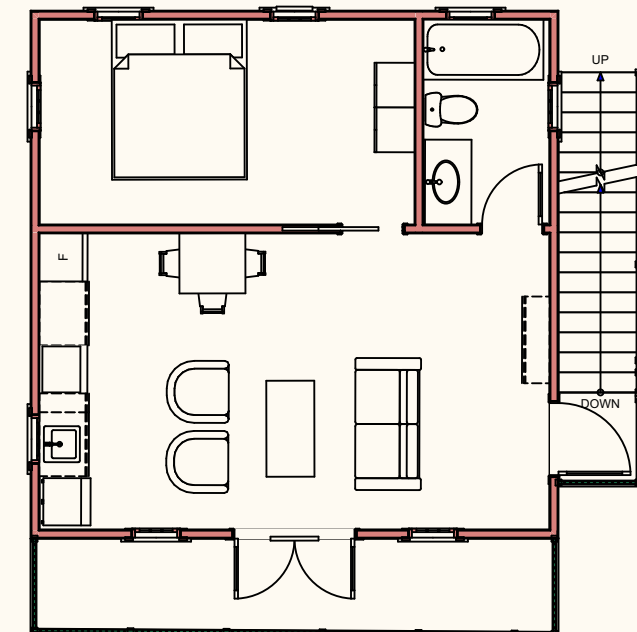
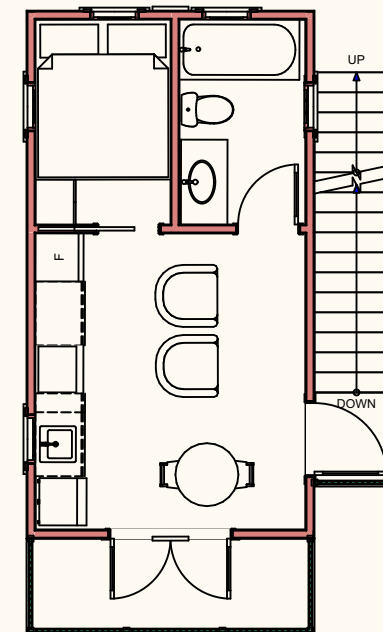
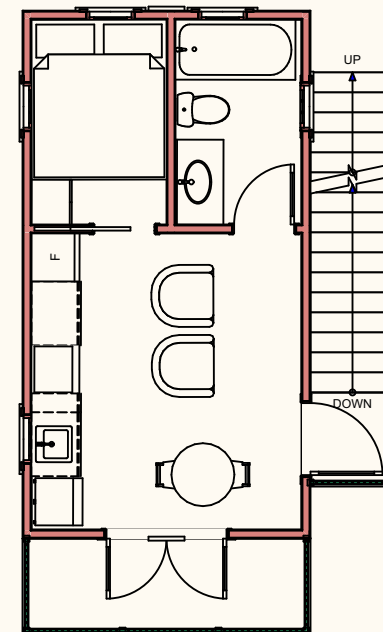
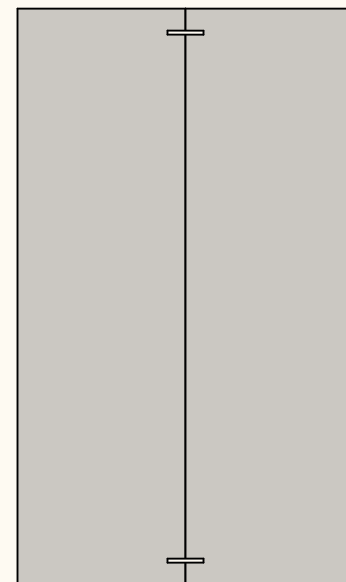
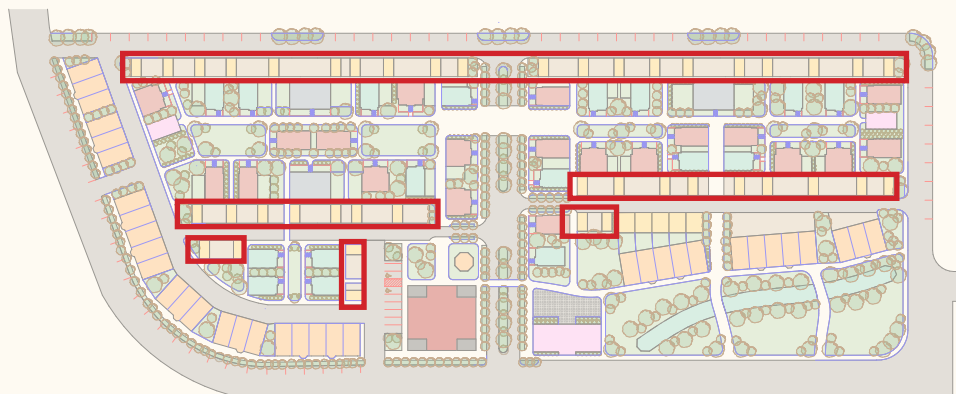
1 car w/ apartment

Total SF: 526

Est. Cost: \$56,282

Cost per SF: \$107

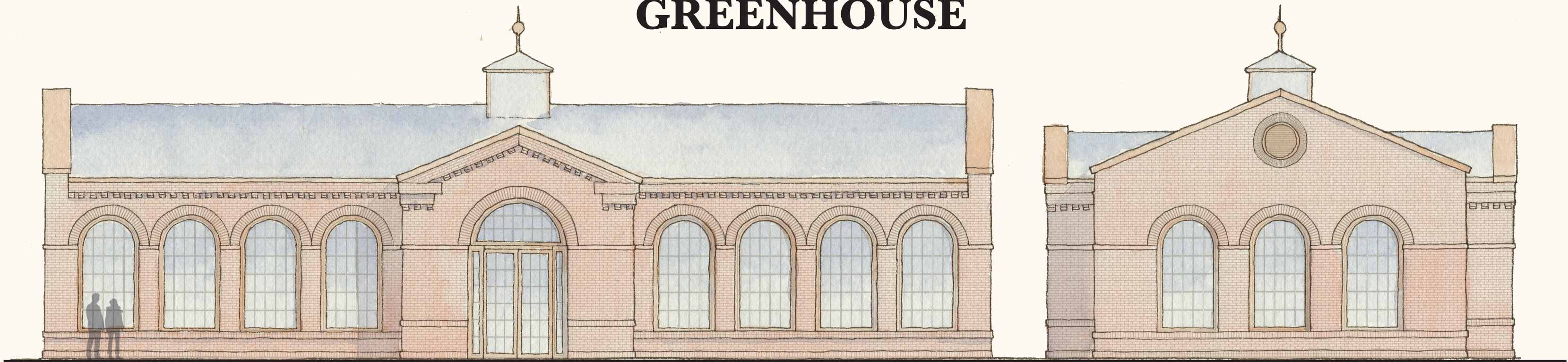
KEY PLAN



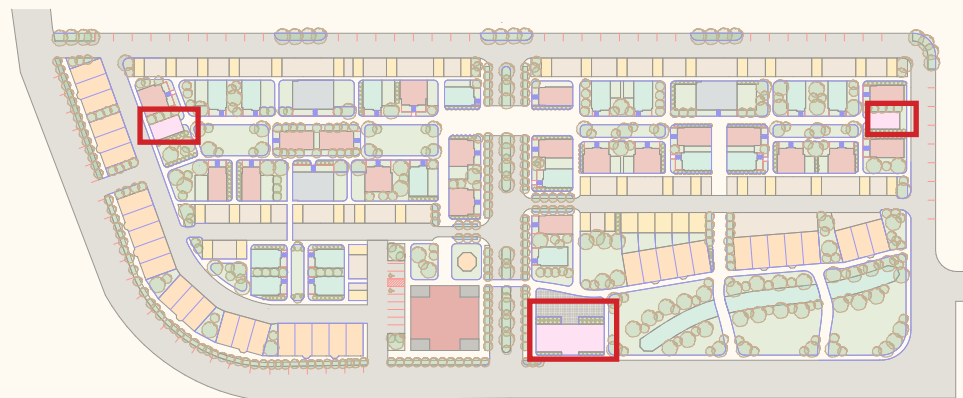
SCALE: 1/8" = 1'-0"



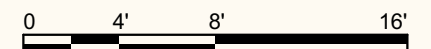
GREENHOUSE



KEY PLAN



SCALE: 1/8" = 1'-0"

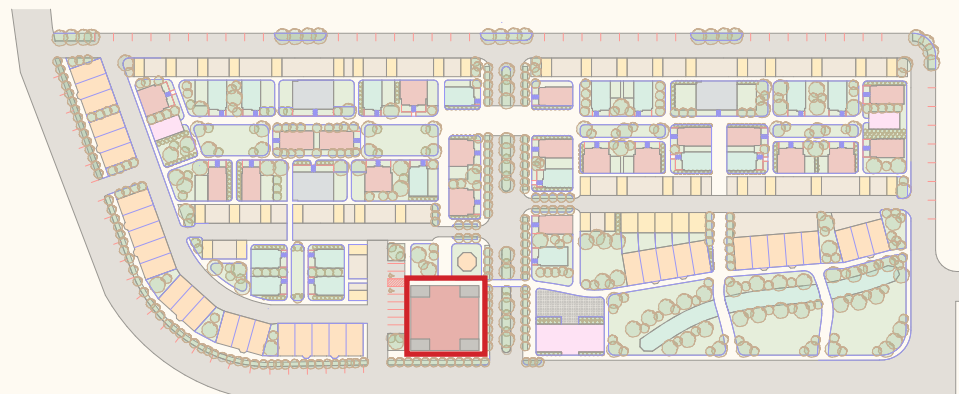


MARKET ELEVATION AND PERSPECTIVE



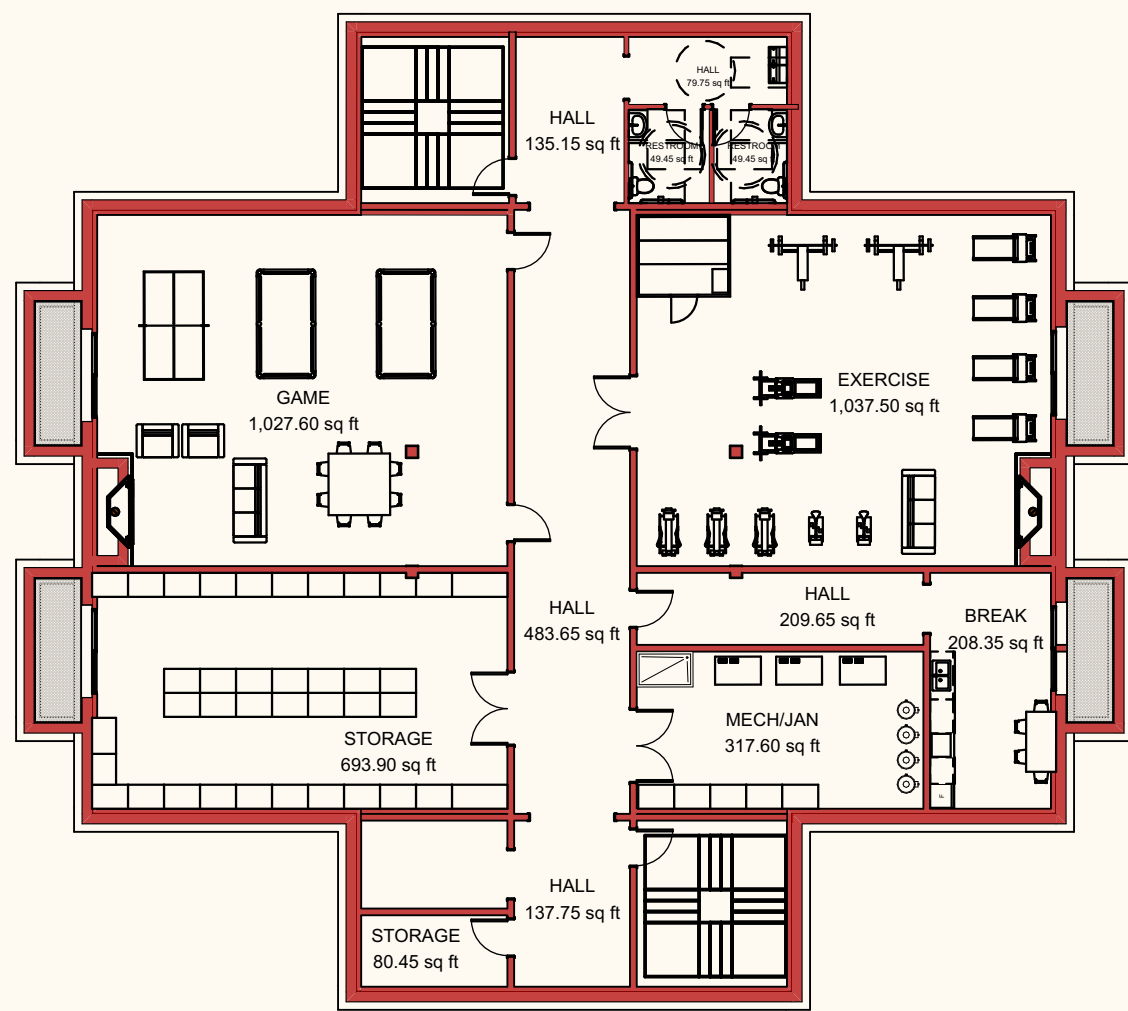
Total SF: 15,042
Est. Cost: \$3,450,000
Cost per SF: \$229.36

KEY PLAN

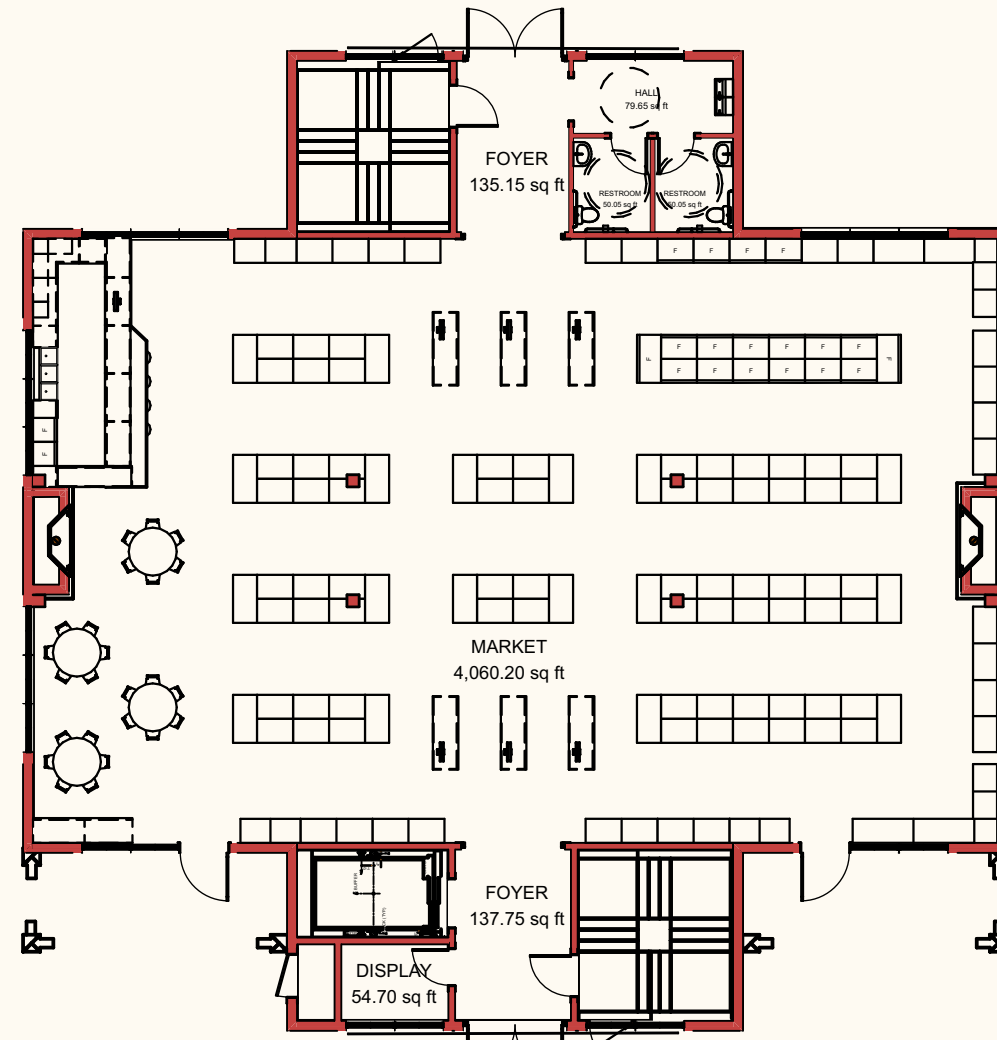


0 8' 16' 32'
SCALE: 1/16" = 1'-0"

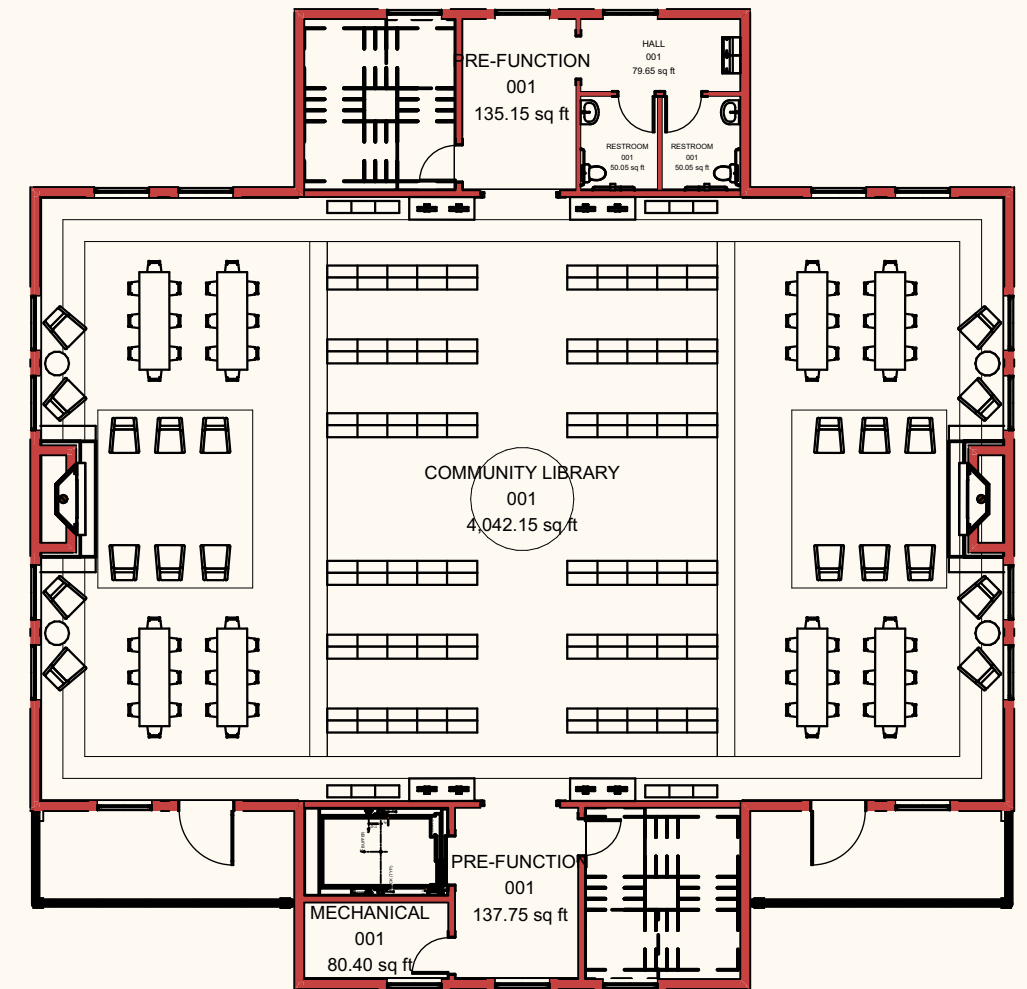
MARKET FLOOR PLANS



1 LOWER LEVEL
SCALE: 1/16" = 1'-0"

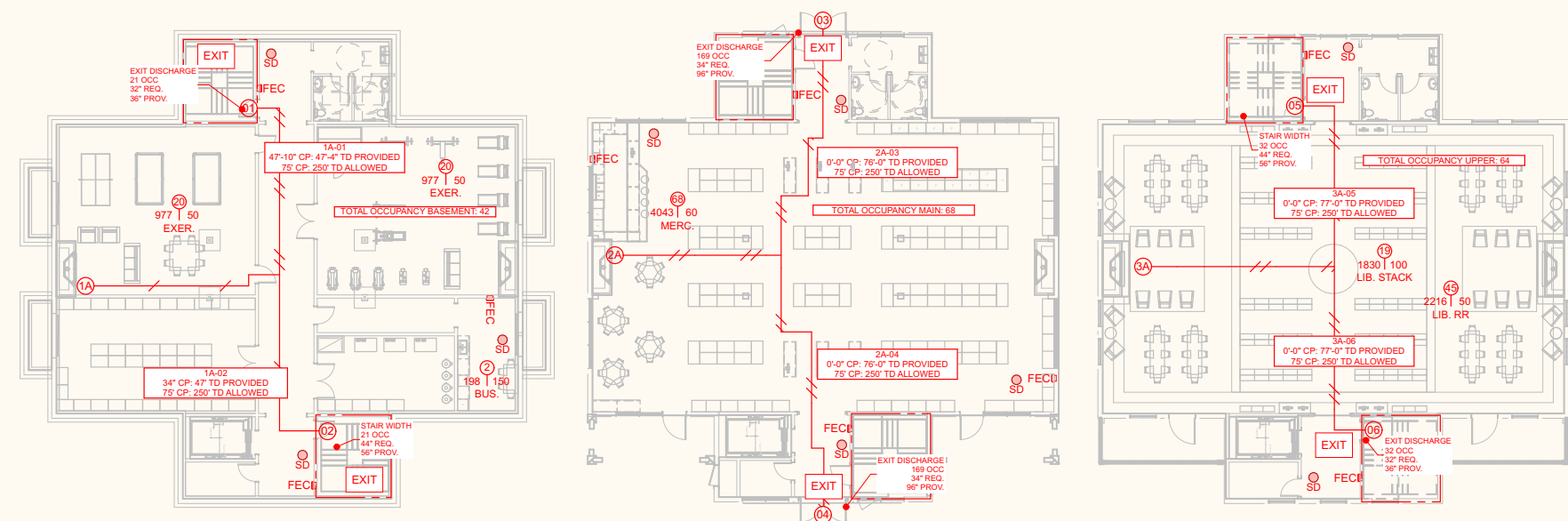
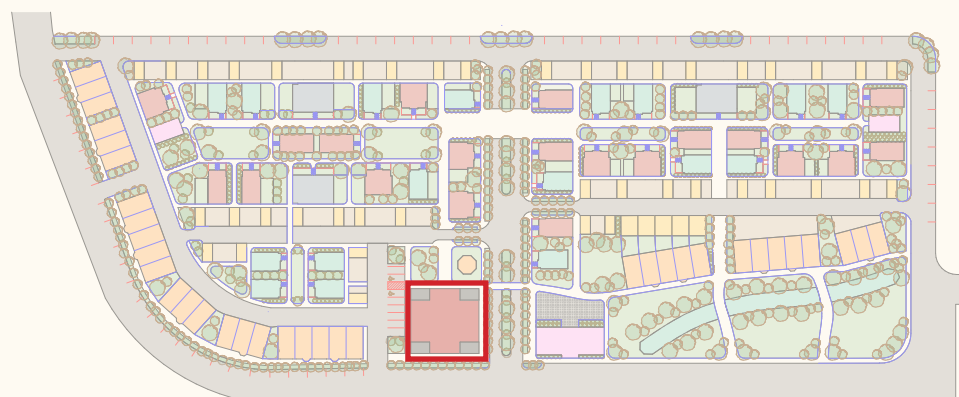


2 MAIN LEVEL
SCALE: 1/16" = 1'-0"

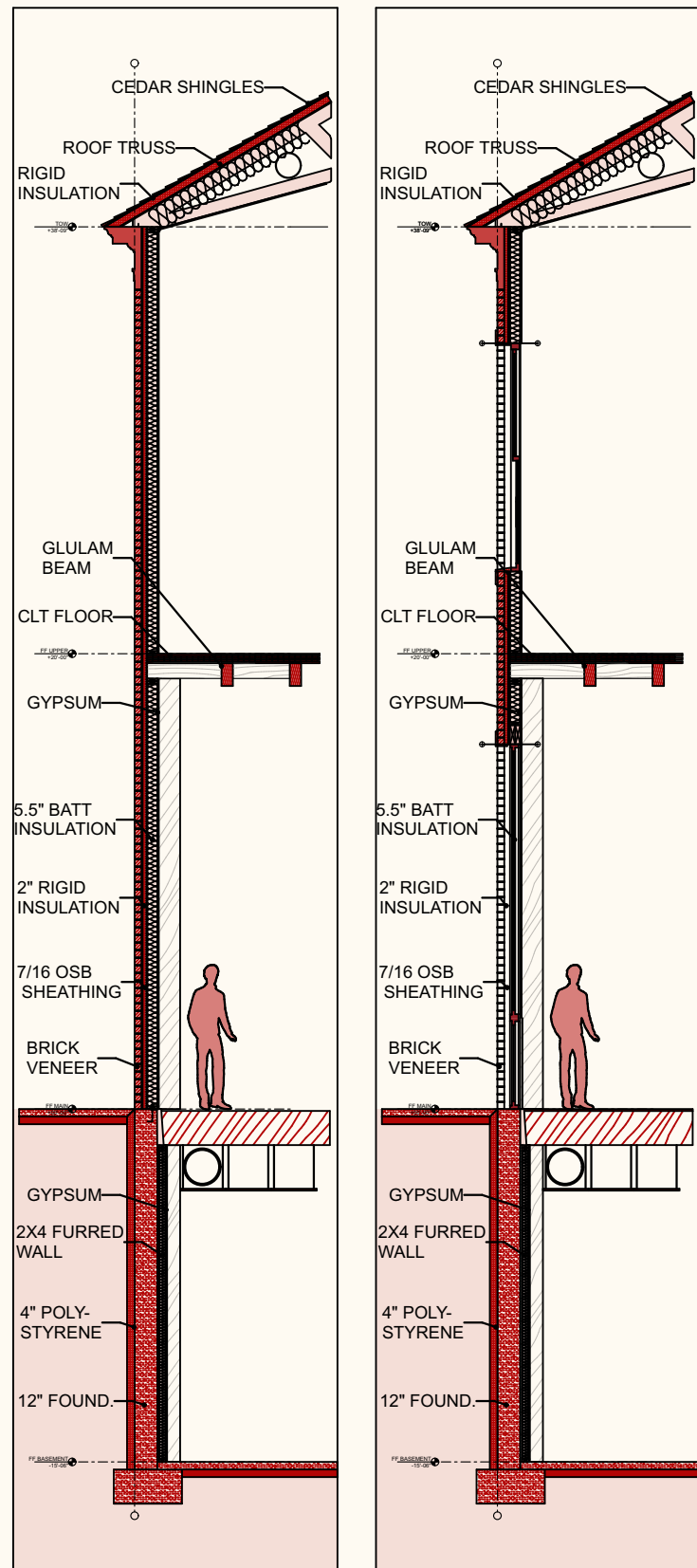


3 UPPER LEVEL
SCALE: 1/16" = 1'-0"

KEY PLAN



MARKET SECTIONS & ASSEMBLIES



1

BUILDING SECTION 1

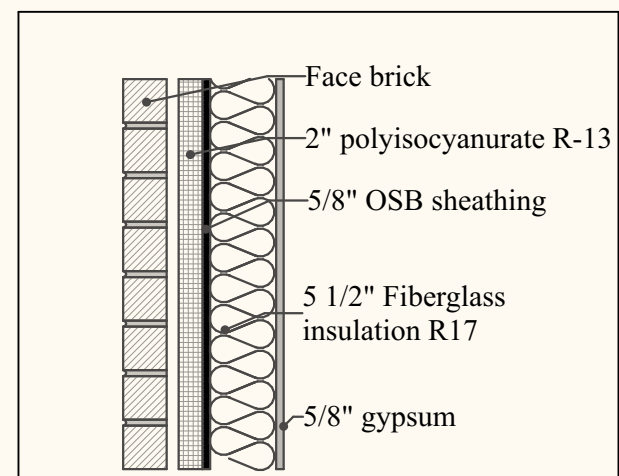
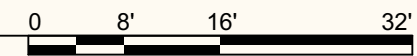
SCALE: 1/16" = 1'-0"



2

BUILDING SECTION A

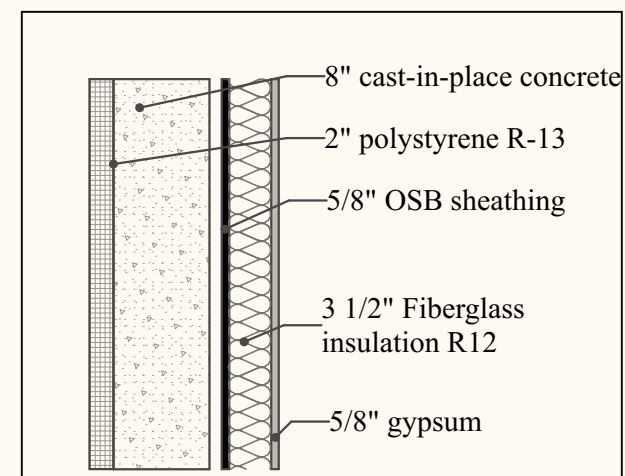
SCALE: 1/16" = 1'-0"



MASONRY + FRAMED WALL ASSEMBLY

SCALE: 3/4" = 1'

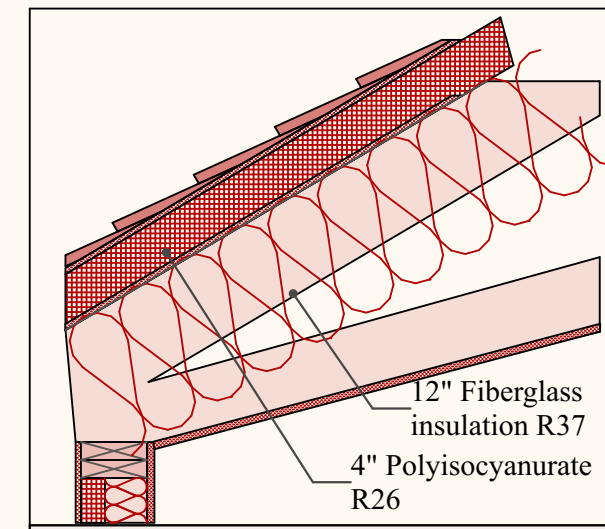
R-30



CAST-IN-PLACE CONCRETE WALL ASSEMBLY

SCALE: 3/4" = 1'

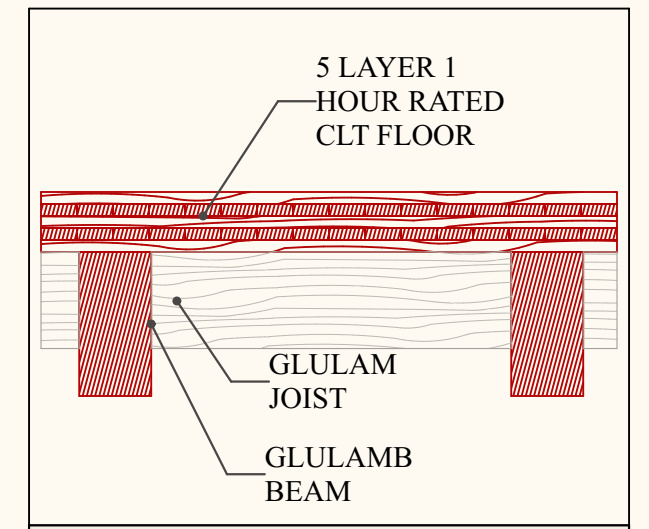
R-25



ROOF ASSEMBLY

SCALE: 3/4" = 1'

R-63



1 HOUR RATED CLT FLOOR

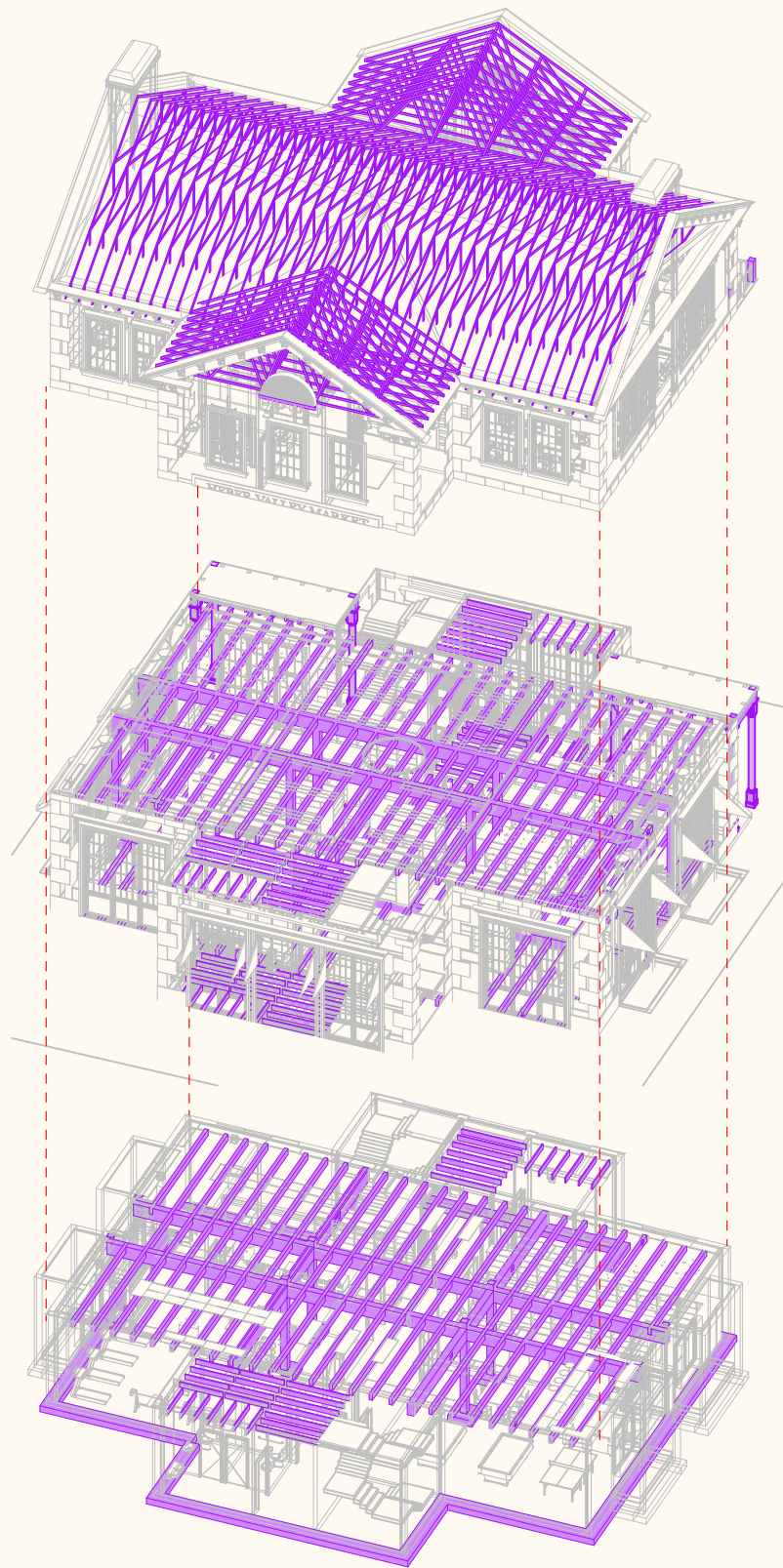
SCALE: 3/4" = 1'

R-25

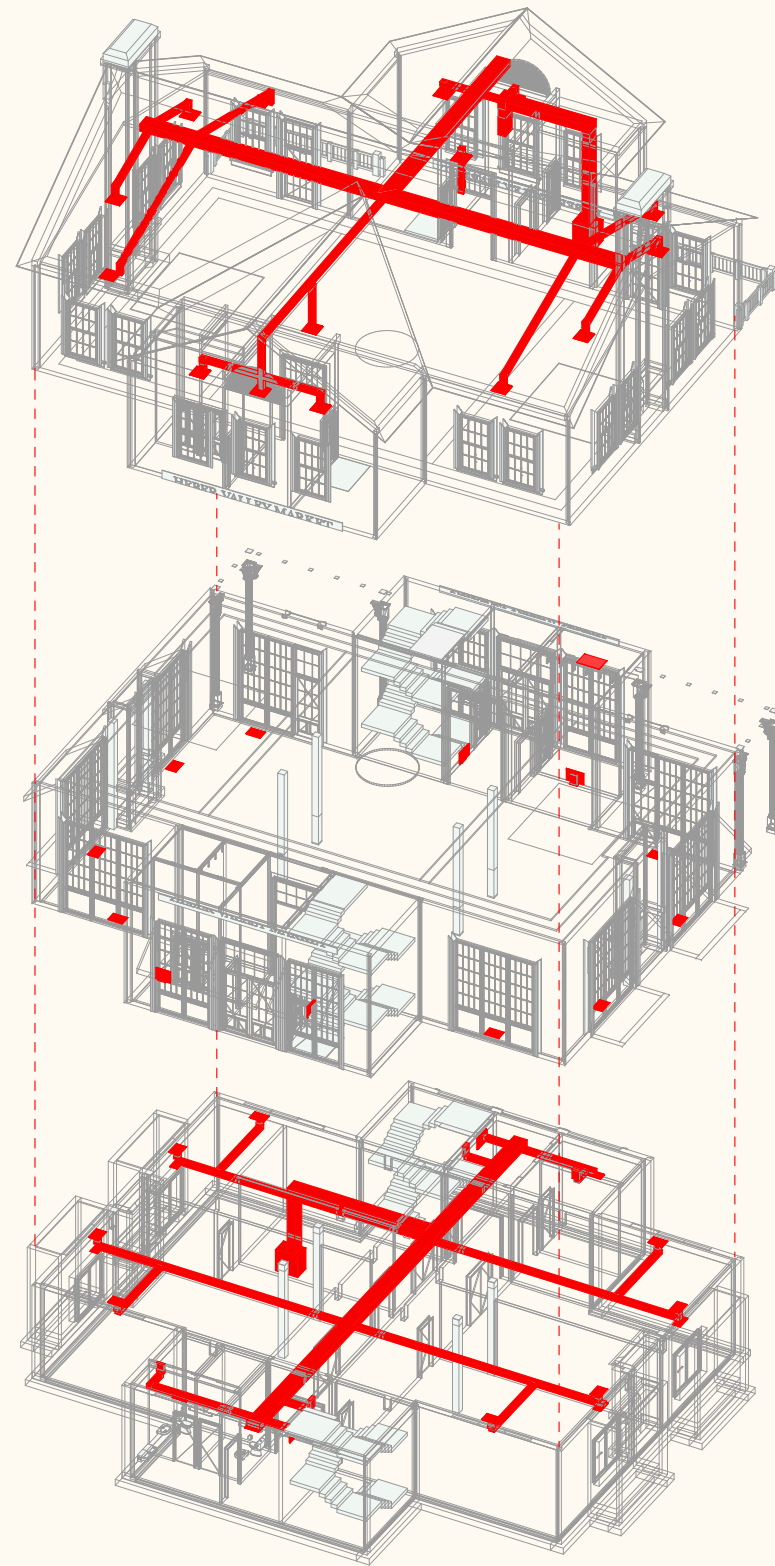
3 **WALL SECTION**
SCALE: 1/8" = 1'-0"



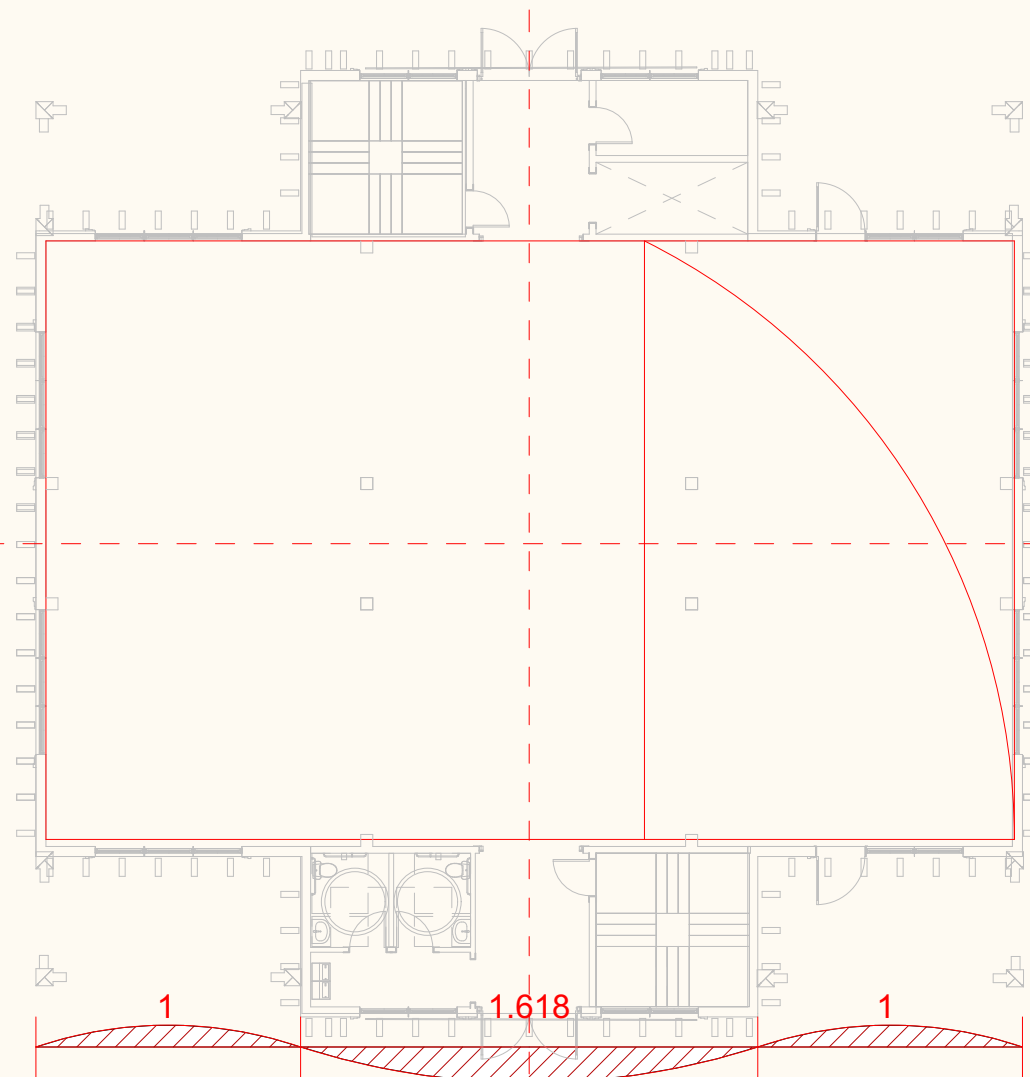
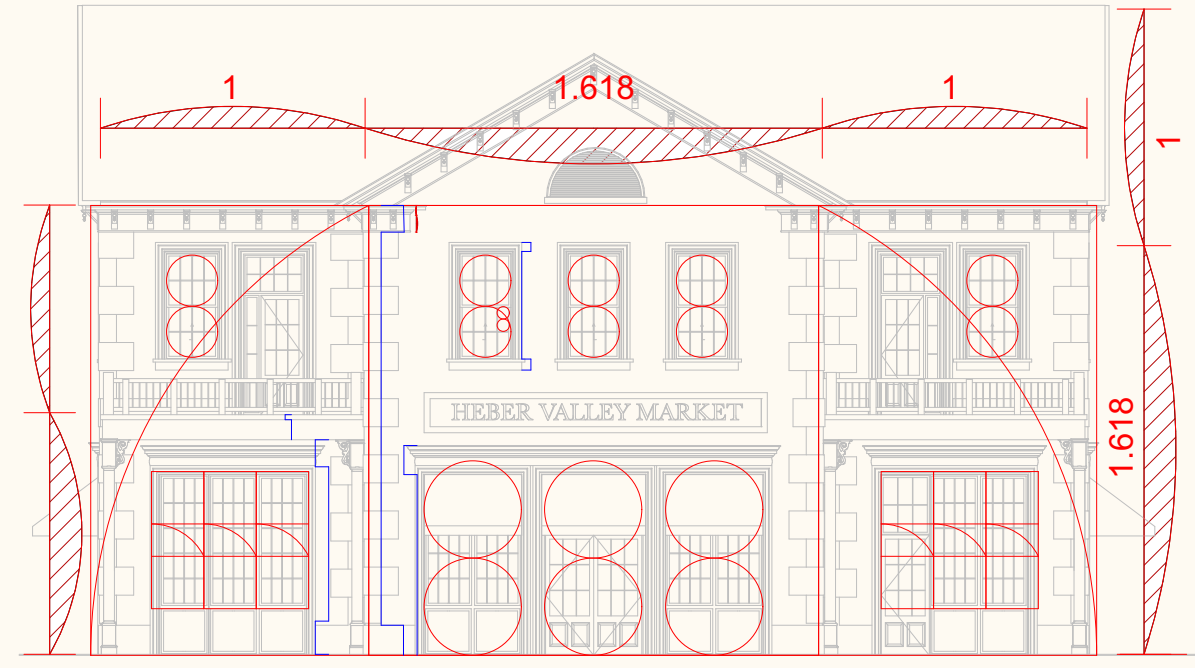
STRUCTURAL, MECHANICAL, & GEOMETRY



1 BASEMENT STRUCTURAL
SCALE: 1/16" = 1'-0"



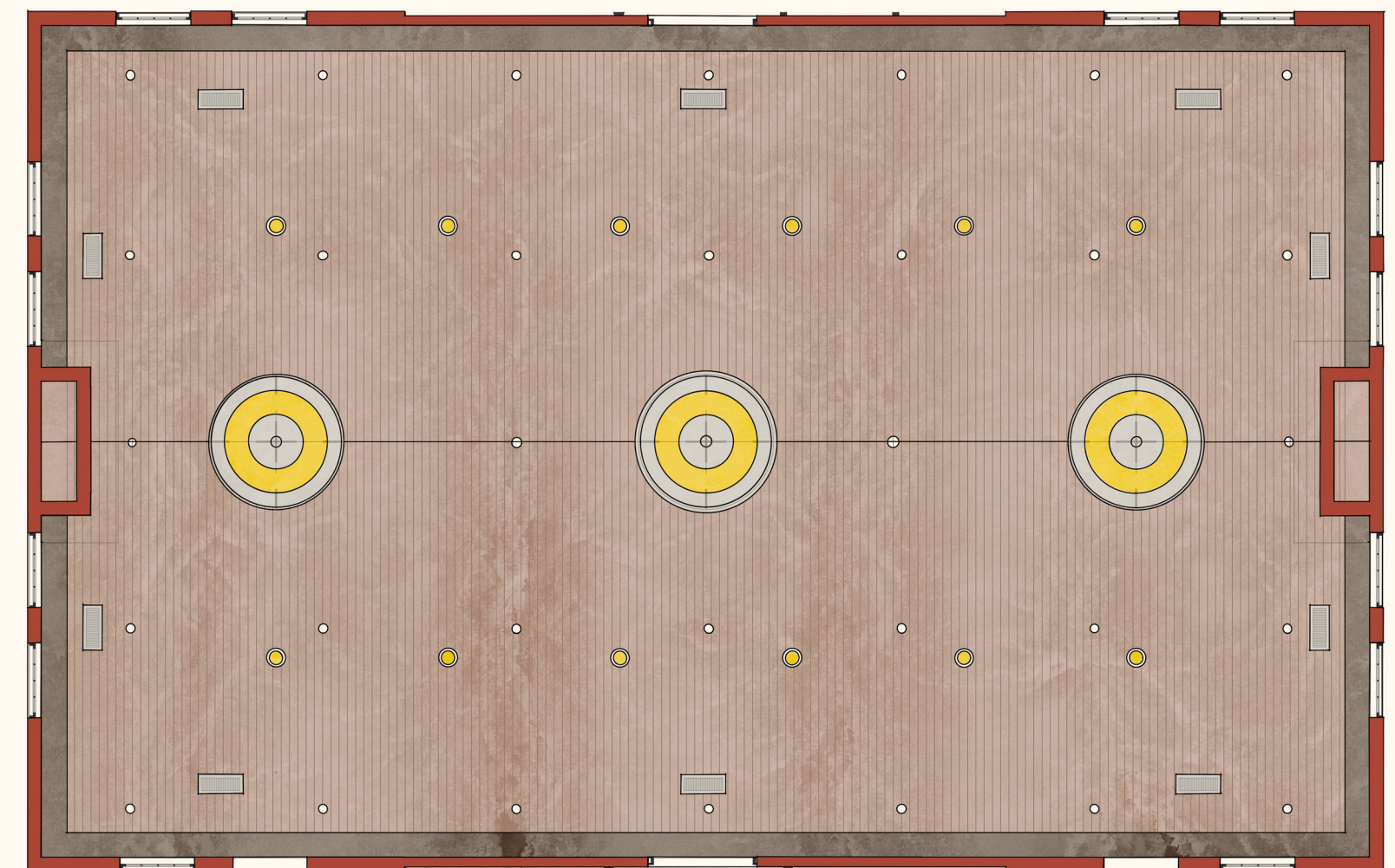
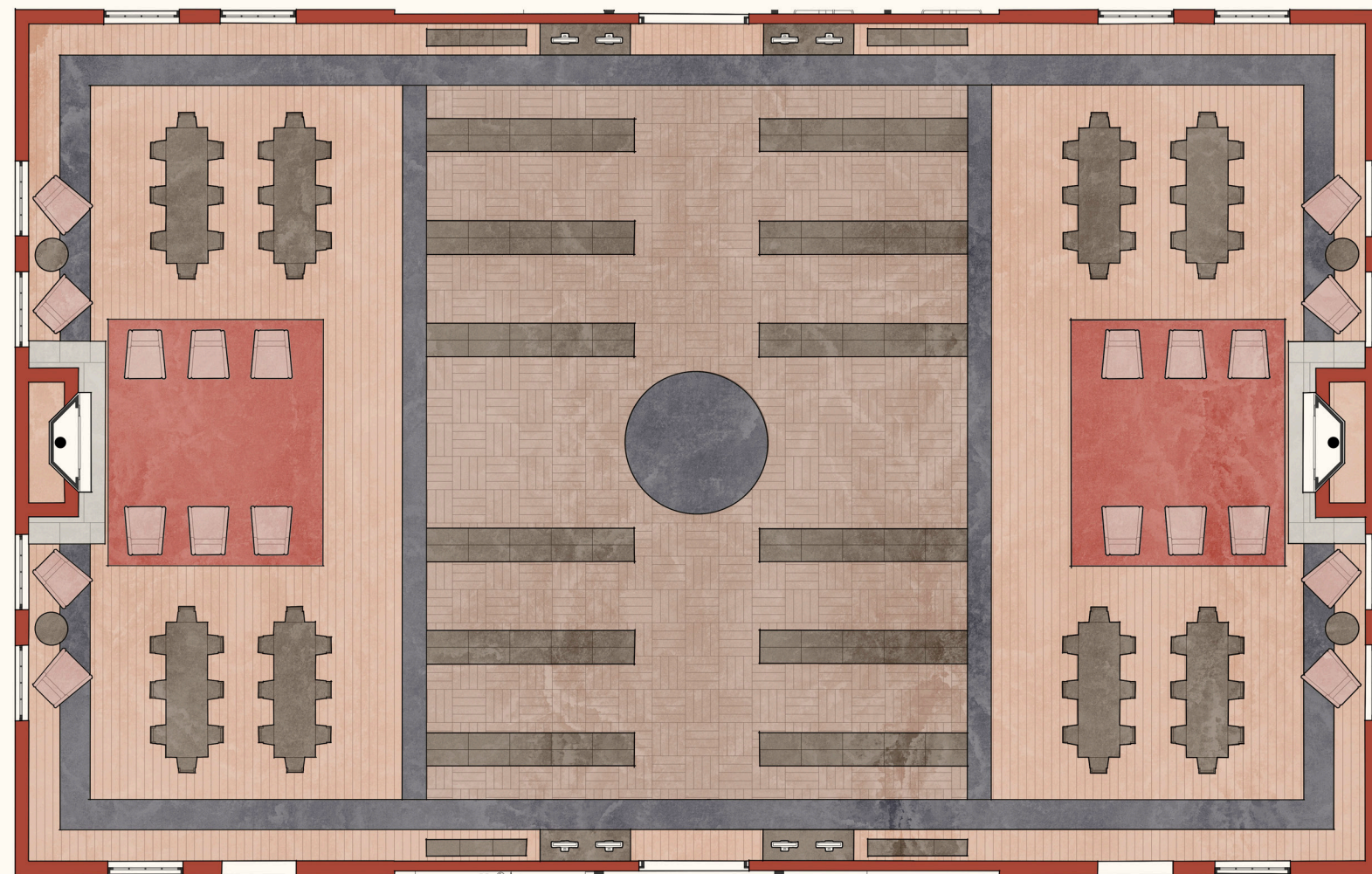
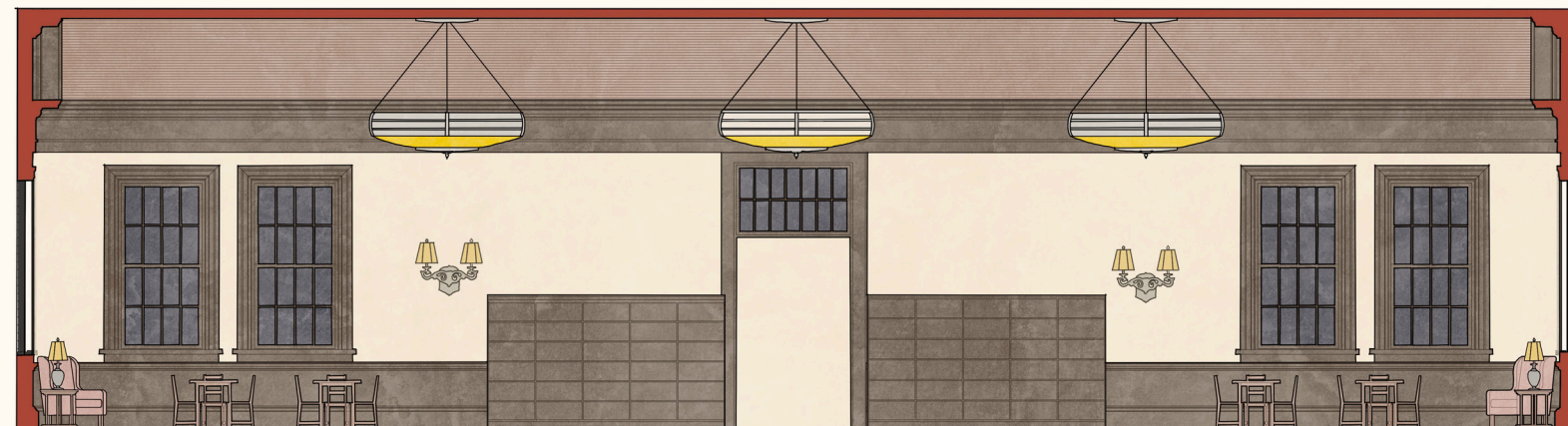
4 Basement mech
SCALE: 1/16" = 1'-0"



COMMUNITY LIBRARY INTERIORS

Lighting Requirements:

- Lumens per SF 15
- Square footage 4,042
- Required lumens 60,630
- Number of can lights 12
- Number of pendant lights 3
- Number of sconces 8
- Total fixture count 23
- Required lumens per fixture 2,636
- Provided lumens per fixture 3,000
- *Lamps for task lighting included but not factored into calculation



DETAILS AND INTERIOR PERSPECTIVES

