

PLANNING COMMISION MEETING STAFF REPORT

| DATE OF MEETING: | December 10, 2024 |
|----------------------------|------------------------------------------------------------------|
| NAME OF PROJECT: | Southill |
| NAME OF APPLICANT: | Midway Heritage Development, LLC |
| AUTHORIZED REPRESENTATIVE: | Daniel Luster |
| AGENDA ITEM: | Southill Phase 3 Preliminary Approval and Conditional Use Permit |
| LOCATION OF ITEM: | 541 East Main Street |
| ZONING DESIGNATION: | C-2 |

ITEM: 3

Dan Luster, agent for Midway Heritage Development LLC, is proposing conditional use and preliminary approval for phase 3 of the Southill mixed use development. Phase 3 will consist of 42 residential units on 6.67 acres and contains 1.83 acres of open space. The property is located at 541 East Main and is zoned C-2.

BACKGROUND:

Dan Luster, agent for Midway Heritage Development LLC, is proposing conditional use and preliminary approval of Southill Phase 3 which will contain 42 dwellings on 6.67 acres. The property is located at 541 East Main and is part of a master plan that encompasses 27.47 acres and contains 8.36 acres of open space. Phase 3 is part of a fivephase mixed-use master planned development that includes at least 44,128 square feet of commercial space in multiple buildings, 143 townhomes, open space area, trails, pool, and sports club. Per the master plan agreement, the applicant cannot apply for preliminary approval of phases 4 and 5 until the correct ratios of required commercial square footage have been constructed (60% for phase 4, 80% for phase 5). The applicant also cannot record the plat for phase 3 until a traffic signal has been installed at the intersection of River Road and Main Street. Mixed-use projects are conditional uses, so the applicant is also seeking approval of a conditional use permit.

Southill was originally conceptually approved by the City Council on May 18, 2021. On August 17, 2021, the City Council approved a conditional zone map amendment that, once all conditions have been met, will rezone the entire property to C-2. The applicant then received approval to an amended concept master plan on December 7, 2021. Preliminary approval was granted for phases 1-2 on March 1, 2022.

The property has historically been in agricultural production except the land that was occupied by the automotive shop, storage units, and a dwelling. Sensitive land area located on the property will be left undisturbed as required by the land use ordinance. These sensitive lands include the sloped areas at the base of Memorial Hill.

The property is visible from Main Street, and because of its location at the base of Memorial Hill, many residents and visitors of Midway are familiar with the property. There are existing residents and commercial businesses in the area that will be impacted by the development and careful planning must be taken to mitigate negative impacts wherever reasonably possible. Because mixed-use projects are a conditional use, the City Council may require reasonable conditions to mitigate negative impacts to the neighbors and the area. Conditional uses are governed by the following standards:

(a) A conditional use shall be approved if reasonable conditions are proposed, or can be imposed, to mitigate the reasonably anticipated detrimental effects of the proposed use in accordance with applicable standards.

(b) If the reasonably anticipated detrimental effects of a proposed conditional use cannot be mitigated by the proposal or the imposition of reasonable conditions to achieve compliance with applicable standards, the conditional use may be denied.

LAND USE SUMMARY – PHASE 3:

- 6.67 acres (27.47 for the entire master plan)
- One of five phases
- 1.83 acres of open space (8.36 for the entire master plan)
- C-2 zone
- 42 residential units (143 for the entire master plan)

• Private roads (public access easement), alleys, parking areas, and open space will be maintained by the Property Owners' Association

ANALYSIS:

Water Rights – Master plans require that water rights be held in escrow with the City before the master plan agreement can be recorded. The developer has submitted the required water rights, and they are now in escrow. The required water rights per phase are then dedicated to the City before the recording of each plat. The Water Advisory Board has approved an estimated 181.42 acre-feet will be required for the five phases of the project. Since that recommendation, more information has been provided to staff that calculates 177.55 acre feet are required. Water rights will need to be dedicated per phase/plat as follows:

| Phase 1: | 46.75 acre-feet |
|----------|------------------|
| Phase 2: | 37.85 acre-feet |
| Phase 3: | 41.00 acre-feet |
| Phase 4: | 35.12 acre-feet |
| Phase 5: | 16.83 acre-feet |
| Total: | 177.55 acre-feet |

Roads and Traffic Circulation – Each phase of the subdivision must meet access requirements. Phase 3 complies with access requirements and includes a third access to the development from River Road.

Traffic Study – A traffic study has been submitted to the City for review. The study has determined the impact of traffic generated from the proposal on the surrounding UDOT and City streets. One significant finding is a third access is required for better traffic distribution and to lower the impact on the intersection of River Road and Main Street. The third access will be from River Road. The Fire District has also reviewed the application and has recommended that a third access is needed. A third access is a requirement for the conditional approval of the zone map amendment.

Alley Access – The proposed plan has street access to each unit but there is also additional alley access proposed for parking access. The alley access areas will be private and will be owned and maintained by the POA. Snow removal and storage from the alleys is a concern, though many of the alley areas are covered, and staff have asked that a snow removal and storage plan is prepared for review and approval. The applicant has provided an area on the site plan where snow will be stored in the central open space area. The developer has provided a will-serve letter from Wasatch County Solid Waste for the current plan. The Fire District did meet with staff and the developer to review all fire related issues, including alley access. The proposed plan has been modified to address concerns raised in that meeting.

Density – The maximum number of residential units is 143 as per the approval of the conditionally approved rezone of the property. The residential density per phase is as follows:

| Phase 1: | 10 units |
|----------|----------|
| Phase 2: | 34 units |
| Phase 3: | 42 units |
| Phase 4: | 40 units |
| Phase 5: | 15 units |
| - 1 | |

Total: 141 units (Two units have been removed, one from phase 2 and one from phase 3. The developer may propose that those units be included in phases 4 and 5)

Trails – There are no planned trails on the property as per the Trails Master Plan though all trails shown on the plans will have a public trail easement. The master plan requires the developer to pursue approval and construction of a trail connection from the development to the lower road on Memorial Hill. Wasatch County, owner of Memorial Hill, would need to approve the trail. It is anticipated that if a trail is built, it would be a backcountry soft surface trail to minimize the impact on Memorial Hill and to limit a visual impact when looking at the hill. Staff's concern is that without a trail plan and design, the public will create their own trails that may have a visual impact and create an erosion impact on Memorial Hill. The design and construction of the trail is the responsibility of the developer. There are trails and sidewalks throughout the proposal and all will have a public access easement including the trail through the central open space area that runs north and south. There is also a trail planned that will connect to River Road.

Architecture Theme – The developer is required to receive architectural approval of all structures in the mixed-use development, this includes all commercial and residential buildings, along with any other features that require architectural approval. Specific review of each building will be required through the building permit approval process.

Parking – The 41 residential units in phase 2 require 103 stalls and the developer is providing 107 stalls. Of the residential stalls, two stalls per unit will be provided in the garage of the unit and the other 25 will be in marked stalls along the private streets.

Open Space – The project is required to provide 8.32 acres of total open space. The developer is providing a total of 8.36 acres to comply with the requirement.

Setbacks – The proposed development is required to meet the setback requirements for the mixed-use code and the conditions placed on the project through the rezoning approval. All commercial buildings are required to have an 8' setback and all residential structures are required to have a 10' setback. Residential setbacks along

the western boundary are a minimum of 36' and residential setbacks along the eastern boundary are a minimum of 100'.

Height of structures – Structures cannot exceed 35' in height, measured from natural grade to the roof. Architectural elements may exceed the 35' limit as per code.

Transient Rental Overlay District – The transient rental overlay district (TROD) covers some of the units in phase 3. Per the approved master plan amendment, only units that have been designated as nightly rentals may be rented on a short-term basis, and only if the units comply with all requirements.

One Property Owners' Association – All residential phases of the master plan are required to be part of one property owners' association. The commercial areas will all be required to be part of one property owners' association. This is required to maintain all private areas including private roads, alleys, roads, and common areas. The requirement to be part of one POA is to reduce conflict in the future. Sometimes in phased developments, phases are sold to different developers, and the new developers of a phase do not want to be part of the POA. This has created issues in other phased developments in Midway and Wasatch County. For this reason, the code requires that all phases be part of one POA.

Geotechnical Report – The City has received two geotechnical reports for the property. One from 2017 and one from 2021. The geotechnical report from 2017 found water in some of the test pits on the west side of the property. The report from 2021 did not find water in any of the test pits, including pits dug near the test pits with water from 2017. The master plan agreement requires piezometers are installed in multiple areas of the development to monitor water levels over the next few years, especially in the areas of phases 2-5. The piezometers will provide information regarding the water table over multiple years. This will give information regarding development of future phases.

Residential Area Landscaping – The applicant has submitted a preliminary landscaping plan for the residential areas. The plans are more detailed than the conceptual plans that were submitted with master plan approval. The more detailed plan makes it clearer to the future residents, the developer, and the City about what landscaping is planned around each unit. Secondly, as part of the conditional use permit, landscaping will be used to help mitigate nuisances. Berms and landscaping will help mitigate light and noise from trespassing on to neighboring properties. A berm and landscaping are required along the western property line in phase 3 from the commercial parking lot north of the Wilde property to the boundary west of unit 12.

Lighting Plan – Lighting in phase 3 will need to comply with Midway's nuisance ordinance. The ordinance requires that light fixtures have full light cut-off and that there is no light trespass on to neighboring properties outside of the master planned area.

Private Street Profile – Staff, the developer, and representatives from utility companies have worked together to create a street profile for this mixed-use community that will be functional, aesthetically pleasing, and safe for the community. Several ideas have been discussed to help accomplish this which include narrowing the road, creating bulb-outs with trees, creating parallel parking areas between the bulb-outs, installing landscaping planter islands at the three entry points to Southill, and creating safer and pedestrian crossings throughout the neighborhood. Some of the proposed ideas have been included in the site plan and include the narrowing of the road, bulb-outs, defined parallel parking, landscaping planter islands at the three entry points to Southill (the planter island from the access from River Road is not present on the plans but has been agreed to by the applicant).

Traffic signal at Main Street and River Road – UDOT has studied the traffic related issues for the intersection of Main Street and River Road. The study concluded that a traffic signal is warranted for the intersection and UDOT does have a timeline established for when the signal will be installed which should be installed by the end of 2025. Southill will create more traffic to the area, so it is a requirement of the master plan agreement that traffic signal improvements are required as part of phase 3. Before the plat for phase 3 is recorded, the traffic signal, and related improvements, will need to be installed.

Intersection and Driveway Location – The proposed River Road access and the property directly north of it (OMI-0418-0, River Road Midway LLC) will have access points that are within 40' of each other. Driveways and intersections should be separated by 40' to avoid safety issues of them being too close together. The applicant has addressed this issue by allowing access to OMI-0418-0 to be directly from the proposed River Road access. Once driveway access is moved from OMI-0418-0 to the proposed River Road access then the existing driveway will need to be abandoned.

Midway Irrigation Company Ditch – There is an existing Midway Irrigation Company ditch that runs west to east across the property. The proposal is to reroute the ditch through parts of phases 3, 4, and 5. Midway Irrigation Company will need to review the plans and approve them before the ditch can be relocated.

VISUAL AND ARCHITECTURAL COMMITTEE RECOMMENDATION:

The Visual and Architectural Committee (VAC) has reviewed the conceptual architectural renderings for this project and has recommended general concept approval.

WATER BOARD RECOMMENDATION:

The Water Advisory Board has approved an estimated 181.42 acre-feet will need to be dedicated to the City when the project is complete (each phase will dedicate the required water before each plat is recorded). Staff have received updated irrigation plans and based on those plans, 177.55 acre feet will be the required total for all five phases. The representative of the applicant explained that the calculations have been modified based on the following explanation: "Please note that the total irrigated area in The Village (Southill) has reduced from 11.09 acres at master plan to 9.80 acres. This is due to the additional parking and the sidewalks to each unit being added to the plan." The following are the water rights that will be required per phase:

- Phase 1 46.75 acre feet
- Phase 2 37.85 acre feet
- Phase 3 41.00 acre feet
- Phase 4 35.12 acre feet
- Phase 5 16.83 acre feet

POSSIBLE FINDINGS:

- The proposal will benefit the City financially by creating a greater tax base.
- The proposal may help the City better comply with State requirements regarding the ability to collect resort tax depending on the number of units that are rented on a short-term basis.
- The proposal complies with the requirements of the amended master plan and the conditions placed on the rezoning of some of the property.

ALTERNATIVE ACTIONS:

- 1. <u>Recommendation of Approval (conditional)</u>. This action can be taken if the Planning Commission finds the proposal complies with the requirements of the code.
 - a. Accept staff report
 - b. List accepted findings
 - c. Place condition(s) if needed

- 2. <u>Continuance</u>. This action can be taken if the Planning Commission finds that there are unresolved issues.
 - a. Accept staff report
 - b. List accepted findings
 - c. Reasons for continuance
 - i. Unresolved issues that must be addressed
 - d. Date when the item will be heard again
- 3. <u>Recommendation of Denial</u>. This action can be taken if the Planning Commission finds that the request does not comply with the requirements of the code.
 - a. Accept staff report
 - b. List accepted findings
 - c. Reasons for denial

PROPOSED CONDITIONS:

- 1. If Wasatch County approves a trail from phase 3 to the lower road on Memorial Hill, the developer is responsible for the design and construction of the trail in phase 3 and on Wasatch County property.
- 2. Dumpster locations and enclosures must be shown on the plans.
- 3. Driveway access must be granted on the private road from River Road to Southill for parcel OMI-0418-0 because of the 40' code requirement between driveways and road intersections. Also, a signed document between the developer and the owner of parcel OMI-0418-0 must be provided that grants access and acknowledges that the existing driveway will be abandoned.
- 4. The applicant must receive approval from Midway Irrigation Company to reroute the ditch that crosses phase 3.
- 5. Plans must be submitted with the required landscaped island on the River Road access.

Midway City Corporation

Mayor: Celeste T. Johnson

City Council Members Lisa Orme • Jeffery Drury J.C. Simonsen • Craig Simons Kevin Payne



75 North 100 West P.O. Box 277 Midway, Utah 84049 Phone: 435-654-3223 Fax: 435-654-4120 midwaycityut.org

December 10, 2024

Michael Henke Midway City Planner 75 North 100 West Midway, Utah 84049 (sent via E-mail)

Subject: Southhill Phase 3 PUD – Preliminary Review

Dear Michael:

We recently reviewed the Southill Phase 3 PUD for preliminary review. The proposed development borders Memorial Hill to the North. This phase of the development contains 42 residential units. The following items should be addressed.

General Comments

- There are 5 phases within the development, each phase within the development appears to be a stand-alone phase.
- Mailbox locations should be identified on the plans.

Water

- The proposed development will be served from the Gerber / Mahogany pressure zone.
- The proposed development will connect to the existing 10" line in River Road, and connect to the existing 8" lines within Phase 1 and 2.

Roads

- The proposed roads and sidewalks within the development will be private with public access.
- An outlet to River Road will provide a dedicated left and right hand turn lane
- The timing of the traffic signal at the intersection of Main Street and River Road shall be per the master plan agreement.

Pressure Irrigation

- The subdivision will be serviced by the Midway Irrigation Company.
- All removal, additions, or revisions to the pressurized irrigation system must be approved by the Midway Irrigation Company.
- There is a ditch towards the north end of the property that flows west to east. The ditch is proposed to be placed in a network of culverts and open ditch as it flows under driveways to the east side of the development. All proposed work on this ditch must be approved by the Midway Irrigation Company.

Trails

- There is a system of private trails and sidewalks throughout the development, each having a public easement.
- There should be a discussion regarding a natural trail access to Memorial Hill.

Our vision for the City of Midway is to be a place where citizens, businesses and civic leaders are partners in building a city that is family-oriented, aesthetically pleasing, safe, walkable and visitor friendly. A community that proudly enhances its small-town Swiss character and natural environment, as well as remaining fiscally responsible. Storm Drain

• The storm drain system within the PUD is a private system. Storm water will be collected using the the proposed curb and gutter and discharged to a series of catch basins, sumps, and detention basins.

Sewer

• Preliminary & Final Approval must be received from Midway Sanitation District Board prior to installing sanitation infrastructure. The applicant should contact Becky Wood, with the Midway Sanitation District to apply for an application to be on the District's Board meeting agenda.

Please feel free to call our office with any questions.

Sincerely,

60 Wesley Johnson, P.E. Midway City Engineer

cc: Paul Berg, Development Engineer, (Sent by Email)

Midway City Corporation

Mayor: Celeste T. Johnson City Council Members Lisa Christen • Jeffery Drury J.C. Simonsen • Steve Dougherty Kevin Payne



75 North 100 West P.O. Box 277 Midway, Utah 84049 Phone: 435-654-3223 Fax: 435-654-4120 midwaycityut.org

Southill Phase 3 Final Approval

December 2, 2024

Michael Henke Midway City Planning Director,

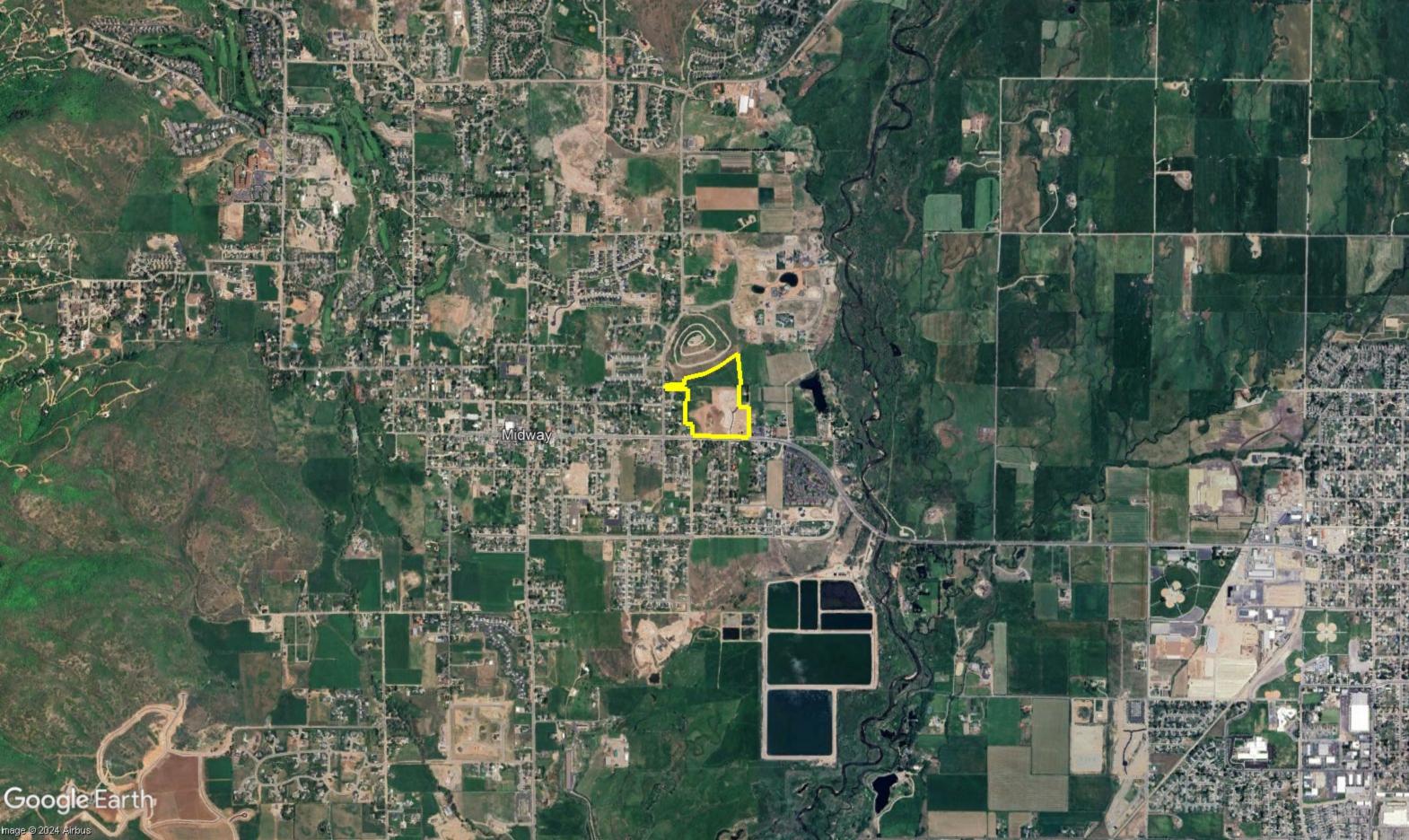
I have reviewed the plans for phase 3 of the Southill development for compliance with the 2021 International Fire Code (2021 IFC). I have no fire code concerns with the Southill Phase 3 plans currently.

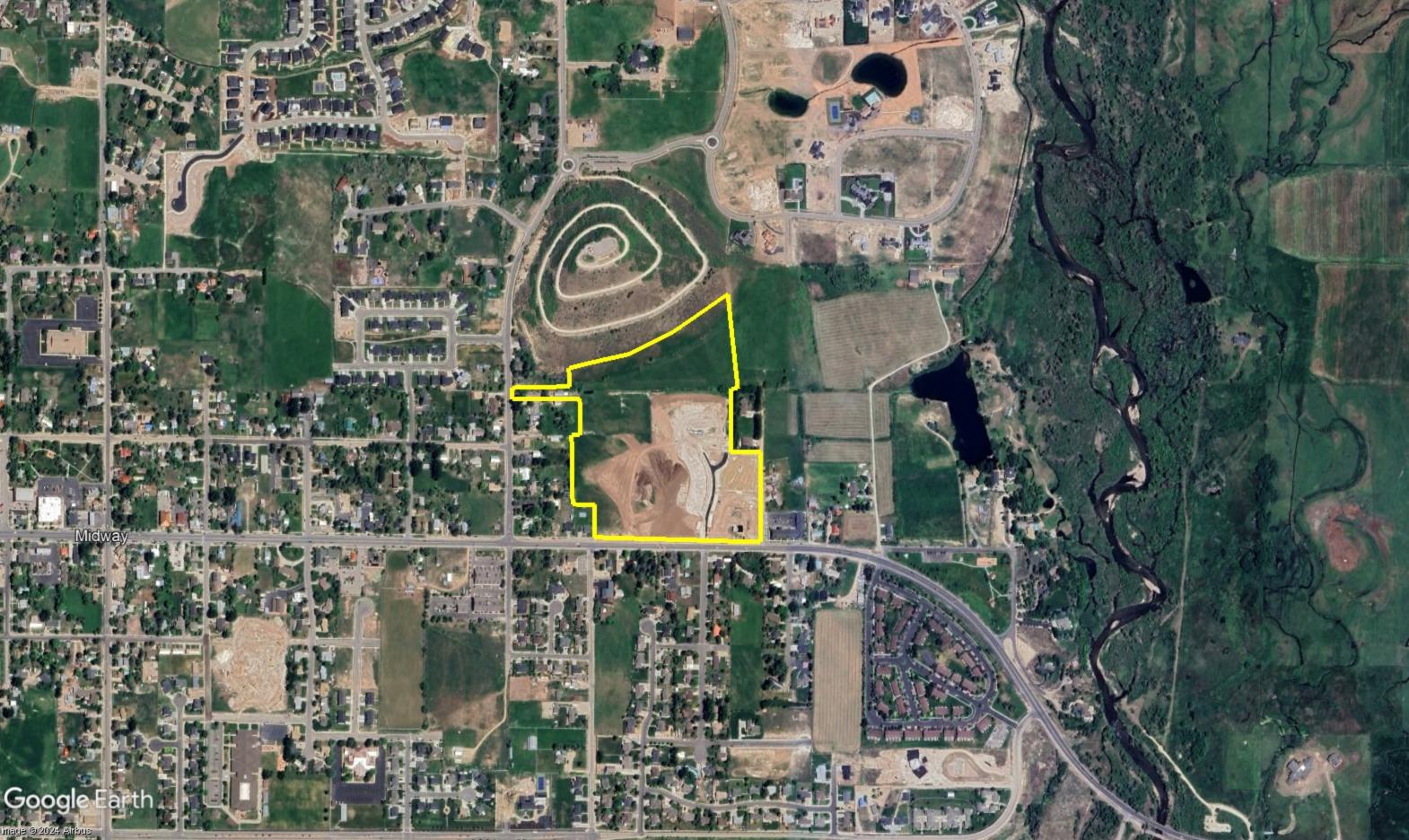
Prior to accepting building permit applications for Phase 3 of Southill, the developer will need to be granted in writing at least substantial completion by Wes Johnson with Horrocks Engineering, and the Fire Marshal will need to verify hydrant locations and road widths are installed per approved plans.

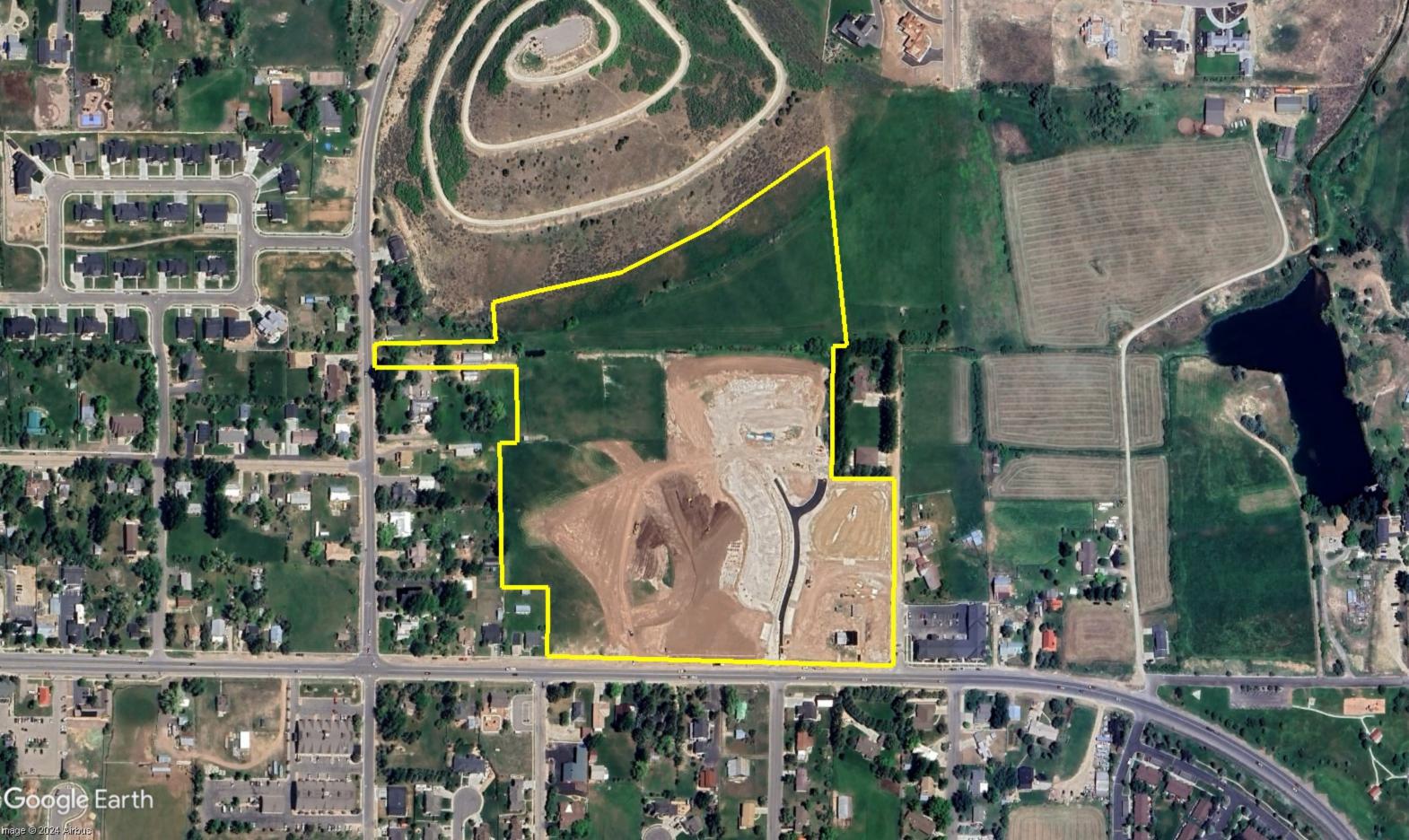
Thyland

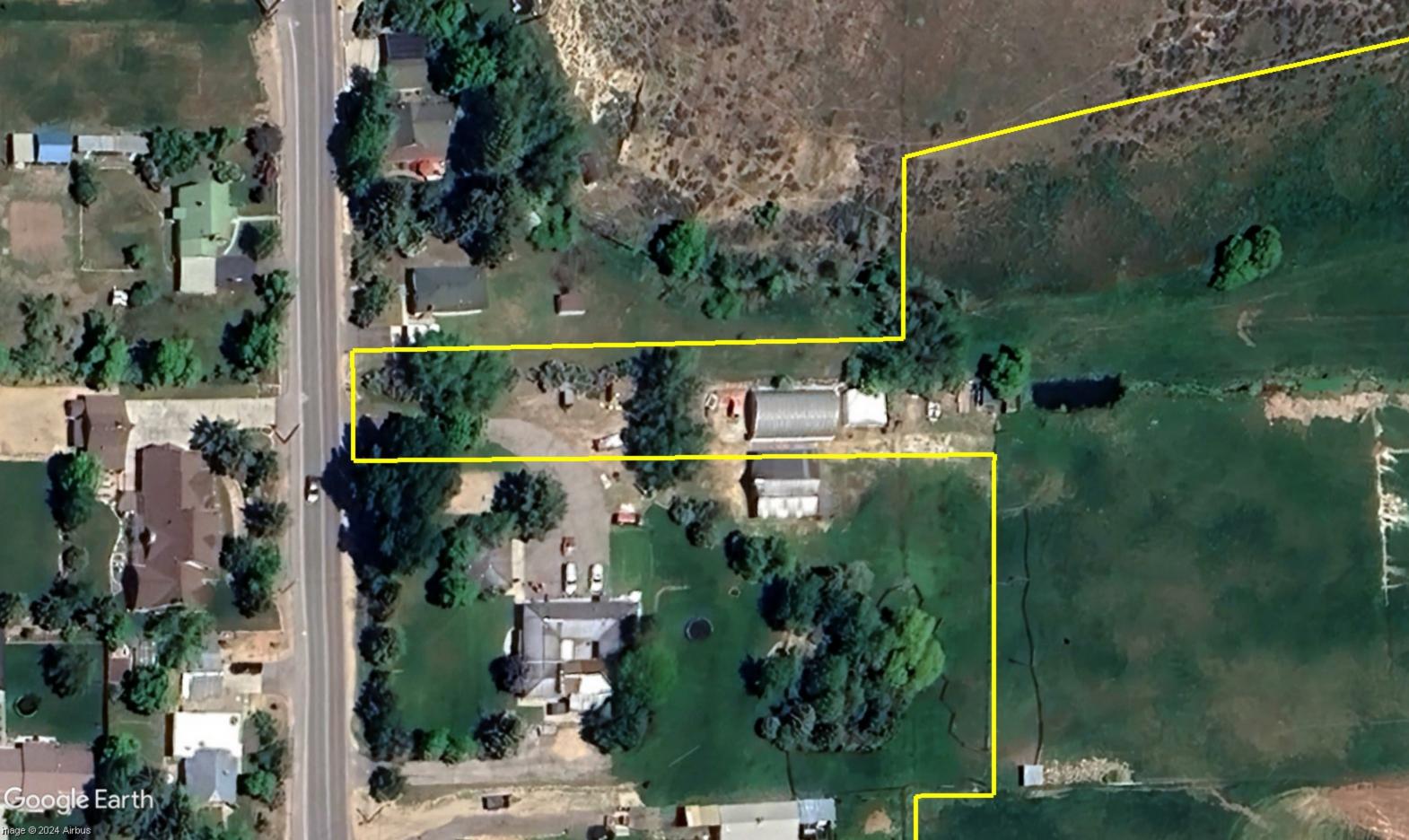
Tex R. Couch CBO/MCP Midway City Building Official/Fire Marshal 75 West 100 North Midway, Utah 84049 tcouch@midwaycityut.org (435)654-3223 Ext. 107

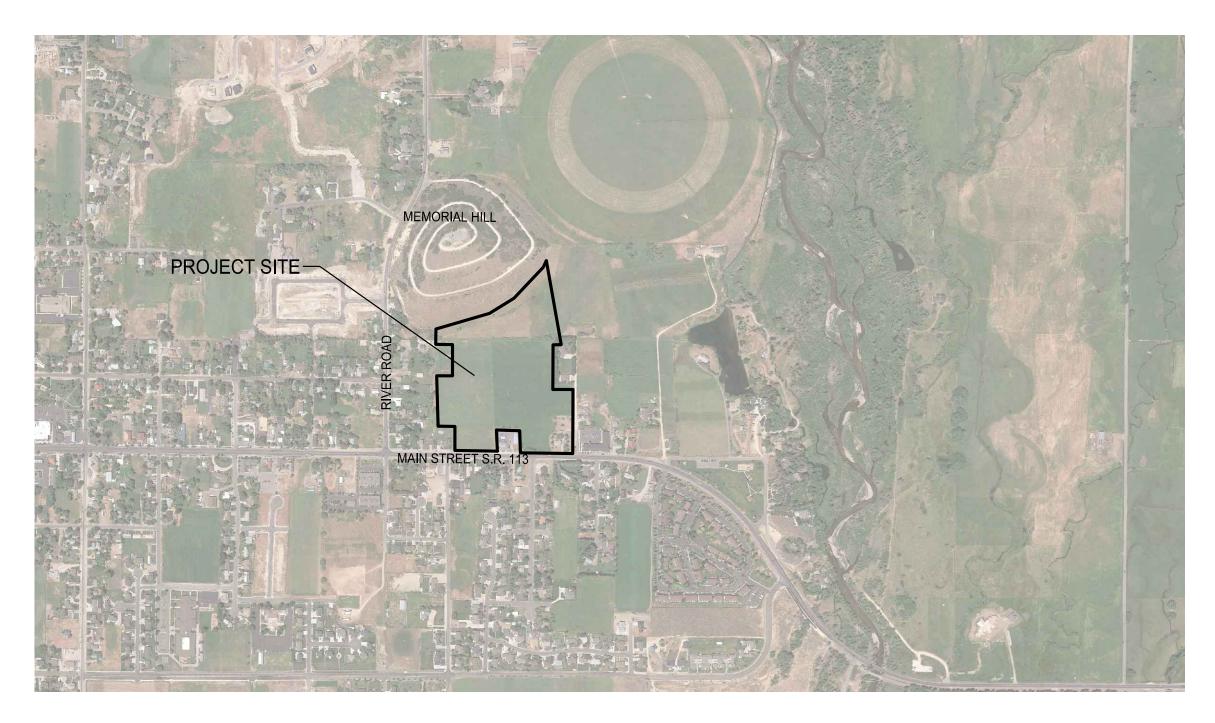
Our vision for the City of Midway is to be a place where citizens, businesses and civic leaders are partners in building a city that is family-oriented, aesthetically pleasing, safe, walkable and visitor friendly. A community that proudly enhances its small-town Swiss character and natural environment, as well as remaining fiscally responsible.













SOUTHIL A MIXED USE DEVELOPMENT PHASE 3 PRELIMINARY PLAN APPLICATION

MIDWAY CITY VICINITY MAP

SHEET INDEX

- VICINITY MAP
- SENSITIVE LANDS MAP
- MASTER PLAN
- PRELIMINARY OVERALL LANDSCAPE PLAN
- PRELIMINARY TYPICAL BUILDING LANDSCAPE PLAN
- PHASING PLAN
- 7. OPEN SPACE PLAN
- ROAD & TRAILS MASTER PLAN 8.
- PRELIMINARY SEWER PLAN 9.
- 10. PRELIMINARY WATER PLAN
- 11. PRELIMINARY PRESSURIZED IRRIGATION PLAN
- 12. PRELIMINARY STORM DRAIN PLAN
- 13. PRELIMINARY DITCH PLAN
- 14. RIVER ROAD ACCESS PLAN

2024

SOUTHILL - PHASE 3 COVER SHEET

THIS DOCUMENT IS INCOMPLETE AND IS RELEASED TEMPORARILY FOR INTERIM REVIEW ONLY. IT IS NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. PAUL D. BERG P.E. DATE: 27 NOV 2024

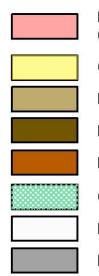


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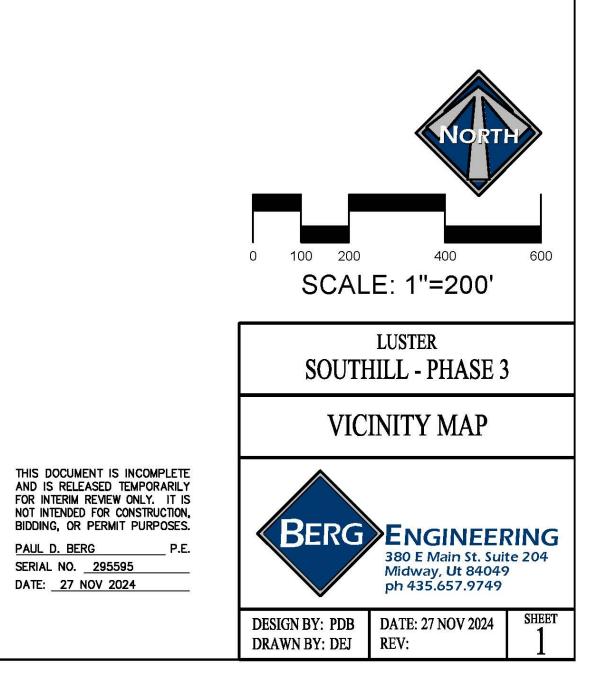


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LEGEND



NON-BUILDABLE AREA (25%+ SLOPES)
COMMERCIAL BUILDINGS
PLATTED UNITS IN PHASE 1 & 2
PHASE 3 UNITS
FUTURE UNITS IN PHASE 4 & 5
CONCRETE DECK/PATIO AREA OVER BELOW GRADE ALLEYS
ROADS & PARKING
BELOW GRADE ALLEYS & PARKING





LEGEND

NON-BUILDABLE AREA (25%+ SLOPES) COMMERCIAL BUILDINGS PLATTED UNITS IN PHASE 1 & 2 PHASE 3 UNITS FUTURE UNITS IN PHASE 4 & 5 CONCRETE DECK/PATIO AREA OVER BELOW GRADE ALLEYS ROADS & PARKING BELOW GRADE ALLEYS & PARKING

SENSITIVE LANDS NOTES

<u>LANDSLIDES</u> THE LANDSCLIDE HAZARD POTENTIAL ON THE PROPERTY IS LOW PER THE MIDWAY CITY LANDSLIDE AND PROBLEM SOIL MAP CONTAINED IN THE CITY GENERAL PLAN

<u>SHALLOW GROUND WATER</u> THE PROPERTY DOES NOT CONTAIN SHALLOW GROUND WATER PER MAP 26 OF THE WASATCH COUNTY GENERAL PLAN. PLEASE SEE THE GEOTECHNICAL REPORT FOR MORE INFORMATION.

SPRINGS. STREAMS OR SEEPS NO SPRINGS, STREAMS OR SEEPS HAVE BEEN FOUND ON THE PROPERTY.

<u>ALLUVIAL FANS</u> NO ALLUVIAL FANS ARE FOUND ON THE PROPERTY PER MAP 26 OF THE WASATCH COUNTY GENERAL PLAN.

<u>FLOOD HAZARDS</u> THERE ARE NO 100 YEAR FEMA FLOOD HAZARDS ON THIS PROPERTY PER FEMA MAPS.

<u>WETLANDS</u> NO WETLANDS ARE ON THE PROPERTY PER THE NATIONAL WETLANDS INVENTORY PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.

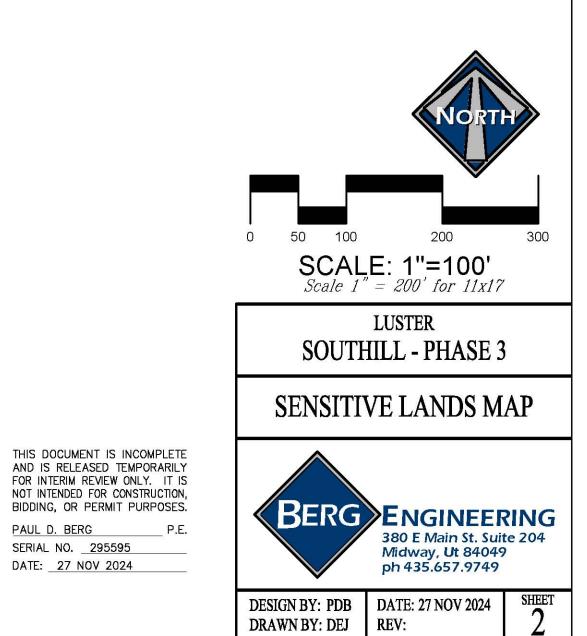
<u>FAULT LINES</u> NO FAULT LINES CROSS THE PROPERTY PER MAP 26 - FLOOD HAZARDS, EARTHQUAKE HAZARDS AND PROBLEM SOILS OF THE WASATCH COUNTY GENERAL PLAN.

VEGETATION REMOVAL EXISTING HAY FIELD WILL BE DISTURBED FOR CONSTRUCTION OF HOMES, COMMERCIAL BUILDINGS, ROADS AND PARKING. TOPSOIL WILL BE STORED FOR USE ON SITE. EXCESS SOIL MATERIALS TO BE DISPOSED OF. TREES ON MEMORIAL HILL WILL BE PRESERVED. TREES ALONG THE NORTH DITCH BANK WILL BE REMOVED AND DISPOSED OF.

<u>WATER QUALITY</u> STORM WATER RUNOFF WILL BE COLLECTED AND RETAINED ON SITE. STORM WATER POLLUTION PREVENTION MEASURES WILL BE INSTALLED DURING CONSTRUCTION. MEASURES INCLUDE SILT FENCING, STABILIZED CONSTRUCTION ENTRANCE AND INLET PROTECTION.

PAUL D. BERG

SERIAL NO. 295595 DATE: 27 NOV 2024





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| | NON–BUILDABLE AREA (25%+ SLOPES) | | |
| | COMMERCIAL BUILDINGS | | |
| | PLATTED UNITS IN PHASE 1 & 2 | | |
| | PHASE 3 UNITS | | |
| | FUTURE UNITS IN PHASE 4 & 5 | | |
| | CONCRETE DECK/PATIO AREA OVER | R BELOW GRADE ALLEYS | |
| | TRAILS | | |
| | ROADS & PARKING | | |
| | BELOW GRADE ALLEYS & PARKING | | |
| | LANDSCAPE AREA – GRASS | | |
| | LANDSCAPE AREA - NATIVE GRASS | S | |
| | LANDSCAPE AREA - WOOD MULCH | | |
| | SNOW STORAGE AREA | 0.24 ACRES | |
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| MAILBOX N MAILBOXES | | E NEXT TO THE OFFICE/HOA BUILDING. | |
| | OJECT AREA 27.47 ACRES DICATION ON MAIN 0.18 ACRES | | |
| GROSS BU | JILDING SQUARE FOOTAGE (PER INFO | PROVIDED BY OWNER & ARCHITECT - NOV 2024 | |
| RESIDENTIA TOTAL GRO | IAL 117,776 SF IAL (TOTAL) 120,442 SF ROSS BUILDING 238,218 SF | 49% 51% 100% | |
| 43 PL/ 136,26 COMME | ATTED UNITS THAT ARE UNDER CONS 67 SF. OR 3,169 GROSS SF. PER UNI | JECT IS 3,300 GROSS SF. PER ARCHITECT STRUCTION, PERMIT OR DESIGN TOTAL GROSS IT PER ARCHITECT EAS NOT INCLUDED IN NET COMMERCIAL AREA IS | |
| | IAL PARKING ARKING SPACES 182 SPACES | | |
| TOTAL GRO | <u>CALCULATIONS:</u> ROSS COMMERCIAL ABLE COMMERCIAL AREA WITHOUT POO | 117,776 SF OL OR STORAGE PER ARCHITECT 48,592 SF | |
| PARKING F | $RATIO = \frac{48,592 \text{ SF}}{180 \text{ SPACE}} = 1 \text{ SPACE}$ | FOR 267 SF | |
| | 182 SPACES FINAL NUMBER OF REQUIRED SPACES BUILDING DESIGN. | WILL DEPEND ON THE BUILDING TENANT, USE AND | |
| EACHSPACEPLAN | I <u>AL PARKING NOTES:</u> RESIDENTIAL UNIT HAS A 2 CAR GAI ES IN THE RESIDENTIAL AREAS. HAS A TOTAL OF 406 PARKING SPA HAS 92 PARKING SPACES ALONG ST | | |
| PARKING (TOTAL UNI 3 BEDROO | | SPACES X 2.5 = 352 SPACES (REQUIRED) | |
| GARAGES | | SPACES X 2 = 282 | |
| ON SITE P TOTAL | | SPACES (PROVIDED) | |
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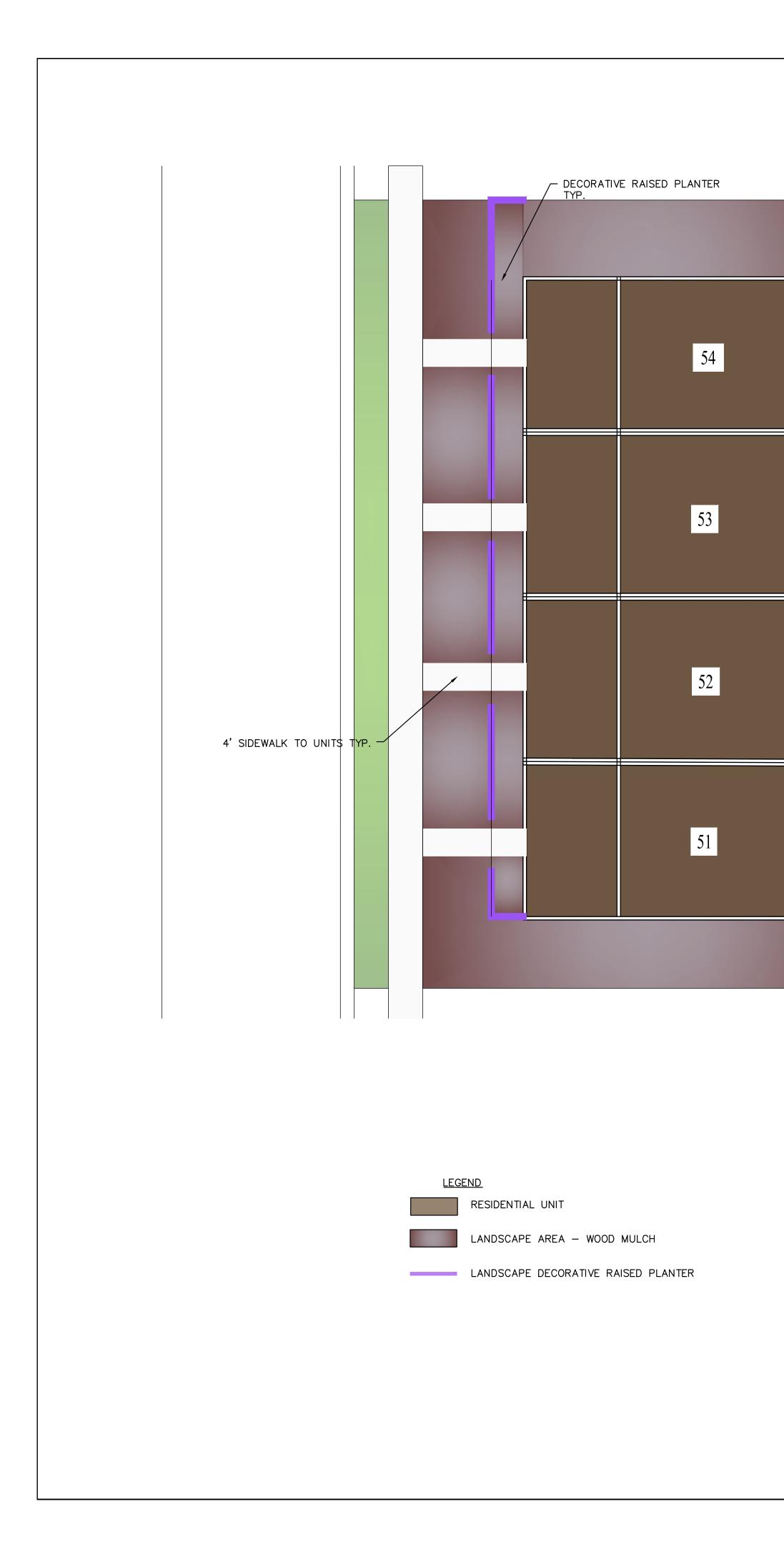
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4,984 sf Wild Flower Mix/Native Grass Mix / Wild Flower Mix/Native Grass Mix

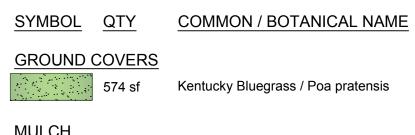
| NON-BUILDABLE AREA (25%+ SLOPES) | |
|-------------------------------------|-------------------|
| COMMERCIAL BUILDINGS | |
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| CONCRETE DECK/PATIO AREA OVER E | ELOW GRADE ALLEYS |
| ROADS & PARKING | |
| BELOW GRADE ALLEYS & PARKING | |
| LANDSCAPE AREA - GRASS | |
| LANDSCAPE AREA - NATIVE GRASS | |
| LANDSCAPE AREA - WOOD MULCH | |
| SNOW STORAGE AREA | 0.24 ACRES |

SEE SHEET 5 FOR TYPICAL LANDSCAPING AROUND HOMES
 THIS PLAN SHOWS A GENERAL LANDSCAPE CONCEPT FOR COMMON AREAS NOT AROUND HOMES. THIS PLAN IS A GENERAL GUIDE. FINAL LOCATION OF TREES, PLANTS AND GRASS MAY VARY.





PLANT SCHEDULE TYPICAL BUILDING



574 sf Kentucky Bluegrass / Poa pratensis

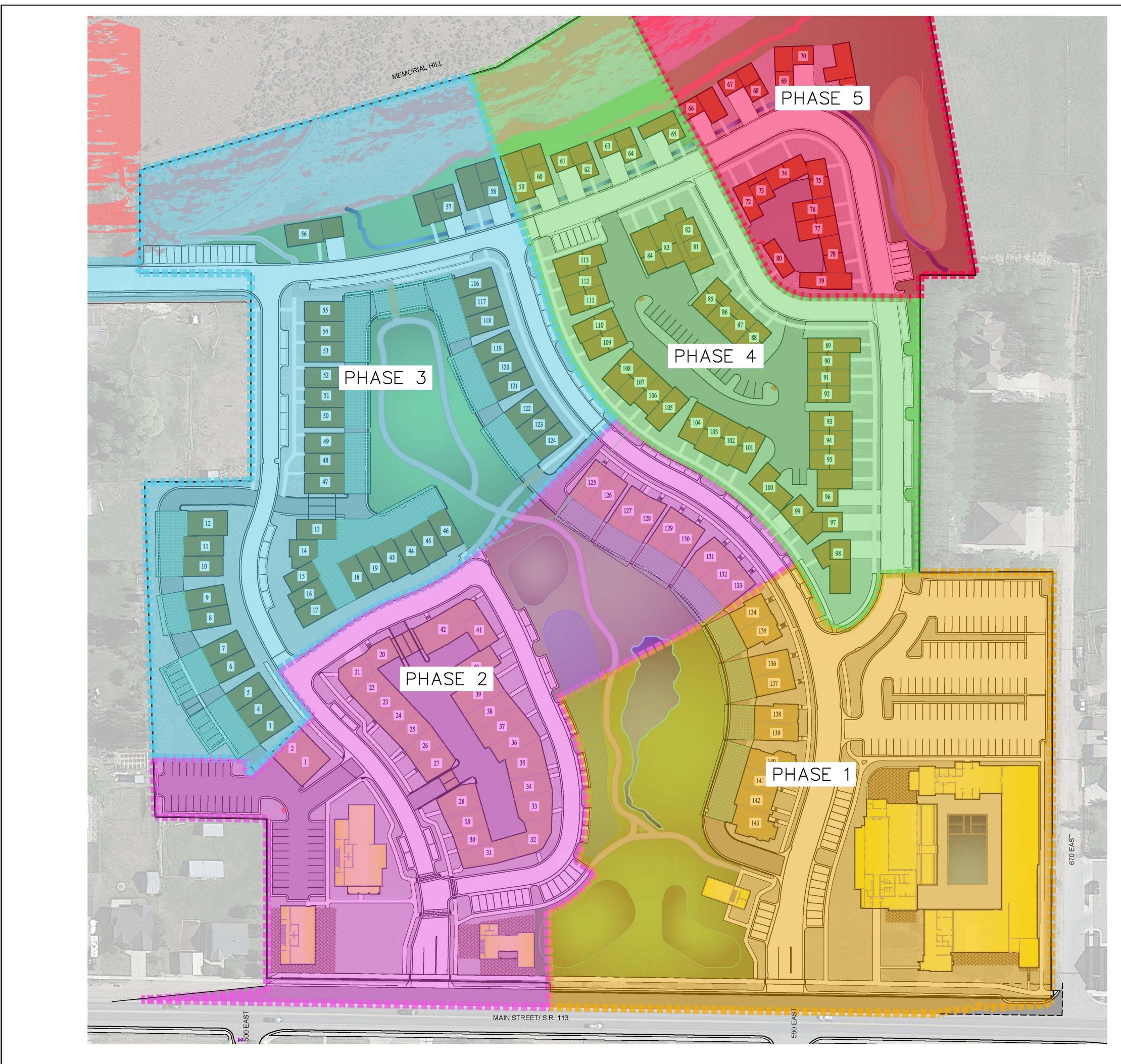
MULCH 2,781 sf 4" Wood Mulch / 4" Wood Mulch

/- DRIVEWAY TYP.



LANDSCAPE NOTES:

 THIS PLAN SHOWS A GENERAL LANDSCAPE CONCEPT FOR AROUND THE HOMES. THIS PLAN IS A GENERAL GUIDE. FINAL LOCATION OF TREES, PLANTS AND GRASS MAY VARY.

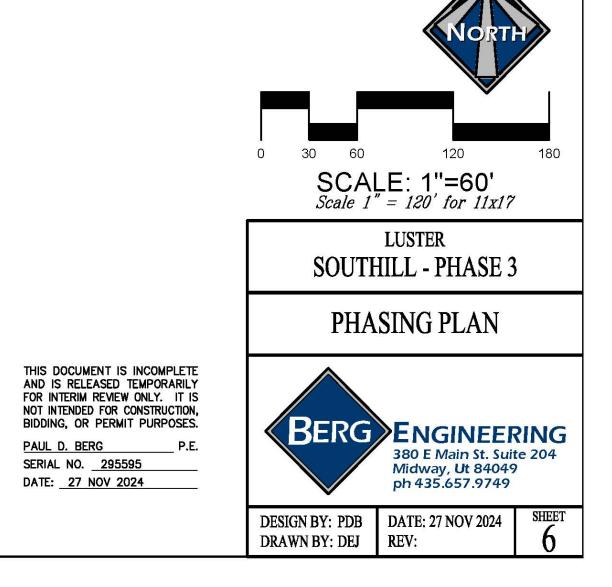


LEGEND

| NON-BUILDABLE AREA (25%+ SLOPES) | |
|-------------------------------------|-----------------|
| COMMERCIAL BUILDINGS | |
| PLATTED UNITS IN PHASE 1 & 2 | |
| PHASE 3 UNITS | |
| FUTURE UNITS IN PHASE 4 & 5 | |
| CONCRETE DECK/PATIO AREA OVER BEI | OW GRADE ALLEYS |
| ROADS & PARKING | |
| BELOW GRADE ALLEYS & PARKING | |
| LANDSCAPE AREA - GRASS | |
| LANDSCAPE AREA - NATIVE GRASS | |
| LANDSCAPE AREA - WOOD MULCH | |
| SNOW STORAGE AREA | 0.24 ACRES |
| | |

NOTES 1. RIVER ROAD CONNECTION TO BE COMPLETED WITH PHASE 3. 2. TRAFFIC LIGHT AT RIVER ROAD AND MAIN MUST BE INSTALLED PRIOR TO PHASE 3. SEE THE MASTER PLAN AGREEMENT FOR ADDITIONAL DETAILS.

| PHASE | AREA | COMMERCIAL | RESIDENTIAL | RESIDENTIAL UNITS | OPEN SPACE | PARKING SPACES | IRRIGATION AREA | NON- IRRIGATED <u>AREA</u> |
|-------|----------------|-------------|-------------|----------------------|----------------|-------------------|--------------------|----------------------------------|
| 1 | 6.55 AC | 37,615 SF | 10,249 SF | 10 | 1.94 ac | 128 | 3.16 ac | 0.00 ac |
| 2 | 5.70 AC | 11,285 SF | 33,360 SF | 34 | 1.23 ac | 79 | 2.20 ac | 0.00 ac |
| 3 | 6.67 AC | 0 SF | 44,449 SF | 42 | 1.83 ac | 54 | 2.26 ac | 1.13 ac |
| 4 | 4.59 AC | 0 SF | 45,355 SF | 40 | 0.67 ac | 40 | 1.79 ac | 0.52 ac |
| 5 | <u>3.99 AC</u> | <u>0 SF</u> | 14.964 SF | <u>15</u> | <u>2.69 ac</u> | <u>5</u> | <u>1.68 ac</u> | <u>1.35 ac</u> |
| | 27.47 AC | 48,900 SF | 148,377 SF | 141 | 8.36 ac | 306 | 11.09 ac | 3.00 ac |



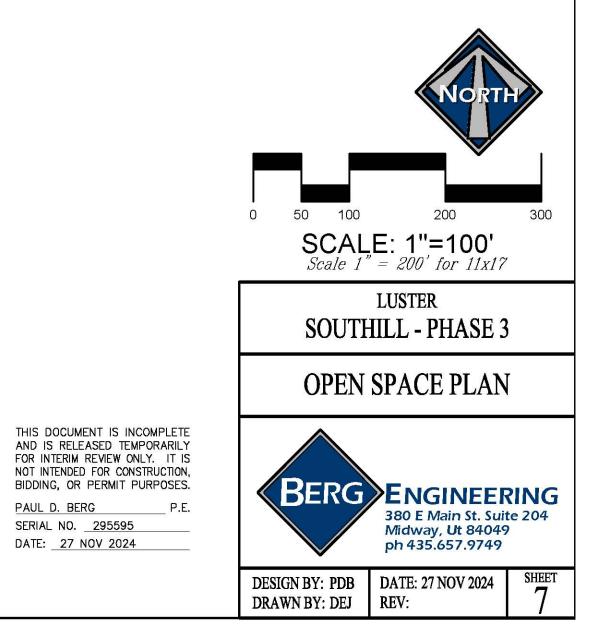


| LEGE | <u>END</u> | |
|--------------------------------------------------|----------------------------------------|------------|
| | NON-BUILDABLE AREA (25%+ SLOPES) | |
| | COMMERCIAL BUILDINGS | |
| | PLATTED UNITS IN PHASE 1 & 2 | |
| | PHASE 3 UNITS | |
| | FUTURE UNITS IN PHASE 4 & 5 | |
| | CONCRETE DECK/PATIO AREA OVER BELOW GR | ADE ALLEYS |
| | ROADS & PARKING | |
| | BELOW GRADE ALLEYS & PARKING | |
| | OPEN SPACE (IRRIGATED) | |
| ann a' an a' | OPEN SPACE (NON IRRIGATED) | |
| | PHASE 3 BOUNDARY | |
| | SNOW STORAGE AREA 0.24 | ACRES |
| | | |

| AREA TOTAL PROJECT AREA | 27.47 ACRES |
|----------------------------|-------------|
| OPEN SPACE - IRRIGATED | 5.36 ACRES |
| OPEN SPACE - NON-IRRIGATED | 3.00 ACRES |
| OPEN SPACE - TOTAL | 8.36 ACRES |

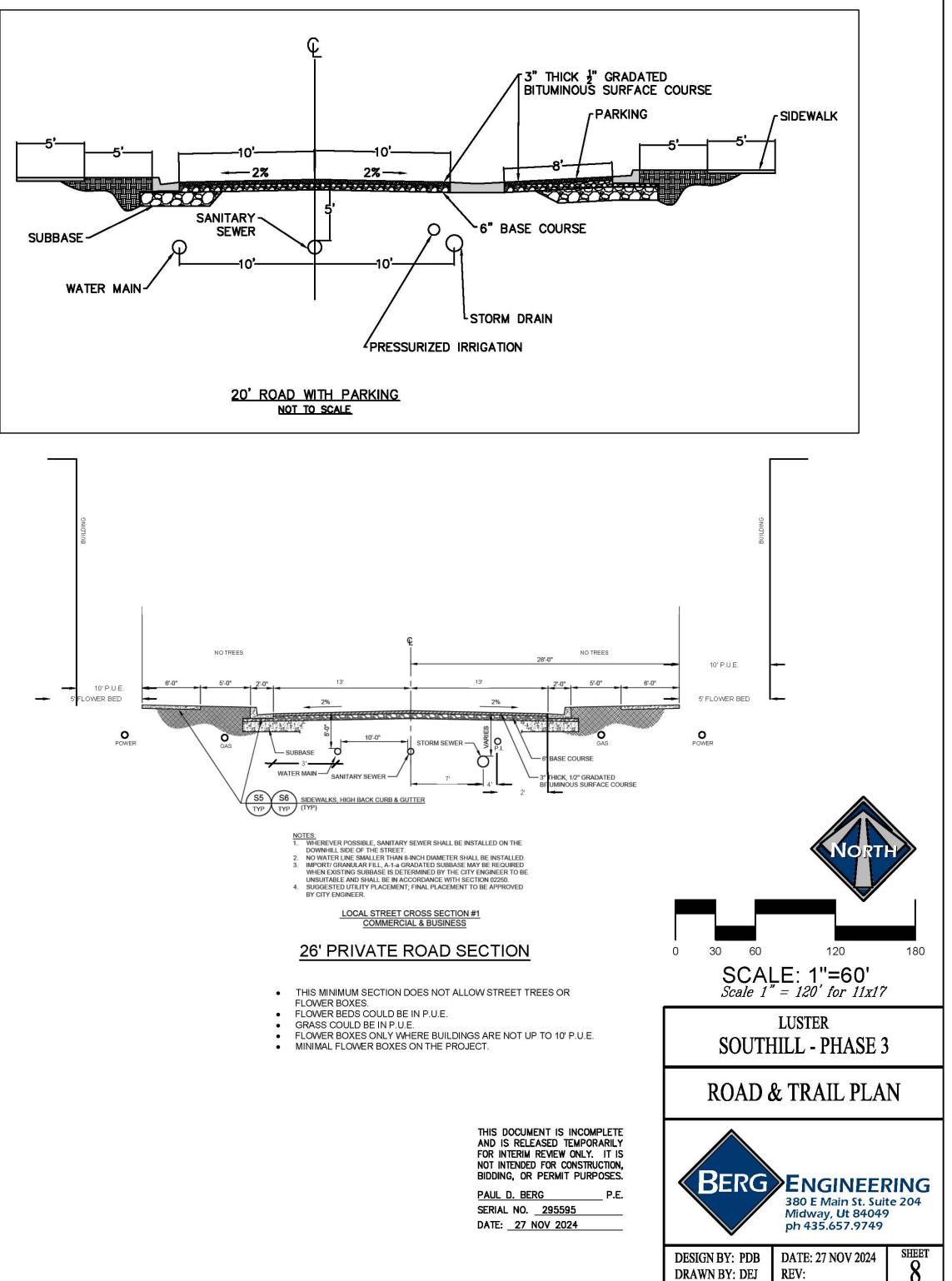
OPEN SPACE NOTES: • ALL OPEN SPACE IS A MINIMUM OF 100 FEET IN WIDTH PER MIDWAY CITY STANDARDS. • 8.32 ACRES REQUIRED PER ZONE CHANGE APPROVAL.

| OPEN SPACE BY PHASE: | | |
|-------------------------|---|---------|
| PLATTED WITH PHASES 1 & | 2 | 2.84 AC |
| PHASE 3 | | 2.18 AC |
| FUTURE PHASES | | 3.34 AC |
| TOTAL | | 8.36 AC |

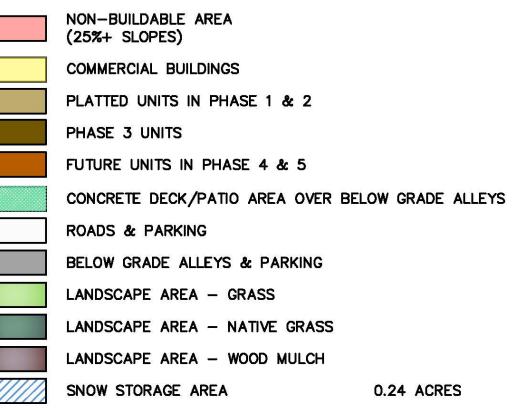




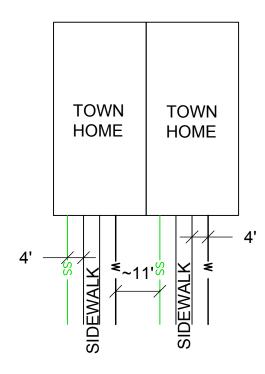
X: \Midway\Luster - Main Street\Preliminary - Phase 3\ ame: OB_ROAD AND TRAIL MASTER PLAN.dwg | plot date: November 27, 2024 | plotted by: dale











TYPICAL UTILITY DETAIL

LEGEND

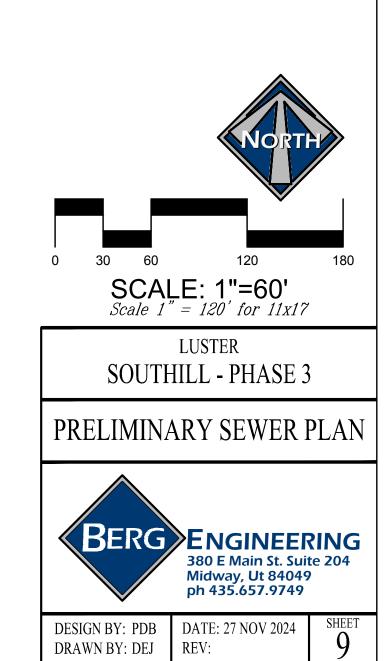
| - EXPI - EXISTING PRESSURIZED IRRIGATION |
|------------------------------------------|
| |
| |
| |

PHASE 3

BLUE STAKE NOTE: • LOCATION OF EXISTING UTILITIES SHOWN ON PLAN ARE APPROXIMATE AND MAY BE INCOMPLETE. CONTRACTOR IS RESPONSIBLE FOR BLUE STAKING OF UTILITIES.

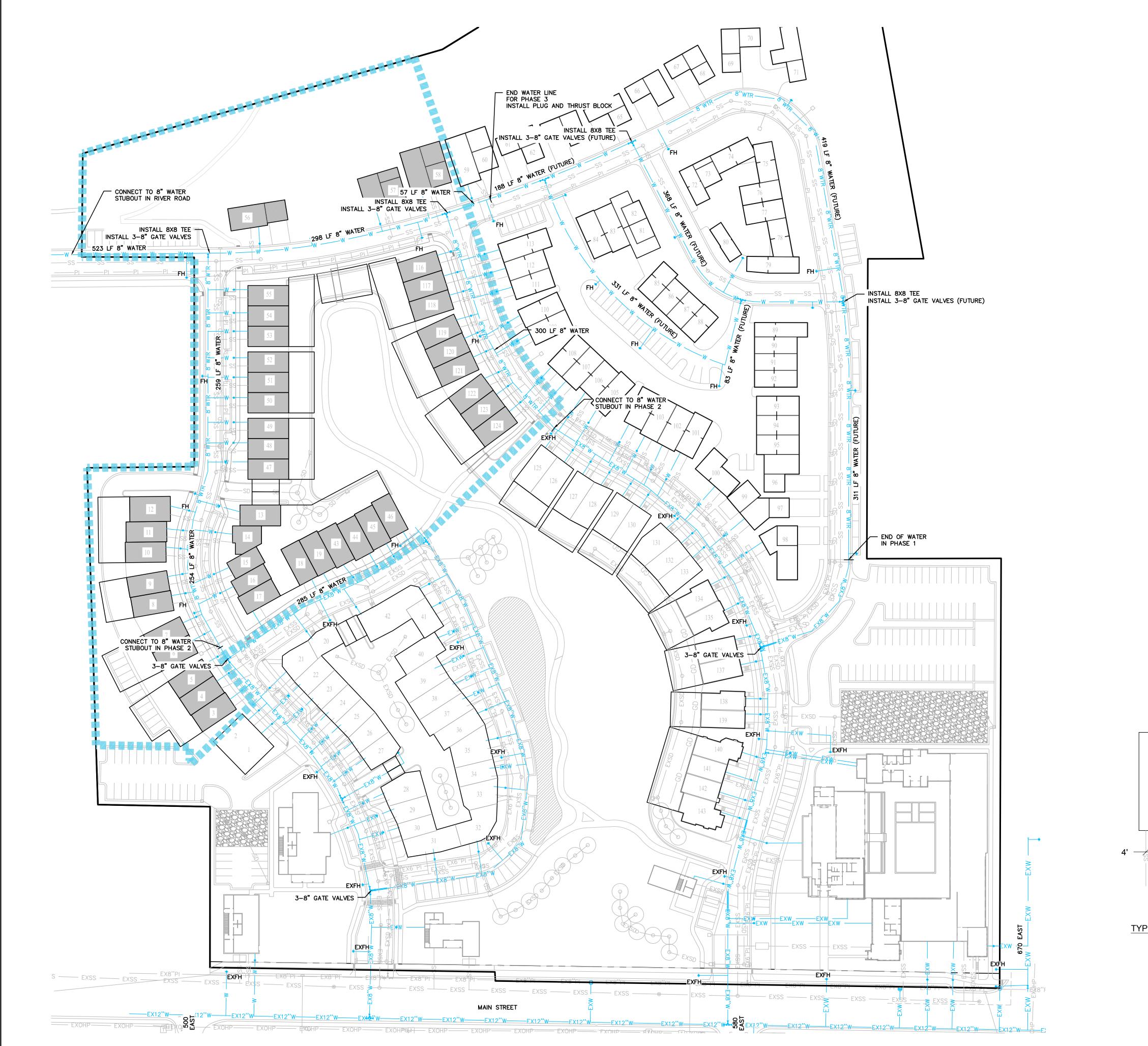
<u>SEWER NOTES:</u>
ALL SEWER LATERALS ARE 4"
ALL SEWER IMPROVEMENTS SHALL MEET MIDWAY SANITATION DISTRICT STANDARDS AND SPECIFICATIONS

GREASE TRAPS: • SIZE OF GREASE TRAPS TO BE DETERMINED WITH BUILDING PLANS.



THIS DOCUMENT IS INCOMPLETE AND IS RELEASED TEMPORARILY FOR INTERIM REVIEW ONLY. IT IS NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. PAUL D. BERG _____ P.E. SERIAL NO. <u>295595</u>

DATE: <u>27 NOV 2024</u>

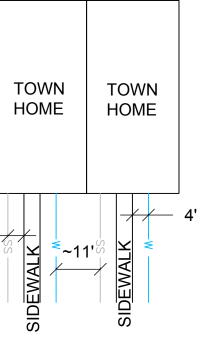


LEGEND

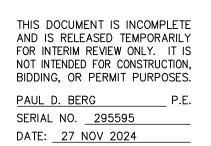
- -----EXW ----- EXISTING WATER
- EXPL EXISTING PRESSURIZED IRRIGATION
- PI PROPOSED PRESSURIZED IRRIGATION
- ------SD ------ PROPOSED STORM DRAIN
- FH PROPOSED FIRE HYDRANT
- EXFH EXISTING FIRE HYDRANT
- 🗖 🗖 🗖 🗖 🗖 PHASE 3

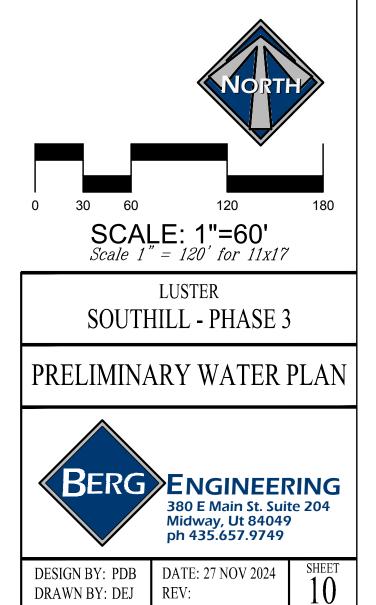
BLUE STAKE NOTE: • LOCATION OF EXISTING UTILITIES SHOWN ON PLAN ARE APPROXIMATE AND MAY BE INCOMPLETE. CONTRACTOR IS RESPONSIBLE FOR BLUE STAKING OF UTILITIES.

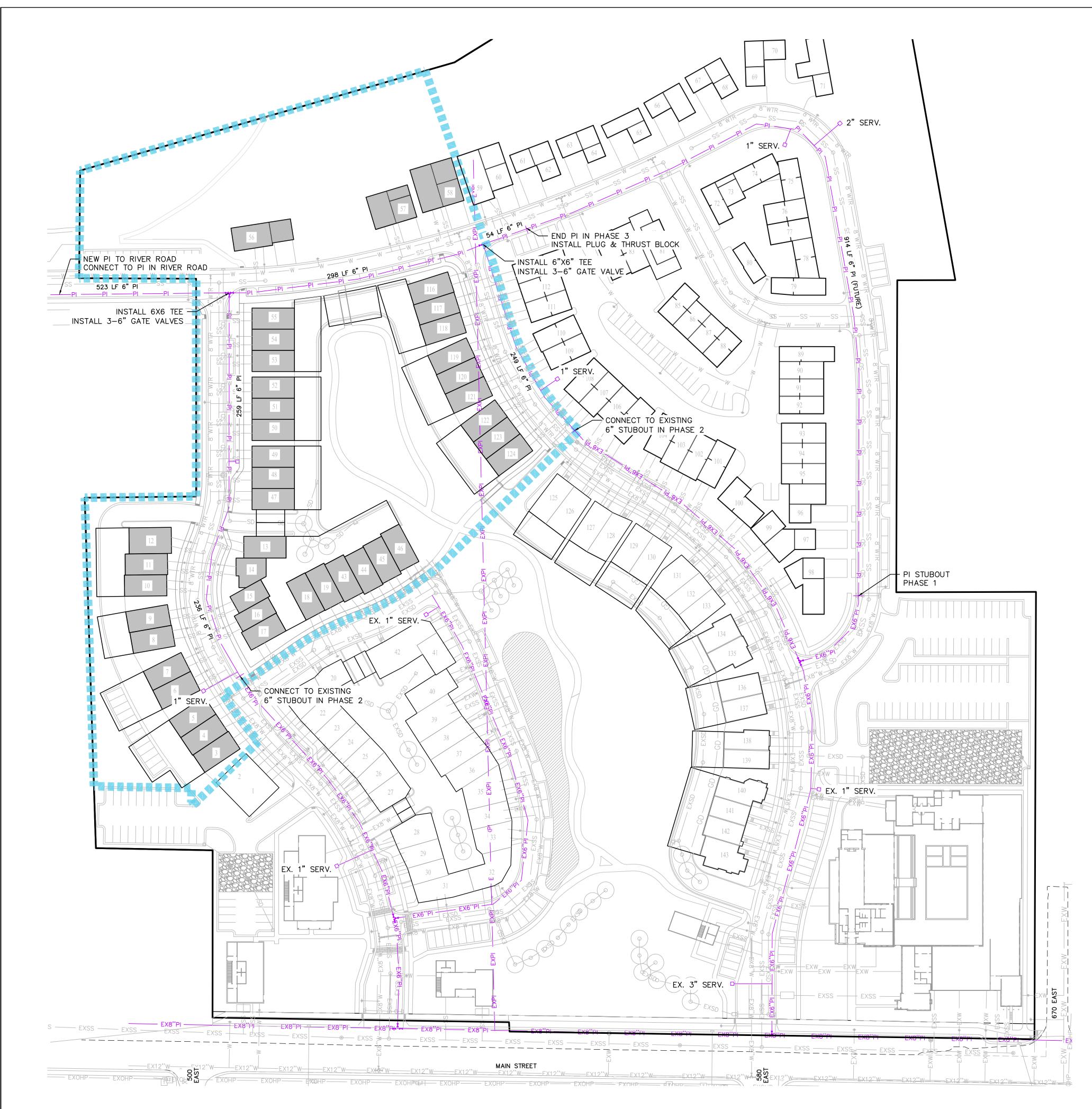
- WATER NOTES: ALL WATER IMPROVEMENTS SHALL MEET MIDWAY CITY STANDARDS AND SPECIFICATIONS.
- ALL WATER LINES ARE 8" UNLESS OTHERWISE NOTED.



TYPICAL UTILITY DETAIL





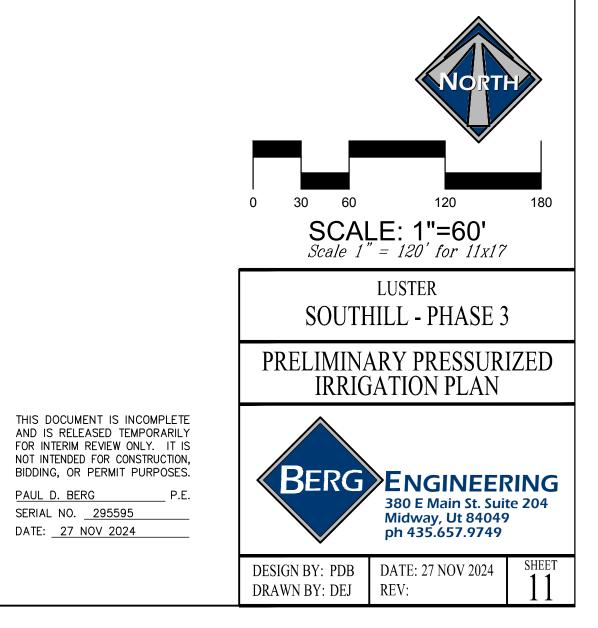


h: X: \Midway\Luster - Main Street\Preliminary - Phase 3\ name: 11_P1 MASTER PLAN.dwg | plot date: November 27, 2024 | plotted by: date

| LEGEND |
|-----------------|
| EXISTING SEWER |
| |
| |
| |
| |
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| |
| 🗖 🗖 🗖 🗖 PHASE 3 |

 PRESSURIZED IRRIGATION NOTES:
 ALL PRESSURIZED IRRIGATION IMPROVEMENTS SHALL MEET MIDWAY IRRIGATION COMPANY STANDARDS AND SPECIFICATIONS
 ALL PRESSURIZED IRRIGATION MAIN SHALL BE AWWA C900 DR18 PURPLE PIPE.

EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR BLUE STAKING OF ALL ONSITE UTILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF DIFFERENCES BETWEEN BLUE STAKED LOCATIONS AND THOSE SHOWN ON THIS PLAN.





Test pits in the geotech report generally show potrock under 1' of topsoil. Assume percolation of 2.0 inches per hour for potrock. Drainage area to the southeast parking lot is 1.90 acres Retention area under the parking is 54' x 64'

| Table 1 - F | Runoff Coe | | | | - |
|-------------------------------|-------------------------------------|----------------------|-------------------------------------|----------------------------------------|----|
| | | C=0.90 | C=0.95 | C=0.20 | |
| Drainage | Total | Roads, Alleys | | Landscaped | |
| Basin | Area | & Parking | Buildings | or Hillside | |
| | (acres) | (acres) | (acres) | (acres) | |
| А | 1.90 | 0.77 | 0.29 | 0.84 | Г |
| | | | | | |
| | | orm Peak Run | off and Volu | | ir |
| | | | | me from Basi | ir |
| Table 2 - 1 | 00 Year St | | off and Volu Developed | me from Basi Peak | |
| Table 2 - 1 Time | 00 Year St Rainfall | orm Peak Run | off and Volu Developed Runoff | me from Basi Peak Runoff | |
| Table 2 - 1 Time Period | 00 Year St Rainfall Intensity | orm Peak Run Area | off and Volu Developed Runoff | me from Basi Peak Runoff Rate | |

| (min) | (in / nr) | (acres) | |
|-------|------------|---------|-----|
| 15 | 4.08 | 1.90 | 0.6 |
| 30 | 2.76 | 1.90 | 0.6 |
| 60 | 1.71 | 1.90 | 0.6 |
| 120 | 0.96 | 1.90 | 0.6 |
| 180 | 0.65 | 1.90 | 0.6 |
| 360 | 0.35 | 1.90 | 0.6 |
| 720 | 0.21 | 1.90 | 0.6 |
| 1440 | 0.13 | 1.90 | 0.6 |
| | 10a - 12aO | | |
| | | | |

| Time Period (min) | Total Runoff Volume (cf) | Soil Percolation Rate (inch / hour) | 5' Gravel 40% Void Volume (cf) | Percola fror Grav (cf |
|-------------------------|-----------------------------------|----------------------------------------------|-----------------------------------------|--------------------------------|
| 15 | 4,173 | 2.0 | 6,912 | 144 |
| 30 | 5,646 | 2.0 | 6,912 | 288 |
| 60 | 6,996 | 2.0 | 6,912 | 576 |
| 120 | 7,855 | 2.0 | 6,912 | 1,15 |
| 180 | 7,978 | 2.0 | 6,912 | 1,72 |
| 360 | 8,592 | 2.0 | 6,912 | 3,45 |
| 720 | 10,310 | 2.0 | 6,912 | 6,91 |
| 1440 | 12,765 | 2.0 | 6,912 | 13,8 |

Test pits in the geotech report generally show potrock under 1' of topsoil. Assume percolation of 2.0 inches per hour for potrock. Drainage area to the retention pond is 2.53 acres.

| | | C=0.90 | C=0.95 | C=0.20 | Composite |
|----------|---------|---------------|-----------|-------------|-------------|
| Drainage | Total | Roads, Alleys | | Landscaped | Runoff |
| Basin | Area | & Parking | Buildings | or Hillside | Coefficient |
| | (acres) | (acres) | (acres) | (acres) | |
| E | 2.53 | 0.58 | 0.75 | 1.20 | 0.58 |

| Table 16 | - 100 Year \$ | Storm Peak Ru | noff and Volur | ne from Basi | in E | Assume pe Drainage a | ercolation or rea to the | of 2.0 inches per southeast parkin | hour for potro g lot is 8.57 ac | ck. | psoli. |
|-------------------------|------------------------------------|-----------------|------------------------------------|---------------------------------|-----------------------------------|-------------------------|-----------------------------|---------------------------------------|------------------------------------|---------------------------|-----------------------|
| Time Period (min) | Rainfall Intensity (in / hr) | Area (acres) | Developed Runoff Coefficient | Peak Runoff Rate (cfs) | Total Runoff Volume (cf) | | | the parking is 64 | | rking Lot) | |
| 15 | 4.08 | 2.53 | 0.58 | 6.02 | 5,414 | | | C=0.90 | C=0.95 | C=0.20 | Composite |
| 30 | 2.76 | 2.53 | 0.58 | 4.07 | 7,325 | Drainage Basin | Total Area | Roads, Alleys & Parking | Buildings | Landscaped or Hillside | Runoff Coefficient |
| 60 | 1.71 | 2.53 | 0.58 | 2.52 | 9,077 | Dasiii | (acres) | (acres) | (acres) | (acres) | Werncient |
| 120 180 | 0.96 | 2.53 | 0.58 | 1.42 0.96 | 10,192 10.351 | D | 8.57 | 2.62 | 1.96 | 3.99 | 0.59 |
| 360 | 0.35 | 2.53 | 0.58 | 0.52 | 11,147 | | | | | | |
| 720 | 0.21 | 2.53 | 0.58 | 0.31 | 13,377 | Table 12 | 100 Voor | Storm Peak R | upoff and Vol | umo from Pac | in D |
| 1440 | 0.13 | 2.53 | 0.58 | 0.19 | 16,562 | Table 13 - | 100 1001 | | Developed | Peak | Total |

| Time | Total Runoff | Soil Percolation | 4 - Su |
|--------|-----------------|---------------------|-----------|
| Period | Volume | Rate | Volu |
| (min) | (cf) | (inch / hour) | (c |
| 15 | 5,414 | 2.0 | 4,7 |
| 30 | 7,325 | 2.0 | 4,7 |
| 60 | 9,077 | 2.0 | 4,7 |
| 120 | 10,192 | 2.0 | 4,7 |
| 180 | 10,351 | 2.0 | 4,7 |
| 360 | 11,147 | 2.0 | 4,7 |
| 720 | 13,377 | 2.0 | 4,7 |
| 1440 | 16,562 | 2.0 | 4,7 |

| Pond Depth | Pond Area | Pond Volume | Pond Volume | |
|---------------|--------------|----------------|----------------|-------------------------|
| (ft) | (sf) | (cf) | (acre-ft) | |
| 0.00 | 13 | 0 | 0.00 |] |
| 1.00 | 826 | 420 | 0.01 | |
| 2.00 | 1,313 | 1,489 | 0.03 |] |
| 3.00 | 1,900 | 3,096 | 0.07 |] |
| 4.00 | 2,588 | 5,340 | 0.12 | Contains 100 year storr |
| 5.00 | 3,376 | 8,322 | 0.19 | 1' of Freeboard |

<u>LEGEND</u>

| (ISTING | SEWE |
|----------------|---------|
| | KISTING |

- EXPL EXISTING PRESSURIZED IRRIGATION

- EXSD EXISTING STORM DRAIN

🖉 🖉 🖉 🖉 🖉 PHASE 3

BLUE STAKE NOTE: LOCATION OF EXISTING UTILITIES SHOWN ON PLAN ARE APPROXIMATE AND MAY BE INCOMPLETE. CONTRACTOR IS RESPONSIBLE FOR BLUE STAKING OF UTILITIES.

STORM DRAIN NOTES:
 ALL STORM DRAIN CONSTRUCTION TO MEET MIDWAY CITY STANDARDS.

Percolation

from Gravel

Runoff

Volume

Retention

Storage

Test pits in the geotech report generally show potrock under 1' of topsoil. Assume percolation of 2.0 inches per hour for potrock. Drainage area to the retention pond is 3.94 acres.

Test pits in the geotech report generally show potrock under 1' of topsoil. Assume percolation of 2.0 inches per hour for potrock. Drainage area to the retention pond is 5.94 acres.

Area & Parking Buildings or Hillside Coefficient

C=0.20 Composite Landscaped Runoff

| | | | | | | Table 8 | Runoff Coeff | icient for Drai | nage Basin (|
|---------------------------------------------------|-------------------|-----------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Table 4 - Runoff Coefficient for Drainage Basin B | | | | | | | | C=0.90 | C=0.95 |
| | | C=0.90 | C=0.95 | C=0.20 | Composite | Drainage | e Total | Roads, Alleys | |
| Drainage | Total | Roads, Alleys | | Landscaped | Runoff | Basin | Area | & Parking | Buildings |
| Basin | Area | & Parking | Buildings | or Hillside | Coefficient | | (acres) | (acres) | (acres) |
| | (acres) | (acres) | (acres) | (acres) | | С | 5.94 | 0.99 | 0.93 |
| В | 3.94 | 0.87 | 0.58 | 2.49 | 0.46 | | | | |
| | Drainage Basin | Drainage Total Basin Area (acres) | Drainage Total Roads, Alleys Basin Area & Parking (acres) (acres) | C=0.90 C=0.90 C=0.95 Drainage Total Roads, Alleys Basin Area & Parking Buildings (acres) (acres) (acres) (acres) (acres) (acres) | C=0.90 C=0.95 C=0.20 Drainage Total Roads, Alleys Landscaped Basin Area & Parking Buildings or Hillside (acres) (acres) (acres) (acres) (acres) | Drainage Total C=0.90 C=0.95 C=0.20 Composite Drainage Total Roads, Alleys Landscaped Runoff Basin Area & Parking Buildings or Hillside Coefficient (acres) (acres) (acres) (acres) (acres) (acres) | Table 4 - Runoff Coefficient for Drainage Basin B C=0.90 C=0.95 C=0.20 Composite Drainage Total Roads, Alleys Landscaped Runoff Basin Area & Parking Buildings or Hillside Coefficient (acres) (acres) (acres) Carres) C | Table 4 - Runoff Coefficient for Drainage Basin BDrainageC=0.90C=0.95C=0.20CompositeDrainageTotalRoads, AlleysLandscapedRunoffBasinArea& ParkingBuildingsor HillsideCoefficient(acres)(acres)(acres)(acres)C5.94 | Drainage DrainageTotal Roads, AlleysC=0.95C=0.20Composite RunoffDrainage BasinTotal AreaRoads, AlleysBasinArea (acres)& Parking (acres)Buildings (acres)or Hillside (acres)CoefficientDrainage BasinTotal AreaRoads, Alleys & Parking (acres)Runoff (acres)Drainage (acres)Total |

| Time Period (min) | Rainfall Intensity (in / hr) | Area (acres) | Developed Runoff Coefficient | Peak Runoff Rate (cfs) | Total Runoff Volume (cf) |
|-------------------------|------------------------------------|-----------------|------------------------------------|---------------------------------|-----------------------------------|
| 15 | 4.08 | 3.94 | 0.46 | 7.47 | 6,727 |
| 30 | 2.76 | 3.94 | 0.46 | 5.06 | 9,101 |
| 60 | 1.71 | 3.94 | 0.46 | 3.13 | 11,278 |
| 120 | 0.96 | 3.94 | 0.46 | 1.76 | 12,663 |
| 180 | 0.65 | 3.94 | 0.46 | 1.19 | 12,861 |
| 360 | 0.35 | 3.94 | 0.46 | 0.64 | 13,850 |
| 720 | 0.21 | 3.94 | 0.46 | 0.38 | 16,620 |
| 1440 | 0.13 | 3.94 | 0.46 | 0.24 | 20,577 |

6 - 10'

Volume

Sump

Table 9 - 100 Year Storm Peak Runoff and Volume from Basin C Total Peak Developed Runoff Runoff Volume Runoff Time Rainfall Intensity Rate Period Area Coefficient

5.94

Table 10 - Retention Pond in Park for Basin C

Storage Needed in Pond

4,249

3,343

Percolation

from Gravel

| Time Period (min) | lotal Runoff Volume (cf) | Soil Percolation Rate (inch / hour) | 8 - 10 [.] Sump Volume (cf) | Fercolation from Gravel (cf) | Storage Needed in Pond (cf) |
|-------------------------|-----------------------------------|----------------------------------------------|-----------------------------------------------|---------------------------------------|--------------------------------------|
| 15 | 9,468 | 2.0 | 9,408 | 173 | 0 |
| 30 | 12,810 | 2.0 | 9,408 | 346 | 3,056 |
| 60 | 15,873 | 2.0 | 9,408 | 691 | 5,774 |
| 120 | 17,823 | 2.0 | 9,408 | 1,382 | 7,032 |
| 180 | 18,101 | 2.0 | 9,408 | 2,074 | 6,619 |
| 360 | 19,493 | 2.0 | 9,408 | 4,147 | 5,938 |
| 720 | 23,392 | 2.0 | 9,408 | 8,294 | 5,690 |
| 1440 | 28,962 | 2.0 | 9,408 | 16,589 | 2,965 |

| Pond Depth | Pond Area | Pond Volume | Pond Volume | |
|---------------|--------------|----------------|----------------|-------------------------|
| (ft) | (sf) | (cf) | (acre-ft) | |
| 0.00 | 13 | 0 | 0.00 | |
| 1.00 | 2,470 | 1,242 | 0.03 | |
| 2.00 | 3,292 | 4,123 | 0.09 | |
| 3.00 | 4,213 | 7,875 | 0.18 | Contains 100 year storm |
| 4.00 | 6,359 | 13,161 | 0.30 | 1' of Freeboard |

ercolation Storage from Needed Gravel in Pond 4,525

8.294

3,563

| nder 1' of topsoil. | Table 7 - E | Basin B Ret | ention Pond V | /olume | 2 |
|-----------------------------------------------------------------|--------------|--------------|-----------------|----------------|-------------------------|
| | Pond | Pond | Pond | Pond |] |
| | Depth | Area | Volume | Volume | |
| | (ft) | (sf) | (cf) | (acre-ft) | |
| | 0.00 | 13 | 0 | 0.00 | |
| | 1.00 | 1,413 | 713 | 0.02 | |
| C=0.20 Composite andscaped Runoff or Hillside Coefficient | 2.00 | 2,054 | 2,447 | 0.06 | |
| | 3.00 | 2,796 | 4,872 | 0.11 | Contains 100 year storm |
| | 4.00 | 3,637 | 8,088 | 0.19 | 1' of Freeboard |
| (acres) | | | | | - |
| 1.20 0.58 | Test nits in | n the reater | h report genera | lly show notro | ck under 1' of tonsoil |

Table 6 - Retention Pond in Park for Basin E

Soil

Percolation Rate

Total

Runoff

Volume

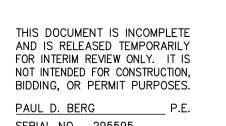
Time

Period

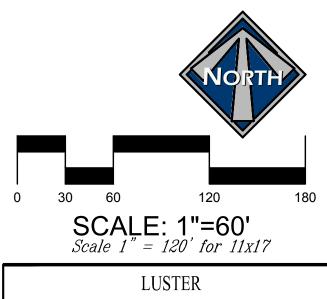
Test pits in the geotech report generally show potrock under 1' of topsoil.

| Time Period (min) | Rainfall Intensity (in / hr) | Area (acres) | Developed Runoff Coefficient | Peak Runoff Rate (cfs) | Total Runoff Volume (cf) |
|-------------------------|------------------------------------|-----------------|------------------------------------|---------------------------------|-----------------------------------|
| 15 | 4.08 | 8.57 | 0.59 | 20.47 | 18,426 |
| 30 | 2.76 | 8.57 | 0.59 | 13.85 | 24,929 |
| 60 | 1.71 | 8.57 | 0.59 | 8.58 | 30,891 |
| 120 | 0.96 | 8.57 | 0.59 | 4.82 | 34,684 |
| 180 | 0.65 | 8.57 | 0.59 | 3.26 | 35,226 |
| 360 | 0.35 | 8.57 | 0.59 | 1.76 | 37,936 |
| 720 | 0.21 | 8.57 | 0.59 | 1.05 | 45,523 |
| 1440 | 0.13 | 8.57 | 0.59 | 0.65 | 56,362 |

| Time | Total Runoff | Soil Percolation | 7' Gravel 40% Void | Percolation from | Total Retention |
|--------|-----------------|---------------------|-----------------------|---------------------|--------------------|
| Period | Volume | Rate | Volume | Gravel | Storage |
| (min) | (cf) | (inch / hour) | (cf) | (cf) | (cf) |
| 15 | 18,426 | 2.0 | 32,256 | 480 | 32,736 |
| 30 | 24,929 | 2.0 | 32,256 | 960 | 33,216 |
| 60 | 30,891 | 2.0 | 32,256 | 1,920 | 34,176 |
| 120 | 34,684 | 2.0 | 32,256 | 3,840 | 36,096 |
| 180 | 35,226 | 2.0 | 32,256 | 5,760 | 38,016 |
| 360 | 37,936 | 2.0 | 32,256 | 11,520 | 43,776 |
| 720 | 45,523 | 2.0 | 32,256 | 23,040 | 55,296 |
| 1440 | 56,362 | 2.0 | 32,256 | 46,080 | 78,336 |



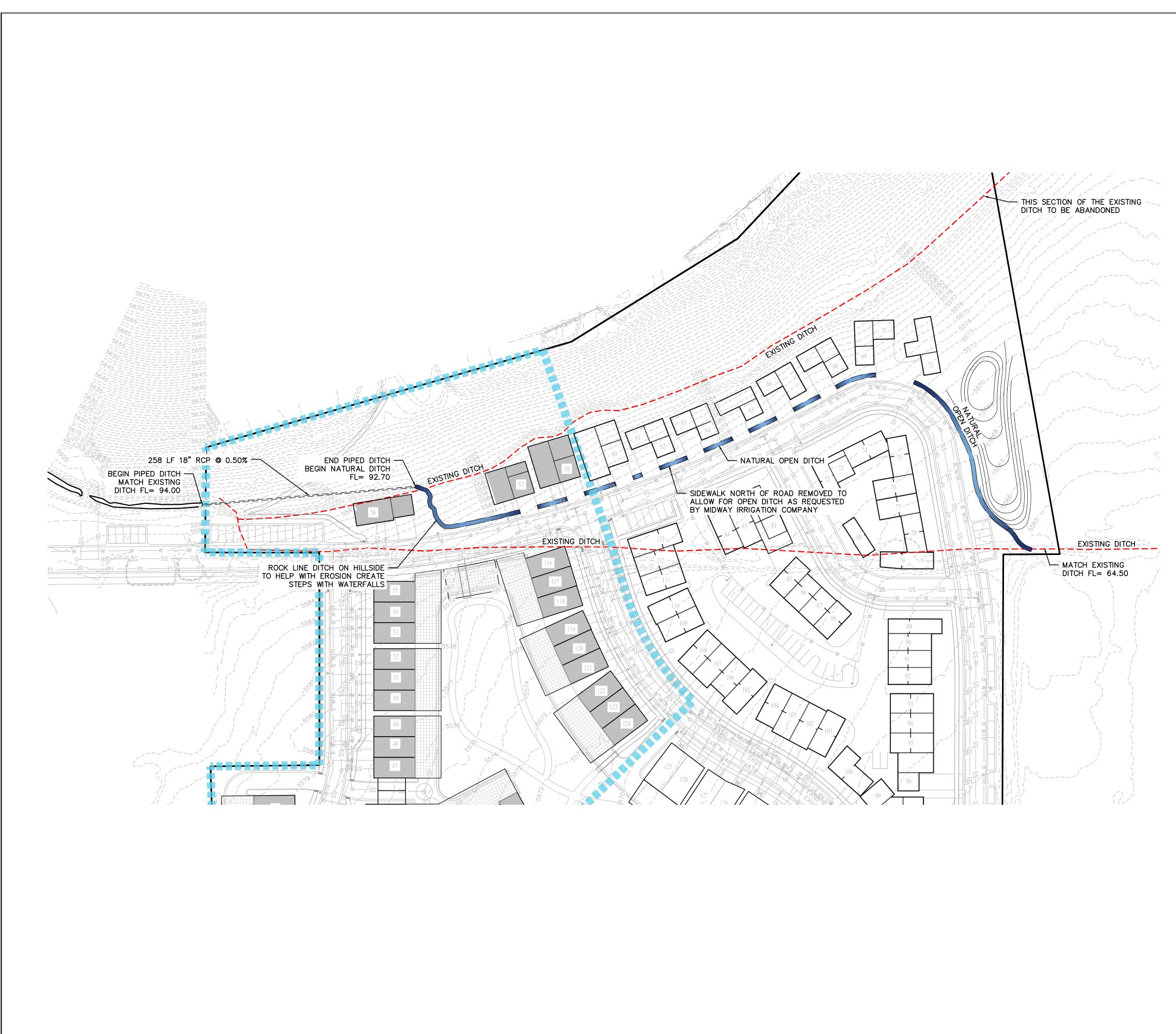
DATE: <u>27 NOV 2024</u>



SOUTHILL - PHASE 3

STORM DRAIN PLAN

| BERG | ENGINEER 380 E Main St. Suit Midway, Ut 84049 ph 435.657.9749 | te 204 |
|---------------------------------|------------------------------------------------------------------------|----------|
| DESIGN BY: PDB DRAWN BY: DEJ | DATE: 27 NOV 2024 REV: | sheet 12 |

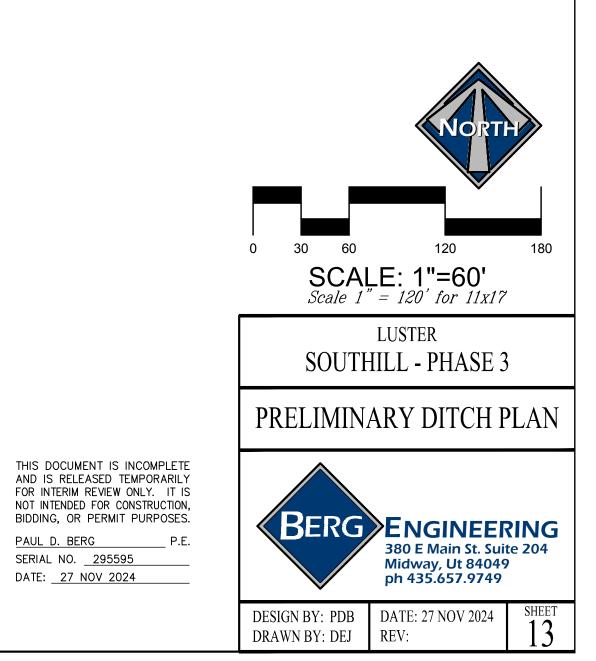


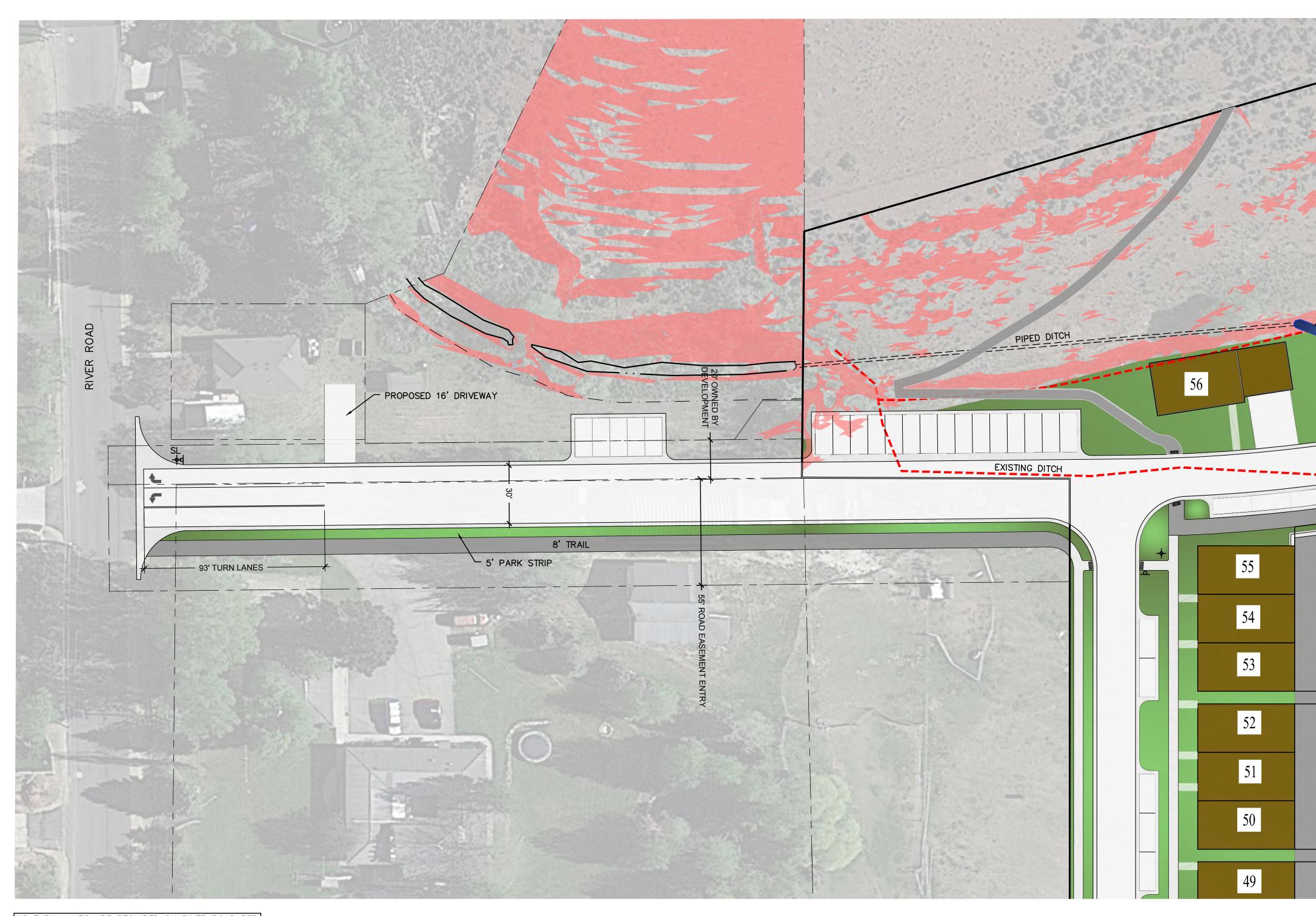
ath: X: \Midway\Luster - Main Street\Preliminary - Phase 3\ e name: 13_DITCH PLAN.dwg | plot date: November 27, 2024 | plotted by: dc

| LEGEND |
|----------------|
| |
| |
| |
| |
| |
| |
| |
| NATURAL DITCH |
| EXISTING DITCH |
| |

BLUE STAKE NOTE: • LOCATION OF EXISTING UTILITIES SHOWN ON PLAN ARE APPROXIMATE AND MAY BE INCOMPLETE. CONTRACTOR IS RESPONSIBLE FOR BLUE STAKING OF UTILITIES.

5' SECTION LINE NEW DITCH WITH 12" OF CLAY AND BENTONITE OPEN DITCH DETAIL





NO TURN LANES ARE REQUIRED ON RIVER ROAD PER THE TRAFFIC IMPACT STUDY BY HALES ENGINEERING

LEGEND

NON–BUILDABLE AREA (25%+ SLOPES) PHASE 3 LANDSCAPE AREA ---- EXISTING DITCH

- NATURAL DITCH

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