



May 27, 2025

Mr. Jeremiah Fettig, AICP
Planner II
City of Aurora Planning Department

Re: Initial Submission Review: Green Valley Ranch East Master Plan Amendment No. 3
Application Number: DA-1662-40
Case Numbers: 2005-7006-03

Dear Mr. Jeremiah Fettig,
On behalf of Clayton Properties, Terracina Design is submitting an Initial Submission Review Green Valley Ranch East Master Plan Amendment No. 3 to address the comments dated April 24, 2025.

Initial Submission Review

SUMMARY OF KEY COMMENTS FROM ALL DEPARTMENTS

- Comments on master plan tabs
- Technical comments on MUS Conformance Letter
- Payment of application fees

PLANNING DEPARTMENT COMMENTS

1. Community Questions, Comments, and Concerns

- 1A. Five (5) registered neighborhood organizations and eight (8) abutting property owners were notified of the application. As of the date of this letter, no public comments have been received. Therefore, no neighborhood meeting will be required. Review comments were received by three (3) outside agencies and have been incorporated into this letter.

RESPONSE: Noted

2. Completeness and Clarity of the Application

- 2A. Payment of application fees totaling \$17,628.00, prior to review of second submittal.

RESPONSE: Application fee has been paid

3. Tab 1

- 3A. Page 2: Add a space between “changes and” in revisions box

RESPONSE: Revised

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3B. Page 3: Add a space between “changes and” in revisions box.

RESPONSE: Revised

4. Tab 6

4A. Page 5: Include a reference to the adjustment for 65% of small lots in Tab 6 but move the adjustment request and criteria to Tab 8.

RESPONSE: Adjustment moved to Tab 8. Reference remains in Tab 6

4B. Page 6: Revise to only include Exhibit B, change to A.

RESPONSE: Exhibits revised

4C. Page 6: Is this accurate and current with recent site plans?

RESPONSE: Yes this is current per approved plans in PA1-7. Future PA8-9 are subject to change.

4D. Page 6: Revise to include a 125-foot by 125-foot functional turf recreation area in addition to the prescribed active plat elements list. Lowercase the T and L in tot lot.

RESPONSE: Adjustment language moved to Tab 8-9. 125x125 turf areas added to pocket parks in PA45-46. We believe active elements like tot lots and basketball courts do not fit the active adult lifestyle. This has been revised to “Active elements such as bocce ball, walking paths, fitness circuit, community gardens or similar must also be provided.” Activities in active adult spaces should promote social engagement, physical health and personal growth.

4E. Page 6: Add a new criterion for pocket parks in PA 45 & 46. that states: "Pocket parks within Planning Area 45 and 46 shall be a minimum 1/2 acre in size and include a 125-foot by 125-foot functional turf recreation area. Active play elements such as a basketball court and tot lot, or similar must also be provided."

RESPONSE: Basketball courts and tot lots do not fit the demographic in this active adult community. Note revised with more appropriate active elements.

4F. Page 6: Add "and" before soccer. Expectation is tot lot component in addition to soccer field or similar field that serves as functional recreation space and can be utilized for sports and similar activities. Add 150-foot by 150-foot functional turf recreation area.

RESPONSE: Revised

4G. Page 6: Change to "usable."

RESPONSE: Revised

4H. Page 6: Revise to "200-foot by 200-foot functional turf recreation area."

RESPONSE: Revised

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- 4I. Page 6: Reword to ensure for combined PAs 8 & 9 there are a minimum of 4 housing types provided, with a minimum of 3 types in each PA. Same for PAs 45 and 46. 4 housing types combined and 3 minimum per
RESPONSE: Revised
- PA. Not relational between PAs 8 & 9 and PAs 45 & 46.
RESPONSE: Revised
- 4J. Page 7: Please provide a graphic/diagram for contiguous housing types.
RESPONSE: Diagram provided IN Tab 8. Called it Exhibit B.
- 4K. Page 7: Revise from 8 to 9.
RESPONSE: Revised
- 4L. Page 7: After homes add "with the exception of front-loaded units, which shall not exceed 10% of the total number of homes."
RESPONSE: Revised
- 4M. Page 7: Remove the word "directly."
RESPONSE: Revised
- 4N. Page 7: PA-8 was not included in this. Please demonstrate how parking will be addressed when front-loaded units are across from motor courts, for example.
RESPONSE: Diagram provided demonstrating parking in PA9(F24). Single family homes have more than enough parking with driveways.
- 4O. Page 13: Remove AAC Example A from Tab 6.
RESPONSE: Removed

5. Tab 8

- 5A. Page 6: Add "Mixed Commercial-" before Admin.
RESPONSE: Revised
- 5B. Pages 8, 10, 12: Show arrows for roadway crossing over Trib T.
RESPONSE: Revised

6. Tab 9

- 6A. Page 4: Update Park amenity requirements per Tab 6 comments.
RESPONSE: Revised
- 6B. Page 8: Add arrows for future trail connections - required every 700 feet, all pages/maps.

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RESPONSE: Revised

- 6C. Pages 8 and 10: Show arrows for roadway crossing over Trib T.

RESPONSE: Revised

7. Landscaping (Tammy Cook / tdcook@auroragov.org / Comments in teal)

- 7A. Landscaping has reviewed and has no comments at this time.

RESPONSE: Noted

8. Energy & Environment (Maria Alvarez / 303-739-6824 / malvarez@auroragov.org)

- 8A. **Advisory comment:** There are no known plugged and abandoned (P&A) wells within your site and no existing or planned oil and gas surface facilities on your site at this time. There may be existing underground pipelines in rights-of-way. If you have questions or concerns about this, the Energy & Environment Division can assist by providing additional information.

RESPONSE: Noted

- 8B. **Advisory comment:** Currently there is a horizontal well drilled underneath your site. The well is at a depth of greater than 7,000 feet below the surface. The operation of the well is not anticipated to impact your surface development.

RESPONSE: Noted

- 8C. **Advisory comment:** Additional information regarding oil and gas development can be found on the Colorado Energy and Carbon Management Commission (ECMC) website at (<https://ecmc.state.co.us/#/home>). Should you have any questions about oil and gas development in the City of Aurora you can visit our webpage at [Oil and Gas Drilling - City of Aurora](#), and you may also reach out to Jeffrey S. Moore, Manager of the Energy & Environment Division.

RESPONSE: Noted

REFERRAL COMMENTS FROM OTHER DEPARTMENTS

9. Civil Engineering (Kendra Hanagami / 303-739-7295 / khanagam@auroragov.org / Comments in green)

Tab 1

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- 9A. Page 3: Per the TIS, Tibet Road should be a 4-lane Collector at a minimum. Please Update the PIP to reflect this change.
RESPONSE: TIS updated to reflect 3 lane collector status of Tibet Road between 38th and 48th.

Tab 8

- 9B. Page 8: Per TIS, Tibet Road should be a 4-lane Collector at a minimum. Please Revise. NEATS shows this section of Tibet Road as a Minor Arterial.
RESPONSE: TIS updated to reflect 3 lane collector status of Tibet Road between 38th and 48th.

Tab 9

- 9C. Page 3: Per the TIS, Tibet Road should be a 4-lane Collector at a minimum. Please Update the PIP to reflect this change.
RESPONSE: TIS updated to reflect 3 lane collector status of Tibet Road between 38th and 48th.
- 9D. Page 8: Per TIS, Tibet Road should be a 4-lane Collector at a minimum. Please Revise. NEATS shows this section of Tibet Road as a Minor Arterial.
RESPONSE: TIS updated to reflect 3 lane collector status of Tibet Road between 38th and 48th.
- 9E. Page 10: Per the TIS, Tibet Road should be a 4-lane Collector at a minimum. Please Revise. NEATS shows this section of Tibet Road as a Minor Arterial.
RESPONSE: TIS updated to reflect 3 lane collector status of Tibet Road between 38th and 48th.

10. Traffic Engineering (Dean Kaiser / 303-739-1718 / djkaiser@auroragov.org / Comments in orange)

Tab 8

- 10A. Page 6: Commercial, retail & office not included here?
RESPONSE: Future commercial is located in AAC parcel. PA8 is residential.
- 10B. Page 10: Where is commercial in PA-8 per TIS update?
RESPONSE: Future commercial is located in AAC parcel. PA8 is residential.

Traffic Study

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- 10C. Page 1: - Previous report on file has differing dates.
RESPONSE: Dates revised
- 10D. Page 1: Fig 2, where is commercial, retail, med office area in PA-8?
RESPONSE: Future commercial is located in AAC parcel at the corner of 38th and Tibet Road. PA8 is residential.
- 10E. Page 1: Table 2, numerous comments to be addressed
RESPONSE: Table updated per comments and changes to site plan.
- 10F. Page 1: Fig 3, need commercial, retail, med office locations identified
RESPONSE: Commercial is bounded by Tibet, 39th, Ukraine and 38th. Noted on site plan as AAC.
- 10G. Page 1: Table 3, intersection 8 looks to be warranted
RESPONSE: Based on our current knowledge 38th/Wenatchee (intersection 8) is not warranted. However previous reports have indicated it will be signalized as it nearly meets warrants. An ultimate decision on this signal should be made upon development of the sites adjacent to the proposed signal location. We have elected to keep it signalized for consistency with prior reporting.
- 10H. Page 1: Fig 8, 38th & Ukraine signalized at build-out
RESPONSE: Graphic has been updated per new site plan and it is anticipated that 38th/Ukraine meets signal warrants upon initial buildout of the site.
- 10I. Page 1: Sig Warrant Sheets, Build-out and Long-Term values differ from report dates, every sheet.
RESPONSE: All analysis has been updated per site plan revision and values now match.
- 10J. Page 6: Where is projected commercial, retail and medical office proposed? This plan mimics 2022 TIS Site Plan.
RESPONSE: Updated site plan has been included
- 10K. Page 10: There's more PM Pas-By % than in the AM, why are over 100 more AM pass-by trips provided than PM?
RESPONSE: While the PM pass-by percentages are higher, the trip generation minus internal capture for uses with pass-by is higher in the AM resulting in the larger values. Most notably is the gas station which has 541 raw trips minus the 61 internal capture trips associated with the gas station in the AM. 70 percent of the remaining 480 trips results in 336 AM pass-by trips for the gas station. In the PM there are 455 raw trips with minus the 154 internal capture trips associated with the gas station in the PM. 70 percent of the remaining 301 trips results in 210 PM pass-by trips for the gas station.

- 10L. Page 11: Trip Distribution % values match previous.
RESPONSE: Trip distribution remains consistent with prior iterations of the study.
- 10M. Page 11: Where, exactly, is commercial, retail and med office trips coming from? Provided site plan AND Land Use Map in amendment provide no context as to those locations in PA-8.
RESPONSE: Commercial is bounded by Tibet, 39th, Ukraine and 38th. Noted on site plan as AAC.
- 10N. Page 19: Fig 4,5,6&7 indicates warranted.
RESPONSE: Based on our current knowledge 38th/Wenatchee (intersection 8) is not warranted. However previous reports have indicated it will be signalized as it nearly meets warrants. An ultimate decision on this signal should be made upon development of the sites adjacent to the proposed signal location. We have elected to keep it signalized for consistency with prior reporting.
- 10O. Page 20: Is this a signal under 2030 Build-out?
RESPONSE: It is anticipated that 38th/Ukraine meets signal warrants upon initial buildout of the site.
- 10P. Page 103: 2030? Are correct year volumes utilized?
RESPONSE: Year analyzed was 2030, title has been adjusted accordingly.
- 10Q. Page 104: Figs indicate 2045, what volumes are used?
RESPONSE: Year analyzed was 2045, title has been adjusted accordingly.

11. Aurora Water (Steven Dekoski / 303-739-7490 / sdekoski@auroragov.org)
(Comments in red)

MUS Compliance Letter

- 11A. Page 2: Please confirm with MCC and HR Green regarding OS-12 basin. Subsequent to the conversation on 2/5/2025, Ryan Littleton with HR Green indicated that they will still need to utilize this sanitary sewer basin. Please confirm and provide necessary flow rates for basin OS-12, update MUS to show conformance with GVRE's master plan.
RESPONSE: It has been confirmed with HR Green that flows of 0.32 MGD from the Majestic Commercial Center (MCC) will be entering the site through DP-17. Letter updated to include this information.
- 11B. Page 4: Confirm OS-12 is no longer needed to serve MCC. HR Green indicated in subsequent conversation that this is still necessary for their development, and they were working on a MUS revision.

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RESPONSE: It has been confirmed with HR Green that flows of 0.32 MGD from the Majestic Commercial Center (MCC) will be entering the site through DP-17. Letter updated to include this information.

- 11C. Page 53: Confirm with HR Green and Majestic Commerce Center. HR Green plans to revise the MUS to include the OS-12 basin connecting to the 10" sanitary sewer in GVRE. 10" sanitary to be extended across E 38th Ave. GVRE Master utility study must be revised to include the updated flows from the OS-12 basin.

RESPONSE: It has been confirmed with HR Green that flows of 0.32 MGD from the Majestic Commercial Center (MCC) will be entering the site through DP-17. Letter updated to include this information.

12. PROS (Scott Hammons / shammons@auroragov.org / Comments in mauve)

- 12A. PROS has reviewed and has no comments at this time.

RESPONSE: Noted

13. Land Development Services (Maurice Brooks / 303-739-7294 / mbrooks@auroragov.org)

- 13A. Land Review Services has reviewed and has no comments at this time.

RESPONSE: Noted

14. Land Development Services – Easements (Grace Gray / 303-739-7277 / ggray@auroagov.org)

- 14A. **Advisory comment:** All new easements to be dedicated by plat, releases to be submitted to releaseeasements@auroragov.org.

RESPONSE: Noted

15. Public Art (Roberta Bloom / 303-739-6747 / rbloom@auroragov.org)

- 15A. Public Art did not provide comments at the time this letter was completed. Comments will be provided when they are received.

RESPONSE: Noted

REFERRAL COMMENTS FROM OTHER AGENCIES

16. E-470 Public Highway Authority – Brandi Kemper / bkemper@e-470.com

- 16A. Occupying space for utility work, access, and any construction within the E-470 ROW and MUE (multi-use easement) is subject to and will follow the E-470 Public.

RESPONSE: Noted

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- 16B. Highway Authority Permit Manual, April 2008, as may be amended from time to time (the "Permit Manual") and will require an E-470 Construction or Access Permit. The administration fee is \$750.00 and \$75,000 per acre for construction. An E-470 permit shall be issued before any work commences.
RESPONSE: Noted
- 16C. A permit issued from the local jurisdiction does not remove the requirement to secure a permit from E-470.
RESPONSE: Noted
- 16D. A permit will be required from E-470 for any encroachment or disturbance to E-470 ROW or MUE prior to construction.
RESPONSE: Noted
- 16E. Here is a link to our permit: <https://www.e470.com/Pages/WorkingWithUs/Permits.aspx>.
RESPONSE: Noted
- 16F. E-470 discourages residential uses adjacent to the roadway.
RESPONSE: Noted. This area is planned as residential still. Open space will be provided as buffer.
- 16G. E-470 is not responsible for noise mitigation.
RESPONSE: Noted
- 16H. We would recommend moving proposed residential use areas further away from E-470.
RESPONSE: Noted. Residential uses will be kept as far away as possible. Landscape buffer will be provided.
- 16I. E-470 will be widened to 4 lanes in each direction in the future.
RESPONSE: Noted
- 16J. A 10' wide concrete regional trail has been constructed along E-470. Please coordinate with the City of Aurora and E-470 for trail improvements which may connect to the regional trail system.
RESPONSE: Noted
- 16K. No structures are allowed in the MUE.
RESPONSE: Noted
- 16L. Developed flows from the site will need to be treated and discharged at or below historic rates.
RESPONSE: Noted

- 16M. The contractor will be responsible for stormwater permitting through the City, County, or E-470 for this project.
RESPONSE: Noted
- 16N. An entity will need to take responsibility for the ongoing maintenance of proposed improvements within the ROW and MUE.
RESPONSE: Noted
- 16O. The City of Aurora Prairie Waterline is located within the Southbound MUE from I-70 to Potomac Street and has a Common Use Agreement (CUA) with the Authority. Any disturbance within the 40-foot wide CUA will require a separate construction agreement from Aurora Water prior to issuance of an E-470 construction permit.
RESPONSE: Noted
- 16P. Any disturbance to existing utilities as part of this project will be the responsibility of the contractor to replace/reset.
RESPONSE: Noted
- 16Q. Survey monuments along and within the E-470 ROW/MUE which are disturbed shall be reset and conform to the E-470 coordinate system.
RESPONSE: Noted
- 16R. Revegetation of disturbed areas within the E-470 property will need to meet E-470 seed mix specifications.
RESPONSE: Noted
- 16S. Any fencing disturbance will need to be replaced/reset meeting E-470 specifications.
RESPONSE: Noted
- 16T. A comment/response document would be helpful to track the revisions to each submittal.
RESPONSE: Noted
- 16U. Additional comments will be issued as design progresses.
RESPONSE: Noted

17. Xcel Energy (Donna George) Office: 303-571-3306 donna.l.george@xcelenergy.com

- 17A. Comment letter attached.
Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the master plan amendment for **GVRE MPA3**. Please be aware PSCo owns and operates existing natural gas and electric distribution facilities in many areas of the amendment area.

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Please note that for future planning and to ensure that adequate utility easements are available within this development and per state statutes, PSCo/Xcel Energy's standard requirements for distribution easements on the plats are as follows:

- **Commercial/Retail/School/Apartment Properties**
 - gas main 6'
 - electrical distribution line 10'
 - joint trench 15'
 - transformer 15' x 15'
 - switch cabinet 20' x 20' or 15' x 25' depending on model
 - 10' along all lot lines abutting any public rights-of-way
 -
- **Residential Property**
 - gas distribution line, front lot 6'
 - electrical distribution line, rear lot 8'
 - joint trench 10'
 - multi-unit developments require a 10' easement along all lot lines abutting any public rights- of-way
 - transformer and switch cabinet remain the same as commercial property
- **Gas Line Clearances – all lots**
 - all gas lines must maintain a minimum 5' of clearance from any structure, therefore, easement must adjust accordingly
- **Gas Lines Not Adjacent to Road Surface – all lots**
 - must be adjacent to drivable pavement/walkway that is a minimum of 8' wide & 6" thick to allow service trucks access and plowing in snowy conditions

The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details.

For additional easements that may need to be acquired by separate PSCo document (i.e. transformers), The Designer must contact a Right-of-Way Agent.

As a safety precaution, PSCo would like to remind the developer to contact Colorado 811 for utility locates prior to construction.

RESPONSE: Noted.

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18.DEN Planning + Real Estate

18A. Comment letter attached.

Denver International Airport (DEN) received your referral letter, and we appreciate the opportunity to comment on the proposal. DEN provides the following comments:

1. Please see attached document from USDA for full comment about parks, landscaping, and drainage.
2. Noise analysis remains the same as the previous comments. Attachments included for reference.
3. No additional comments at this time.

Documents Reviewed – Urban Design Standard, Landscape Standard, Context Map, Letter of Introduction, Narrative, and Land Use Plan

The Green Valley Ranch project is within the Denver International Airport (DEN) 5-mile separation distance, as detailed in Federal Aviation Administration (FAA) Advisory Circular (AC) 150-5200-33C. It is 4.5 miles from the runway 7/25, as well as other frequently used airspace. Additionally, the project boundaries are approximately 3.6 miles from Buckley Space Force Base property and 7 miles from Colorado Air and Space Port property. Therefore, the project exists within a complex aeronautical environment near multiple airports, all of which are managed for wildlife hazards to aviation by the United States Department of Agriculture, Wildlife Services (WS). The site on which the project will be executed previously existed as agriculture and/or grazed land, providing little outstanding habitat attractants as compared to the surrounding area.

RESPONSE: Noted.

Multiple portions of AC 150-5200-33C apply to the project and should be considered by planners and developers to not introduce avian wildlife attractants to this critical airspace. The following items within planning documents would potentially attract wildlife and should be modified to prevent introducing hazards to aviation safety:

- Landscaping:

WS recommends against the establishment of any landscaping or vegetation in the 5-mile separation buffer which may attract wildlife. Within the Landscape Standards is a plan for vegetative landscaping on the site. While the introduction of vegetative landscaping is aesthetically pleasing, it will likely increase bird abundance to the area which previously existed as grazed/agricultural land. Tab 11.2 lists plans to introduce many species of trees,

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shrubs, perennials, and ornamental grasses. The introduction of this amount of vegetation to the site would likely attract birds and mammals. If this recommendation cannot be adhered to, tree and shrub species should be significantly reduced and spaced as to prevent the establishment of a continuous canopy or dense cover. WS recommends against planting layered vegetation. Long-term plant growth should also be considered when spacing. Any introduced plants should be of species or cultivars which do not produce seed, fruit, or any other wildlife food attractant. Any grass species not currently listed in the DEN WHMP approved seed mixes is not recommended for use within the 5-mile separation buffer (see list below). The use of hardscaping such as large rocks, crushed stone, and other landscaping features which do not attract birds should replace plants to the greatest extent possible

RESPONSE: Noted

Reference FAA AC 150-5200-33C for guidelines on landscaping for projects within the 5-mile separation zone.

Detention Ponds, Wetlands, and other Water Sources: WS recommends against the introduction of open water sources (lakes, ponds, etc..) within the 5-mile separation buffer zone. FAA AC 150-5200-33C states “Drinking water intake and treatment facilities, storm water and wastewater treatment facilities, associated retention and settling ponds, ponds built for recreational use, ponds and fountains for ornamental purposes, and ponds that result from mining activities often attract large numbers of potentially hazardous wildlife. Where possible, airport operators should modify stormwater detention ponds to allow a maximum 48-hour detention period for the design storm”. Additionally, “Detention basins should remain totally dry between rainfalls”. WS recommends against the establishment of any body of water which does not completely drain within 48 hours such as the pond suggested by the Landscape Standards document. The landscape standards also suggests adding wetland plants, enhancement of existing riparian areas or wetlands through vegetation establishment, water flow alteration, landscaping, etc. may increase attractiveness to wildlife and is not recommended within the 5-mile separation zone.

RESPONSE: Noted

Should this or any future retention ponds not comply with the 48 hour drainage recommendation FAA Advisory Circular 150-5200-33C 2.3.1.3 states:

“When it is not possible to drain a large detention pond completely, airport operators may use physical barriers, such as bird balls, wire grids, pillows, or netting, to deter birds and other hazardous wildlife. When physical barriers are proposed, airport operators must evaluate their use, effectiveness and maintenance requirements. Airport operators must also ensure physical barriers will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office.”

RESPONSE: Noted

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Reference FAA AC 150-5200-33C for guidelines on drainage for projects within the 5-mile separation zone.

Community and Neighborhood Parks: Green Valley Ranch East lists plans in several documents for the addition of neighborhood and pocket parks. Open grass areas such as parks will enhance the attractiveness of the area to wildlife. As previously mentioned, the conversion from grazed land to irrigated, grass conditions with “layered” plants will attract wildlife. Parks with short turf grass also have high potential to attract Canada geese and snow geese. This is especially true of when turf is adjacent to ponds like those listed above. Goose species are empirically and quantitatively shown to present an increased potential for damaging aircraft strikes. Community parks often allow for the establishment of resident Canada goose populations also. These individuals may not migrate and often present year-round strike risk. WS recommends diligent efforts to prevent geese from utilizing any parks near DEN.

RESPONSE: Noted

Reference FAA AC 150-5200-33C for guidelines on parks the 5-mile separation zone.

Plans within the Green Valley Ranch East documents have the potential to increase wildlife abundance and strike risk in the project area and should be reconsidered within the 5-mile separation zone. While WS recognizes the importance of aesthetically pleasing landscaping and water features, aviation safety is paramount and should be prioritized within the FAA designated safety zones. Given the geographic orientation of the Green Valley Ranch East, WS recommends that landscaping and drainage plans be modified and specifically reference practices which will mitigate the potential to increase avian wildlife hazards near DEN.

RESPONSE: Noted

Denver International Airport Approved Grass Species and Sample Submittal Documentation

Grass for Aircraft Operating Area and Landside Use:

Dry/Upland Grasses

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Scientific Name	Common Name	Soil Conditions	lbs PLS/acre*	%of mix**
Pascopyrum smithii	Western Wheatgrass	Universal Upland	3.75	25.00
Agropyron cristatum	Crested Wheatgrass	Universal Upland	3.75	25.00
Buchloe dactyloides	Buffalograss	Universal Upland	3	20.00
Elymus trachycaulus	Slender Wheatgrass	Non-Saline Upland	2.25	15.00
Bouteloua gracilis	Blue Grama	Non-Saline Upland	1.5	10.00
Sporobolus airoides	Alkali Sacaton	Saline Upland	0.75	5.00
	TOTAL		15	100

Wet/Drainage Grasses

Scientific Name	Common Name	Soil Conditions	lbs PLS/acre*	%of mix**
Panicum virgatum	Switchgrass	Non-Saline Upland/Pond	2.5	25.00
Elymus lanceolatus	Steambank Wheatgrass	Non-Saline Upland	2	20.00
Puccinellia distans	Alkaligrass	Saline Upland	2	20.00
Puccinellia airoides	Nuttall Alkaligrass	Saline Upland	2	20.00
Carex nebrascensis	Nebraska sedge	Non-Saline Pond	0.7	7.00
Juncus balticus	Baltic Rush	Non-Saline Pond	0.4	4.00
Scirpus paludosus	Alkali Bulrush	Saline Pond	0.4	4.00
	TOTAL		10	100

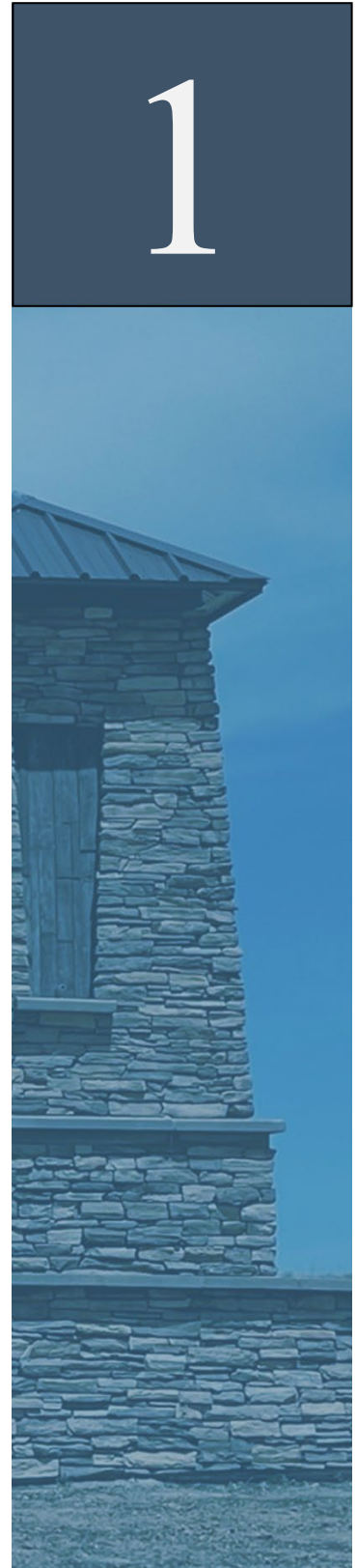
END OF RESPONSES

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DEVELOPMENT APPLICATION

- Letter of Introduction
- Project Team



March 27, 2025

Jeremiah Fettig
City of Aurora
Planning and Development Services Dept
15151 E. Alameda Parkway, Suite 2300
Aurora, CO 80012

Amend 3
Revised narrative per increased densities,
small lot adjustment, planning area
changes and open space updates.

Add a space.

TD RESPONSE: REVISED.

RE: Green Valley Ranch Master Plan Amendment 3

Dear Mr. Fettig,

On behalf of Oakwood Homes, we are pleased to submit our proposed Third Amendment to the Green Valley Ranch Master Plan (MP).

The Green Valley Ranch MP (formerly Framework Development Plan) was approved in November of 2008 for 2,500 acres. The MP was amended in 2018 to modify the land uses and open space on 588 acres located west of E-470 (Amendment 1). Amendment 1 also revised the overall MP area to remove all of the Planning Areas located east of E-470. Amendment 2 added approximately 310 acres north of 52nd Ave to the Amendment 1 area. This amendment also modified planning areas and open space to be more in line with built and proposed conditions. The Second Amendment revised the total MP area from approximately 588 acres to 885.5 acres.

The 3rd amendment includes a major adjustment to increase density in PA8, PA9 and PA70 while increasing the maximum number of small lots in the 885.5 acre master plan from 50% to 65%. To accomplish this, we are modifying land uses within approximately 117 acres located between 38th Avenue and 44th Avenue; and Tibet Road and E470. This area was included in Amendment 1&2. Additional design standards for Planning Areas 8, 9 and 70 in the traditional neighborhood as well as Planning Areas 45 and 46 in the active adult neighborhood are proposed to meet the small lot adjustment request. This amendment also adds Administrative Activity Center land use to the northeast corner of 38th Ave and Tibet Road to serve as neighborhood commercial.

This amendment includes modifications to the following:

- Letter of Introduction (Tab 1)
- Narrative (Tab 6)
- Land Use (Tab 8)
- Open Space, Circulation and Neighborhood Plans (Tab 9)
- Master Drainage Report
- Master Utility Report
- Master Transportation Study

The following have little to no changes as part of this amendment:

- Context Map (Tab 3)
- Site Analysis (Tab 4)
- Urban Design Standards (Tab 10)
- Landscape Standards (Tab 11)
- Architectural Standards (Tab 12)
- Public Improvement Plan (Tab 13)
- Supplementary Documents (Tab 14)

Per the TIS, Tibet Road should be a 4-lane Collector at a minimum. Please Update the PIP to reflect this change.

TD RESPONSE: THIS HAS BEEN CORRECTED IN THE TIS TO SHOW A 3 LANE COLLECTOR. .

Green Valley Ranch Master Plan Vision

Green Valley Ranch is envisioned as a comprehensive planned community integrated with places to live, learn and play. It is bounded by 56th Avenue and 38th Avenue to the north and south, and Picadilly Road and E-470 to the west and east respectively. The total site area encompasses approximately 885.5 acres. It includes an interconnected series of neighborhoods served by nearby Neighborhood Activity Centers, parks, open space, trails and a school.

Further amenities to the City include approximately 31.5 acres of neighborhood parks, and over 95.9 acres of dedicated open space, greenbelts, and trails. The site identifies one Pre-Kindergarten through 8th grade school and one fire station site on a 5.8 acre site owned by the City of Aurora.

We are excited about the opportunity to continue work in this rapidly changing E-470 Corridor. It is our intent to provide the framework to expand upon the successful Green Valley Ranch master-planned community and create long lasting value, which is an important component in implementing the City of Aurora's future for this area.

Thank you for your assistance in processing and reviewing this application. We trust that you will find this application complete in its response to your previous comments. Please contact us at your earliest convenience if you have any questions or need additional information regarding this submittal. We look forward to your review of the enclosed materials.

Sincerely,

Layla Rosales

Amend 3
Revised narrative per increased densities, small lot adjustment, planning area changes and open space updates.

Add a space.

TD RESPONSE: REVISED.

PROJECT TEAM

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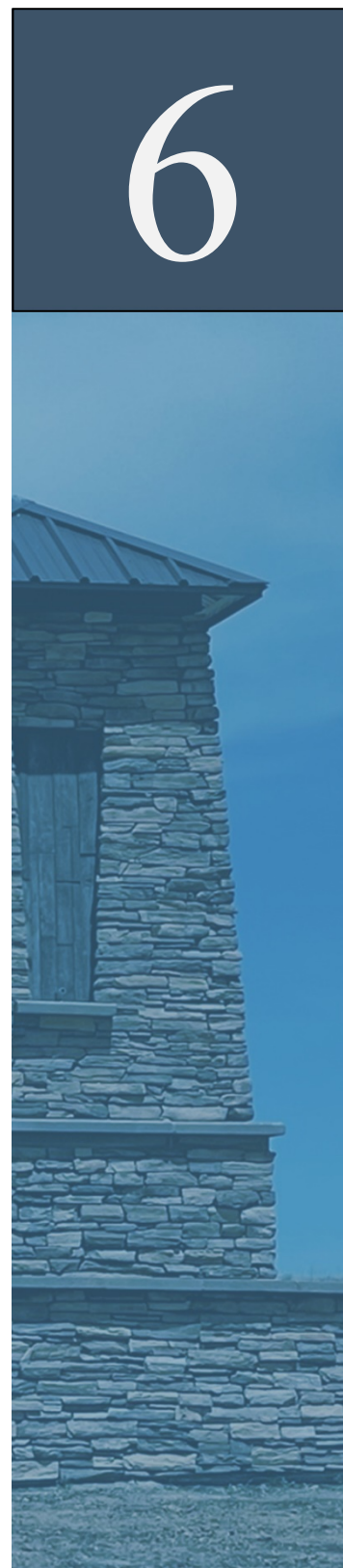
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FORM B – MP NARRATIVE



Form B: MP Narrative

Amend 3:

Revised narrative language for increased density in PA8-9,70, unit count count changes, AAC addition, adjustment language, design standards and criteria for remaining areas in R-2 ; AAC examples

1. General Description of the MP

Briefly describe the general character of your proposed MP. What will be the predominant land uses? What market segment is the proposed development designed to serve?

In 2008 a 2,500 Ac. Master Plan (MP), formerly Framework Development Plan (FDP), for Green Valley Ranch was approved. This MP included a variety of uses including residential, commercial, mixed use and a variety of parks and open space throughout. The MP was then amended for 588 acres west of E-470 known as Amendment 1 and received approval in 2018. Amendment 1 modified planning areas and open space for the 588-acre area, however, there were no other changes made to the MP.

The MP was then amended a second time to modify the 301 acres North and east of 52nd Ave and include it with the area established as part of Amendment 1. Included in the second Amendment were revisions to land uses for the 301 acres north and east of 52nd Avenue, updates to land use maps to better align with current site plans, and a boundary change to remove the area east of E-470 from the MP due to E-470 purchasing a portion of the property. The amendment also includes the addition of Urban Design and Landscape and Architectural Standards for Commercial/Retail uses. Amendments to the Zoning and Comprehensive Plan were also made for the additional 301 acres north of 52nd Avenue.

With the third Amendment to the Green Valley Ranch Master Plan, we are proposing to increase the number of small lots permitted in the MP as well as increase density in Planning Areas 8, 9 and 70. 6.7 acres of Administrative Activity Center on the northeast corner of Tibet Road and 38th Ave. will also be incorporated into Planning Area 8 to bring much needed neighborhood commercial to the area. While the density for the original Planning Areas 8, 9 and 70 is increasing, the overall density of the MP has been reduced for the same area from the approved 2600 DU's in Amendment 1 to 2515 DU's in Amendment 3 due to increased open space dedications, commercial space and various density reductions during development of the Master Plan.

2. Defining Character of the MP

Describe how your proposed MP will create a unique community with a definable character and special "sense of place". What facilities, amenities and special design features will set it apart in the marketplace from similar developments in your area?

Green Valley Ranch MP will be a unified community following the "Colorado" theme. This theme reflects the beauty of the Colorado foothills landscape and will have a more rustic character. Predominant architectural styles will include Classic, Contemporary, Homestead, and Victorian with materials complementing the surrounding area.

The architecture is not defined by neighborhood, but rather by a mix of product types. The residential areas throughout the development consist of a variety of housing types: single-family detached homes, motorcourts with single-family detached, front loaded single-family attached duplex homes, and may include Single-Family Attached and multifamily homes within the mixed-use planning areas. These varying styles create diverse neighborhoods in both style and affordability. The primary landscape theme consists of large sweeping native areas that use landforms and native plantings indicative of the Colorado foothills. Large planting beds located along streets and trails will be made up of masses of grasses, shrubs, and trees to provide both seasonal interest and views into and out of the site. Landforms will be accentuated with the use of berming and rock outcroppings to create spaces for both wildlife and residents to enjoy.

The commercial planning areas included with Amendment 2 include a variety of land uses including office, institutional and retail. Additional commercial area is planned for in Amendment 3 identified in the MP as Administrative Activity Center (AAC) at the northeast corner of 38th Ave and Tibet Road. This area remains R-2 Zoning with an AAC overlay designed to follow the standards set forth in Mixed Use Corridor (MU-C) zoning district. The purpose of the MU-C district is to provide retail goods and services to satisfy the household and personal needs of the residents of nearby residential neighborhoods, those traveling on adjacent collector and arterial corridors, and to allow for higher intensity general business and service activities. The proposed AAC area is located where pedestrians, bicyclists, public transportation, and automobiles can easily access the site.

3. Zoning Conformance

Does the MP accurately reflect adopted zone district boundaries?

The Green Valley Ranch MP is located within existing R-2, MU-A and MU-R zone districts. R-2 is located from 54th Avenue to 38th Avenue to the south, and from Tibet Road to E470 to the east. The 6.7 acre Administrative Activity Center (AAC) overlay at the northeast corner of 38th and Tibet Road is the only proposed zoning change to this master plan.

4. Potential Regulatory Conflicts

Are there any existing or potential conflicts between MP design ordinance requirements and the terms of any existing annexation agreements or agreements with other jurisdictions or interest groups? If so what are they and how you propose to resolve them?

The Original Annexation Agreements include the following park and school dedication requirements:

Public Land Dedication - 6% of the area zoned for residential uses to be used for

open space, and 2% of the area zoned for non-residential uses to be used for municipal purposes including fire facilities. School site dedications- up to 4% of the area zoned for residential uses. The following dedications were provided in Amendment 1:

Public Facilities

2% of non-residential acreage ($149.7 \times 2\% = 3.0$ Ac)

- Land dedicated to city for future fire station along 48th Ave.

Schools

P-8 School:

614 Elementary School Students (.0175 acres/child) = 10.75 ac

289 Middle School Students (.025 acres/child) = 7.23 ac

Subtotal: 17.98 ac

- Amendment 1 included an 18.0 Ac school site
- Additional School dedication requirements will be met for all residential uses once future site plans exceed the original dedications.

High School:

361 High School Students (.032 acres/child) = 11.565 ac

Total Acres Required = 29.55 ac

6% of residential acreage ($564 \text{ Ac} \times 6\% = 34 \text{ Ac}$)

Open Space: Green Valley Ranch Master Plan:

Neighborhood Park: (3 AC. Per 1000 Residents)

Required: 31.5 acres

Provided: 31.5 acres

Community Park: (1.1 AC. Per 1000 Residents)

Required: 11.55 acres

Provided:

6.6 acre cash-in-lieu payment made as part of Amendment 1.

4.7 acre cash-in-lieu payment made as part of Amendment 2.

0.3 acre payment to be made by first residential plat of either PA 8,9,70.

Open Space: (7.8 AC. Per 1000 Residents)

Required: 81.9 acres

Provided: 95.9 acres

5. Adjustments

Include a reference to the adjustment for 65% of small lots in Tab 6 but move the adjustment request and criteria to Tab 8. Additionally, duplicate criteria relating to parks and open space to Tab 9.

Does your current design require a waiver, and if so, what is the basis for the waiver? If so, list each proposed waiver, and the basis for the waiver.

- What are the specific site-related conditions that have led to the waiver request? (Do not include self-imposed hardships or constraints as a justification. Financial constraints may be considered, but only as they relate to unusual site conditions. Do not simply respond that meeting all development standards would be too costly.)
- What design alternatives have you considered to avoid the waiver? Why weren't these alternatives chosen?
- What measures have been taken to reduce the severity or extent of the proposed waiver?
- What compensating increases in design standards have you proposed to mitigate the waiver's impact?

Adjustment request:

1. Increase small lot percentage from 50% to 65% cumulative for R-2 zone districts in the Master Plan. (Adjustment to the UDO Section 146-4.2.3.A.3.d).

The purpose of this adjustment is to create a diverse and thriving community with a variety of housing types and price points, designed to attract people at all stages of life. By increasing density, Green Valley Ranch can offer a wide array of housing options tailored to every lifestyle, including paired homes, green court and motor court homes, as well as single-family detached housing at various price points.

Integral to this development are detached sidewalks with street trees and curbside landscaping between the back of the curb and the sidewalk, creating a walkable, shaded, and visually appealing environment. A robust street network, including potential additional connections to the north, and close proximity to park space and neighborhood-serving retail are key components to fostering a high-value, vibrant neighborhood with increased density. With the increase in small lots in these areas, we realize outdoor living space is being reduced for many of the homes. With that, open space over the required amount is provided to offset the effect small units have.

The development prioritizes compact residential design with front yard easements limited to six feet, coordinated with utilities to maximize efficiency and make use of the space under the public sidewalk and within the six-foot (6) easement. A fine-grained integration of housing types throughout the community ensures an aesthetically pleasing streetscape dominated by inviting front porches instead of garage doors.

The inclusion of a commercial area further enhances the proposal by supporting local businesses and providing convenient amenities for residents. This intentional design approach aims to cultivate a diverse, dynamic, and connected community for current and future generations. Consult Exhibits A and B to view instances of neighborhood commercial developments of comparable size within the City of Aurora. We are confident that the proposed AAC will feature commercial applications akin to these examples and will benefit the adjacent community in a manner consistent with these established commercial areas.

Revise to only include Exhibit B, change to A.

Individual Filings within the R-2 Zone District may exceed 65% Small Residential Lots. However, the maximum number of small residential lots when calculated over the entire master plan may not exceed 65%. The below lot summary for Planning Areas within R-2 Zone districts demonstrates that the number of small lots that have already been approved or are in process for PA 1-7 plus the proposed lots in PA 8-9, 45-46 and 70 add up to less than 65% of the total proposed lots. Final lot counts and small lot percentages for the planning areas are subject to change at site plan level.

DEVELOPMENT SUMMARY			
Planning Area	Approved/Proposed Lots	Small Lots	Small Lot %
1-7	1780	948	53%
8-9, 70	700	616	88%
45-46	526	400	76%
TOTAL	3006	1964	65%

This is accurate per approved and future plans. Future plans may change.

Is this accurate and current with recent site plans?

for Planning Areas 8-9, 45-46 and 70:

1. A pocket park within Planning Area 8 and 70 shall be a minimum ½ acre in size and include a trail connection across Tributary T to the neighborhood park. It must also include active play elements such as a basketball court and Tot Lot or similar.
2. A pocket park within Planning Area 9 shall be included in the northeast, with a minimum size of one (1) acre and a minimum dimension of 200 feet. It must include active play elements such as a tot-lot soccer field or similar.
3. No lot shall be more than 1,000 feet walking distance from a park or common open space.
4. Neighborhood parks within these remaining Planning Areas shall have a minimum street frontage of 800 feet with a 200-foot minimum dimension of usable space. Cul-de-sac, or dead-end street frontage will not count towards the minimum 800-foot street frontage requirement.
5. Maximum block length shall not exceed 700 feet without being bound by a street on all sides. Any block greater than 60 feet in width, with street to another.
6. Maximum block width shall not exceed 60 feet without being bound by a street on all sides.
7. A minimum of four (4) housing types combined and 3 minimum per PA. Not relational between PAs 8 & 9 and PAs 45 & 46.

Change to "usable."

Reword to ensure for combined PAs 8 & 9 there are a minimum of 4 housing types provided, with a minimum of 3 types in each PA. Same for PAs 45 and 46. 4 housing types combined and 3 minimum per PA. Not relational between PAs 8 & 9 and PAs 45 & 46.

Revise 200-foot turf re

Table 4.2-8 except for duplexes on green courts and motor courts. They shall be defined as different housing types for the purpose of this adjustment.

8. Groupings of housing types shall be dispersed throughout the neighborhood. No more than two (2) contiguous blocks or 80 lots, whichever is less, of the same housing type may be grouped together. Contiguous is defined as side by side. **Please provide a graphic/diagram.** **The same housing type caddie corner is acceptable.**
9. The maximum continuous frontage of any housing type along an arterial shall be 1,000 feet.
10. Each housing type shall comprise a minimum of 10% of the total number of homes within the combined PA 8-8, 45-46 and 70 to meet the diversity criteria.
11. Green court blocks, bound by streets on all sides, must have a minimum of 50% of their street frontage comprised of street-facing homes with rear alleys. This design enhances the streetscape's visual appeal and reduces the number of driveways, which increases the availability of on-street parking.
12. Trail connections from PA-9 to Tributary T shall be provided every 700 feet.
13. A minimum of two (2) connections from PA9 to the E470 trail shall be provided.
14. Rear and side yard fences directly adjacent to streets shall be a maximum of five (5) feet in height. **Remove the word directly.**
15. A minimum of one (1) guest parking space per unit will be provided either on-street or in off-street parking stalls for each alternatively loaded small lots. These parking spaces must be on the block on which the home is located. Parking on the side street does not count towards this requirement. **separate exhibit provided demonstrating parking in PA8 (F24)**
16. Within PA-9 and PA45-46, single-family front-loaded homes may or may not be located across the street from each other. They may not be located closer than 100 feet from alternatively loaded homes, green courts, motor courts or other multi-unit dwellings.

Major Adjustments (Section 146-5.4.4.D.3) Criteria for Approval.

- a. *The adjustment will have no material adverse impact on or the material adverse impacts have been mitigated by conditions of approval.*

This adjustment has little to no effect on abutting properties. Any increase in traffic this adjustment creates is mitigated by the modification of Ukraine Street and the signalization provided there. Additional park and open space is provided for within 1/4 mile of every home which exceeds city requirements. Having open space in such close proximity to homes improves both physical and mental health by encouraging activities like walking and jogging while reducing stress.

- b. *The adjustment does not violate any conditions of approval specifically applied to development of the property by the Planning and Zoning Commission or City Council;*

This does not violate conditions of approval applied to this site by the Planning and Zoning Commission. Zoning remains the same throughout the area while adding in Administrative Activity Center overlay to provide residents with much needed neighborhood commercial in this area.

PA-8 was not included in this. Please demonstrate how parking will be addressed when front-loaded units are across from motor courts for example.

c. *At least one of the following criteria have been met:*

i. *The adjustment will result in a perception of development quality as viewed from adjacent streets and abutting lots that is equal to or better than would have been required without the adjustment.*

This development prioritizes compact residential design using high quality design and thought-out spaces. A fine-grained integration of housing types throughout the community ensures an aesthetically pleasing streetscape dominated by inviting front porches instead of garage doors. Groupings of housing types shall be dispersed throughout the neighborhood. No more than two (2) contiguous blocks or 80 lots, whichever is greater, of the same housing type may be grouped together. Green court blocks, bound by streets on all sides, must have a minimum of 50% of their street frontage comprised of street-facing homes with rear alleys. This design enhances the streetscape's visual appeal and reduces the number of driveways.

ii. *The adjustment will provide options for a more connected neighborhood layout or, for an adjustment for a residential subdivision, the adjustment will result in a neighborhood layout and level of multi-modal connectivity equal or better than would have been required without the adjustment.*

A robust street and trail network within close proximity to park space and neighborhood retail foster a high-value, vibrant neighborhood with increased density. This results in a better connected neighborhood than what would normally be required.

iv. *The adjustment will not result in a material increase in on-street parking or traffic congestion on any local street in any Residential zone district within 200 feet of the applicant's site; and*

Each homesite within this development has a standard 2 car garage. A minimum of one (1) guest parking space per unit will be provided either on-street or in off-street parking stalls for each alternatively loaded small lot. These parking spaces will be on the block on which the home is located. Motor court configurations provide for more street parking than traditional front-loaded products since there are less driveway connections to the street. Nearby residential zones districts will not experience increases in traffic.

6. Required City Facilities

What additional city facilities or services will the City of Aurora have to provide in order for your MP to be implemented? What police, fire, and recreation facilities are required and where are they located (inside or outside your MP boundary.) To what extent will your development plan help to fund or construct these facilities?

- As part of this Master Plan, the developer will be responsible for the construction of and/or funding of the roads and services prior to dedication to the City of Aurora. The City of Aurora will provide sewer and water services, police, fire, and library services. The City will also provide maintenance for public parks and public streets following dedication to the City. See Public Improvements Phasing Plan, Form J and the Development Agreement.

- A summary of the proposed water and sewer service strategy is contained in Form A. For additional detail, please refer to the Master Utility Plan and the Development Agreement.
- Picadilly Road, 56th Avenue and 48th Avenue are planned as six-lane Principal Arterials. 38th Avenue is planned as a four-lane Minor Arterial. 52nd Avenue, Tibet Road from 38th Ave to 48th Ave, and 38th Avenue are planned as three-lane collectors. 42nd Avenue is planned as a two-lane collector. Tibet Road from 48th Ave to 56th Ave is planned as a four-lane Minor Arterial. The arterials will require improvements based on City standards with development phasing. See Public Improvements Phasing Plan and the Development Agreement.

7. Vehicular Circulation

Do your proposed arterial and collector roadways align with the arterials and collectors of adjacent properties? Do your roadway cross-sections match adjacent cross-sections? If not, explain why.

- West of Picadilly, all roadways are within the City and County of Denver. The east half of Picadilly road and all roads to the east are within Aurora. Principal and Minor Arterials align to connect with the arterials to the north, south, east, and west. To the east, 48th Ave is aligned to connect with 48th Ave. in the approved Windler MP. Collectors in Aurora are spaced at half-mile intervals, but to the west in Denver, collectors are not spaced at the same interval. Due to the differences, the road alignments have been aligned to match existing roads within Denver.

- As part of Amendment 3, Ukraine Street along 38th Avenue has been shifted to the east to accommodate a future signal as part of the AAC land use. This helps alleviate any traffic issues that come about from AAC and increased residential density in the area.

See Street Cross Sections on Tab 10.14-10.15.

8. Pedestrian Circulation

Do off-street trails on your site connect with those on adjacent properties? Do your cross sections match adjacent cross sections? If not, explain why.

- Off-street trails within Green Valley Ranch MP are aligned to connect with trails to the west in Green Valley Ranch Denver, including the one along the First Creek Drainage and along Tributary T near 48th Avenue. A community trail from the PA-16 open space will cross 52nd Ave using an at-grade crossing and extend north into PA-62 and the proposed active adult community. This will link the parks and amenities being provided to this community.

- Trail sections in Green Valley Ranch MP will be constructed to the City of Aurora standards and shall be constructed of concrete in the more urban areas of the community, and in the more natural areas, other materials, such as decomposed granite, may be proposed at the time of Site Plan review. Trails along drainage channels will be constructed according to maintenance road / trail standards of the Urban Drainage and Flood Control District and the P&OSD standards and will be a minimum of 10 feet wide. These trails shall both act as pedestrian trails and maintenance trails. Regional trails outside of the drainage ways will be ten (10) feet wide and community trails shall have a minimum width of eight (8) feet. Refer to the Open Space Plan for regional and community trail locations. Six (6) foot wide minimum neighborhood trails will also be incorporated into the trail network. These trail locations will be determined at Site Plan.

- Planning Areas 8, 9, 45, 46 and 70 have park space within ¼ mile of every home which exceeds city requirements. Having open space in such close proximity to homes improves both physical and mental health by encouraging activities like walking and jogging while reducing stress.

9. Protection of Natural Features, Resources and Sensitive Areas.

Describe how the development will be designed to protect, use or enhance natural resources and features. In particular, describe how the design of the development will respond to:

- Water features, such as floodplains, streams, and arroyos.*
- Open space is planned along the drainage corridors. This open space becomes part of the open space/trail network that crosses the site linking neighborhoods to parks, schools, and activity centers.
- Adjacent parks and public open space*
 - There are three (3) neighborhood parks within close proximity to the Open Space Corridor. This corridor begins south off-site from 38th Avenue and E-470 extending diagonally, towards 48th Avenue and Picadilly Road, within Green Valley Ranch. Two other neighborhood parks are along open space corridors in the active adult community and connect up to this main Tributary T open space.
 - As part of Amendment 3, the PA-39 Neighborhood Park was shifted closer to the open space corridor for both connectivity and access for residents in PA8 ,PA9 and PA70. An additional 1.0 Ac Pocket Park is also being added as part of Amendment 3 to better serve residents.
- Historic or archeological sites*

- A review of the records of The Colorado Historical Society Office of Archaeology and Historic Preservation "Inventory of Cultural Resources" identified a number of items inventoried on the site, but none were found have significant historic or archaeological value.
- The majority of these sites occur within the site's drainage areas, which will be enhanced as open space/trail corridors.
- *Significant views of the Front Range and views from public parks and I-70 and E- 470 and other collector and arterial streets*
- Views from public parks and other collector streets west will be protected at strategic points within the development. The use of topography and vegetation will frame scenic vistas.
- *Riparian wildlife habitat*
- There are no true riparian zones along the drainage. There is no flowing water or springs along the drainage, and no channels have developed.
- Tributary T just east of Picadilly Road in Section 24 has one old mature cottonwood along the drainage corridors. This is also not a true riparian zone since there is no flowing water except after a storm, and there is no definite channel. The understory is an overgrazed pasture with no brushes or willow.
- *The approximate topographic form of major ridgelines and swales*
- There are no major ridgelines or swales. The drainages will be enhanced as a part of the planned community's open space/trail network.
- *Natural or geologic hazard areas, including unstable slopes and expansive soils*
- No geologic hazard areas or expansive soils have been identified on the site.
- *Other natural features such as bluffs, ridges, steep slopes, stands of mature trees, rock outcroppings, or wetlands.*
- Slopes over 6% are primarily found in the drainage areas that will be preserved/ enhanced as open space. There are no bluffs, ridges, or rock outcroppings. There are a few mature trees in and around the drainage areas that will be preserved to the extent possible within the open space areas.

10. Neighborhood Concept

Briefly describe the location of your individual neighborhoods. How have you defined the boundaries for each neighborhood? How are the architectural styles and other design features distributed among the neighborhoods? Are there any styles or other design standards that are restricted to specific areas?

- The Amendment 3 proposed standards will create a diverse and thriving community with a variety of housing types and price points, designed to attract people at all stages of life. By increasing density, Green Valley Ranch can offer a wide array of housing options tailored to every lifestyle, including paired homes, green court and motor court homes, as well as move-up and executive housing.
- Integral to this development are detached sidewalks with street trees and curbside landscaping between the back of the curb and the sidewalk, creating a walkable, shaded, and visually appealing environment. A robust street network, and close proximity to park space and neighborhood-serving retail are key components to fostering a high-value, vibrant neighborhood with increased density.
- The development prioritizes compact residential design with front yard easements limited to six feet, coordinated with utilities to maximize efficiency and make use of the space under the public sidewalk and within the six-foot easement. A fine-grained integration of housing types throughout the community ensures an aesthetically pleasing streetscape dominated by inviting front porches instead of garage doors.
- The inclusion of a commercial area further enhances the proposal by supporting local businesses and providing convenient amenities for residents. This intentional design approach aims to cultivate a diverse, dynamic, and connected community for current and future generations.

11. Steep Slope Standards

Does your development plan include building on areas with an existing slope of 6% or greater? If so, what standards and design strategies have you adopted to deal with drainage and aesthetic issues? Have you reviewed and considered our recommended steep slope design guidelines? If not, why?

- Slopes over 6% are primarily located in the drainage areas that are enhanced as open space.

12. Consultations with Outside Jurisdictions and Agencies

Have you consulted with representatives of your local school district, the Colorado Division of Wildlife, the Colorado Department of Public Health and Environment, or other applicable local, state or federal agencies? If so, list the dates, contact person, and results of your discussions. Include any letters you've received from these agencies as an appendix to your application.

- A number of meetings have been held between representatives of the applicant and the Aurora Public Schools to reach agreement on servicing the Green Valley Ranch Master Plan.



EXHIBIT A - AAC RETAIL EXAMPLE

GVR MP AMENDMENT

AURORA, CO

Remove this example
from document set.

March 14, 2025



Scale: 1"=200'





EXHIBIT B - AAC RETAIL EXAMPLE

March 14, 2025

GVR MP AMENDMENT

AURORA, CO

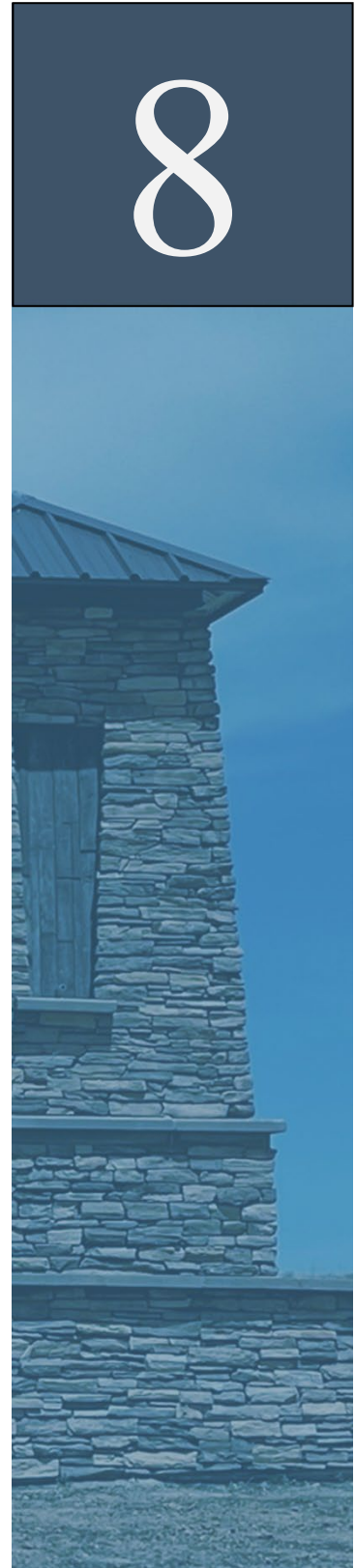


Scale: 1"=200'



MP LAND USE MAP MATRIX AND STANDARD NOTES

- Land Use Plan Narrative 8.1
- Land Use Summary 8.2
- 470-RMED Spreadsheet 8.3
- Land Use Plan 8.4
- Neighborhood Plan 8.5
- Fire Exhibit 8.6
- Standard MP Notes 8.7



8.1 Land Use Plan Narrative

The Master Plan for Green Valley Ranch consists of 885.5 acres. Proposed land use is Residential Medium Density, Multi-Family Residential, Commercial/Retail and Mixed-Use.

A total of approximately 4,530 dwelling units are planned, ranging in density from 5.0 to 22.0 dwellings per acre. A broad range of housing types will be offered, including single-family detached homes, motorcourts with single-family detached and attached homes, front loaded single-family attached duplex homes, and multi-family homes.

A total of 7 Neighborhood Parks on 31.5 acres, along with 6.9 acres of pocket parks and 95.9 gross acres of open space make up the parks and open space system that are interconnected by a network of trails along the Open Space Corridor and greenways that follow the drainage corridors. The public dedications and open space areas expressly provided for in this MP will satisfy all dedication and open space requirements applicable to the MP site.

With respect to school dedications, the total acreage allocated under this MP for that purpose equals approximately 18.0 acres. This school dedication plan has been designed with input from Aurora Public Schools (APS). One P-8 school is proposed to serve this development west of E-470.

The Land Use Plan (Tab 8.4) shows the configuration of these land uses. Acres, density, and total number of dwelling units are detailed in Tab 8.3, below. All lots size standards and setbacks will follow code unless specified during the site plan process.

Amend 3:
Revised narrative per
increased units and
parks spaces

8.2 Land Use Summary

GREEN VALLEY RANCH MASTER PLAN¹

TOTAL PROJECT

LAND USE	ACRES	DENSITY	DU	% OF RES DU
Active Adult Residential	212.4	5.7	1199	26.5%
Single Family Residential	283.0	6.6	1842	40.6%
Mixed Use	160.4	9.3	1489	32.9%
Administrative Activity Center	6.7			
Sub Total	662.5		4530	100.0%
Neighborhood Activity Center / Clubhouse	5.3			
P-8 School	18.0			
Neighborhood Parks	31.5			
Pocket Parks & Credited Open Space	95.9			
Detention	14.3			
Floodway Channel	7.7			
Easements	9.3			
Right of Way	41.0			
Sub Total	223.0			
TOTAL	885.5			

Active Adult Residential will contain a mix of standard, small, motorcourt (standard and small), and duplex (front-loaded, alternate-loaded and green court) lots.

Single Family Residential will contain a mix of standard, small, motorcourt (standard and small), and duplex (front-loaded, alternative loaded, and green court) lots.

Amend 3:
Revised charts for
increased units,
AAC, and parks
spaces

¹ Master Plan area includes development proposed in Amendments 1, 2, and 3. Area east of E-470 has been permanently removed from the Master Plan

TAB 8.3

FORM D: MP Land Use Matrix							
A. LAND USE ITEM	B. PLANNING AREA MAP NUMBER	C. MAP AREA CODE	D. GROSS LAND AREA IN ACRES	E. LAND USE FORMULA	F. MAX POTENTIAL DENSITY BY CODE (in DU's)	G. ACTUAL PROPOSED MAXIMUM DENSITY (in DU's)	H. LAND USE DETAILS AND COMMENTS
1. Floodway Channel	PA-28	CHANNEL	3.4				Storm flow conveyance. Not Credited towards public land dedication requirement.
	PA-29	CHANNEL	2.0				Storm flow conveyance. Not Credited towards public land dedication requirement.
	PA-30	CHANNEL	2.3				Storm flow conveyance. Not Credited towards public land dedication requirement.
Subtotal			7.7				
2. Required Land Dedication Areas for Park, Schools, & Fire Stations	PA-10	CLUBHOUSE	3.5				Amenity Area and Pool
	PA-11	CLUBHOUSE	1.8				Amenity Area and Pool
	PA-12	SCHOOL-P-8	18.0				Public School P-8
	PA-13	NEIGHBORHOOD PARK	6.2	3.0 ACRES PER 1,000 RESIDENTS			6.2 AC net Credited toward neighborhood park requirement.
	PA-14	NEIGHBORHOOD PARK	5.7	3.0 ACRES PER 1,000 RESIDENTS			5.7 AC net Credited toward neighborhood park requirement.
	PA-15	NEIGHBORHOOD PARK	3.0	3.0 ACRES PER 1,000 RESIDENTS			3.0 AC net Credited toward neighborhood park requirement.
	PA-16	OS-D	18.1	7.8 ACRES PER 1,000 RESIDENTS			18.1 AC net Credited toward open space requirement.
	PA-17	OS-D(Corridor)	2.8	7.8 ACRES PER 1,000 RESIDENTS			2.8 AC net Credited toward open space requirement.
	PA-18	OS-D(Corridor)	1.7	7.8 ACRES PER 1,000 RESIDENTS			1.7 AC net Credited toward open space requirement.
	PA-19	OS-D (Corridor)	3.8	7.8 ACRES PER 1,000 RESIDENTS			3.8 AC net Credited toward open space requirement.
	PA-20	OS-D(Corridor)	10.6	7.8 ACRES PER 1,000 RESIDENTS			10.6 AC net Credited toward open space requirement.
	PA-21	OS-D(Corridor)	1.6	7.8 ACRES PER 1,000 RESIDENTS			1.6 AC net Credited toward open space requirement.
	PA-22	OS-D(Corridor)	3.9	7.8 ACRES PER 1,000 RESIDENTS			3.9 AC net Credited toward open space requirement.
	PA-23	OS-D(Corridor)	8.4	7.8 ACRES PER 1,000 RESIDENTS			8.4 AC net Credited toward open space requirement.
	PA-24	OS-D(Corridor)	6.8	7.8 ACRES PER 1,000 RESIDENTS			6.8 AC net Credited toward open space requirement.
	PA-25	DETENTION	5.4				0 AC net Credited toward open space requirement.
	PA-26	DETENTION	6.8				0 AC net Credited toward open space requirement.
	PA-27	DETENTION	2.1				0 AC net Credited toward open space requirement.
	PA-31	OS-POCKET PARK	0.5	7.8 ACRES PER 1,000 RESIDENTS			0.5 AC net Credited toward open space requirement.
	PA-32	OS-POCKET PARK	0.5	7.8 ACRES PER 1,000 RESIDENTS			0.5 AC net Credited toward open space requirement.
	PA-33	OS-D	0.8	7.8 ACRES PER 1,000 RESIDENTS			0.8 AC net Credited toward open space requirement.
	PA-34	OS-POCKET PARK	0.5	7.8 ACRES PER 1,000 RESIDENTS			0.5 AC net Credited toward open space requirement.
	PA-35	OS-D	0.4	7.8 ACRES PER 1,000 RESIDENTS			0.4 AC net Credited toward open space requirement.
	PA-36	OS-D	1.2	7.8 ACRES PER 1,000 RESIDENTS			1.2 AC net Credited toward open space requirement.
	PA-37	OS-D	1.0	7.8 ACRES PER 1,000 RESIDENTS			1.0 AC net Credited toward open space requirement.
Subtotal			115.1				

Sheet Title:

LAND USE MATRIX

Land Use Map, Matrix and Standard Notes

Master Plan

Project Title:

Green Valley Ranch Master Plan Amendment 3

Aurora, Colorado

GREEN VALLEY

RANCH

TAB 8.3

FORM D: MP Land Use Matrix							
A. LAND USE ITEM	B. PLANNING AREA MAP NUMBER	C. MAP AREA CODE	D. GROSS LAND AREA IN ACRES	E. LAND USE FORMULA	F. MAX POTENTIAL DENSITY BY CODE (in DU's)	G. ACTUAL PROPOSED MAXIMUM DENSITY (in DU's)	H. LAND USE DETAILS AND COMMENTS
2. Required Land Dedication Areas for Park, Schools, & Fire Stations	PA-38	OS-POCKET PARK	0.9	7.8 ACRES PER 1,000 RESIDENTS			0.9 AC net Credited toward open space requirement.
	PA-39	NEIGHBORHOOD PARK	3.8	3.0 ACRES PER 1,000 RESIDENTS			3.8 AC net Credited toward neighborhood park requirement.
	PA-40	OS-POCKET PARK	2.0	7.8 ACRES PER 1,000 RESIDENTS			2.0 AC net Credited toward open space requirement.
	PA-41	OS-POCKET PARK	0.5	7.8 ACRES PER 1,000 RESIDENTS			0.5 AC net Credited toward open space requirement.
	PA-42	EASEMENT (UTILITY)	0.5				0 AC net Credited toward open space requirement.
	PA-43	EASEMENT (UTILITY)	0.5				0 AC net Credited toward open space requirement.
	PA-44	EASEMENT (MULTI-USE)	2.2				0 AC net Credited toward open space requirement.
	PA-56	OS- POCKET PARK	0.5	7.8 ACRES PER 1,000 RESIDENTS			0.5 AC net Credited toward open space requirement.
	PA-57	OS- POCKET PARK	0.5	7.8 ACRES PER 1,000 RESIDENTS			0.5 AC net Credited toward open space requirement.
	PA-58	OS-D(Corridor)	1.9	7.8 ACRES PER 1,000 RESIDENTS			1.9 AC net Credited toward open space requirement.
	PA-59	NEIGHBORHOOD PARK	3.4	3.0 ACRES PER 1,000 RESIDENTS			3.4 AC net Credited toward neighborhood park requirement.
	PA-60	OS-D(Corridor)	12.8	7.8 ACRES PER 1,000 RESIDENTS			12.8 AC net Credited toward open space requirement.
	PA-61	NEIGHBORHOOD PARK	3.0	3.0 ACRES PER 1,000 RESIDENTS			3.0 AC net Credited toward neighborhood park requirement.
	PA-62	NEIGHBORHOOD PARK	6.4	3.0 ACRES PER 1,000 RESIDENTS			6.4 AC net Credited toward neighborhood park requirement.
	PA-63	EASEMENT (MULTI-USE)	6.1				0 AC net Credited toward open space requirement.
	PA-64	OS-D(Corridor)	0.4	7.8 ACRES PER 1,000 RESIDENTS			0.4 AC net Credited toward open space requirement.
	PA-65	OS-D(Corridor)	4.0	7.8 ACRES PER 1,000 RESIDENTS			4.0 AC net Credited toward open space requirement.
	PA-66	OS-D(Corridor)	1.8	7.8 ACRES PER 1,000 RESIDENTS			1.8 AC net Credited toward open space requirement.
	PA-67	OS-D(Corridor)	4.0	7.8 ACRES PER 1,000 RESIDENTS			4.0 AC net Credited toward open space requirement.
	PA-68	OS-D(Corridor)	3.0	7.8 ACRES PER 1,000 RESIDENTS			3.0 AC net Credited toward open space requirement.
	PA-69	OS- POCKET PARK	1.0	7.8 ACRES PER 1,000 RESIDENTS			1.0 AC net Credited toward open space requirement.
Subtotal			59.2				

Amend 3:
Revised charts for
increased units,
AAC, and parks
spaces

Sheet Title:

LAND USE MATRIX

Land Use Map, Matrix and
Standard Notes
Master Plan

Project Title:

Green Valley Ranch Master
Plan Amendment 3
Aurora, Colorado

GREEN VALLEY
RANCH

TAB 8.3

FORM D: MP Land Use Matrix							
A. LAND USE ITEM	B. PLANNING AREA MAP NUMBER	C. MAP AREA CODE	D. GROSS LAND AREA IN ACRES	E. LAND USE FORMULA	F. MAX POTENTIAL DENSITY BY CODE (in DU's)	G. ACTUAL PROPOSED MAXIMUM DENSITY (in DU's)	H. LAND USE DETAILS AND COMMENTS
3a. Development Areas Subzone: R-2 Subarea-C	PA-1	AA, SFD STAND, SFD SMALL	30.2	5.2 DU/AC	241	157	<div>Commercial, retail & office not included here?</div> <div>TD RESPONSE: NO.</div> <div>Max. Potential Gross Density is 5 DU/AC in R-2</div> <div>TD RESPONSE: ADDED.</div> <div>Add "Mixed Commercial-" before Admin.</div>
	PA-2	AA, SFD STAND, SFD SMALL, SFA DUPLEX	42.2	6.2 DU/AC	338	261	
	PA-3	AA, SFD STAND, SFD SMALL	30.0	5.0 DU/AC	240	150	
	PA-4	AA, SFD STAND, SFD SMALL	26.3	4.0 DU/AC	210	105	
	PA-5	SFD STAND, SFD SMALL	24.6	7.4 DU/AC	197	182	
	PA-6	SFD STAND, SFD SMALL	78.9	5.3 DU/AC	631	418	
	PA-7	SFD STAND, SFD SMALL	21.8	5.9 DU/AC	725	542	
	PA-8	SFD STAND, SFD SMALL	18.4	8.0 DU/AC	147	147	
	PA-9	SFD STAND, SFD SMALL	64.5	8.0 DU/AC	516	516	
	PA-45	AA, SFD STAND, SFD SMALL, SFA- TH, MF-SMALL, SFA DUPLEX, SFA- TH	27.8	8.0 DU/AC	222	222	
	PA-46	AA, SFD STAND, SFD SMALL, SFA- TH, MF-SMALL, SFA DUPLEX, SFA- TH	38.1	8.0 DU/AC	305	304	
	PA-70 AAC-1	SFD STAND, SFD SMALL ADMIN ACTIVITY CENTER	4.7 6.7	8.0 DU/AC	38	37	
Subtotal			514.3		3820	3041	
3b. Development Areas Subzone: MU-A & MU-R	PA-47	MIXED COMM, SFA-TH, MF- SMALL, MF-MED, MF-LARGE, SFA- DUPLEX, SFD-STAND, SFD-SMALL, 2-FAMILY	5.0	18.0 DU/AC	200	90	Max. Potential Density by Code is 40 DU/AC
	PA-48		12.8	22.0 DU/AC	512	281	Max. Potential Density by Code is 40 DU/AC
	PA-49		21.8	10.0 DU/AC	872	218	Max. Potential Density by Code is 40 DU/AC
	PA-50	MIXED COMM, SFA-TH, MF- SMALL, MF-MED, MF-LARGE	51.7	10.0 DU/AC	2068	517	Max. Potential Density by Code is 40 DU/AC
	PA-51		15.3	5.0 DU/AC	612	77	Max. Potential Density by Code is 40 DU/AC
	PA-52		9.6	5.0 DU/AC	384	48	Max. Potential Density by Code is 40 DU/AC
	PA-53	MIXED COMMERCIAL	17.5				
	PA-54	MIXED COMMERCIAL	27.3				
	PA-55	MIXED COMM, SFA-TH, MF- SMALL, MF-MED, MF-LARGE, SFA- DUPLEX, 2-FAMILY	17.2	15.0 DU/AC	688	258	Max. Potential Density by Code is 40 DU/AC
		RIGHT-OF-WAY	11.0				
Subtotal			189.2		5336	1489	
SUB AREA TOTAL			885.5		9156	4530	

Amend 3:
Revised charts for
increased units,
AAC, and parks
spaces

Sheet Title:

LAND USE MATRIX

Land Use Map, Matrix and
Standard Notes
Master Plan

Project Title:

Green Valley Ranch Master
Plan Amendment 3
Aurora, Colorado

GREEN VALLEY
RANCH

TAB 8.3

FORM D: MP Land Use Matrix							
A. LAND USE ITEM	B. PLANNING AREA MAP NUMBER	C. MAP AREA CODE	D. GROSS LAND AREA IN ACRES	E. LAND USE FORMULA	F. MAX POTENTIAL DENSITY BY CODE (in DU's)	G. ACTUAL PROPOSED MAXIMUM DENSITY (in DU's)	H. LAND USE DETAILS AND COMMENTS
4. Total Map Acreage (Sub-Area Total Above)			885.5				
5. Less 1/2 of Perimeter Streets Not Owned by Applicant			16.3				
6. Applicant's Acreage Listed in Application (Line 4 minus Line 5)			869.2				
7. Total Floodplain Acreage			7.7				
8. Total Adjusted Gross MP Acreage (Line 4 minus Line 7)			877.8				
9. Total Active Adult Planning Areas			212.4	1.58 PERSONS PER UNIT	1556	1199	1895 Estimated Residents
10. Total Single Family Planning Areas			278.3	2.65 PERSONS PER UNIT	2226	1842	4882 Estimated Residents
12. Total Mixed Use Planning Areas			160.4	2.5 PERSONS PER UNIT	4648	1489	3721 Estimated Residents
12. Total Residential			651.1		8431	4530	10498 Estimated Residents
13. Check for avg. residential density in R-2 subzone				5 DU's/AC TIMES R-2 ACREAGE	3319	3041	
13A. Sub Area Total for R-2			663.7				
14. Small Lot Total in R-2				50% of TOTAL UNITS	1910	1521	
15. Check for maximum allowable number of multi-family units							
16. Total Retail Planning Areas			0.0				
17. Total Office Planning Areas			0.0				
18. Total Industrial Planning Areas			0.0				
19. Total Mixed Commercial Planning Areas			189.2				
20. Total Commercial			189.2				
21. Total Neighborhood Parks			31.5	3.0 AC / 1000 RESIDENTS			31.5 = Required Land Dedication
							31.5 = Provided Land Dedication (remaining neighborhood park dedication will be met by applicant via cash-in-lieu payment at time of site plan of adjacent planning areas)
22. Total Community Parks			0.0	1.1 AC / 1000 RESIDENTS			11.55 Requirement will be met by applicant cash-in-lieu payment (11.27 AC. Cash-in-lieu payment made as part of Amendment 1&2) Remaining payment to be made by first residential plat of either PA8 or PA9
23. Total other Credited Open Space including trail corridors, greenbelts, and special rec. sites			95.9	7.8 AC / 1000 RESIDENTS			81.9 = Required Land Dedication
							95.9 = Provided Land Dedication
24. Total Open Space			127.4				124.9 = Required Land Dedication (AC.)
							127.4 = Provided Land Dedication (AC.)
							0.3 = Provided Cash-In-Lieu Community Park Payment (AC.)

Amend 3:
Revised charts for increased units, AAC, and parks spaces

Sheet Title:

LAND USE MATRIX

Land Use Map, Matrix and Standard Notes Master Plan

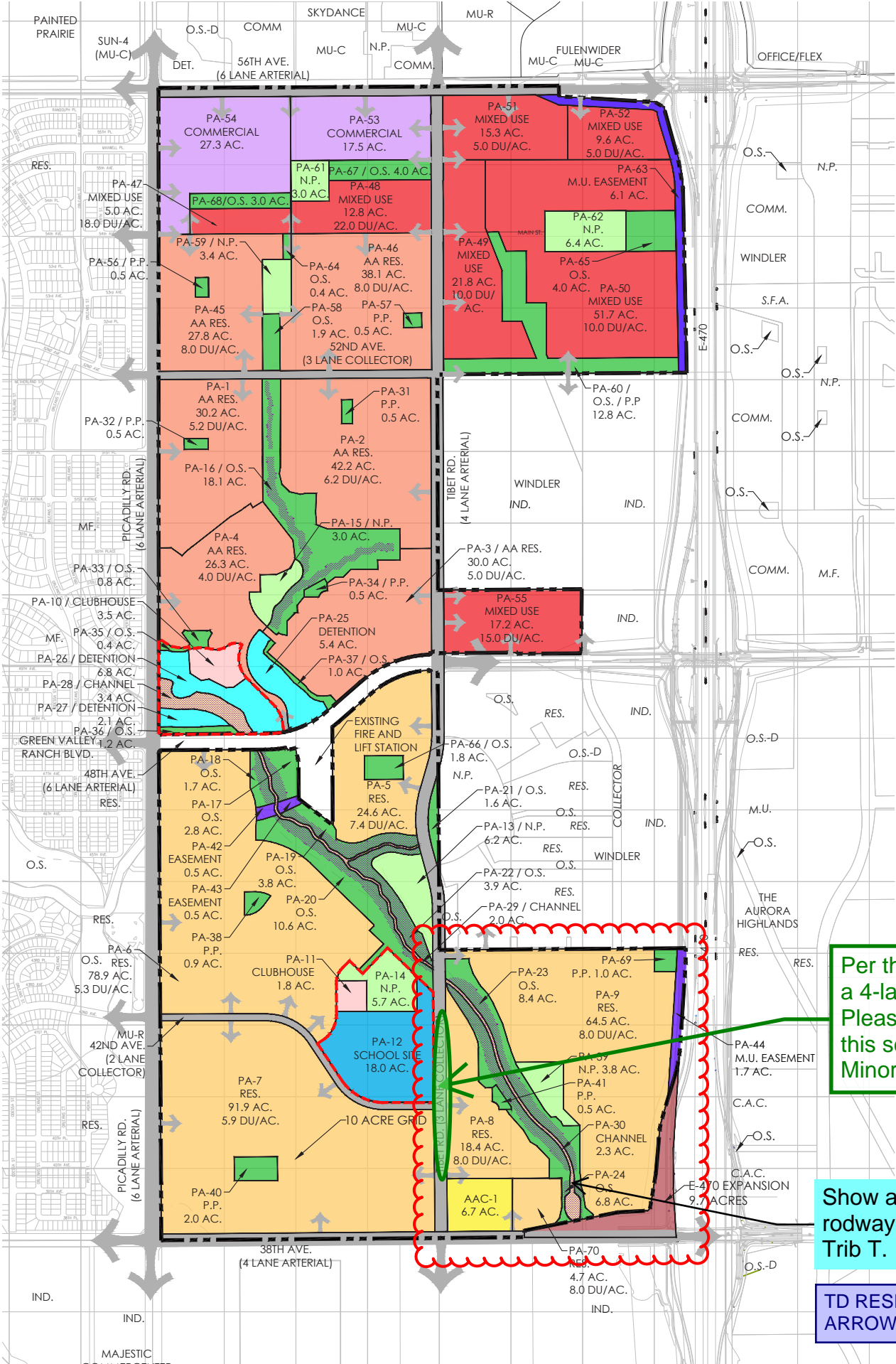
Project Title:

Green Valley Ranch Master Plan Amendment 3

Aurora, Colorado

GREEN VALLEY RANCH

Note: Planning Areas within MU-A and MU-R zone districts shall be responsible for meeting all park and open space requirements regardless of whats shown throughout the master plan



LEGEND

SINGLE FAMILY RES.	SCHOOL SITE
ACTIVE ADULT RES.	ROAD RIGHT OF WAY
OPEN SPACE	EASEMENT
DETENTION POND	COMMERCIAL
FLOODWAY CHANNEL	MIXED USE
CLUBHOUSE	ADMINISTRATIVE ACTIVITY CENTER
NEIGHBORHOOD PARK	NAC BOUNDARY
100 YEAR FLOOD PLAIN	IND = INDUSTRIAL
	COMM. = COMMERCIAL
	C.A.C. = COMMUNITY ACTIVITY CENTER
	MU-C = MULTI USE COMMERCIAL
	A.A.C.=ADMINISTRATIVE ACTIVITY CENTER

O.S. = OPEN SPACE
N.P. = NEIGHBORHOOD PARK
P.P. = POCKET PARK
RES. = RESIDENTIAL
M.F. = MULTI FAMILY
S.F.A. = SINGLE FAMILY ATTACHED
S.F.D. = SINGLE FAMILY DETACHED

TD RESPONSE: TIBET IS A 3-LANE COLLECTOR. TIS REVISED.

Per the TIS, Tibet Road should be a 4-lane Collector at a minimum. Please Revise. NEATS shows this section of Tibet Road as a Minor Arterial.

Amend 3:
Revised PA8,9,70
for increased
units, added
AAC, added and
revised park
space

Show arrows for
rodway crossing over
Trib T.

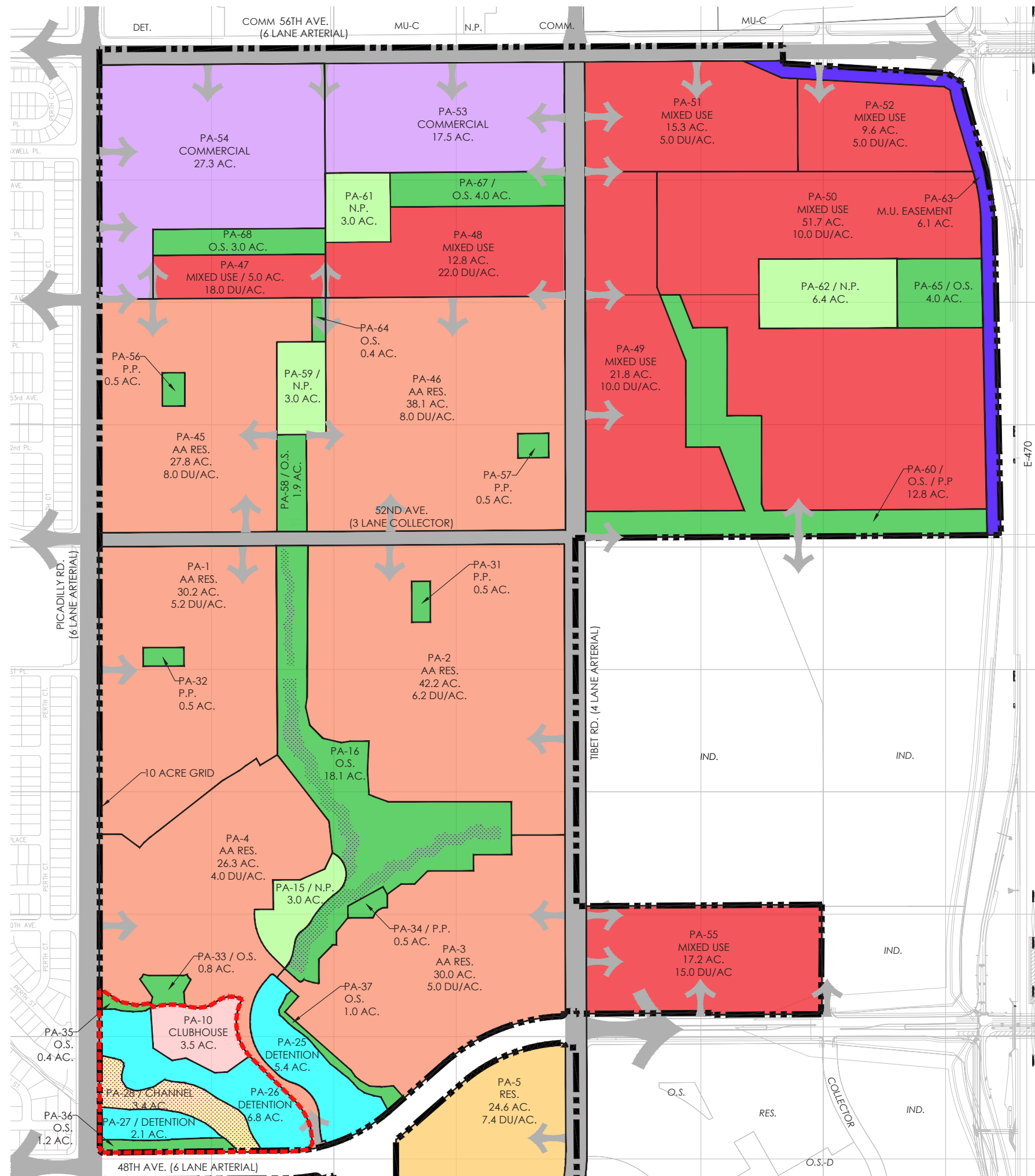
TD RESPONSE:
ARROWS ADDED.












Sheet Title:
**LAND USE PLAN
OVERALL**
Land Use Map, Matrix and
Standard Notes
Master Plan

Project Title:
**Green Valley Ranch Master
Plan Amendment 3**
Aurora, Colorado

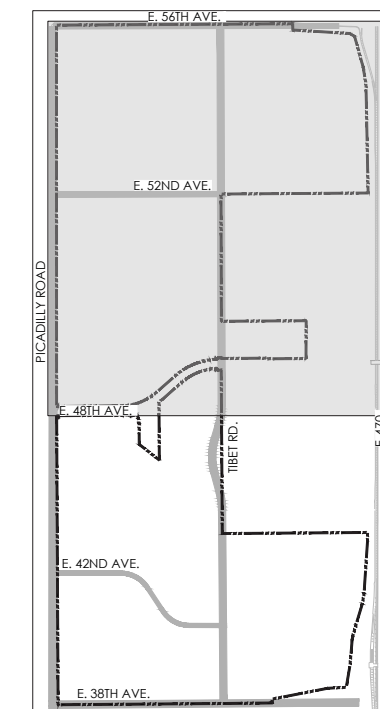
**GREEN VALLEY
RANCH**



LEGEND

- | | | | |
|---|----------------------|---|--------------------------------|
|  | SINGLE FAMILY RES. |  | SCHOOL SITE |
|  | ACTIVE ADULT RES. |  | ROAD RIGHT OF WAY |
|  | OPEN SPACE |  | EASEMENT |
|  | DETENTION POND |  | COMMERCIAL |
|  | FLOODWAY CHANNEL |  | MIXED USE |
|  | CLUBHOUSE |  | ADMINISTRATIVE ACTIVITY CENTER |
|  | NEIGHBORHOOD PARK |  | NAC BOUNDARY |
|  | 100 YEAR FLOOD PLAIN | | |
- O.S. = OPEN SPACE
N.P. = NEIGHBORHOOD PARK
P.P. = POCKET PARK
RES. = RESIDENTIAL
M.F. = MULTI FAMILY
S.F.A. = SINGLE FAMILY ATTACHED
S.F.D. = SINGLE FAMILY DETACHED
- IND = INDUSTRIAL
COMM. = COMMERCIAL
C.A.C. = COMMUNITY ACTIVITY CENTER
MU-C = MULTI USE COMMERCIAL
A.A.C.=ADMINISTRATIVE ACTIVITY CENTER

KEY MAP



Sheet Title:

LAND USE PLAN

SHEET 1

**Land Use Map, Matrix and
Standard Notes**

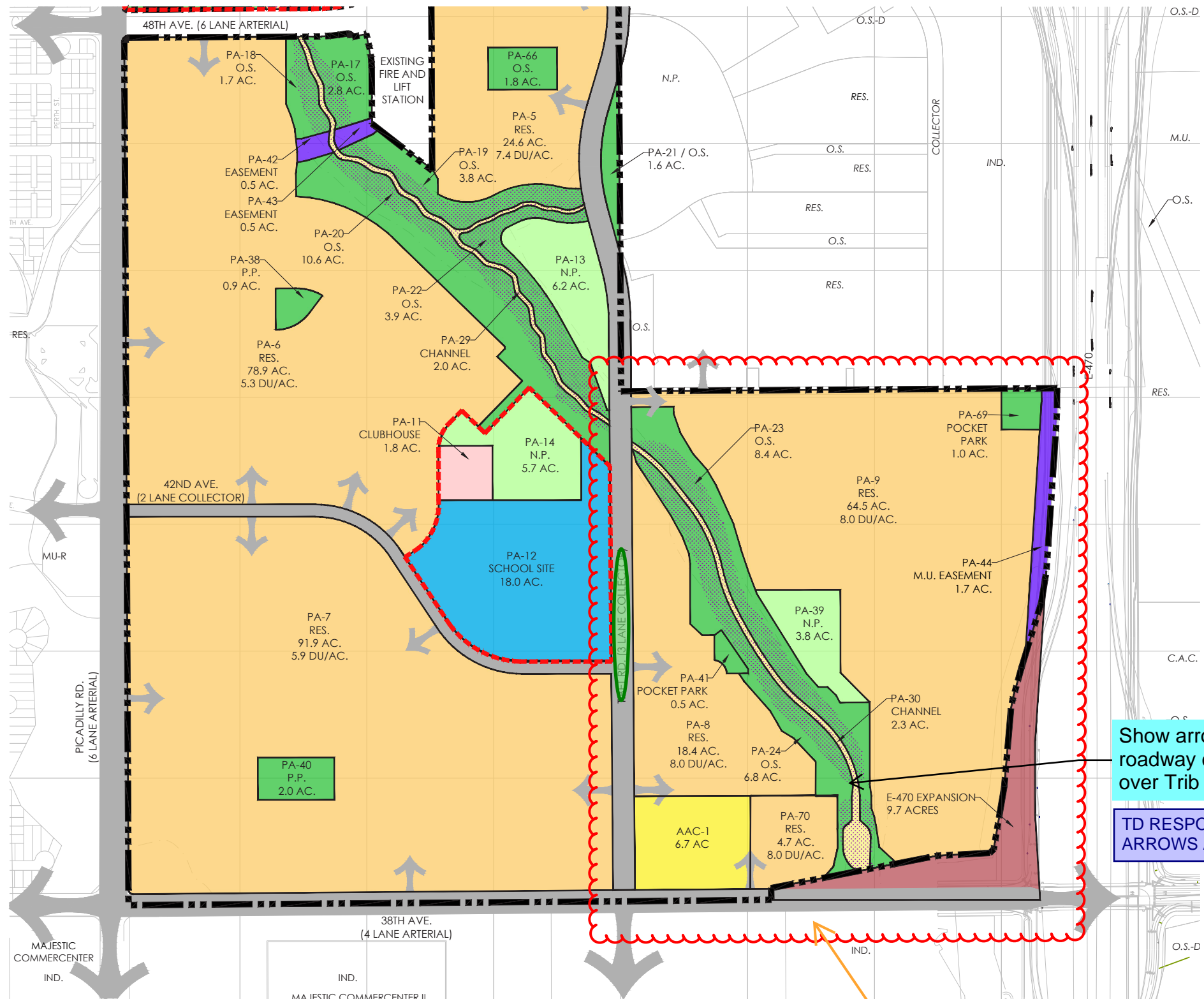
Master Plan

Project Title:
**Green Valley Ranch Master
Plan Amendment 3**
Aurora, Colorado

GREEN VALLEY
RANCH

March 11, 2025

Tab 8.4

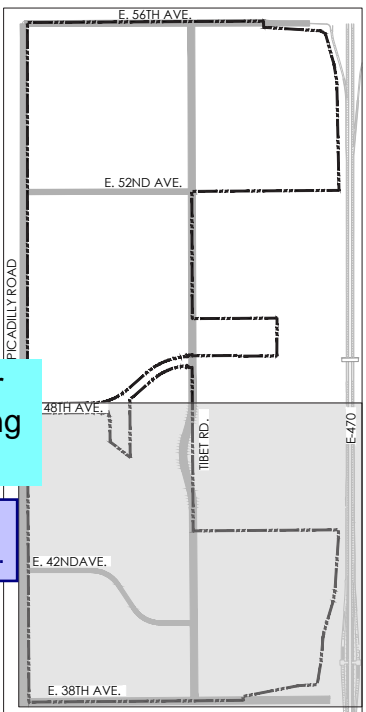


LEGEND

- | | |
|----------------------|--------------------------------|
| SINGLE FAMILY RES. | SCHOOL SITE |
| ACTIVE ADULT RES. | ROAD RIGHT OF WAY |
| OPEN SPACE | EASEMENT |
| DETENTION POND | COMMERCIAL |
| FLOODWAY CHANNEL | MIXED USE |
| CLUBHOUSE | ADMINISTRATIVE ACTIVITY CENTER |
| NEIGHBORHOOD PARK | NAC BOUNDARY |
| 100 YEAR FLOOD PLAIN | |
- O.S. = OPEN SPACE
N.P. = NEIGHBORHOOD PARK
P.P. = POCKET PARK
RES. = RESIDENTIAL
M.F. = MULTI FAMILY
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- IND = INDUSTRIAL
COMM. = COMMERCIAL
C.A.C. = COMMUNITY ACTIVITY CENTER
MU-C = MULTI USE COMMERCIAL
A.A.C.=ADMINISTRATIVE ACTIVITY CENTER

Amend 3:
Revised PA8,9,70
for increased
units, added
AAC, added and
revised park
space

KEY MAP



Sheet Title:
**LAND USE PLAN
SHEET 2**
Land Use Map, Matrix and
Standard Notes
Master Plan

Project Title:
**Green Valley Ranch Master
Plan Amendment 3**
Aurora, Colorado

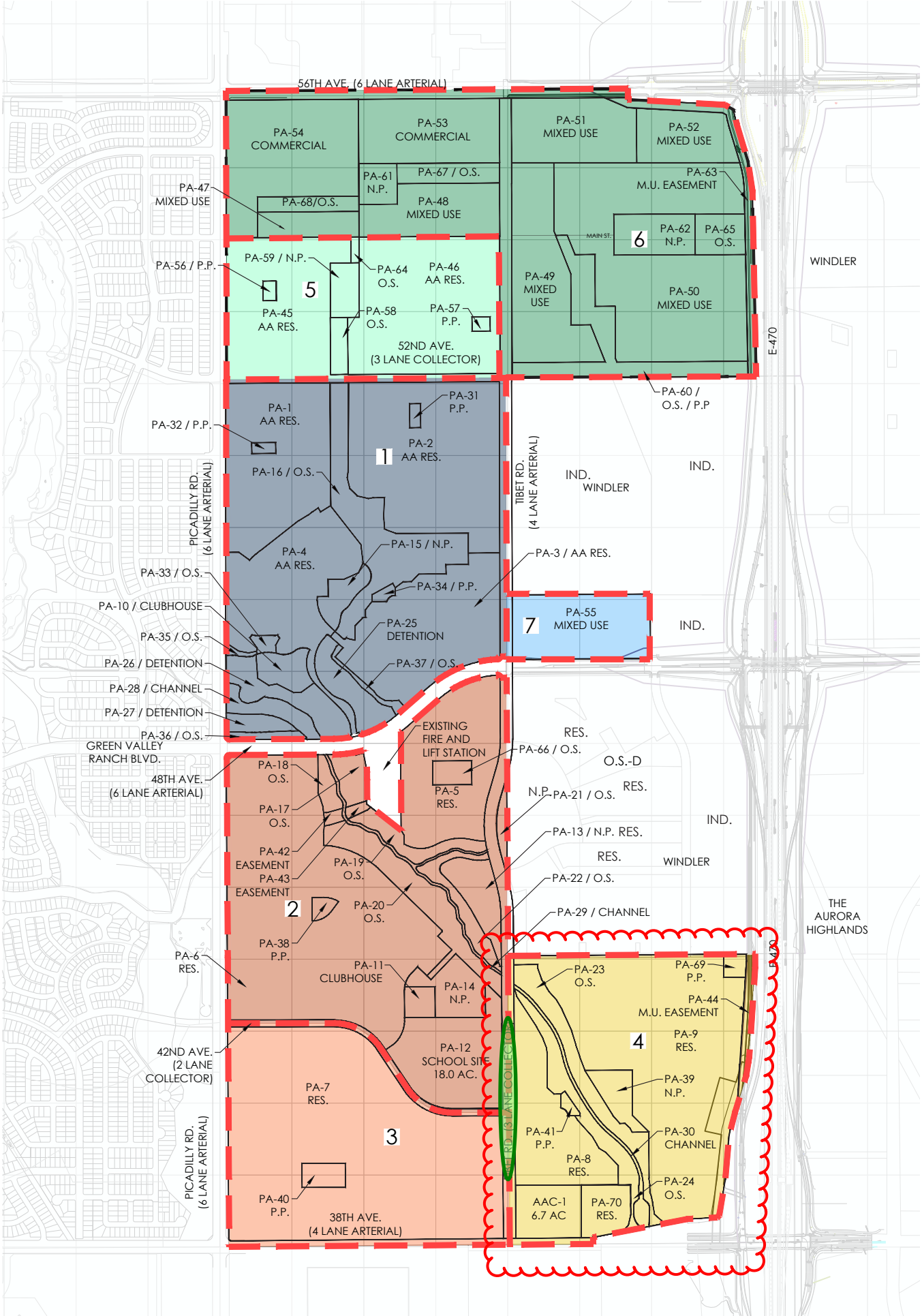
**GREEN VALLEY
RANCH**

Show arrows for
roadway crossing
over Trib T.

TD RESPONSE:
ARROWS ADDED.

Where is commercial are
in PA-8 per TIS update?

TD RESPONSE: TIS REVISED.



LEGEND

- NEIGHBORHOOD BOUNDARY
- O.S. = OPEN SPACE
- N.P. = NEIGHBORHOOD PARK
- P.P. = POCKET PARK
- RES. = RESIDENTIAL
- IND. = INDUSTRIAL

Neighborhood	Size (AC)	North Boundary	South Boundary	East Boundary	West Boundary
1	180.7	52nd Ave	48th Ave	Tibet Road	Picadilly Road
2	173.5	48th Ave	42nd Ave	Tibet Road	Picadilly Road
3	100.7	42nd Ave	38th Ave	Tibet Road	Picadilly Road
4	123.6	44th Ave	38th Ave	E-470	Tibet Road
5	74.4	Neighborhood 6	52nd Ave	Tibet Road	Picadilly Road
6	214.5	56th Ave	Windler	E-470	Tibet/Picadilly Road
7	18.1	Windler	48th Ave	Windler	Tibet Road
Total	885.5				

Amend 3:
Revised
boundaries



Sheet Title:

**NEIGHBORHOOD
DEFINITION PLAN**

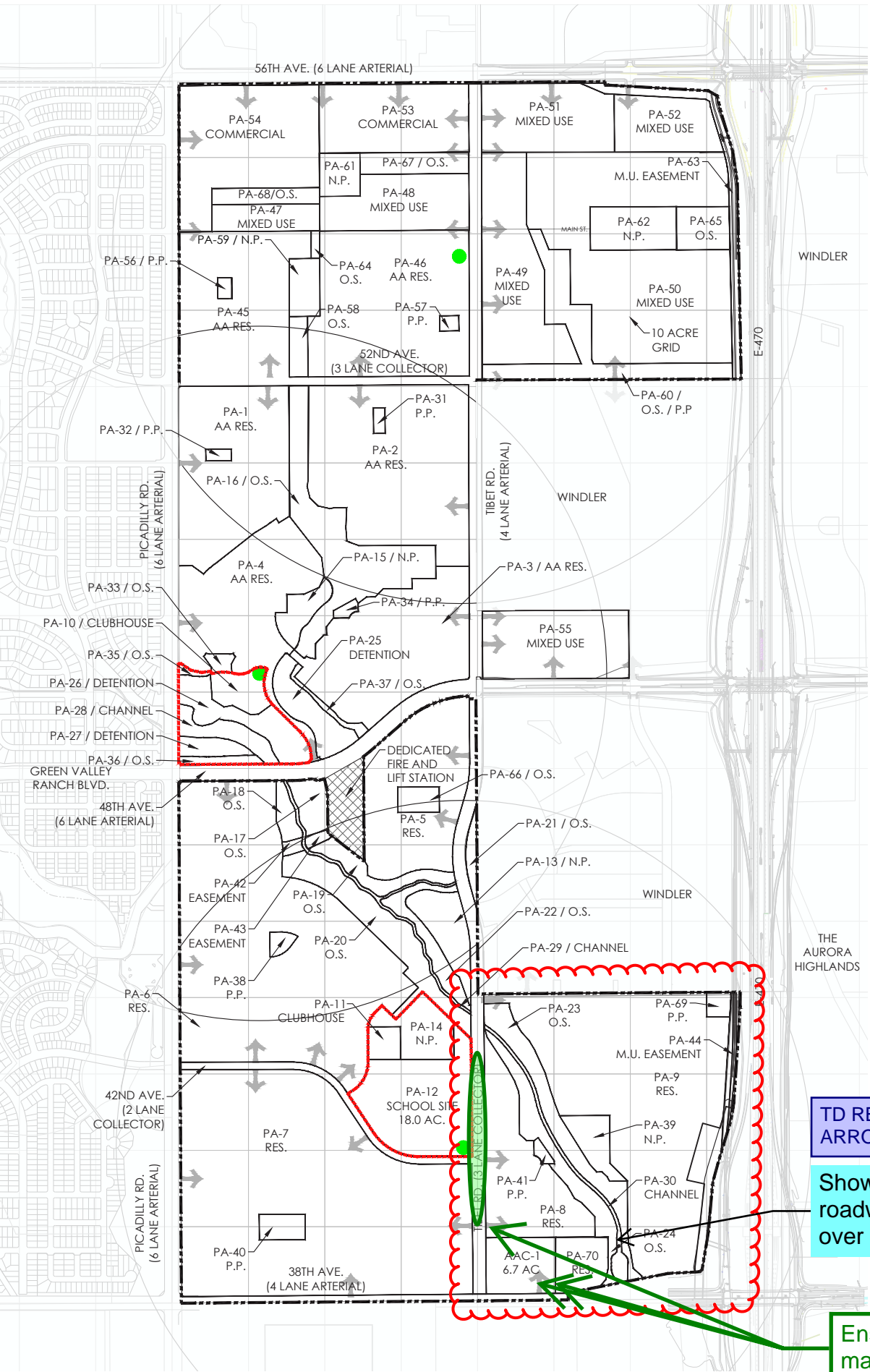
Land Use Map, Matrix and
Standard Notes
Master Plan

Project Title:

**Green Valley Ranch Master
Plan Amendment 3**

Aurora, Colorado

**GREEN VALLEY
RANCH**



LEGEND

- ➔ PROPOSED ENTRY POINT
- WHELEN ALERT SIREN TOWER LOCATION
- ▨ DEDICATED FIRE STATION
- PROPERTY LINE
- ▭ NEIGHBORHOOD ACTIVITY CENTER

O.S. = OPEN SPACE
N.P. = NEIGHBORHOOD PARK
P.P. = POCKET PARK
RES. = RESIDENTIAL

STANDARD FIRE NOTES

1. In the event that a permanent fire station is not operational, the Aurora Fire Department may require that a temporary fire station be provided by the developer and/or annexing party. The property has been dedicated to the City and is no less than 1 ¾ acres with the location and dimensions such that optimal emergency response times can be achieved.
2. The City of Aurora requires that a permanent station be platted at the time of development approval. The property has been dedicated to the City and is no less than 1 ¾ acres with the location and dimensions such that optimal emergency response times can be achieved. Shared use sites (police, fire, etc) must be at least 8 acres in size and situated such that optimal emergency response times can be achieved. These sites shall be contiguous to collector streets.
3. Permanent or temporary fire stations: the exact placement of permanent or temporary fire stations will be determined and approved by the City of Aurora's fire marshal to ensure that coordinated coverage is provided within the city. For specific questions, the fire marshal can be reached through the fire department main switchboard, 303-326-8999, or 303-326-8986 (fax).
4. The FEMA requirement for outdoor emergency warning systems is a 60-70 foot monopole tower using an alert siren. The City of Aurora uses the Whelen Siren System. The land requirement for the tower is a 10' x 10' easement. Each siren covers approximately 3,000 radial feet at 70 db and is typically spaced one siren per square mile.
5. In newly annexed/developing areas of the city, sirens should be sited on every ½ section of ground (320 acres) or 6,000 feet apart to provide edge to edge coverage.
6. The exact placement of sirens will be determined by the City of Aurora's Office of Emergency Management to ensure that coordinated coverage is provided on a system wide basis. For specific questions, the Office of Emergency Management can be reached as 303-739-7636 (phone), 303-326-8986 (fax), or afd_oem@auroragov.org



Sheet Title:
FIRE AND SAFETY EXHIBIT
Land Use Map, Matrix and Standard Notes
Master Plan

Project Title:
Green Valley Ranch Master Plan Amendment 3
Aurora, Colorado

GREEN VALLEY RANCH

TD RESPONSE: ARROWS ADDED.

Show arrows for roadway crossing over Trib T.

TD RESPONSE: ARROWS REVISED.

Ensure accesses match Tab 8.4

Amend 3: Revised boundaries

8.7 Standard MP Notes

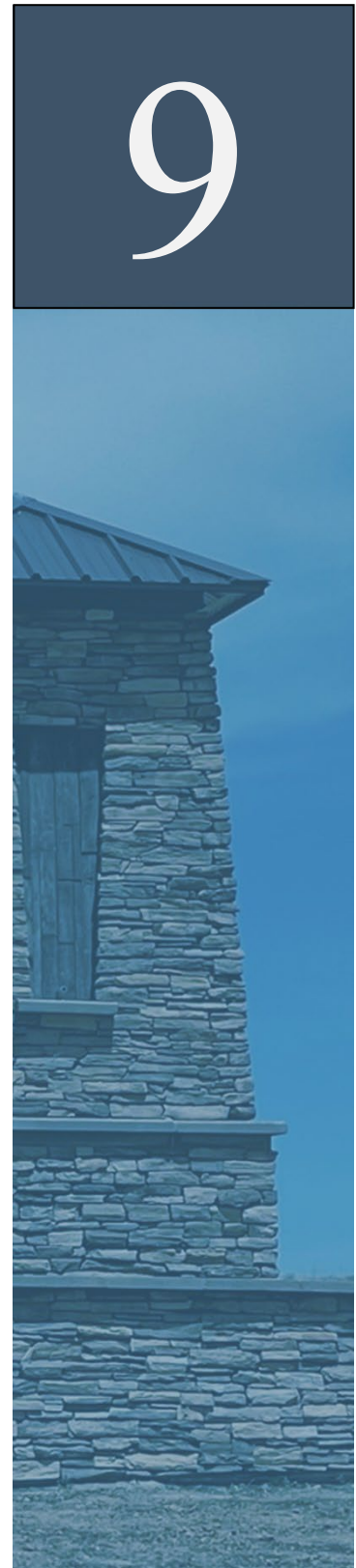
1. Traffic Signal Costs. Owner and/or developers are responsible for 100 percent of signal costs for interior intersections. Public Improvement Funding Agreement (PIFA) will dictate the payment and timing of signals at perimeter intersections.
2. Street Lights. Streetlights must be constructed along all public streets as required by City Code Section 126-236.
3. Archeological finds. The owner, developer and/or contractors will notify the City if archeological artifacts are uncovered during construction.
4. Parks. Neighborhood park sites shall not exceed 4:1 slopes.
5. Residential Density Reductions. The developer has the right to build at a lower residential density in any map area provided the City has determined that the use is permitted and compatible with surrounding land uses. A finding of compatibility will be determined at the time of CSP review. This reduction shall be considered an administrative MP amendment.
6. Master Drainage Plan. No subdivision shall be approved prior to the City's approval of the Master Drainage Plan. In the event of any plan conflicts with the MP, including, but not limited to, the size, location and regional detention ponds and/or drainage way locations, cross sections and widths, the Master Drainage Plan, as approved by the City, shall govern. Drainage ponds drop structures and other facilities are subject to preliminary plat or site plan review.
7. 404 Permit. The developer is responsible to comply with any requirements of the Army Corps of Engineers (if any) with regards to 404 permitting and wetlands mitigation.
8. Emergency Access. The developer shall provide two separate and approved points of paved emergency access and a looped water supply to each phase of the development as approved by the City. The developer shall provide emergency crossings that meet all city standards. The developer/applicant is required to provide all offsite roadways necessary to provide the two distinct points of access to the overall site.
9. The Master Utility Study, Master Drainage Study and Master Transportation Study are incorporated as a part of the MP. Final approval of these documents is required before acceptance of an application for the first within the project.

10. Landscaping Standards. Unless otherwise noted herein in an adjustment, the landscaping standards outlined in the UDO apply to this MP. Where the standards outlined in the UDO with standards within this MP, the more restrictive shall apply.
11. Future Amendments. Any future amendments to architecture, landscape architecture and other urban design standards and related drawings must demonstrate an equal or better quality than the approved MP standards.
12. MP Adjustments. Except for any adjustments listed below, this MP will be interpreted to mean that all standards contained in the MP will meet or exceed all city code requirements.
13. Major arterial medians to be publicly maintained shall be designed and constructed in accordance with P&OSD Public Median Standards. (These policies are pending completion.)
14. Major arterial medians to be privately maintained shall be designed and constructed in accordance with P&OSD Private Median Standards. (These policies are pending completion.)

9

MP OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

- Open Space Narrative 9.1
- Form J 9.2
- OS Neighborhood Map 9.3



9.1 Open Space/ Circulation/ Neighborhood Map

1. Open Space

The parks and open space system for Green Valley Ranch is extensive and includes 31.5 acres in 7 Neighborhood Parks and over 95.9 net gross acres of open space. The open space includes a 200 to 400 foot wide open space known as the Grand Park Corridor, runs northwest to southeast along the Tributary T Drainageway and connects all park, school, and NAC sites together. The Grand Park Corridor is scheduled for improvement with a trail system, benches, scenic overlooks, and landscaping. See Form J for further detail.

2. Connectivity

Integral to this development are detached sidewalks with street trees and curbside landscaping between the back of the curb and the sidewalk, creating a walkable, shaded, and visually appealing environment. A robust street network, including potential additional connections to the north, and close proximity to park space and neighborhood-serving retail are key components to fostering a high-value, vibrant neighborhood with increased density.

3. Pedestrian and Bicycle Circulation System

The pedestrian circulation system at Green Valley Ranch consists of detached meandering pedestrian trails along the arterials and collectors, in addition to walks along local streets. All community facilities including parks, schools, the Grand Park Corridor, and the NAC's are connected to the trail system. This system is shown on the Open Space, Circulation, and Neighborhood Map.

The Green Valley Ranch MP encourages pedestrian and bicycle activity throughout the community by providing:

- 10 foot regional off-street trails leading through the Grand Park Corridor and its associated greenways that connect to Community and Neighborhood Activity Centers, parks, open space, schools, neighborhoods, and activity nodes. All regional trails will cross arterials at either a signalized intersection or a grade separated crossing. Signalized intersections may include Rectangular Rapid flashing Beacon (RRFB) signs. The potential of a grade separated crossing will be evaluated at time of Site Plan;
- 8-foot community detached trails along Minor Arterials.
- Landscaped tree lawns adjacent to a majority of the local streets will be provided.
- 6-foot neighborhood trails will be provided within each neighborhood.

Amend 3:

Revised narrative for amendment 3 area and its design criteria. Updated parks and OS dedication acreages.

4. Primary Access

In the Amendment 3 area one principal Arterial, 38th Avenue, traverses Green Valley Ranch in an east/west direction; this is planned to eventually accommodate 4-lanes. In a North/South direction, a three-lane collector is planned along Tibet Road between 29th Ave. and 48th Ave.

In addition to these roadways, local roadways will serve the area. The roadways are designed to meet the City of Aurora Subdivision Ordinance. The roadways are shifted east as part of Amendment 3 to accommodate a future development.

Sidewalks are planned along all streets, and pedestrian/bike paths are planned along the Grand Park Corridor and all its associated greenways. The sidewalks are constructed of concrete or other materials determined at the discretion of the City.

Tab 10.14-10.15, Street Standards, show the cross sections for these streets.

Per the TIS, Tibet Road should be a 4-lane Collector at a minimum. Please Revise, typ. all. NEATS shows this section of Tibet Road as a Minor Arterial.

Tibet is a 3 lane collector between 38th and 48th. TIS has been revised to correct that.

5. Public Land Dedication Requirements

The City's parks/open space dedication requirements under the current City Code, when applied to the MP site, would require approximately 31.5 acres of neighborhood parks, 11.55 acres of community parks, and 95.9 acres of further open space/parks, resulting in an aggregate public land dedication requirement of approximately 124.9 acres. MP Amendment 2 did not reduce the amount of dedicated open space within the approved Green Valley Ranch MP Amendment 1 and was not meant to stand alone but be a portion of the overall approved Green Valley Ranch MP. Therefore, any public land dedication (PLD) calculations should be inclusive of the entire MP area. Any PLD shortfalls for community park requirement will be provided with a cash in-lieu payment to the City accordance with City Code Section 147-48(b)(4).

Under this MP Amendment 3, the applicant will dedicate 31.5 acres for neighborhood parks, 11.55 acres Cash-In-Lieu payments for Community Parks, and another 81.9 acres to credited open space. As a part of the 95.9 acres the applicant will establish "pocket parks" within the development to minimize any gaps in service and provide open space for those with less outdoor living space. These are further described hereinafter as contemplated in the approved MP.

Pocket Parks will be maintained through one or more metropolitan districts, which will be implemented at the Site Plan (SP) stage. Applicant will determine the improvements and amenities for the pocket parks based on the criteria outlined below. These pocket parks will enhance the recreational and open space amenities afforded to Green Valley Ranch, and the Parks and Open Space Department Dedication and Development Criteria specifically mandate open space credit for such pocket parks. The City will also derive economic benefit from the implementation of this system because the pocket parks will not be dedicated to the City, and accordingly the City will not have to absorb ongoing maintenance responsibilities with respect thereto (which responsibilities the City would bear for

incremental neighborhood parks). From a policy standpoint, the desired land use utility to be derived is realized, but the City does not have to bear the resulting cost.

Update park amenity requirements per Tab 6 comments.

A pocket park within Planning Area 8 shall be a minimum ½ acre in size and include a trail connector to the main park. It will also include active play elements such as a basketball court and tot lot or similar.

Park requirements updated per comments received in adjustment language

Within Planning Area 9 a pocket park shall be included in the northeast, with a minimum size of one (1) acre and a minimum dimension of 200 feet. It will include active play elements such as a tot lot, soccer field or similar.

Additional facilities that may be provided to augment pocket park opportunities may include, but not be limited to playgrounds, picnic pavilions, basketball courts and volleyball courts depending on the needs of the neighborhood being served by the park and the character of adjoining land uses. Other improvements may include features that are supportive of a theme for the neighborhood or the development, such as public art at an appropriate scale.

The final location, size and park program for each pocket park will be determined in the SP based, in part, on the overall design intent of the neighborhood, the relationship of the park land to other land use components of the development and recreation facility needs.

When the parks and open space dedications and credits outlined above for the proposed MP are totaled (as summarized in the Form J table), they produce an aggregate area of approximately 127.4 acres. The MP also integrates the parks, open space and trail system in a coherent fashion that will effectively serve the recreational needs of the Green Valley Ranch community as well as greater interests of the City.

6. Park and Recreational Improvement Requirements

The applicable Metropolitan District(s) will be responsible for the parks and open space improvement owned by them within the MP Amendment 3 area. The City of Aurora will be responsible for maintenance of open space that's been dedicated to the City. The program elements for the parks to be improved by the applicable Metropolitan District(s) shall be limited to the list shown below. No further improvements will be required by the City. Refer to the Development Agreement for details on funding of the park improvements.

Applicant will construct pedestrian/bicycle/recreational trails provided for in the Open Space/Circulation/Neighborhood Map which is a part of MP Amendment 3. The 10-foot regional trails will be dedicated to and maintained by one or more of the metropolitan districts unless determined otherwise. The 8-foot and 6-foot community and neighborhood trails will be dedicated to and maintained by one or more of the metropolitan districts.

Neighborhood parks within Amendment 3 and the improvements therein (including irrigation) that are owned by and maintained by The District will be designed and constructed by the applicable Metropolitan districts(s). The following is a list of program elements that may be provided within a city neighborhood park in Green Valley Ranch.

Additional items may be provided at the discretion of the applicable Metropolitan District(s).

Potential Play Features that may include:

- Accessible Swings
- Accessible slides
- Sensory play equipment
- Separate play areas for ages 2-5- and 5-12-year-olds

Informal multi-purpose field

Loop trail system

Picnic pavilion with seating for 15 people

Picnic Tables

Grills

Benches (as needed)

Trash receptacles (as needed)

On street parking (no parking lot)

Landscaping with automatic irrigation system

Park sign

At the SP stage, the program elements shown above may be reduced in parks located adjacent to school sites in order to avoid duplication with equipment located on the school site.

Amend 3:

Revised narrative for amendment 3 area and its design criteria. Updated parks and OS dedication acreages.

9.2

Form J: Parks and Open Space Inventory and Phasing Approval					
A.	B.	C.	D.	E.	F.
Planning Area Designation (Or feature in an area)	Description and Inventory of Facilities	Total Acreage	Parks Dept. Credited Acreage	Final Ownership & Facility Funding	Phasing Plan and Trigger for Each Phase
PA-13	Neighborhood Park - Program elements that may be provided within a neighborhood park: Playground equipment for ages 2-5 and ages 5-12 (minimum 4000 sf), Informal multi-purpose field, Loop trail system, Picnic pavilion with seating for 15 people, Picnic Tables, Grills, Benches (as needed), Trash receptacles (as needed), On street parking (no parking lot), Landscaping with automatic irrigation system, Park sign, additional items may be provided at the discretion of the applicable Metropolitan District(s). Service area to include Planning Areas 5 and 6, which total 103.5 acres and 600 dwelling units. Conceptual design determined at SP. The neighborhood park will benefit recreation by including facilities for contemplative recreation that include seating areas and enhanced landscape for gathering and passive recreation as well as open grass areas that offer scenic vistas to the west, benefit conservation by preserving land to establish an interconnected park and open space system, and benefit education thru the implementation of land management practices that support interpretation goals. Trail connections to the school will be provided.	6.2	6.2	Metro District to construct and the City of Aurora to own/maintain.	Dedication concurrent with adjacent planning area final plats. Construction shall be complete by the issuance of the 300th certificate of occupancy within Planning Areas 5 and 6 combined or within 6 months of completion of infrastructure including adjacent roads and water service extension to the site, whichever is later.
PA-14	Neighborhood Park - Program elements that may be provided within a neighborhood park: Playground equipment for ages 2-5 and ages 5-12 (minimum 4000 sf), Informal multi-purpose field, Loop trail system, Picnic pavilion with seating for 15 people, Picnic Tables, Grills, Benches (as needed), Trash receptacles (as needed), On street parking (no parking lot), Landscaping with automatic irrigation system, Park sign, additional items may be provided at the discretion of the applicable Metropolitan District(s). Service area to include Planning Area 7, which totals 91.9 acres and 542 dwelling units. Conceptual design determined at SP. Other improvements may include features that are supportive of a theme for the neighborhood or the development, such as public art at an appropriate scale. Conceptual design determined at SP. The neighborhood park will benefit recreation by providing trail connections to the school and facilities primarily oriented to active recreation, including athletic fields, sports courts, playgrounds, etc. that will coordinate well with the neighboring school, benefit conservation by fostering the concept of outdoor classrooms by setting aside natural areas for environmental study, and benefit education with the provision of signs for environmental education for self guided learning or programmatic tours.	5.7	5.7	Metro District to construct and the City of Aurora to own/maintain.	Dedication concurrent with adjacent planning area final plats. Construction of the park shall be phased. The first phase including all programmatic elements of the park, except the multi-purpose playfield and a section of the internal park trail loop, shall be complete by the issuance of the 300th C.O. within planning areas 6 and 7 combined or within 6 months of completion of infrastructure including adjacent roads and water service extension to the site, whichever is later. Construction of the multi-purpose playfield and completion of the looped trail for Phase 2 shall be complete within 6 months of approval of final civil construction drawings for Tributary T, which should include design for the drainageway and Tibet Road, adjacent to the park.
PA-15	Neighborhood Park - Program elements that may be provided within a neighborhood park: Loop Trail System, Picnic Pavilion, Picnic Tables, Grills, Benches, Community Garden, Trash, Parking Lot, Landscape, Activity Systems, additional items may be provided at the discretion of the applicable Metropolitan District(s). Service area to include Planning Areas 1-4, which total 128.7 acres and 673 dwelling units. Other improvements may include features that are supportive of a theme for the neighborhood or the development, such as public art at an appropriate scale. Conceptual design determined at SP. The neighborhood park will benefit recreation by including facilities for contemplative recreation that include seating areas and enhanced landscape for gathering and passive recreation as well as trails throughout, benefit conservation by setting aside natural areas that have overlapping resources of value and interest for environmental study, and benefit education with the provision of signs for environmental education for self guided learning or programmatic tours.	3.0	3.0	Metro District to construct, own, and maintain.	Dedication concurrent with adjacent planning area final plat. Construction shall be complete by the issuance of the 400th certificate of occupancy within Planning Areas 1, 2, 3 and 4 combined or within 6 months of completion of infrastructure including adjacent roads and water service extension to the site, whichever is later.
PA-39	Neighborhood Park - Program elements that may be provided within a neighborhood park: Loop Trail System, Picnic Pavilion, Picnic Tables, Grills, Benches, Community Garden, Trash, Parking Lot, Landscape, Activity Systems, additional items may be provided at the discretion of the applicable Metropolitan District(s). Service area to include Planning Areas 8-9 and 70, which total 87.6 acres and 701 dwelling units. Other improvements may include features that are supportive of a theme for the neighborhood or the development, such as public art at an appropriate scale. Conceptual design determined at SP. The neighborhood park will benefit recreation by including facilities for contemplative recreation that include seating areas and enhanced landscape for gathering and passive recreation as well as trails throughout, benefit conservation by setting aside natural areas that have overlapping resources of value and interest for environmental study, and benefit education with the provision of signs for environmental education for self guided learning or programmatic tours. Separate play areas to be provided for age groups 2-5 and 5-12 year olds.	3.8	3.8	Metro District to construct, own, and maintain.	Dedication concurrent with adjacent planning area final plat. Construction shall be complete by the issuance of the 300th C.O. within planning area 9 or within 6 months of completion of infrastructure including adjacent roads and water service extension to the site, whichever is later.
PA-59	Neighborhood Park - Program elements that may be provided within a neighborhood park: Loop Trail System, Picnic Pavilion, Picnic Tables, Grills, Benches, Community Garden, Trash, Parking Lot, Landscape, Activity Systems, additional items may be provided at the discretion of the applicable Metropolitan District(s). Service area to include Planning Areas 45-46, which total 65.9 acres and 526 dwelling units. Other improvements may include features that are supportive of a theme for the neighborhood or the development, such as public art at an appropriate scale. Conceptual design determined at SP. The neighborhood park will benefit recreation by including facilities for contemplative recreation that include seating areas and enhanced landscape for gathering and passive recreation as well as trails throughout, benefit conservation by setting aside natural areas that have overlapping resources of value and interest for environmental study, and benefit education with the provision of signs for environmental education for self guided learning or programmatic tours.	3.4	3.4	Metro District to construct, own, and maintain.	Dedication concurrent with adjacent planning area final plat. Construction shall be complete by the issuance of the 300th certificate of occupancy within Planning Areas 45-46 combined or within 6 months of completion of infrastructure including adjacent roads and water service extension to the site, whichever is later.

Amend 3:
Revised acreage for
increased density

Sheet Title:

FORM J

Open Space, Circulation & Neighborhood Plan Master Plan

Project Title:

Green Valley Ranch Master Plan Amendment 3

Aurora, Colorado

GREEN VALLEY RANCH

PA-61	Neighborhood Park - Program elements that may be provided within a neighborhood park: Playground equipment for ages 2-5 and ages 5-12 (minimum 4000 sf), Informal multi-purpose field, Loop trail system, Event Space, Picnic pavilion with seating for 15 people, Picnic Tables, Grills, Benches (as needed), Trash receptacles (as needed), On street parking (no parking lot), Landscaping with automatic irrigation system, Park sign, additional items may be provided at the discretion of the applicable Metropolitan District(s). Service area to include Planning Areas 47-48, which total 17.8 acres and 371 dwelling units. Other improvements may include features that are supportive of a theme for the neighborhood or the development, such as public art at an appropriate scale. Conceptual design determined at SP. The neighborhood park will benefit recreation by including facilities for contemplative recreation that include seating areas and enhanced landscape for gathering and passive recreation as well as trails throughout, benefit conservation by setting aside natural areas that have overlapping resources of value and interest for environmental study, and benefit education with the provision of signs for environmental education for self guided learning or programmatic tours. Separate play areas to be provided for age groups 2-5 and 5-12 year olds.	3.0	3.0	Metro District to construct, own, and maintain.	Dedication concurrent with adjacent planning area final plat. Construction shall be complete by the issuance of the 200th certificate of occupancy within Planning Areas 47-48 combined or within 6 months of completion of infrastructure including adjacent roads and water service extension to the site, whichever is later.
PA-62	Neighborhood Park - Program elements that may be provided within a neighborhood park: Playground equipment for ages 2-5 and ages 5-12 (minimum 4000 sf), Informal multi-purpose field, Loop trail system, Event Space, Dog Park, Activity Systems, Picnic Tables, Grills, Benches (as needed), Trash receptacles (as needed), On street parking (no parking lot), Landscaping with automatic irrigation system, Park sign, additional items may be provided at the discretion of the applicable Metropolitan District(s). Service area to include Planning Areas 49-52, which total 98.4 acres and 860 dwelling units. Other improvements may include features that are supportive of a theme for the neighborhood or the development, such as public art at an appropriate scale. Conceptual design determined at SP. The neighborhood park will benefit recreation by including facilities for contemplative recreation that include seating areas and enhanced landscape for gathering and passive recreation as well as trails throughout, benefit conservation by setting aside natural areas that have overlapping resources of value and interest for environmental study, and benefit education with the provision of signs for environmental education for self guided learning or programmatic tours. Separate play areas to be provided for age groups 2-5 and 5-12 year olds.	6.4	6.4	Metro District to construct, own, and maintain.	Dedication concurrent with adjacent planning area final plat. Construction shall be complete by the issuance of the 400th certificate of occupancy within Planning Areas 49, 50, 51 and 52 combined or within 6 months of completion of infrastructure including adjacent roads and water service extension to the site, whichever is later.
PA 16, 33, 35-37, 58, 64-68	Open Space in minimum 30' wide Corridors with minimum 6' trails, street furniture, shade structures, vista points, and outdoor art. These open spaces provide conservation benefits by preserving land to establish an interconnected park and open space system throughout the development and recreational benefits with the provision of trails and paths. Conceptual design determined at SP. PA 58 & 64 will be required 30' wide corridor and 8' trail Min. Activiy nodes and parks will be provided along the trails.	36.6	36.6	Metro District to construct, own, and maintain.	Dedication concurrent with final plats adjacent to the site dedication. Improvements and landscaping to be completed with construction of associated drainage improvements.
PA 60	Open Space in minimum 40' wide Corridors with minimum 8' meandering trails, street furniture, shade structures, vista points, and outdoor art. These open spaces provide conservation benefits by preserving land to establish an interconnected park and open space system throughout the development and recreational benefits with the provision of trails and paths. Conceptual design determined at SP.	12.8	12.8	Metro District to construct, own, and maintain.	Dedication concurrent with final plats adjacent to the site dedication. Improvements and landscaping to be completed with construction of associated drainage improvements.
**PA: 17-20, 22-24	Open Space in 200-400 foot wide Open Space Corridor with trails, site furnishings, shade structures, vista points, and outdoor art. These open spaces provide conservation benefits by preserving land to establish an interconnected park and open space system throughout the development and recreational benefits with the provision of trails and paths. Conceptual design determined at SP.	38.0	38.0	Metro District to construct, own, and maintain.	Dedication concurrent with final plats adjacent to the site or approval of the CLOMR/LOMR and construction of drainage improvements, whichever is later. Improvements and landscaping to be completed with construction of associated drainageway.
PA-21	Windler Homestead	1.6	1.6	City of Aurora to own and maintain, Metro District to construct.	Dedication to be concurrent with dedication of adjacent open space by Windler under the Windler MP entitlements(AC37). Landscaping and maintenance by Windler as outlined in the Agreement Regarding Realignment of Tibet Street South of 48th Avenue, executed March 2004.
PA 31, 32, 34, 38, 40, 41, 56, 57, 69	Pocket parks will be typically located on a local street and be bordered by low intensity uses, including primarily residential lots. Open turf lawns suitable for informal play and games, landscaping and site furniture such as benches, tables, trash receptacles and lighting will be the standard program for each site. Additional facilities that may be provided to augment pocket park opportunities may include but not be limited to playgrounds, picnic pavilions, basketball courts and volleyball courts depending on the needs of the neighborhood being served by the park and the character of adjoining land uses. Other improvements may include features that are supportive of a theme for the neighborhood or the development, such as public art at an appropriate scale. Conceptual design determined at SP. The pocket parks will provide a combination of conservation, recreational, and educational benefits.	6.9	6.9	Metro District to construct, own, and maintain.	Metro District improvements complete prior to issuance of 50% of C.O.'s of residential units within the Filing in which the proposed pocket park is located.
Landscape Medians	Located in 6-Lane Arterials. Refer to Open Space / Circulation / Neighborhood Map for specific locations.	N/A	N/A	Metro District to construct and the City of Aurora to own/maintain.	Construction by Metro District per P&OSD Dedication & Development Criteria Manual. To be dedicated to the City for maintenance.
TOTAL		127.4	127.4		125.6 acres of neighborhood park and open space provided.
Director of Parks, Recreation, and Open Space					
Date:_____ Signature:_____					

*Community Park deficit to be made up thru cash in lieu at time of first plat within PA45-54, 6.6 AC. of the required 11.27 Ac. have been paid to date.
** Approximately 24.75 AC. (19.7%) of the credited open space is within the 100 Year Floodplain. Intended for Floodplain Purposes only.

Amend 3:
Revised acreages of parks and open space for increased unit count. Added PA69 pocket park

Sheet Title:

FORM J

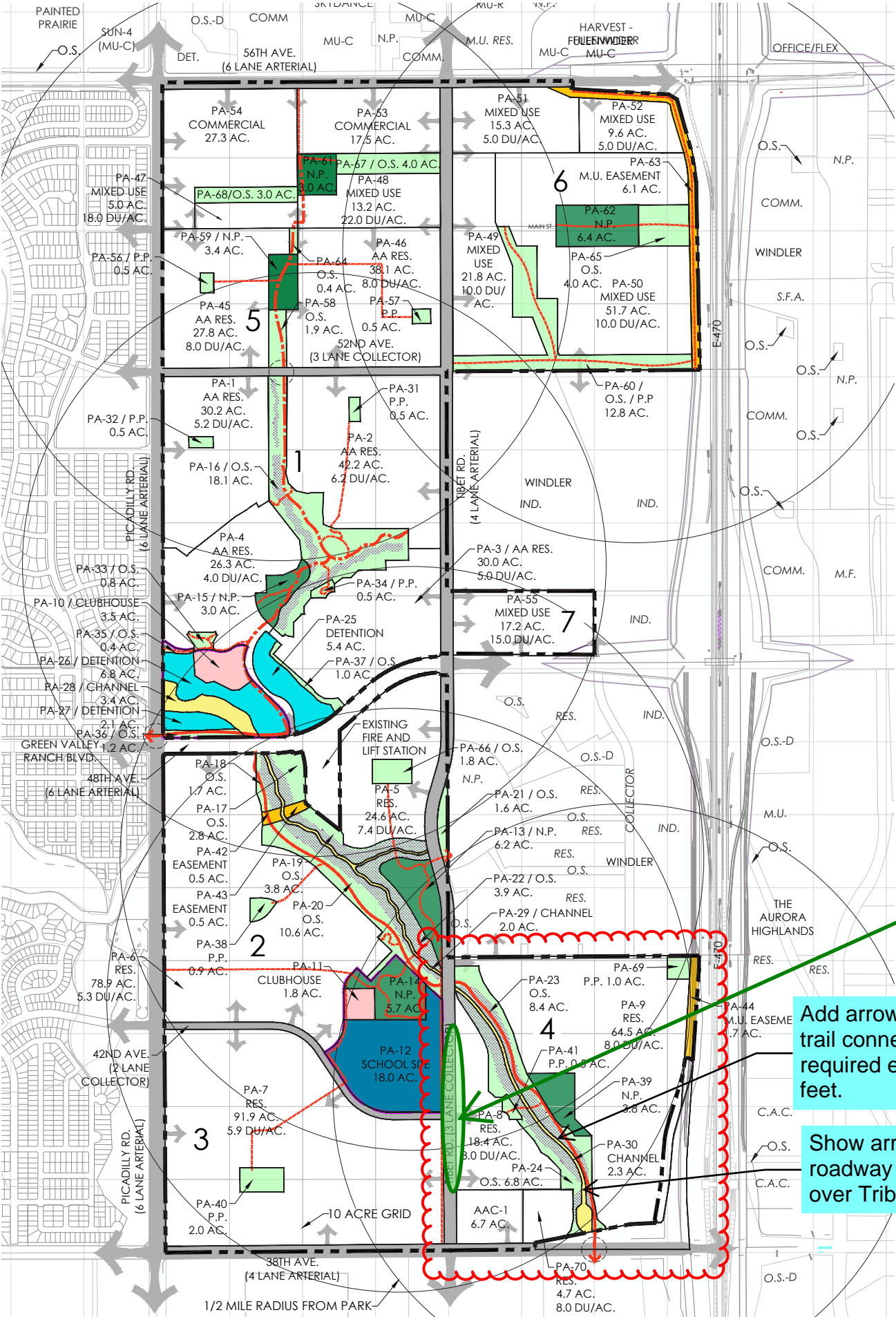
Open Space, Circulation & Neighborhood Plan Master Plan

Project Title:

Green Valley Ranch Master Plan Amendment 3

Aurora, Colorado

GREEN VALLEY RANCH



LEGEND

- 6 LANE ARTERIAL (144' ROW)
- 4 LANE ARTERIAL (114' ROW)
- 3 LANE COLLECTOR (80' ROW)
- 2 LANE COLLECTOR (80' ROW)
- OPEN SPACE
- DETENTION POND
- CHANNEL
- EASEMENT
- CLUBHOUSE
- NEIGHBORHOOD PARK
- SCHOOL SITE
- 100 YEAR FLOODPLAIN
- PROPOSED ENTRY POINT
- NEIGHBORHOOD BOUNDARY & NUMBER
- RIGHT OF WAY
- 10' REGIONAL TRAIL
- 8' COMMUNITY TRAIL
- 6' NEIGHBORHOOD TRAIL
- POTENTIAL GRADE SEPARATED REGIONAL TRAIL CROSSING

O.S. = OPEN SPACE
N.P. = NEIGHBORHOOD PARK
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IND. = INDUSTRIAL
M.F. = MULTI FAMILY
COMM. = COMMERCIAL

Tibet is a 3 lane collector between 38th and 48th. TIS has been revised to correct that.

Per the TIS, Tibet Road should be a 4-lane Collector at a minimum. Please Revise. NEATS shows this section of Tibet Road as a Minor Arterial.

Arrows added for trail connections and road crossing across Trib T

Add arrows for future trail connections - required every 700 feet.

Show arrows for roadway crossing over Trib T.

Amend 3: Revised residential planning areas and parks and open space

NOTE: Feasibility studies for potential grade separated regional trail crossings will be conducted during the corresponding SP.

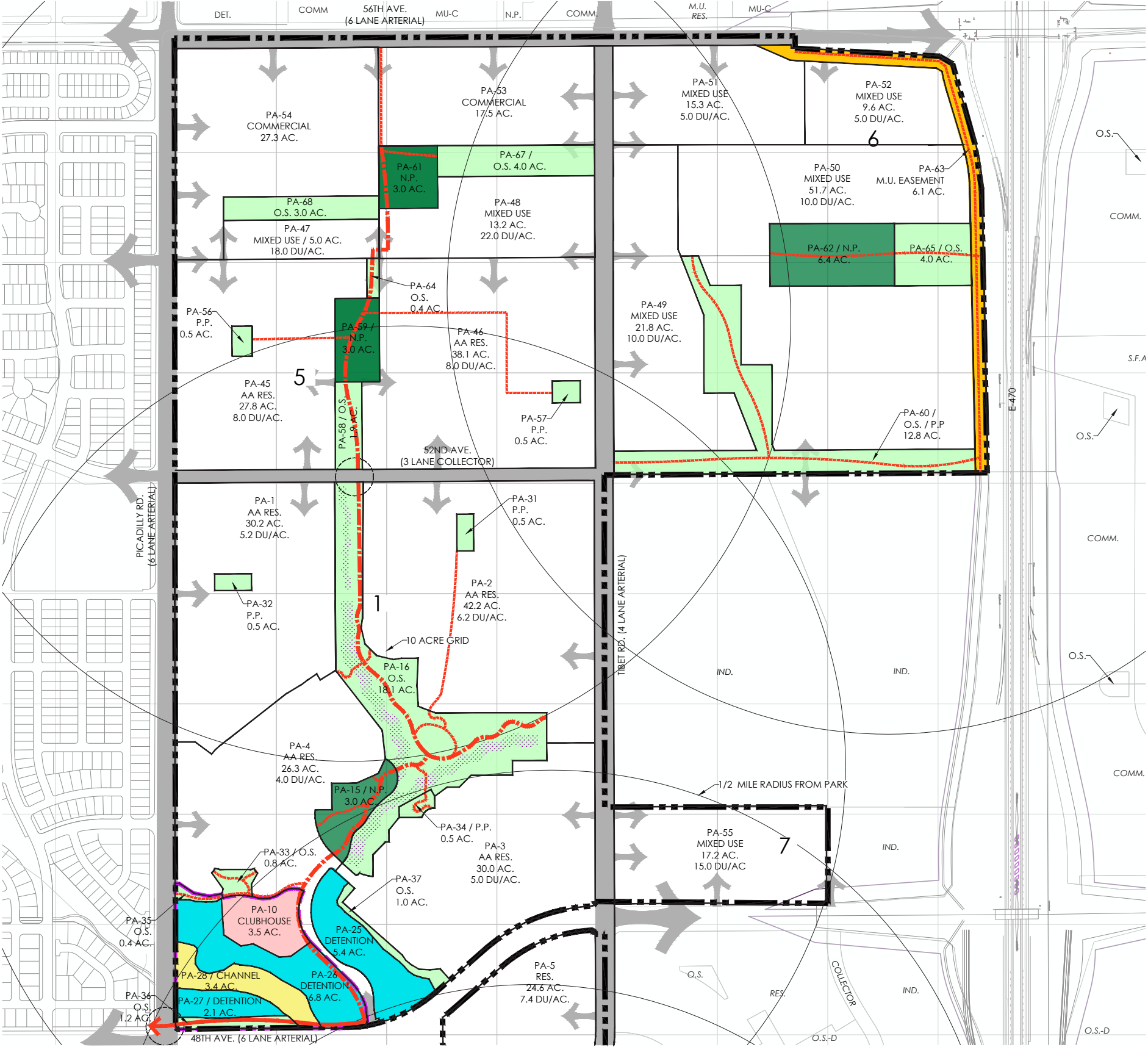


Sheet Title:
**OPEN SPACE PLAN
OVERALL**
Open Space, Circulation & Neighborhood Plan Master Plan

Project Title:
Green Valley Ranch Master Plan Amendment 3
Aurora, Colorado

GREEN VALLEY RANCH

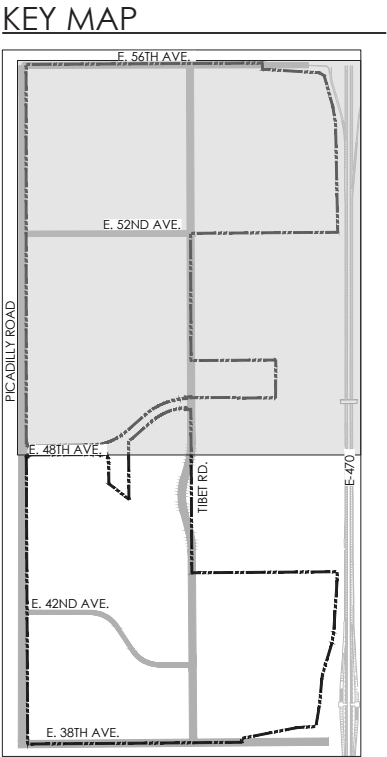
TAB 9.3



LEGEND

- 6 LANE ARTERIAL (144' ROW)
- 4 LANE ARTERIAL (114' ROW)
- 3 LANE COLLECTOR (80' ROW)
- 2 LANE COLLECTOR (80' ROW)
- OPEN SPACE
- DETENTION POND
- CHANNEL
- EASEMENT
- CLUBHOUSE
- NEIGHBORHOOD PARK
- SCHOOL SITE
- 100 YEAR FLOODPLAIN
- PROPOSED ENTRY POINT
- 1 NEIGHBORHOOD BOUNDARY & NUMBER
- RIGHT OF WAY
- 10' REGIONAL TRAIL
- 8' COMMUNITY TRAIL
- 6' NEIGHBORHOOD TRAIL
- POTENTIAL GRADE SEPARATED REGIONAL TRAIL CROSSING

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SCALE

0 150 300 600 1200

Sheet Title:

OPEN SPACE PLAN

SHEET 1

Open Space, Circulation & Neighborhood Plan Master Plan

Project Title:

Green Valley Ranch Master Plan Amendment 3

Aurora, Colorado

GREEN VALLEY RANCH

NOTE: Feasibility studies for potential grade separated regional trail crossings will be conducted during the corresponding SP submittals.



Amend 3:
Revised residential planning
areas and parks and open
space

Per the TIS, Tibet Road should be
a 4-lane Collector at a minimum.
Please Revise. NEATS shows
this section of Tibet Road as a
Minor Arterial.

Tibet is a 3 lane collector
between 38th and 48th. TIS has
been revised to correct that.

Show arrows for
roadway crossing
over Trib T.

Arrows added for trail
connections and road crossing
across Trib T

LEGEND

- 6 LANE ARTERIAL (144' ROW)
- 4 LANE ARTERIAL (114' ROW)
- 3 LANE COLLECTOR (80' ROW)
- 2 LANE COLLECTOR (80' ROW)
- OPEN SPACE
- DETENTION POND
- CHANNEL
- EASEMENT
- CLUBHOUSE
- NEIGHBORHOOD PARK
- SCHOOL SITE
- 100 YEAR FLOODPLAIN
- PROPOSED ENTRY POINT
- 1 NEIGHBORHOOD BOUNDARY & NUMBER
- RIGHT OF WAY
- 10' REGIONAL TRAIL
- 8' COMMUNITY TRAIL
- 6' NEIGHBORHOOD TRAIL
- POTENTIAL GRADE SEPARATED REGIONAL TRAIL CROSSING
- O.S. = OPEN SPACE
- N.P. = NEIGHBORHOOD PARK
- P.P. = POCKET PARK
- RES. = RESIDENTIAL
- IND. = INDUSTRIAL
- M.F. = MULTI FAMILY
- COMM. = COMMERCIAL



Sheet Title:
OPEN SPACE PLAN
SHEET 2
Open Space, Circulation &
Neighborhood Plan
Master Plan

Project Title:
**Green Valley Ranch Master
Plan Amendment 3**
Aurora, Colorado

**GREEN VALLEY
RANCH**

NOTE: Feasibility studies for potential grade separated regional trail crossings will be conducted during the corresponding SP submittals.

March 14, 2025

Aurora Water
Attn: Nina Khanzadeh
15151 E. Alameda Pkwy.
Aurora, CO 50012

RE: Green Valley Master Plan Amendment 3 Master Utility Report Conformance Letter

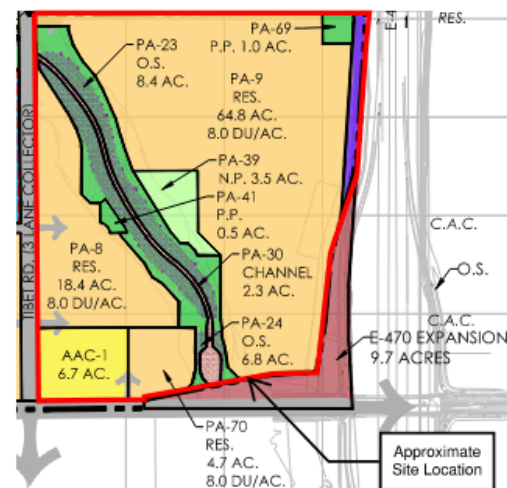
Dear Nina,

This letter is provided to Aurora Water to confirm that utility design for the Green Valley Master Plan Amendment 3, herein after called Site or the Project, conforms to the *Green Valley – Amendment 1 Master Utility Report* (EDN #218184). This narrative provides a description of the Project and a summary of the sanitary sewer and water infrastructure needed to serve the proposed uses and density with the Project.

The Project is located within Section 24 within Township 3 South, Range 66 West of the Sixth Principal Meridian, City of Aurora, County of Adams, and State of Colorado. The Site is bounded on the north by Windler properties, on the west by North Tibet Road, on the south by East 38th Avenue, and on the east by E-470. The Project comprises of a mix of proposed uses including residential and commercial with associated amenities, parks, and open spaces. The Project has been divided into Planning Areas (PAs) to identify the areas and uses planned within the Site. A Vicinity Map has been provided as Figure 1 to depict the Project and the surrounding area. PA-8, PA-9, and PA-70 are zoned as residential (RES.), AAC-1 is Admin Activity Center (A.A.C.), PA-44 is Multi-use Easement (M.U.E.), and PA-23, 24, 39, 41, and 69 are parks and open space (N.P., P.P., & O.S.). For the purposes of this report, AAC-1 has been assumed to consist of High Density Residential in order to provide a conservative estimate for the demands generated from this area. Civil infrastructure will be developed to support the Project in the form of roadways, water distribution system, sanitary sewer system and storm sewer system. The *Green Valley – Amendment 1 Master Utility Report* (EDN #218184) was referenced while reviewing for utility design conformance. The *Winder Master Utility Study* (EDN #222155), and *Aurora Highlands Utility Report Amendment 2* (EDN #219069), were used for reviewing offsite sanitary flows that are tributary to the First Creek Lift Station.

Sanitary Sewer

The Site is located in two separate basins as previously identified within the Amendment 1 MUR. The west half of the Site, including PA-8, PA-70, and AAC-1, are in Basin 7 while the east half of the Site, including PA-9, is in Basin 5. Both of these basins are conveyed to the First Creek Lift Station, located near the intersection of East 48th Avenue and Rome Street. As a portion of the Green Valley Ranch East development, two sanitary sewer connection points were planned to provide outfall locations for the Site. A 10-inch sanitary sewer stub was built at the northern edge of PA-8 in North Tibet Road (EDN # 221249) for Basin 7. Meanwhile an 8-inch sanitary sewer stub was built at the northern edge of PA-9 in North Tibet Road (EDN # 221298) for Basin 5.



Average daily flows for the Site were calculated based on the recommended sewer loading rates in Section 5.03 of Aurora Water's 2024 Water, Sanitary Sewer & Storm Drainage Infrastructure Standards & Specifications. A minimum peaking factor of 1.7, maximum peaking factor of 4.0,

Please confirm with MCC and HR Green regarding OS-12 basin. Subsequent to the conversation on 2/5/2025, Ryan Littleton with HR Green indicated that they will still need to utilize this sanitary sewer basin. Please confirm and provide necessary flow rates for basin OS-12, update MUS to show conformance with GVRE's master plan.

and minimum slopes of 0.4 % were used to confirm pipe capacity percentages remain below 75 % for peak flows for pipe sizes 12-inches or smaller and 80% for pipe sizes larger.

Confirmed with HR Green that flows of 0.32 MGD from the Majestic Commercial Center (MCC) will be entering the site through DP-17. Letter updated to include this information.

This amendment includes revisions to land use, area, density, and makes up the entire 64.5 acres of Basin 5 with a proposed design which is comprised of a portion of Filing 7 (EDN #221285), PA-8, PA-70, and AAC-1. For the purposes of this report, the A.A.C zoning for this Master Plan Amendment will be designed to the worst-case scenario land use permitted in this zoning. Therefore, AAC-1 has been assumed to consist of High Density Residential (20 du/ac) in order to provide a conservative estimate for the demands generated from this area. PA-8 and PA-70 are proposed as Residential (8 du/ac).

During the preparation of this letter, it was found that there appeared to be an area discrepancy for what the Green Valley - Amendment 1 Master Utility Report (EDN #218184) used for calculations for Basin 7 versus the area originally shown on the Master Utility Plan for Basin 7. The calculations for Basin 7 used 28.5 acres, meanwhile the actual area of Basin 7 in the utility map was closer to 60.5 acres. This means that the downstream sanitary sewer infrastructure was undersized even before the proposed changes implemented with this Amendment. However, based on email discussions with City of Aurora (COA) staff on 2/5/2025, flows from the Majestic Commerce Center (Basin OS-12) are now being directed southwest to connect to the new 24-inch sanitary sewer line. The original OS-12 basin flows were assumed to flow north across 38th Avenue and enter the Green Valley Ranch East development at Design Point 17. With these flows removed, this provides some relief in the pipe capacity proposed with the on-Site sanitary sewer system for PA-8. Additional information regarding the original MUR calculation discrepancy and COA direction is provided below and in the Appendix of this letter. With the updates to PA-8 with this Amendment and the design shown in the Green Valley Ranch East Subdivision Filing 7 Construction Documents (EDN #221285), the tributary area of Basin 7 is now anticipated to be 52.45 acres. Calculations showing Basin 7 with its updated area are also provided in the Appendix of this letter.

TABLE 1: PEAK FLOW + I&I COMPARISON – SCENARIO 1			
BASIN ID	AMENDMENT 1 (EDN #218184) (GPD)	PROPOSED (GPD)	DIFFERENCE (GPD)
Basin 5	342,720	398,494	55,774
Basin 7	138,240	352,776	214,536
Basin OS-12	649,440	0	-649,440

As can be seen above in Table 1, overall peak flows generated from Basin 5 & Basin 7 have been increased from Green Valley - Amendment 1 Master Utility Report (EDN #218184) but the sanitary sewer system within PA-8 is less due to Basin OS-12 being

Table updated to show flow from MCC per HR Green email coorespondance.

The proposed Site sanitary sewer infrastructure has been sized to service the proposed uses associated with Green Valley Master Plan Amendment 3 while also meeting the Aurora Water 2024 criteria. The proposed system will contain 8-inch and 10-inch gravity sewer mains which is consistent with the Green Valley - Amendment 1 Master Utility Report (EDN #218184) maps attached to this Report. Gravity sewer mains serving future PA-8, PA-70, and AAC-1 have the potential to be downsized to an 8-inch based on final site plan configuration. Deviation from the 10-inch gravity sewer proposed with this letter is allowed but must be justified and approved with the future Construction Documents. All calculations are provided in the Appendix of this letter.

TABLE 2: DESIGN POINT PIPE CAPACITY COMPARISON

DESIGN POINT	AMENDMENT 1 (EDN #218184)	AMENDMENT 1 W/ CORRECTED PA-8 AREA	PROPOSED
DP-17	56%	56%	N/A
DP-18	64%	71%	40%
DP-19	70%	77%	45%

Table 2 is provided to compare and confirm pipe capacity percentages between Amendment 1 and the proposed Site. The revised Amendment 1 calculations using the correct area assumption for PA-8 are shown above to detail that the downstream sanitary sewer infrastructure was undersized even before the proposed changes were implemented with this Amendment. However, since the flows from the Majestic Commerce Center (Basin OS-12) are now being directed southwest, depth of flow in the proposed or downstream sanitary sewer system does not exceed seventy-five percent (75%) capacity for pipes 12-inches or smaller.

Water System:

The Site was modeled for four scenarios: Average Day, Max Daily, Max Hour, and Fire Flow Analyses. PA-8, PA-9, and PA-70 are proposed as Residential (8 du/ac). AAC-1, part of Basin 7, is being zoned as AAC with this master plan amendment. However, due to the uncertainty of the future use of this PA, calculations with this letter assume worst case scenario in order to provide flexibility for the developer in the future. Worst case scenario flows for AAC-1 were calculated using a high-density residential use of 20 du/ac. As a portion of the Green Valley Ranch East development and 38th Avenue Roadway Plans, four (4) water connection points were intended for the Site to meet future demands. A 12-inch water line was installed with *38th Avenue Roadway Improvement Plans and Storm Water Management Plan, East of Tibet to E470 Phase II* (EDN #224183), *Green Valley Ranch East Tibet Road Phase 1* (EDN #221249), and *Green Valley Ranch East Tibet Road Phase 2* (EDN #221298) with five (5) future 8-inch PA-8 and PA-9 connections. PA-8 will tie into Junction J-4, J-7, J-100, and J-130 to provide a looped water system for the Planning Area as well as through AAC-1 to connect onto 38th Avenue at Junction J-5. PA-9 will tie into Junction J-132 located in Tibet Road Phase 1 as well as into Junction J-5 in PA-8.

The maximum (peak) hourly and maximum day demands are based on peaking factors of 4.5:1 for Max Hour: Average Day and 2.8:1 Max Day: Average Day as required per Section 5.02 of the 2024 Water, Sanitary Sewer & Storm Drainage Infrastructure Standards & Specifications. The system was analyzed by delineating major water mains on-Site to evaluate serviceability, fire flows and required minimum system pressures. The tables below present results and criteria used within the modeling analysis.

TABLE 3: MODEL RESULTS SUMMARY

Maximum Pressure	117 psi (Junction J-101, Max Hour)
Minimum Residual Pressure	104 psi (Junction J-1, Max Hour)
Peak Hour Maximum Pipe Velocity (8-12 inches)	2.04 fps, 1.1 ft/1000 ft Head loss, Pipe P-18

TABLE 4: MAX VELOCITY AND HEAD LOSS REQUIREMENTS BASED ON PIPE DIAMETER

PIPE DIAMETER (IN)	MAX VELOCITY (FPS)	HEAD LOSS NOT TO EXCEED (FT/1,000 FT)
6	2.5	5
8 to 12	3	5
16-24	4.5	5
Over 24	4.5	2

TABLE 5: FIRE FLOW DEMAND BY LAND USE TYPE

USE CLASSIFICATION	FIRE FLOW DEMAND
Residential	1500 gpm for 2 hours
Commercial/Multifamily	2500 gpm for 2 hours
Industrial	4000 gpm for 3 hours

We conclude that the proposed sanitary sewer and domestic water infrastructure for the Green Valley Amendment 3 Master Plan Amendment conforms to requirements determined by *The Green Valley – Amendment 1 Master Utility Report* (EDN #218184).

Sincerely,

Sue Sibel, PE

Senior Associate, Department Manager

APPENDIX

FIGURES AND SUPPORTING DOCUMENTS

Pages from Green Valley–Amendment 1 Master Utility Report

EDN #218184



GREEN VALLEY - AMENDMENT 1 SANITARY SEWER GENERATION

RESIDENTIAL		
Single-Family Population Density	2.77	People per Unit
Age Restricted Population Density	2.50	People per Unit
Average Flow Generation	68	gpcpd

MIXED USE	
Unit density of 10 units/acre was assumed and equivalent population was calculated with the Single-Family residential population density of 2.77	

COMMERCIAL		
Average Flow Generation	1,500	gpd/acre
	0.0023	cfs/acre
Equivalent Population	22	capita/acre

PEAKING FACTOR			
Where p = Population in thousands			
PF = 5/(p^0.167)			
Min. PF =	1.7	Max. PF =	4.0

SCHOOLS / INDUSTRIAL		
Average Flow Generation	1,200	gpd/acre
	0.0019	cfs/acre
Equivalent Population	18	capita/acre

PIPE CAPACITY (cfs) n = 0.011			
PIPE SIZE (IN)	0.4% SLOPE	0.25% SLOPE	
8	0.82	0.65	
10	1.49	1.18	
12	2.43	1.92	
15	4.72	3.73	
18	7.67	6.07	
24	16.53	13.07	
30	29.97	23.69	
36	48.73	38.52	
42	73.50	58.11	

DESIGN POINT	BASIN	LAND USE	TOTAL ACRES	DENSITY (UNITS/AC)	NO. OF LOTS	EQUIVALENT POPULATION	AVG. DAY FLOW (CFS)	AVG. DAY FLOW (GPD)	AVG. DAY FLOW (GPM)	INFILTRATION @ 10% (GPM)	PEAKING FACTOR	PEAK FLOW (GPM)	PEAK FLOW + INFILTRATION (GPM)	PEAK FLOW + INFILTRATION (CFS)	Estimated Size at 0.4% (IN)	Pipe Percent Full at 0.4% (%)	Existing Pipe Size (IN)	COMMENTS
1	Offsite Basin 310-1	Mixed Use	142.4		-	3,227	0.246	158,994	110	11.0	4.0	442	453	1.01	10	57		Offsite Basin 310-1
2	Offsite Basin 310-2	SF Residential	57.9	5.0	290	802	0.084	54,530	38	3.8	4.0	151	155	0.35	8	43		Offsite Basin 310-2
3	Offsite Basin 310-3	SF Residential	70.4	5.0	352	975	0.103	66,303	46	4.6	4.0	184	189	0.42	8	48		Offsite Basin 310-3
3a	Design Point Total (Option 2 w/ 310-2)					1,777	0.187	120,833	84	8.4	4.0	336	344	0.77	8	71		Offsite Basin 310-2 + 310-3 (see Notes 1 and 4)
4	Basin 1	SF Resid. (Age Restricted)	47.6	5.8	276	690	0.073	46,920	33	3.3	4.0	130	134	0.30	8	40		Basin 1
	Design Point Total					690	0.073	46,920	33	3.3	4.0	130	134	0.30	8	40		
5	Basin 2	SF Resid. (Age Restricted)	32.6	5.8	189	473	0.050	32,130	22	2.2	4.0	89	91	0.20	8	32		Basin 1 + 2
	Design Point Total					1,163	0.122	79,050	55	5.5	4.0	220	225	0.50	8	53		
6	Offsite Basin 4 (GVR D-6)	Mixed Use	106.5		-	2,785	0.345	222,979	155	15.5	4.0	619	635	1.41	10	72		Offsite Basin 4 (GVR D-6)
	Design Point Total (Option 2 w/ 310-1)					6,012	0.591	381,973	265	26.5	3.7	983	1,010	2.25	12	71		Offsite Basin 4 + 310-1 (see Note 2)
7	Basin 3	SF Resid. (Age Restricted)	29.3	5.8	169	423	0.044	28,730	20	2.0	4.0	80	82	0.18	8	30		Offsite Basin 4 + Basin 1 + 2 + 3
	Design Point Total					3,208	0.337	218,110	151	15.1	4.0	606	621	1.38	10	70		
7a	Design Point Total (Option 2 w/ 310-1)					6,435	0.677	437,546	304	30.4	3.7	1,113	1,144	2.55	15	52		Offsite Basin 4 + Basin 1 + 2 + 3
	Design Point Total					4,370	0.512	330,759	230	23.0	3.9	898	921	2.05	12	66		
8	Design Point Total (Option 2 w/ 310-1)					7,597	0.758	489,753	340	34.0	3.6	1,212	1,246	2.78	15	54		Offsite Basin 4 + Basin 1 + 2 + 3
	Basin 4	SF Resid. (Age Restricted)	27.5	5.8	159	398	0.042	27,030	19	1.9	4.0	75	77	0.17	8	29		
	Design Point Total					1,373	0.144	93,333	65	6.5	4.0	259	266	0.59	8	59		Offsite Basin 310-3 + Basin 4 (see Note 4)
	Design Point Total (Option 2 w/ 310-2)					2,174	0.229	147,863	103	10.3	4.0	411	421	0.94	10	54		
9	Design Point Total					6,905	0.778	503,142	349	34.9	3.6	1,265	1,300	2.90	15	56		Design Point 5 + Design Point 7 + Design Point 8 (see Note 4)
	Design Point Total (Option 2 w/ 310-2)					7,707	0.965	623,975	433	43.3	3.6	1,541	1,584	3.53	15	64		
	Design Point Total (Option 2 w/ 310-1 & 310-2)					10,934	1.211	782,969	544	54.4	3.4	1,823	1,878	4.18	15	72		
																		(see Notes 1, 2 and 4)
10	Offsite Basin 310-4	Commercial	18.5			407	0.043	27,676	19	1.9	4.0	77	79	0.18	8	30		Offsite Basin 310-4
11	TAH (DP 18)	Mixed Use	2,109.0			104,435	7.425	4,798,903	3333	333.3	2.3	7,667	8,000	17.82	30	55		From The Aurora Highlands (TAH) Master Utility Report
12	Offsite Basin 5 (GVR D-7)	Mixed Use	62.8			1,423	0.187	120,861	84	8.4	4.0	336	344	0.77	8	71		From Lund Green Valley Report (GVR D-7)
	Design Point Total					2,190.3	7.655	4,947,440	3436	343.6	2.3	7,881	8,225	18.32	30	56		TAH (see Note 3)
13	Basin 5	SF Residential	70.4	6.3	443	1,227	0.129	83,443	58	5.8	4.0	232	238	0.53	8	55		Basin 5
14	Offsite Basin 6 (GVR C-30)	Mixed Use	64.0			1,408	0.174	112,459	78	7.8	4.0	312	320	0.71	8	67		From Lund Green Valley Report (GVR C-30)
	Design Point Total					134.4	0.303	195,903	136	13.6	4.0	544	558	1.24	10	65		Offsite Basin 6 + Basin 5
15	Design Point Total					2,324.7	7.958	5,143,343	3572	357.2	2.3	8,160	8,517	18.88	30	57	36"	TAH + Offsite Basin 5 + 6 + Basin 5 (see Note 3)
16	Basin 6	SF Residential	25.6	4.1	104	288	0.030	19,589	14	1.4	4.0	54	56	0.12	8	25		Basin 6
	Design Point Total					2,350.3	7.988	5,162,932	3585	358.5	2.3	8,187	8,546	19.04	30	57	42"	TAH + Offsite Basin 5 + 6 + Basin 5 + 6 (see Note 3)
17	Offsite Basin 12 (GV OFS-12)	Mixed Use	87.4		-	1,981	0.245	158,348	110	11.0	4.0	440	451	1.00	10	56		Offsite Basin 12 (GV OFS-12)
18	Basin 7	SF Residential	28.5	6.3	179	496	0.052	33,716	23	2.3	4.0	94	96	0.21	8	33		Basin 7
	Design Point Total					115.9	0.297	192,064	133	13.3	4.0	534	547	1.22	10	64		Basin 7 + Offsite Basin 12
19	Basin 8	School	18.0	-	-	324	0.033	21,600	15	1.5	4.0	60	62	0.14	8	27		Basin 8
	Design Point Total					133.9	0.331	213,664	148	14.8	4.0	594	608	1.36	10	70		Basins 7+8 + Offsite Basin 12
20	Offsite Basin 13	Mixed Use		-	-							5,157	11.49	24	61	30" @ 0.15%		Offsite Basin 13
21	Basin 9	SF Residential	90.9	6.3	572	1,584	0.167	107,742	75	7.5	4.0	299	307	0.68	8	65		Basin 9
	Design Point Total											5,464	12.17	24	63	30" @ 0.15%		Basin 9 + Offsite Basin 13
21.1	Basin 9.1	SF Residential	33.6	6.3	212	587	0.062	39,932	28	2.8	4.0	111	114	0.25	8	36		Basin 9.1
	Design Point Total					125						5,577	12.43	24	64	30" @ 0.15%		
22	Basin 10	SF Residential	47.2	6.3	297	823	0.087	55,943	39	3.9	4.0	155	159	0.35	8	43		Basin 10
22.1	Design Point Total					297.0	0.714	246,399	171	17.1	4.0	684	702	1.56	12	55		Basins 7+8+10 and Offsite Basin 12
LS	Design Point Total											6,279	13.99	24	69	30" @ 0.15%		Basins 7+8+9+10 + Offsite Basins 12+13
												16,702	37.21	42	64			All Basins
SITE TOTALS		SF Resid. (Age Restricted)	137.0		793	1,983	0.209	134,810	94	9.4	4.0	374	384	0.86				
		SF Residential	296.3		1807	5,005	0.465	340,367	236	23.6	3.8	903	927	2.06				
		School	18.0		-	324	0.033	21600	15	1.5	4.0	60	62	0.14				

NOTE 1: For analysis purposes, Option 2 requires a lift station to convey flows from Basin 310-2 along Piccadilly Rd to Design Point 3a
NOTE 2: For analysis purposes, Option 2 requires a lift station to convey flows from Basin 310-1 along Tibet Rd to Design Point 6
NOTE 3: There is an existing 36" or 42" sanitary sewer main in this area
NOTE 4: Sanitary Sewer Pipe runs at 0.25% slope near and along Rome St (Design Points 7a, 8 and 9)

AVERAGE DAY FLOW for Offsite Basin 310-1 and TRIBUTARY AREA for Offsite Basins 310-2 and 310-3 taken from 310 West Master Utility Report by Calibre Engineering
AVERAGE DAY FLOW for Offsite Basins 4, 5, 6 and 12 taken from Master Utility Report for Green Valley by The Lund Partnership, Inc. (2006)
PEAK FLOW + INFILTRATION for Offsite Basin 13 taken from HDR First Creek Interceptor Technical Memorandum 3 provided by COA (Parcels 26 and Parcels 32-38) with peaking factor of 2.25
AVERAGE DAY FLOW for Offsite Basin TAH taken from Master Utility Report for The Aurora Highlands by Calibre Engineering (2018)
SITE TOTALS are flows from Green Valley - Amendment 1 only

Pages from Master Utility Report for Green Valley Master Plan Amendment 2

DA-1662-25

TABLE 1: SANITARY SEWER DEMANDS										
BASIN CHARACTERISTICS			RESIDENTIAL ¹					NON-RESIDENTIAL		TOTAL
BASIN	LAND USE	AREA (ACRES)	MAXIMUM NO. UNITS	DENSITY (unit/acre)	POPULATION	AVERAGE DAILY FLOW PER UNIT (gpd)	AVERAGE FLOW (gpd)	AVERAGE DAILY FLOW PER ACRE	AVERAGE FLOW (gpd)	TOTAL AVERAGE SEWAGE FLOW (gpd)
PA-45	RESIDENTIAL	27.8	222	8	617	188.36	41891.26			
	TOTAL						41891.26	0.00		41891.26
PA-46	RESIDENTIAL	38.1	305	8	845	188.36	57412.13	0		
	TOTAL						57412.13	0.00		57412.13
PA-47	MIXED USE	5	90	18	250	188.36	16952.40	1500	7500	
	TOTAL						16952.40	7500.00		24452.40
PA-48	MIXED USE	13.2	290	22	805	188.36	54699.74	1500	19800	
	TOTAL						54699.74	19800.00		74499.74
PA-49	MIXED USE	21.8	218	10	604	188.36	41062.48	1500	32700	
	TOTAL						41062.48	32700.00		73762.48
PA-50	MIXED USE	51.7	517	10	1433	188.36	97382.12	1500	77550	
	TOTAL						97382.12	77550.00		174932.12
PA-51	MIXED USE	15.3	77	5	212	188.36	14409.54	1500	22950	
	TOTAL						14409.54	22950.00		37359.54
PA-52	MIXED USE	9.6	48	5	133	188.36	9041.28	1500	14400	
	TOTAL						9041.28	14400.00		23441.28
PA-53	COMMERCIAL	17.5					0.00	1500	26250	
	TOTAL						0.00	26250.00		26250.00
PA-54	COMMERCIAL	27.3					0.00	1500	40950	
	TOTAL						0.00	40950.00		40950.00
Brandenburg Parcel										
PA-55 ³	MIXED USE	17.2	258	15	715	188.36	48596.88	1500	25800	
	TOTAL						48596.88	25800.00		74396.88

1. Residential based on 68 gallons per capita per day, 2.77 people per residence

2. Windler Homestead Sanitary not tributary to Aurora 310 per Windler Master Utility Report, Revised June 22, by Olsson

3. Basin accounted for within the Green Valley Ranch East Amendment 1 Master Utility Report as Basin 310-4. That Study estimated the gpd at 27,676

Updated flow used
for Basin 310-4

Pages from The Aurora Highlands Master Utility Report – Amendment 2

EDN #219069

Windler does not use DP 14 to recieve flows from TAH only DP 22

Aurora Highland Final Outfall to First Creek

Site Location

DESIGN POINT	PEAK FLOW (MGD)	ESTIMATED PIPE SLOPE (%)	ESTIMATED PIPE SIZE (IN)	PIPE NAME	ESTIMATED VELOCITY (FPS)	% FULL FLOW
1	1.97	0.40%	15	SS-1	4.1	56.9%
2.1	2.12	0.40%	15	SS-2	4.2	60.4%
2.2	0.66	0.40%	10	SS-3	3.2	57.2%
2.3	0.89	0.40%	10	SS-4	3.4	70.2%
2.4	0.20	0.40%	8	SS-5	2.3	40.4%
2.5	3.36	0.40%	18	SS-6	4.8	59.4%
2.6	1.01	0.40%	12	SS-7	3.5	55.1%
2.7	0.24	0.40%	8	SS-8	2.5	44.6%
3.1	1.30	0.40%	12	SS-9	3.7	64.9%
3.2	1.70	0.40%	15	SS-10	4.0	52.6%
3.3	4.79	0.40%	18	SS-11	5.1	77.6%
4	0.31	0.40%	8	SS-12	2.6	51.8%
5.1	0.37	0.40%	8	SS-13	2.7	57.8%
5.2	0.56	0.40%	10	SS-14	3.0	51.7%
5.3	0.15	0.40%	8	SS-15	2.2	34.6%
5.4	0.71	0.40%	10	SS-16	3.2	59.9%
5.5	5.59	0.40%	24	SS-17	5.4	50.7%
6	0.10	0.40%	8	SS-18	1.9	28.0%
7	0.49	0.40%	8	SS-19	2.9	70.1%
7.1	5.95	0.40%	24	SS-20	5.5	52.6%
7.2	3.27	0.25%	18	SS-21	3.9	68.6%
7.3	0.23	0.40%	8	SS-22	2.4	43.6%
7.4	0.38	0.40%	8	SS-23	2.8	58.8%
7.5	0.20	0.40%	8	SS-24	2.3	40.4%
7.6	0.81	0.40%	10	SS-25	3.3	65.5%
7.7	0.98	0.40%	12	SS-26	3.5	54.0%
7.8	4.27	0.25%	24	SS-27	4.2	49.7%
7.9	0.41	0.40%	8	SS-28	2.6	61.3%
7.10	6.06	0.25%	24	SS-29	4.6	61.7%
7.11	10.92	0.25%	30	SS-30	5.3	61.5%
7.12	10.95	0.25%	30	SS-31	5.3	61.6%
7.13	11.15	0.25%	30	SS-32	5.4	62.3%
7.14	0.05	0.50%	8	SS-33	2.8	35.1%
7.15	0.38	0.40%	8	SS-34	2.8	58.8%
7.16	0.85	0.40%	10	SS-35	3.3	67.8%
7.17	1.27	0.40%	12	SS-36	3.7	63.9%
7.18	0.09	0.50%	8	SS-37	2.0	25.1%
7.19	1.42	0.40%	12	SS-38	3.8	69.2%
7.20	1.69	0.40%	15	SS-39	3.7	15.6%
7.21	0.37	0.40%	8	SS-40	2.7	57.8%
7.22	0.46	0.40%	8	SS-41	2.9	66.9%
7.23	0.62	0.40%	10	SS-42	3.2	19.3%
7.24	13.16	0.40%	36	SS-43	6.6	44.5%
7.25	0.69	0.40%	18	SS-44	3.3	36.3%
7.26	1.19	0.40%	12	SS-45	3.7	61.1%
7.27	3.41	0.40%	18	SS-46	4.8	60.0%
7.28	1.73	0.40%	15	SS-47	4.0	53.2%
7.29	3.87	0.40%	18	SS-48	4.9	65.4%
7.30	1.66	0.40%	15	SS-49	4.0	51.9%
7.31	2.58	0.40%	15	SS-50	4.4	69.3%

DRAWN BY: KLH JOB DATE: 11/2022
APPROVED: RWL JOB NUMBER: 181211.47
CAD DATE: 11/22/2022 1:21:34 PM
CAD FILE: J:\2018\181211.47\CAD\Drawings\Exhibits\X-SS2_AM2.dwg

BAR IS ONE INCH ON
OFFICIAL DRAWINGS.
0" = 1"
IF NOT ONE INCH,
ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION
1	10/2019	KH	REMOVED SEC. 21 & 28 FROM PROJECT
2	11/2022	KH	REVISED AREA AND LAND USE IN PA-55

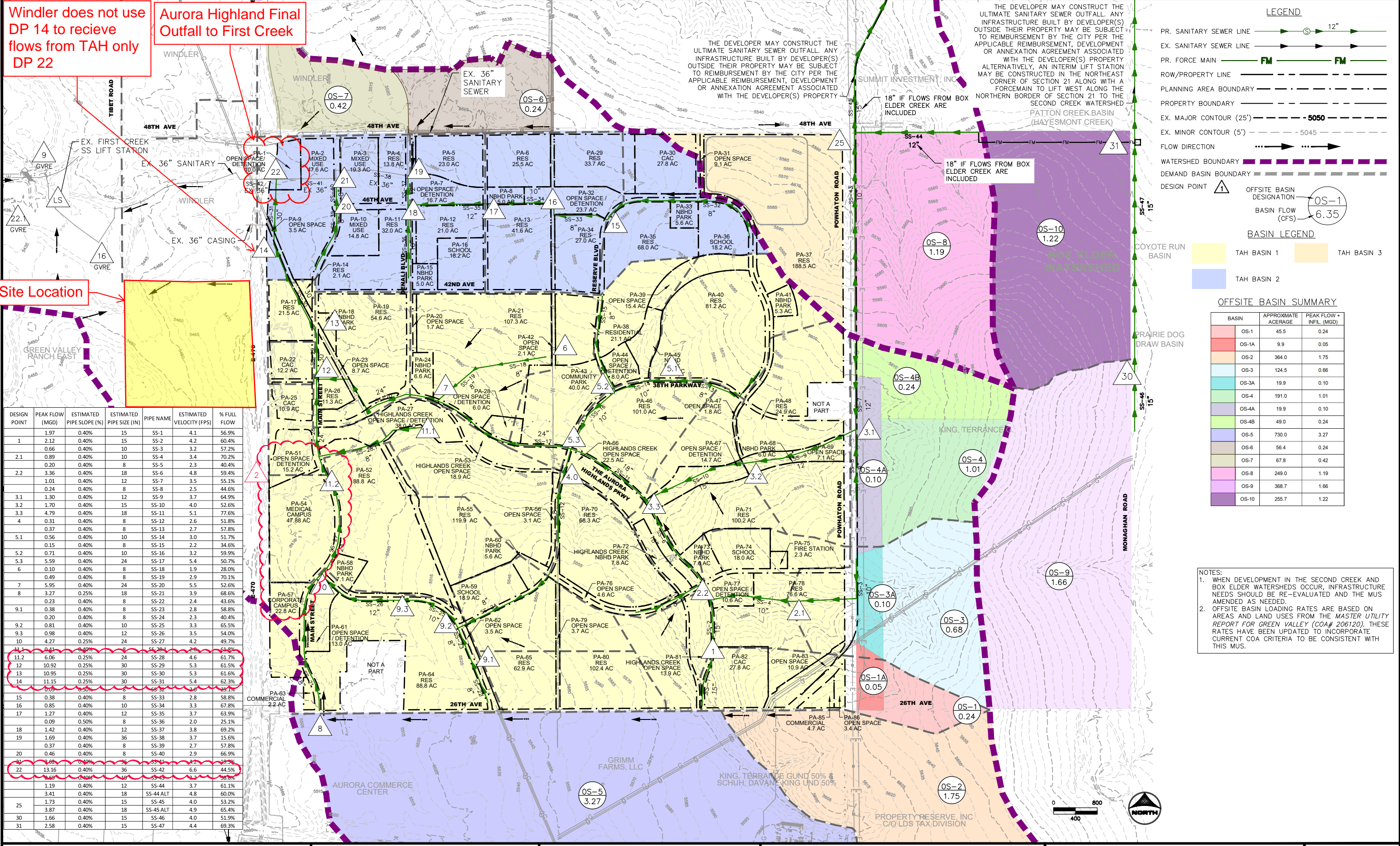


THE AURORA HIGHLANDS
AURORA HIGHLANDS, LLC
AURORA, COLORADO



MASTER UTILITY REPORT - AMENDMENT 2
SANITARY SEWER PLAN

SHEET NO.
SS2





SANITARY SEWER DEMAND CALCULATIONS

Project #: 181211.47
Project: The Aurora Highlands

Location: Aurora, CO
Plan Date: 11/2022

By K House
Checked R Littleton
Date 11/20/2022
Date 11/20/2022

POPULATION DENSITY		
Multi-Family	2.77	People per Unit
Single-Family	2.77	People per Unit
Age Restricted	2.77	People per Unit
Average Flow Generation	68	gpcpd

COMMERCIAL / SCHOOLS / INDUSTRIAL			
	Commercial	Schools / Industrial	
Average Flow Generation	1,500	1,200	gpd/acre
Equivalent Population	0.0023	0.0019	cfs/acre
	22	18	capita

PEAKING FACTOR			
PF = 5/(p^0.167)		Where p = Population in thousands	
Min. PF =	1.7	Max. PF =	4.0

75 % FULL	PIPIE CAPACITY (mgd) (n=.011)		
	PIPE SIZE (IN)	0.4% SLOPE	0.25% SLOPE
	8	0.53	0.42
	10	0.97	0.76
12	1.57	1.24	

80 % FULL	PIPIE CAPACITY (mgd) (n=.011)		
	PIPE SIZE (IN)	0.4% SLOPE	0.25% SLOPE
	15	3.05	2.41
	18	4.96	3.92
	24	10.68	8.44
	30	19.37	15.31
36	31.49	24.90	

Design Point	Planning Area	Flow Split	RESIDENTIAL SINGLE FAMILY							Average Day Flow (gpm)	RESIDENTIAL MULTI FAMILY							Land Use	COMMERCIAL / SCHOOLS / INDUSTRIAL						Average Day Flow (gpm)	CUMMULATIVE TOTALS							Peak Flow + Infil. (gpm)	PIPE PARAMETERS				
			Total Acres	Development Density (DU/acre)	No. of Units	Population Density (people/unit)	Equivalent Population	Average Flow Generation (gpcpd)	Average Day Flow (mgd)		Total Acres	Development Density (DU/acre)	No. of Units	Population Density (people/unit)	Equivalent Population	Average Flow Generation (gpcpd)	Average Day Flow (mgd)		Total Acres	Population Density	Equivalent Population	Average Flow Generation (gpd/acre)	Average Day Flow (mgd)	Total Acres		Infil. @ 10% (mgd)	Cumulative Population	Peak Factor	Peak Flow (mgd)	Peak Flow + Infil. (mgd)	Estimated Pipe Slope (%)	Estimated Size at Given Slope		Pipe Name	Velocity (ft/sec)	Percent Full at Given Slope		
9.2	PA-59	100%	0.0		0			0.00	0.0		0		0		0.00	School	18.9	18	340	1,200	0.023					18.90	0.002	340	4.0	0.09	0.09		0.40%	8				
	PA-65	50%	31.5	5.9	185	2.77	511	68	0.035		0		0		0.00											31.45	0.003	511	4.0	0.14	0.14		0.40%	8				
	PA-80	50%	43.6	5.9	256	2.77	709	68	0.048						0.00											43.60	0.005	709	4.0	0.19	0.20		0.40%	8	SS-24	2.3	40.4%	
	Design Point Total	DP9.1 - 9.2	106.5	5.9	625		1,731		0.118		15.2	20.0	304		842		0.057		18.9		340		0.023			140.60	0.020	2,914	4.0	0.79	0.81		0.40%	10	SS-25	3.3	65.5%	
9.3	PA-64	50%	37.3	5.9	219	2.77	607	68	0.041		0		0		0.00											37.25	0.004	607	4.0	0.17	0.17		0.25%	8				
	Design Point Total	DP9.1 - 9.3	143.8	5.9	844		2,338		0.159		15.2	20.0	304		842		0.057		18.9		340		0.023			177.85	0.024	3,520	4.0	0.96	0.98		0.40%	12	SS-26	3.5	54.0%	
10	PA-63	100%								0				0		Com.	2.2	22	48	1,500	0.003					2.20	0.000	48	4.0	0.01	0.01		0.25%	8				
	PA-64	50%	37.3	5.9	219	2.77	607	68	0.041		14.3	20.0	286	2.77	792	68	0.054									51.55	0.010	1,399	4.0	0.38	0.39		0.25%	8				
	PA-57	100%	0.0		0				0.00						0	Com.	22.8	22	501	1,500	0.034					22.77	0.003	501	4.0	0.14	0.14		0.25%	8				
	On-Site Total	DP8 - DP10	181.0		1,063		2,945		0.200		29.5		590		1,634		0.111		43.9		890		0.060			254.37	0.037	5,468	3.8	1.40	1.44		0.25%	15				
11.1	Design Point Total		400.0	5.7	2,268		6,281		0.427		29.5	20.0	590		1,634		0.111		554.9		12,132		0.827			984.37	0.136	20,047	3.0	4.14	4.27		0.25%	24	SS-27	4.2	49.7%	
	PA-55	75%	89.9	5.9	528.0	2.8	1,462.6	68.0	0.1		0.0		0		0.000		0.0		0							89.9	0.0	1,462.6	4.0	0.4	0.41		0.40%	8				
11.2	Design Point Total	DP11.1	89.9	5.9	528		1,463		0.099		0.0		0		0.000		0.0		0		0.000					89.93	0.010	1,463	4.0	0.40	0.41		0.40%	8	SS-28.1	2.8	61.8%	
	PA-52	100%	88.8	5.9	521	2.77	1,443	68	0.098		0		0		0.00		0.0		0		0.00					88.80	0.010	1,443	4.0	0.39	0.40		0.25%	8				
	PA-54	100%	0.0		0				0.00		0.0		0		0.00	Hospital	47.9	22	1,053	8,443	0.404					47.88	0.040	1,053	4.0	1.62	1.66	1,151	0.25%	15				
	PA-55	25%	30.0	5.9	176	2.77	488	68	0.033						0		91.8		1,943			0.464				510.95	0.101	9,915	3.4	3.43	3.53		0.25%	18				
12	On-Site Total	DP8 - DP11.2	389.7		2,288		6,338		0.431		29.5		590		1,634		0.111		91.8		1,943		0.464			510.95	0.101	9,915	3.4	3.43	3.53		0.25%	18				
	Design Point Total		608.7	5.7	3,493		9,674		0.658		29.5	20.0	590		1,634		0.111		602.8		13,185		1.231			1,240.95	0.200	24,493	2.9	5.86	6.06		0.25%	24	SS-28	4.6	61.7%	
	PA-19	100%	54.6	5.9	321	2.77	889	68	0.060		0.0				0		0.0		0		0.00					54.60	0.006	889	4.0	0.24	0.25		0.25%	8				
	PA-25	100%	0.0		0				0.00		0.0		0		0.00	Civic	10.9	18	196	1,200	0.013					10.90	0.001	196	4.0	0.05	0.05		0.25%	8				
13	PA-26	100%	11.3	5.8	66	2.77	183	68	0.012		0.0		0		0.00		0.0		0		0.00					11.30	0.001	183	4.0	0.05	0.05		0.25%	8				
	On-Site Total	DP1 - DP12	1,181.9		6,939		19,220		1.307		45.8		1,079		2,989		0.203		244.2		4,818		0.657			1,471.89	0.217	27,026	2.9	6.25	6.47		0.25%	24				
	Design Point Total		1,723.0	5.8	9,915		27,464		1.868		45.8	23.6	1,079		2,989		0.203		1,167.9		25,099		2.040			2,936.74	0.411	55,552	2.6	10.51	10.92		0.25%	30	SS-29	5.3	61.5%	
	PA-22	100%	0.0		0				0.00		0.0		0		0.00	Civic	12.2	18	220	1,200	0.015					12.20	0.001	220	4.0	0.06	0.06		0.25%	8				
14	On-Site Total	DP1 - DP13	1,181.9		6,939		19,220		1.307		45.8		1,079		2,989		0.203		256.4		5,037		0.672			1,484.09	0.218	27,246	2.9	6.28	6.50		0.25%	24				
	Design Point Total		1,723.0	5.8	9,915		27,464		1.868		45.8	23.6	1,079		2,989		0.203		1,180.1		25,319		2.054			2,948.94	0.413	55,772	2.6	10.54	10.95		0.25%	30	SS-30	5.3	61.6%	
	PA-14	100%	2.1	5.7	12	2.77	33	68	0.00		0.0				0		0.0		0		0.00					2.10	0.000	33	4.0	0.00	0.00		0.25%	8				
	PA-17	100%	5.0	5.8	29	2.77	80	68	0.00		16.5	30.0	495	2.77	1,371	68	0.093		0.0		0					21.50	0.009	1,451	4.0	0.37	0.38		0.25%	8				
15	On-Site Total	DP1 - DP13	1,189.0		6,980		19,333		1.307		62.3		1,574		4,360		0.296		256.4		5,037		0.672			1,507.69	0.228	28,730	2.9	6.49	6.72		0.25%	24				
	Design Point Total		1,730.1	5.8	9,956		27,578		1.868		62.3	25.3	1,574		4,360		0.296		1,180.1		25,319		2.054			2,972.54	0.422	57,256	2.5	10.73	11.15	7,744	0.25%	30	SS-31	5.4	62.3%	
	PA-30	100%	0.0		0				0.00		0.0		0		0	Com.	27.8	18	500	1,200	0.033					27.80	0.003	500	4.0	0.13	0.14		0.40%	8				
	PA-35	50%	34.0	5.9	200	2.77	553	68	0.038		0.0		0		0.00		0.0		0		0.00	School	18.2	18	328	1,200	0.022	18.20	0.002	328	4.0	0.09	0.09		0.50%	8	SS-32	2.0
16	PA-36	100%	0.0		0				0.00		0.0		0		0.00		0.0		0		0.00					34.00	0.004	553	4.0	0.15	0.15		0.40%	8				
	Design Point Total	DP15	34.0	5.9	200		553		0.038		0.0		0		0		46.0		828			0.055				80.00	0.009	1,381	4.0	0.37	0.38	264	0.40%	8	SS-33	2.8	58.8%	
	PA-29	100%	16.2	5.9	95	2.77	263	68	0.018		17.5	20.0	350	2.77	970	68	0.066		0.0		0					33.70	0.008	1,233	4.0	0.34	0.34		0.40%	8				
	PA-34	100%	27.0	5.9	159	2.77	440	68	0.030		0.0		0		0		0.0		0		0.00					27.00	0.003	440	4.0	0.12	0.12		0.40%	8				
17	Design Point Total	DP15 + DP16	77.2	5.9	454		1,256		0.085		17.5	20.0	3																									

Pages from Windler Master Utility Study

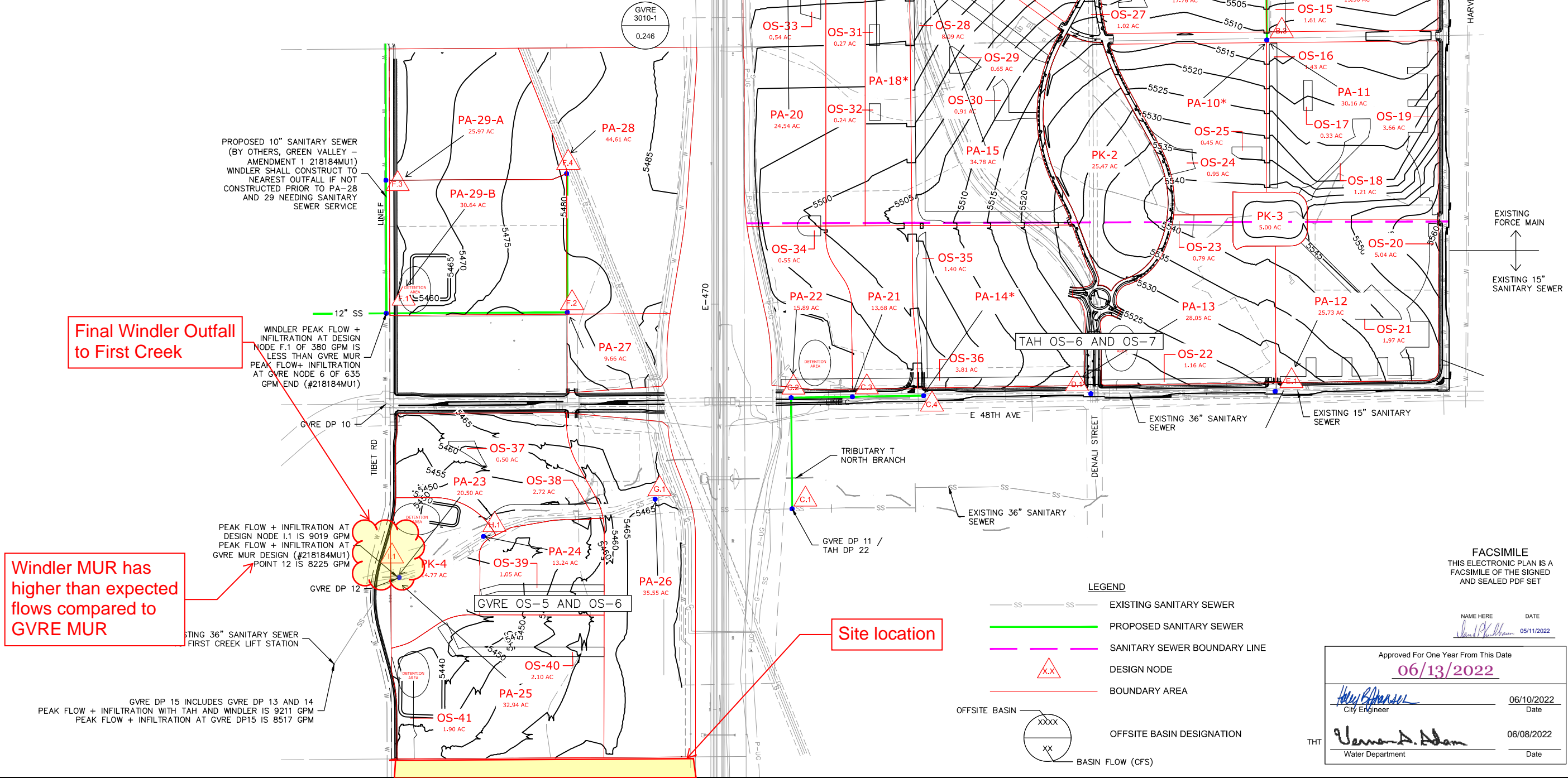
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LINE A	From Node	To Node	MAP AREA CODE	Peak Flow + Infiltration (CFS)	Avg Day + Infiltration (CFS)	Pipe Size (in)	Pipe Percent Full (Peak Flow)	Avg Day Velocity (FT/S)
	A.9	A.8	PA-16	0.07	0.02	8	3%	2.1
	A.8	A.6	PA-15	0.44	0.12	8	22%	3.2
	A.7	A.6	PA-20	0.23	0.06	8	15%	2.2
	A.6	A.5	PA-18, PA-19	1.04	0.28	8	73%	3.2
	A.5	A.4	PA-1	1.33	0.36	10	61%	2.9
	A.12	A.11	PA-17	0.19	0.05	8	7%	3.2
	A.11	A.4	PA-3	0.67	0.18	8	33%	3.6
	A.4	A.3	PA-2	2.67	0.77	12	63%	4.1
	A.3	A.2.5	PA-5	2.98	0.87	12	71%	4.2
LINE B	A.2.5	A.2	Line B	3.64	1.13	15	57%	3.9
	A.2	A.1	PA-6	3.86	1.21	15	60%	4.0
	A.10	A.1	PA-7	0.20	0.05	8	10%	2.5
	B.3	B.2	PA-10, PA-11	0.58	0.16	8	23%	4.0
	B.2	B.1	PA-8, PA-9	0.70	0.19	8	31%	3.9
	B.1	A.2.5	PA-4	0.97	0.26	10	26%	3.9

NOTE: MINIMUM PIPE SIZE IN PLANNING AREAS (PA) SHALL BE 8-INCH

LINE C	From Node	To Node	MAP AREA CODE	Peak Flow + Infiltration (CFS)	Avg Day + Infiltration (CFS)	Pipe Size (in)	Pipe Percent Full (Peak Flow)	Avg Day Velocity (FT/S)
	C.4	C.3	PA-14	0.42	0.11	8	29%	2.4
	C.3	C.2	PA-21	0.80	0.21	8	56%	2.9
LINE D	C.2	C.1	PA-22	1.24	0.33	8	53%	4.8
	D.1	EX 36"	PA-13, PK-2	0.52	0.14	8	18%	4.2
LINE E	E.1	EX 36"	PA-12	0.28	0.07	8	10%	3.5
	F.3	F.1	PA-29A, GVRE 310-1	1.20	0.32	10	66%	2.5
LINE F	F.4	F.2	PA-28	0.34	0.09	8	28%	2.0
	F.2	F.1	PA-27, PA-28	0.41	0.11	8	26%	2.6
	F.1	GVRE 12"	PA-27, PA-28, PA-29A, PA-29B, GVRE 310-1	1.76	0.50	12	59%	2.8
LINE G	G.1	EX 36"	PA-26	0.27	0.07	8	19%	2.1
	H.1	EX 36"	PA-24	0.14	0.04	8	8%	2.0
LINE H	H.1	EX 36"	PA-24	0.14	0.04	8	8%	2.0
	I.1	EX 36"	PA-23, PA-25, PK-4	0.67	0.18	8	47%	2.8



PROPOSED 30" SECOND CREEK SANITARY SEWER TO SECOND CREEK LIFT STATION (BY OTHERS)

WINDLER PEAK FLOW + INFILTRATION AT DESIGN NODE A.1 OF 3.89 CFS IS LESS THAN FULENWIDER MUS PEAK FLOW + INFILTRATION AT FULENWIDER NODE T OF 4.377 EDN #220131MU1

1525 Raleigh Street
Suite 400
Denver, CO 80204
TEL 303.237.2072
www.olson.com

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REV.	NO.	DATE	REVISIONS DESCRIPTION

2021

SANITARY SEWER MASTER PLAN

WINDLER MIXED USE DEVELOPMENT MASTER UTILITY PLAN

AURORA, CO

APPROVED FOR ONE YEAR FROM THIS DATE

06/13/2022

NAME HERE DATE

05/11/2022

City Engineer

06/10/2022

Water Department

06/08/2022

drawn by:

checked by:

approved by:

QA/QC by:

project no.:

drawing no.:

date:

SHEET

B.1

36-inch Interceptor
Peak Flow Analysis to TAH DP 22 (GVR DP 11)

Development	Basin	Avg Day Flow (mgd)	Avg Day Flow (gpm)	Infiltration (10%)	Cumulative Population	Peak Factor	Peak Flow + Infl (mgd)	Peak Flow + Infl (gpm)	Peak Flow + Infl (MGD)
Re: The Aurora Highlands Master Utility Report - Amendment 1 (#219069MU2) Windler PA-12 and PA-13 comprise TAH basin OS-6									
TAH	OS-6	0.059	41		874				
Windler	PA-12	0.044	30		641				
	PA-13	0.082	57		1,058				
Windler total		0.125	87		1,700				
Windler average day flow and population from PA-12 and PA-13 greater than that assumed in TAH MUR									
		0.066	46		826				
Windler PA-14, PA-21 and PA-22 comprise TAH basin OS-7									
TAH	OS-7	0.102	71		1,492				
Windler	PA-14	0.065	45		963				
	PA-21	0.060	42		886				
	PA-22	0.070	49		1,029				
Windler total		0.196	136		2,878				
Windler average day flow and population from PA-14, PA-21 and PA-22 greater than that assumed in TAH MUR									
		0.094	65		1,386				
TAH DP 22 (peak flow + infiltration at DP22 is 550 gpm higher than that assumed in the GVR MUR)									
		4.822	3,349	335	71,041	2.5		8,550	12.31
Windler average day flow and population from PA-12, PA-13, PA-14, PA-21 and PA-22 greater than that assumed in TAH MUR									
		0.160	111	11	2,211				
TAH DP 22 with Windler		4.982	3,460	346	73,252	2.4		8,791	12.66
Peak flow + infiltration greater than that from TAH MUR									
								241	0.35

**36-inch Interceptor
Peak Flow Analysis to GVR DP 15**

Development	Basin	Avg Day Flow (mgd)	Avg Day Flow (gpm)	Infiltration (10%)	Cumulative Population	Peak Factor	Peak Flow + Infl (mgd)	Peak Flow + Infl (gpm)	Peak Flow + Infl (MGD)
Re: Green Valley - Amendment 1 Master Utility Report (#218184MU1)									
Windler PA-23, PA-24, PA-25, PA-26 and PK-4 comprise GVR basins OS-5 and OS-6									
GVR	OS-5	0.121	84	8	1,423	4.00		344	0.50
GVR	OS-6	0.112	78	8	1,408	4.00		320	0.46
GVR total		0.233	162	16	2,831	4.00		664	0.96
Windler	PA-23	0.039	27		579				
	PA-24	0.022	15		327				
	PA-25	0.052	36		765				
	PA-26	0.043	30		640				
	PK-4	0.015	10						
Windler total		0.171	119	12	2,310	4.00		488	0.70
Net peak flow change for GVR basins OS-5 and OS-6 attributed to Windler		-0.062	-43					-176	(0.25)
GVR DP 13	5	0.083	58		1,227				
GVR DP 10	310-4	0.028	19		407				
GVR DP 12	Windler PA-23, PA-24, PA-25, PA-26 and PK-4	0.171	119		2,310				
TAH DP 22 with Windler (GVR DP 11)		4.982	3460		73,252				
Updated total at GVR DP 15		5.264	3,656	366	77,197	2.42		9,211	13.26
GVR DP 15 (peak flow +infiltration from GVR MUR		5.143	3,572	357	108,900	2.28		8,517	12.26
Peak flow + infiltration greater than that from GVR MUR								694.00	1.00

Estimated Peak Flow Increase + Infiltration Atributed to Windler and TAH at GVR DP 15

Total population at TAH DP 22	71,041
minus OS-6 population (Windler)	-874
minus OS-7 population (Windler)	-1,492
TAH population without Windler at TAH DP 22	68,675

Windler population at GVR DP 15	
PA-12	641
PA-13	1,058
PA-14	963
PA-21	886
PA-22	1,029
PA-23	579
PA-24	327
PA-25	765
PA-26	640
Total Windler population at GVR DP 15	6,888

Total population TAH and Windler at GVR DP 15 75,563

Estimated peak flow increase + infiltration attributed to Windler at GVR DP 15	63 gpm	0.09 MGD
Estimated peak flow increase + infiltration attributed to TAH at GVR DP 15	631 gpm	0.91 MGD
Peak flow + infiltration greater than that from GVR MUR at GVR DP 15	694 gpm	1.00 MGD

Windler - Projected Sanitary Sewer Demands

Non-Residential Criteria

		Equivalent
Land Use	Avg Day (gdp/ac)	Pop / Ac
Commercial	1,500	22
Industrial (schools)	1,200	18

Residential Criteria

People / unit	2.77
Avg day / capita (gpd)	68

Peaking Factors

MIN	1.7
MAX	4

INFILTRATION

AVG * 10% of average, do not peak I&I

$$\text{Peaking Factor} = 5 \div p^{0.167}$$

p= population in thousands

Based on Windler Land Use Summary - 03/24/2022

Map Area Code	Land Use	Total Acres	Proposed DUs	Population	Avg Daily Flow (GPD)	Peaking Factor	Peak Flow (GPD)	Infiltration (GPD)	Avg Day + Infiltration (GPD)	Avg Day + Infiltration (CFS)	Avg Day + Infiltration (GPM)	Peak Flow + Infiltration (GPD)	Peak Flow + Infiltration (CFS)	Peak Flow + Infiltration (GPM)
PA-1	MIXED COMM	31		684	46,605	4.0	186,420	4,661	51,266	0.079	36	191,081	0.296	133
PA-10	SFD/SFA FLEX	24	213	589	40,075	4.0	160,302	4,008	44,083	0.068	31	164,309	0.254	114
PA-11	SFD/SFA FLEX	30	271	752	51,128	4.0	204,514	5,113	56,241	0.087	39	209,627	0.324	146
PA-12	SFD/SFA FLEX	26	232	641	43,619	4.0	174,474	4,362	47,980	0.074	33	178,836	0.277	124
PA-13	SFD/SFA FLEX	21	183	507	34,470	4.0	137,880	3,447	37,917	0.059	26	141,327	0.219	98
PA-13	MF	7	195	540	36,730	4.0	146,921	3,673	40,403	0.063	28	150,594	0.233	105
PA-13	COMMERCIAL	1		11	750	4.0	3,000	75	825	0.001	1	3,075	0.005	2
PA-14	SFD/SFA	18	160	444	30,209	4.0	120,837	3,021	33,230	0.051	23	123,858	0.192	86
PA-14	MF	4	108	298	20,286	4.0	81,145	2,029	22,315	0.035	15	83,174	0.129	58
PA-14	COMMERCIAL	10		220	15,000	4.0	60,000	1,500	16,500	0.026	11	61,500	0.095	43
PA-15	SFD/SFA FLEX	35	313	867	58,960	4.0	235,842	5,896	64,856	0.100	45	241,738	0.374	168
PA-16	SFD/SFA FLEX	7	59	162	11,036	4.0	44,144	1,104	12,140	0.019	8	45,248	0.070	31
PA-17	SFD/SFA FLEX	17	152	421	28,633	4.0	114,530	2,863	31,496	0.049	22	117,394	0.182	82
PA-17	COMMERCIAL	1		22	1,500	4.0	6,000	150	1,650	0.003	1	6,150	0.010	4
PA-18	SFD/SFA FLEX	16	142	393	26,700	4.0	106,800	2,670	29,370	0.045	20	109,470	0.169	76
PA-19	SFA	18	161	446	30,311	4.0	121,244	3,031	33,342	0.052	23	124,275	0.192	86
PA-2	MF	24	711	1,969	133,924	4.0	535,696	13,392	147,316	0.228	102	549,088	0.850	381
PA-20	MIXED COMM	25		540	36,810	4.0	147,240	3,681	40,491	0.063	28	150,921	0.233	105
PA-21	MIXED COMM	4		90	6,156	4.0	24,624	616	6,772	0.010	5	25,240	0.039	18
PA-21	MF	10	287	796	54,112	4.0	216,448	5,411	59,523	0.092	41	221,859	0.343	154
PA-22	MF	11	334	924	62,854	4.0	251,415	6,285	69,139	0.107	48	257,701	0.399	179
PA-22	MIXED COMM	15		105	7,151	4.0	28,602	715	7,866	0.012	5	29,317	0.045	20
PA-23	SFD/SFA FLEX	21	209	579	39,367	4.0	157,469	3,937	43,304	0.067	30	161,406	0.250	112
PA-24	SFD/SFA FLEX	13	118	327	22,226	4.0	88,906	2,223	24,449	0.038	17	91,129	0.141	63
PA-25	SFD/SFA FLEX	33	276	765	51,987	4.0	207,949	5,199	57,186	0.088	40	213,148	0.330	148
PA-26	IND-3.3.5.Y	36		640	42,660	4.0	170,640	4,266	46,926	0.073	33	174,906	0.271	121
PA-26	IND-3.3.5.Z													

Areas used for OS-5

Windler - Projected Sanitary Sewer Demands

Non-Residential Criteria

	Avg Day (gdp/ac)	Equivalent Pop / Ac
Commercial	1,500	22
Industrial (schools)	1,200	18

Residential Criteria

People / unit	2.77
Avg day / capita (gpd)	68

Peaking Factors

MIN	1.7
MAX	4
Peaking Factor = $5 \div p^{0.167}$	
p= population in thousands	

INFILTRATION

AVG * 10% of average, do not peak I&I

Based on Windler Land Use Summary - 03/24/2022

Map Area Code	Land Use	Total Acres	Proposed DUs	Population	Avg Daily Flow (GPD)	Peaking Factor	Peak Flow (GPD)	Infiltration (GPD)	Avg Day + Infiltration (GPD)	Avg Day + Infiltration (CFS)	Avg Day + Infiltration (GPM)	Peak Flow + Infiltration (GPD)	Peak Flow + Infiltration (CFS)	Peak Flow + Infiltration (GPM)
PA-27	IND-3.3.5.Y, IND-3.3.5.Z	10		174	11,592	4.0	46,368	1,159	12,751	0.020	9	47,527	0.074	33
PA-28	IND-3.3.5.Y, IND-3.3.5.Z	45		803	53,532	4.0	214,128	5,353	58,885	0.091	41	219,481	0.340	152
PA-29	IND-3.3.5.Y, IND-3.3.5.Z													
PA-29A		26		464	30,900	4.00	123,600	3,090	33,990	0.053	24	126,690	0.196	88
PA-29B		31		555	37,032	4.00	148,128	3,703	40,735	0.063	28	151,831	0.235	105
PA-3	SFA	7	76	212	14,400	4.0	57,600	1,440	15,840	0.025	11	59,041	0.091	41
PA-3	COMMERCIAL	1		22	1,500	4.0	6,000	150	1,650	0.003	1	6,150	0.010	4
PA-4	SFD/SFA-FLEX	33	316	874	59,462	4.0	237,850	5,946	65,409	0.101	45	243,796	0.377	169
PA-5	MF	10.61	228	632	43,003	4.0	172,010	4,300	47,303	0.073	33	176,311	0.273	122
PA-6	MF	16.22	322	891	60,577	4.0	242,306	6,058	66,634	0.103	46	248,364	0.384	172
PA-7	SFD/SFA-FLEX	29.87	269	745	50,637	4.0	202,547	5,064	55,701	0.086	39	207,611	0.321	144
PA-7	COMMERCIAL	0.50		11	750	4.0	3,000	75	825	0.001	1	3,075	0.005	2
PA-8	SFD/SFA-FLEX	17.76	160	443	30,107	4.0	120,430	3,011	33,118	0.051	23	123,441	0.191	86
PA-9	SCHOOL	15.50		279	18,600	4.0	74,400	1,860	20,460	0.032	14	76,260	0.118	53
PK-2	Event Center	6.50		143	9,750	4.0	39,000	975	10,725	0.017	7	39,975	0.062	28
PK-4	NEIGHBORHOOD PARK	14.77			15,000	4.0	60,000	1,500	16,500	0.026	11	61,500	0.095	43
***Assume 15,000 gpd in PK-4 to account for planned restaurant and education venues.														

Area used for OS-5

	707	5,494	19,980	1,370,102		137,010	1,507,113		1,047					
Residential	446	5,494	15,218	1,034,815		103,481	1,138,296							
Commercial	99	-	1,848	140,972		14,097	155,069							
Industrial (School)	162		2,915	194,316		19,432	213,748							
	707	5,494	19,980	1,370,102		137,010	1,507,113							
Second Creek	358	3,392	10,954	744,719	3.35	2,496,635	74,472	819,191		569	2,571,107	3.98	1,785	
First Creek	349	2,102	9,026	625,384	3.46	2,165,438	62,538	687,922		478	2,227,976	3.45	1,547	
	707	5,494	19,980	1,370,102		4,662,072	137,010	1,507,113		1047	4,799,083	7.42	3,333	
											4,799,083		3,333	

Email Correspondence with City of Aurora

From: Menah, Julie
Sent: Wednesday, February 5, 2025 2:48 PM
To: Rome, Conner
Subject: FW: GVRE PA8&9 Master Plan Amendment #3 - Sanitary Sewer Discussion

Julie Menah, EI

Staff Engineer
D 321.354.9622
www.dewberry.com

From: Dekoskie, Steven <sdekoski@auroragov.org>
Sent: Wednesday, February 5, 2025 1:24 PM
To: Menah, Julie <jmenah@Dewberry.com>
Cc: Sibel, Sue <ssibel@Dewberry.com>; Smith, Joshua <jsmith@Dewberry.com>; Wyszynski, Brandon <bwyszynski@oakwoodhomesco.com>; Carro, Dave <DCarro@OakwoodHomesCO.com>; Woo, Chong <cwoo@auroragov.org>
Subject: RE: GVRE PA8&9 Master Plan Amendment #3 - Sanitary Sewer Discussion

[CAUTION] External Email. DO NOT click links or open attachments unless expected. Please use the "Phish Alert" button to report all suspicious emails.

Hi Julie,

All of OS-12 (87.4 acres) will be directed to the 24" sanitary, (south of E. 38th Ave).

Thanks,

Steve DeKoskie
Engineer | City of Aurora | Aurora Water
office 303.739.7490



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From: Menah, Julie <jmenah@Dewberry.com>
Sent: Wednesday, February 5, 2025 12:14 PM
To: Dekoskie, Steven <sdekoski@auroragov.org>
Cc: Sibel, Sue <ssibel@Dewberry.com>; Smith, Joshua <jsmith@Dewberry.com>; Wyszynski, Brandon <bwyszynski@oakwoodhomesco.com>; Carro, Dave <DCarro@OakwoodHomesCO.com>; Woo, Chong

[<cwoo@auroragov.org>](mailto:cwoo@auroragov.org)

Subject: RE: GVRE PA8&9 Master Plan Amendment #3 - Sanitary Sewer Discussion

Hi Steve-

Thanks so much for the quick response. Do you have a new basin map or exhibit you can provide us that show exactly what area they are taking southwest of their Site? Is it the entire 87.4 acres of Basin OS-12 going southwest or just a portion of this area?

Anything you can provide us on that area would be greatly appreciated-

Thanks,

Julie Menah, EI

Staff Engineer
D 321.354.9622

www.dewberry.com

From: Dekoskie, Steven [<sdekoski@auroragov.org>](mailto:sdekoski@auroragov.org)

Sent: Wednesday, February 5, 2025 12:06 PM

To: Menah, Julie [<jmenah@dewberry.com>](mailto:jmenah@dewberry.com)

Cc: Sibel, Sue [<:ssibel@dewberry.com>](mailto:ssibel@dewberry.com); Smith, Joshua [<jsmith@dewberry.com>](mailto:jsmith@dewberry.com); Wyszynski, Brandon [<bwyszynski@oakwoodhomesco.com>](mailto:bwyszynski@oakwoodhomesco.com); Carro, Dave [<DCarro@OakwoodHomesCO.com>](mailto:DCarro@OakwoodHomesCO.com); Woo, Chong [<cwoo@auroragov.org>](mailto:cwoo@auroragov.org)

Subject: RE: GVRE PA8&9 Master Plan Amendment #3 - Sanitary Sewer Discussion

[CAUTION] External Email. DO NOT click links or open attachments unless expected. Please use the "Phish Alert" button to report all suspicious emails.

Hi Julie,

The Majestic Commerce Center OS-12 basin flows are now being directed to the southwest of their site to connect to the new 24" sanitary sewer. That should provide some relief in pipe capacity proposed for GVRE PA 8.

Please provide the new flows and pipe capacities for design points 18 & 19 in GVRE. A variance request will be required if flows exceed 75% pipe capacity.

Let me know if you have any questions or would like to jump on a call to discuss.

Thank you,

Steve DeKoskie

Engineer | City of Aurora | Aurora Water
office 303.739.7490



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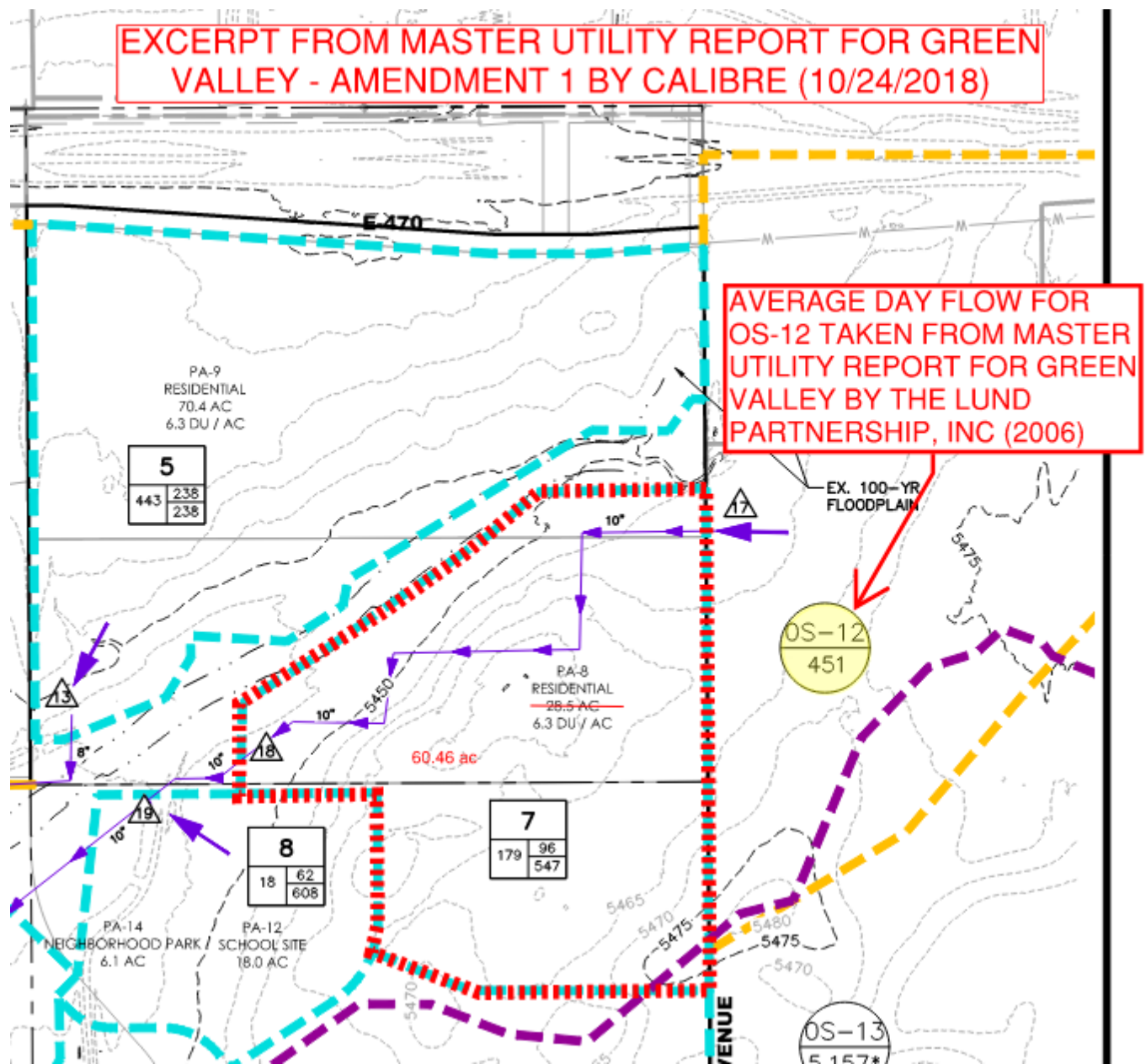
From: Menah, Julie <jmenah@Dewberry.com>
Sent: Wednesday, February 5, 2025 8:51 AM
To: Dekoskie, Steven <sdekoski@auroragov.org>
Cc: Sibel, Sue <ssibel@Dewberry.com>; Smith, Joshua <jsmith@Dewberry.com>; Wyszynski, Brandon <bwyszynski@oakwoodhomesco.com>; Carro, Dave <DCarro@OakwoodHomesCO.com>
Subject: GVRE PA8&9 Master Plan Amendment #3 - Sanitary Sewer Discussion

Hi Steve-

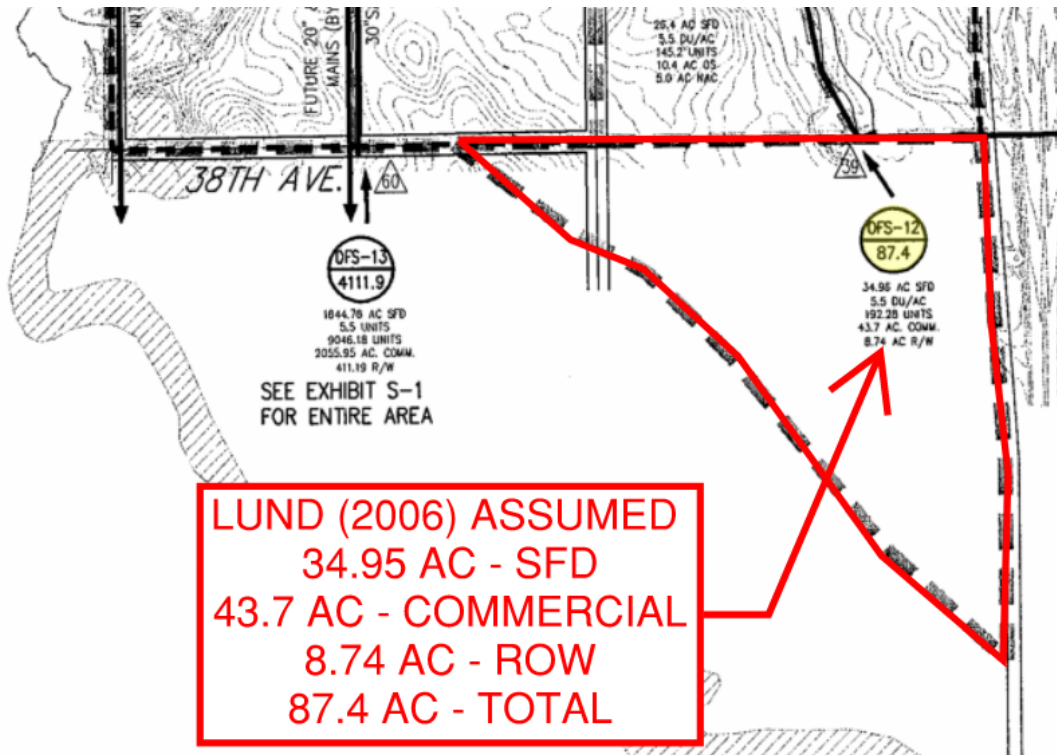
Just wanted to check back in on this. Have you had a chance to discuss with Vern if COA would allow for any variances to the sanitary sewer pipe capacity % since there was a discrepancy in the original MUR? The Oakwood team is aiming to submit the GVRE PA8&9 Master Plan Amendment #3 package by the end of this week – which will include our MUR and MDR conformance letters.

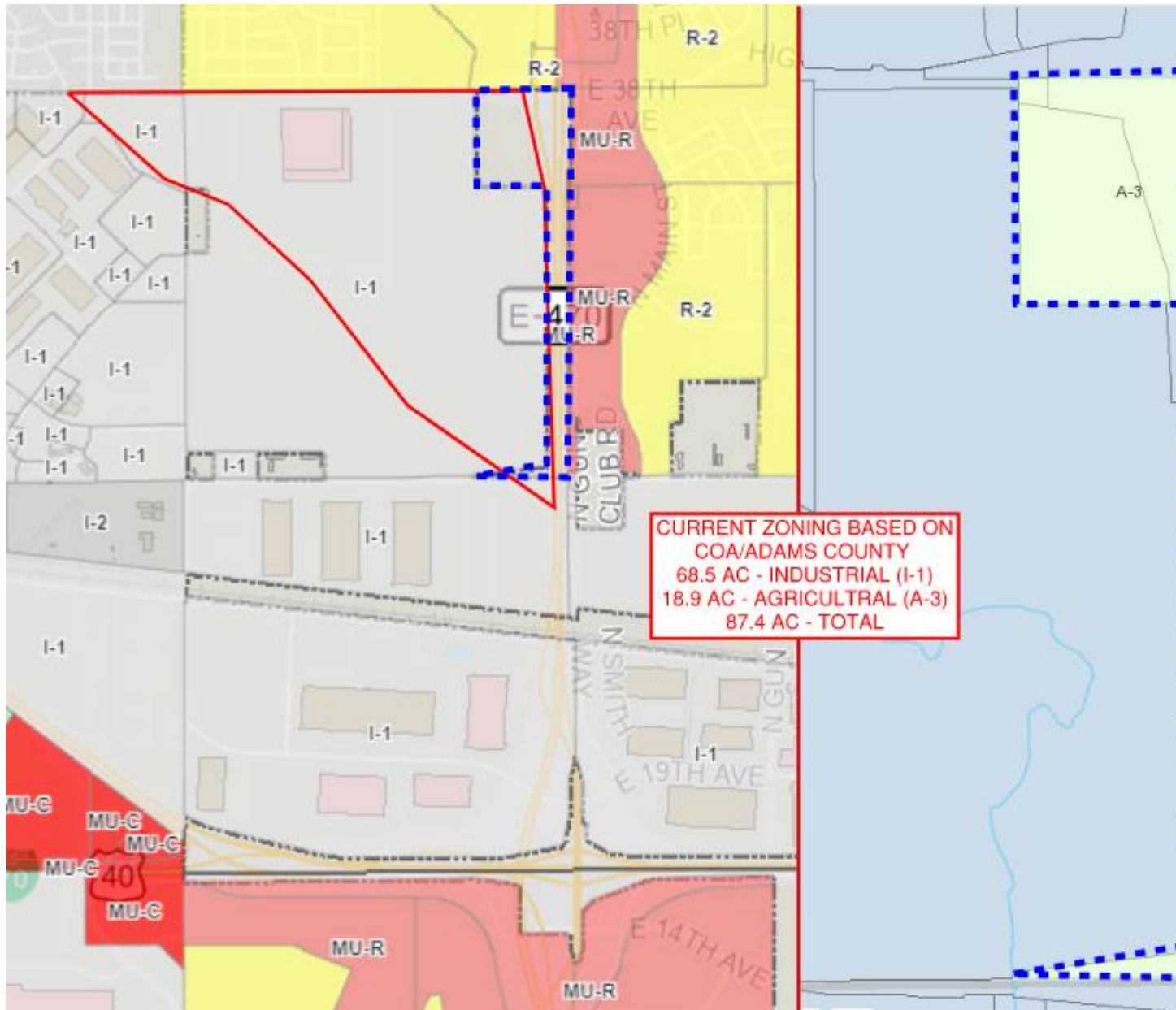
We also wanted to circle back on the preliminary discussion we had last Thursday regarding the offsite flow from the 87.4 acres of Majestic and Aurora Highland developments (Basin OS-12) entering GVRE at DP-17. Please see the annotated PDF attached and clips below.

The Master Utility Report for Green Valley – Amendment 1 by Calibre (2018) referenced the 2006 Lund MUR for the development south of 38th Ave (Majestic and Aurora Highlands).



The 2006 LUND MUR flows were calculated with land uses that are no longer accurate based on current COA/Adams County zoning for these sites.





Our question for you is – would COA allow for us to amend the land use assumptions for offsite basin OS-12 based on current zoning – since the original MUR flow assumptions come from Green Valley Master Reports?

And if this is an agreeable approach – what demand would COA prefer to see placed on the 18.9 ac Adams County agricultural parcel?

Since COA does not have a standard sewer loading for Agricultural parcel, we ran preliminary calculations for the 18.9 acres with both a low density residential demand as well as no demand if assumed fully agricultural. Both options give a much lower flow than was assumed with the 2006 LUND MUR and could potentially alleviate the need for a pipe capacity % variance if this approach is acceptable.

FLOW COMPARISON

OS-12 = 0.65 MGD **LUND (2006)**

OS-12 = 0.34 MGD (Industrial & Agricultural) **CURRENT ZONING (2025)**

OS-12 = 0.43 MGD (Industrial & SFD) **CURRENT ZONING (2025)**

Let us know what you think or if a TEAMS meeting is needed to discuss further-

Thanks,

Julie Menah, EI

Staff Engineer

D [321.354.9622](tel:321.354.9622)

www.dewberry.com

From: Menah, Julie

Sent: Thursday, January 30, 2025 12:56 PM

To: Dekoskie, Steven <sdekoski@auroragov.org>

Cc: Sibel, Sue <ssibel@Dewberry.com>; Smith, Joshua <jsmith@Dewberry.com>; Wyszynski, Brandon <bwyszynski@oakwoodhomesco.com>

Subject: RE: GVRE PA8&9 Master Plan Amendment #3 - Sanitary Sewer Discussion

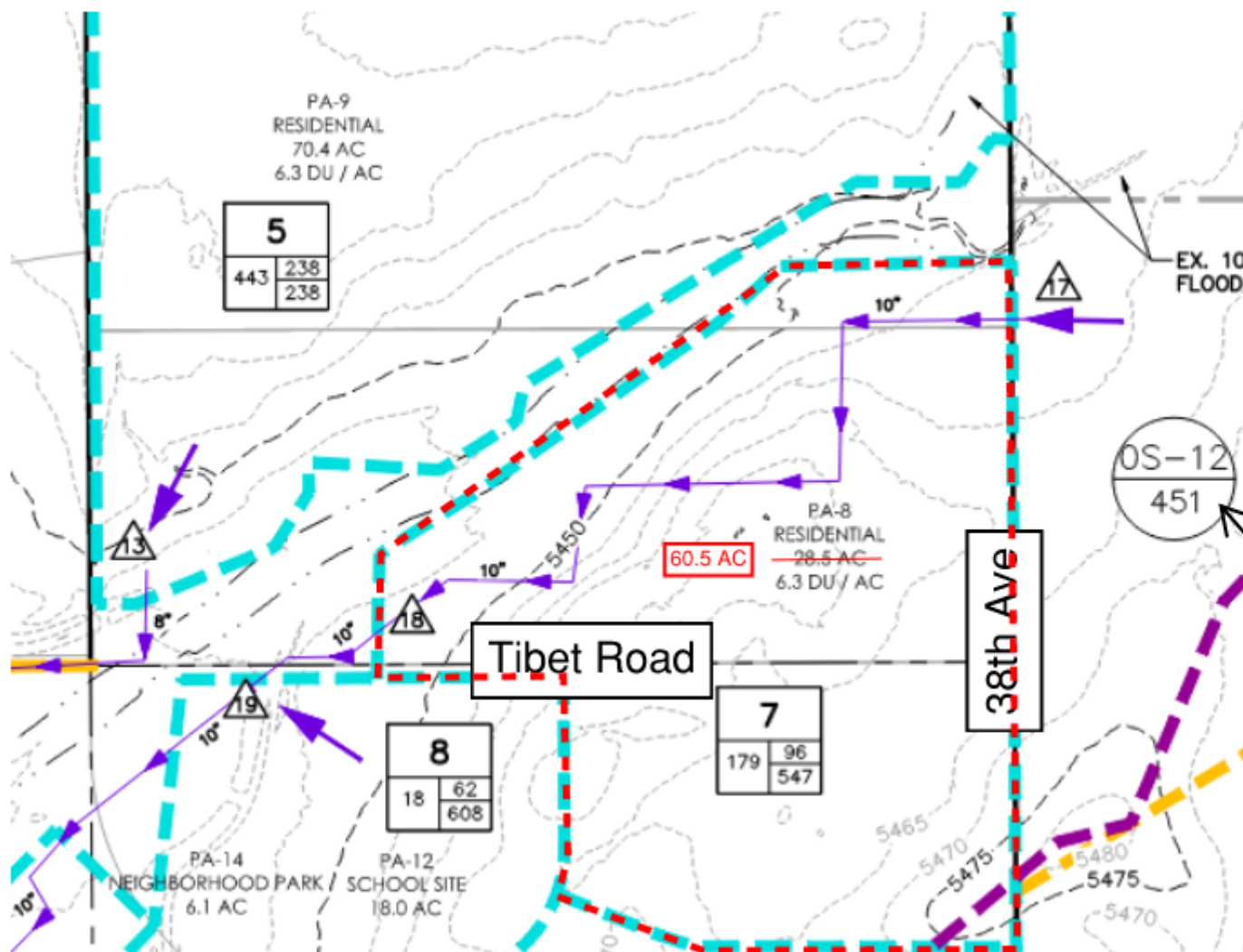
Hi Steve-

Thanks again for meeting with us this morning.

As discussed- there was an error in the original Calibre report for the PA-8/Basin 7 area. Approved calculations for Basin 7 used an area of 28.5 acres when the true area reflects around 60.5 acres. Original flows from the Calibre MUR show pipe capacity at 70% (Scenario 1 – clip below). However, when these flows are re-run with the correct area, pipe capacity rises to 77% - which is over the 75% capacity set by COA criteria (Scenario 2 – clip below). Scenario 3 below calculates what the pipe capacity would be for the PA-8 area with the latest proposed site plan, in which pipe capacity is calculated at 79%.

Will COA allow for any variances to the pipe capacity % since there was a discrepancy in the original MUR?

Clip of Calibre's MUR map for PA-8 & PA-9 annotated:



Original flows from the Calibre MUR:

SCENARIO 1:

Scenario	Design Point	Design Flow (mgd)	Pipe Capacity
Original Calibre MUR Flows	DP-17	0.65	56%
	DP-18	0.79	64%
	DP-19	0.88	70%

Updated flows from the Calibre MUR w/ corrected area:

SCENARIO 2:

Scenario	Design Point	Design Flow (mgd)	Pipe Capacity
Original Calibre MUR Flows With Corrected PA-8 Area	DP-17	0.65	56%
	DP-18	0.90	71%
	DP-19	0.99	77%

Updated flows calculated assuming proposed PA-8 site plan with residential and commercial use:

SCENARIO 3:

Scenario	Design Point	Design Flow (mgd)	Pipe Capacity
Calibre Off-site Flows (0.65 MGD) & PA-56 is commercial	DP-17	0.65	56%
	DP-18	0.94	73%
	DP-19	1.03	79%

Let us know what you think-

Thanks much,

Julie Menah, EI

Staff Engineer

D 321.354.9622

www.dewberry.com

Supporting Calculations

Sanitary Sewer Calculations

TABLE 1: SANITARY SEWER DEMANDS										
BASIN CHARACTERISTICS				RESIDENTIAL					NON-RESIDENTIAL	TOTAL
BASIN		LAND USE	AREA (ACRES)	MAXIMUM NO. UNITS	DENSITY (unit/acre)	POPULATION	AVERAGE DAILY FLOW PER UNIT (gpd)	AVERAGE FLOW (gpd)	AVERAGE DAILY FLOW PER ACRE	TOTAL AVERAGE SEWAGE FLOW (gpd)
Basin 5	PA-9	RESIDENTIAL	64.5	516	8	1430	188.36	97193.76		
		TOTAL						97193.76		97193.76
Basin 6 (Filing 22)(PA-5) ¹		RESIDENTIAL	24.6	180	7.4	499	188.36	33904.80		
		TOTAL						33904.80		33904.80
	Filing 7 (PA-7)	RESIDENTIAL	22.65	138	6.09	383	188.36	25993.68		
	PA-8	RESIDENTIAL	18.4	147	8	408	188.36	27726.59		
	PA-70	RESIDENTIAL	4.7	38	8	105	188.36	7082.34		
	AAC-1 ²	RESIDENTIAL	6.7	134	20	372	188.36	25240.24		
Basin 7		TOTAL						86042.85		86042.85
Basin 310-4 ³		MIXED USE	17.2	258	15	715	188.36	48596.88	1500	25800.00
		TOTAL						48596.88	25800.00	74396.88
Offsite flows per Windler MUR and Aurora Highlands MUR										
TAH ⁴		MIXED USE	3494.24	14853	5.8	41142	188.36	2790000.00	2362000.00	
		TOTAL						2790000.00	2362000.00	5152000.00
Windler ⁵		RESIDENTIAL AND PARKS	117.77	139	2310	1981	188.36	156240.00	15000.00	
		TOTAL						156240.00	15000.00	171240.00
Basin 8		SCHOOL	18.0						1200	21600.00
									21600.00	21600.00

1: Basin 6 updated with Filing 22 Utility Letter. (RSN #1849820)

2. AAC-1, part of Basin 7, is being zoned as AAC with this Master Plan Amendment. However, due to the uncertainty of the future use of this PA, calculations with this letter assume worst case scenario in order to provide flexibility for the developer in the future. Worst case scenario flows for AAC-1 were calculated using a high-density residential use of 20 du/ac.

3. Basin 310-4 updated per the Green Valley Ranch Master Utility Report Amendment 2 (DA-1662-25)

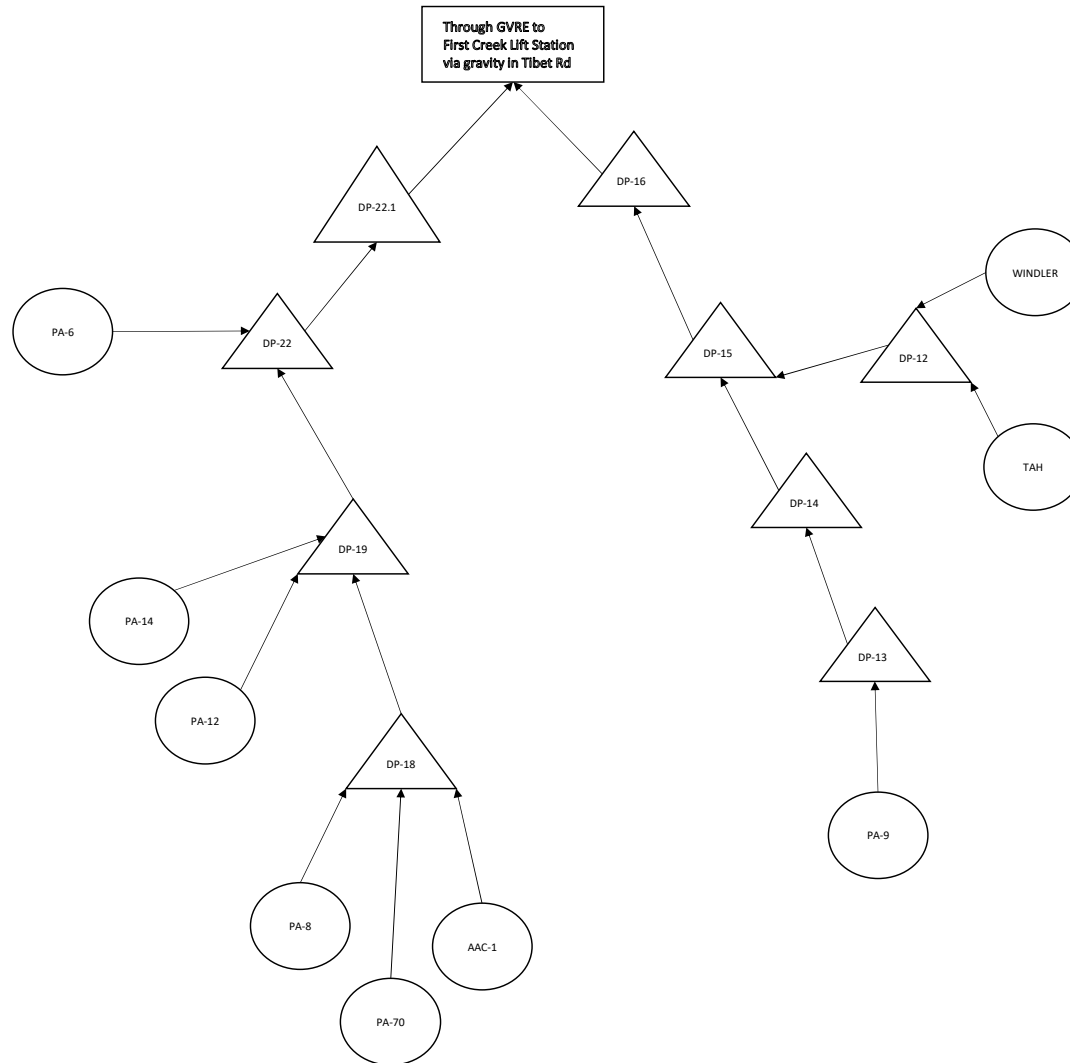
4. Basin flow values from the Aurora Master Utility Report (EDN #219069)

5. Basin flow values from the Windler Master Utility Report (EDN #222155)

TABLE 2: SANITARY SEWER ROUTING														
Design Point	Basin(s)	Average Daily Flow (gpd)	Cumulative Equivalent Pop ¹	Peak Factor	Peak Flow (gpd)	Inflow and Infiltration (gpd)	Design Flow (gpd)	Design Flow (mgd)	Design Flow (cfs)	Req'd Pipe Diameter (in)	Req'd PipeSlope (Percent)	Velocity (ft/s)	Depth of Flow (in)	Depth of Ratio (Percent)
DP-18	Basin 7	86042.85	1265.34											
Total		86042.85	1265.34	4.00	344171.39	8604.28	352775.68	0.35	0.55	10.00	0.4%	2.70	4.0	40%
DP-19	Basin 7	86042.85	1265.34											
	Basin 8	21600.00	317.65											
Total		107642.85	1582.98	4.00	430571.39	10764.28	441335.68	0.44	0.68	10.00	0.4%	2.87	4.5	45%
DP-13	Basin 5	97193.76												
Total		97193.76	1429.32	4.00	388775.04	9719.38	398494.42	0.40	0.62	8.00	0.4%	2.79	4.9	61%
DP-15	Basin 310-43	74396.88	1094.07											
	TAH4	5152000.00	75764.71											
	Windler5	171240.00	2518.24											
	Basin 6	33904.80	498.60											
	Basin 5	97193.76	1429.32											
Total		5528735.44	81304.93	2.40	13261916.57	552873.54	13814790.11	13.81	21.37	36.00	0.4%	6.78	16.5	46%

1. Cumulative Equivalent Population = Total Average Daily Flow at a design point ÷ 68 gallons per day

Green Valley Master Plan Amendment 2 Routing Schematic



Worksheet for DP-13

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	8.0 in
Discharge	0.62 cfs
Results	
Normal Depth	4.9 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.2 ft
Hydraulic Radius	2.2 in
Top Width	0.65 ft
Critical Depth	4.4 in
Percent Full	60.9 %
Critical Slope	0.005 ft/ft
Velocity	2.79 ft/s
Velocity Head	0.12 ft
Specific Energy	0.53 ft
Froude Number	0.841
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.002 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	0.0 %
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	4.9 in
Critical Depth	4.4 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for DP-15

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	36.0 in
Discharge	21.37 cfs
Results	
Normal Depth	16.5 in
Flow Area	3.2 ft ²
Wetted Perimeter	4.5 ft
Hydraulic Radius	8.5 in
Top Width	2.99 ft
Critical Depth	17.8 in
Percent Full	45.7 %
Critical Slope	0.003 ft/ft
Velocity	6.78 ft/s
Velocity Head	0.71 ft
Specific Energy	2.09 ft
Froude Number	1.164
Maximum Discharge	53.62 cfs
Discharge Full	49.85 cfs
Slope Full	0.001 ft/ft
Flow Type	Supercritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	45.7 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	16.5 in
Critical Depth	17.8 in
Channel Slope	0.004 ft/ft
Critical Slope	0.003 ft/ft

Worksheet for DP-18

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	10.0 in
Discharge	0.55 cfs
Results	
Normal Depth	4.0 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.1 ft
Hydraulic Radius	2.1 in
Top Width	0.82 ft
Critical Depth	3.9 in
Percent Full	39.9 %
Critical Slope	0.004 ft/ft
Velocity	2.70 ft/s
Velocity Head	0.11 ft
Specific Energy	0.45 ft
Froude Number	0.955
Maximum Discharge	1.76 cfs
Discharge Full	1.64 cfs
Slope Full	0.000 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	0.0 %
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	4.0 in
Critical Depth	3.9 in
Channel Slope	0.004 ft/ft
Critical Slope	0.004 ft/ft

Worksheet for DP-19

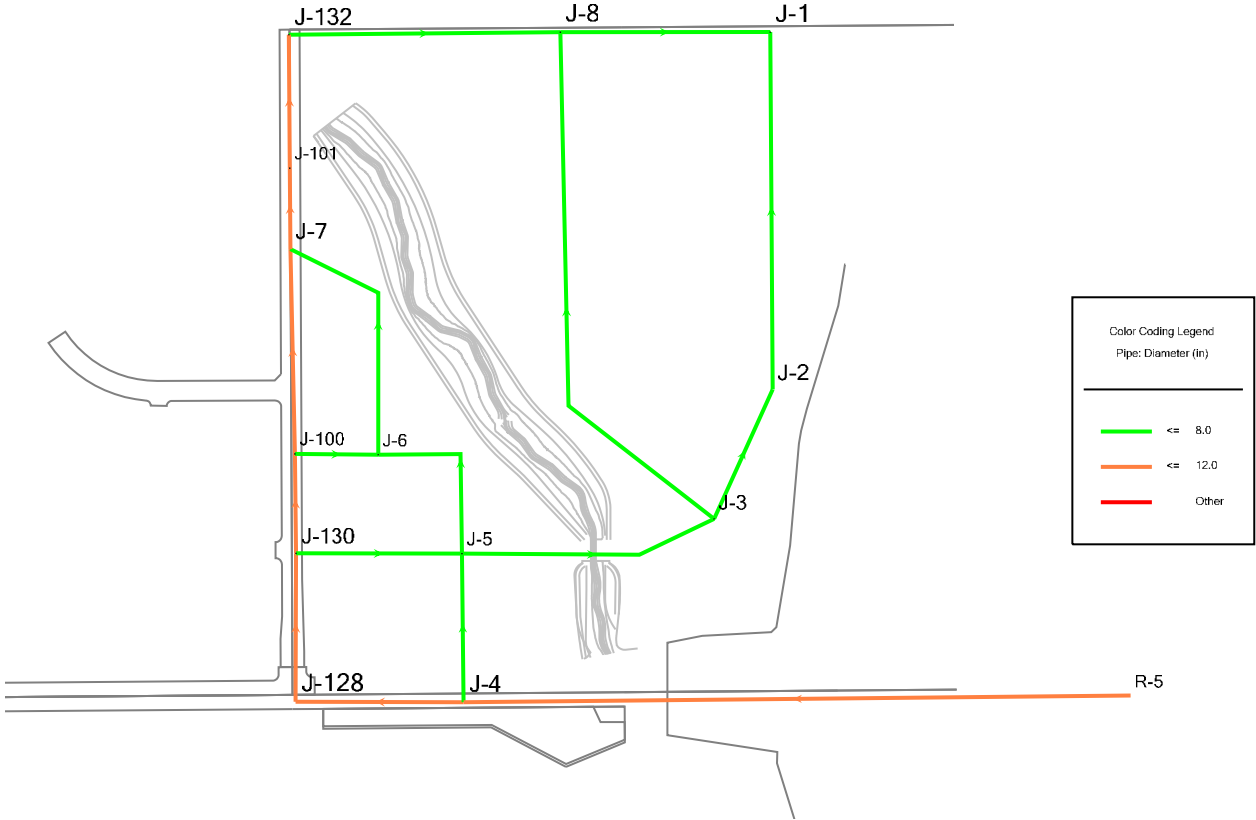
Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	10.0 in
Discharge	0.68 cfs
Results	
Normal Depth	4.5 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.2 ft
Hydraulic Radius	2.3 in
Top Width	0.83 ft
Critical Depth	4.4 in
Percent Full	44.9 %
Critical Slope	0.004 ft/ft
Velocity	2.87 ft/s
Velocity Head	0.13 ft
Specific Energy	0.50 ft
Froude Number	0.944
Maximum Discharge	1.76 cfs
Discharge Full	1.64 cfs
Slope Full	0.001 ft/ft
Flow Type	Subcritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	0.0 %
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	4.5 in
Critical Depth	4.4 in
Channel Slope	0.004 ft/ft
Critical Slope	0.004 ft/ft

Water Calculations

TABLE 1: ON-SITE WATER DEMANDS													
Planning Area	Max # of SFD/SFD Units	Residential People/Units	Total People	Non-Residential Acreage	Use	Demand (GPD/Acre)	Avg. Daily Demand (GPD)	Avg. Daily Demand (GPM)	Max. Daily Demand (GPD)	Max. Daily Demand (GPM)	Max. Hour Demand (GPD)	Max. Hour Demand (GPM)	Node(s)
PA-9							149434.00	103.77	418415.20	290.57	633573.00	439.98	J-1, J-2, J-3, J-8, J-132
	503	2.77	1394		Residential		140794.00	97.77	394223.20	273.77	633573.00	439.98	
				4.8	PA-39 & PA-69	1800	8640.00	6.00	24192.00	16.80	N/A	N/A	
PA-8							42108.00	29.24	117902.40	81.88	185436.00	128.78	J-5, J-6, J-7, J-100, J-130
	147	2.77	408		Residential		41208.00	28.62	115382.40	80.13	185436.00	128.78	
				0.5	PA-41	1800	900.00	0.63	2520.00	1.75	N/A	N/A	
PA-70	38	2.77	105		Residential		10605.00	7.36	29694.00	20.62	47722.50	33.14	J-4, J-5
AAC-1 ¹	134	2.77	372		MF Residential		37572.00	26.09	105201.60	73.06	169074.00	117.41	J-4, J-5, J-128, J-130
Totals:							239719.00	166.47	671213.20	466.12	1035805.50	719.31	

1: AAC-1, part of Basin 7, is being zoned as AAC with this Master Plan Amendment. However, due to the uncertainty of the future use of this PA, calculations with this letter assume worst case scenario in order to provide flexibility for the developer in the future. Worst case scenario flows for AAC-1 were calculated using a high-density residential use of 20 du/ac

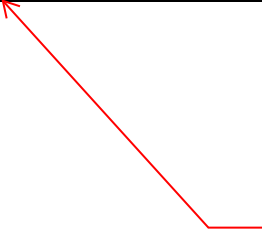
Green Valley Master Plan Amendment 3



Average Daily

Reservoir Table - Time: 0.00 hours

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-5	5,719.80	167	5,719.80



Reservoir elevation referenced from
R-5 within the Green Valley -
Amendment 1 Master Utility Report
(EDN #218184)

Average Daily
Junction Table - Time: 0.00 hours

Label	Elevation (ft)	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)	Fire Flow (Needed) (gpm)
J-1	5,474.30	<Collection: 1 item>	21	5,719.50	106	2,500
J-8	5,462.36	<Collection: 1 item>	21	5,719.50	111	2,500
J-2	5,470.21	<Collection: 1 item>	21	5,719.50	108	2,500
J-3	5,468.11	<Collection: 1 item>	21	5,719.50	109	2,500
J-4	5,455.19	<Collection: 2 items>	10	5,719.61	114	2,500
J-128	5,467.79	<Collection: 1 item>	7	5,719.58	109	2,500
J-130	5,467.31	<Collection: 2 items>	12	5,719.57	109	2,500
J-100	5,459.73	<Collection: 1 item>	6	5,719.56	112	2,500
J-7	5,447.37	<Collection: 1 item>	6	5,719.55	118	2,500
J-5	5,464.18	<Collection: 3 items>	16	5,719.56	110	2,500
J-132	5,441.51	<Collection: 1 item>	21	5,719.55	120	2,500
J-6	5,461.42	<Collection: 1 item>	6	5,719.56	112	2,500
J-101	5,445.16	<Collection: 0 items>	0	5,719.55	119	2,500

Average Daily
Pipe Table - Time: 0.00 hours

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen- Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	835	J-1	J-8	8.0	PVC	150.0	-20	0.13	0.010
P-2	1,081	J-8	J-132	8.0	PVC	150.0	-39	0.25	0.034
P-4	816	J-7	J-100	12.0	PVC	150.0	-52	0.15	0.007
P-5	396	J-100	J-130	12.0	PVC	150.0	-61	0.17	0.011
P-6	591	J-130	J-128	12.0	PVC	150.0	-86	0.24	0.021
P-7	669	J-128	J-4	12.0	PVC	150.0	-92	0.26	0.024
P-10	566	J-3	J-2	8.0	PVC	150.0	21	0.14	0.011
P-11	1,424	J-2	J-1	8.0	PVC	150.0	0	0.00	0.000
P-12	2,223	J-8	J-3	8.0	PVC	150.0	-3	0.02	0.000
P-13	1,036	J-3	J-5	8.0	PVC	150.0	-44	0.28	0.044
P-14	660	J-5	J-130	8.0	PVC	150.0	-12	0.08	0.003
P-17	592	J-5	J-4	8.0	PVC	150.0	-64	0.41	0.087
P-18	2,655	J-4	R-5	12.0	PVC	150.0	-167	0.47	0.070
P-15(1)	724	J-5	J-6	8.0	PVC	150.0	16	0.10	0.007
P-15(2)	332	J-6	J-100	8.0	PVC	150.0	-4	0.02	0.000
P-19	1,035	J-7	J-6	8.0	PVC	150.0	-14	0.09	0.005
P-3(1)	531	J-132	J-101	12.0	PVC	150.0	-59	0.17	0.011
P-3(2)	323	J-101	J-7	12.0	PVC	150.0	-59	0.17	0.011

Max Daily
Junction Table - Time: 0.00 hours

Label	Elevation (ft)	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)	Fire Flow (Needed) (gpm)
J-1	5,474.30	<Collection: 1 item>	58	5,717.76	105	2,500
J-8	5,462.36	<Collection: 1 item>	58	5,717.81	111	2,500
J-2	5,470.21	<Collection: 1 item>	58	5,717.76	107	2,500
J-3	5,468.11	<Collection: 1 item>	58	5,717.81	108	2,500
J-4	5,455.19	<Collection: 2 items>	29	5,718.54	114	2,500
J-128	5,467.79	<Collection: 1 item>	18	5,718.29	108	2,500
J-130	5,467.31	<Collection: 2 items>	35	5,718.22	109	2,500
J-100	5,459.73	<Collection: 1 item>	16	5,718.17	112	2,500
J-7	5,447.37	<Collection: 1 item>	16	5,718.13	117	2,500
J-5	5,464.18	<Collection: 3 items>	45	5,718.20	110	2,500
J-132	5,441.51	<Collection: 1 item>	58	5,718.09	120	2,500
J-6	5,461.42	<Collection: 1 item>	16	5,718.17	111	2,500
J-101	5,445.16	<Collection: 0 items>	0	5,718.12	118	2,500

Max Daily

Pipe Table - Time: 0.00 hours

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen- Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	835	J-1	J-8	8.0	PVC	150.0	-57	0.36	0.069
P-2	1,081	J-8	J-132	8.0	PVC	150.0	-108	0.69	0.227
P-4	816	J-7	J-100	12.0	PVC	150.0	-144	0.41	0.054
P-5	396	J-100	J-130	12.0	PVC	150.0	-172	0.49	0.075
P-6	591	J-130	J-128	12.0	PVC	150.0	-240	0.68	0.138
P-7	669	J-128	J-4	12.0	PVC	150.0	-258	0.73	0.158
P-10	566	J-3	J-2	8.0	PVC	150.0	59	0.38	0.075
P-11	1,424	J-2	J-1	8.0	PVC	150.0	1	0.01	0.000
P-12	2,223	J-8	J-3	8.0	PVC	150.0	-7	0.04	0.002
P-13	1,036	J-3	J-5	8.0	PVC	150.0	-125	0.79	0.296
P-14	660	J-5	J-130	8.0	PVC	150.0	-33	0.21	0.026
P-17	592	J-5	J-4	8.0	PVC	150.0	-180	1.15	0.583
P-18	2,655	J-4	R-5	12.0	PVC	150.0	-466	1.32	0.473
P-15(1)	724	J-5	J-6	8.0	PVC	150.0	44	0.28	0.043
P-15(2)	332	J-6	J-100	8.0	PVC	150.0	-11	0.07	0.003
P-19	1,035	J-7	J-6	8.0	PVC	150.0	-38	0.24	0.033
P-3(1)	531	J-132	J-101	12.0	PVC	150.0	-166	0.47	0.070
P-3(2)	323	J-101	J-7	12.0	PVC	150.0	-166	0.47	0.069

Max Hour
Junction Table - Time: 0.00 hours

Label	Elevation (ft)	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)	Fire Flow (Needed) (gpm)
J-1	5,474.30	<Collection: 1 item>	88	5,715.28	104	2,500
J-8	5,462.36	<Collection: 1 item>	88	5,715.39	109	2,500
J-2	5,470.21	<Collection: 1 item>	88	5,715.28	106	2,500
J-3	5,468.11	<Collection: 1 item>	88	5,715.40	107	2,500
J-4	5,455.19	<Collection: 2 items>	46	5,716.99	113	2,500
J-128	5,467.79	<Collection: 1 item>	29	5,716.43	108	2,500
J-130	5,467.31	<Collection: 2 items>	55	5,716.28	108	2,500
J-100	5,459.73	<Collection: 1 item>	26	5,716.16	111	2,500
J-7	5,447.37	<Collection: 1 item>	26	5,716.09	116	2,500
J-5	5,464.18	<Collection: 3 items>	72	5,716.23	109	2,500
J-132	5,441.51	<Collection: 1 item>	88	5,716.00	119	2,500
J-6	5,461.42	<Collection: 1 item>	26	5,716.16	110	2,500
J-101	5,445.16	<Collection: 0 items>	0	5,716.05	117	2,500

Max Hour

Pipe Table - Time: 0.00 hours

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen- Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	835	J-1	J-8	8.0	PVC	150.0	-86	0.55	0.150
P-2	1,081	J-8	J-132	8.0	PVC	150.0	-163	1.04	0.488
P-4	816	J-7	J-100	12.0	PVC	150.0	-219	0.62	0.117
P-5	396	J-100	J-130	12.0	PVC	150.0	-262	0.74	0.162
P-6	591	J-130	J-128	12.0	PVC	150.0	-368	1.04	0.305
P-7	669	J-128	J-4	12.0	PVC	150.0	-397	1.13	0.352
P-10	566	J-3	J-2	8.0	PVC	150.0	90	0.57	0.162
P-11	1,424	J-2	J-1	8.0	PVC	150.0	2	0.01	0.000
P-12	2,223	J-8	J-3	8.0	PVC	150.0	-11	0.07	0.003
P-13	1,036	J-3	J-5	8.0	PVC	150.0	-189	1.20	0.639
P-14	660	J-5	J-130	8.0	PVC	150.0	-51	0.32	0.056
P-17	592	J-5	J-4	8.0	PVC	150.0	-276	1.76	1.295
P-18	2,655	J-4	R-5	12.0	PVC	150.0	-719	2.04	1.057
P-15(1)	724	J-5	J-6	8.0	PVC	150.0	67	0.43	0.093
P-15(2)	332	J-6	J-100	8.0	PVC	150.0	-17	0.11	0.008
P-19	1,035	J-7	J-6	8.0	PVC	150.0	-58	0.37	0.071
P-3(1)	531	J-132	J-101	12.0	PVC	150.0	-251	0.71	0.152
P-3(2)	323	J-101	J-7	12.0	PVC	150.0	-251	0.71	0.150

Fire Flow

Junction Table - Time: 0.00 hours

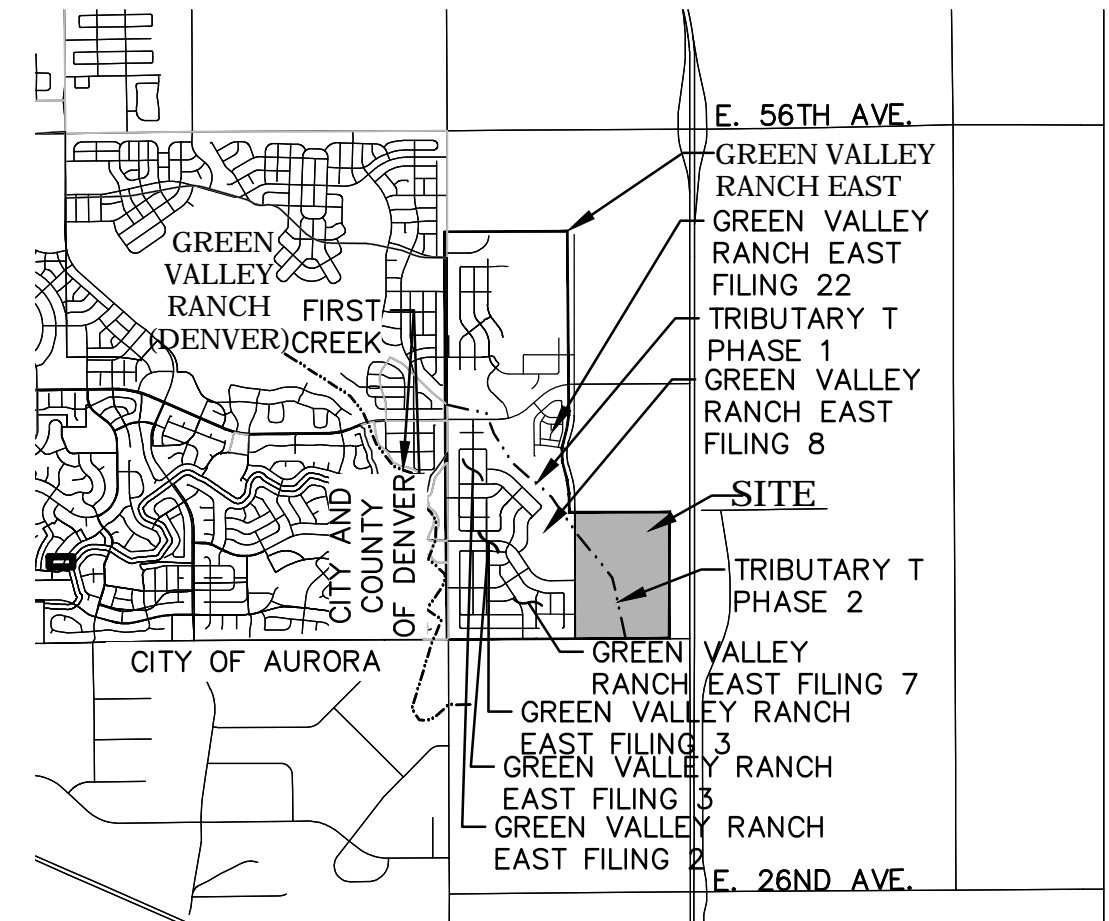
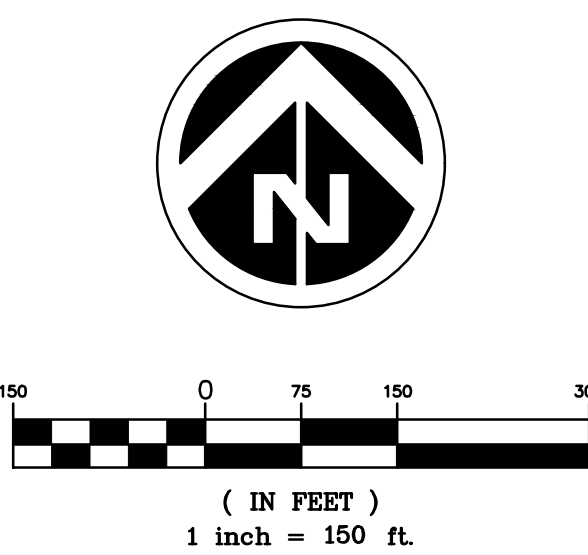
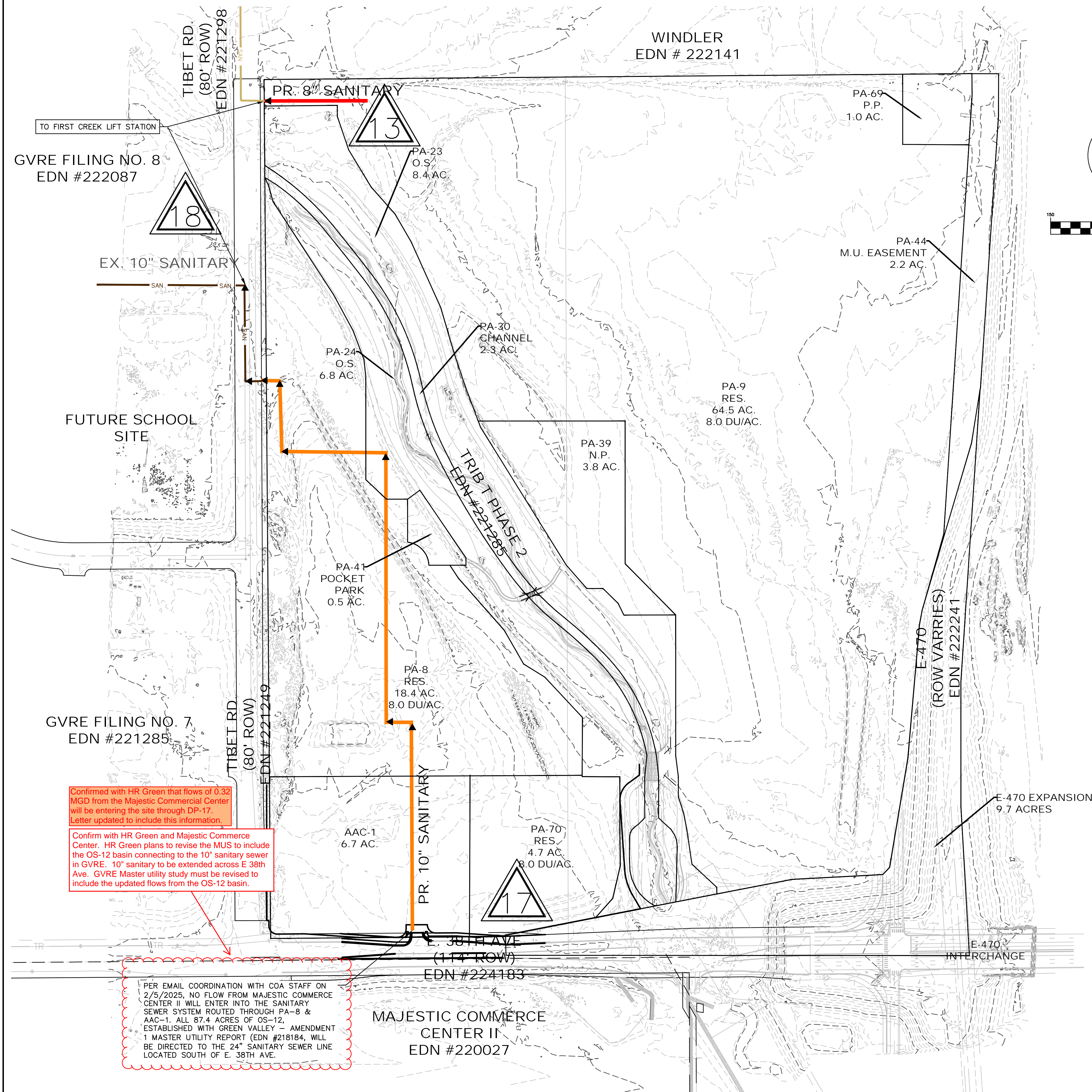
Label	Elevation (ft)	Demand Collection	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)	Fire Flow (Needed) (gpm)
J-1	5,474.30	<Collection: 1 item>	58	5,717.76	105	2,500
J-8	5,462.36	<Collection: 1 item>	58	5,717.81	111	2,500
J-2	5,470.21	<Collection: 1 item>	58	5,717.76	107	2,500
J-3	5,468.11	<Collection: 1 item>	58	5,717.81	108	2,500
J-4	5,455.19	<Collection: 2 items>	29	5,718.54	114	2,500
J-128	5,467.79	<Collection: 1 item>	18	5,718.29	108	2,500
J-130	5,467.31	<Collection: 2 items>	35	5,718.22	109	2,500
J-100	5,459.73	<Collection: 1 item>	16	5,718.17	112	2,500
J-7	5,447.37	<Collection: 1 item>	16	5,718.13	117	2,500
J-5	5,464.18	<Collection: 3 items>	45	5,718.20	110	2,500
J-132	5,441.51	<Collection: 1 item>	58	5,718.09	120	2,500
J-6	5,461.42	<Collection: 1 item>	16	5,718.17	111	2,500
J-101	5,445.16	<Collection: 0 items>	0	5,718.12	118	2,500

Fire Flow

Pipe Table - Time: 0.00 hours

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen- Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	835	J-1	J-8	8.0	PVC	150.0	-57	0.36	0.069
P-2	1,081	J-8	J-132	8.0	PVC	150.0	-108	0.69	0.227
P-4	816	J-7	J-100	12.0	PVC	150.0	-144	0.41	0.054
P-5	396	J-100	J-130	12.0	PVC	150.0	-172	0.49	0.075
P-6	591	J-130	J-128	12.0	PVC	150.0	-240	0.68	0.138
P-7	669	J-128	J-4	12.0	PVC	150.0	-258	0.73	0.158
P-10	566	J-3	J-2	8.0	PVC	150.0	59	0.38	0.075
P-11	1,424	J-2	J-1	8.0	PVC	150.0	1	0.01	0.000
P-12	2,223	J-8	J-3	8.0	PVC	150.0	-7	0.04	0.002
P-13	1,036	J-3	J-5	8.0	PVC	150.0	-125	0.79	0.296
P-14	660	J-5	J-130	8.0	PVC	150.0	-33	0.21	0.026
P-17	592	J-5	J-4	8.0	PVC	150.0	-180	1.15	0.583
P-18	2,655	J-4	R-5	12.0	PVC	150.0	-466	1.32	0.473
P-15(1)	724	J-5	J-6	8.0	PVC	150.0	44	0.28	0.043
P-15(2)	332	J-6	J-100	8.0	PVC	150.0	-11	0.07	0.003
P-19	1,035	J-7	J-6	8.0	PVC	150.0	-38	0.24	0.033
P-3(1)	531	J-132	J-101	12.0	PVC	150.0	-166	0.47	0.070
P-3(2)	323	J-101	J-7	12.0	PVC	150.0	-166	0.47	0.069

GREEN VALLEY MASTER PLAN AMENDMENT 3



VICINITY MAP
SCALE: 1"=4000'

LEGEND

8" SANITARY ———

10" SANITARY ———

EX. 8" SANITARY — SAN —

EX. 10" SANITARY — SAN —

SANITARY DESIGN POINT

NOTE:
GRAVITY SEWER MAINS SERVING FUTURE PA-8, PA-70, AND AAC-1 HAVE THE POTENTIAL TO BE DOWN SIZED TO AN 8-INCH BASED ON FINAL SITE PLAN CONFIGURATION. DEVIATION FROM THE 10-INCH GRAVITY SEWER PROPOSED WITH THIS LETTER IS ALLOWED BUT MUST BE JUSTIFIED AND APPROVED WITH THE FUTURE CONSTRUCTION DOCUMENTS.

Confirmed with HR Green that flows of 0.32 MGD from the Majestic Commercial Center will be entering the site through DP-17. Letter updated to include this information.

Confirm with HR Green and Majestic Commerce Center. HR Green plans to revise the MUS to include the OS-12 basin connecting to the 10" sanitary sewer in GVRE. 10" sanitary to be extended across E 38th Ave. GVRE Master utility study must be revised to include the updated flows from the OS-12 basin.

PER EMAIL COORDINATION WITH COA STAFF ON 2/5/2025, NO FLOW FROM MAJESTIC COMMERCE CENTER II WILL ENTER INTO THE SANITARY SEWER SYSTEM ROUTED THROUGH PA-8 & AAC-1. ALL 87.4 ACRES OF OS-12, ESTABLISHED WITH GREEN VALLEY - AMENDMENT 1 MASTER UTILITY REPORT (EDN #218184, WILL BE DIRECTED TO THE 24" SANITARY SEWER LINE LOCATED SOUTH OF E. 38TH AVE.

Approved For One Year From This Date

City Engineer	_____	_____
Water Department	_____	Date
Parks, Recreation and Open Space	_____	Date
Fire Department	_____	Date
Traffic Manager	_____	Date

Dewberry
Dewberry Engineers Inc.
2011 Cherry Street, Suite 206
Louisville, CO 80027
720.975.0177
Contact: Kenneth S. Cecil, P.E., CFM
Email: kcecil@dewberry.com

GREEN VALLEY MASTER PLAN AMENDMENT 3
MASTER UTILITY STUDY
SEWER MAIN MODELING EXHIBIT

Client Information
OAKWOOD HOMES
18655 GREEN VALLEY RANCH BLVD
DENVER, CO 80249
Tel: 303-486-8734
Contact: DAVID CARRO

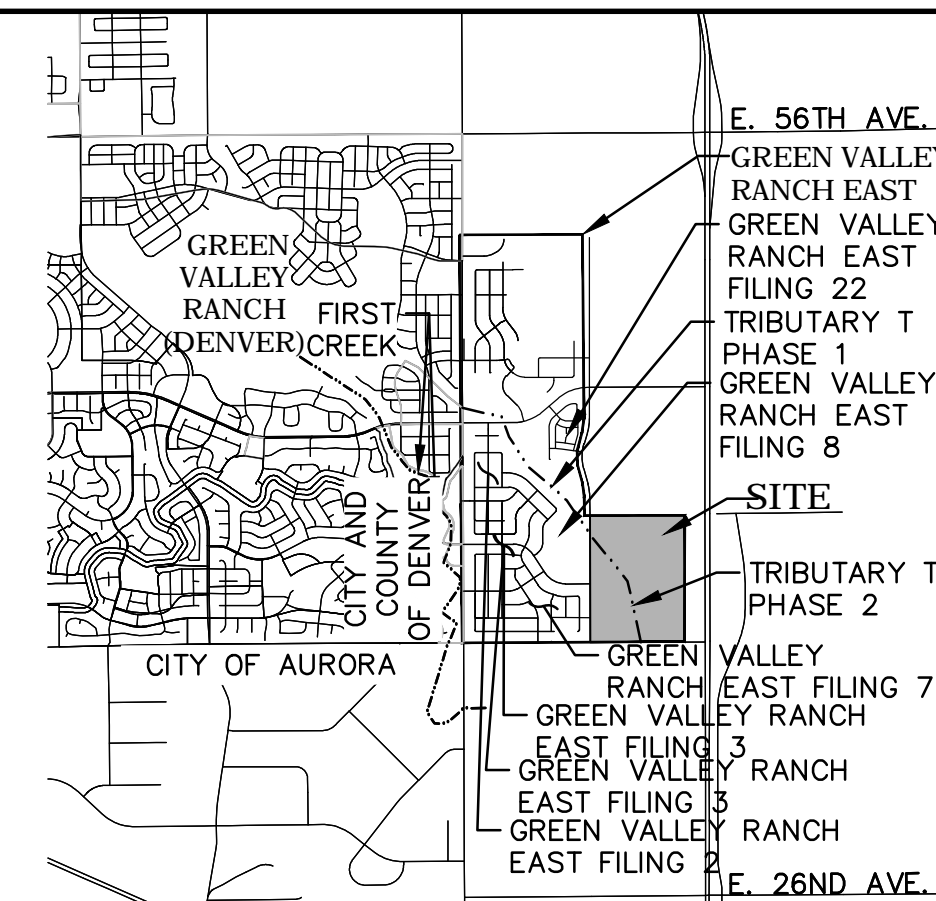
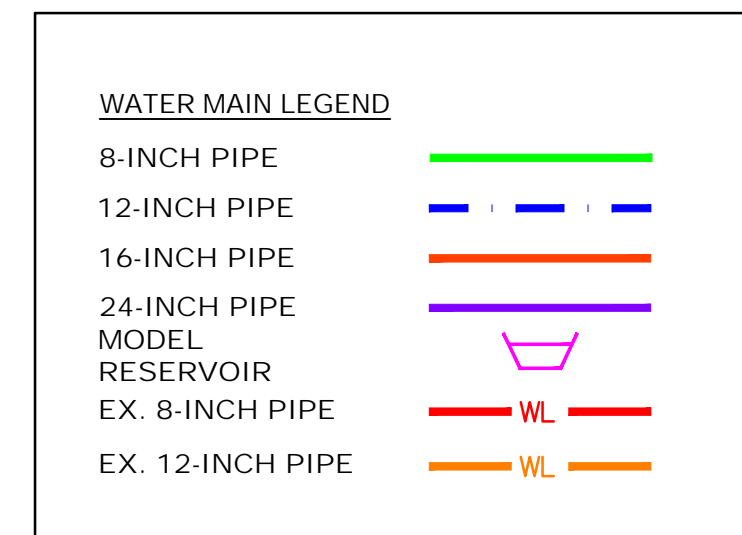
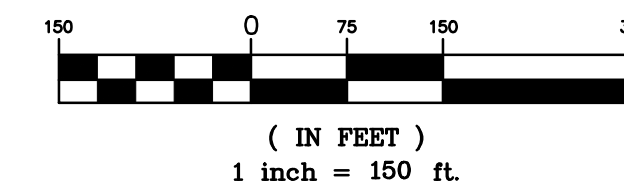
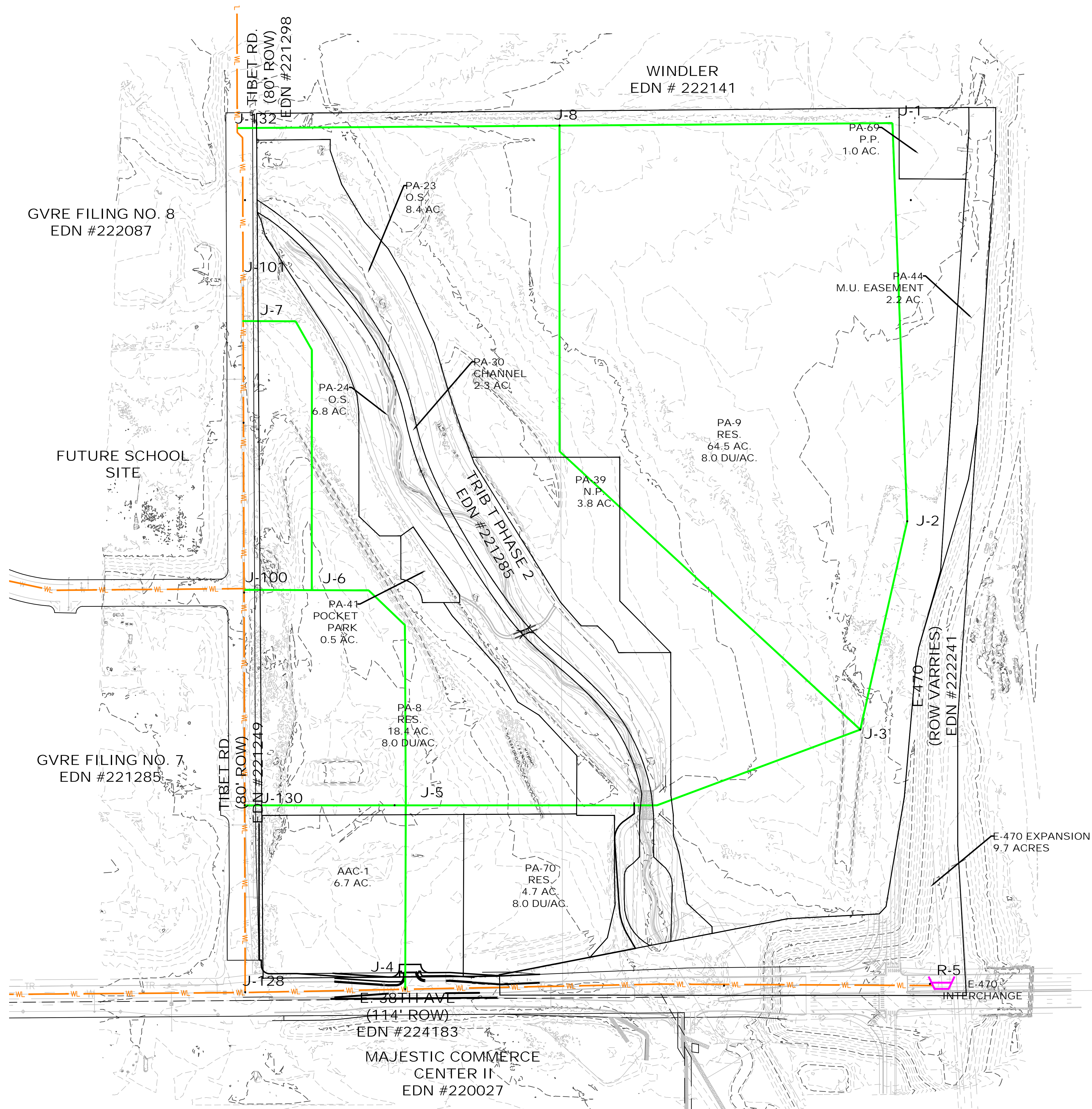
No.	Date	Description
1	2/14/2025	FIRST SUBMITTAL

PROJECT Number: 50145755
Designed By: Drawn By: CJR
Checked By: JS
Sheet Number: _____

PRELIMINARY
NOT FOR
CONSTRUCTION

DOCUMENT AMENDMENTS

GREEN VALLEY MASTER PLAN AMENDMENT 3



VICINITY MAP
SCALE: 1"=4000

Dewberry.
Dewberry Engineers Inc.
2011 Cherry Street, Suite 206
Louisville, CO 80027
720.975.0177
Contact: Kenneth S. Cecil, PE, CFM
Email: kcecil@dewberry.com

GREEN VALLEY MASTER PLAN AMENDMENT 3 MASTER UTILITY STUDY WATER MAIN MODELING EXHIBIT

Client Information
OAKWOOD HOMES
18655 GREEN VALLEY
RANCH BLVD
DENVER, CO 80249
Tel: 303-486-8734
Contact: DAVID CARRO

1	2/14/2025	FIRST SUBMITTAL	
No.	Date	Description	

DOCUMENT AMENDMENTS

PRELIMINARY
NOT FOR
CONSTRUCTION

Approved For One Year From This Date

City Engineer	
Water Department	Date
Parks, Recreation and Open Space	Date
Fire Department	Date
Traffic Manager	Date

Project Number:
60145755
 Designed By: **Dra**
CJR C
 Checked By:
JS
 Sheet Number: