



October 25, 2023

Planning & Development Services
Planning Division
15151 E. Alameda Parkway, Ste. 2300
Aurora, Colorado 80012

Re: Initial Submission Review: Windler Zoning Map Amendments and Master Plan Amendment No. 3
Application Number: DA-1707-36
Case Numbers: 2005-2017-03; 2005-2017-04; 2005-2017-05; 2021-4006-01

Dear Ms. Tibbs:

Thank you for your technical review comments. As requested, we revised the Master Plan to address the comments received from the city. We have provided responses to those comments below and also in the plan-set redlines included with this resubmittal.



Initial Submission Review

PLANNING DEPARTMENT COMMENTS

Community Questions, Comments, and Concerns

- 1A. No external referral comments or public comments were received with the initial referral. A neighborhood meeting will not be required for these applications at this time.

- *Acknowledged.*

Completeness and Clarity of the Application

- 2A. The outstanding development review fee balance of \$27,157.24 is due prior to the second submission. 2B. Please keep the PA numbers for approved site plans unchanged. This would include the residential PA's for FRLO Area 4 (PA 23-25). Rather than renumbering most of the PA's, add a note to the applicable sheets to indicate that the missing planning areas have been struck with this amendment to prevent confusion.

- *We have revised these PA's as requested.*

- 2C. Update the zoning justification letter to remove the reference to adjustments. Update the description of the rezonings.

- *Revised.*

- 2D. Exhibit D legal description includes area that is already zoned MU-A. The legal description should be drafted to only include land that will be rezoned from MU-R to MU-A.

- *Revised.*

Zoning and Subdivision Use Comments

- 3A. Remove data center from the land use category on line 18 of Form D, Tab 8. The note related to increased SF for data center uses will suffice. Data centers are considered an industrial use and do not need to be specifically listed as a permitted use. Form D should remain high level with general use categories and not specific ones.

- *Revised.*

- 3B. Revise the added note in Tab 9 that states PROS dedication shall be determined by lots platted at the time of site plan. Some of these areas will not be going through a site plan application, so the final determination shall be made at the time of final plat.

- *Revised.*

Streets and Pedestrian Comments

- 4A. A note on the I.2. street section in tab 14 has been modified since the previous approved document. Please call out the change and clarify if there is an intent to have the median within this section to be COA maintained.

- 4B. Clean up the minor corrections to the street hierarchy map on page 3 of Tab 14 (Streetscape package). 4C. Duquesne will extend to 55th per the Village North Site Plan. Please show this consistently on Tab 14.

- *Please refer to redlined plan set for responses.*

Architectural and Urban Design Comments

- 5A. Tab 10 revisions include a 2-family front loaded dwelling that do not appear to have front yard/street fronting building entries. This is not permitted by code. Regardless of garage orientation, two-family dwellings must always have individual lots and street fronting building entrances for each unit.

- *Acknowledged and revised.*

REFERRAL COMMENTS FROM OTHER DEPARTMENTS AND AGENCIES

1. Traffic Engineering (Josh Hoffmann / 303-739-1770 / jhoffman@aurorago.org / Comments in orange)

- 6A. Trip generation shows PA-1 through PA-23. However, the table is missing PA-24 through PA-29. Either add those to the table or provide a discussion as to why they are not in the updated table. In addition, highlight in the trip gen table in regards to what is changing from the MTIS.

- 6B. The NB Denali vehicle queues/storage lengths at 56th Ave would extend back/through the 55th Ave intersection. There needs to be a discussion on how to mitigate this queue.

- 6C. Provide signal timing sheets from Synchron.

- 6D. Previously approved Windler ISPs and CPs shall be reviewed to determine if they reflect necessary

intersection laneage, auxiliary lane lengths, etc identified in this Amendment.

6E. Please see comments throughout report.

- *Please refer to traffic response (provided after this letter) for specific adjustments.*

2. Aurora Water (Samantha Bayliff / 303-739-7292 / sbayliff@auroragov.org / Comments in red)

7A. Need to provide updated sanitary demands from zoning change. See redlined Master Utility Study.

- *Please refer to redlined plan set for responses.*

3. PROS (Scott Hammons / 303-739-7147 / shammons@auroragov.org / Comments in mauve) 8A.

Tab 8: The neighborhood park figured for PK-1 does not match the site plan.

8B. Tab 9: Remove references to COA ownership fo PK-2 and PK-4 as amended in the previous (second) amendment.

- *Please refer to redlined plan set for responses.*

Windler TIS - Comments

Aurora, CO

Monday, October 21, 2024



Page	Section - Paragraph	Sentence	Agency Comment	Comments & Concerns to be addressed	Consultant's Responses
1			Aurora	1. Trip generation shows PA-1 through PA-23. However, the table is missing PA-24 through PA-29. Either add those to the table or provide a discussion as to why they are not in the updated table. In Addition, highlight in the trip gen table in regards to what is changing from the MTIS.	In the updated site plan, some planing areas were consolidated resulting in less planning areas. The updated site plan is now included in the amendment memo.
1			Aurora	2. The NB Denali vehicle queues/storage lengths ar 56th Ave would extend back/through the 55th Ave intersection. There needs to be a discussion on how to mitigate this queue.	Timings were adjusted to reduce the northbound queueing at 56th Ave & Denali Blvd.
1			Aurora	3. Provide signal timing sheets from Synchro.	Timing sheet are provided in Appendix D
1			Aurora	4. Previously aproced Windler ISPs and CPs shall be reviewed to determine if they reflect necessary intersection laneage, auxiliary lane lengths, etc identified in this Amemdment	acknowledged
1	2		Aurora	Include the size with the shopping center.	Size of shopping center was added to the memo
Figure 1			Aurora	Add intersection 13	Intersection 13 was added to the graphic
4			Aurora	Add intersection operations discussion and LOS/delay tables	Operations discussion and LOS/delay table was added.
4	4	4	Aurora	Modify this sentence for clarity	sentence was rewritten for clarity.
4	4		Aurora	Add a note if there is or isn't any changes to auxiliary lane requirements.	Changes to auxiliary lane requirements were added to the colculsions section
			Aurora	1. Provide PA map	Updated PA map was added to the report
			Aurora	2. Provide internal capture worksheets	Internal capture worksheets are provided in Appendix A
			Aurora	4. Provide ITE trip generation rates/equations for all land uses	ITE trip generation rates/equations for all land uses are provided inAppendix A
			Aurora	add supermarket	821 LUC with Supermarket anchor was used, description has been updated
Queue Lengths			Aurora	Add intersection # for all intersections	Intersection # were added.
Queue Lengths			Aurora	The queues/storage would extend back into/through 55th Ave intersection	Timings were adjusted to reduce the northbound queueing at 56th Ave & Denali Blvd.
			Aurora	Provide all queue worksheets consistant with what was provided with MTIS	queueing sheets are provided in Appendix D

August 19, 2024

City of Aurora, Public Works
15151 E. Alameda Parkway
Aurora, CO 80012

Updated sanitary demands have been included on this page

Re: Windler Master Utility Conformance Letter

Need to provide updated sanitary demands from zoning change

To whom it may concern,

This letter serves as a Master Utility update for Windler Planning Area changes in PA 1, 3, 14, 15, and 16. Revised demand table and supporting calculations are included within this letter.

Based on the calculated water demand projections, no master utility report changes need to be made for the proposed waterline or sewer line sizes. The original layout had an average day demand of 470 GPM and a maximum day demand of 1,316 GPM. The proposed layout has an average day demand of 502 GPM and a maximum day demand of 1,408 GPM. The predicted water demand does increase with the proposed layout but this does not require an increase in pipe sizes anywhere. This increase also does not pose any issues with low pressures anywhere on site. Pressure tables have been included to support the minor demand increases.

The portion of the site west of E-470 is not included in these calculations as these areas are largely unchanged from previous versions of the Land use map. Also the portion of this site west of E-470 does not impact the areas of concern east of E-470. Additional letters or amendments will be prepared for those areas if demands change from the approved study.

Calculations have been included showing that although demand has increased slightly, no changes to existing or proposed utilities needs to be made.

Please contact me if you have any questions.

Sincerely,

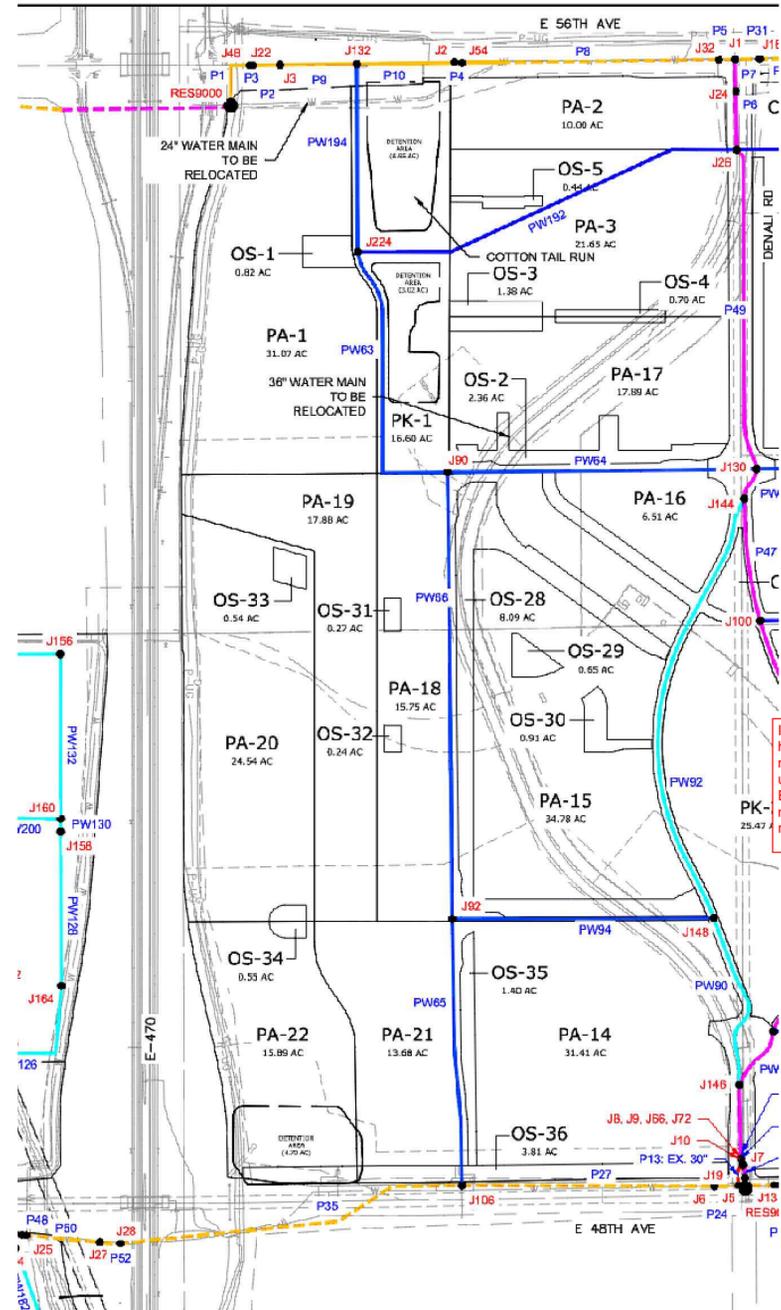
WESTWOOD PROFESSIONAL SERVICES

Tom Odle, PE
Senior Project Manager



A handwritten signature in blue ink, appearing to read "Tom Odle".

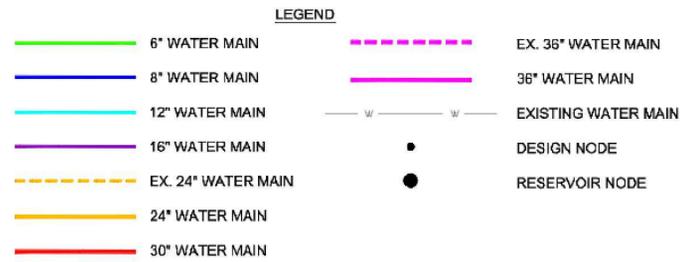
N:\PROJECTS\WINDLER\CAD\ENGINEERING\EXHIBITS\WINDLER MASTER UTILITY EXHIBIT.DWG, HQ/HANG, 5/28/24



In areas that have changed zoning, show that hydrants in the MU-A areas can meet the minimum 4000 GPM requirement for industrial uses.
Either increase main size or add lines to the network to supply that flow if the minimum requirement is not currently being met.

Water main PW65 has been upsized from 8" to 12" to meet the minimum 4000 GPM requirement for industrial use.

AND USE:



THT

SHEET NUMBER 1	DRAWN BY: JCN	SCALE: AS SHOWN	WINDLER PUBLIC IMPROVEMENT AUTHORITY (WPIA) 9155 E. NICHOLS AVENUE, SUITE 360 CENTENNIAL, CO 80112 CONTACT: CHRIS FELLOWS	Westwood 10333 E DRY CREEK RD. ENGLEWOOD, CO 80112 TEL: 720.482.9526 Westwoodps.com Westwood Professional Services, Inc.
	CHECKED BY: STF	FILE NO.:		
	DATE: 05-21-24		Revisions	
			Date	Date
			Appr.	Date

Water Distribution Demand Criteria				Fire Flow						
Land Use	Avg Day (gpd/acres)	Max Day (gpd/acres)	Peak Hour (gpd/acres)	Residential Criteria	Peaking Factors			Classification	Demand (gpm)	Time (hrs)
				People/Unit	2.77	Max day	2.8	Residential	1500	2
Commercial	1500	4200	6750	Avg day / Capita (gpd)	101	Max hour	4.5	Commercial/Multifamily	2500	2
Industrial (school	1200	3360	5400					Industrial	3500	3
Parks & Greenbel	1800	5040	N/A							

Hotel 98 gpd/Room

Windler - Water Demand Projections (Updated)

Map Area Code	Land Use	Nodes	Total Acres	Proposed Units	Avg Day Demand (gpd)	Avg Day Demand (gpm)	Max Day Demand (gpd)	Max Day Demand (gpm)	Peak Hour Demand (gpd)	Peak Hour Demand (gpm)	Required Fire Flow (gpm)	Max Day Demand + Fire Flow (gpm)
PA-1	MIXED COMM		26.81	N/A	40,215	27.93	112,602	78	180,968	126	2,500	2,578
PA-1	HOTEL		3	150	14,700	10.21	41,160	29	66,150	46	2,500	2,529
PA-2	MF		10.1	303	84,770	58.87	237,357	165	381,466	265	1,500	1,665
PA-3	SFD/SFA FLEX		36.35	380	106,313	73.83	297,675	207	478,407	332	1,500	1,707
PA-3	COMMERCIAL		2	N/A	3,000	2.08	8,400	6	13,500	9	2,500	2,506
PA-14	SFD/SFA		2.15	86	24,060	16.71	67,369	47	108,271	75	1,500	1,547
PA-14	MF		8	320	89,526	62.17	250,674	174	402,869	280	1,500	1,674
PA-14	COMMERCIAL		10	N/A	15,000	10.42	42,000	29	67,500	47	2,500	2,529
PA-15	SFD/SFA FLEX		92.89	697	195,000	135.42	545,999	379	877,499	609	1,500	1,879
PA-15	MF		3	90	25,179	17.49	70,502	49	113,307	79	1,500	1,549
PA-16	MIXED COMM		19.75	N/A	29,625	20.57	82,950	58	133,313	93	2500	2,558
PA-16	MF		10	345	96,521	67.03	270,258	188	434,343	302	1500	1,688
PA-16	HOTEL		9	350	34,300	23.82	96,040	67	154,350	107	1500	1,567
Total				2,721	723,909	502.71	2,026,946	1,408	3,257,591	2,262		24,408

Windler-Water Demand Projections (Original)												
Map Area Code	Land Use	Nodes	Total Acres	Proposed Units	Avg Day Demand (gpd)	Avg Day Demand (gpm)	Max Day Demand (gpd)	Max Day Demand (gpm)	Peak Hour Demand (gpd)	Peak Hour Demand (gpm)	Required Fire Flow (gpm)	Max Day Demand + Fire Flow (gpm)
PA-1	MIXED COMM		31.07	N/A	46,605	32	130,494	91	209,723	146	2,500	2,591
PA-2	MF		23.7	711	198,916	138	556,966	387	895,124	622	1,500	1,887
PA-3	SFA		6.95	76	21,388	15	59,888	42	96,248	67	1,500	1,542
PA-3	COMMERCIAL		1.00	N/A	1,500	1	4,200	3	6,750	5	2,500	2,503
PA-14	SFD/SFA		17.48	160	44,870	31	125,635	87	201,913	140	1,500	1,587
PA-14	MF		3.59	108	30,131	21	84,367	59	135,591	94	1,500	1,559
PA-14	COMMERCIAL		10.00	N/A	15,000	10	42,000	29	67,500	47	2,500	2,529
PA-15	SFD/SFA FLEX		34.78	313	87,574	61	245,206	170	394,081	274	1,500	1,670
PA-16	SFD/SFA FLEX		6.51	59	16,392	11	45,897	32	73,763	51	1,500	1,532
PA-17	SFD/SFA FLEX		16.89	152	42,528	30	119,078	83	191,376	133	1,500	1,583
PA-17	COMMERCIAL		1.00	N/A	1,500	1	4,200	3	6,750	5	2,500	2,503
PA-18	SFD/SFA/ FLEX		15.75	142	39,657	28	111,041	77	178,458	124	1,500	1,577
PA-20	MIXED COMM		24.54	N/A	36,810	26	103,068	72	165,645	115	2,500	2,572
PA-21	MIXED COMM		4.10	N/A	6,156	4	17,237	12	27,702	19	2,500	2,512
PA-21	MF		9.58	287	80,372	56	225,043	156	361,675	251	1,500	1,656
PA-22	MIXED COMM		4.77	N/A	5,151	5	20,021	14	32,177	22	2,500	2,514
Total				2,008	674,550	470	1,894,341	1,316	3,044,476	2,114		32,316

Are these areas now a part of the planning areas listed out on the updated table? It's unclear to me.

These original PA-17, 18, 20, 21, and 22 have been combined and packaged into the updated PA-1, 3, 14, 15, and 16. The demands are shown here as a more accurate 1:1 comparison of the area.

WINDLER DEVELOPMENT

Active Scenario: STATIC

Reservoir Table - Time: 0.00 hours

Label	Flow (Out net) (gpm)	Elevation (ft)
RES9000	0.00	5,710.00
RES9004	0.00	5,710.00
RES9008	0.00	5,710.00

Provide a water model showing 4000 GPM fire flow is attainable in the MU-A zoning.

Water main PW65 has been upsized from 8" to 12" to meet the minimum 4000 GPM requirement for industrial use.

WINDLER DEVELOPMENT

Active Scenario: STATIC

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)
P-1	260	24.0	150.0	0.00
P-3	273	24.0	150.0	0.00
P-4	144	24.0	150.0	0.00
P-5	126	24.0	150.0	0.00
P-6	289	36.0	150.0	0.00
P-7	197	36.0	150.0	0.00
P-8	738	24.0	150.0	0.00
P-9	435	24.0	150.0	0.00
P-10	831	24.0	150.0	0.00
P-11	135	24.0	150.0	0.00
P-15	181	24.0	150.0	0.00
P-16	1,179	24.0	150.0	0.00
P-17	1,291	24.0	150.0	0.00
P-23	1,276	24.0	150.0	0.00
P-24	203	24.0	150.0	0.01
P-27	1,123	24.0	150.0	0.00
P-30	275	24.0	150.0	0.00
P-31	99	24.0	150.0	0.00
P-34	843	24.0	150.0	0.00
P-37	1,143	24.0	150.0	0.00
P-41	932	36.0	150.0	0.00
P-43	325	36.0	150.0	0.00
P-47	488	36.0	150.0	0.00
P-47	1,349	8.0	150.0	0.00
P-49	1,491	36.0	150.0	0.00
P-50	1,959	12.0	150.0	0.00
P-51	929	36.0	150.0	0.01
P-51	359	24.0	150.0	0.00
P-53	479	36.0	150.0	0.00
P-58	2,080	24.0	150.0	0.00
P-59	2,107	24.0	150.0	0.00
PW54	1,295	8.0	150.0	0.00
PW55	1,255	8.0	150.0	0.00
PW57	1,282	8.0	150.0	0.00
PW58	1,218	8.0	150.0	0.00
PW59	538	8.0	150.0	0.00
PW61	710	8.0	150.0	0.00
PW63	1,359	8.0	150.0	0.00
PW64	1,380	8.0	150.0	0.00
PW65	1,290	8.0	150.0	0.00
PW66	2,085	8.0	150.0	0.00
PW78	1,392	8.0	150.0	0.00
PW82	1,393	8.0	150.0	0.00
PW86	225	36.0	150.0	0.00
PW88	316	36.0	150.0	0.01

WINDLER DEVELOPMENT

Active Scenario: STATIC

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)
PW90	860	12.0	150.0	0.00
PW94	1,214	8.0	150.0	0.00
PW190	1,369	8.0	150.0	0.00
PW192	1,960	8.0	150.0	0.00
PW194	949	8.0	150.0	0.00
PW196	757	8.0	150.0	0.00
PW198	724	8.0	150.0	0.00

WINDLER DEVELOPMENT

Active Scenario: STATIC

Junction Table - Time: 0.00 hours

Label	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-1	0.00	5,450.00	5,710.00	112.49
J-2	0.00	5,445.00	5,710.00	114.65
J-4	0.00	5,430.00	5,710.00	121.14
J-11	0.00	5,518.50	5,710.00	82.85
J-12	0.00	5,545.00	5,710.00	71.39
J-15	0.00	5,505.50	5,710.00	88.48
J-16	0.00	5,450.00	5,710.00	112.49
J-17	0.00	5,518.50	5,710.00	82.85
J-18	0.00	5,545.00	5,710.00	71.39
J-19	0.00	5,510.00	5,710.00	86.53
J-22	0.00	5,450.00	5,710.00	112.49
J-24	0.00	5,460.00	5,710.00	108.16
J-26	0.00	5,460.00	5,710.00	108.16
J-32	0.00	5,450.00	5,710.00	112.49
J-48	0.00	5,450.00	5,710.00	112.49
J-54	0.00	5,445.00	5,710.00	114.65
J-68	0.00	5,525.00	5,710.00	80.04
J-90	0.00	5,490.00	5,710.00	95.18
J-92	0.00	5,510.00	5,710.00	86.53
J-94	0.00	5,525.00	5,710.00	80.04
J-96	0.00	5,545.00	5,710.00	71.39
J-98	0.00	5,530.00	5,710.00	77.88
J-100	0.00	5,505.00	5,710.00	88.69
J-102	0.00	5,525.00	5,710.00	80.04
J-106	0.00	5,495.45	5,710.00	92.83
J-110	0.00	5,439.92	5,710.00	116.85
J-128	0.00	5,480.00	5,710.00	99.51
J-130	0.00	5,485.00	5,710.00	97.35
J-132	0.00	5,447.85	5,710.00	113.42
J-138	0.00	5,550.00	5,710.00	69.22
J-142	0.00	5,470.00	5,710.00	103.84
J-144	0.00	5,492.49	5,710.00	94.11
J-146	0.00	5,515.28	5,710.00	84.25
J-148	0.00	5,520.00	5,710.00	82.20
J-220	0.00	5,468.69	5,710.00	104.40
J-224	0.00	5,455.00	5,710.00	110.33
J-226	0.00	5,540.00	5,710.00	73.55

WINDLER DEVELOPMENT
Active Scenario: AVERAGE DAY

Reservoir Table - Time: 0.00 hours

Label	Flow (Out net) (gpm)	Elevation (ft)
RES9000	174.26	5,710.00
RES9004	787.14	5,710.00
RES9008	258.77	5,710.00

WINDLER DEVELOPMENT

Active Scenario: AVERAGE DAY

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)
P-1	260	24.0	150.0	174.26
P-3	273	24.0	150.0	174.26
P-4	144	24.0	150.0	128.41
P-5	126	24.0	150.0	128.41
P-6	289	36.0	150.0	30.48
P-7	197	36.0	150.0	30.48
P-8	738	24.0	150.0	128.41
P-9	435	24.0	150.0	174.26
P-10	831	24.0	150.0	130.14
P-11	135	24.0	150.0	77.25
P-15	181	24.0	150.0	34.03
P-16	1,179	24.0	150.0	86.49
P-17	1,291	24.0	150.0	77.25
P-23	1,276	24.0	150.0	27.73
P-24	203	24.0	150.0	235.13
P-27	1,123	24.0	150.0	190.48
P-30	275	24.0	150.0	27.73
P-31	99	24.0	150.0	86.49
P-34	843	24.0	150.0	34.03
P-37	1,143	24.0	150.0	183.68
P-41	932	36.0	150.0	372.55
P-43	325	36.0	150.0	371.36
P-47	488	36.0	150.0	283.42
P-47	1,349	8.0	150.0	19.27
P-49	1,491	36.0	150.0	67.47
P-50	1,959	12.0	150.0	36.54
P-51	929	36.0	150.0	330.02
P-51	359	24.0	150.0	188.21
P-53	479	36.0	150.0	474.76
P-58	2,080	24.0	150.0	15.13
P-59	2,107	24.0	150.0	70.57
PW54	1,295	8.0	150.0	44.13
PW55	1,255	8.0	150.0	35.77
PW57	1,282	8.0	150.0	30.96
PW58	1,218	8.0	150.0	45.32
PW59	538	8.0	150.0	37.18
PW61	710	8.0	150.0	8.04
PW63	1,359	8.0	150.0	21.08
PW64	1,380	8.0	150.0	28.57
PW65	1,290	8.0	150.0	34.41
PW66	2,085	8.0	150.0	11.69
PW78	1,392	8.0	150.0	38.28
PW82	1,393	8.0	150.0	44.11
PW86	225	36.0	150.0	246.89
PW88	316	36.0	150.0	404.50

WINDLER DEVELOPMENT

Active Scenario: AVERAGE DAY

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)
PW90	860	12.0	150.0	70.26
PW94	1,214	8.0	150.0	30.35
PW190	1,369	8.0	150.0	23.99
PW192	1,960	8.0	150.0	15.09
PW194	949	8.0	150.0	25.06
PW196	757	8.0	150.0	41.77
PW198	724	8.0	150.0	34.70

WINDLER DEVELOPMENT

Active Scenario: AVERAGE DAY

Junction Table - Time: 0.00 hours

Label	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-1	184.42	5,450.00	5,709.99	112.49
J-2	1.73	5,445.00	5,710.00	114.65
J-4	4.53	5,430.00	5,710.00	121.14
J-11	1.45	5,518.50	5,710.00	82.85
J-12	6.30	5,545.00	5,710.00	71.39
J-15	0.00	5,505.50	5,710.00	88.48
J-16	0.00	5,450.00	5,709.99	112.49
J-17	0.00	5,518.50	5,710.00	82.85
J-18	0.00	5,545.00	5,710.00	71.39
J-19	44.65	5,510.00	5,710.00	86.53
J-22	0.00	5,450.00	5,710.00	112.49
J-24	0.00	5,460.00	5,709.99	108.16
J-26	58.87	5,460.00	5,709.99	108.16
J-32	0.00	5,450.00	5,710.00	112.49
J-48	0.00	5,450.00	5,710.00	112.49
J-54	0.00	5,445.00	5,710.00	114.65
J-68	1.19	5,525.00	5,710.00	80.04
J-90	37.96	5,490.00	5,709.97	95.17
J-92	76.45	5,510.00	5,709.96	86.51
J-94	0.99	5,525.00	5,710.00	80.04
J-96	56.19	5,545.00	5,709.95	71.37
J-98	56.54	5,530.00	5,709.94	77.85
J-100	1.28	5,505.00	5,710.00	88.69
J-102	41.34	5,525.00	5,710.00	80.04
J-106	156.07	5,495.45	5,710.00	92.82
J-110	62.48	5,439.92	5,710.00	116.85
J-128	132.05	5,480.00	5,709.94	99.48
J-130	106.71	5,485.00	5,709.99	97.34
J-132	19.07	5,447.85	5,710.00	113.42
J-138	4.58	5,550.00	5,710.00	69.22
J-142	11.33	5,470.00	5,710.00	103.84
J-144	0.00	5,492.49	5,710.00	94.10
J-146	0.00	5,515.28	5,710.00	84.25
J-148	76.45	5,520.00	5,709.99	82.20
J-220	22.93	5,468.69	5,709.98	104.39
J-224	19.07	5,455.00	5,709.98	110.32
J-226	35.55	5,540.00	5,709.97	73.54

WINDLER DEVELOPMENT
Active Scenario: MAX DAY

Reservoir Table - Time: 0.00 hours

Label	Flow (Out net) (gpm)	Elevation (ft)
RES9000	487.94	5,710.00
RES9004	2,204.00	5,710.00
RES9008	724.57	5,710.00

WINDLER DEVELOPMENT

Active Scenario: MAX DAY

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)
P-1	260	24.0	150.0	487.94
P-3	273	24.0	150.0	487.94
P-4	144	24.0	150.0	359.54
P-5	126	24.0	150.0	359.54
P-6	289	36.0	150.0	85.34
P-7	197	36.0	150.0	85.34
P-8	738	24.0	150.0	359.54
P-9	435	24.0	150.0	487.94
P-10	831	24.0	150.0	364.38
P-11	135	24.0	150.0	216.30
P-15	181	24.0	150.0	95.28
P-16	1,179	24.0	150.0	242.18
P-17	1,291	24.0	150.0	216.30
P-23	1,276	24.0	150.0	77.64
P-24	203	24.0	150.0	658.37
P-27	1,123	24.0	150.0	533.35
P-30	275	24.0	150.0	77.64
P-31	99	24.0	150.0	242.18
P-34	843	24.0	150.0	95.28
P-37	1,143	24.0	150.0	514.30
P-41	932	36.0	150.0	1,043.14
P-43	325	36.0	150.0	1,039.81
P-47	488	36.0	150.0	793.59
P-47	1,349	8.0	150.0	53.95
P-49	1,491	36.0	150.0	188.93
P-50	1,959	12.0	150.0	102.30
P-51	929	36.0	150.0	924.06
P-51	359	24.0	150.0	526.98
P-53	479	36.0	150.0	1,329.33
P-58	2,080	24.0	150.0	42.37
P-59	2,107	24.0	150.0	197.59
PW54	1,295	8.0	150.0	123.57
PW55	1,255	8.0	150.0	100.15
PW57	1,282	8.0	150.0	86.68
PW58	1,218	8.0	150.0	126.89
PW59	538	8.0	150.0	104.09
PW61	710	8.0	150.0	22.52
PW63	1,359	8.0	150.0	59.02
PW64	1,380	8.0	150.0	80.00
PW65	1,290	8.0	150.0	96.36
PW66	2,085	8.0	150.0	32.73
PW78	1,392	8.0	150.0	107.18
PW82	1,393	8.0	150.0	123.50
PW86	225	36.0	150.0	691.28
PW88	316	36.0	150.0	1,132.59

WINDLER DEVELOPMENT
Active Scenario: MAX DAY

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)
PW90	860	12.0	150.0	196.73
PW94	1,214	8.0	150.0	84.98
PW190	1,369	8.0	150.0	67.18
PW192	1,960	8.0	150.0	42.26
PW194	949	8.0	150.0	70.16
PW196	757	8.0	150.0	116.95
PW198	724	8.0	150.0	97.17

WINDLER DEVELOPMENT

Active Scenario: MAX DAY

Junction Table - Time: 0.00 hours

Label	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-1	516.38	5,450.00	5,709.96	112.47
J-2	4.84	5,445.00	5,709.97	114.64
J-4	12.68	5,430.00	5,709.99	121.14
J-11	4.06	5,518.50	5,709.99	82.85
J-12	17.64	5,545.00	5,709.99	71.38
J-15	0.00	5,505.50	5,710.00	88.48
J-16	0.00	5,450.00	5,709.96	112.47
J-17	0.00	5,518.50	5,709.99	82.85
J-18	0.00	5,545.00	5,709.99	71.38
J-19	125.02	5,510.00	5,709.99	86.53
J-22	0.00	5,450.00	5,709.99	112.49
J-24	0.00	5,460.00	5,709.96	108.15
J-26	164.84	5,460.00	5,709.96	108.15
J-32	0.00	5,450.00	5,709.97	112.47
J-48	0.00	5,450.00	5,710.00	112.49
J-54	0.00	5,445.00	5,709.97	114.64
J-68	3.33	5,525.00	5,709.98	80.03
J-90	106.29	5,490.00	5,709.79	95.09
J-92	214.06	5,510.00	5,709.73	86.42
J-94	2.77	5,525.00	5,709.99	80.04
J-96	157.33	5,545.00	5,709.68	71.25
J-98	158.31	5,530.00	5,709.60	77.70
J-100	3.58	5,505.00	5,709.97	88.68
J-102	115.75	5,525.00	5,709.98	80.03
J-106	437.00	5,495.45	5,709.97	92.81
J-110	174.94	5,439.92	5,709.97	116.84
J-128	369.74	5,480.00	5,709.59	99.33
J-130	298.79	5,485.00	5,709.96	97.33
J-132	53.40	5,447.85	5,709.98	113.41
J-138	12.82	5,550.00	5,709.99	69.22
J-142	31.72	5,470.00	5,709.99	103.83
J-144	0.00	5,492.49	5,709.97	94.09
J-146	0.00	5,515.28	5,709.99	84.24
J-148	214.06	5,520.00	5,709.91	82.17
J-220	64.20	5,468.69	5,709.84	104.33
J-224	53.40	5,455.00	5,709.89	110.28
J-226	99.54	5,540.00	5,709.79	73.46

WINDLER DEVELOPMENT
Active Scenario: MAX HOUR

Reservoir Table - Time: 0.00 hours

Label	Flow (Out net) (gpm)	Elevation (ft)
RES9000	784.19	5,710.00
RES9004	3,542.14	5,710.00
RES9008	1,164.48	5,710.00

WINDLER DEVELOPMENT

Active Scenario: MAX HOUR

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)
P-1	260	24.0	150.0	784.19
P-3	273	24.0	150.0	784.19
P-4	144	24.0	150.0	577.83
P-5	126	24.0	150.0	577.83
P-6	289	36.0	150.0	137.16
P-7	197	36.0	150.0	137.16
P-8	738	24.0	150.0	577.83
P-9	435	24.0	150.0	784.19
P-10	831	24.0	150.0	585.61
P-11	135	24.0	150.0	347.62
P-15	181	24.0	150.0	153.13
P-16	1,179	24.0	150.0	389.22
P-17	1,291	24.0	150.0	347.62
P-23	1,276	24.0	150.0	124.78
P-24	203	24.0	150.0	1,058.10
P-27	1,123	24.0	150.0	857.18
P-30	275	24.0	150.0	124.78
P-31	99	24.0	150.0	389.22
P-34	843	24.0	150.0	153.13
P-37	1,143	24.0	150.0	826.55
P-41	932	36.0	150.0	1,676.47
P-43	325	36.0	150.0	1,671.12
P-47	488	36.0	150.0	1,275.40
P-47	1,349	8.0	150.0	86.70
P-49	1,491	36.0	150.0	303.63
P-50	1,959	12.0	150.0	164.41
P-51	929	36.0	150.0	1,485.09
P-51	359	24.0	150.0	846.93
P-53	479	36.0	150.0	2,136.42
P-58	2,080	24.0	150.0	68.09
P-59	2,107	24.0	150.0	317.55
PW54	1,295	8.0	150.0	198.60
PW55	1,255	8.0	150.0	160.95
PW57	1,282	8.0	150.0	139.31
PW58	1,218	8.0	150.0	203.92
PW59	538	8.0	150.0	167.29
PW61	710	8.0	150.0	36.19
PW63	1,359	8.0	150.0	94.85
PW64	1,380	8.0	150.0	128.57
PW65	1,290	8.0	150.0	154.86
PW66	2,085	8.0	150.0	52.59
PW78	1,392	8.0	150.0	172.26
PW82	1,393	8.0	150.0	198.48
PW86	225	36.0	150.0	1,110.99
PW88	316	36.0	150.0	1,820.24

WINDLER DEVELOPMENT
Active Scenario: MAX HOUR

Pipe Table - Time: 0.00 hours

Label	Length (ft)	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)
PW90	860	12.0	150.0	316.18
PW94	1,214	8.0	150.0	136.57
PW190	1,369	8.0	150.0	107.97
PW192	1,960	8.0	150.0	67.91
PW194	949	8.0	150.0	112.76
PW196	757	8.0	150.0	187.96
PW198	724	8.0	150.0	156.17

WINDLER DEVELOPMENT

Active Scenario: MAX HOUR

Junction Table - Time: 0.00 hours

Label	Demand (gpm)	Elevation (ft)	Hydraulic Grade (ft)	Pressure (psi)
J-1	829.89	5,450.00	5,709.91	112.45
J-2	7.78	5,445.00	5,709.94	114.63
J-4	20.39	5,430.00	5,709.98	121.14
J-11	6.53	5,518.50	5,709.99	82.85
J-12	28.35	5,545.00	5,709.98	71.38
J-15	0.00	5,505.50	5,710.00	88.48
J-16	0.00	5,450.00	5,709.92	112.45
J-17	0.00	5,518.50	5,709.99	82.85
J-18	0.00	5,545.00	5,709.98	71.38
J-19	200.93	5,510.00	5,709.98	86.52
J-22	0.00	5,450.00	5,709.98	112.48
J-24	0.00	5,460.00	5,709.91	108.13
J-26	264.92	5,460.00	5,709.91	108.13
J-32	0.00	5,450.00	5,709.92	112.45
J-48	0.00	5,450.00	5,709.99	112.48
J-54	0.00	5,445.00	5,709.94	114.62
J-68	5.36	5,525.00	5,709.95	80.02
J-90	170.82	5,490.00	5,709.48	94.96
J-92	344.02	5,510.00	5,709.36	86.25
J-94	4.45	5,525.00	5,709.97	80.03
J-96	252.86	5,545.00	5,709.23	71.06
J-98	254.43	5,530.00	5,709.03	77.46
J-100	5.76	5,505.00	5,709.93	88.66
J-102	186.03	5,525.00	5,709.94	80.02
J-106	702.31	5,495.45	5,709.93	92.79
J-110	281.16	5,439.92	5,709.93	116.82
J-128	594.23	5,480.00	5,709.01	99.08
J-130	480.20	5,485.00	5,709.92	97.31
J-132	85.82	5,447.85	5,709.96	113.40
J-138	20.61	5,550.00	5,709.98	69.22
J-142	50.99	5,470.00	5,709.98	103.83
J-144	0.00	5,492.49	5,709.92	94.07
J-146	0.00	5,515.28	5,709.98	84.24
J-148	344.02	5,520.00	5,709.78	82.11
J-220	103.18	5,468.69	5,709.60	104.23
J-224	85.82	5,455.00	5,709.73	110.21
J-226	159.98	5,540.00	5,709.51	73.34

WINDLER DEVELOPMENT
Active Scenario: MAX DAY + FIRE FLOW

Fire Flow Node FlexTable: Fire Flow Results Table

Label	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Fire Flow (Upper Limit) (gpm)	Fire Flow (Total Upper Limit) (gpm)	Pressure (Calculated Zone Lower Limit) (psi)	Pressure (Calculated Residual) (psi)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?	Velocity of Maximum Pipe (ft/s)	Pipe w/ Maximum Velocity
J-1	2	True	2,016.37	47,405.76	2,200.79	47,590.18	47,405.76	47,590.18	69.20	105.04	J-138	True	8.37	P-9
J-2	2	True	1,504.83	24,686.51	1,506.56	24,688.24	24,686.51	24,688.24	69.22	109.98	J-138	True	9.30	P-5
J-4	2	True	1,512.67	16,075.01	1,517.20	16,079.54	16,075.01	16,079.54	69.22	120.10	J-138	True	8.55	P-51
J-11	3	True	1,504.06	21,117.54	1,505.51	21,118.98	21,295.04	21,296.49	65.94	77.34	J-138	True	10.00	P-11
J-12	3	True	1,517.64	23,337.36	1,523.94	23,343.66	24,483.30	24,489.60	62.79	62.30	J-18	True	10.00	P-15
J-15	3	True	1,500.00	15,787.02	1,500.00	15,787.02	16,246.90	16,246.90	68.96	87.95	J-138	True	10.00	P-11
J-16	3	True	1,500.00	19,465.64	1,500.00	19,465.64	20,642.12	20,642.12	69.22	110.73	J-138	True	10.00	P-31
J-17	3	True	1,500.00	20,654.93	1,500.00	20,654.93	20,698.06	20,698.06	65.73	77.11	J-138	True	10.00	P-15
J-18	2	True	1,500.00	14,100.44	1,500.00	14,100.44	14,100.44	14,100.44	66.46	67.64	J-138	True	5.82	P-15
J-19	4	True	1,500.00	14,116.92	1,544.65	14,161.57	34,575.80	34,620.45	69.22	85.74	J-138	True	10.00	P-24
J-22	4	True	1,500.00	20,255.74	1,500.00	20,255.74	36,828.77	36,828.77	69.22	110.43	J-138	True	10.00	P-3
J-24	2	True	1,500.00	55,619.27	1,500.00	55,619.27	55,619.27	55,619.27	69.19	98.24	J-138	True	9.62	P-9
J-26	2	True	1,500.00	56,467.03	1,558.87	56,525.90	56,467.03	56,525.90	69.18	98.09	J-138	True	9.48	P-9
J-32	3	True	1,500.00	19,616.05	1,500.00	19,616.05	20,913.97	20,913.97	69.22	110.63	J-138	True	10.00	P-5
J-48	2	True	1,500.00	15,921.10	1,500.00	15,921.10	15,921.10	15,921.10	69.22	111.69	J-138	True	8.84	P-1
J-54	2	True	1,500.00	24,351.10	1,500.00	24,351.10	24,351.10	24,351.10	69.22	110.21	J-138	True	9.63	P-5
J-68	4	True	1,503.32	44,985.16	1,504.51	44,986.35	50,420.69	50,421.88	69.20	76.00	J-138	True	10.00	P-53
J-90	3	True	1,590.37	4,054.94	1,628.33	4,092.90	4,080.32	4,118.28	69.22	75.92	J-138	True	10.00	PW64
J-92	2	True	2,855.30	3,970.39	2,931.75	4,046.84	3,970.39	4,046.84	69.22	69.98	J-138	True	9.66	PW94
J-94	4	True	1,502.76	40,130.04	1,503.75	40,131.03	45,530.16	45,531.15	69.21	78.14	J-138	True	10.00	P-53
J-96	2	True	1,657.33	3,630.08	1,713.52	3,686.27	3,630.08	3,686.27	69.14	60.59	J-138	True	9.69	PW59
J-98	2	True	1,658.30	3,817.49	1,714.84	3,874.03	3,817.49	3,874.03	69.08	66.01	J-96	True	9.55	PW61
J-100	4	True	1,503.57	50,951.07	1,504.85	50,952.35	60,143.74	60,145.02	69.19	81.96	J-138	True	10.00	P-53
J-102	4	True	1,615.74	46,535.95	1,657.08	46,577.29	54,553.12	54,594.46	69.20	75.28	J-138	True	10.00	P-53
J-106	3	True	2,708.76	14,544.32	2,864.83	14,700.39	23,019.86	23,175.93	69.22	87.73	J-138	True	10.00	P-24
J-110	2	True	1,674.95	26,537.55	1,737.43	26,600.03	26,537.55	26,600.03	69.22	111.66	J-138	True	9.42	P-51
J-128	3	True	3,869.75	5,619.24	4,001.80	5,751.29	7,005.34	7,137.39	69.16	83.71	J-138	True	10.00	PW61

WINDLER DEVELOPMENT

Active Scenario: MAX DAY + FIRE FLOW

Fire Flow Node FlexTable: Fire Flow Results Table

Label	Fire Flow Iterations	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Fire Flow (Upper Limit) (gpm)	Fire Flow (Total Upper Limit) (gpm)	Pressure (Calculated Zone Lower Limit) (psi)	Pressure (Calculated Residual) (psi)	Junction w/ Minimum Pressure (System)	Is Fire Flow Run Balanced?	Velocity of Maximum Pipe (ft/s)	Pipe w/ Maximum Velocity
J-130	4	True	1,768.10	53,254.65	1,874.81	53,361.36	60,776.05	60,882.76	69.19	89.37	J-138	True	10.00	PW86
J-132	2	True	2,651.59	20,297.34	2,670.66	20,316.41	20,297.34	20,316.41	69.22	110.59	J-138	True	8.61	P-9
J-138	2	True	1,512.81	29,101.06	1,517.39	29,105.64	29,101.06	29,105.64	61.09	54.03	J-18	True	9.97	P-15
J-142	3	True	1,531.71	23,270.10	1,543.04	23,281.43	24,007.93	24,019.26	64.11	95.70	J-138	True	10.00	P-59
J-144	4	True	1,500.00	53,294.16	1,500.00	53,294.16	62,891.51	62,891.50	69.19	86.34	J-138	True	10.00	P-53
J-146	4	True	1,500.00	38,081.14	1,500.00	38,081.14	40,851.93	40,851.93	69.21	83.09	J-138	True	10.00	P-53
J-148	2	True	1,590.43	6,267.89	1,666.88	6,344.34	6,267.89	6,344.34	69.22	75.22	J-138	True	9.62	PW90
J-220	3	True	1,564.19	3,727.27	1,587.12	3,750.20	4,690.14	4,713.07	69.22	94.26	J-138	True	10.00	PW198
J-224	2	True	1,500.00	3,476.29	1,519.07	3,495.36	3,476.29	3,495.36	69.22	98.41	J-138	True	9.44	PW194
J-226	3	True	1,599.55	4,067.61	1,635.10	4,103.16	4,403.60	4,439.15	66.46	62.92	J-96	True	10.00	PW196

Sanitary Distribution Demand Criteria

Land Use	Avg Day (gdp/acres)	Equivalent Pop/AC	Residential Criteria		PEAKING FACTOR		INFILTRATION	Peaking Factor = 5/P^0.167
			People/Unit	Avg day / Capita (gpc)	MIN	MAX		
Commercial	1500	22	2.77	68	1.7	4	10% OF Avg Flow	
Industrial (school)	1200	18						
Parks & Greenbelts								p = population in thousands

HOTEL 98 gpd/Room

Windler - Sanitary Demand Projections (Updated)

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)
PA-1	MIXED COMM	25.9	N/A	570	38,850	4.00	155,400	3,885	42,735	95	30	159,285	0.2465
PA-1	HOTEL	3	150	0	14,700	4.00	58,800	1,470	16,170	36	11	60,270	0.0933
PA-2	MF	10.1	303	839	57,073	4.00	228,292	5,707	62,780	140	44	234,000	0.3621
PA-3	SFD/SFA FLEX	36.35	400	1108	75,344	4.00	301,376	7,534	82,878	185	58	308,910	0.4780
PA-3	COMMERCIAL	2	N/A	44	3,000	4.00	12,000	300	3,300	7	2	12,300	0.0190
PA-14	SFD/SFA	2.15	86	238	16,199	4.00	64,796	1,620	17,819	40	12	66,416	0.1028
PA-14	MF	8	320	886	60,275	4.00	241,101	6,028	66,303	148	46	247,128	0.3824
PA-14	COMMERCIAL	10	N/A	220	15,000	4.00	60,000	1,500	16,500	37	11	61,500	0.0952
PA-15	SFD/SFA FLEX	92.89	697	1931	131,287	4.00	525,148	13,129	144,416	322	100	538,276	0.8329
PA-15	MF	3	90	249	16,952	4.00	67,810	1,695	18,648	42	13	69,505	0.1075
PA-16	MIXED COMM	25.64	N/A	564	38,460	4.00	153,840	3,846	42,306	94	29	157,686	0.2440
PA-16	MF	10	345	956	64,984	4.00	259,937	6,498	71,483	159	50	266,435	0.4123
PA-16	HOTEL	9	350	0	34,300	4.00	137,200	3,430	37,730	84	26	140,630	0.2176
Total			2,741		532,125			53,212	585,337	1,304	406		3.5934

Based on Windler Land Use Summary - 06/06/2024

	Node	Map Area Code	Population	Sum Population	Avg Day (GPD)	Sum Avg Day (GPD)	Peaking Factor	Sum Avg Day (GPM)	Infiltration (GPM)	Avg Day + Infiltration (GPM)	Peak Flow + Infiltration (GPM)	Peak Flow + Infiltration (CFS)	Avg Day + Infiltration (CFS)	Pipe Diameter (in.)	Min. Slope (%)	Min Slope Velocity (ft/s)	Max Slope (%)
Tributary to Second Creek	Line A																
	A.9	PA-15 (-26 ACRES OF SF)	1903	1,903	129,403	129,403	4.00	90	9	99	368	0.821	0.220	8	0.40	2.93	10.44
	A.8		0	1,903	129,403	129,403	4.00	90	9	99	368	0.821	0.220	8	0.40	2.93	10.44
	A.7	PA-16 (MIXED COMM + 1 hotel)	564	564	53,160	53,160	4.00	37	4	41	151	0.337	0.090	8	0.40	2.40	21.85
	A.6		0	2,467	-	182,563	4.00	127	13	139	520	1.158	0.311	8	0.80	4.14	7.98
	A.5	PA-1	570	3,037	53,550	236,113	4.00	164	16	180	672	1.498	0.402	10	0.41	3.44	6.89
	A.12	PA-3	1097	1,097	74,577	74,577	4.00	52	5	57	212	0.473	0.127	8	0.40	2.62	16.52
	A.11	PA-2	839	1,936	57,073	131,650	4.00	91	9	101	375	0.835	0.224	8	0.42	3.00	10.34
	A.4		0	4,973	-	367,763	3.83	255	26	281	1002	2.234	0.626	12	0.40	3.80	5.24
	A.3	PA-5	632	5,604	42,946	410,709	3.75	285	29	314	1098	2.446	0.699	12	0.41	3.89	4.88
	A.2.5	LINE B	0	8,006	-	589,017	3.53	409	41	450	1486	3.311	1.003	15	0.40	4.24	4.06
	A.2	PA-6	892	8,898	60,652	649,669	3.47	451	45	496	1611	3.590	1.106	15	0.40	4.31	3.82
	A.10	PA-7	756	756	51,419	51,419	4.00	36	4	39	146	0.326	0.088	8	0.40	2.38	22.47
	A.1		0	9,654	-	701,088	3.42	487	49	536	1716	3.823	1.193	15	0.40	4.36	3.63
	Line B																
B.3	PA-10, PA-11	1083	1,083	73,649	73,649	4.00	51	5	56	210	0.467	0.125	8	0.40	2.61	16.62	
B.2	PA-8, PA-9	443	1,526	45,138	118,786	4.00	82	8	91	338	0.754	0.202	8	0.40	2.90	11.21	
B1	PA-4	875	2,402	59,522	178,308	4.00	124	12	136	508	1.131	0.303	8	0.76	4.04	8.18	
Tributary to First Creek	Total Contribution to Second Creek Lift Station			9,654	-	701,088	3.42	487	49	536	1716	3.823	1.193				
	Line C																
	C.4	PA-14	1125	1,125	91,474	91,474	4.00	64	6	70	260	0.580	0.156	8	0.40	2.75	13.87
	C.3	PA-15 (10 ACRES OF SF)	277	1,402	18,836	110,310	4.00	77	8	84	314	0.700	0.188	8	0.40	2.86	11.90
	C.2	PA-16 (2 HOTELS AND MF)	956	2,357	84,584	194,894	4.00	135	14	149	555	1.236	0.332	8	0.91	4.42	7.61
C.1		0	2,357	-	194,894	4.00	135	14	149	555	1.236	0.332	8	0.91	4.42	7.61	

Worksheet for A.9 TO A.8

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	0.82 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	5.1 in
Percent Full	74.8 %
Critical Slope	0.006 ft/ft
Velocity	2.93 ft/s
Velocity Head	0.13 ft
Specific Energy	0.63 ft
Froude Number	0.743
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.003 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	28.5 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	5.1 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for A.8 TO A.6

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	0.82 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	5.1 in
Percent Full	74.8 %
Critical Slope	0.006 ft/ft
Velocity	2.93 ft/s
Velocity Head	0.13 ft
Specific Energy	0.63 ft
Froude Number	0.743
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.003 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	12.8 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	5.1 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for A.7 TO A.6

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	0.34 cfs
Results	
Normal Depth	3.4 in
Flow Area	0.1 ft ²
Wetted Perimeter	0.9 ft
Hydraulic Radius	1.8 in
Top Width	0.66 ft
Critical Depth	3.2 in
Percent Full	42.3 %
Critical Slope	0.005 ft/ft
Velocity	2.40 ft/s
Velocity Head	0.09 ft
Specific Energy	0.37 ft
Froude Number	0.916
Maximum Discharge	0.97 cfs
Discharge Full	0.90 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	15.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	3.4 in
Critical Depth	3.2 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.6 TO A.5

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.008 ft/ft
Diameter	8.0 in
Discharge	1.16 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	6.1 in
Percent Full	74.6 %
Critical Slope	0.008 ft/ft
Velocity	4.14 ft/s
Velocity Head	0.27 ft
Specific Energy	0.76 ft
Froude Number	1.052
Maximum Discharge	1.37 cfs
Discharge Full	1.28 cfs
Slope Full	0.007 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	74.6 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	6.1 in
Channel Slope	0.008 ft/ft
Critical Slope	0.008 ft/ft

Worksheet for A.5 TO A.4

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	1.50 cfs
Results	
Normal Depth	7.4 in
Flow Area	0.4 ft ²
Wetted Perimeter	1.7 ft
Hydraulic Radius	3.0 in
Top Width	0.73 ft
Critical Depth	6.6 in
Percent Full	74.4 %
Critical Slope	0.006 ft/ft
Velocity	3.44 ft/s
Velocity Head	0.18 ft
Specific Energy	0.80 ft
Froude Number	0.784
Maximum Discharge	1.78 cfs
Discharge Full	1.66 cfs
Slope Full	0.003 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	31.9 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	7.4 in
Critical Depth	6.6 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for A.12 TO A.11

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	0.47 cfs
Results	
Normal Depth	4.1 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.1 ft
Hydraulic Radius	2.0 in
Top Width	0.67 ft
Critical Depth	3.9 in
Percent Full	51.4 %
Critical Slope	0.005 ft/ft
Velocity	2.62 ft/s
Velocity Head	0.11 ft
Specific Energy	0.45 ft
Froude Number	0.886
Maximum Discharge	0.97 cfs
Discharge Full	0.90 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	19.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	4.1 in
Critical Depth	3.9 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.11 TO A.4

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	0.84 cfs
Results	
Normal Depth	5.9 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	5.2 in
Percent Full	74.4 %
Critical Slope	0.006 ft/ft
Velocity	3.00 ft/s
Velocity Head	0.14 ft
Specific Energy	0.64 ft
Froude Number	0.765
Maximum Discharge	1.00 cfs
Discharge Full	0.93 cfs
Slope Full	0.003 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	28.9 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	5.9 in
Critical Depth	5.2 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for A.4 TO A.3

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	12.0 in
Discharge	2.23 cfs
Results	
Normal Depth	8.4 in
Flow Area	0.6 ft ²
Wetted Perimeter	2.0 ft
Hydraulic Radius	3.6 in
Top Width	0.92 ft
Critical Depth	7.7 in
Percent Full	70.1 %
Critical Slope	0.005 ft/ft
Velocity	3.80 ft/s
Velocity Head	0.22 ft
Specific Energy	0.93 ft
Froude Number	0.835
Maximum Discharge	2.86 cfs
Discharge Full	2.66 cfs
Slope Full	0.003 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	32.7 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	8.4 in
Critical Depth	7.7 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.3 TO A.2.5

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	12.0 in
Discharge	2.45 cfs
Results	
Normal Depth	9.0 in
Flow Area	0.6 ft ²
Wetted Perimeter	2.1 ft
Hydraulic Radius	3.6 in
Top Width	0.87 ft
Critical Depth	8.0 in
Percent Full	74.7 %
Critical Slope	0.005 ft/ft
Velocity	3.89 ft/s
Velocity Head	0.23 ft
Specific Energy	0.98 ft
Froude Number	0.806
Maximum Discharge	2.90 cfs
Discharge Full	2.70 cfs
Slope Full	0.003 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	35.0 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	9.0 in
Critical Depth	8.0 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for B.3 TO B.2

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	0.47 cfs
Results	
Normal Depth	4.1 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.1 ft
Hydraulic Radius	2.0 in
Top Width	0.67 ft
Critical Depth	3.8 in
Percent Full	51.0 %
Critical Slope	0.005 ft/ft
Velocity	2.61 ft/s
Velocity Head	0.11 ft
Specific Energy	0.45 ft
Froude Number	0.888
Maximum Discharge	0.97 cfs
Discharge Full	0.90 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	39.1 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	4.1 in
Critical Depth	3.8 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for B.2 TO B.1

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	0.75 cfs
Results	
Normal Depth	5.6 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.3 ft
Hydraulic Radius	2.4 in
Top Width	0.61 ft
Critical Depth	4.9 in
Percent Full	69.9 %
Critical Slope	0.006 ft/ft
Velocity	2.90 ft/s
Velocity Head	0.13 ft
Specific Energy	0.60 ft
Froude Number	0.782
Maximum Discharge	0.97 cfs
Discharge Full	0.90 cfs
Slope Full	0.003 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	26.9 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	5.6 in
Critical Depth	4.9 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for B.1 TO A.2.5

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.008 ft/ft
Diameter	8.0 in
Discharge	1.13 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	6.1 in
Percent Full	74.7 %
Critical Slope	0.007 ft/ft
Velocity	4.04 ft/s
Velocity Head	0.25 ft
Specific Energy	0.75 ft
Froude Number	1.025
Maximum Discharge	1.34 cfs
Discharge Full	1.24 cfs
Slope Full	0.006 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	74.7 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	6.1 in
Channel Slope	0.008 ft/ft
Critical Slope	0.007 ft/ft

Worksheet for A.2.5 TO A.2

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	15.0 in
Discharge	3.31 cfs
Results	
Normal Depth	9.1 in
Flow Area	0.8 ft ²
Wetted Perimeter	2.2 ft
Hydraulic Radius	4.2 in
Top Width	1.22 ft
Critical Depth	8.8 in
Percent Full	60.8 %
Critical Slope	0.004 ft/ft
Velocity	4.24 ft/s
Velocity Head	0.28 ft
Specific Energy	1.04 ft
Froude Number	0.934
Maximum Discharge	5.19 cfs
Discharge Full	4.83 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	31.5 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	9.1 in
Critical Depth	8.8 in
Channel Slope	0.004 ft/ft
Critical Slope	0.004 ft/ft

Worksheet for A.2 TO A.1

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	15.0 in
Discharge	3.59 cfs
Results	
Normal Depth	9.6 in
Flow Area	0.8 ft ²
Wetted Perimeter	2.3 ft
Hydraulic Radius	4.3 in
Top Width	1.20 ft
Critical Depth	9.2 in
Percent Full	64.2 %
Critical Slope	0.005 ft/ft
Velocity	4.31 ft/s
Velocity Head	0.29 ft
Specific Energy	1.09 ft
Froude Number	0.911
Maximum Discharge	5.19 cfs
Discharge Full	4.83 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	33.4 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	9.6 in
Critical Depth	9.2 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.10 TO A.1

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	0.33 cfs
Results	
Normal Depth	3.3 in
Flow Area	0.1 ft ²
Wetted Perimeter	0.9 ft
Hydraulic Radius	1.8 in
Top Width	0.66 ft
Critical Depth	3.2 in
Percent Full	41.5 %
Critical Slope	0.005 ft/ft
Velocity	2.38 ft/s
Velocity Head	0.09 ft
Specific Energy	0.36 ft
Froude Number	0.918
Maximum Discharge	0.97 cfs
Discharge Full	0.90 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	14.9 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	3.3 in
Critical Depth	3.2 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for A.1 TO OFFSITE

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.004 ft/ft
Diameter	15.0 in
Discharge	3.82 cfs
Results	
Normal Depth	10.1 in
Flow Area	0.9 ft ²
Wetted Perimeter	2.4 ft
Hydraulic Radius	4.4 in
Top Width	1.17 ft
Critical Depth	9.5 in
Percent Full	67.1 %
Critical Slope	0.005 ft/ft
Velocity	4.36 ft/s
Velocity Head	0.30 ft
Specific Energy	1.14 ft
Froude Number	0.891
Maximum Discharge	5.19 cfs
Discharge Full	4.83 cfs
Slope Full	0.003 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	35.0 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	10.1 in
Critical Depth	9.5 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for C.4 TO C.3

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	0.58 cfs
Results	
Normal Depth	4.7 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.2 ft
Hydraulic Radius	2.2 in
Top Width	0.66 ft
Critical Depth	4.3 in
Percent Full	58.3 %
Critical Slope	0.005 ft/ft
Velocity	2.75 ft/s
Velocity Head	0.12 ft
Specific Energy	0.51 ft
Froude Number	0.854
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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	22.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	4.7 in
Critical Depth	4.3 in
Channel Slope	0.004 ft/ft
Critical Slope	0.005 ft/ft

Worksheet for C.3 TO C.2

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	0.70 cfs
Results	
Normal Depth	5.3 in
Flow Area	0.2 ft ²
Wetted Perimeter	1.3 ft
Hydraulic Radius	2.3 in
Top Width	0.63 ft
Critical Depth	4.7 in
Percent Full	66.1 %
Critical Slope	0.006 ft/ft
Velocity	2.86 ft/s
Velocity Head	0.13 ft
Specific Energy	0.57 ft
Froude Number	0.808
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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	25.5 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	5.3 in
Critical Depth	4.7 in
Channel Slope	0.004 ft/ft
Critical Slope	0.006 ft/ft

Worksheet for C.2 TO C.1

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.009 ft/ft
Diameter	8.0 in
Discharge	1.24 cfs
Results	
Normal Depth	6.0 in
Flow Area	0.3 ft ²
Wetted Perimeter	1.4 ft
Hydraulic Radius	2.4 in
Top Width	0.58 ft
Critical Depth	6.3 in
Percent Full	74.7 %
Critical Slope	0.008 ft/ft
Velocity	4.42 ft/s
Velocity Head	0.30 ft
Specific Energy	0.80 ft
Froude Number	1.122
Maximum Discharge	1.47 cfs
Discharge Full	1.36 cfs
Slope Full	0.007 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	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	74.7 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.0 in
Critical Depth	6.3 in
Channel Slope	0.009 ft/ft
Critical Slope	0.008 ft/ft



September 12, 2024

Chong Woo
Aurora Water – Utilities Division
26711 E Quincy Ave
Aurora, CO 80016

RE: Windler PA 26-PA29 Utility Conformance Letter

Dear Chong Woo,

This letter serves as a utility conformance letter for the Windler's PA 26, 27, 28, and 29, designated as industrial/commercial area that is proposed west of E470, north and south of E 48th Ave, in the City of Aurora.

Reviewing the Master Utility Study done by Olsson on May 2022 Approval #222155, these parcels were anticipated to be industrial use.

The proposed user for PA 26 – PA 29 will be a commercial use that requires up to 3,300,000 sq. ft. of building area. Despite the large building coverage, the intended use will require much lower volume of employees than the original assumed industrial use and therefore will not adversely impact the proposed design of the water and sanitary system previously approved MUS #222155. Comparison tables are shown within this letter to show that the expected demand rates are less than the original approved demand rates.

The sanitary demand was based on as industrial population of 18 people per acre (146 acres = **2636 people**). The proposed user of these parcels would need 124 employees, for below the original consideration.

Westwood

The approved report had a combined Max Day + Fire Flow (gpm) of 4,048 gpm for PA-26-29.

Windler - Water Demand Projections												
Water Distribution Design Criteria				Residential Criteria		Peaking Factors		Fire Flow				
Land Use	Avg Day (gdp/acre)	Max Day (gdp/acre)	Peak Hour (gpd/acre)	People / unit	Avg day / capita (gpd)	2.77 Max Day	2.8	Classification	Demand (gpm)	Time (hrs)		
Commercial	1,500	4,200	6,750			101 Max Hour	4.5	Residential	1500	2		
Industrial (schools)	1,200	3,360	5,400					Commercial/Multifamily	2500	2		
Parks & Greenbelts	1,800	5,040	N/A					Industrial	3500	3		
Map Area Code	Land Use	Nodes	Total Acres	Proposed Units	Avg Day Demand (gpd)	Avg Day Demand (gpm)	Max Day Demand (gpd)	Max Day Demand (gpm)	Peak Hour Demand (gpd)	Peak Hour Demand (gpm)	Required Fire Flow (gpm)	Max Day Demand + Fire Flow (gpm)
PA-13	MF		6.50	195	54,555	38	152,754	106	245,498	170	1500	1606
PA-13	COMMERCIAL		0.50	N/A	750	1	2,100	1	3,375	2	2500	2501
PA-14	SFD/SFA		17.82	160	44,870	31	125,635	87	201,913	140	1500	1587
PA-14	MF		3.59	108	30,131	21	84,367	59	135,591	94	1500	1559
PA-14	COMMERCIAL		10.00	N/A	15,000	10	42,000	29	67,500	47	2500	2529
PA-15			34.78	313	87,574	61	245,206	170	394,081	274	1500	1670
PA-16	SFD/SFA FLEX		6.51	59	16,392	11	45,897	32	73,763	51	1500	1532
PA-17			16.89	152	42,528	30	119,078	83	191,375	133	1500	1583
PA-17	COMMERCIAL		1.00	N/A	1,500	1	4,200	3	6,750	5	2500	2503
PA-18	SFD/SFA FLEX		15.75	142	39,657	28	111,041	77	178,458	124	1500	1577
PA-19	SFA		17.88	161	45,021	31	126,058	88	202,593	141	1500	1588
PA-2	MF		23.70	711	198,916	138	556,966	387	895,124	622	1500	1887
PA-20	MIXED COMM		24.54	N/A	36,810	26	103,068	72	165,645	115	2500	2572
PA-21			4.10	N/A	6,156	4	17,237	12	27,702	19	2500	2512
PA-21	MF		9.58	287	80,372	56	225,043	156	361,675	251	1500	1656
PA-22			11.12	334	93,356	65	261,398	182	420,104	292	1500	1682
PA-22	MIXED COMM		4.77	N/A	7,151	5	20,021	14	32,177	22	2500	2514
PA-23			20.50	209	58,472	41	163,721	114	263,124	183	1500	1614
PA-24	SFD/SFA FLEX		13.24	118	33,043	23	92,446	64	148,588	103	1500	1564
PA-25			32.94	276	77,217	54	216,206	150	347,474	241	1500	1650
PA-26			35.55	N/A	42,660	30	119,448	83	191,970	133	3500	3583
PA-27			9.66	N/A	11,592	8	32,458	23	52,164	36	3500	3523
PA-28	IND-3.3.5.Y, IND-3.3.5.Z		44.61	N/A	53,532	37	149,890	104	240,894	167	3500	3604
PA-29			56.61	N/A	67,932	47	190,210	132	305,694	212	3500	3632
PA-3	SFA		6.95	76	21,388	15	59,888	42	96,248	67	1500	1542
PA-3	COMMERCIAL		1.00	N/A	1,500	1	4,200	3	6,750	5	2500	2503

The proposed Max Day + Fire Flow (gpm) with new user would generate approximately 2,563 gpm compared to 4,048gpm previously approved.

Water Demands

	Map Area Code	Land Use	Total Acres	Proposed People	Avg Day Demand (gpd)	Avg Day Demand (gpm)	Max Day Demand (gpd)	Max Day Demand (gpm)	Peak Hour Demand (gpd)	Peak Hour Demand (gpm)	Required Fire Flow (gpm)	Max Day Demand + Fire Flow (gpm)
Demand by use acreage	PA 26-PA29	Commercial	146.43	N/A	219,645	153	615,006	427	988,403	686	2500	2,927
Demand by population	PA 26-PA29	Commercial	146.43	200	20,200	14	90,900	63	988,403	686	2500	2,563

200 people is rounded up from the expected employment of 124 employees

Westwood



Please contact me if you have any questions.

Sincerely,

Tom Odle, PE
Senior Project Manager





August 5th, 2024
WINDLER Zoning Amendment No. 3

Rezone Request - Letter of Justification

Revise to be more specific to the requests. There are four zoning requests - two from MU-R to R-2, one from MU-A to R-2 and one from MU-R to MU-A. Include acres for each request.

REVISED AS REQUESTED

Introduction:

This Zone Amendment 3 to the Windler Master Plan proposes to rezone approximately 129 acres of MU-R (Mixed-Use Regional) located on the east side of E-470 between 48th and 56th Ave to a combination of MU-A (Mixed-Use Airport) and R-2 (Medium Density Residential). The purpose of the rezone is to re-align the zoning boundaries to match with the latest planning efforts for the Windler community east of E-470. The requested rezoning does not fundamentally change the final outcome of the built environment, or the proposed land uses, from what was previously approved in the Master Plan, but refines the boundaries of these uses to align with new planning efforts from the development team. This rezone is accompanied by an amendment to the Windler Master Plan which provides further definition to the land uses proposed in this rezoning request.

Conformance with Rezoning Criteria:

1. The change is required because of changed conditions or circumstances and;
2. that the proposed rezoning is consistent with the spirit and intent of the Comprehensive Plan, with other policies and plans adopted by the City Council, and with the purpose statement of the proposed new zone district;
3. and that the size, scale, height, density, and multi-modal traffic impacts of the proposed rezoning are compatible with surrounding development;
4. and that the change in zoning will not create significant dislocation of property, or that any impacts are outweighed by other public benefits.

THIS PARAGRAPH HAS BEEN REVISED

Remove reference to adjustments.

Change in Circumstances:

Given the issues surrounding Housing Attainability, not only within Aurora but in the Denver Metro Area generally, the Windler development team has identified a number of adjustments to the City of Aurora Unified Development Ordinance (UDO) that aim to address attainability within the Windler development. The Windler Master Plan is uniquely positioned to address this need by way of the Flexible Residential Lot Option (FRLO) applicable to the residential areas of the master plan. The purpose of the FRLO is to offer additional flexibility for the creation of diverse residential housing types by removing minimum lot size standards for residential lots. The benefit of Windler’s FRLO designation is that it allows a Master Plan to refine the development standards of the UDO to achieve a higher density than typically permitted, from a maximum of 5 dwelling units per acre up to 12 dwelling units per acre. This flexibility to adjust lot standards in response to market conditions, beyond what would normally be allowed by code, is exactly the purpose of the FRLO designation in a Master Plan. The Windler development team has identified a need for alternative housing products in the market and is positioned to provide a solution within the City of Aurora. We have already engaged in a productive dialogue with city staff regarding these adjustments and will continue to define a shared path toward increasing attainability.





Compatibility with the Comprehensive Plan:

Exhibit A shows the area east of E-470 as City Corridor and Emerging Neighborhood placetypes in the City of Aurora Comprehensive Plan. The proposed land uses in the Windler Master Plan largely align with these placetypes, defined primarily by commercial, mixed commercial and multi-family adjacent to E-470 and medium density residential, with Flexible Residential Lot Option (FRLO) to the east. The focus of the City Corridor placetype is commercial activity whose primary uses are restaurants, retail, office, and commercial services. Multi-family and single-family attached residential are considered secondary uses to allow for the development of mixed-use projects. The Emerging Neighborhood placetype is described as primarily residential with a mix of housing types and densities, with restaurants, retail and commercial as secondary uses. This placetype is also characterized by a walkable and connected pedestrian infrastructure with highly accessible parks and open space integrated throughout each neighborhood. Consequently, this is exactly what the approved Windler Master Plan provides, and also what this Rezone aims to achieve. If we examine the underlying zoning relative to the current planning for Windler we can see how this amendment is compatible with the Comprehensive Plan.

Current MU-R zoning dictates that the area should serve as an “image-making” gateway, with spatial standards that emphasize a visible focal point, a walkable main street, public plazas and a strong internal multi-modal network. Permitted uses allow for a mix of medium to high-density residential, including single-family attached and greencourt dwellings, and regional commercial uses.

In comparison, MU-A zoning is designed to enable master-planned developments to incorporate a mix of uses that will allow Aurora to leverage the economic opportunities created by the Denver International Airport. A wide variety of attached and detached single-family, duplex, and low to medium-density multi-family housing is permitted, along with a diversity of non-residential including office, hotel and conference facilities, and supporting retail, commercial and service uses. This zone district is especially compatible with the FRLO in that it permits higher residential densities when that residential is adjacent to an Activity Center (AAC). The Windler Master Plan contains two AAC’s within this rezone, one located near 56th Ave, and the other near 48th Ave, where higher permitted residential densities are integrated with local retail/commercial uses.

In contrast with MU-R zoning, which has no limitation on residential density or area, MU-A zoning has a limit on the amount of residential permitted to no more than 50% of the zoned area. And no more than half of this allotment is permitted to be single-family detached. The rezone of MU-R to MU-A ensures at least 67 acres of the Windler development east of E-470 is committed to non-residential uses.

The limit on residential is in line with the land uses proposed within the MU-A, which are primarily commercial and mixed commercial, with multi-family and single-family attached/detached as secondary uses. This distribution of uses fully supports the City Corridor placetype. The addition of Administrative Activity Centers proposed in Planning Areas 3 & 14 of the Windler Master Plan, further supports the City Corridor and Emerging Neighborhood placetypes by providing a transition between commercial/retail/office/service uses and the residential to the east. In the Windler Master Plan these two Activity Centers are described as “main streets” and are intended to integrate small scale retail and commercial services within higher density residential uses. In combination with a strong pedestrian network and a robust Parks and Open Space system, the proposed rezone is consistent with the spirit and intent of these two placetypes within the Windler Master Plan.



Compatibility with Surrounding Uses:

A mix of uses surround the Windler development, including Logistics/Distribution, Commercial, Mixed-Use and Residential, much of which also share the Comprehensive Plan's designation of City Corridor and Emerging Neighborhood placetypes. The proposed land uses in the Windler Master Plan Amendment are also very closely aligned with the land uses in the currently approved Master Plan and so, are compatible with the size, scale, height, density, and multi-modal traffic impacts within the Windler development. If the proposed land uses are almost identical to the approved land uses, then the uses proposed in this rezone are also consistent with adjacent development.

Summary:

The requested zoning change will result in a largely similar outcome and built environment as would be expected from the existing zoning. The zoning change is needed to align with new planning boundaries in the Master Plan, which are intended to help address housing attainability and diversity within the City of Aurora. The requested combination of MU-A (Mixed-Use Airport) and R-2 zoning will allow for, and result in, virtually exactly the uses that the existing MU-R zoning allows.

We appreciate your consideration of this request.



PLACETYPE PLAN

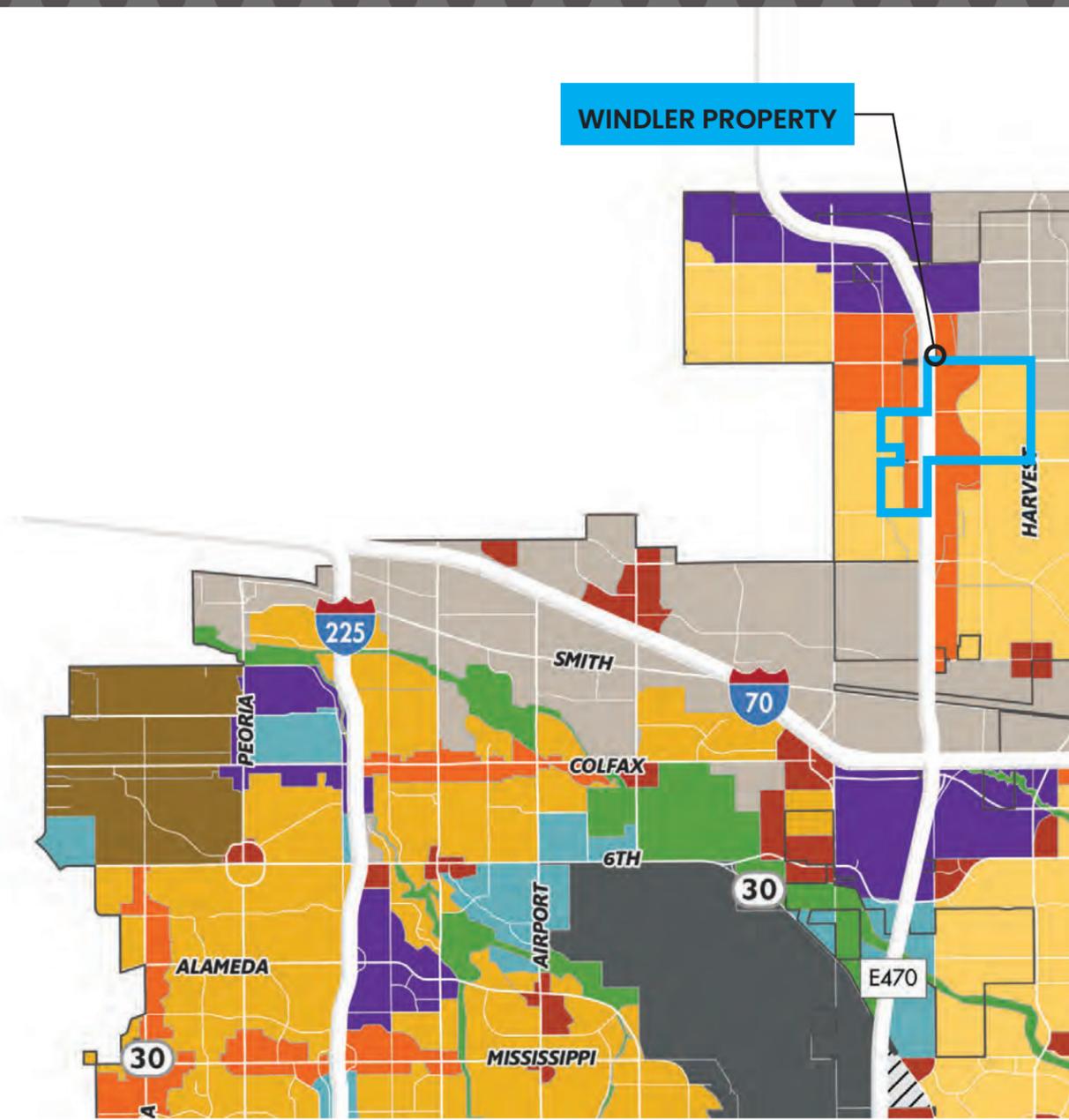


PLACETYPES

- Urban District
- Innovation District
- Industry Hub
- Buckley Air Force Base
- Urban Green Space
- City Corridor
- Established Neighborhood
- Emerging Neighborhood
- Original Aurora
- Commercial Hub
- Special Use
- State Land Boundary

This map identifies placetype designations for all areas within the city of Aurora's adopted planning and annexation boundaries. See page 51 for additional information about these boundaries.

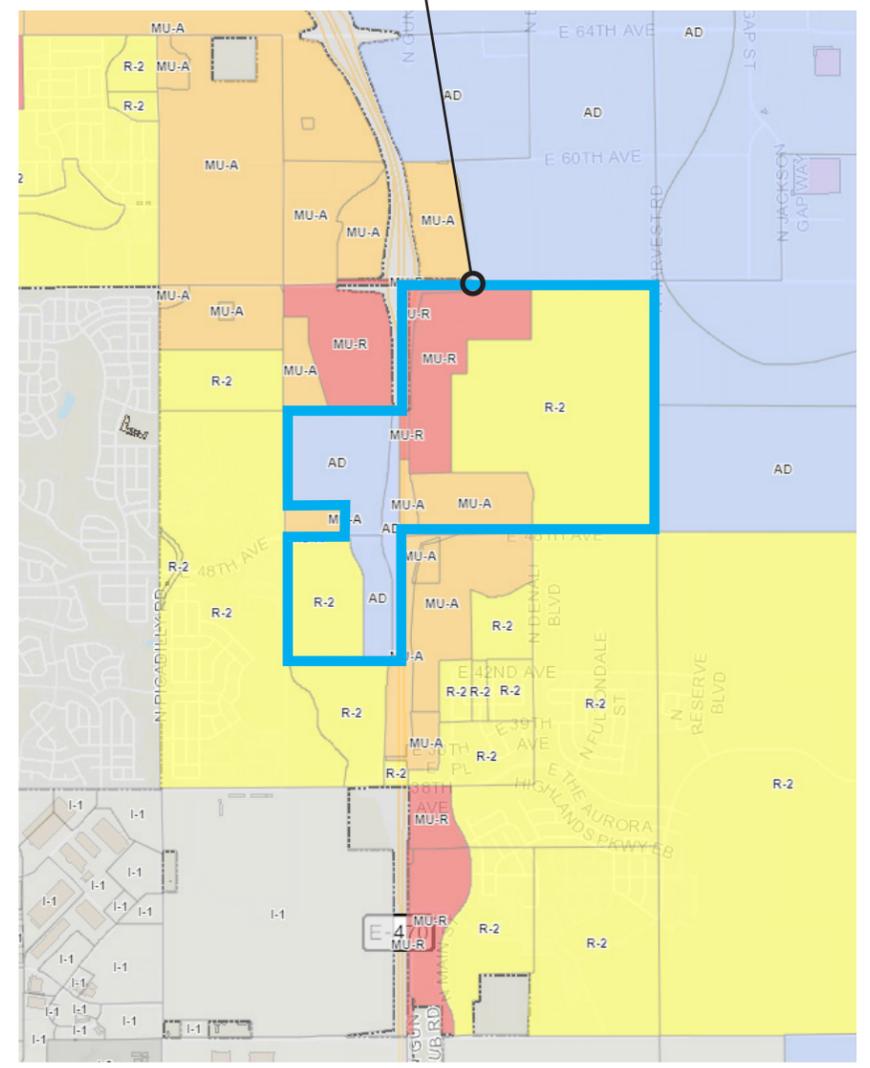
Placetype designations for areas outside of the city limits are for long-range planning purposes only. These properties are subject to rules and regulations of their appropriate jurisdiction(s). The city of Aurora does not enforce zoning, subdivision or development standards in unincorporated areas.



WINDLER PROPERTY

Comprehensive Plan

WINDLER PROPERTY

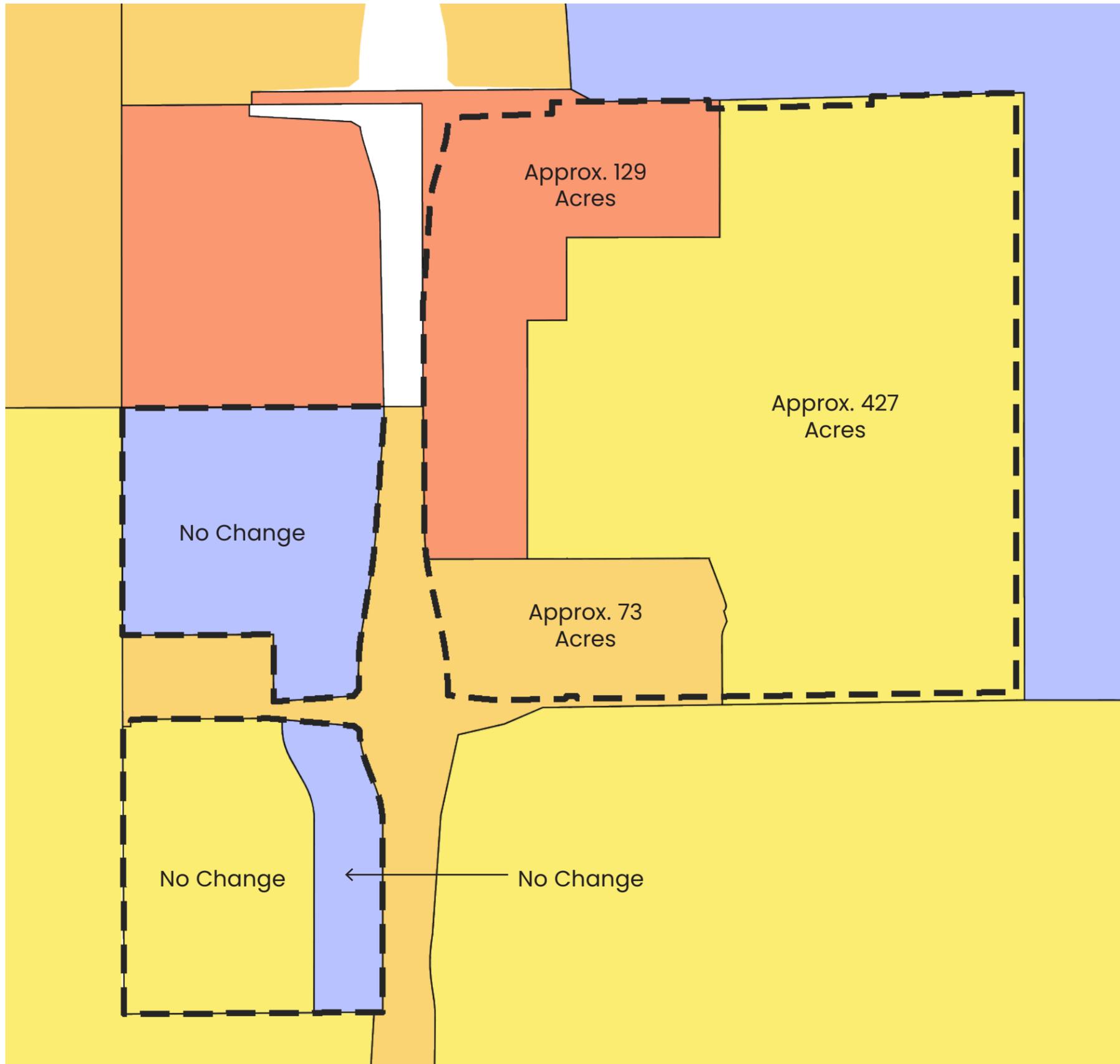


Existing Zoning



Exhibit A: Aurora Comprehensive Plan & Existing Zoning





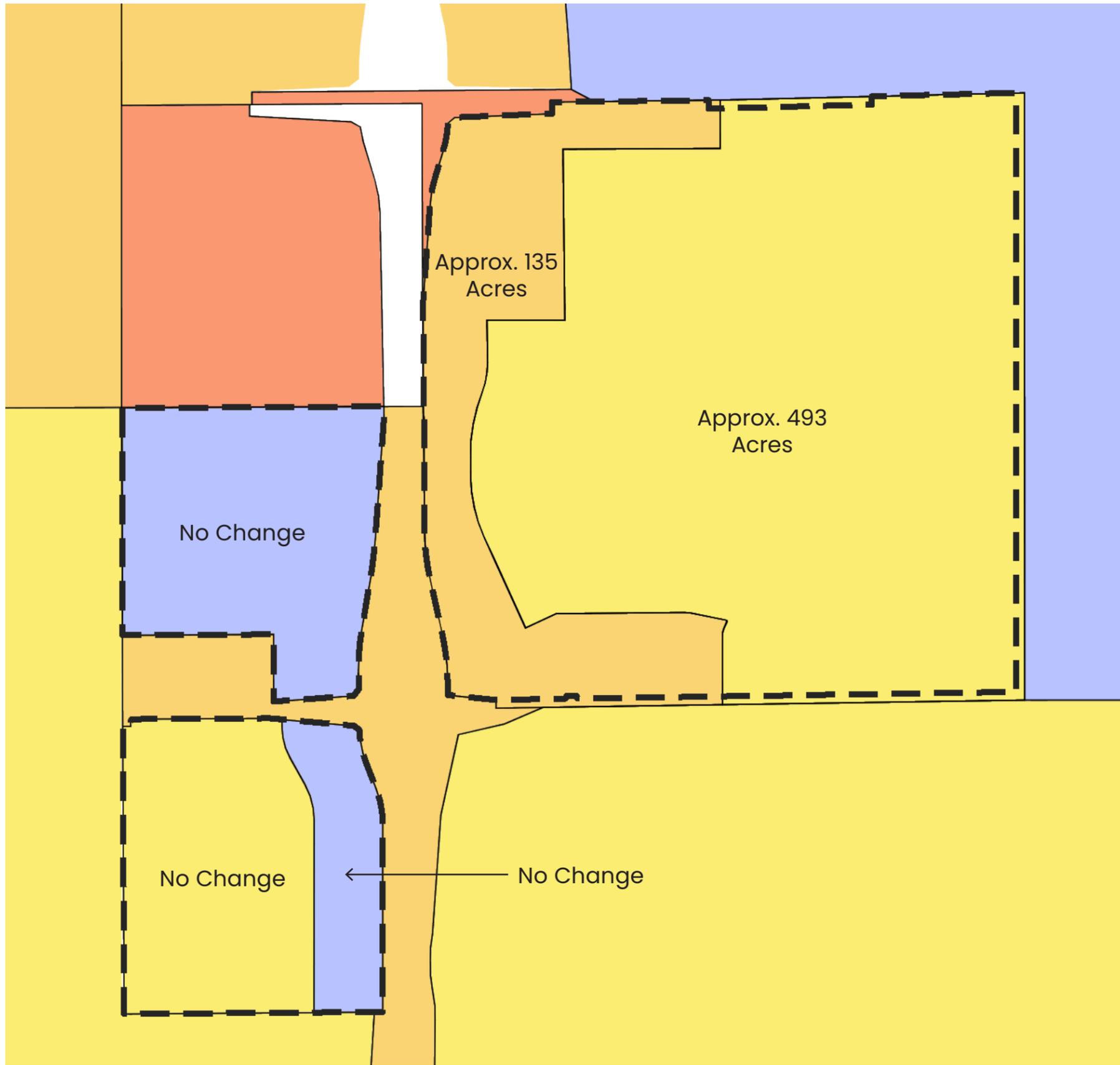
LEGEND

-  WINDLER Boundary
-  R-2 Zoning
-  MU-A Zoning
-  MU-R Zoning
-  AD Zoning

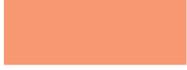


Exhibit B: Existing Zoning Designation





LEGEND

-  WINDLER Boundary
-  R-2 Zoning
-  MU-A Zoning
-  MU-R Zoning
-  AD Zoning

No Change

Approx. 135 Acres

Approx. 493 Acres

No Change

No Change



Exhibit C: Proposed Zoning Designation

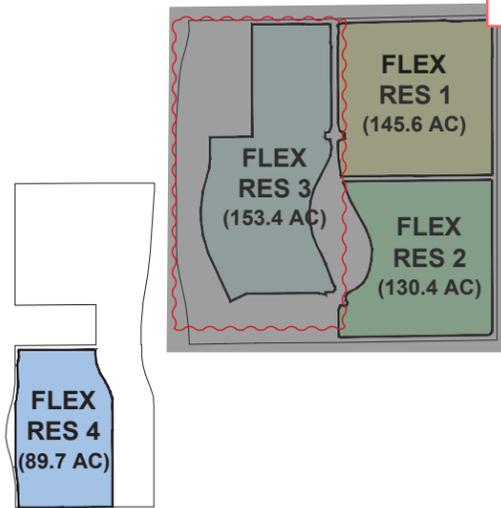


tab 8
LAND USE MAP AND MATRIX

WINDLER
MASTER PLAN

LAND USE MAP

KEYMAP



29.81 on Form D?
MAP HAS BEEN REVISED

- OPEN SPACE
- NEIGHBORHOOD PARK
- FLEX RES - 1 (145.6 Acres Gross)
- FLEX RES - 2 (130.4 Acres Gross)
- FLEX RES - 3 (153.4 Acres Gross)
- FLEX RES - 4 (89.7 Acres Gross)
- MIXED USE
- COMMERCIAL
- INDUSTRIAL
- SCHOOL
- SHARED USE OPEN SPACE
- ADMINISTRATIVE ACTIVITY CENTER *
- WHELEN WARNING SYSTEM LOCATION
- RECREATION CENTER
- LOCAL STREET CONNECTION **

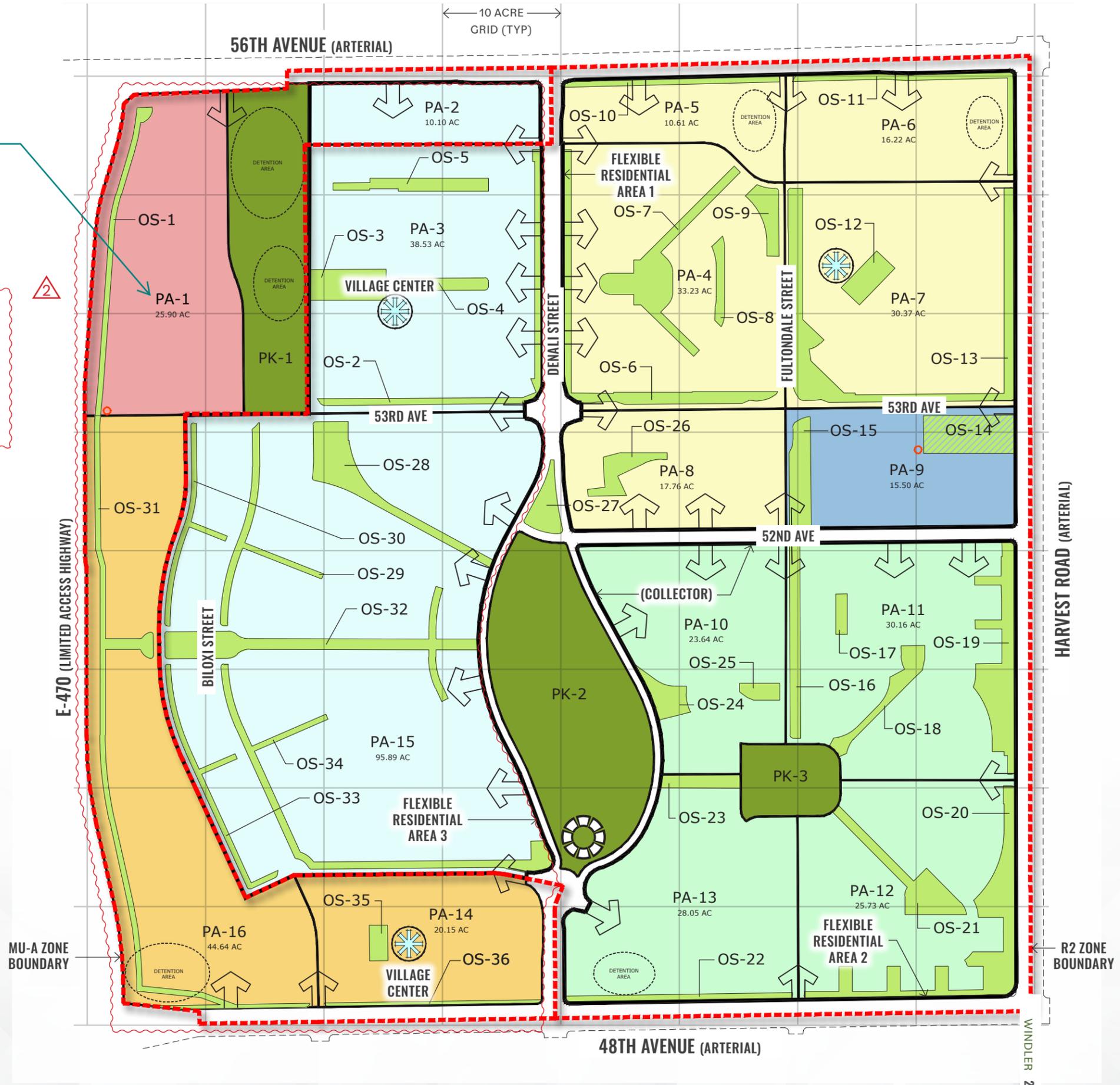
NOTES

Planning areas depicted for Open Space, Neighborhood Park and School are for acreage only. Final location, configuration, and shape will be determined at time of Site Plan.

* The exact location of Administrative Activity Centers shall be determined at site plan submittal. Locations will comply with Section 146-5.4.3 unless an adjustment is approved by the Planning Commission

** Local street placement will be determined at time of site plan. Additional street connectivity may be required to meet the UDO standards

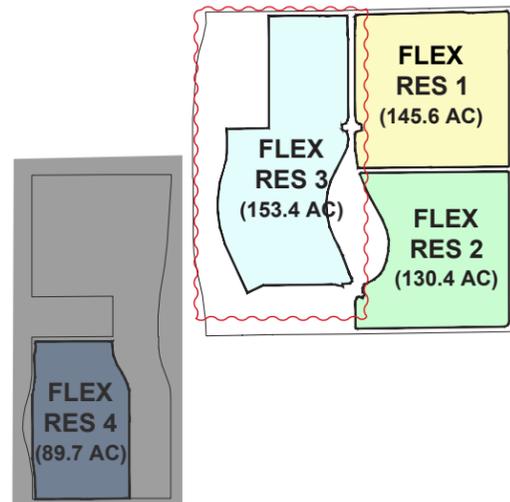
UPDATES TO PLANNING AREAS, OPEN SPACES & NEIGHBORHOOD BOUNDARIES



WINDLER 2

LAND USE MAP

KEYMAP



LEGEND

- OPEN SPACE
- NEIGHBORHOOD PARK
- FLEX RES - 1 (145.6 Acres Gross) △
- FLEX RES - 2 (130.4 Acres Gross)
- FLEX RES - 3 (153.4 Acres Gross)
- FLEX RES - 4 (89.7 Acres Gross)
- MIXED USE
- COMMERCIAL
- INDUSTRIAL
- SCHOOL
- SHARED USE OPEN SPACE
-  ADMINISTRATIVE ACTIVITY CENTER *
-  WHELEN WARNING SYSTEM LOCATION
-  RECREATION CENTER
-  LOCAL STREET CONNECTION **

NOTES

Planning areas depicted for Open Space, Neighborhood Park and School are for acreage only. Final location, configuration, and shape will be determined at time of Site Plan.

* The exact location of Administrative Activity Centers shall be determined at site plan submittal. Locations will comply with Section 146-5.4.3 unless an adjustment is approved by the Planning Commission

** Local street placement will be determined at time of site plan. Additional street connectivity may be required to meet the UDO standards

△ UPDATES TO PLANNING AREA I.D. NUMBERS



Since we already have site plans approved for PA's 23, 24, and 25, I would prefer to keep them numbered the same. I realize this will leave a gap in the numbering, so also add a note to the applicable tables and sheets to explain the removal of these planning areas within the amendment.

REVISED AS REQUESTED



FUTURE CONNECTION TO ADJACENT PROPERTY TO BE ESTABLISHED AT SITE PLAN. EXACT LOCATION AND ALIGNMENT TO BE DETERMINED AT THAT TIME

FUTURE CONNECTION TO ADJACENT PROPERTY TO BE ESTABLISHED AT SITE PLAN. EXACT LOCATION AND ALIGNMENT TO BE DETERMINED AT THAT TIME

LAND USE MATRIX

FORM D: LAND USE MAP MATRIX

A. Land Use Item	B. Planning Area Map Number	C. Map Area Code	D. Gross Land In Acres	E. Land Use Formula	F. Maximum Potential Density by Code (In du's or sf)	G. Actual Proposed Maximum Density (In du's or sf)	H. Phasing, Details & Comments
1. Flood Plain Areas							
	PA-9	SCHOOL	15.50		N/A	N/A	Combined with the co-located OS-14, Total School Site Area is 18.0 Acres; Includes Whelen Warning System Dedication
	OS-1	OPEN SPACE	1.46	7.8 ac/1,000 residents	N/A	N/A	
	OS-2	OPEN SPACE	2.15	7.8 ac/1,000 residents	N/A	N/A	
	OS-3	OPEN SPACE	1.68	7.8 ac/1,000 residents	N/A	N/A	
	OS-4	OPEN SPACE	0.76	7.8 ac/1,000 residents	N/A	N/A	
	OS-5	OPEN SPACE	1.22	7.8 ac/1,000 residents	N/A	N/A	
	OS-6	OPEN SPACE	3.09	7.8 ac/1,000 residents	N/A	N/A	
	OS-7	OPEN SPACE	3.03	7.8 ac/1,000 residents	N/A	N/A	
	OS-8	OPEN SPACE	0.53	7.8 ac/1,000 residents	N/A	N/A	
	OS-9	OPEN SPACE	0.90	7.8 ac/1,000 residents	N/A	N/A	
	OS-10	OPEN SPACE	1.10	7.8 ac/1,000 residents	N/A	N/A	
	OS-11	OPEN SPACE	1.62	7.8 ac/1,000 residents	N/A	N/A	
	OS-12	OPEN SPACE	0.91	7.8 ac/1,000 residents	N/A	N/A	
	OS-13	OPEN SPACE	5.65	7.8 ac/1,000 residents	N/A	N/A	
	OS-14	OPEN SPACE	2.50	7.8 ac/1,000 residents	N/A	N/A	Shared Use Open Space/ co-located with School Site (PA-9)
	OS-15	OPEN SPACE	1.61	7.8 ac/1,000 residents	N/A	N/A	
	OS-16	OPEN SPACE	1.43	7.8 ac/1,000 residents	N/A	N/A	
	OS-17	OPEN SPACE	0.33	7.8 ac/1,000 residents	N/A	N/A	
	OS-18	OPEN SPACE	1.21	7.8 ac/1,000 residents	N/A	N/A	
	OS-19	OPEN SPACE	3.66	7.8 ac/1,000 residents	N/A	N/A	
	OS-20	OPEN SPACE	5.04	7.8 ac/1,000 residents	N/A	N/A	
	OS-21	OPEN SPACE	1.97	7.8 ac/1,000 residents	N/A	N/A	
	OS-22	OPEN SPACE	1.16	7.8 ac/1,000 residents	N/A	N/A	
	OS-23	OPEN SPACE	0.79	7.8 ac/1,000 residents	N/A	N/A	
	OS-24	OPEN SPACE	0.95	7.8 ac/1,000 residents	N/A	N/A	
	OS-25	OPEN SPACE	0.45	7.8 ac/1,000 residents	N/A	N/A	
	OS-26	OPEN SPACE	0.99	7.8 ac/1,000 residents	N/A	N/A	
	OS-27	OPEN SPACE	1.02	7.8 ac/1,000 residents	N/A	N/A	
	OS-28	OPEN SPACE	2.81	7.8 ac/1,000 residents	N/A	N/A	
	OS-29	OPEN SPACE	1.36	7.8 ac/1,000 residents	N/A	N/A	
	OS-30	OPEN SPACE	0.94	7.8 ac/1,000 residents	N/A	N/A	
	OS-31	OPEN SPACE	3.42	7.8 ac/1,000 residents	N/A	N/A	
	OS-32	OPEN SPACE	3.78	7.8 ac/1,000 residents	N/A	N/A	
	OS-33	OPEN SPACE	1.18	7.8 ac/1,000 residents	N/A	N/A	
	OS-34	OPEN SPACE	3.07	7.8 ac/1,000 residents	N/A	N/A	
	OS-35	OPEN SPACE	0.46	7.8 ac/1,000 residents	N/A	N/A	
	OS-36	OPEN SPACE	0.59	7.8 ac/1,000 residents	N/A	N/A	
	OS-37	OPEN SPACE	0.50	7.8 ac/1,000 residents	N/A	N/A	
	OS-38	OPEN SPACE	2.72	7.8 ac/1,000 residents	N/A	N/A	
	OS-39	OPEN SPACE	1.05	7.8 ac/1,000 residents	N/A	N/A	
	OS-40	OPEN SPACE	2.10	7.8 ac/1,000 residents	N/A	N/A	
	S-41	OPEN SPACE	1.90	7.8 ac/1,000 residents	N/A	N/A	
	OPEN SPACE SUBTOTAL		73.09				Does not include School site (PA-9)
	K-1	NEIGHBORHOOD PARK	17.38 *	3.0 ac/1,000 residents	N/A	N/A	8.5 Acres of Detention, 2.6 Acres Stormwater Quality
			25.47	3.0 ac/1,000 residents	N/A	N/A	5,000 SF Community Center Facility
			5.00	3.0 ac/1,000 residents	N/A	N/A	
			14.77	3.0 ac/1,000 residents	N/A	N/A	17,700 SF public/private buildings
			62.62				

This figure does not match the credit outlined on the site plan.

THIS FIGURE IS A GROSS ACREAGE AND INCLUDES APPROXIMATELY 8.5 ACRES OF DETENTION AND 2.6 ACRES OF STORMWATER QUALITY. IN ADDITION, NONE OF THE ACREAGES PROVIDED AT A MASTER PLAN LEVEL ARE INTENDED TO MATCH THE SITE PLANS PROVIDED FOR FINAL PLAT, WHICH WILL BE TRUE FOR EVERY OPEN SPACE IN FORM D. AS NOTED IN TAB 9 - ALL PROS DEDICATIONS SHALL BE DETERMINED AT THE TIME OF FINAL PLAT.

2 UPDATES TO PARKS & OPEN SPACE ACREAGES

Qualifies for	Unique/Standards
Park Credit	PROS Standards
Pocket Park	PROS Standards
Mini Park	PROS Standards
Local Park	WINDLER Standards
Linear Park	WINDLER Standards
Parklet	WINDLER Standards

The sum of this column differs from the previously approved Form D - why?

THE 3.5 ACRE DIFFERENCE WAS ADDED TO PARKS & OPEN SPACE

THE BOUNDARY OF PA-1 WAS ADJUSTED TO ACCOMMODATE THE REVISED ALIGNMENT OF BILOXI ST. THE OPEN SPACE WITHIN PA-1 WAS ALSO REVISED, WHICH IS WHY THIS FIGURE WAS UPDATED

Why is this number changed when the boundary is not shifting?

LAND USE MATRIX

FORM D: LAND USE MAP MATRIX

A. Land Use Item	B. Planning Area Map Number	C. Map Area Code	D. Gross Land In Acres	E. Land Use Formula	F. Maximum Potential Density by Code (In du's or sf)	G. Actual Proposed Maximum Density (In du's or sf)	H. Phasing, Details & Comments
	PA-1	MIXED COMM	29.81	N/A	N/A	324,000 SF	MU-A Zone District; Includes Whelen Warning System Dedication
	PA-14	SFD/SFA	2.15	40 DU/AC	86 DU	86 DU	MU-A Zone District;
		MF	8	40 DU/AC	320 DU	320 DU	10.0 Acre Activity Center Designation (MU-C)
	PA-16	COMMERCIAL	10.00	N/A	N/A	130,000 SF	MU-A Zone District
		MIXED COMM	34.64	N/A	N/A	378,000 SF	MU-A Zone District
		MF	10.00	40 DU/AC	400 DU	345 DU	MU-A Zone District
	FLEXIBLE RESIDENTIAL AREA 1 *	FLEXIBLE RESIDENTIAL	108.19	12.0 du/ac	1,298	1,294	Flexible Residential Lot Option Designation
	PA-4	SFD/SFA-FLEX	33.23	N/A	N/A	316 DU	
	PA-5	MF	10.61	N/A	N/A	228 DU	Detention area excluded
	PA-6	MF	16.22	N/A	N/A	322 DU	Detention area excluded
	PA-7	SFD/SFA-FLEX	29.87	N/A	N/A	269 DU	0.5 Acre Activity Center Designation (MU-N)
		COMMERCIAL	0.50	50,000 GFA	50,000 GFA	5,000 SF	
	PA-8	SFD/SFA-FLEX	17.76	N/A	N/A	160 DU	
	FLEXIBLE RESIDENTIAL AREA 2 *	FLEXIBLE RESIDENTIAL	107.58	12.0 du/ac	1,291	1,094	Flexible Residential Lot Option Designation
	PA-10	SFD/SFA FLEX	23.64	N/A	N/A	185 DU	
	PA-11	SFD/SFA FLEX	30.16	N/A	N/A	206 DU	
	PA-12	SFD/SFA FLEX	25.73	N/A	N/A	205 DU	
	PA-13	SFD/SFA FLEX	21.55	N/A	N/A	160 DU	
		MF	6.5	N/A	N/A	338 DU	
3. Development Areas	FLEXIBLE	FLEXIBLE RESIDENTIAL	144.34	12.0 du/ac	1,732	1,187	Flexible Residential Lot Option Designation
			10.10	N/A	N/A	303 DU	MU-A Zone District
	PA-3	SFD/SFA FLEX	36.35	N/A	N/A	400 DU	2 Acre Activity Center Designation (MU-N)
		COMMERCIAL	2.00	50,000 GFA	50,000 GFA	25,000 SF	
	PA-15	SFD/SFA FLEX	92.89	N/A	N/A	697 DU	
		MF	3	N/A	N/A	90 DU	
	FLEXIBLE RESIDENTIAL AREA 4 *	FLEXIBLE RESIDENTIAL	66.68	12.0 du/ac	800	567	Flexible Residential Lot Option Designation
	PA-17	SFD/SFA FLEX	20.50	N/A	N/A	209 DU	
	PA-18	SFD/SFA FLEX	13.24	N/A	N/A	118 DU	
	PA-19	SFD/SFA FLEX	32.94	N/A	N/A	240 DU	276 in previous Master
	PA-20	IND-3.3.5.Y, IND-3.3.5.Z, Data Center	35.55	N/A	N/A	2200000 ¹ / 3300000 ²	IND-3.3.5.Y, IND-3.3.5.Z, Data Center
	PA-21	IND-3.3.5.Y, IND-3.3.5.Z, Data Center	9.66	N/A	N/A		AD Zone District
	PA-22	IND-3.3.5.Y, IND-3.3.5.Z, Data Center	44.61	N/A	N/A		AD Zone District
	PA-23	IND-3.3.5.Y, IND-3.3.5.Z, Data Center	56.61	N/A	N/A		AD Zone District
4. Total Map Acreage			819.03				
5. Less 1/2 Perimeter Streets Not Owned by Application			33.05				
6. Applicant's Acreage Listed in Application			852.08				
7. Total Flood Plain Acreage			0				
8. Total Adjusted Gross MP Acreage			852.08				

REVISED AS REQUESTED

Keep the original PA numbers in place for approved areas

THIS FIGURE WAS REVISED TO BETTER ALIGN WITH DOCUMENTS CURRENTLY UNDER REVIEW

2 UPDATES TO PLANNING AREA I.D. NUMBERS, ACREAGES, UNIT COUNTS, NON-RES SQUARE FOOTAGE & MU-A RESIDENTIAL ANALYSIS

Remove these references to specific uses, and list IND only

REVISED AS REQUESTED

MU-A ZONE DISTRICT RESIDENTIAL ANALYSIS	
MU-A Zoned Acreage	135.296 Acres
Maximum Residential Acreage by Code	67.648 Acres
Maximum SFD Residential Acreage by Code	33.824 Acres

Note: The intent with the MU-A Residential Analysis is to define the maximum acreage of Single Family Detached allowed within the MU-A zone district per City of Aurora Code

district

REVISED AS REQUESTED

WHELEN WARNING SYSTEM REQUIREMENTS:

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. IN NEWLY ANNEXED/DEVELOPING AREAS OF THE CITY, SIRENS SHOULD BE SITED ON EVERY 1/2 SECTION OF GROUND (320 ACRES) OR 6000 FEET APART TO PROVIDE EDGE TO EDGE COVERAGE. 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 AT 303-739-7636 (PHONE), 303-326-8986 (FAX), OR AFD_OEM@AURORAGOV.ORG.

remove data center from this table - the uses are listed in general categories only.

REVISED AS REQUESTED

tab 8

LAND USE MATRIX

2

FORM D: LAND USE MAP MATRIX					
A. Land Use Item	D. Gross Land In Acres	E. Land Use Formula	F. Maximum Potential Density by Code (In du's or sf)	G. Actual Proposed Maximum Density (In du's or sf)	H. Phasing, Details & Comments
9. Total SFD planning areas	N/A	2.65 persons per unit	N/A	1,300	Estimated Residents = 3,445
10. Total SFA planning areas	N/A	2.65 persons per unit	N/A	1,950	Estimated Residents = 5,168
11. Total MF planning areas	N/A	2.50 persons per unit	N/A	1,946	Estimated Residents = 4,865
12. Total Residential	444.44	N/A	N/A	5,196	Estimated Residents = 13,477
13. Check for average residential density in each subzone	852.08	6 DU/AC	N/A	5,196	
14. Small Lot Total			N/A		
15. Check for maximum allowable number of multifamily units in each subzone			N/A		
16. Total Retail	0	N/A	TBD	-	
17. Total Office	0	N/A	TBD	-	
18. Total Industrial/ Data Center	146.43	N/A	TBD	2,200,000 ¹ / 3,300,000 ²	
19. Total Mixed Commercial	64.45	N/A	N/A	702,000	
20. Total Commercial	12.50	N/A	N/A	160,000	
21. Total Neighborhood Park Land	62.62 **	3.0 acres / 1000 residents	N/A		Required Land Dedication = 40.43
22. Total Community Park Land	0.00	1.1 acres / 1000 residents	N/A		Required Land Dedication = 14.82
23. Total Open Space Land	73.09 ***	7.8 acres / 1000 residents	N/A		Required Land Dedication = 105.12
24. Total Park & Open Space Land	135.71		N/A		Required Land Dedication = 160.38

REVCLOUD ADDED

This is also a change

* Contiguous Area related to Flexible Residential Lot Option Areas shall also include the Open Space and Park acreage found within their boundaries, as displayed in the Land Use Map.

** Dedication acreage provided in excess of required Neighborhood Park Land shall be applied to Open Space Land Dedication requirements.

*** Additional Open Space Land Dedication to be provided internal to Planning Areas at time of Site Plan - as outlined in Tab 9: Form J.

1. If IND-3.3.5.Y/3.3.5.Z - then 2,200,000 SF.

2. If Data Center - then 3,300,000 SF.

NOTE: In the case of Planning Areas 20, 21, 22, and 23 potentially being developed for a Data Center all dimensional standards will be accommodated including required setbacks, parking, loading, landscaping, screening, buffering, fire access, refuse/ recycling as outlined in the City of Aurora's Unified Development Ordinance."

STANDARD MP NOTES

- Traffic Signal Costs. Owner and/or developers are responsible for 100 percent of signal costs for interior intersections. The cost of signals at perimeter intersections will be prorated. Signal locations and cost sharing will be determined at Contextual Site Plan.
- Street Lights. Streetlights must be constructed along all public streets as required by City Code Section 126-236.
- Archeological finds. The owner, developer and/or contractors will notify the City if archeological artifacts are uncovered during construction.
- Parks. Neighborhood park sites shall not exceed 3 percent maximum finished grades.
- 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 preliminary plat or site plan review. This reduction shall be considered an administrative MP amendment.
- 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.
- 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.
- The developer is responsible for construction of all on-site and off-site infrastructure needed to establish two points of emergency access to the overall site and each internal phase of construction. This requirement includes, but is not limited to, the construction of any emergency crossings improvements, looped water supply and fire hydrants as required by the adopted fire code and city ordinances.
- 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.
- 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 conflict with standards within this MP, the more restrictive shall apply.
- 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.
- 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.
- Design Standards. An MP amendment as per the requirements of Sections 3.9, 3.12, 3.13 and 3.14 of the MP Manual will be required to be submitted either with the application for the MP or as an amendment to the MP to be submitted with the application for the first Site Plan in the development.
- Major arterial medians to be publicly maintained shall be designed and constructed in accordance with PROS Public Median Standards. (These policies are pending completion.)
- 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.)

tab 9
**OPEN SPACE, CIRCULATION,
AND NEIGHBORHOOD PLAN**

WINDLER
MASTER PLAN



REVISED AS REQUESTED

Revise to: All PROS dedications shall be determined at the time of final plat.

tab 9

PARKS AND OPEN SPACE REQUIREMENTS

PROJECTED POPULATION

Single Family Detached Dwelling Units	1,300 units
Single Family Attached Dwelling Units	1,950 units
Multi Family Dwelling Units	1,946 units
Total Dwelling Units	5,196 units
Single Family Detached Residents (2.65 residents / dwelling)	3,445 residents
Single Family Attached Residents (2.65 residents / dwelling)	5,168 residents
Multi-Family Residents (2.50 residents / dwelling)	4,865 residents
Total Residents	13,477 residents

2

REQUIRED PARKS & OPEN SPACE DEDICATIONS

Neighborhood Parks (3.0 acres / 1,000 residents)	40.43 acres
Community Parks (1.1 acres / 1,000 residents)	14.82 acres
Open Space (7.8 acres / 1,000 residents)	105.12 acres
Total Required Parks and Open Space Dedication	160.38 acres

PROVIDED PARKS & OPEN SPACE

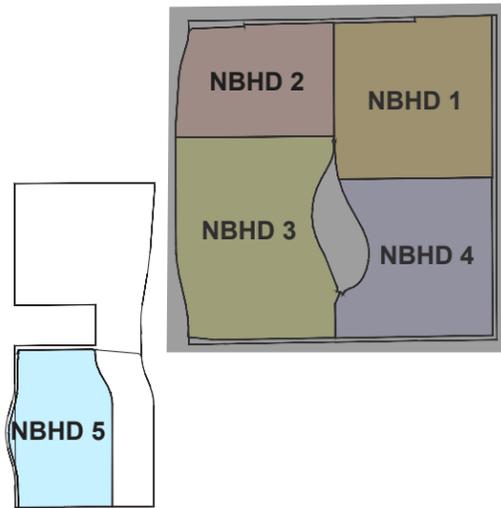
Neighborhood Parks	62.62 acres*
Community Parks	0.00 acres
Open Space	73.09 acres**
Parks and Open Space Provided from Tab 8	135.71 acres
Additional Open Space in Form J	29.30 acres
Total Master Plan Parks & Open Space	165.01 acres

NOTES

- * Dedication acreage provided in excess of required Neighborhood Park Land shall be applied to Open Space Land Dedication requirements.
- ** Should Net Acreage not sufficiently meet required open space dedication, additional Open Space dedication shall be provided internal to Planning Areas at time of Site Plan - see additional information in Form J.
- *** Required Community Park acreage to be met cash-in-lieu. Any cash-in-lieu of land dedication may be paid plat by plat and is not subject to be paid in full at the time of the first final plat.
- **** All Required Park and Open Space Dedications shall be determined by lots platted at time of Site Plan.

OPEN SPACE AND CIRCULATION PLAN

KEYMAP



LEGEND

- OPEN SPACE
- CO-LOCATED OPEN SPACE
- NEIGHBORHOOD PARK
- DETENTION
- SCHOOL
- WINDLER EAST (Neighborhood 1)
- VILLAGE NORTH (Neighborhood 2)
- VILLAGE SOUTH (Neighborhood 3)
- BUTTERFLY PARK (Neighborhood 4)
- 1881 (Neighborhood 5)
- RIGHT-OF-WAY
- NEIGHBORHOOD PARK SERVICE AREA *
- ADMINISTRATIVE ACTIVITY CENTER
- FUTURE OPEN SPACE **
- PRIMARY ENTRY
- RECREATION CENTER
- LOCAL STREET CONNECTION ***

NOTES

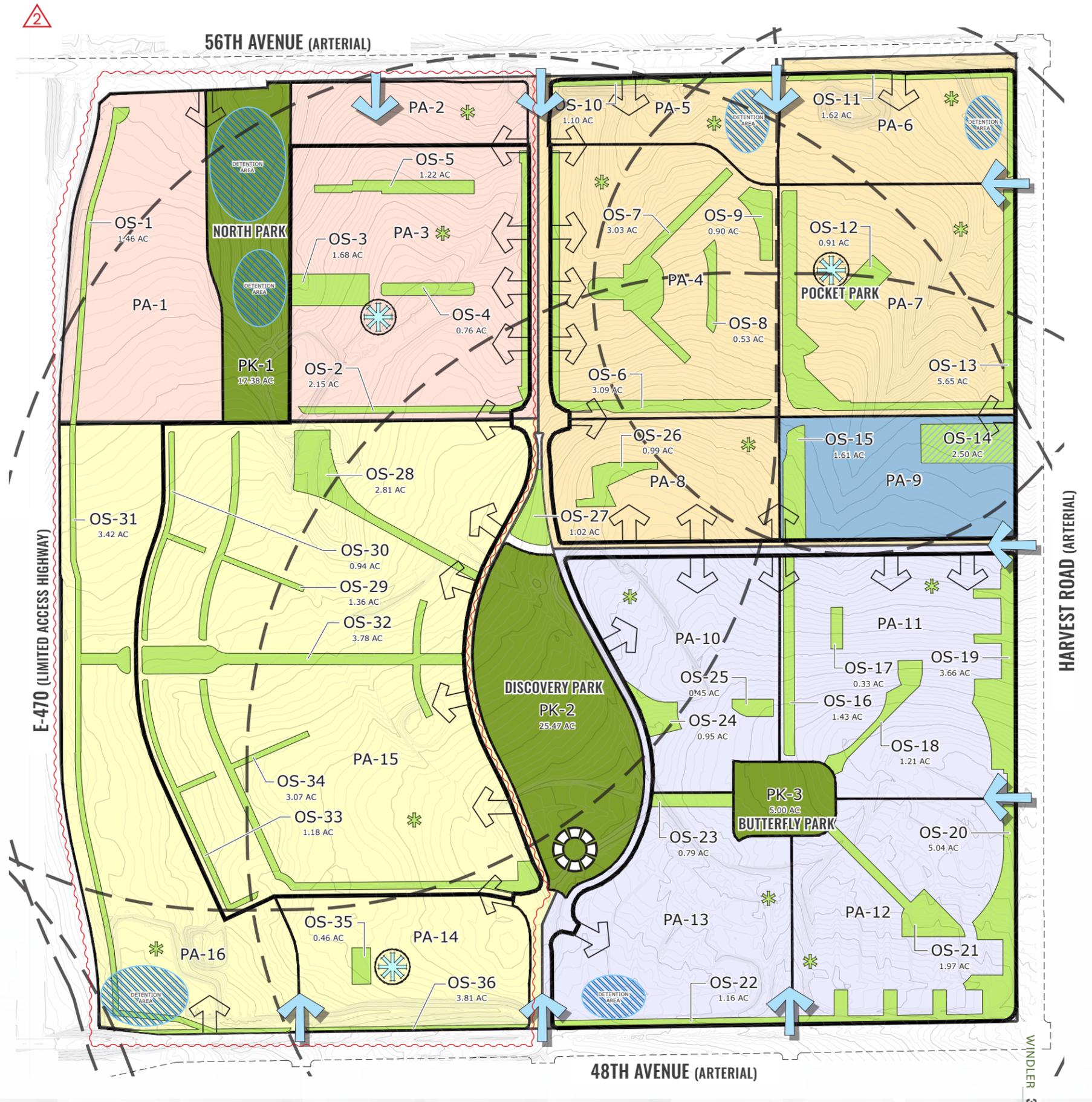
Planning areas depicted for Open Space, Neighborhood Park and School are for acreage only. Final location, configuration, and shape will be determined at time of Site Plan.

* Per PROS, a 1/4 mile service area shall apply to a pocket park provided to fill in a gap that is unserved by a neighborhood park.

** Future Open Space to be determined at Site Plan. Open Space locations may shift within Planning Area; Refer to Form J

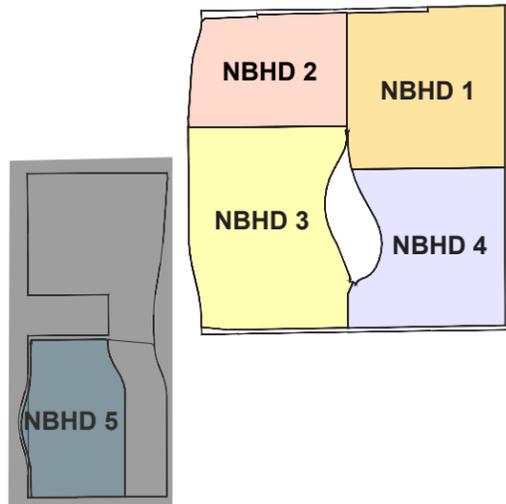
*** Local street placement will be determined at time of site plan.

2 UPDATES TO PLANNING AREAS, PARKS AND OPEN SPACES



OPEN SPACE AND CIRCULATION PLAN

KEYMAP



LEGEND

- OPEN SPACE
- CO-LOCATED OPEN SPACE
- NEIGHBORHOOD PARK
- DETENTION
- SCHOOL
- WINDLER EAST (Neighborhood 1)
- VILLAGE NORTH (Neighborhood 2)
- VILLAGE SOUTH (Neighborhood 3)
- BUTTERFLY PARK (Neighborhood 4)
- 1881 (Neighborhood 5)
- RIGHT-OF-WAY
- NEIGHBORHOOD PARK SERVICE AREA *
- ADMINISTRATIVE ACTIVITY CENTER
- FUTURE OPEN SPACE **
- PRIMARY ENTRY
- RECREATION CENTER
- LOCAL STREET CONNECTION ***

NOTES

Planning areas depicted for Open Space, Neighborhood Park and School are for acreage only. Final location, configuration, and shape will be determined at time of Site Plan.

* Per PROS, a 1/4 mile service area shall apply to a pocket park provided to fill in a gap that is unserved by a neighborhood park.

** Future Open Space to be determined at Site Plan. Open Space locations may shift within Planning Area; Refer to Form J

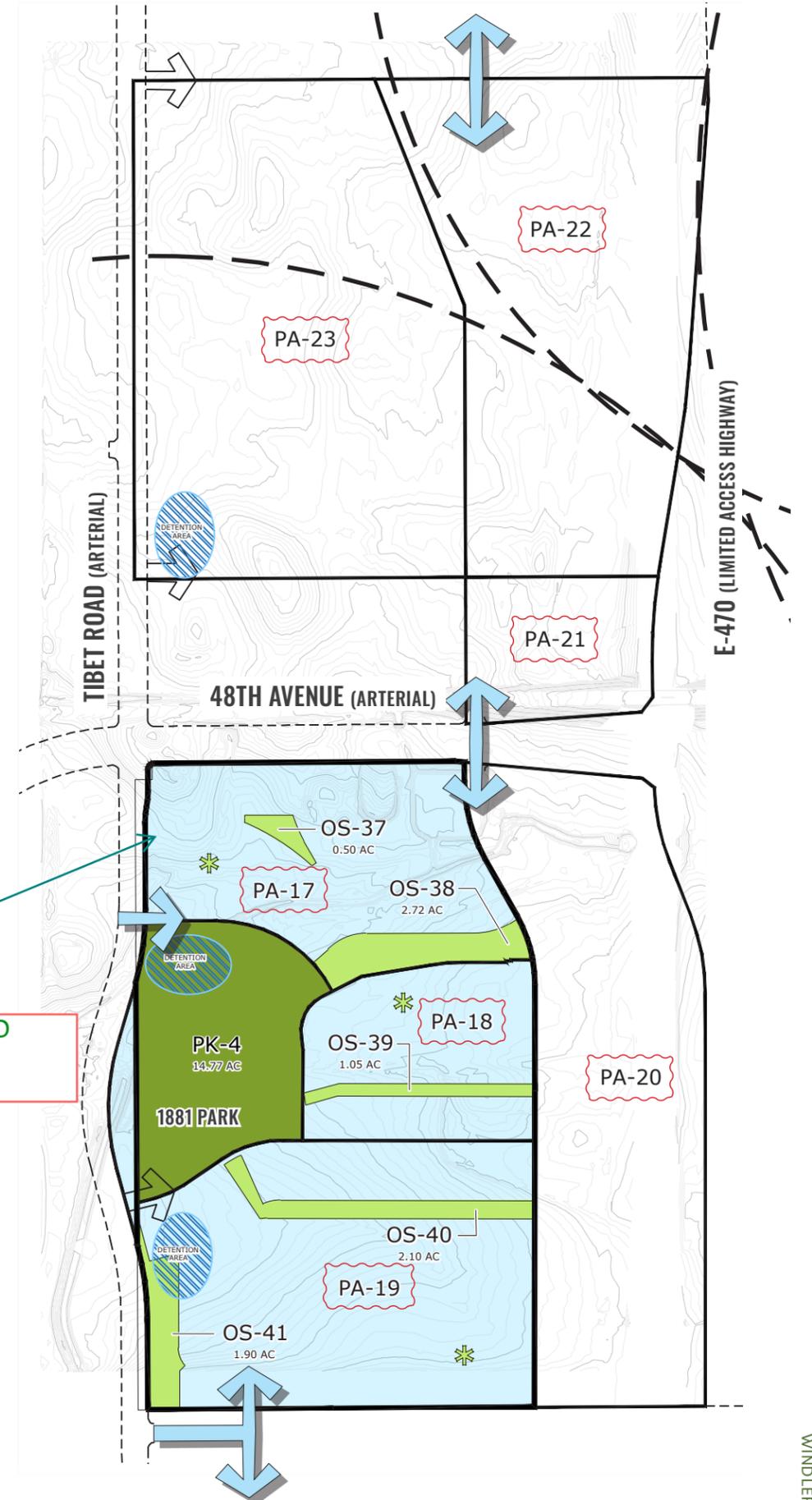
*** Local street placement will be determined at time of site plan.

2 UPDATES TO PLANNING AREA I.D. NUMBERS



Please retain the original PA's for areas that already have approved site plans.

REVISED AS REQUESTED

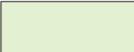


Pedestrian Circulation Diagram

Windler is fundamentally founded on the notion that a well-connected community that leverages all forms of movement will result in a stronger and healthier community. We embrace the fact that people need the ability to employ multiple modes of transportation to lead complete lives, but it is important to note that the more you isolate each mode the more you encourage high speeds and the sense of entitlement for the use of any particular facility. At Windler we seek to create an integrated network of streets, passages and connections that support all modes of movement while maximizing safety and promote a culture of shared and respectful use. All of our streets, sidewalks, alleys, and paseos are designed to amplify the notion that the whole of Windler is a park. Whether you live in or visit Windler, your experience will be rich and diverse, safe and intuitive. The Windler streetscape character has been intentionally designed to respect and enhance the intra-community movements, but it seeks to dissolve the traditional notion of what a street is and how it should look and more importantly how it feels and functions.

The objective is to transition from thinking of streets as separate from the rest of the destination-oriented places in Windler and think of them simply as an integral part of it. For example, the traditional streetscape recipe of transitioning from auto street to tree lawn to sidewalk to house as separate parts into the notion that the entire environment is a hierarchy of movement through a system of linear garden promenades. Every front yard landscape is designed to compliment the curbside landscape to form one singular garden experience that is integral with all of the parks, urban places and open spaces. With that, each neighborhood has characteristics that have been amplified to create distinction and variety.

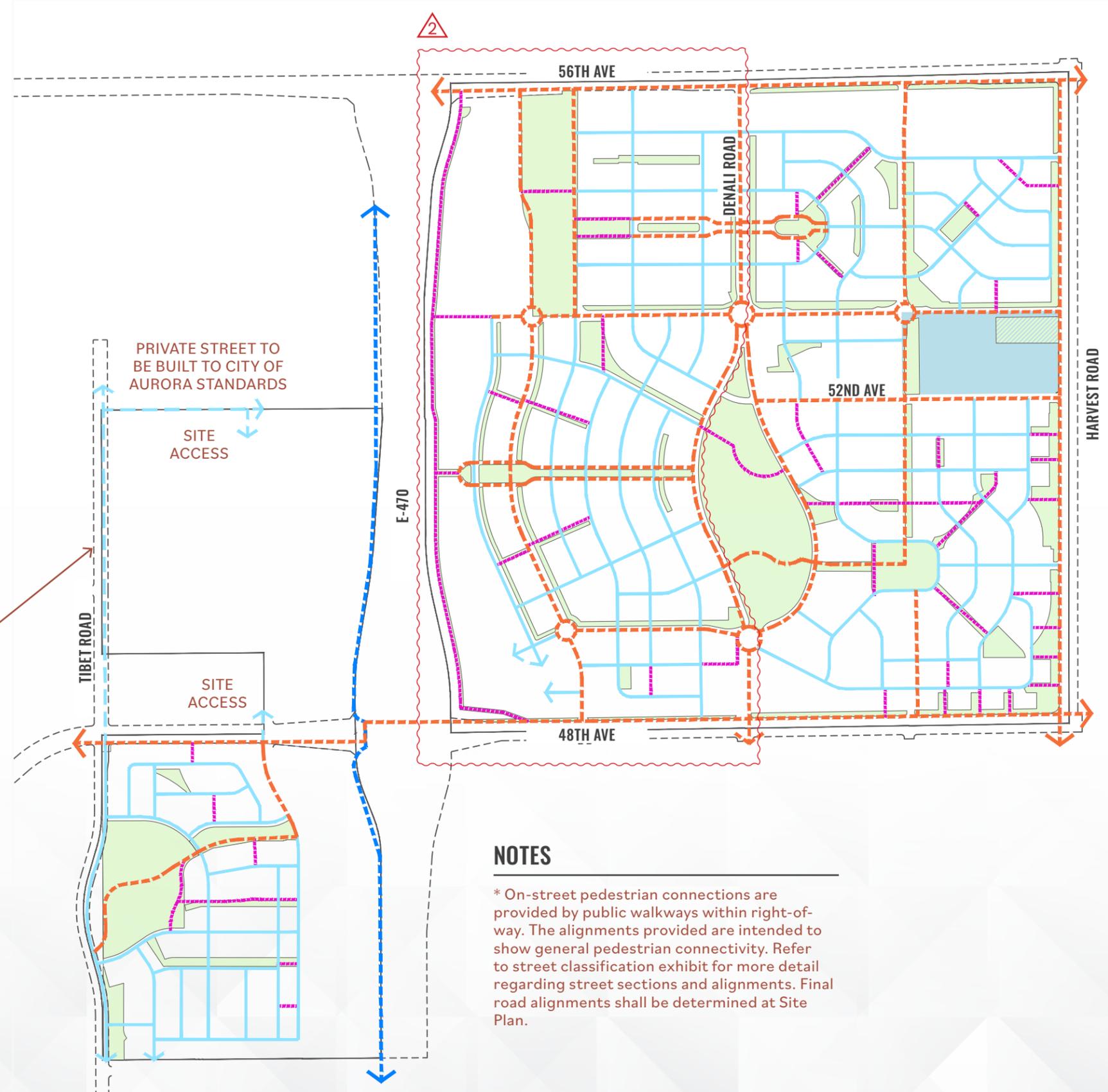
LEGEND

-  PARKS & OPEN SPACE
-  SCHOOL
-  CO-LOCATED OPEN SPACE
-  HIGH PLAINS TRAIL
-  PRIMARY CONNECTION
(10' width or as included in the Urban Street Frontage)
-  OFF-STREET PEDESTRIAN TRAIL
(6' - 8' width)
-  ON-STREET PEDESTRIAN CONNECTION*
-  RIGHT-OF-WAY

 UPDATES TO PEDESTRIAN AND PARKS NETWORK



CONNECTIONS TO MINOR ARTERIAL WILL BE DESIGNED AND BUILT BY OTHERS



NOTES

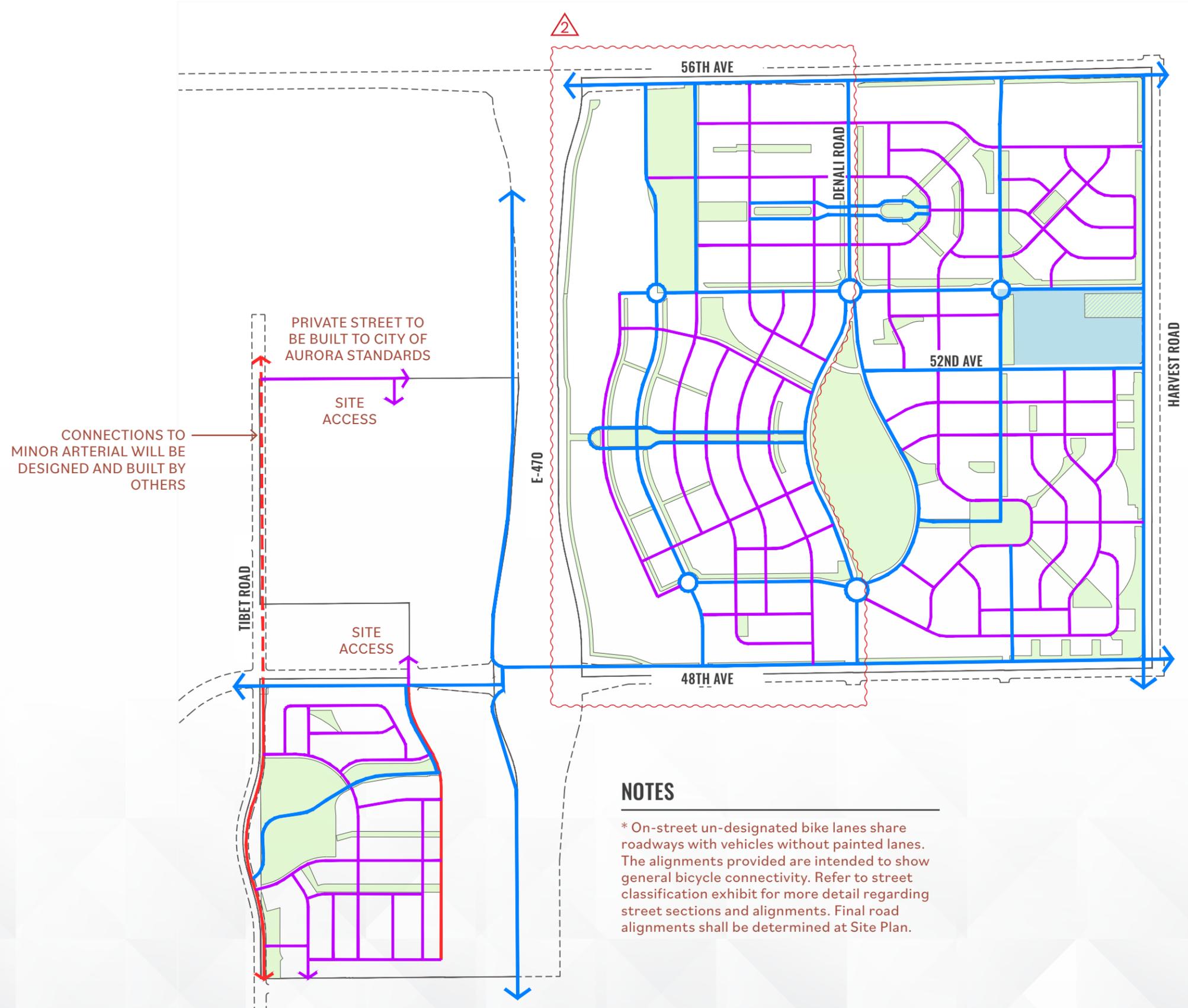
* On-street pedestrian connections are provided by public walkways within right-of-way. The alignments provided are intended to show general pedestrian connectivity. Refer to street classification exhibit for more detail regarding street sections and alignments. Final road alignments shall be determined at Site Plan.

Bicycle Connectivity Diagram

LEGEND

-  PARKS & OPEN SPACE
-  SCHOOL
-  CO-LOCATED OPEN SPACE
-  OFF STREET MULTI-USE PATH
-  ON-STREET DESIGNATED BIKE LANE
-  ON-STREET UN-DESIGNATED BIKE PATH *
-  RIGHT-OF-WAY

 UPDATES TO BICYCLE AND PARKS NETWORK

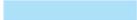


NOTES

* On-street un-designated bike lanes share roadways with vehicles without painted lanes. The alignments provided are intended to show general bicycle connectivity. Refer to street classification exhibit for more detail regarding street sections and alignments. Final road alignments shall be determined at Site Plan.

PUBLIC REALM FRAMEWORK

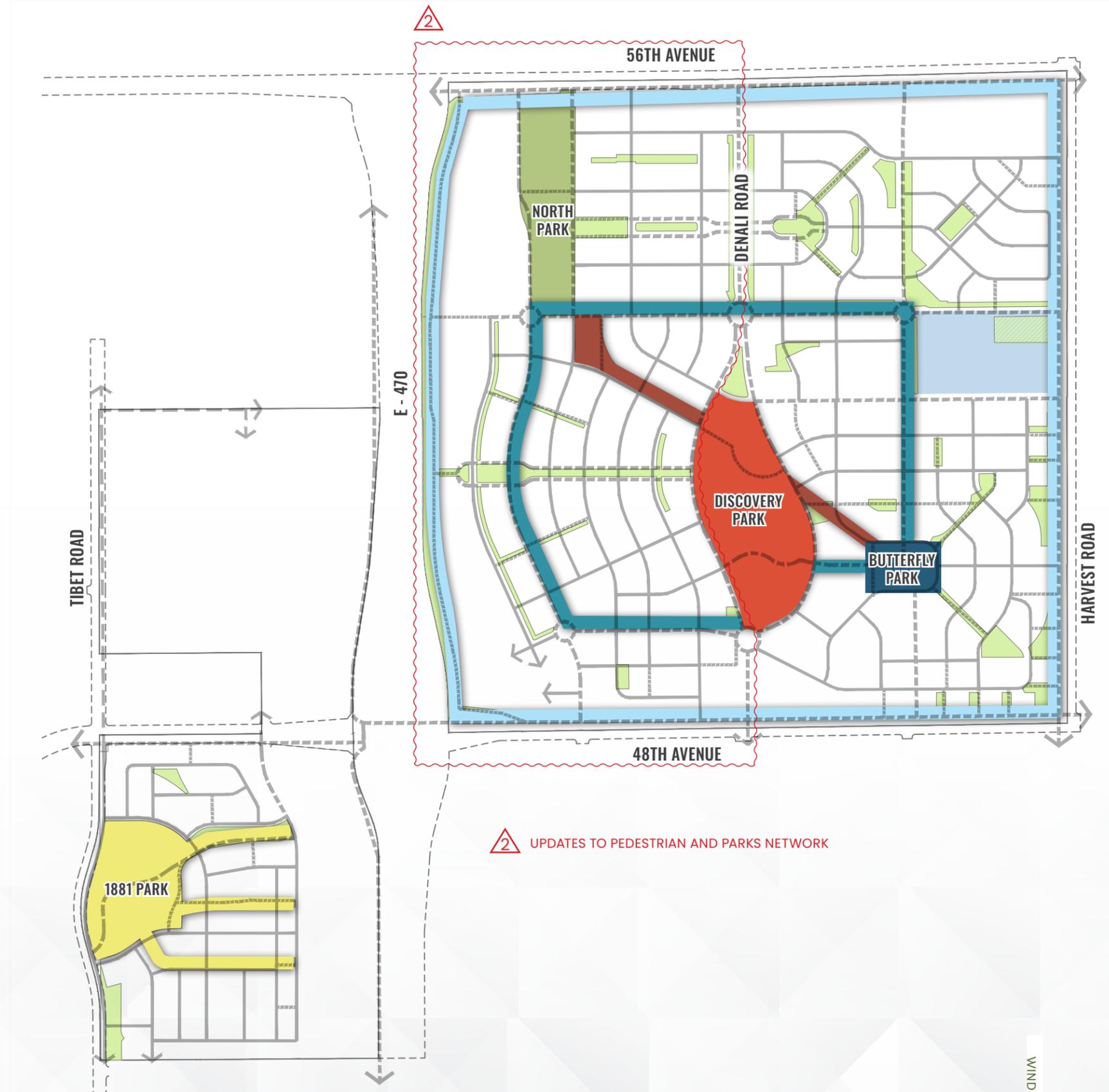
LEGEND

-  PERIMETER LOOP
-  WINDLER LOOP
-  BUTTERFLY PARK
-  LONGS PEAK CORRIDOR
-  DISCOVERY PARK
-  1881 PARK
-  PEDESTRIAN CONNECTIONS

The Places that project the Windler character and ethos

These values and objectives are what the public realm of Windler is intending to project. To this end, the plan features a bold and recognizable framework where the programming, design expression and materiality will reveal these principles and establish a recognizable 'Windler character' and ethos. The following places are what define the Windler character and ultimately what Windler will be known for;

1. The first step is to establish a bold perimeter landscape that sets the tone of Windler through the articulation of a striking native landscape, project monumentation and amenities such as trails, overlooks and points of respite that allow residents to navigate and activate the 4-mile project perimeter.
2. The next layer in framework is the Denali Street/Discovery Park urban core. This signature park and boulevard marks the physical and social heart of Windler and will embody all the values and aspirations of the Windler community.
3. The Windler Loop, is a 1-mile square (loop) linear park that interconnects and links four of Windler's neighborhoods. This linear park is intended to not only connect the various neighborhoods, but also to celebrate movement, social connection, health and fitness as a core value of the Windler community.
4. Marking the highest point of the Windler development is the Butterfly Park. This significant Park will serve as a local neighborhood park and a Windler wide destination simultaneously as it will offer special programming, art and design character that is intended to one of those special Windler scale destinations for social engagement.
5. The Longs Peak Seam is a linear seam that runs through the Butterfly Park Neighborhood, the Discovery Park, and the borders both the village North and Village South neighborhoods. This interesting Windler feature brings into focus the connection of mountain and plain what it means to live along the front range of Colorado.
6. The 1881 Park- is a special place where Windler residents and visitors will enjoy and learn about our Agrarian past and how that will evolve into our agrarian future. This will also be a place of gathering and community celebration.



 UPDATES TO PEDESTRIAN AND PARKS NETWORK

NEIGHBORHOOD PLAN

Fundamental to understanding the character of Windler's distinct neighborhoods, we first must understand the structure of the public realm. The formal characteristics of the Windler development are founded on a few simple but bold design gestures that create a framework for the public realm system as a whole and simultaneously contrast with each distinct and interesting neighborhood. Fundamentally, the character and ethos of Windler can be experienced through its perimeter (arterial edges), the Denali couplet/Discovery Park and the 1-mile long Windler Loop. Conversely, the various interconnected Neighborhood parks, small urban parks and paseos will be designed to celebrate the distinctions between the 5 neighborhoods while maintaining an underlying Windler sense of quality and place.

WINDLER EAST (Neighborhood 1)

East of Denali Street, south of East 56th Avenue and west of Harvest Street is the Windler East Neighborhood. Similar to the Village North Neighborhood, Windler East is organized around the central Green Line Park that features adjacencies to perimeter linear park connectors, a 17-acre school site and the Windler Loop linear park. The western half of the neighborhood's street network is designed to create a radial synergy with the central and formal neighborhood park that will offer residents and visitors a socially engaging 'living room' space that features shade pavilions, edge gardens, BBQ and open lawn for games and neighborhood scale events. From the park, extending to the north-east and the south-east are linear park links that draw residents from outer blocks into the heart of the Windler East neighborhood. In contrast, the eastern half of Windler East is defined by a street network that generally runs 45 degrees to the north-south collectors offering an interesting neighborhood block character where the streets align to distant mountain views. Anchoring the eastern half of Windler East, is a one-acre family-oriented pocket park that is adjacent to a small neighborhood scale retail site that is intended to offer a daycare center or a coffee shop opportunity that will further enhance the social fabric of Windler East. Like the Village North Neighborhood, Windler East will offer a wide array of housing products from high density 3 to 4-story multifamily apartments along 56th Ave. to more traditional single-family detached blocks moving south.

Potential product type summary: Multi Family 3 to 4-story Apartments, 2 and 3 -story townhomes, paired homes, single family detached alley loaded, single family detached front loaded, single family detached and attached in green court.

VILLAGE NORTH (Neighborhood 2)

The Village North neighborhood is bound by the 'North Park' detention and recreation area to the west, Denali Street to the east, East 56th Avenue to north and 53rd Avenue to the South, is formed by a traditional north-south / east-west street grid featuring a wide array of housing types and densities that offer residents a walkable urban structure and a highly social, community centric lifestyle. The neighborhood is anchored by a

central ¾ mile long east/west open space spine that extends from North Park on the west through the Windler East Neighborhood and terminates one block beyond Fultondale Street at a neighborhood park and small Administrative Activity Center within Windler East. The spine links together a series of distinct small urban neighborhood parks, public gardens and plazas environments that are designed to amplify social engagement and encourage movement and fitness within an atmosphere that is unique to the Village North Neighborhood. The Green Line Park will showcase a full breadth of seasonal interest expressed thru a series of adaptable park environments, attractions and programable event space. Our intent is to deliver rich and diverse experiences that attract residents of Village North, other neighborhoods within Windler, as well visitors to Windler. Juxtaposed to The Green Line, will be a charming main street environment that organically integrates small scale mixed-use buildings into the residential block fabric. Similar streets for reference are Gaylord or South Pearl Streets in Denver. The Village North Neighborhood will offer a wide array of alley loaded residential typologies that transition from higher densities in the north including multi family apartment along 56th Ave. and attached single family products (2 and 3-story townhomes and paired homes) transitioning to lower density single family detached in the southeastern portion of the neighborhood.

Potential product type summary: Multi Family 3 to 4-story Apartments, 2 and 3 -story townhomes, paired homes, single family detached alley loaded, single family detached front loaded, single family detached and attached in green court

VILLAGE SOUTH (Neighborhood 3)

Perhaps the most urban in character and dense, the Village South Neighborhood that is bound by Discovery Park to the east, East 48th Avenue to the south and 53rd Avenue to the north, offers a tapestry of distinct sub-districts that are unified by a clear and recognizable system of linear connector parks, including the Windler Loop, paseos, green courts, a north-west oriented drainage way park that links the Butterfly Park Neighborhood, Discovery Park to the North Park open space and detention ponds. In contrast, the generally gridded street network links traditional neighborhood blocks to both the Discovery Park and a dynamic retail-oriented village (north of East 48th Avenue). Residents and visitors can enjoy an array of boutique shops, restaurants, a small grocer, retail pad sites, hotels and dense residential products that together form a walkable and distinctive urban village. The Village South neighborhood will offer a wide array of residential types including alley loaded and front-loaded single family residential products, alley loaded paired products as well as various types of rear loaded single family attached products, surface and potentially podium parked stacked flats.

Potential product type summary: Multi Family 3 to 4-story Apartments, Live/work, 2 and 3 -story townhomes, paired homes, single family detached alley loaded, single family detached and attached in green court.

NEIGHBORHOOD PLAN

BUTTERFLY PARK (Neighborhood 4)

The Butterfly Park Neighborhood boasts the Highest point within the Windler Development which features spectacular views of the entire Rocky Mountain Front Range. To capitalize on this defining feature, the Butterfly Neighborhood Park has been strategically positioned at this high point to not only capture the dramatic views, but to also attract residents and visitors to its amenities, gardens, and art. The park is supported by a radial street and open space network that emits from the Butterfly Park at distinct angles to align with incredible views of the Rocky Mountain Front Range and specifically the view to Longs Peak. This street network continues through the neighborhood providing access to community highlights such as Discovery Park, the Community Center, the school site and the retail district of the Village South neighborhood. The Butterfly Park Neighborhood is bound by E.48th avenue to the South, Denali/Discovery Park to the west, Harvest Street to the east and roughly 53rd Avenue/the school site to the north. The promontory grades of this neighborhood, and specifically the Butterfly Park, afford this neighborhood’s street network a more radial structure, resulting in diverse streetscape experiences, and intimate and expanded viewsheds. Adjacent and east of the Community Center within Discovery Park is a dense urban residential center that serves to link the destinations of the Village South Town Center with the residential blocks of the Butterfly Park Neighborhood in an interesting, diverse pedestrian friendly route. The neighborhood offers a wide array of residential products that include both alley loaded single family attached and detached products stacked flats, paired homes and other boutique uses such as a hotel and support retail adjacent to the Butterfly Park. Potential product type summary: Multi Family 3 to 4-story Apartments, 2 and 3 -story townhomes, paired homes, single family detached alley loaded, single family detached and attached in green courts.

1881 (Neighborhood 5)

Centered on the hallmark 1881 Park, the 1881 Neighborhood character can be defined by the rich traditions of our agrarian past, present and future. The defining open spaces include the 1881 Park which includes many activities centered on agriculture, community gathering, food production, education, and two distinct linear greenways that will harness the story of storm water management/water quality, permaculture, and the benefits of community-oriented agriculture. The street network is efficient with small blocks which respond to the character of the park and the drainage infrastructure that pushes thru the site. Potential product type summary: This neighborhood features many distinct housing types including alley loaded single family detached, alley loaded single family attached units, street loaded single family units, paired homes and motor court single family detached units that are all intended to express a village character and embrace the agrarian themes expressed throughout the 1881 park network.

FORM F-2			
NEIGHBORHOOD	DISTINGUISHING CHARACTERISTICS		
	URBAN DESIGN	LANDSCAPE	ARCHITECTURE
NEIGHBORHOOD 1	Organized by a unique pedestrian circulatory system, focused on a prominent east-west park connection.	Primarily composed of the Residential Landscape Typology	A diversity of product types and architectural styles
NEIGHBORHOOD 2	Integrates a mix of uses within a walkable urban grid structure. Oriented around a walkable Main Street this neighborhood is also focused on a prominent east-west park connection which terminates on the ‘North Park’ detention and recreation area.	Composed of a mix of the Urban and Residential Landscape Typologies	A diversity of product types and architectural styles. To feature a higher proportion of commercial/ mixed use storefronts.
NEIGHBORHOOD 3	A mixed-use urban core surrounded by distinct sub-districts characterized by more traditional land uses.	Composed of a mix of the Urban and Residential Landscape Typologies	A diversity of product types and architectural styles. To feature a higher proportion of commercial/ mixed use storefronts.
NEIGHBORHOOD 4	Organized around a promontory park, a radial circulatory network highlights views to the Front Range and creates unique connections to Discovery Park and the Village South Town Center.	Primarily composed of the Residential Landscape Typology	A diversity of product types and architectural styles
NEIGHBORHOOD 5	Defined by proximity to 1881 Park, the neighborhood is organized by pedestrian corridors connecting through the community to the park.	Composed of the Residential Landscape Typology	A diversity of product types and architectural styles

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN



Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-1 OPEN SPACE	Trail Corridor / Parklet **	1.46	1.29	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-1).
OS-2 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (7) Recreation criteria; Refer to Tab 10	2.15	1.69	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
OS-3 OPEN SPACE	Pocket Park - Refer to PROS Standards	1.68	1.61	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
OS-4 OPEN SPACE	Pocket Park - Refer to PROS Standards	0.76	0.76	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
OS-5 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	1.22	1.13	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
OS-6 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (7) Recreation criteria; Refer to Tab 10	3.09	2.70	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).
OS-7 OPEN SPACE	Pocket Park - Refer to PROS Standards	3.03	2.54	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).

UPDATES TO OPEN SPACE ACREAGE, PARK TYPE & TRIGGER FOR CONSTRUCTION

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-8 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.53	0.47	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).
OS-9 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.90	0.90	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).
OS-10 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.10	1.10	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-5).
OS-11 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.62	1.56	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-6).
OS-12 OPEN SPACE	Pocket Park - Refer to PROS Standards	0.91	0.91	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-7).
OS-13 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	5.65	5.11	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-7).
OS-14 OPEN SPACE	School Co-located Park Space - to be designed by Aurora Public Schools	2.50	2.50	Aurora Public School District	Open Space to be completed with completion of adjacent Planning Area (PA-9).
OS-15 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	1.61	1.61	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-9).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-16 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	1.43	1.26	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
OS-17 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.33	0.33	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
OS-18 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	1.21	0.97	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
OS-19 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	3.66	3.66	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
OS-20 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	5.04	5.04	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-12).
OS-21 OPEN SPACE	Pocket Park - Refer to PROS Standards	1.97	1.78	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-12).
OS-22 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.16	1.16	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-13).
OS-23 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	0.79	0.79	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-13).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN



Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-24 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.95	0.95	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-10).
OS-25 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.45	0.45	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-10).
OS-26 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.99	0.82	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-8).
OS-27 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	1.02	1.02	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PK-2).
OS-28 OPEN SPACE	Pocket Park - Refer to PROS Standards	2.81	2.75	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-29 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.36	1.33	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-30 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	0.94	0.77	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-31 OPEN SPACE	Trail Corridor / Parklet **	3.42	3.42	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-16).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-32 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (7) Recreation criteria; Refer to Tab 10	3.95	3.05	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-33 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.18	1.11	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-34 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	3.07	2.70	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
OS-35 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	0.46	0.46	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-14).
OS-36 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.59	0.59	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Areas (PA-14).
OS-37 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	0.50	0.50	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-17).
OS-38 OPEN SPACE	Pocket Park - Refer to PROS Standards	2.72	2.51	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-17 or PA-18, whichever comes first).
OS-39 OPEN SPACE	** Local Park - Must meet a minimum of (1) Buffer and (3) Recreation criteria; Refer to Tab 10	1.05	0.86	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-18).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
OS-40 OPEN SPACE	** Linear Park - Must meet a minimum of (1) Buffer and (5) Recreation criteria; Refer to Tab 10	2.10	1.69	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-19).
OS-41 OPEN SPACE	** Perimeter Park - Must meet a minimum of (1) Buffer and (4) Recreation criteria; Refer to Tab 10	1.90	1.90	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-19).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN

REVISED AS REQUESTED

Please remove city of Aurora ownership

2

Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
PK-1 NEIGHBORHOOD PARK (NORTH PARK)	Neighborhood Park - Must meet minimum PROS Standards. Potential additional amenities include public plazas, urban drainage interface, shade structures, play areas and an amphitheater	17.38	6.3	Constructed by WINDLER Metro District or HOA; City of Aurora Ownership	Park Site Plan to be submitted with first submittal of the second Planning Area in Planning Group 1. Park to be completed prior to approval of plans for the final Planning Area in Planning Group 1. Refer to Tab 13: Public Improvement Plan for Planning Groups
PK-2 NEIGHBORHOOD PARK (DISCOVERY PARK)	Neighborhood Park - Must meet minimum PROS Standards. Potential additional amenities include play features for all ages and abilities, play fields, hard surface courts, nature-themed and traditional play equipment, passive trails, community gathering spaces, and overlooks	25.47	25.36	Constructed by WINDLER Metro District or HOA; City of Aurora Ownership	Park Site Plan to be submitted with first submittal of the second Planning Area in Planning Group 2. Park to be completed prior to approval of plans for the final Planning Area in Planning Group 2. Refer to Tab 13: Public Improvement Plan for Planning Groups
PK-3 NEIGHBORHOOD PARK (BUTTERFLY PARK)	Neighborhood Park - Must meet minimum PROS Standards. Potential additional amenities include interactive art and play areas, pollinator and edible gardens, passive turf play areas	5.00	4.01	Constructed by WINDLER Metro District or HOA; WINDLER Metro District or HOA Ownership	Park Site Plan to be submitted with first submittal of the second Planning Area in Planning Group 3. Park to be completed prior to approval of plans for the final Planning Area in Planning Group 3. Refer to Tab 13: Public Improvement Plan for Planning Groups
PK-4 NEIGHBORHOOD PARK (1881 PARK)	Neighborhood Park - Must meet minimum PROS Standards. Potential additional amenities include preservation of historic structures, a seed and tool library, park amenities, a community market building, commemorative gardens, play and trail areas, farm to table restaurant & event center, orchard plantings	14.77	14.36	Constructed by WINDLER Metro District or HOA; City of Aurora Ownership	Park Site Plan to be submitted with first submittal of the second Planning Area in Planning Group 6. Park to be completed prior to approval of plans for the final Planning Area in Planning Group 6. Refer to Tab 13: Public Improvement Plan for Planning Groups

1 1881 & DISCOVERY PARK OWNERSHIP REVISED

2 UPDATES TO PARK ACREAGE

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN



Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
PA-2 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.02	1.02	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-2).
PA-3 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.34	1.34	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-3).
PA-4 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	2.30	2.30	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-4).
PA-5 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.66	1.66	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-5).
PA-6 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	2.34	2.34	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-6).
PA-7 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.96	1.96	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-7).
PA-8 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.16	1.16	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-8).
PA-10 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.35	1.35	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-10).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN



Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
PA-11 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.50	1.50	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-11).
PA-12 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.49	1.49	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-12).
PA-13 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	3.63	3.63	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-13).
PA-14 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.36	1.36	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-14).
PA-15 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	2.64	2.64	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-15).
PA-16 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.16	1.16	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-16).
PA-17 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	1.52	1.52	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-17).
PA-18 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	0.86	0.86	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-18).

** This park type is unique to WINDLER; Refer to Tab 10: Urban Design Standards for design criteria

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN



Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
PA-19 OPEN SPACE	Any combination of the following: Pocket Park, Mini Park, Local Park**, Linear Park**, or Parklet**	2.01	2.01	WINDLER Metro District or HOA	Open Space to be completed with completion of adjacent Planning Area (PA-19).

PLANNING AREAS 21 - 25 REMOVED FROM FORM J ACCOUNTING

tab 9

OPEN SPACE, CIRCULATION, AND NEIGHBORHOOD PLAN



Planning Area Designation (or feature in an area)	Description and Inventory Facilities	Total Acreage	PROS Dept. Credited Acreage	Final Ownership & Facility Funding	Trigger for Each Phase
TAB 8 MASTER PLAN TOTAL		135.71	117.76		
PLANNING AREA TOTAL * (To be defined at Site Plan)		29.30	29.30		
ARTERIAL MEDIANS TOTAL		1.37	1.37		
TOTAL MASTER PLAN PARKS & OPEN SPACE (Excludes arterial median area)		165.01	147.06		

Parks, Recreation & Open Space



Date: _____ Signature: _____

1 1881 & DISCOVERY PARK OWNERSHIP REVISED

2 UPDATES TO DEDICATED PARKS & OPEN SPACE. ADDITIONAL NOTE INCLUDED.

PARKS, RECREATION, AND OPEN SPACE INVENTORY AND PHASING NOTES

* Potential Future Open Space has been allocated per Planning Area based on number of units proposed in that Planning Area. These acreages may be allocated to other Planning Areas at time of Site Plan.

- Parks Dept. Credited Open Space excludes land prohibited from dedication per PROS Dedication and Development Criteria Manual. Lands prohibited from dedication may include: stormwater detention and retention, water quality facilities, acreage within 350' from an oil and gas well pad, lands in excess of 4:1 slope, encumbered land, monumentation, street right-of-way, medians, golf courses, private clubhouses, swimming pools, etc... Refer to PROS for all land ineligible for dedication.

- All Active Outdoor Recreation areas including parks and trails are required to be setback 350' from oil and gas pad sites. This does not apply, because no Active Outdoor Recreation areas are located within 350' of oil and gas pad sites.

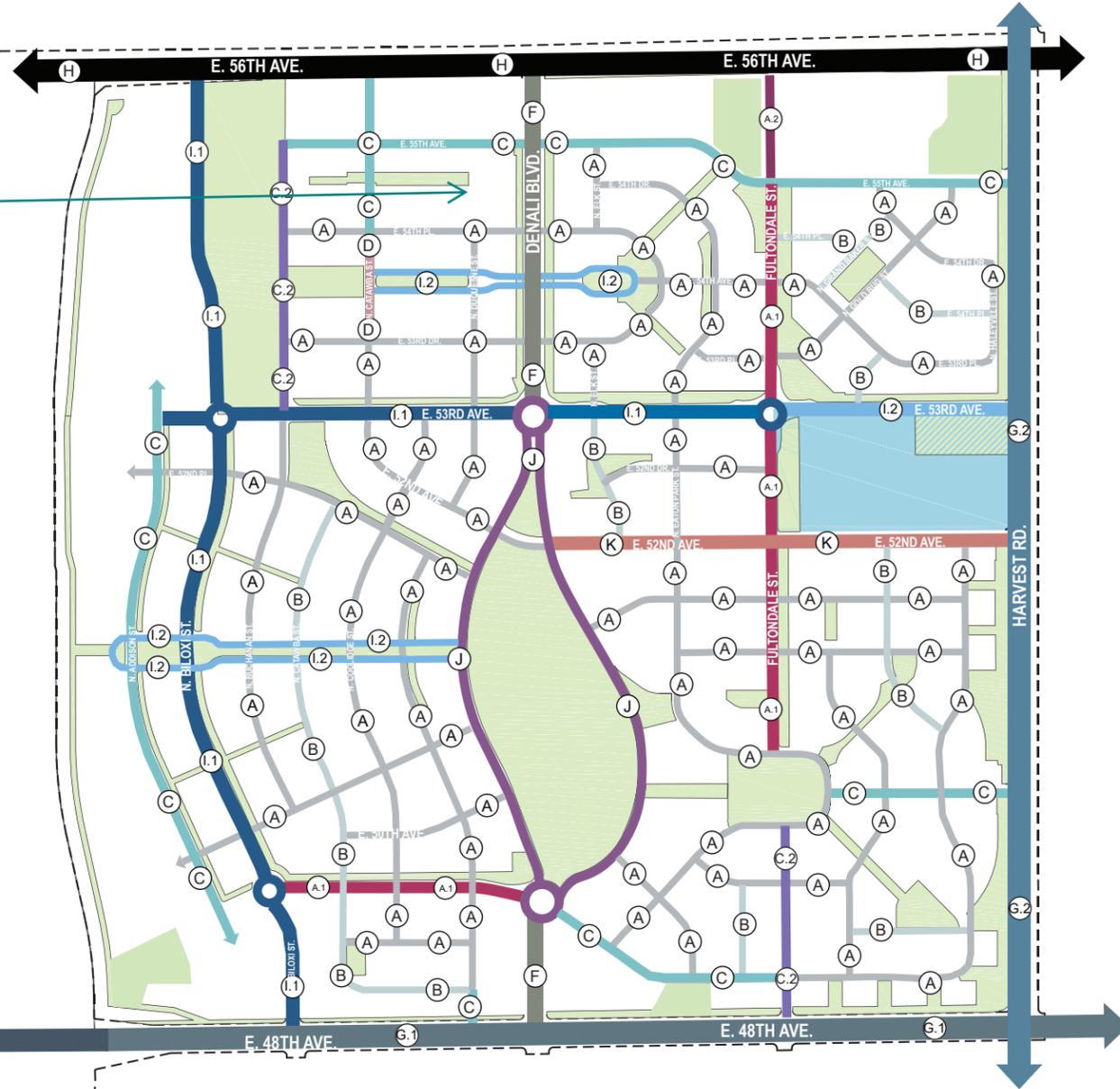
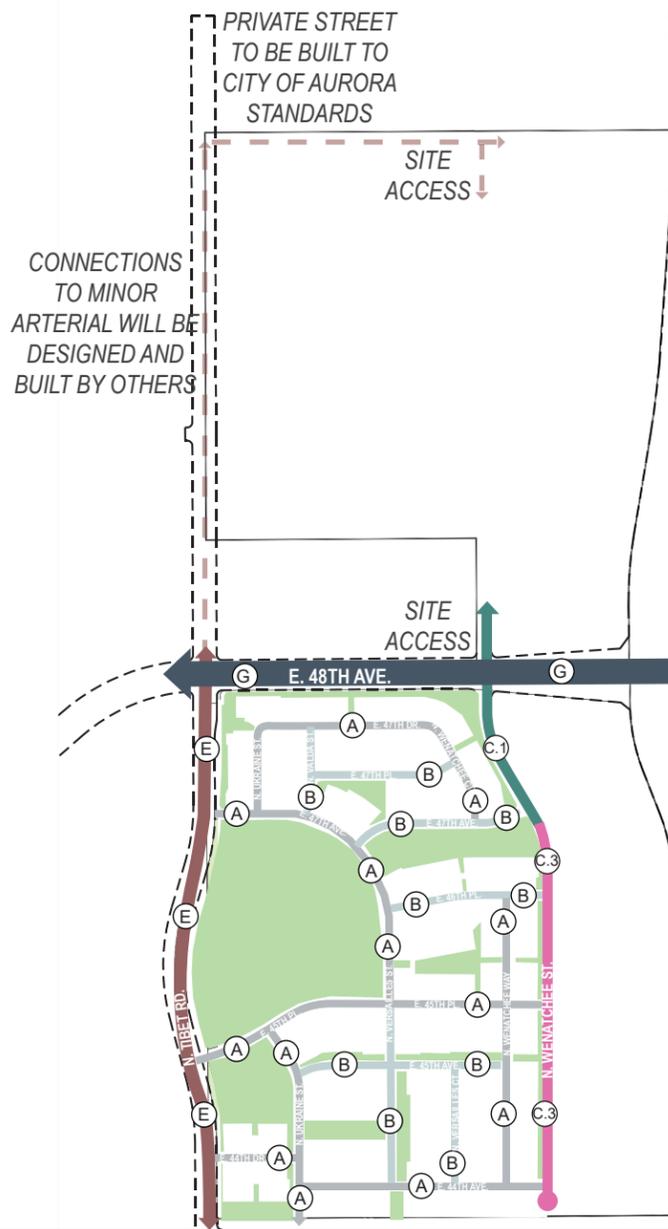
- All Required Park and Open Space Dedications shall be determined by lots platted at time of Site Plan.

All PROS dedications shall be determined at the time of final plat.

REVISED AS REQUESTED

Duquesne extends to 55th per the village north site plan.

ADDRESSED



WINDLER STREET CLASSIFICATIONS

- CITY OF AURORA - STANDARD STREETS**
- A. LOCAL STREET TYPE 1 (64' R.O.W.)
 - B. LOCAL STREET TYPE 2 (60' R.O.W.)
 - C. LOCAL STREET TYPE 3 (68' R.O.W.)
 - D. LOCAL URBAN 2-LANE (66' R.O.W.)
 - E. THREE-LANE COLLECTOR (80' R.O.W.)
 - G. SIX-LANE ARTERIAL (144' R.O.W.)
 - G.1. SIX-LANE ARTERIAL (144' R.O.W.)
 - G.2. FOUR-LANE ARTERIAL (144' R.O.W.)
 - H. SIX-LANE ARTERIAL (143' R.O.W.)
- NEW URBANISM STREETS**
- I.1. CONNECTOR BOULEVARD (90.5' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
 - I.2. CONNECTOR BOULEVARD (VARIED R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
- CITY OF AURORA - ENHANCED STREETS
CUSTOM TO WINDLER**
- A.1 LOCAL STREET TYPE 1 - ENHANCED (67.5' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
 - A.2 LOCAL STREET TYPE 1 - ENHANCED (66' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
 - C.1 LOCAL STREET TYPE 3 - ENHANCED (71' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE (ON-STREET BIKE LANES)
 - C.2 LOCAL STREET TYPE 3 - ENHANCED (72.5' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
 - C.3 LOCAL STREET TYPE 3 - ENHANCED (67' R.O.W.)
 - REPLACE ON-STREET PARKING WITH BIKE LANES
 - F. MAIN STREET - MEDIAN 4-LANE ENHANCED COLLECTOR (121' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
 - J. DENALI BOULEVARD - ENHANCED COUPLET / COLLECTOR (65' R.O.W.)
 - 15' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE
 - K. TWO-LANE COLLECTOR - ENHANCED (75' R.O.W.)
 - 10' MIN PRIMARY CONNECTION - URBAN STREET FRONTAGE

Duquesne extends to 55th per the village north site plan.

ADDRESSED

PRIVATE STREET TO BE BUILT TO CITY OF AURORA STANDARDS

SITE ACCESS

CONNECTIONS TO MINOR ARTERIAL WILL BE DESIGNED AND BUILT BY OTHERS

SITE ACCESS

clean up the floating 51st labels.

ADDRESSED

where are the E/W connector streets shown on the previous page? (green road?)

ADDRESSED

Wenatchee is a collector here.

WINDLER STREET CLASSIFICATIONS

- LOCAL STREETS
- COLLECTOR STREETS
- CONNECTOR STREETS
- ARTERIAL STREETS

REQUIREMENTS FOR CONNECTOR STREETS

(AS OUTLINED BY THE CITY OF AURORA)

1. THEY ARE CONTINUOUS STREETS THAT CONNECT PARALLEL ARTERIAL OR ARTERIALS AND PARALLEL LARGE COLLECTORS.
2. THEY EITHER HAVE ON-STREET BIKE LANES OR INCLUDE COMPREHENSIVELY DESIGNED PARALLEL ON-STREET OR OFF-STREET FACILITIES.
3. LOT ACCESS FROM THESE CONNECTORS IS LIMITED SIMILAR TO A TRUE COLLECTOR
4. ON-STREET PARKING IS TYPICALLY SUPPORTED AND ENCOURAGED IN MOST CONTEXTS WHICH MAY BE CONTINGENT ON SPEED OR VOLUMES.
5. THEY ARE SUPPORTED BY A FREQUENT, AND HIGHLY CONNECTED LOCAL STREET NETWORK SURROUNDING WHICH SUPPORT THE CONNECTOR STREET BY DISTRIBUTING TRAFFIC VOLUMES AND SLOWING SPEEDS ALONG THE CONNECTOR.

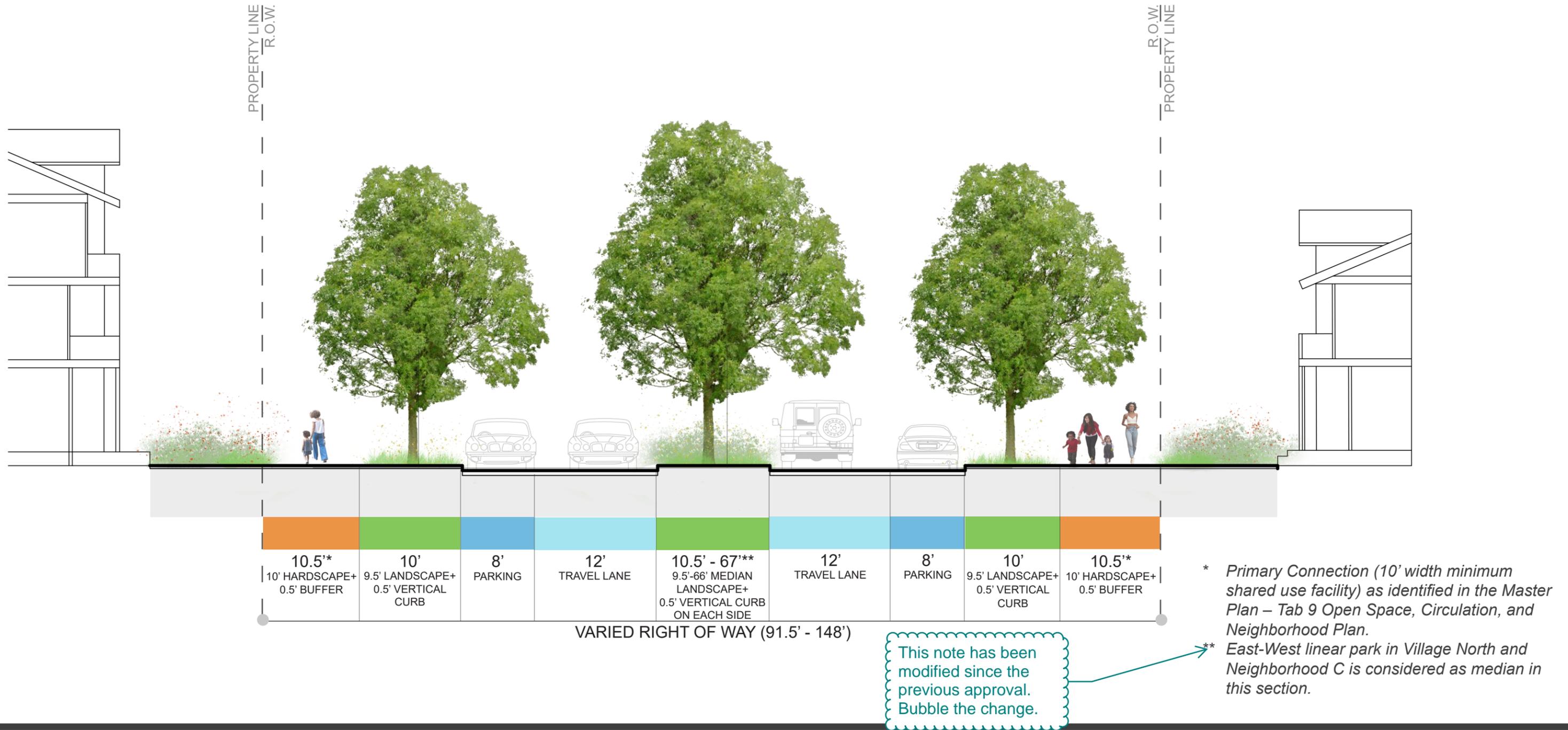


EXHIBIT D
ZONING MAP AMENDMENT

A PARCEL OF LAND, TO HAVE A ZONING DESIGNATION OF MU-A, BEING A PART OF WINDLER SUBDIVISION FILING NO. 4, AS RECORDED IN THE RECORDS OF THE ADAMS COUNTY CLERK AND RECORDER, AT RECEPTION NO. 2024000013716. SITUATED IN THE WEST HALF AND THE SOUTHEAST QUARTER OF SECTION 18, TOWNSHIP 3 SOUTH, RANGE 65 WEST, OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF AURORA, COUNTY OF ADAMS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 18, BEING MONUMENTED BY A FOUND NO. 6 REBAR WITH A 3-1/4 INCH DIAMETER ALUMINUM CAP, STAMPED WESTWOOD T3S S12/S7/S13/S18 R66W/R65W 2023 PLS 38004, FROM WHICH THE NORTH QUARTER CORNER OF SAID SECTION 18, BEING MONUMENTED BY A FOUND NO. 6 REBAR WITH A 3-1/4 INCH DIAMETER ALUMINUM CAP, STAMPED WESTWOOD T3S R65W 1/4 S7/S18 2024 PLS 38004, IS ASSUMED TO BEAR NORTH 89°19'43" EAST, A DISTANCE OF 2607.98 FEET, WITH ALL BEARINGS CONTAINED HEREIN BEING RELATIVE THERETO;

THENCE SOUTH 66°56'03" EAST, A DISTANCE OF 307.70 FEET, TO THE SOUTHERLY RIGHT-OF-WAY OF E-470, AS RECORDED IN THE RECORDS OF THE ADAMS COUNTY CLERK AND RECORDER, IN BOOK 4667, AT PAGE 306, AND THE **POINT OF BEGINNING**;

THENCE THE FOLLOWING THIRTY-EIGHT (38) COURSES;

1. NORTH 87°43'26" EAST, ALONG SAID RIGHT-OF-WAY, A DISTANCE OF 853.88 FEET;
2. CONTINUING ALONG SAID RIGHT-OF-WAY, NORTH 00°00'09" EAST, A DISTANCE OF 99.96 FEET, TO THE NORTHERLY LINE OF THE NORTHWEST QUARTER OF SAID SECTION 18;
3. CONTINUING ALONG SAID NORTHERLY LINE, NORTH 89°19'43" EAST, A DISTANCE OF 1471.59 FEET, TO SAID NORTH QUARTER CORNER;
4. DEPARTING SAID NORTHERLY LINE, AND ALONG THE EASTERLY LINE OF SAID NORTHWEST QUARTER, SOUTH 00°14'35" EAST, A DISTANCE OF 423.53 FEET;
5. DEPARTING SAID EASTERLY LINE, SOUTH 89°45'22" WEST, A DISTANCE OF 1375.79 FEET;
6. SOUTH 00°35'14" EAST, A DISTANCE OF 1496.17 FEET;
7. SOUTH 89°55'24" WEST, A DISTANCE OF 681.03 FEET;
8. SOUTH 00°35'14" EAST, A DISTANCE OF 369.50 FEET, TO A POINT OF CURVATURE;
9. SOUTHWESTERLY, A DISTANCE OF 265.68 FEET, ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 700.00 FEET, A CENTRAL ANGLE OF 21°44'47", A CHORD BEARING OF SOUTH 10°17'10" WEST, AND A CHORD LENGTH OF 264.09 FEET, TO A POINT OF REVERSE CURVATURE;
10. SOUTHWESTERLY, A DISTANCE OF 576.63 FEET, ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 1519.25 FEET, A CENTRAL ANGLE OF 21°44'47", A CHORD BEARING OF SOUTH 10°17'10" WEST, AND A CHORD LENGTH OF 573.17 FEET, TO A POINT OF TANGENCY;
11. SOUTH 00°35'14" EAST, A DISTANCE OF 176.45 FEET, TO A POINT OF CURVATURE;
12. SOUTHEASTERLY, A DISTANCE OF 542.85 FEET, ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 1297.25 FEET, A CENTRAL ANGLE OF 23°58'35", A CHORD BEARING OF SOUTH 12°34'31" EAST, AND A CHORD LENGTH OF 538.90 FEET, TO A POINT OF TANGENCY;
13. SOUTH 24°33'49" EAST, A DISTANCE OF 873.95 FEET;

14. NORTH 65°10'34" EAST, A DISTANCE OF 297.25 FEET;
15. NORTH 89°24'46" EAST, A DISTANCE OF 1120.28 FEET, TO A POINT OF NON-TANGENTIAL CURVATURE;
16. SOUTHEASTERLY, A DISTANCE OF 52.83 FEET, ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 250.00 FEET, A CENTRAL ANGLE OF 12°06'25", A CHORD BEARING OF SOUTH 84°48'39" EAST, AND A CHORD LENGTH OF 52.73 FEET, TO A POINT OF TANGENCY;
17. SOUTH 78°45'26" EAST, A DISTANCE OF 326.98 FEET;
18. SOUTH 15°57'39" EAST, A DISTANCE OF 9.09 FEET;
19. SOUTH 23°25'55" WEST, A DISTANCE OF 70.12 FEET, TO A POINT OF NON-TANGENTIAL CURVATURE;
20. SOUTHWESTERLY, A DISTANCE OF 69.15 FEET, ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 151.45 FEET, A CENTRAL ANGLE OF 26°09'38", A CHORD BEARING OF SOUTH 12°44'54" WEST, AND A CHORD LENGTH OF 68.55 FEET, TO THE EASTERLY LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 18, AND A POINT OF TANGENCY;
21. SOUTH 00°15'12" EAST, ALONG SAID EASTERLY LINE, A DISTANCE OF 598.34 FEET, TO THE SOUTH QUARTER CORNER OF SAID SECTION 18, BEING MONUMENTED BY A FOUND NO. 6 REBAR WITH A 2-1/2 INCH DIAMETER ALUMINUM CAP, STAMPED T3S R65W S18/S19 1/4 2021 LS 38058;
22. SOUTH 89°08'09" WEST, ALONG THE SOUTHERLY LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 1982.66 FEET;
23. DEPARTING SAID SOUTHERLY LINE, AND ALONG THE EASTERLY RIGHT-OF-WAY OF E-470, AS RECORDED IN THE RECORDS OF THE ADAMS COUNTY CLERK AND RECORDER, IN BOOK 5849, AT PAGE 496, NORTH 01°01'43" WEST, A DISTANCE OF 70.01 FEET;

CONTINUING ALONG SAID RIGHT-OF-WAY THE FOLLOWING NINE (9) COURSES;

24. NORTH 84°06'55" WEST, A DISTANCE OF 424.44 FEET;
25. NORTH 00°51'40" WEST, A DISTANCE OF 134.17 FEET, TO A POINT OF NON-TANGENTIAL CURVATURE;
26. NORTHWESTERLY, A DISTANCE OF 406.87 FEET, ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 1999.86 FEET, A CENTRAL ANGLE OF 11°39'24", A CHORD BEARING OF NORTH 06°41'22" WEST, AND A CHORD LENGTH OF 406.16 FEET, TO A POINT OF NON-TANGENCY;
27. NORTH 12°31'04" WEST, A DISTANCE OF 476.04 FEET, TO A POINT OF CURVATURE;
28. NORTHWESTERLY, A DISTANCE OF 190.71 FEET, ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 2252.81 FEET, A CENTRAL ANGLE OF 04°51'01", A CHORD BEARING OF NORTH 10°05'34" WEST, AND A CHORD LENGTH OF 190.65 FEET, TO A POINT OF COMPOUND CURVATURE;
29. NORTHWESTERLY, A DISTANCE OF 301.59 FEET, ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 2252.81 FEET, A CENTRAL ANGLE OF 07°40'13", A CHORD BEARING OF NORTH 03°49'57" WEST, AND A CHORD LENGTH OF 301.36 FEET, TO A POINT OF TANGENCY;
30. NORTH 00°00'10" EAST, A DISTANCE OF 935.52 FEET;
31. NORTH 13°50'45" WEST, A DISTANCE OF 30.20 FEET;

32. NORTH 00°13'40" WEST, A DISTANCE OF 70.57 FEET, TO THE WEST QUARTER CORNER OF SAID SECTION 18, BEING MONUMENTED BY A FOUND 2-1/2 INCH DIAMETER PIPE WITH A 3-1/8 INCH DIAMETER BRASS CAP, STAMPED T3S R66W/R65W S13/S18 1/4 1999 LS 24313;

THENCE ALONG THE EASTERLY RIGHT-OF-WAY OF E-470 AS RECORDED IN THE RECORDS OF THE ADAMS COUNTY CLERK AND RECORDER IN BOOK 4667, AT PAGE 306 THE FOLLOWING SIX (6) COURSES;

33. NORTH 00°14'00" WEST, A DISTANCE OF 902.92 FEET;
34. NORTH 04°06'00" EAST, A DISTANCE OF 864.95 FEET, TO A POINT OF CURVATURE;
35. NORTHEASTERLY, A DISTANCE OF 234.24 FEET, ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 1055.92 FEET, A CENTRAL ANGLE OF 12°42'37", A CHORD BEARING OF NORTH 10°27'19" EAST, AND A CHORD LENGTH OF 233.76 FEET, TO A POINT OF TANGENCY;
36. NORTH 16°48'38" EAST, A DISTANCE OF 247.48 FEET, TO A POINT OF CURVATURE;
37. NORTHEASTERLY, A DISTANCE OF 248.65 FEET, ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 1044.93 FEET, A CENTRAL ANGLE OF 13°38'02", A CHORD BEARING OF NORTH 09°59'37" EAST, AND A CHORD LENGTH OF 248.06 FEET, TO A POINT OF NON-TANGENCY;
38. NORTH 48°50'42" EAST, A DISTANCE OF 75.85 FEET, TO THE **POINT OF BEGINNING.**

SAID PARCEL CONTAINING A CALCULATED AREA OF 5,893,473 SQUARE FEET OR 135.296 ACRES, MORE OR LESS AND BEING SUBJECT TO ANY EXISTING EASEMENTS AND OR RIGHTS OF WAY OF WHATSOEVER NATURE.

THE LINEAL UNIT USED IN THE PREPARATION OF THIS DESCRIPTION IS THE U.S. SURVEY FOOT AS DEFINED BY THE UNITED STATES DEPARTMENT OF COMMERCE, NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

I, JEAN P. HALPIN, A SURVEYOR LICENSED IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE ABOVE LEGAL DESCRIPTION AND ATTACHED EXHIBIT WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CHECKING.

JEAN P. HALPIN, P.L.S. 38474
FOR AND ON BEHALF OF
WESTWOOD PROFESSIONAL SERVICES, INC.
10333 E. DRY CREEK ROAD, SUITE 400
ENGLEWOOD, CO 80112

ILLUSTRATION FOR EXHIBIT D

CURVE TABLE					
CURVE NO.	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	700.00'	21°44'47"	265.68'	S10°17'10"W	264.09'
C2	1519.25'	21°44'47"	576.63'	S10°17'10"W	573.17'
C3	1297.25'	23°58'35"	542.85'	S12°34'31"E	538.90'
C4	250.00'	12°06'25"	52.83'	S84°48'39"E	52.73'
C5	151.45'	26°09'38"	69.15'	S12°44'54"W	68.55'
C6	1999.86'	11°39'24"	406.87'	N06°41'22"W	406.16'
C7	2252.81'	4°51'01"	190.71'	N10°05'34"W	190.65'
C8	2252.81'	7°40'13"	301.59'	N03°49'57"W	301.36'
C9	1055.92'	12°42'37"	234.24'	N10°27'19"E	233.76'
C10	1044.93'	13°38'02"	248.65'	N09°59'37"E	248.06'

N:\PROJECTS\WINDLER\CAD\SURVEY\LE GALSIF1\SUBMITTAL 05-23-2024\WINDLER F1 - ZONING EXHIBIT - D.DWG. JPHALPIN. 6/27/24

OWNER:
GVP WINDLER LLC
C/O ALBERTA DEVELOPMENT PARTNERS LLC
5750 DTC PKWY STE 210
GREENWOOD VILLAGE, CO 80111-5485

This illustration does not represent a monumented survey. It is intended only to depict the attached legal description.

A PARCEL OF LAND, BEING A PART OF WINDLER SUBDIVISION FILING NO. 4, AS RECORDED IN THE RECORDS OF THE ADAMS COUNTY CLERK AND RECORDER, AT RECEPTION NO. 2024000013716, SITUATED IN THE WEST HALF OF SECTION 18, TOWNSHIP 3 SOUTH, RANGE 65 WEST OF THE 6TH P.M., CITY OF AURORA, ADAMS COUNTY, COLORADO.

Westwood

10333 E DRY CREEK RD.
SUITE 400
ENGLEWOOD, CO 80112
TEL: 720.482.9526

Westwoodps.com
Westwood Professional Services, Inc.

SCALE: NTS	BY: CWB	CK'D: JPH	DATE: 6/27/2024
------------	---------	-----------	-----------------