



Planning Division
15151 E. Alameda Parkway, Ste. 2300
Aurora, Colorado 80012
303.739.7250

August 2, 2018

Megan Waldschmidt
Sebastian Partners
1112 Montana Avenue, Suite 165
Santa Monica, CA 90403

Re: Initial Submission Review – Hilltop/Avelon - Comp Plan Amendment, Rezone, and Framework Development Plan
Application Number – **DA-2121-00**
Case Numbers: 2018-1002-00; 2018-2006-00; 2018-7004-00

Dear Ms. Waldschmidt:

Thank you for your initial submission, which we started to process on July 9, 2018. We have reviewed your submittal and attached our comments along with this cover letter. The first section of our review highlights major concerns and community comments. The following sections contain more specific comments, including those received from city departments and other review agencies.

Since several important issues still remain, including but not limited to parkland, provision of a public improvement plan, addressing oil and gas development on the site and provision of a traffic impact study, you will need to make at least one additional submission. Please revise your previous work and send us a new submission on or before Thursday, August 23, in order to remain on the estimated review schedule. Please note that many items are required to be resubmitted and major edits requested before a 2nd review can begin.

Note that all our comments are numbered. When you resubmit, include a cover letter specifically responding to each item. The Planning Department reserves the right to reject any resubmissions that fail to address these items. If you have made any other changes to your documents other than those requested, be sure to also specifically list them in your letter.

As always, if you have any comments or concerns, please give me a call. I may be reached at 303-739-7266.

Sincerely,

Brenden Paradies, Planner I
City of Aurora, Planning Department

cc: Michael Graham, Sebastian Partners LLC, 1112 Montana Ave, Suite 165, Santa Monica, CA 90403
Susan Barkman, Neighborhood Services
Mark Geyer, ODA
Vinessa Irvin, ODA
Jason Batchelor, Deputy City Manager
George Adams, Director Planning and Development Services
Filed: K:\\$DA\2121-00rev1.rtf



First Submission Review Comments

Based on the submission, the proposal would require both a comprehensive plan amendment and a rezone. Both of which are not supported at this time. Aurora Places, the city’s new comprehensive plan has denoted this area as a primary employment and “Urban District”.

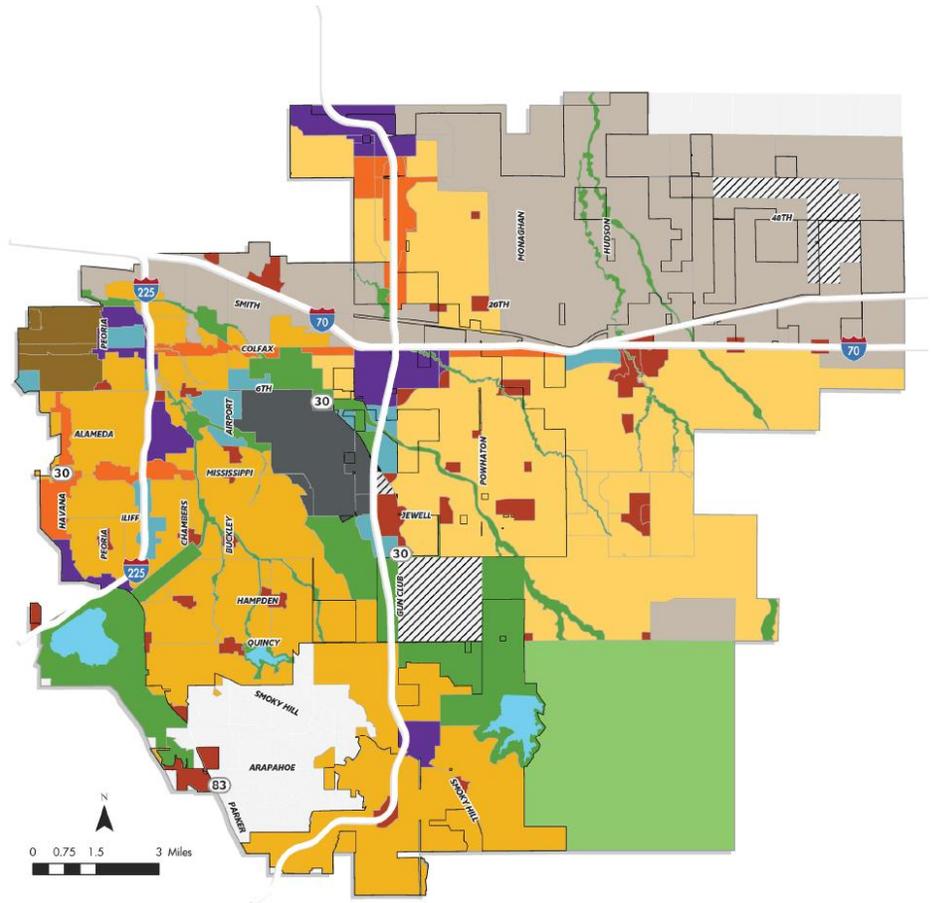
PLACETYPE PLAN

There are 10 placetypes throughout the city that address common land uses, including residential, commercial, open space, and community facilities. This placetype map is intended to depict general locations of each placetype and not necessarily the land-use designation of specific parcels. Information is available in the Planning and Development Services Department concerning how placetypes might best correspond to individual districts in the Zoning Code.

Areas designated as Special Use possess a unique land use or mix of uses, function, design or character. A significant change of land use or annexation into the city of these properties may necessitate amendment of the comprehensive plan.

PLACETYPES

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



Please note that based on the existing zoning the focus on mixed use with supportive residential in accordance with the estimated amount of proposed residential. An option available to this development is to begin limited residential components in a more urban format with a mix of housing types incorporated with commercial and retail uses. Be advised that within a ½ mile of E-470 only 25% of the overall land area can be residential uses. Beyond the ½ mile radius within the ACORP zone district, 50% can be residential. An illustration has been provided in this letter to illustrate these amounts.

In response to your recent application submittal, city staff has reviewed your submittal and have made the following comments included in this letter and redline comments on the documents submitted for review. Here are a list of major key issues involved with the proposal and following detailed comments included to thereafter:

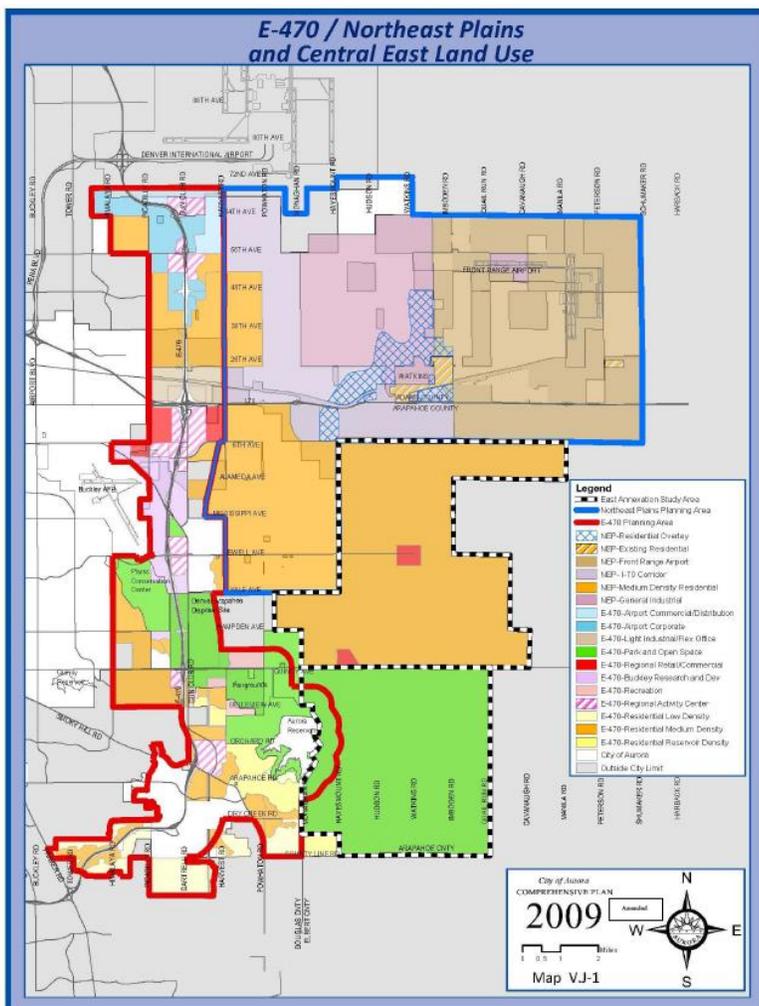
- Proposed Land Uses not compliant with existing zoning district- Planning
- Master Traffic Study must be submitted with next Submittal- Traffic
- Indicate the preliminary internal road network- Engineering
- Identify and discuss public improvements triggers in PIP narrative- Engineering
- Many edits are needed to Master Utility Report- Aurora Water



- Park dedication for 20 acre park needs to be shown-PROS
- School dedication location-Aurora Public Schools
- Oil and Gas locations in and around the proposed area must be identified-Planning
- FDP Tabs must include all required information per FDP Manual for each Sheet-Planning
- Additional information, city code language, and justification needed for waiver request(s)-Planning
- Provide metes and bounds legal descriptions for all annexation and rezoning parcels-Planning
- Impacts on timeline associated with process and public outreach for Comprehensive Plan Amendments and NEATS Refresh-Planning/Transportation
- Address redline comments within submitted documents that may not be specifically mentioned in the written comments.-All
- Letters of Opposition- Painted Prairie and DEN-Denver International Airport
- Meet with the development team to review comments

1. Rezoning Request and Comprehensive Plan Amendment

Staff indicated the lack of support to rezone a portion of the site from E-470 ACORP (E-470 Airport Corporate Subarea) to E-470 MRES (E-470 Medium Density Residential Subarea) to permit residential development beyond what is currently allowed and to amend the adopted Comprehensive Plan Land Use Map, and E-470 and Northeast Plains Land Use Plan.





Since that time the city has initiated a land use, zoning and economic analysis to better define the vision for the area, and to understand the economic implications of different land use and zoning scenarios. If the current proposed applications move forward prior to completion of the land use and zoning analysis, staff will not be in support of the applications. In addition, DEN-Denver International Airport-has submitted a letter, included in this package, expressing opposition towards the request for developing predominantly residential in this subject property.

2. Residential Uses Permitted Under Current Zoning

Your property is currently zoned E-470-ACORP, (Airport Corporate). The purpose statement of the zoning district reads, in part: “Residential single-family and multi-family uses are permitted as part of the overall mix of uses in the subarea, but are not intended to be the predominant land use in the subarea. Residential uses are also discouraged from locating in potentially prime commercial sites that are visible from the E-470 right-of-way.”

Based on a very quick calculation, we have provided estimates, below, to explain the permitted acreage and dwelling unit per acre for residential development, attached or detached, in the current E-470 ACORP zoning district. The calculations provided relate to the image provided immediately below it. If permitting and development of residential uses on the property is desired prior to the completion of the Northeast Aurora Study staff recommends proceeding under current zoning.

Category	Blue (25%)	Yellow (50%)
Overall Acreage	125 acres	156.8 acres
Acreage excluding open space (~31.5 ac for Blue area, ~15.8 ac for Green area)	93.5 acres	141 acres
Acreage excluding roads/detention, etc. (Assume 20%. ~18.8 ac for Blue area, ~ 28 ac for Green area)	74.8 acres	113 acres
Acreage excluding school dedication (13.3 ac)	61.5 acres	N/A
Total Acreage Permitted for Residential (per 25% or 50% residential allowance)	15.4 acres	56.5 acres
Number of Detached Residential Units at Maximum Permitted DUA (8 du/ac)	~123 du	~452 du
Number of Multi-Family Residential Units at Maximum Permitted DUA (13 du/ac)	~200 du	~734 du

3. Land Use

The proposal is currently showing 191.61 acres of residential out of 285.9 total acreage for a total of 67% residential. Residential uses must not be the predominant land use in the E-470 Airport Corporate zoning district. It has been determined that predominant is defined as over 50% of proposed land use area. Given the property is currently zoned E-470 Airport Corporate Subarea, it is important to retain commercial, retail, and services uses near intersections located at 56th Avenue and 64th Avenue. This zoning district is intended to take advantage of its strategic location near the Denver International Airport and major transportation corridors. Residential single-family and multi-family uses are permitted as part of the overall mix of uses in this existing zoning district, but are not intended to be the predominant land use in the subarea. Residential uses are also discouraged from locating in potentially prime commercial sites that are visible from the E-470 right-of-way. Small lots are limited to 35% of the Framework Development Plan.

The red line on the image below is illustrating the Section 146-919(C) states that, “ No more than 25% of the gross land area located within ½ mile of the E-470 right-of-way in the Airport Corporate and Regional Retail subareas, shall be devoted to residential land uses.” The red line on the graphic below represents this code requirement showing the



section in blue as the area where 25% of the gross land area can be devoted to residential uses. The yellow section is representative of the 50% of the proposed land use area that can be designated to residential uses. The current FDP is not compliant with this section of city code. The table above provides direction about how much acreage and dwelling units per acre can be allotted for residential development.



4. Park Dedication

Below are Parks, Recreation, and Open Space Department comments to each component of this application as listed:

The Hilltop /Avelon project is recognized by the City of Aurora - Parks, Recreation and Open Space Department as integral to the framework of ongoing development in one of the most significant growth areas within the City. The 272 acre site sits just south of East 64th Avenue and north of E 56th Avenue, between Picadilly and Tibet Roads. Surrounding the Hilltop/Avelon subdivision are active residential, commercial, and industrial developments adjacent to Denver International Airport, such as Gaylord Rockies, High Point at DIA, Painted Prairie, Rockies Village, Green Valley Ranch East, Porteos, and The Aurora Highlands.



The applicant is proposing a new Framework Development Plan for the Hilltop /Avelon property. A past rezone of the subject property from the non-residential Agricultural District to E470-Airport Corporate District allowing residential development has necessitated the application of current Parks, Recreation and Open Space standards to all proposed development in accordance with Item VI A of the approved annexation agreement. PROS will assist the applicant in the calculation of population based standards relative to park land, open space, trails, land dedication, and park development fees.

Aurora Parks, Recreation and Open Space has been working with the owner of the subject property since 1991 to preserve the significant hilltop landform as a park and associated mountain views through policy and guidance documented in the following: Annexation Agreement – Moffit, 5/15/91; General Development Plan – Moffit, July 1991; Zoning Code Section 146-885 Mountain View District; High Point Park View Corridor Analysis, January 1991.

PROS RESPONSE TO TAB ONE – LETTER OF INTRODUCTION

The applicant provided an FDP narrative within the Our Vision segment of the Tab One Letter of Introduction. The narrative includes the following statement –

“We recognize that the City has desired this area of the Avelon (Hilltop) property for use as a park for quite some time given the impressive Front Range views that exist from our highpoint. We have reviewed the GDP for the property, as well as the Annexation Agreement and they include language related to dedication of land in this area for “public purposes”. It is important to note that the references to “High Point Park” were conceived of over 25 years ago when the vision for the area was different, and Gaylord had not even been conceived of. As such, the nature of the 64th Avenue corridor has certainly changed. We agree that the high point on this property, with its outstanding views, warrants inclusion in the public realm, but simply putting a park in this location is not the highest and best use of this area for the Avelon community, nor the City of Aurora.”

As explained in previous communications with the applicant, the City of Aurora, its leadership, staff, and public constituency have maintained an expectation that unique and exceptional topography leading to unmatched mountain vistas to Pikes Peak, Mount Evans and Longs Peak without question warrant the preservation of the existing high point located in the northwest corner of the Hilltop / Avelon property in the form of a community park. The future parkland was set aside and memorialized in supporting and correlating documentation/ordinance with a firm understanding that this exceptional resource could very well be appropriated for other uses if City of Aurora policy did not establish direction and guidance at the onset. This direction and guidance absolutely applies today as development becomes imminent.

The applicant’s statement that “...references to “High Point Park” were conceived of over 25 years ago when the vision for the area was different, and Gaylord had not even been conceived of. As such, the nature of the 64th Avenue corridor has certainly changed.” is partially inaccurate. While the conception of High Point Park did occur 27 years ago, there has always been an expectation of major development along the East 64th Avenue corridor. The introduction of the Gaylord Rockies project into the region does not alter the vision established in the past for view and landform preservation. If anything, Gaylord highlights an acute need for landform and view preservation as well as park and open space integration into the landscape.

The applicant’s statement “...simply putting a park in this location is not the highest and best use of this area for the Avelon community, nor the City of Aurora.” is an inaccurate assessment of regional priorities. There will be no shortage of commercial / retail opportunities along the East 64th corridor as Gaylord provides the catalyst for future development. However, once eliminated, the High Point and the experiential resource it represents would be gone for good. The City of Aurora, Parks, Recreation and Open Space Department would assert that the incorporation of High Point Park into Aurora’s parks and open space system in the precise location recorded in supporting documentation is exactly the highest and best use of this land for today’s public and future generations.



HIGH POINT (COMMUNITY PARK) LOCATION AND NEED

A General Development Plan was approved for the Moffitt(t) (Hilltop) property on May 20, 1991. The GDP establishes the 297 acre property as agricultural in use and zoning district with potential for residential development on minimum lot sizes of 35 acres. The GDP Item 7 reserves the northwest corner of the property as a site for the High Point Park.

The applicant in the FDP Form B narrative regarding Potential Regulatory Conflicts stated the following:

“The GDP contains language with regard to dedication of land in the north–west quarter of Section 12 for ‘public purposes’. We do not believe that the GDP nor the Annexation Agreement for the property are clear that this ‘public purpose’ has to be a park, nor that it has to be located precisely at the corner of 64th and Picadilly. Also, we cannot find any reference to a 20 acre requirement as indicated in PROS staff comments from the pre-application meeting. In fact, the GDP states that the “exact determination of size and configuration shall occur when the property owners rezone any part of the property shown on the GDP from an agricultural use to residential or non-residential uses.”

Relative to the clarity of the GDP concerning the term ‘public purposes’, the clause in Item 7, “The property owners agree to dedicate the NW corner of Section 12 for public purposes in accordance with the Public Land Dedication requirements contained in the annexation agreement.” ties the phrase ‘public purposes’ with the process of land dedication as defined in the 1991 Annexation Agreement. Precedent within the City of Aurora consistently interprets Public Land Dedication as lands dedicated to the City of Aurora as parks, open space, fire, police or library facilities. With the inclusion of the direction from the High Point Park View Corridor Analysis and the Zoning Code Section 146-885 Mountain View District, it is clear that the only use applicable for the area in question a public park. Following extensive review, this position is supported by the City Attorney’s office. There is no precedent for interpreting the phrase ‘Public Land’ in annexation agreements as retail, commercial, or entertainment development.

Regarding the size and location of the High Point Park referred to in multiple guidance documents, the legally accepted language comes from the January 1991 High Point Park View Corridor Analysis. The View Corridor Analysis is the fundamental document from which all other subject-specific guidance and Zoning Code Section 146-885 Mountain View Overlay District were derived. The location of the High Point Park is the SE corner of East 64th Avenue and Picadilly Road intersection (NW corner of subject property) encompassing the physical high point as it exists on the Hilltop / Avelon property today. The size of the High Point Park recommended by Exhibit 12 of the View Corridor Analysis clearly ranges between 17 acres and 60 acres. See graphic from View Corridor Analysis below:

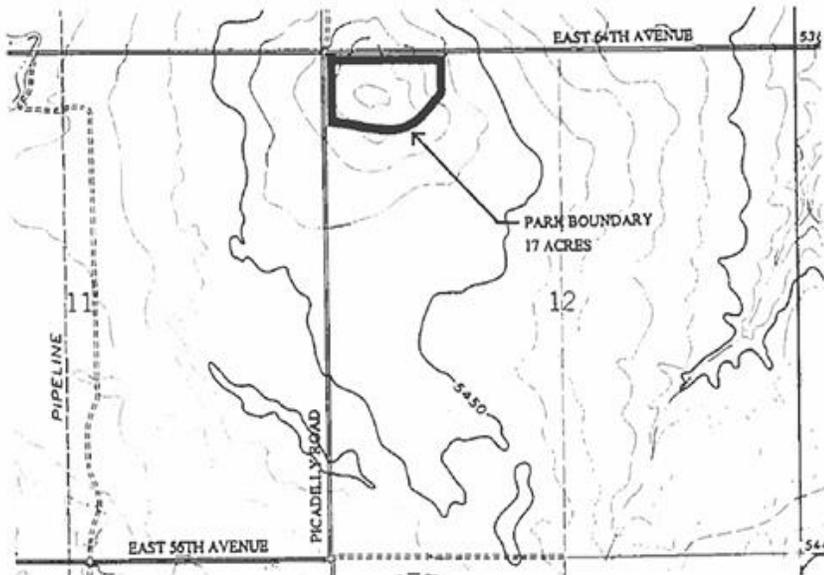


Exhibit 11: Park Boundary Prior to Study

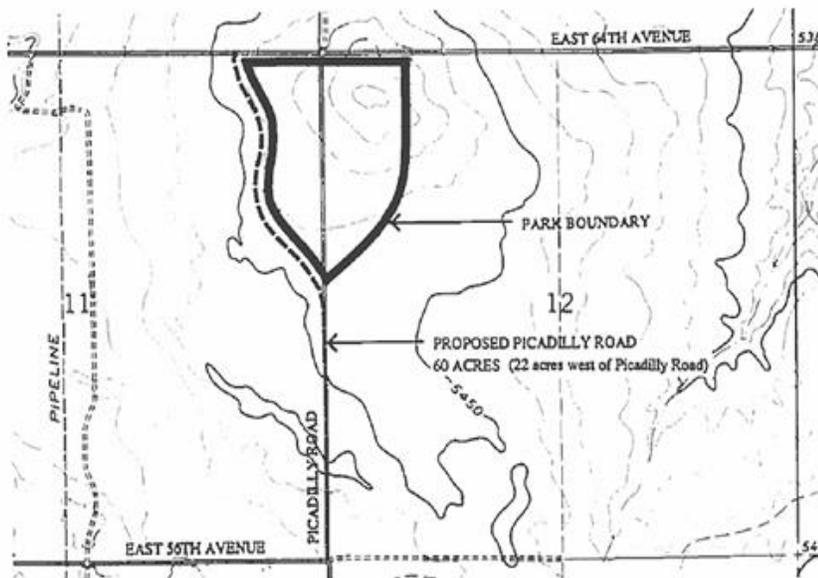


Exhibit 12: Suggested Park Boundary

Overall Parks, Recreation and Open Space planning efforts provide a framework for location of community parks, neighborhood parks, and trail corridor/open space networks. Planned community parks are established based on a 2 mile service radius, neighborhood parks on a ½ mile service radius, and trail corridor/open space networks on the need for continuous pedestrian and bicycle connectivity between all quadrants of the City, destinations, and park/open space resources. The currently developing northeastern quadrant of Aurora is not yet served by a community park. A 40-acre community park is being planned as a part of The Aurora Highlands community south of East 56th and east of E-470. PROS has been working for years with developers on the location of a community park to the northwest of The Aurora Highlands and arrived at a specific location divided between the Painted Prairie subdivision and the Hilltop / Avelon subdivision. The developer of Painted Prairie has committed to providing 20 acres in the northeast corner of the Section 11 at the intersection of East 64th Avenue and Picadilly Road. Aurora in working with the landowner of the Hilltop / Avelon property has planned for over twenty years to add to the Painted Prairie community park with a 20 acre



community park in the northwest corner of Section 12, concurrent with the physical high point at this location. The community park would then total 40 acres in accordance with City of Aurora PROS standards for the community park minimum size requirement. It is the continued direction of the PROS Department for the applicant to dedicate a 20 acre community park consistent with all supporting/guiding documentation mentioned previously and located at the northwest corner of East 64th Avenue and Picadilly Road.

FRAMEWORK DEVELOPMENT PLAN

Population Calculations

The applicant within the Form D Land Use Matrix indicates in Line 12 a total proposed residential population of 3,177 persons. This calculation utilized residential multipliers of 2.65 persons per dwelling unit for single-family detached, single-family attached units, and 2.20 persons per dwelling unit for multi-family units. Current Aurora standards require the use of 2.50 persons per multi-family dwelling unit. Revise population calculations as follows:

Single Family Detached (@ 2.65 persons per DU) 618 DUs x 2.65/DU = 1,638 persons

Single Family Attached (@ 2.65 persons per DU) 332 DUs x 2.65/DU = 880 persons

Multi-Family = (@ 2.5 persons per DU) = 300 DUs x 2.50/DU = 750 persons

Total population = 3,268 persons

Land Dedication Requirements

Calculate park and open space land dedication requirements based on current City of Aurora standards, proposed residential unit counts, service area assessment, and population figures provided at the time of first submittal for the FDP. Revise land dedication requirements on Form D and reflect in Form J and Open Space, Circulation and Neighborhood Map.

Neighborhood Park land dedication = 3.0 acres per 1,000 persons population

Community Park land dedication = 1.1 acres per 1,000 persons population

Open Space land dedication = 7.8 acres per 1,000 persons population

Neighborhood Park Land Dedication - Based on a total population projection of 3,268 for 1,250 dwelling units, the neighborhood park land dedication requirement will be 9.80 acres.

Community Park Land Dedication – Based on a total population projection of 3,268 for 1,250 dwelling units, the community park land dedication requirement will be 3.60 acres.

Open Space Land Dedication – Based on a total population projection of 3,268 for 1,250 dwelling units, the open space land dedication requirement will be 25.49 acres.

Form J

1. The community park shown in PA-12 must be revised to provide a minimum of 20 acres
2. All open space land dedication must be provided on site for the Hilltop / Avelon subdivision. Adjust the sizes of open space areas to provide a minimum of 25.49 acres.
3. PA-13 is planned as a neighborhood park. The minimum size requirement for a Metro District owned and maintained neighborhood park is 3.0 acres. Revise the size of the neighborhood park in PA-13 to be a minimum of 3.0 acres.
4. Provide triggers in accordance with PROS standards for proposed park and open space improvements. All park and open space planning areas with their attendant improvements must be constructed prior to 50% of certificates of occupancy of all planning areas served by the improvements.
5. Remove Library and Recreation Services signature line from Form J.
6. Add all pocket parks in distinct planning areas to Form J.



Open Space, Circulation and Neighborhood Map

1. The community park shown in PA-12 must be a minimum of 20 acres in size, must be relocated to the northwest corner of the property, and shall encompass the physical high point for landform/view preservation purposes in accordance with zoning ordinance and supporting documentation mentioned previously.
2. Open Space and Trail Corridors – The open space/trail corridors shown on the Open Space, Circulation and Neighborhood Map appear to directly coincide with roadway corridors. As a general requirement, the applicant shall provide strong trail connections from one end of the development to the other establishing links to all neighborhoods, parks, and the High Point Park site distinct from vehicular roadway corridors. Coordinate the alignment and planning of all internal trails and regional trail connections with PROS.
3. Add all pocket parks in distinct planning areas to the Open Space, Circulation and Neighborhood Map.

Public Improvements Plan

All park and open space planning areas with their attendant improvements must be constructed prior to 50% of certificates of occupancy of all planning areas served by the improvements. Revise PIP narrative accordingly

MEDIAN LANDSCAPE

The developer of Hilltop is responsible for landscape and irrigation design and implementation within all arterials adjacent to the Hilltop FDP area. All subsequent CSPs submitted for Hilltop shall acknowledge responsibility to improve medians, landscape, and irrigation to current City of Aurora, PROS standards. Median plans shall be submitted separately to PROS for median landscape and irrigation review and approval in accordance with department standards if the intent is to have PROS accept the medians for maintenance.

5. Waiver Requests

Any and all waiver requests should be explained in detail in a separate Word document. Justification must be provided and reference the associated sections from City Code in which the waiver is being requested. Design standards will have to be included in this FDP to justify the support of requested waivers and again such waivers at the FDP level requires City Council approval, and CSPs require Planning Commission approval as per Code [Section 146-408\(F\)](#).

6. Roadway Alignment and NEATS

Proposed land uses and the street network must be consistent with the [Northeast Area Transportation Study \(NEATS\)](#) and the [56th Avenue Access Control Plan](#). The currently proposed roadway alignment is not consistent with the NEATS.

Highline Canal Tail Proposal: The NEATS Refresh shows a highline canal trail with a grade separated crossing proposed to go through this property from 64th to 56th. Please show this trail proposal in the FDP Land Use Map, Open Space Map, and Context Map. Discuss in the FDP narrative how this trail will be integrated into the rest of the development or create challenges to future development.

Mobility Hub Proposal: The NEATS Refresh shows a proposed public transportation [mobility hub](#) located at the intersection of 56th Avenue and Picadilly Road. This mobility hub should be shown on the land use or street network map and be discussed in the FDP narrative. Examples of conceptual designs for proposed mobility hubs have been shown in the [NEATS Public Meeting #2 graphics](#).



Street Layout – Type 1 (Local)

Within each approximately 160 acre segment, at least one continuous local Type 1 street shall connect an arterial and a collector, in both the north-south and the east-west directions. The locations of the continuous local Type 1 Street should define four areas of roughly similar size (approximately 40 acres). Local Type 1 streets shall align with a corresponding local street across each collector and each arterial to provide a navigable network of local streets between neighborhoods and developments.

For each approximately 40-acre area, at least one street giving access to its interior shall be provided on every perimeter street of the area unless (1) such a connection to an arterial would create undesirable turning movements or present other traffic safety hazards; Or (2) the connection would be impractical because of physical obstructions. Such access streets shall connect across continuous local Type 1 streets and should connect across collectors, depending upon land use relationships.

Refer to [Roadway Design & Specifications Guide](#) for guidance when revising the high level internal roadway network for the proposal.

8. Public Improvement Plan

The Public Improvement Plan shall identify the required construction of streets, drainage, parks and open space, and utilities by each Planning Area. The timing, triggers, and responsible parties for requiring specific public improvements shall be included relative to the overall project development and phasing. Roads, Trails, Drainage, Schools, and Parks should all be shown and incorporated in to the Public Improvement Plan. See comments to follow in this package for more specifics.

9. Oil and Gas Facilities

In addition to showing the proposed land uses for the subject property, An Oil and Gas Company has a surface use agreement for a large multi-well pad site located immediately east of the subject site directly across of Tibet Road. As a result, Section [146-913](#) states that residential dwellings shall be setback a minimum of 150 feet from an oil and gas facility measured from the lot line of the residential lot. In addition, a 20 ft. landscape buffer is required for screening residential uses abutting oil and gas facilities. This should be shown on the FDP and subsequent Contextual Site Plans.

These sites must be planned for and coordinated with the surrounding and adjacent planned land uses, and analyzed for maximum compatibility in planning for these sites. There are significant impacts as a result of this industrial use and potential impacts to surrounding development needs to be planned for accordingly. Specific buffer treatments should be illustrated in the design standards.

10. Traffic Impact Study

A Master Traffic Impact Study must be provided with the next submittal before the application can begin in a 2nd review.



10. Abutting Property Owner Comments

Denver Airport

Reviewed by: Tim Hester, tim.hester@flydenver.com, 303-342-2391

July 26, 2018



Mr. Brenden Paradies
Planning Department Case Manager
15151 E. Alameda Parkway, Ste. 2300
Aurora, Colorado 80012

Dear Mr. Paradies,

DEN Planning + Design received your referral letter dated July 12, 2018 for DA-2121-00 Hilltop/Avelon – Comp Plan Amendment, Rezone and Framework Development Plan. We appreciate the opportunity to comment on the proposal. The applicant is requesting approval of a Comprehensive Plan Amendment to the Land Use Map for 287.0 acres from E-470 Airport Corporate to E-470 Residential Medium Density, the Rezoning of approximately 287.0 acres from E-470 A-Corp (Airport Corporate Subarea) to E-470 Medium Density Residential and a Framework Development Plan for residential with Commercial Activity Centers.

We would like to express our concerns with the proposed change from Airport Corporate Subarea to E-470 Medium Density Residential. The requested change would allow a significant number of residential dwelling units to be constructed within proximity to Denver International Airport (DEN). We recommend the Airport Corporate Subarea Land Use remain in effect for this property. The Airport Corporate Land Use allows hotel, conference facility, retail and commercial land uses which we feel are more compatible uses near the airport.

The Hilltop/Avelon development is currently located outside of the 60 DNL noise contours, however the property will be subject to overflights and single event noise exposure from current airport operations. In addition, the Hilltop/Avelon property is located within the Ground Rumble Overlay for future runway 7R/25L that is currently included as part of the City of Aurora's Zoning Code Update.

We all value DEN as a significant regional asset that generates more than \$26 billion annually for Colorado's economy. As planners of the aerotropolis, we must work together to ensure we do not limit the potential of the airport or its surrounding communities with residential zoning. It's critical that we not forget the airport was moved in the early 1990's from Stapleton to its current location due largely to issues related to encroaching residential development and associated difficulties. Noise and safety concerns were paramount in finding a location away from residences. All neighboring municipalities agreed to implement zoning to prevent the Stapleton situation from recurring.

We value our collaboration over the last few years, as we believe that together, we are creating a future for the region that has great potential, partially based on the strength of our airport as an economic powerhouse. To maintain its growth and productivity, we cannot support residential development in such proximity.

Should you have questions or concerns, we would welcome an opportunity to discuss further.

Respectfully,

Jeannette M. Hilaire, C.M.
Manager of Airport Planning





Painted Prairie

Reviewed by: Chris Fellows, chris@fellowscos.com

Thank you for the opportunity to review the aforementioned application. As adjacent landowners with a 620 acre land holding and with a long history of working with the City of Aurora, we are quite interested and concerned with the future of the area.

We may not have all the available information, but based on what we have seen we have the following initial comments:

1. It does not appear that the proposed application is in conformance with the existing City of Aurora (“COA”) Master Plan. Based on the history at Painted Prairie, and our understanding of standard COA procedure, applications are not accepted for processing if they are not in conformance with the COA Master Plan. Therefore, we would normally expect a Master Plan Amendment process to occur before a non-conforming zoning application were allowed to be processed.
2. It does not appear that the proposed application is in conformance with the E-470 Zoning overlay district. As with the comments above, if the application is not in conformance with the existing zoning overlay, our understanding is that an overlay modification is required to occur first.
3. The COA has historically taken the position that properties which are in the E-470 influence area, particularly those near interchanges and those with high visual connection to and from the Highway, are to be preserved for commercial development and potential. This application is contrary to the COA’s historical conduct and position. It seems that a consistent approach and response from the COA for all applications in the area is warranted.
4. In reviewing what we were able to see, which was somewhat limited, we were only able to see one connection to Picadilly occurring at 60th. We would have several concerns and objections to that:
 - a. That would not be consistent with the philosophy of “connectivity” which COA has constantly stated is required.
 - b. That potentially puts a huge amount of traffic at that single intersection, probably making 60th east of Picadilly a “Connector” whereas west of Picadilly at Painted Prairie it is a “Connector” with smaller section than a Collector and this interface would not be acceptable to Painted Prairie.
 - c. Over-burdening 60th with traffic would reduce the pedestrian friendly, pedestrian safe design within Painted Prairie.
 - d. Perhaps a traffic study was submitted but we did not have opportunity to review it.
 - e. We believe there are some life safety issues involved in not having enough connectivity to Picadilly.
 - f. If the lack of connectivity forces a signal light at 60th and Picadilly, whereas one would not meet warrants with proper and historically required connectivity, Painted Prairie would want the burden of that cost to be born by Hilltop/Avelon as they would cause the need.
5. Because of the nature of the graphics in the submittal, it was not clear to us what was actually a requested rezone and what was existing zoning. That should be clarified so that we can have a better review.
6. We understand that the applicant/application is suggesting doing away with the 20 acre park requirement on the North West corner of their site. We are opposed to that. When the Painted Prairie project was approved, the COA demanded that the North East corner of Painted Prairie be designed and reserved for uses which would work in concert with the 20 acre park planned for across Picadilly. The COA took the position that the two park areas were



mandatory. We request that either the 20 acres be required to remain park as envisioned, or Painted Prairie be allowed to reprogram its North East corner. Furthermore, we understand the applicant has proposed a for profit concert facility where the park was supposed to be. Our comments to that are:

- a. That is not consistent with existing COA plans.
- b. For profit uses are not equivalent to park uses and dedications.
- c. Before any such measure were even considered we would want to see noise and traffic studies. Loud noise and tons of late hour traffic are not in harmony nor compatible with our residential uses across the street. We would request significantly more information about noise, traffic, hours of operation, size of facility, number of events, etc.

7. We have heard there is a proposal to regrade and move the historic high point on the property. This could, i) change the character of the area, ii) remove a geographic feature the COA previously treated as vital, iii) change the previously important visual plane ordinance. We would like more information about that, and why the COA has changed its position about the importance of the high point, and what affect it would have on the view plane.

8. We did not see provisions for a detention pond at the South West corner of the site. It is our understanding that some drainage, including developed flows may drain to that corner and the intersection of 56th & Picadilly. The currently approved COA and UDFCD Master Plans call for a detention Pond at that location. We expect that the COA would require such a facility. It should be shown and we would like opportunity to review the engineering thereof. It is our position that Painted Prairie will not accept any developed flow from the subject parcel, unless it is in total compliance with the existing, approved COA and UDFCD Master Drainage Plans. We advise the COA not to permit any such fugitive developed drainage to enter the Painted Prairie project, as Panted Prairie will take action against such an event, in order to protect its property.

We appreciate the chance to comment on the application. We suggest much more information is needed and several steps taken, before we can fully review the application and before e the COA's normal procedures would allow further processing.

Aurora Public Schools

Reviewed by: Joshua Hensley, jdhensley@aurorak12.org, 303-365-7812

The total school land requirement based on the number of proposed units is 13.269 acres in accordance with Section 147-48 of the Aurora City Code.

Hilltop is the second predominately residential development within Section 12. The Highpoint development plan also includes approximately 200 residential units within the section. These two developments are expected to yield over 700 students. This does not include any future housing that may be proposed in the southeast quarter. There are no school sites included within the current plans to serve the future residents. Additionally, the section will be bordered by arterial roads that elementary age students cannot safely cross to access other schools that may be in the area. If the predominate land use within Section 12 is to be residential, APS would like to consider including a school site of at least 14 acres to serve the expected K-8 students within the section.

The district proposes a meeting with the developer and the City of Aurora to discuss potential school site opportunities in the section.



AURORA PUBLIC SCHOOLS - STUDENT YIELD
7/30/2018

Hilltop/ Avelon FDP - July 2018

Dwelling Type	Units	Yield Ratio	Student Yield
SFD	618	0.7	433
MF-LOW	332	0.3	100
MF-HIGH	300	0.145	44
TOTAL	1,250		576

YIELD	ELEMENTARY		MIDDLE SCHOOL		K-8 TOTAL	HIGH SCHOOL		K-12
	RATIO	STUDENTS	RATIO	STUDENTS	STUDENTS	RATIO	STUDENTS	TOTAL
SF	0.34	210	0.16	99	309	0.2	124	433
MF-LOW	0.17	56	0.08	27	83	0.05	17	100
MF-HIGH	0.075	23	0.04	12	35	0.03	9	44
TOTAL		289		137	427		149	576

SCHOOL TYPE	STUDENT YIELD	ACRES PER CHILD	ACRES REQUIRED
ELEMENTARY	289	0.0175	5.0586
MIDDLE	137	0.025	3.4360
HIGH	149	0.032	4.7744
TOTAL	576		13.2690

State of Colorado, Traffic & Safety, CDOT

Reviewed by: Marilyn Cross, marilyn.cross@state.co.us, 303-512-4266

This project is not directly adjacent to a state highway. We understand that traffic generated by projects in this area will contribute to traffic on nearby highways. Would like to see traffic study when it is available. Thanks for this referral.

Urban Drainage and Flood Control District

Reviewed by: David Skuodas, dskuodas@udfcd.org, 303-455-6277

I don't have any specific concerns regarding a change in the land use of this property, but I would like to see how drainage is planned to be managed. The Public Improvement Plan provided with this submittal referenced the Avelon Master Drainage Report. I was unable to view a copy of this report, but would like to review it.

Xcel Energy

Reviewed by: Donna George, donna.l.george@xcelenergy.com, 303-571-3306

Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has determined an **engineering review** is necessary for the above captioned project. Public Service Company has an existing high pressure natural gas transmission pipeline and associated land rights along Picadilly Road. Any activity including grading, proposed landscaping, erosion control or similar activities involving our existing right-of-way will require Public Service Company approval. Encroachments across Public Service Company's easements must be reviewed for safety standards, operational and maintenance clearances, liability issues, and acknowledged with a Public Service Company License Agreement to be executed with the property owner. **PSCo is requesting that, prior to any final approval of the development plan**, it is the responsibility of the property owner/developer/contractor to contact PSCo's Encroachment Team for development plan review and execution of a License Agreement (upload all files in PDF format) at: https://www.xcelenergy.com/working_with_us/builders/encroachment_requests and click on Colorado.

The property owner/developer/contractor must continue working with Jeff Walker, Land Rights Agent at 303-571-7451 pertaining to the proposed electric substation.

For future planning and to ensure that adequate utility easements are available within this development, PSCo requests 6-foot wide utility easements on private property adjacent to the front lot lines and 8-feet on the rear lot lines of each



residential lot in the subdivision or platted area. Ten-foot wide utility easements are requested on private property adjacent to all public streets, and around the perimeter of each commercial/industrial lot in the subdivision or platted area including tracts, parcels and/or open space areas.

Please be aware PSCo owns and operates an existing natural gas distribution main along East 64th Avenue. As the project progresses, the property owner/developer/contractor must complete the **application process** for any new gas or electric service, or modification to existing facilities via FastApp-Fax-Email-USPS (go to: https://www.xcelenergy.com/start_stop_transfer/new_construction_service_activation_for_builders). It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document for new facilities.

Please contact me at donna.l.george@xcelenergy.com or 303-571-3306 if there are any questions with this referral response.

E-470 Public Highway Authority

Reviewed by: Peggy Davenport, pdavenport@E-470.com, 303-537-3727

- Occupying space for utility work, access, and any construction within the E-470 ROW and property owned in fee is subject to and will be in compliance with the E-470 Public Highway Authority Permit
- Manual, April 2008, as may be amended from time to time (the “Permit Manual”) and will require an E-470 Construction or Access Permit. The administration fee is \$750.00 and \$75,000 per acre for construction.
- Please provide construction plans for the proposed sanitary sewer crossing.
- The length of the sanitary sewer bore will need to account for the ultimate 8 lane section.
- Please provide a Traffic Impact Study.
- E-470 is not responsible for noise mitigation.
- No access is allowed from E-470 mainline or ramps.
- Please note the permit will have special provisions regarding maintenance of improvements placed in the E-470 MUE.
- Revegetation of the MUE will need to conform to the E-470 approved seed mix.
- Additional comments will be issued as design progresses.

Tab by Tab Analysis

12 Completeness and Clarity of the Application

12A. Please see attached for an example of a legal description and illustration.

12B. Complete the [Mineral Rights Affidavit](#) and supply this document to your Case Manager at the time of next submittal.

12C. Submit an Alta Survey with next submittal.

12D. Per the requirements in FDP manual, a binder with every Tab and document for this proposal must be printed out and submitted to the Planning Department in addition to the online submittal of documents.

12E. Each FDP needs to be labeled in the bottom right hand corner with the appropriate title of the page with the correct Tab number included. See redline comments for details and refer to the FDP Manual for correct Tab numbering and information.

13. Zoning and Land Use Comments

13A. Location of CACS: Per [Section 146-921\(C\)](#), “Each CAC shall be located at the intersection of two arterial streets or at the intersection of an arterial street with the E-470 tollway. CACs may occur on no more than two corners of a single arterial/arterial or arterial/E-470 intersection.” The current proposal is showing the location of the proposed CAC directly adjacent to the CAC proposed in the adjacent property across Picadilly Road which will need to be revised.



13B. In the Land Use Matrix, include the number of residential units planned for each planning area identified in this FDP. Indicate how many units will be small, standard, and large residential lots within each Planning Area. This information can be included in Tab 8.

13C. Identify and show any and all easements on the Context Map (gas, utility, water, sewer, etc.) that are on this property. These easements can be further discussed in the site consideration section of the FDP narrative too and how these easements could pose challenges for development on the site.

13D. Phasing: Keep in mind that every planning area must be built all at once, a developer/applicant is not permitted to build one particular Planning Area in phases. This will impact how Public Improvements are completed too.

13E. The introduction and narrative focus is on residential development and should also discuss any proposed mixed-use, commercial, civic, office or industrial uses. Please elaborate on all of the types of land uses proposed and include the approximate area of within the land use matrix.

14. Environmental Porter Ingram / 303-739-7227 / pingrum@auroragov.org

14A. This property is located in the **Noise Impact Boundary Area (NIBA)** of Denver International Airport. The NIBA includes those areas located between the 55 Ldn and 60 Ldn contours. New residential uses or new residential structures permitted by the underlying zone must provide and include noise level reduction in the design and construction of all habitable structures.

14B. The project is located within the **Airport Influence District (AID)** of Denver International Airport. The city does not have a record indicating if an avigation easement has been recorded. The applicant will need to assure that an avigation easement has been conveyed to the City of Aurora and Denver airport for this parcel, and this easement has been recorded with the Adams County Clerk and Recorder along with the first plat in accordance with Section 146-822 of the Aurora Zoning Code. A copy of the *recorded document* must be submitted to the Case Manager and:

Janice Napper, City Clerk and Recorder
15151 East Alameda Parkway
Aurora, Colorado 80012

The Permanent Parcel Identification (PPI) number and Book and Page where the avigation easement is recorded should be included on the avigation easement submitted to the Case Manager.

The easement form is available on the City website at www.auroragov.org, Business Services, Development Center, Development Process, Forms & Applications.

14C. This application has been referred to the **FAA** and **DIA** for comment. Portions of this development may be impacted by the FAA Denver Metroplex project which will streamline departures and arrivals into and out of DIA, possibly resulting in concentrated flight paths over new or future residential areas.

Urban, Design, and Landscape Standards

These standards give guidance to each user or builder and all public real individuals as to what specific features will be included in a proposed development. As a result, the standards submitted need major revision to include a greater level of detail and specifics about what will be specifically included in this development including but not limited to; lighting fixtures, signage, trash receptacles, benches, pavers, wayfinding, public art, etc.

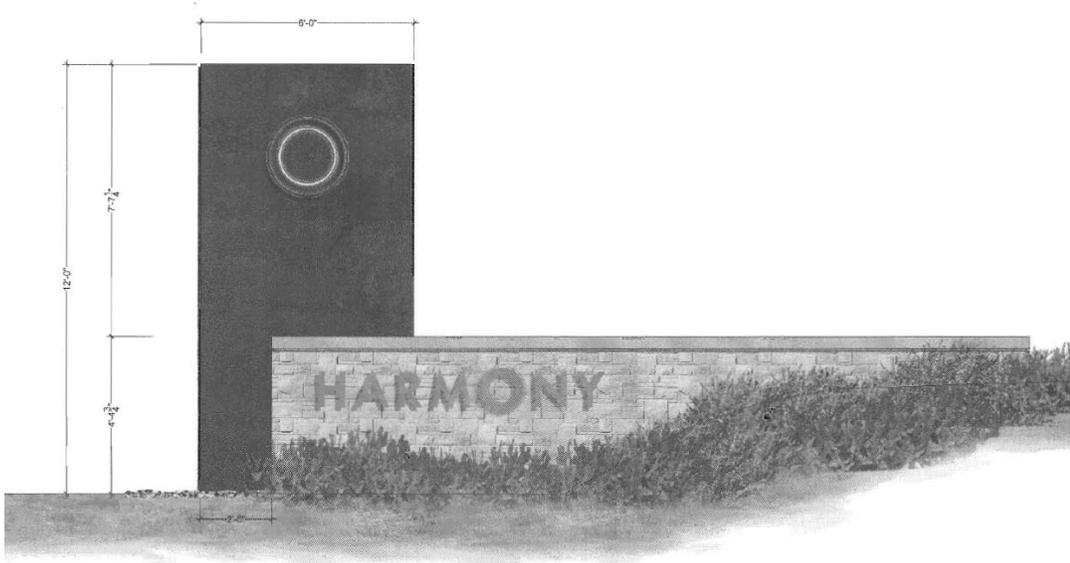
15. Signage

15A. Specific materials should be called out for proposed signage, specific for this development. Below is an example of the level of detail being requested for signage, etc. This level of detail should be provided for each neighborhood concept for monumentation.



15B. Specific dimensions for signage, for each neighborhood concept should be provided. Below is an example for the level of detail requested for dimensions.

Urban Design Standards - Entry Monumentation



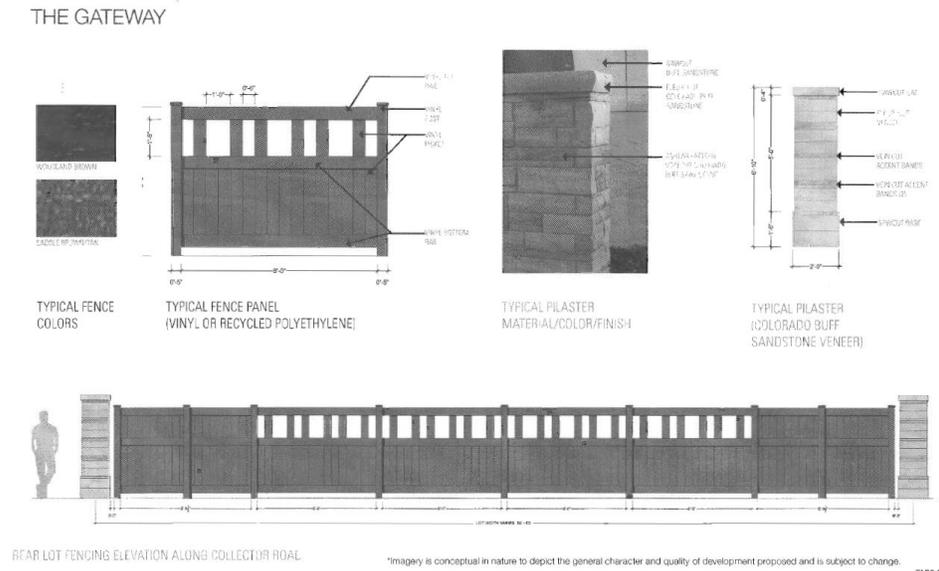
16. Fencing:

16A. Please provide specific detail and call-outs for materials and dimensions for fencing proposed for internal property boundaries and along roadways. See below for an example of the information being requested in this regard. Fence canyons are heavily discouraged and should be avoided along major roadways.

16B. Please be advised that fencing-cost, installation, and maintenance- is the responsibility of the Metro District if provided adjacent to Arterials and Collector streets, not individual property owners.



Urban Design Standards - Neighborhood Character



17. Content Issues

17A. Tab 1 – Letter of Introduction:

1. The introduction focuses on residential development. What is the vision for commercial development contiguous to E-470? Be as specific as possible.
2. Make sure this Tab is just an 8.5 x 11 word document, does not need to be 11 x 17 Tab.

17B. Tab 3 – Context Map:

1. Many edits are needed to show greater level of detail to how the proposed site related to all other existing and proposed development, street network, etc.
2. Please show the following on the Context Map: community park, internal roads for this development and labeling all the roads surrounding the development in the area, all the recreation trail networks (many of which are mentioned in the Urban Design Standards), drainage ways for this development, view corridor, fire station location in Highpoint, Oil and Gas facilities in this development and surrounding this development in the area, Xcel substation in the area of this proposed development, the Multi-utility easement that is also the recreational trail running through this proposed development area.
3. Different patterns will need to be used in addition to color in the legend in order to show variation of differences for when Mylars are recorded since they are only recorded in Black and White.
4. Show adjacent master planned development features showing the roadway systems, residential configurations, street systems of the surrounding master planned development surrounding the proposed site.
5. Be sure to identify oil and gas sites that will be implemented around the proposed site and in this general area around the site.
6. Label major transmission lines (gas and power, etc...).
7. Add contour interval to Slopes Map.
8. Show where existing and proposed oil and gas facilities are located in relation to this proposal. Be sure to show the buffers of oil and gas facilities to proposed residential development.
9. Label and dimension existing power transmission line and gas easement. Discuss design challenges and response.



10. Show on the map the E-470 Multi-use Utility Easement including the regional trail that is going through the proposed site.
11. Bear in mind that a E-470 Sound Wall would be needed in order to mitigate noise impacts from E-470 if this proposal moves forward with the request for predominately residential uses.
12. See FDP Manual for required features for this tab.

17C. Tab 4-Existing Conditions and Natural Features Map

1. Label all easements and streets surrounding this site.
2. Label the major contour intervals and surrounding streets on the Natural Features Map.
3. Use a different pattern of ridgeline and swale so that this can translate to black and white when recorded as a Mylar.

17D. Tab 6 - Narrative

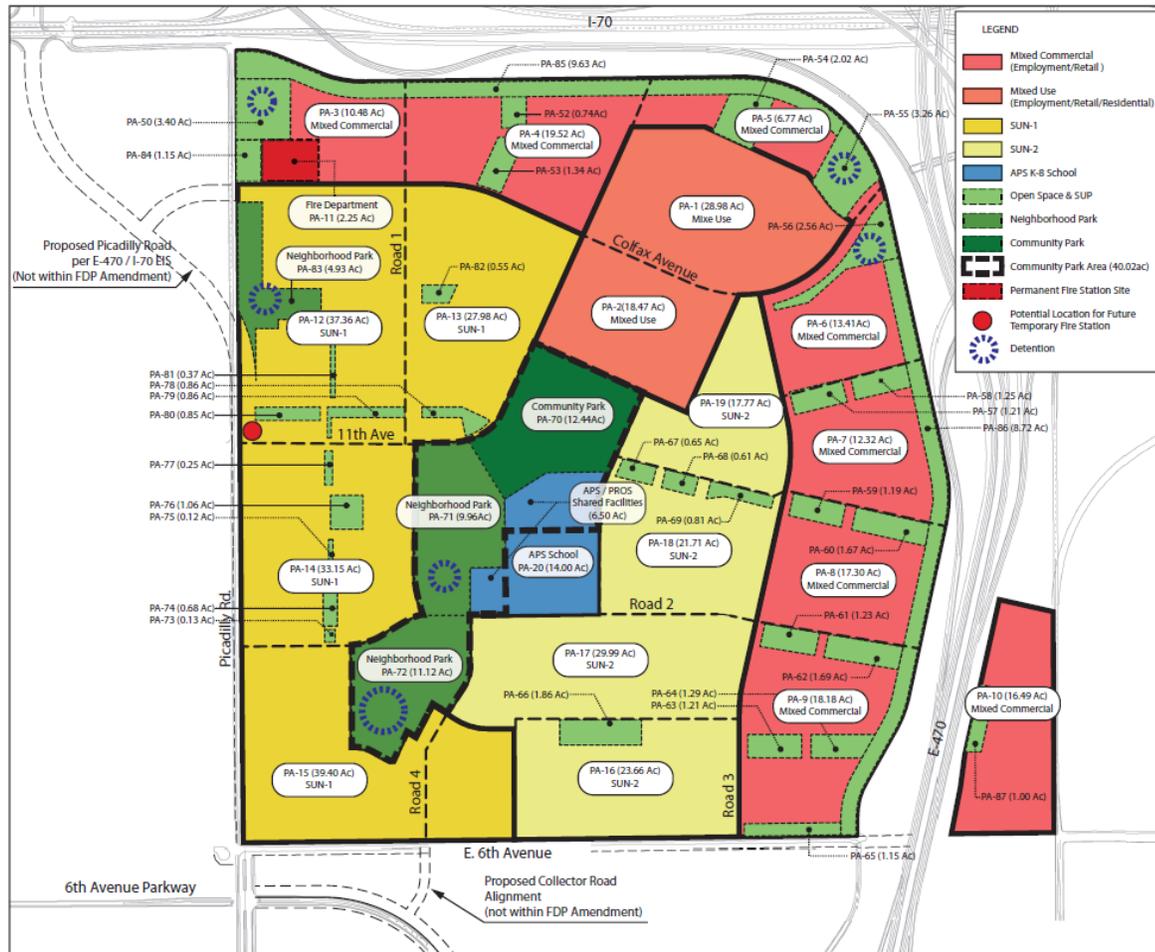
1. Include a description of the types of non-residential development. What kinds of uses are proposed, the density and proposed building area.
2. How many acres, specifically, are requesting to be rezoned to residential? How many acres will be open space and how many acres will remain ACORP?
3. Provide justification in the narrative using sections from the city zoning code explaining why this proposal should be considered for rezoning.
4. Existing utilities – discuss impacts from gas easement and power transmission lines and how FDP addresses the design challenge.
5. Be specific on the map included in the narrative as to what areas specifically are proposed to be rezoned to residential and what will remain as ACORP, if any.
6. Identify adjacent and/or overlapping FDP's.
 - At a minimum provide a bullet point list of items of consideration, conflicts, overlapping impacts
7. Provide a legal description and legal exhibit showing exactly what portions of this property are being considered for rezoning to residential.

17E. Tab 7 – Public Art Plan

1. How does the Public Art Plan relate to specific themes outlined in Design Standards? What do these look like for this development?
2. Review and approval of a Public Art Plan has to occur at the FDP level. That review can occur during the review of the smaller FDP's proposed per Neighborhood area. Contact Roberta Bloom (rbloom@auroragov.org), the Public Art Coordinator, to discuss an approach.
3. Refer to FDP Manual Page 12 for additional information that is required for a public art plan including but not limited to, maintenance plan, schedule of installation, artist resumes, etc. Coordinate with Roberta Bloom to compile the Public Art Plan to be included in the FDP.

17F. Tab 8 – Land Use Map and Matrices

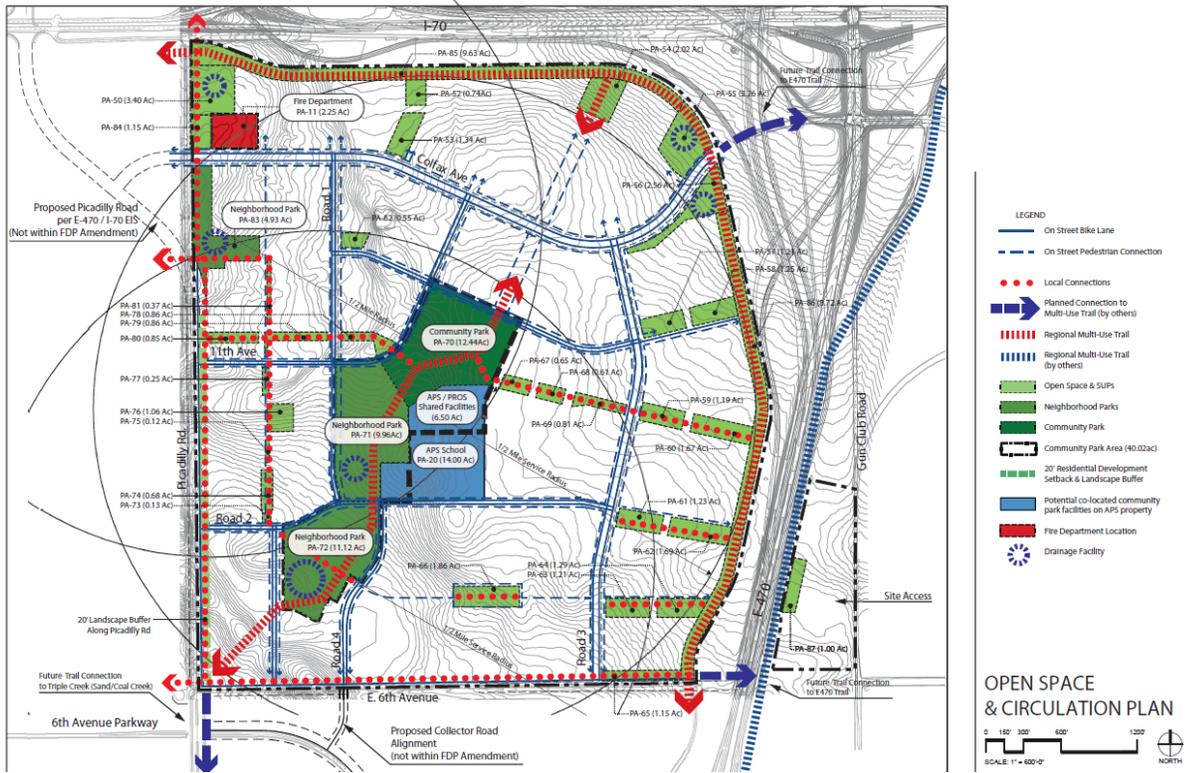
1. The Land Use Matrix must include non-residential uses. Please reference the FDP Manual for required categories. We understand the development patterns will change over time, however, there has to be quantities identified. The adjustments can occur in the subsequent smaller FDP's, but there needs to be a basis to establish timelines and triggers.
2. Planning Areas need to be more distinctively defined using patterns or fonts, refer to the image below for reference on how this tab could be reformatted.



- Form D should be on a separate page and the land use map should be on a separate page.
- Small lot totals must be included in the FDP Land Use Matrix as its own category labeled SFD-Small.
- SFD-Small should be included on the Context Map as separate Planning Areas.
- How does the internal street network relate to the Planning Areas and Proposed Open Space layout? Please show graphically. How does one walk and drive to PA-8 to PA-4 without disrupting the proposed PA-14 open space?

17G. Tab 9 – Open Space, Circulation and Village Plan

- 20 acre park dedication is required in the northwest corner of the site. Revise to show required amount of open space dedication from what is currently proposed.
- Several grade separated crossings of E-470 and I-70 via Collector roadways were identified in the NEATS. The crossings should be considered and reflected in the roadway and bicycle/pedestrian network for the development.
- City staff is in the process developing a bike functional classification system which includes a hierarchical system of the bike network. The bike network proposed in the development may need to be adjusted later to be consistent with the city wide bike network. Design should also include current best practices, such as creating bike lanes separated from traffic.
- Open Space and Trail Connections: The currently proposed internal open space and trail network should be revised to show connections to external sidewalk systems and adjacent properties. This proposal should have adequate pedestrian connections through the entire site and outside of the site to external sidewalk systems.
- Show the connections from the proposed open space to the external sidewalk system. Here is an example of how this page can show the connections to the exterior and interior sidewalk system.



17H. Tab 10 – Urban Design Standards

1. The standards only provide a vision. Further define and discuss a process that includes smaller scale FDPs to clarify the aesthetics by each smaller CSP area.
2. Include standards about Oil and Gas facilities that might be anticipated to be constructed within the proposed FDP area. If Oil and Gas development is proposed to be located within the proposed FDP area at a later time and the oil and gas standards are not included now, the FDP will need to be amended to include these standards.
3. Add a section for Form F-1 to include sample street patterns and lot configurations per the requirements for Tab 10 in the FDP Manual.
4. Please specify what types of specific materials will be used for each neighborhood theme.
5. There are many mentions to trails included in each neighborhood theme but they are not shown on the FDP Land Use map. Please indicate where these trails are within the different neighborhoods.
6. Please be advised that reference or mention to the proposed civic center amphitheater concept may have to change due to the required 20 acre park dedication.
7. Tab 10:13 for the Capture neighborhood theme states, “The Capture neighborhood will be design to have a larger portion of Single Family homes to be in keeping with the neighboring community of Painted Prairie.” How so? Please show graphically how these neighborhoods with this proposal are relating to the communities in Painted Prairie. Here are the housing types being proposed in Painted Prairie in which this proposal can reference when designing housing types for the Avelon development.



17I. Tab 11 – Landscape Standards

1. The standards provided are conceptual. Provide specific information for proposed landscaping, especially around roadway networks. The level of detail requesting to be shown can be referenced below:

Table 11.1 Form 3: Landscape Matrix. Columns: Special Landscape Feature, Brief Description of the Feature, Location in Application Package.

Table 11.1 Form 3: Landscape Matrix (continued). Columns: Special Landscape Feature, Brief Description of the Feature, Location in Application Package.

Table 11.1 Form 3: Landscape Matrix (continued). Columns: Special Landscape Feature, Brief Description of the Feature, Location in Application Package.

Table 11.1 Form 3: Landscape Matrix (continued). Columns: Special Landscape Feature, Brief Description of the Feature, Location in Application Package.

Table 14.1B - TURF OPTION. Single Family Detached, Two-Family, and Single-Family Attached. Columns: FRONT YARD, SIDE YARD, REAR YARD.

Table 14.1B - TURF OPTION (continued). Columns: FRONT YARD, SIDE YARD, REAR YARD.

Table 14.1B - TURF OPTION (continued). Columns: FRONT YARD, SIDE YARD, REAR YARD.

Table 14.1B - TURF OPTION (continued). Columns: FRONT YARD, SIDE YARD, REAR YARD.

17J. Tab 12- Architectural Standards

- 1. Include a list of specific permitted and non-permitted uses for non-residential uses. For example, hotels, restaurants, bars, banks, etc. Be as detailed as possible.
2. Buildings- commercial, residential, and retail uses-should orient the street and be along the sidewalk edge along main streets and plazas.
3. For each housing dimension shown, provide the width of the actual unit too and the length of the actual unit too.
4. For all elevations, materials should be called out too for EACH image. Refer to the comment letter with some examples of how this can be shown.



5. In all proposed residential models, the garage should not exceed 47% of the front facade.
6. Tab 12:14 states, “Avelon supports the use of different architectural style to achieve diversity...”. These specific styles, specific to this development, need to be shown. The images provided for each home type provide context but the specific design of these home types for this development need to be shown. Provide a list of proposed building materials for each home type for this development. Refer to the image below for an example.



12.3 Historic Prairie Style

With an emphasis on fitting the architecture into its surroundings, the Historic Prairie Style incorporates gently sloping roofs with broad overhangs, strong horizontal lines, and simple building massing. One-story porches with masonry columns often flank the main two-story body of the house. The low profile is often hipped, however, gable roofs can be used as accent features.

Tall narrow windows are common in the prairie style. These are often ganged together and referred to as “ribbon” windows. Windows are accented with small geometric muntin patterns, usually in the upper sash or window perimeter.

Brick is the dominant building material associated with the prairie style. The brick appears to anchor the building to the ground. Horizontal lap siding will be the other main material used in the Historic Prairie Style. Horizontal accents and banding of contrasting color are used to strengthen the linear aspects of the design. Horizontally laid dry-stack stone can also be used in lieu of brick.

Contrasting colors are often used to emphasize the upper story, or to accentuate the broad overhangs. The prairie style is meant to nest into its environment, and the colors used are primarily earth tones. Pre-cast concrete accents and caps, wide chimneys and horizontal “belly-bands” are some of the architectural features found in the Historic Prairie Style.



12.4 Historic Prairie Style Features

All single family detached homes in the Historic Prairie style will be in keeping with the style guidelines described on the previous page, and each home type will incorporate the architectural features described on this page as follows:

ALL HOMES will have at least 12 of the architectural features.

MENU OF ARCHITECTURAL FEATURES

OVERALL DESIGN: The predominantly hipped roof massing should be simplified. Exterior materials will be lap siding and brick.

REQUIRED FEATURES (for all Historic Prairie Style Houses)

1. Deep main roof overhangs 24" min. measured horizontally. Upper roof pitches at 6:12 max.
 2. Horizontal lap siding (min. 7' exposure) w/ metal corners at siding for “mitred” appearance.
 3. Identifiable window grids.
 4. Massive porch columns (min. 18" cross-section).
 5. Masonry shall comprise 20-33% of net facade area.
- OPTIONAL FEATURES (to be used in addition to required features to meet the overall feature requirements listed above):**
6. Ribbon windows (min. 3-window grouping). Additional point for each grouping.
 7. Use of contrasting colors at upper level of home.
 8. “Carriage” type garage doors.
 9. Windows in upper section of garage doors.
 10. Authentic entry doors (no pre-formed 6 or 4 panel doors).
 11. Expressive exterior window trim (standard 1X trim not acceptable).
 12. Exterior door trim to match window trim.
 13. Contemporary exterior light fixtures.
 14. Iron railing with geometric patterns at porches and rear decks.
 15. Sidelites and/or transom glass at entry doors.
 16. Continuous brick detailing (i.e., soldier course to create a “banding” effect).
 17. Wrap around porch.
 18. Planter box (to be part of buildings foundation-min. 24" deep and 48" tall).
 19. Solid low wall as porch railing.
 20. Hipped dormers with windows.
 21. Habitable floor area over 2,500 s.f.
 22. 75% or more of brick on the front elevation.
 23. Brick Chimney (real or simulated.)



17K. Tab 13-Public Improvements Plan

1. Clearly indicate, show, and explain what specific public improvements will be constructed with each proposed Planning Area. Please note that each Planning Area must be built all together as one phase, separate planning areas cannot be phased thus the public improvements associated with each planning area can not be phased or separated within in. Please refer to the Porteos Public Improvement Plan, included with this letter, as a reference for formatting, content, and level of detail that should be included when revising the Public Improvement Plan for this proposal.

REFERRAL COMMENTS FROM OTHER DEPARTMENTS AND AGENCIES

18. Civil Engineering Kristin Tanabe / 303-739-7306 / ktanabe@auroragov.org / Comments in green

Tab 10

1. Pavers are not permitted in the public ROW.
2. See the draft lighting standards for fixture types on public streets.

Tab 13

1. Please indicate the preliminary road network. It can be represented with a heavy dashed line to indicate that the layout is not finalized.
2. A grade separated crossing of 60th Avenue for the trail was discussed. Please indicate that improvement.

Public Improvements Plan (narrative)

1. Construction of surrounding roadways are not only triggered by adjacent development.
2. Please provide an additional paragraph that discusses timing of surrounding road network construction. Surrounding roadways may also be required as development in the area progresses or traffic analysis necessitates it. The need for these improvements will be evaluated with each subsequent CSP submittal.
3. Please combine the narrative and the exhibits as Tab 13 of the FDP.

19. Traffic Engineering

Reviewed by: Brianna Medema / 303-739-7336 / bmedema@auroragov.org / Comments in yellow

Master Traffic Impact Study

Master Traffic Impact Study will be required with the second submittal. Please note that ADT map will help define needed roadway sections. How will these roadway sections for the proposed development relate to Painted Prairies unique “connector” roads?

20. Aurora Water

Reviewed by: Casey Ballard, cballard@auroragov.org, 303-739-7301

Master Utility Report

Many comments on the Master Utility Report from Aurora Water in regards but not limited to:

- Need an exhibit including all the planning areas, acreage, land use type, and current infrastructure for both water and sewer. The sewer exhibit should also have contour lines.
- The line in Picadilly alignment is an existing 24-inch. Is this referring to the proposed 16-inch in Tibet road?
- Calculation edits are needed to a variety of tables, totals, and diagrams in the report

Public Improvement Plan Narrative



- Site location needs to be consistent with the MUS.
- How specifically will each PA achieve a looped water line and roadway system? What infrastructure will have to be completed prior to the start of each Planning Area?

Tab 13

- Ensure that all acreage is consistent with MUS
- Two PA-13 are referenced

21. Life Safety Ted Caviness / tcavines@auroragov.org / 303.739.7628 / PDF Comments in Blue.

TAB NINETEEN - PIP NARRATIVE:

- Add FIRE DEPARTMENT signature line.

MASTER PLAN – MASTER UTILITIES PLAN:

- Add FIRE DEPARTMENT signature line.

22. Landscaping

Reviewed by: Kelly K. Bish, PLA, LEED AP/ Kbish@auroragov.org/ (303) 739-7189/ PDF comments in teal.

Tab Nine Open Space, Circulation and Neighborhood Plan

- Correct the typo on Sheet 9.1

Tab Eleven Landscape Standards

- **Landscape standards along arterial and collector streets:** This section needs to specify how buffers will be treated when developments are commercial vs. residential adjacent to arterial and collectors. Article 14 does not address the provision of landscape buffers between the rear lot lines of residential homes and arterial and collector streets. Specify buffer depths and plant material quantities.
- **Landscape standards along local roadways:** Will there be any commercial development along local streets? Will there be any residential development - townhomes, multi-family, duplex along local streets? Current landscape code requires buffers along local streets when commercial and certain types of residential developments occur. If this does occur, will those developments follow current Article 14 standards?
- **Landscape standards in commercial and public gathering areas:** There should be a plan in the Urban Design Stds. section that identifies where these areas are anticipated. The proposed land use map only identifies residential planning areas.
- **Landscape buffers at parks, open space and drainage:** Is this statement supposed to refer to Article 14 Private Common Open Space Standards? If so, specify this and/or specify the required plant material 1 tree and 10 shrubs per 4000sf.
- A drawing needs to show the connectivity. There does not appear to be a plan that shows where the performing arts center is anticipated.
- **Special standards at residential lots:** The information pertaining to residential homes backing to arterials does not belong in this section, but under Landscape Item #4.
- No fence canyons. Larger and deeper buffers should be provided with open style fencing preferred to reduce the appearance of fence canyons.
- **Landscape integration at retaining walls:** Retaining walls shall be designed/located such that their placement does not negate the required buffer plant material should buffers be required where walls have been proposed. Providing plant material in "other nearby locations" does not meet the intent of the required buffers.
- **Landscape standards along arterial and collector roads:** Buffer Along Arterial Roads: How wide? Specify widths and plant quantities. Buffer Along Collector Roads: How wide? Specify widths and plant quantities. Where is rock mulch and decomposed granite expected to be used? Show examples of how buffers are expected to be treated. Specify buffer depths and plant quantities per lineal foot. Buffers shall be required, not encouraged where the rear yards of homes face arterial and collector streets. See example below for the information typically associated with arterial and collector streets within an FDP.



- **Landscape Standards in Detention/Retention Ponds and Water Quality:** Where is this regional detention pond and on what property? This needs to be shown on a map somewhere. Who is responsible for building this and the timing relative to this development? Who is responsible for landscaping of the pond? Has that already been submitted and approved?

Urban Design Standards - Collector Street



Conclusion

When it is most convenient for you, it is advised to coordinate a meeting with city staff to go over questions that may arise from these comments prior to next submittal. Please be advised that a 2nd review cannot begin until the items outlined in this letter have been addressed.

Porteos :: Framework Development Plan Aurora, Colorado Public Improvements Plan

TABLE OF CONTENTS	
PROJECT LOCATION AND DESCRIPTION.....	1
REFERENCES.....	2
PUBLIC IMPROVEMENTS.....	2
FINAL BUILD OUT.....	2
SPECIFIC PLANNING AREA IMPROVEMENTS.....	5
PLANNING AREA 'A'-PA3 & PA4.....	5
Land Development.....	6
Roadway Improvements.....	6
Drainage Improvements.....	7
Water Improvements.....	7
Sanitary Sewer Improvements.....	8
PLANNING AREA 'B'-PA5 & PA6.....	8
Land Development.....	9
Roadway Improvements.....	10
Drainage Improvements.....	10
Water Improvements.....	11
Sanitary Sewer Improvements.....	11
PLANNING AREA 'C'-PA1 & PA2.....	12
Land Development.....	13
Roadway Improvements.....	13
Drainage Improvements.....	14
Water Improvements.....	14
Sanitary Sewer Improvements.....	15
PLANNING AREA 'D'-PAB8, PA9A, PA10B & PA11.....	15
Land Development.....	16
Roadway Improvements.....	17
Drainage Improvements.....	17
Water Improvements.....	18
Sanitary Sewer Improvements.....	18
PLANNING AREA 'E'-PABA & PA18A.....	19
Land Development.....	20
Roadway Improvements.....	20
Drainage Improvements.....	21
Water Improvements.....	21
Sanitary Sewer Improvements.....	22

PLANNING AREA 'F'-PA12.....	22
Land Development.....	23
Roadway Improvements.....	23
Drainage Improvements.....	24
Water Improvements.....	24
Sanitary Sewer Improvements.....	25
PLANNING AREA 'G'-PA7 & PA8B.....	25
Land Development.....	26
Roadway Improvements.....	27
Drainage Improvements.....	28
Water Improvements.....	28
Sanitary Sewer Improvements.....	29
CONCLUSIONS.....	29
APPENDIX A	
Final Build Out, Exhibit 1 of 8	
Planning Area 'A'-PA 3 & 4, Exhibit 2 of 8	
Planning Area 'B'-PA5 & 6, Exhibit 3 of 8	
Planning Area 'C'-PA1 & 2, Exhibit 4 of 8	
Planning Area 'D'-PAB8, 9a, 10b & 11, Exhibit 5 of 8	
Planning Area 'E'-PABA & 10a, Exhibit 6 of 8	
Planning Area 'F'-PA12, Exhibit 7 of 8	
Planning Area 'G'-PA7 & 9b, Exhibit 8 of 8	

PROJECT LOCATION AND DESCRIPTION

The purpose of this Master Land Use/Public Improvement Report is to discuss relevant issues regarding infrastructure planning for the Porteos Development. More specifically, this report will discuss with each identified planning area the required roadway, storm drainage, water and sanitary sewer infrastructure necessary to facilitate them as stand alone developments.

The proposed Porteos Development is approximately 1287 acres with the land-use designation of mixed use commercial sites. The Porteos site is bordered by existing West 56th Avenue and undeveloped Aurora to the south, the future Harvest Road alignment and undeveloped Aurora to the west, and Denver International Airport (DIA) property to the north and east. The property is located in the Southwest 1/4 of Section 4, the South 1/2 of Section 5, the North 1/2 of Section 8, the Southwest 1/4 of Section 8 and the West 1/2 of Section 9, Township 3 South, Range 65 West of the Sixth Principal Meridian, in the City of Aurora, County of Adams, State of Colorado. The property encompasses eight (8) quarter sections and is generally square in shape except for the Southeast 1/4 of Section 8 which is under different ownership and is not part of the Porteos Property and is not included in the FDP submittal. Figure 1.1 below shows the general vicinity of the Porteos Property.



(Figure 1.1)

The Porteos Property is proposed to be developed as a mixture of commercial use zones and industrial zones to take advantage of its close proximity to Denver International Airport. Anticipated uses include retail, hotel and office to service users from and traveling through DIA. Other uses include industrial and office/warehouse for businesses benefiting from close proximity to the airport. Residential uses would not be permitted at the development.

PREPARED FOR: ACP DIA 1287 INVESTORS, LLC
4530 E. SHEA BLVD., SUITE 100
PHOENIX, ARIZONA 85028
ATTN: BILL WICHTERMAN
PHONE: 602-494-7800

PREPARED BY: MARTIN/MARTIN, INC.
1209 WEST COLfax AVENUE
LAKEWOOD, COLORADO 80215
PHONE: 303-431-6100

PRINCIPAL-IN-CHARGE: RAYMOND M. TUTTLE, P.E.
PROJECT MANAGER: JEFF A. WHITE, P.E.,
M.M. JOB #23363.C.03



REFERENCES

Additional documents used to prepare this report were the Master Drainage and Utility Reports prepared by Martin / Martin, Inc., dated June and July, 2012, respectively. Please refer to these documents for specific information regarding storm drainage, and water and sanitary sewer design analysis.

PUBLIC IMPROVEMENTS

Final Build Out

(Exhibit 1 of 8)

General Parameters: Required Off-Site Infrastructure

The Porteos site has been divided into seven distinct planning areas based on market analysis and development opportunities. As such the planning areas noted herein were analyzed to determine the minimum required infrastructure necessary to support them independently. However, the actual sequential development of this project shall more than likely be solely determined by market demands. Furthermore, dependent upon market needs, identified planning areas may be combined or partially skipped as needed.

Utility alignments (water, sanitary sewer, storm drainage) are shown in the exhibits for illustrative purposes to identify required infrastructure but are also subject to revisions as planning areas are developed. Final water, sanitary sewer, and storm drainage alignments will be determined in subsequent CSP and construction document submittals. Each planning area shall have two distinct points of access into the Porteos property and sufficient roadways to assure emergency vehicle access with sufficient fire hydrants to provide adequate fire flows. On-site roadway geometry (i.e. overall road width, and curb radii), including unimproved sections, will allow for emergency vehicle access. Additionally, each planning area prepared for site development shall also provide adequate access and utility service infrastructure as required by City of Aurora and will be provided for review and approval at the time of their submittal processes. It is also expressly understood that the City may be unable to provide fire protection to the property prior to the installation of required emergency access roadways and operable fire hydrants.

It is anticipated that half roadway sections shall be constructed adjacent to each planning area as necessary to accommodate access locations as well as to satisfy Life Safety and traffic movement parameters. As identified in the traffic study, intersections may require full sections with proper transitions to adequately handle the ultimate traffic volumes and turning movements. The remaining roadway and utility infrastructure shall be completed as future planning areas are developed. However, as development occurs within Porteos and the surrounding area, unimproved sections may be required along with installation of wet utilities prior to development of the adjacent planning areas. Furthermore, developments adjacent to Porteos will be responsible to complete the remaining half road sections of Harvest Road, 56th Avenue and 68th Avenue.

As requested by City of Aurora, planning areas shall adhere to and address within their respective CSP submittals the following requirements: 1) roadway sections shall terminate with appropriate pavement transitions beyond the end of the constructed section; 2) proposed utility alignments identified within unimproved road sections shall be graded to final subgrade elevations to ensure adequate soil cover and depths; 3) proposed roadway sections, either half or full, will require wet utilities to be installed prior to paving; 4) proposed roadway design shall include street lighting, striping and signage; 5) the Porteos Traffic Impact Study will need to be reviewed and updated if necessary to ensure proper street sections and movements can be accommodated as planning areas are developed; and 6) on-site four lane collectors are required to be constructed to full roadway sections when on-site traffic volumes reach 13,000 vpd prior to additional traffic volumes resulting from a new planning area development within Porteos (sidewalks maybe omitted until adjacent development occurs).

A roadway development agreement has also been established with DIA allowing a roadway to be extended from the common Aurora/Denver and Porteos property boundary and connect to existing Jackson Gap Street within DIA. It should be noted that the Porteos site requires this connection for development of any of the planning areas and is intended to serve as the second point of access. Per discussions with Aurora and DIA this roadway connection and alignment will be finalized at time of initial CSP submittal. Additionally, it is proposed that Jackson Gap Street be constructed off of the quarter section line within the property until the southwest land parcels are developed. At that time the south end of Jackson Gap Street would be revised to its final alignment locating the intersection at 56th Avenue to the easterly line of the southwest quarter section of Section 8. Spacing of the Jackson Gap Street intersections to 56th Avenue (initial and final) shall be designed per the parameters outlined in the "56th Avenue Control Access Plan.

Significant off-site utility infrastructure is also required for providing both a water network and a sanitary sewer outfall. Currently, neither utility is in close proximity to support the Porteos Development. As indicated by City of Aurora and approved construction documents provided by the City, an existing 24 inch transmission main is available approximately 48th Avenue and Harvest Road to provide Porteos Development and/or any of the planning areas a water transmission main will be required to be extended from this stub approximately 7,800 ft to 56th Avenue and Harvest Road and an additional 5,300 ft to 56th Avenue via the internal roadways of 68th Avenue and Powlston Road. Construction of this transmission main will occur as necessitated by the developments of the planning areas as a looped system is not required from the on-set of the project. However, each planning area shall be required to provide an internal looped water network per city criteria during their respective CSP submittals.

The Porteos site is located within Zone 3 of the City of Aurora water network. As analyzed and determined through water system modeling, the Porteos Development experiences extremely high water pressures within the entire site with pressures in the central and northern land parcels exceeding Aurora Water limits. Per discussions with Aurora Water, Porteos will need to be served by two water pressure zones. Pressure reducing valves (PRV) have been incorporated within the water model as necessary to facilitate the two pressure zones. Based on the PRV water model the resulting water pressures within the Porteos water network lie within the acceptable pressure range. Refer to the Porteos Master Utility Report for additional water models and detail information.

Preliminary discussions have also taken place with both Aurora Water and Denver Water regarding Denver providing water service on an interim basis via an existing water transmission main near Jackson Gap St and 71st. The Porteos Development is not pursuing this alternative connection but requests the right to explore this option as a possible "Plan B". At that time, formal agreements between all parties involved would be established identifying parameters and triggers that would activate water service back to Aurora Water.

Similar to the required water infrastructure, off-site sanitary sewer improvements shall also be required to immediately support Porteos and/or any of the planning areas. Per plans provided by the City, the existing gravity sanitary sewer system is also located within 48th Avenue near Harvest Road. However, since the entirety of Porteos is lower in elevation than the existing sewer system a temporary lift station and force main(s) will be required. Per the Aurora "Master Sewer Plans as of August 26, 2009" a permanent gravity sewer system will be provided and funded by Aurora Capital Improvement Projects, thus ultimately sewer flows from Porteos and the surrounding developments will be re-directed to the north and the new treatment facility. A time table for these improvements has yet to be determined, however, Aurora and Porteos ownership are currently working on establishing an agreement which would define parameters and other development triggers outlining both temporary and final conditions, phasing, and cost sharing.

Per discussions with Aurora Water, Porteos is only responsible for providing a temporary lift station and force main(s) to adequately route the on-site developed sewer load rates to the existing point of connection at 48th Avenue. As such, the surrounding and upstream developments will be responsible to provide their own sanitary systems until Aurora's permanent sewer system and associated infrastructure is in place and operational.

The Porteos temporary lift station is not anticipated to be constructed or equipped to provide capacity or means of conveyance for the entirety of the development. Per discussions with Aurora, it is anticipated the permanent Aurora system will be on-line or alternative sewer routing established prior to full development of Porteos. However, the temporary lift station and force main(s) will be designed based upon market demands, construction costs vs. initial lift station sizing and expansion capabilities and Aurora Capital Improvement timelines. These design parameters shall be further defined and

designed during the subsequent Planning Area(s) CSP and construction submittal processes.

Preliminary discussions have also occurred with DIA regarding the opportunity for the Porteos sanitary sewer outfall (or portion of) to gravity connect to the DIA system on an interim basis. The Porteos Development is not pursuing this alternative connection but requests the right to explore this option as a possible "Plan B". At that time formal agreements between all parties involved would be established identifying parameters and triggers that would activate sewer service back to Aurora Water.

SPECIFIC PLANNING AREA IMPROVEMENTS

PLANNING AREA 'A'-PA3 & PA4

(Exhibit 2 of 8)

As previously noted Planning Area 'A' was analyzed to determine the minimum required infrastructure necessary to support it independently. However, the actual sequential development of this project shall more than likely be solely determined by market demands. Furthermore, dependent upon market needs, identified planning areas may be combined or partially skipped as needed.

Utility alignments (water, sanitary sewer, storm drainage) are shown in Exhibit 2 for illustrative purposes to identify required infrastructure but are also subject to revisions as additional planning areas are developed. Final water, sanitary sewer, and storm drainage alignments will be provided in the subsequent CSP and construction document submittals. Each planning area shall have two distinct points of access into the Porteos property (described in further detail below) and sufficient roadways to assure emergency access with sufficient fire hydrants to provide adequate fire flows. On-site roadway geometry (i.e. overall road width, and curb radii), including unimproved sections, will allow for emergency vehicle access. Additionally, each planning area prepared for site development shall also provide adequate access, utility service infrastructure, and ROW designation as necessary and as required by City of Aurora for review and approval at the time of their submittal processes. It is also expressly understood that the City may be unable to provide fire protection to the property prior to the installation of required emergency access roadways and operable fire hydrants.

PORTEOS FDP 2012-0010

It is anticipated with this planning area that half roadway sections shall be constructed adjacent to the planning area as necessary to accommodate access locations as well as to satisfy Life Safety and traffic movement parameters. Remaining roadway and utility infrastructure shall be completed as future planning areas are developed. However, as development occurs within Porteos and the surrounding area, unimproved sections along with installation of wet utilities may be required to be constructed prior to development of the adjacent planning areas. As requested by City of Aurora, planning areas shall adhere to and address within their respective CSP submittals the following requirements:

Porteos :: Framework Development Plan Aurora, Colorado Public Improvements Plan

1) Roadway sections shall terminate with appropriate pavement transitions beyond the end of the constructed section, 2) proposed utility alignments identified within unpaved road sections shall be graded to final subgrade elevations to meet adequate soil cover and depths, 3) proposed roadway sections, either half or full, will require wet utilities to be installed prior to paving 4) proposed roadway design shall include street lighting, striping and signage 5) the Porteos Traffic Impact Study will need to be reviewed and updated if necessary to ensure proper street sections and movements can be accommodated as planning areas are developed, and 6) on-site four lane collectors are required to be constructed to full roadway sections when on-site traffic volumes reach 13,000 vpd prior to additional traffic volumes resulting from a new planning area development within Porteos (sidewalks may be omitted until adjacent development occurs).

Land Development

The land development in Planning Area 'A' is approximately 95 acres located in the northwest portion of the Porteos site and includes land-use parcels PA3 and PA4. Land uses are identified as Mixed Commercial and Industrial, respectively.

The infrastructure requirements necessary for the completion of this planning area include the construction of arterial and collector roadways, a sub-regional detention/water quality pond, box culverts and storm sewer, sanitary sewer and force main, and water transmission lines.

Roadway Improvements

The following roadways shall be required to support the developments within Planning Area 'A', however, as previously stated only adjacent half sections will be necessary at this time. Jackson Gap Street, a four lane collector, will be constructed north from 56th Avenue to the T-intersection of 68th Avenue, the common Aurora/Denver and Porteos property boundary. A roadway development agreement has been established with DIA allowing Jackson Gap to be extended from the common Aurora/Denver and Porteos property boundary and connect to existing Jackson Gap Street within DIA. It should be noted that the Porteos site requires this connection for development of any of the planning areas and is intended to serve as the second point of access.

Per discussions with Aurora and DIA this roadway connection and alignment will be finalized at time of initial CSP submittal. Based on initial design parameters and existing topography, it is anticipated minimal drainage improvements would be required. Developed flow rates would continue to follow historical drainage patterns with improvements primarily consisting of roadside ditches and erosion control BMPs.

It is proposed that the southerly alignment of Jackson Gap Street be constructed off of the quarter section line until the southwest land parcels are developed as part of Planning Area 'D', Exhibit 5 of 8. At that time the south end of Jackson Gap Street would be revised to its final alignment locating the intersection at 56th Avenue to the easterly line of the southwest

quarter section of Section 8. Spacing of the Jackson Gap Street intersections at 56th Avenue (initial and final) shall be designed per the parameters outlined in the "56th Avenue Control Access Plan." Additional roadways to be constructed consist of 68th Avenue, a 4 lane collector, to be constructed along the northern property boundary and frontage of land parcel PA4. Half roadway sections shall include half of the median curb/gutter (if necessary), flow-line curb/gutter and sidewalk per City of Aurora Design and Construction Specifications. As identified in the traffic study, intersections may require full sections with proper transitions to adequately handle the ultimate traffic volumes and turning movements. Additionally, sidewalks will initially be installed adjacent to the developed parcel, however, as the site continues to develop sidewalks may need to extend along undeveloped parcels as necessitated by the City during site plan processes. Completion of the full roadway section will be constructed as adjacent planning areas are developed.

Drainage Improvements

Required drainage improvements include water/quality and detention, box culverts, and storm sewer. Refer to the "Porteos Harvest Road and 56th Avenue Master Drainage Report" prepared by Martin/Martin Inc., dated June 2012 for specific information.

Water Improvements

Regional
The Porteos site is located within Zone 3 of the City of Aurora water network. As analyzed and determined through water system modeling, the Porteos Development experiences extremely high water pressures within the entire site with pressures in the central and northern land parcels exceeding Aurora Water limits. Per discussions with Aurora Water, the site will need to be served by two water pressure zones. Pressure reducing valves (PRV) have been incorporated within the water model as necessary to facilitate the two pressure zones. Based on the PRV water model the resulting water pressures within the Porteos water network lie within the acceptable pressure range. Refer to the Porteos Master Utility Report for additional water models and detail information.

The off-site water infrastructure requires the existing 24 inch water transmission line to be constructed to 56th Avenue and Harvest Road from the existing point of connection within 48th Avenue. A 24 inch water transmission line will also be extended east within 68th Avenue to the frontage of land parcel PA4. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site
The on-site water infrastructure will require a 16 inch water main to be extended from 56th Avenue within the phase 1 Jackson Gap Street alignment to the northerly property boundary of 68th Avenue. A 16 inch main will also be constructed in 68th Avenue from Jackson Gap Street along the frontage of land parcel PA4. To complete a looped water

system within PA3 & 4 a 12 inch water main will need to be extended internal to the planning area from 68th Avenue to 64th Avenue.

Sanitary Sewer Improvements

Off-Site
Off-site sanitary sewer infrastructure shall be required as the existing sewer system will need to be brought to the site from the existing gravity point of connection in 48th Avenue. However, since the entire Porteos site is lower in elevation than the existing sewer system a temporary lift station and force main(s) will be required. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site
On-site sewer construction required for Planning Area 'A' will consist of gravity lines including a 18 inch line within Jackson Gap Street from 64th Avenue to 68th Avenue. This line will then continue as a 21 inch sewer line for the final reach prior to connecting to the temporary lift station near the northwest corner of the site. Additionally, a 15 inch gravity line will be extended easterly from the intersection of Jackson Gap Street and 68th Avenue along the north frontage of land parcel PA4.

It should be noted in order to gravity sewer the east side of PA4 as well as Planning Area 'B' (PA 5 & 6) portions of the proposed sewer system within 68th Avenue could be extremely deep (approximately 50 ft +/-) as the system traverses thru an existing ridge line. The depth could be reduced if the sewer line was routed within the planning area of PA4 thus allowing the ridge/line to be cut down yet still maintain the existing roadway elevations along 68th Avenue. Additionally, PA4 could route all flows internally to the northwest corner depending on final site grading. Consequently, however, a parallel line but much deeper would still be required within 68th Avenue at the time of development for Planning Area 'B'. Nonetheless, during the development process of Planning Area 'A' the design will need to anticipate the upstream planning areas as well as analyze various other options to determine a final alignment.

PLANNING AREA 'B'-PAS & PA6

(Exhibit 3 of 8)

As previously noted Planning Area 'B' was analyzed to determine the minimum required infrastructure necessary to support it independently. However, the actual sequential development of this project shall more than likely be solely determined by market demands. Furthermore, dependent upon market needs, identified planning areas may be combined or partially skippd as needed.

Utility alignments (water, sanitary sewer, storm drainage) are shown in Exhibit 3 for illustrative purposes to identify required infrastructure but are also subject to revisions as additional planning areas are developed. Final water, sanitary sewer, and storm drainage alignments will be provided in the subsequent CSP & construction document submittals. Each planning area shall have two distinct points of access into the Porteos

property (described in further detail below) and sufficient roadways to assure emergency vehicle access with sufficient fire hydrants to provide adequate fire flows. On-site roadway geometry (i.e. overall road width, and curb radii), including unpaved sections, will allow for emergency vehicle access. Additionally, each planning area prepared for site development shall also provide adequate access, utility service infrastructure, and ROW dedication as necessary and as required by City of Aurora for review and approval at the time of their submittal processes. It is also expressly understood that the City may be unable to provide fire protection to the property prior to the installation of required emergency access roadways and operable fire hydrants.

It is anticipated with this planning area that half roadway sections shall be constructed adjacent to the planning area as necessary to accommodate access locations as well as to satisfy Life Safety and traffic movement requirements. Remaining roadway and utility infrastructure shall be completed as future planning areas are developed. However, as development occurs within Porteos and the surrounding area, unpaved sections may be required to be constructed prior to development of the adjacent planning areas. As requested by City of Aurora, planning areas shall adhere to and address within their respective CSP submittals the following requirements: 1) Roadway sections shall terminate with appropriate pavement transitions beyond the end of the constructed section, 2) proposed utility alignments identified within unpaved road sections shall be graded to final subgrade elevations to ensure adequate soil cover and depths, 3) proposed roadway sections, either half or full, will require wet utilities to be installed prior to paving 4) proposed roadway design shall include street lighting, striping and signage 5) the Porteos Traffic Impact Study will need to be reviewed and updated if necessary to ensure proper street sections and movements can be accommodated as planning areas are developed, and 6) on-site four lane collectors are required to be constructed to full roadway sections when on-site traffic volumes reach 13,000 vpd prior to additional traffic volumes resulting from a new planning area development within Porteos (sidewalks may be omitted until adjacent development occurs).

Land Development

The land development in Planning Area 'B' is approximately 376 acres located in the upper north and northeast portions of the Porteos site and includes land-use parcels PA5 and PA6. Both land uses are identified as Industrial.

The infrastructure requirements necessary for the completion of this planning area include the construction of arterial and collector roadways, a regional detention/water quality pond, box culverts and storm sewer, sanitary sewer and force main, and water transmission lines.

Per discussions with Aurora and DIA this roadway connection and alignment will be finalized at time of initial CSP submittal. Based on initial design parameters and existing topography, it is anticipated minimal drainage improvements would be required. Developed flow rates would continue to follow historical drainage patterns with improvements primarily consisting of roadside ditches and erosion control BMPs.



Roadway Improvements

The following roadways shall be required to support the developments within Planning Area 'B', however, as previously stated only adjacent half sections will be necessary at this time. Jackson Gap Street, a four lane collector, will be constructed north from 56th Avenue to the T-intersection of 68th Avenue, the common Aurora/Denver and Porteos property boundary. A roadway development agreement has been established with DIA allowing Jackson Gap to be extended from the common Aurora/Denver and Porteos property boundary and connect to existing Jackson Gap Street within DIA. It should be noted that the Porteos site requires this connection for development of any of the planning areas and is intended to serve as the second point of access.

Per discussions with Aurora and DIA this roadway connection and alignment will be finalized at time of initial CSP submittal. Based on initial design parameters and existing topography, it is anticipated minimal drainage improvements would be required. Developed flow rates would continue to follow historical drainage patterns with improvements primarily consisting of roadside ditches and erosion control BMPs.

It is proposed that Jackson Gap Street be constructed off of the quarter section line within the property until the southwest land parcels are developed as part of Planning Area 'D', Exhibit 5 of 8. At that time the south end of Jackson Gap Street would be revised to its final alignment locating the intersection at 56th Avenue to the easterly line of the southwest quarter section of Section 8. Spacing of the Jackson Gap Street intersections at 56th Avenue (initial and final) shall be designed per the parameters outlined in the "56th Avenue Control Access Plan." Additional roadways to be constructed consist of 68th Avenue, a 4 lane collector, to be constructed along the northern property boundary and frontage of land parcels PA4 & 5 to Powhatan Road. East of 56th Avenue, 68th shall transition to a 2 lane collector along PA6 to the east property boundary, 64th Avenue, a 6 lane arterial, is also required from Jackson Gap Street the east property boundary of the site. 64th Avenue shall continue to Valley Head Street as a two lane section by others. Half roadway sections shall include half of the median curb/gutter (if necessary), flowline curb/gutter and sidewalk per City of Aurora Design and Construction Specifications. As identified in the traffic study, intersections may require full sections with proper transitions to adequately handle the ultimate traffic volumes and turning movements. Additionally, sidewalks will initially be installed adjacent to the developed parcel, however, as the site continues to develop sidewalks may need to extend along undeveloped parcels as necessitated by the City during site plan processes. Completion of the full roadway section will be constructed as adjacent planning areas are developed.

Drainage Improvements

Required drainage improvements include water/quality and detention, open channels, box culverts, and storm sewer. Refer to the "Porteos Harvest Road and 56th Avenue Master Drainage Report" prepared by Martin/Martin Inc., dated June 2012 for specific information.



Water Improvements

Regional
The Porteos site is located within Zone 3 of the City of Aurora water network. As analyzed and determined through water system modeling, the Porteos Development experiences extremely high water pressures within the entire site with pressures in the central and northern land parcels exceeding Aurora Water limits. Per discussions with Aurora Water, the site will need to be served by two water pressure zones. Pressure reducing valves (PRV) have been incorporated within the water model as necessary to facilitate the two pressure zones. Based on the PRV water model the resulting water pressures within the Porteos water network lie within the acceptable pressure range. Refer to the Porteos Master Utility Report for additional water models and detail information.

The off-site water infrastructure requires the existing 24 inch water transmission line to be constructed to 56th Avenue and Harvest Road from the existing point of connection within 48th Avenue. A 24 inch water transmission line will also be extended east within 56th Avenue to the frontage of land parcel PA4. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site

The on-site water infrastructure will require a 16 inch water main to be extended from 56th Avenue within the phase 1 Jackson Gap Street alignment to the 64th Avenue, 24 inch transmission mains will be constructed east from Jackson Gap Street within 64th Avenue to the east property boundary and north from 56th Avenue to 64th within Powhatan Road. From the intersection of 64th Avenue and Powhatan Road the water main will continue north as a 16 inch main to 68th Avenue and lastly a 16 inch main will be constructed in 68th Avenue along the frontages of land parcel PA5 & 6. To complete a looped system within PA5 & 6 a 12 inch water main will need to be extended internal to the planning area from 68th Avenue to 64th Avenue.

Sanitary Sewer Improvements

Off-Site
Off-site sanitary sewer infrastructure shall be required as the existing sewer system will need to be brought to the site from the existing gravity point of connection in 48th Avenue. However, since the entire Porteos site is lower in elevation than the existing sewer system a temporary lift station and force main(s) will be required. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site

On-site sewer construction required for Planning Area 'B' will consist of gravity lines including an 8 inch line which will then be upsized to a 12 inch line within Powhatan Road from 64th Avenue to 68th Avenue. This line will then continue west as a 15 inch



sewer line within 68th Avenue to Harvest Road upon being upsized to a 21 inch, for the final reach prior to connecting to the temporary lift station near the northwest corner of the site. Additionally, several smaller 8 inch lines will be extended into the land parcels for future connections.

It should be noted in order to gravity sewer Planning Area 'B' (PA 5 & 6) as well as the east side of PA4 portions of the proposed sewer system within 68th Avenue could be extremely deep (approximately 50 ft +/-) as the system traverses thru an existing ridge line. The depth could be reduced if the sewer line was routed within the planning area of PA4 thus allowing the ridge/line to be cut down yet still maintain the existing roadway elevations along 68th Avenue. PA4 could route all flows internally to the northwest corner depending on final site grading. Consequently, however, a parallel line but much deeper would still be required within 68th Avenue at the time of development for Planning Area 'B'. During the development process of Planning Area 'B' the design will need to anticipate the downstream planning areas as well as analyze various other options to determine a final alignment.

PLANNING AREA 'C'-PA1 & PA2

(Exhibit 4 of 8)

As previously noted Planning Area 'C' was analyzed to determine the minimum required infrastructure necessary to support it independently. However, the actual sequential development of this project shall more than likely be solely determined by market demands. Furthermore, dependent upon market needs, identified planning areas may be combined or partially skippd as needed.

Utility alignments (water, sanitary sewer, storm drainage) are shown in Exhibit 4 for illustrative purposes to identify required infrastructure but are also subject to revisions as additional planning areas are developed. Final water, sanitary sewer, and storm drainage alignments will be provided in the subsequent CSP & construction document submittals. Each planning area shall have two distinct points of access into the Porteos property (described in further detail below) and sufficient roadways to assure emergency vehicle access with sufficient fire hydrants to provide adequate fire flows. On-site roadway geometry (i.e. overall road width, and curb radii), including unpaved sections, will allow for emergency vehicle access. Additionally, each planning area prepared for site development shall also provide adequate access, utility service infrastructure, and ROW dedication as necessary and as required by City of Aurora for review and approval at the time of their submittal processes. It is also expressly understood that the City may be unable to provide fire protection to the property prior to the installation of required emergency access roadways and operable fire hydrants.

It is anticipated with this planning area that half roadway sections shall be constructed adjacent to the planning area as necessary to accommodate access locations as well as to satisfy Life Safety and traffic movement requirements. Remaining roadway and utility infrastructure shall be completed as future planning areas are developed. However, as development occurs within Porteos and the surrounding area, unpaved sections may be

required to be constructed prior to development of the adjacent planning areas. As requested by City of Aurora, planning areas shall adhere to and address within their respective CSP submittals the following requirements: 1) Roadway sections shall terminate with appropriate pavement transitions beyond the end of the constructed section, 2) proposed utility alignments identified within unpaved road sections shall be graded to final subgrade elevations to ensure adequate soil cover and depths, 3) proposed roadway sections, either half or full, will require wet utilities to be installed prior to paving 4) proposed roadway design shall include street lighting, striping and signage 5) the Porteos Traffic Impact Study will need to be reviewed and updated if necessary to ensure proper street sections and movements can be accommodated as planning areas are developed, and 6) on-site four lane collectors are required to be constructed to full roadway sections when on-site traffic volumes reach 13,000 vpd prior to additional traffic volumes resulting from a new planning area development within Porteos (sidewalks may be omitted until adjacent development occurs).

Land Development

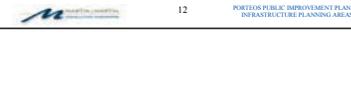
The land development in Planning Area 'C' is approximately 89.6 acres located in the northwest portion of the Porteos site and includes land-use parcel PA1 and PA2. Land uses are both identified as Mixed Commercial.

The infrastructure requirements necessary for the completion of this planning area include the construction of arterial and collector roadways, a sub regional detention water quality pond, box culverts, open channels, and storm sewer, sanitary sewer and force main, and water transmission lines.

Roadway Improvements

The following roadways shall be required to support the developments within Planning Area 'C', however, as previously stated only adjacent half sections will be necessary at this time. Jackson Gap Street, a four lane collector will be constructed north from 56th Avenue to the T-intersection of 68th Avenue, the common Aurora/Denver and Porteos property boundary. A roadway development agreement has been established with DIA allowing Jackson Gap to be extended from the common Aurora/Denver and Porteos property boundary and connect to existing Jackson Gap Street within DIA. It should be noted that the Porteos site requires this connection for development of any of the planning areas and is intended to serve as the second point of access.

Per discussions with Aurora and DIA this roadway connection and alignment will be finalized at time of initial CSP submittal. Based on initial design parameters and existing topography, it is anticipated minimal drainage improvements would be required. Developed flow rates would continue to follow historical drainage patterns with improvements primarily consisting of roadside ditches and erosion control BMPs.



Porteos :: Framework Development Plan Aurora, Colorado Public Improvements Plan

It is proposed that Jackson Gap Street be constructed off of the quarter section line within the property until the southwest land parcels are developed as part of Planning Area 'D', Exhibit 5 of 8. At that time the south end of Jackson Gap Street would be revised to its final alignment locating the intersection at 56th Avenue to the easterly line of the southwest quarter section of Section 8. Spacing of the Jackson Gap Street intersections at 56th Avenue (initial and final) shall be designed per the parameters outlined in the "56th Avenue Control Access Plan." Harvest Road will be constructed along the western property boundary and frontage of both PA1 and PA2. 64th Avenue, a 6 lane arterial, is also required from Harvest Road to Jackson Gap Street and 68th Avenue, a 4 lane collector, will also be constructed from Harvest Road to Jackson Gap Street along the frontage of PA1. Internal roadway layouts shall provide two points of access by connecting to either Jackson Gap or Harvest Road. These internal collectors shall be constructed to City of Aurora and Life Safety criteria. Half roadway sections shall include half of the median curb/gutter (if necessary), flowline curb/gutter and sidewalk per City of Aurora Design and Construction Specifications. As identified in the traffic study, intersections may require full sections with proper transitions to adequately handle the ultimate traffic volumes and turning movements. Additionally, sidewalks will initially be installed adjacent to the developed parcel, however, as the site continues to develop sidewalks may need to extend along undeveloped parcels as necessitated by the City during site plan processes. Completion of the full roadway section will be constructed as adjacent planning areas are developed.

Drainage Improvements

Required drainage improvements include water/quality and detention, open channels, box culverts, and storm sewer. Refer to the "Porteos Harvest Road and 56th Avenue Master Drainage Report" prepared by Martin/Martin Inc., dated June 2012 for specific information.

Water Improvements

Regional
The Porteos site is located within Zone 3 of the City of Aurora water network. As analyzed and determined through water system modeling, the Porteos Development experiences extremely high water pressures within the entire site with pressures in the central and northern land parcels exceeding Aurora Water limits. Per discussions with Aurora Water, the site will need to be served by two water pressure zones. Pressure reducing valves (PRV) will be incorporated within the water model as necessary to facilitate the two pressure zones. Based on the PRV water model the resulting water pressures within the Porteos water network lie within the acceptable pressure range. Refer to the Porteos Master Utility Report for additional water models and detail information.

The off-site water infrastructure requires the existing 24 inch water transmission line to be constructed to 56th Avenue and Harvest Road from the existing point of connection within 48th Avenue. A 24 inch water transmission line will also be extended east within

14 PORTEOS PUBLIC IMPROVEMENT PLAN - INFRASTRUCTURE PLANNING AREAS

Drainage Report" prepared by Martin/Martin Inc., dated June 2012 for specific information.

Water Improvements

Regional
The Porteos site is located within Zone 3 of the City of Aurora water network. As analyzed and determined through water system modeling, the Porteos Development experiences extremely high water pressures within the entire site with pressures in the central and northern land parcels exceeding Aurora Water limits. Per discussions with Aurora Water, the site will need to be served by two water pressure zones. Pressure reducing valves (PRV) have been incorporated within the water model as necessary to facilitate the two pressure zones. Based on the PRV water model the resulting water pressures within the Porteos water network lie within the acceptable pressure range. Refer to the Porteos Master Utility Report for additional water models and detail information.

The off-site water infrastructure requires the existing 24 inch water transmission line to be constructed to 68th Avenue and Harvest Road from the existing point of connection within 48th Avenue. A 24 inch water transmission line will also be extended east within 56th Avenue to the phase 1 alignment of Jackson Gap Street. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site
The on-site water infrastructure will require a 16 inch water main to be extended from 56th Avenue within either the phase 1 Jackson Gap Street alignment or the final roadway alignment to the northerly property boundary of 68th Avenue. Evaluation of the preferred water line alignment will be determined at the time of CSP processes. A 24 inch transmission main shall also be constructed east within 64th Avenue along the frontage of PA8B. A 16" water main will be constructed within 60th Avenue along the frontage of PA10.

Sanitary Sewer Improvements

Off-Site
Off-site sanitary sewer infrastructure shall be required as the existing sewer system will need to be brought to the site from the existing gravity point of connection in 48th Avenue. However, since the entire Porteos site is lower in elevation than the existing gravity system a temporary lift station and force main will be required. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site
On-site sewer construction required for Planning Area 'D' will consist of gravity lines including an 18 inch line within 60th Avenue from Jackson Gap Street to Harvest Road. From the intersection of Harvest Road and 60th Avenue the 18 inch sewer line will

18 PORTEOS PUBLIC IMPROVEMENT PLAN - INFRASTRUCTURE PLANNING AREAS

56th Avenue to the phase 1 alignment of Jackson Gap Street. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site

The on-site water infrastructure will require a 16 inch water main to be extended from 56th Avenue within the phase 1 Jackson Gap Street alignment to the northerly property boundary of 68th Avenue. Additional 16 inch water mains will be constructed along the frontage of PA1 and PA2, within 68th Avenue and Harvest Road. A 24 inch transmission main will be constructed east within 60th Avenue from Harvest Road to Jackson Gap Street.

Sanitary Sewer Improvements

Off-Site
Off-site sanitary sewer infrastructure shall be required as the existing sewer system will need to be brought to the site from the existing gravity point of connection in 48th Avenue. However, since the entire Porteos site is lower in elevation than the existing sewer system a temporary lift station and force main will be required. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site
On-site sewer construction required for Planning Area 'C' will consist of gravity lines including an 8 inch line increasing to a 15 inch sewer line within 64th Avenue to Harvest Road. From this intersection, the sewer line will be extended as an 18 inch line within Harvest Road prior to connecting to the temporary lift station near the northwest corner of the site. Additional sanitary sewer required will be an 18 inch line within Jackson Gap Street from 64th Avenue to 68th Avenue. This line will then continue as a 21 inch line prior to connecting to the temporary lift station.

PLANNING AREA 'D'-PAB8, PA9a, PA10B & PA11

(Exhibit 5 of 8)

As previously noted Planning Area 'D' was analyzed to determine the minimum required infrastructure necessary to support it independently. However, the actual sequential development of this project should not likely be solely determined by market demands. Furthermore, dependent upon market needs, identified planning areas may be combined or partially skipped as needed.

Utility alignments (water, sanitary sewer, storm drainage) are shown in Exhibit 6 for illustrative purposes to identify required infrastructure but are also subject to revisions as additional planning areas are developed. Final water, sanitary sewer, and storm drainage alignments will be provided in the subsequent CSP and construction document submittals. Each planning area shall have two distinct points of access into the Porteos property (described in further detail below) and sufficient roadways to assure emergency vehicle access with sufficient fire hydrants to provide adequate fire flows. On-site

15 PORTEOS PUBLIC IMPROVEMENT PLAN - INFRASTRUCTURE PLANNING AREAS

extended to 64th Avenue and upzoned to an 18 inch line prior to connecting to the temporary lift station near the northwest corner of the site. Additionally, a 10 inch sanitary line will also be required within PAB8 and will follow the alignment of the open drainage channel to 64th Avenue. Lastly, an 8 inch line increasing to a 15 inch sewer line will be constructed within 64th Avenue to Harvest Road upon connecting to the 18 inch main within Harvest Road.

PLANNING AREA 'E'-PABa & PA10a

(Exhibit 6 of 8)

As previously noted Planning Area 'E' was analyzed to determine the minimum required infrastructure necessary to support it independently. However, the actual sequential development of this project should not likely be solely determined by market demands. Furthermore, dependent upon market needs, identified planning areas may be combined or partially skipped as needed.

Utility alignments (water, sanitary sewer, storm drainage) are shown in Exhibit 6 for illustrative purposes to identify required infrastructure but are also subject to revisions as additional planning areas are developed. Final water, sanitary sewer, and storm drainage alignments will be provided in the subsequent CSP and construction document submittals. Each planning area shall have two distinct points of access into the Porteos property (described in further detail below) and sufficient roadways to assure emergency vehicle access with sufficient fire hydrants to provide adequate fire flows. On-site roadway geometry (i.e. overall road width, and curb radii), including unpaved sections, will allow for emergency vehicle access. Additionally, each planning area prepared for site development shall also provide adequate access, utility service infrastructure, and ROW dedication as necessary and as required by City of Aurora for review and approval at the time of their submittal processes. It is also expressly understood that the City may be unable to provide fire protection to the property prior to the installation of required emergency access roadways and operable fire hydrants.

It is anticipated with this planning area that half roadway sections shall be constructed adjacent to the planning area as necessary to accommodate access locations as well as to satisfy Life Safety and traffic movement requirements. Remaining roadway and utility infrastructure shall be completed as future planning areas are developed. However, as development occurs within Porteos and the surrounding area, unpaved sections may be required to be constructed prior to development of the adjacent planning areas. Developments adjacent to Porteos will be responsible to complete the remaining half road sections of Harvest Road, 56th Avenue and 68th Avenue. As requested by City of Aurora, planning areas shall adhere to and address within their respective CSP submittals the following requirements: 1) Roadway sections shall terminate with appropriate pavement transitions beyond the end of the constructed section, 2) proposed utility alignments identified within unpaved road sections shall be graded to final subgrade elevations to ensure adequate soil cover and depths, 3) proposed roadway sections, either half or full, will require wet utilities to be installed prior to paving 4) proposed roadway design shall include street lighting, striping and signage 5) the Porteos Traffic Impact Study will need

19 PORTEOS PUBLIC IMPROVEMENT PLAN - INFRASTRUCTURE PLANNING AREAS

roadway geometry (i.e. overall road width, and curb radii), including unpaved sections, will allow for emergency vehicle access. Additionally, each planning area prepared for site development shall also provide adequate access, utility service infrastructure, and ROW dedication as necessary and as required by City of Aurora for review and approval at the time of their submittal processes. It is also expressly understood that the City may be unable to provide fire protection to the property prior to the installation of required emergency access roadways and operable fire hydrants.

It is anticipated with this planning area that half roadway sections shall be constructed adjacent to the planning area as necessary to accommodate access locations as well as to satisfy Life Safety and traffic movement requirements. Remaining roadway and utility infrastructure shall be completed as future planning areas are developed. However, as development occurs within Porteos and the surrounding area, unpaved sections may be required to be constructed prior to development of the adjacent planning areas. Developments adjacent to Porteos will be responsible to complete the remaining half road sections of Harvest Road, 56th Avenue and 68th Avenue. As requested by City of Aurora, planning areas shall adhere to and address within their respective CSP submittals the following requirements: 1) Roadway sections shall terminate with appropriate pavement transitions beyond the end of the constructed section, 2) proposed utility alignments identified within unpaved road sections shall be graded to final subgrade elevations to ensure adequate soil cover and depths, 3) proposed roadway sections, either half or full, will require wet utilities to be installed prior to paving 4) proposed roadway design shall include street lighting, striping and signage 5) the Porteos Traffic Impact Study will need to be reviewed and updated if necessary to ensure proper street sections and movements can be accommodated as planning areas are developed, and 6) on-site four lane collector roads are required to be constructed to full roadway sections when on-site traffic volumes reach 13,000 vpd prior to additional traffic volumes resulting from a new planning area development within Porteos (sidewalks may be omitted until adjacent development occurs).

Land Development

The land development in Planning Area 'D' is approximately 164 acres and is located in the southwest portion of the Porteos site and includes land-use parcel PAB8, 9a, 10b & 11. Land uses are both identified as Mixed Commercial.

The infrastructure requirements necessary for the completion of this planning area include the construction of arterial and collector roadways, a detention/water quality ponds, box culverts, open channels, and storm sewer, sanitary sewer and force main, and water transmission lines.

16 PORTEOS PUBLIC IMPROVEMENT PLAN - INFRASTRUCTURE PLANNING AREAS

to be reviewed and updated if necessary to ensure proper street sections and movements can be accommodated as planning areas are developed, and 6) on-site four lane collector roads are required to be constructed to full roadway sections when on-site traffic volumes reach 13,000 vpd prior to additional traffic volumes resulting from a new planning area development within Porteos (sidewalks may be omitted until adjacent development occurs).

Land Development

The land development in Planning Area 'E' is approximately 137.5 acres and is located in the southwest portion of the Porteos site and includes land-use parcel PABa & 10a. Land uses are both identified as Mixed Commercial.

The infrastructure requirements necessary for the completion of this planning area include the construction of arterial and collector roadways, a detention/water quality ponds, box culverts, open channels, and storm sewer, sanitary sewer and force main, and water transmission lines.

Roadway Improvements

The following roadways shall be required to support the developments within Planning Area 'E', however, as previously stated only adjacent half sections will be necessary at this time except for 60th Avenue which will require a full roadway section. Jackson Gap Street, a four lane collector, will be constructed north from 56th Avenue to the 1- intersection of 68th Avenue, the common Aurora/Denver and Porteos property boundary. A roadway development agreement has been established with DIA allowing Jackson Gap to be extended from the common Aurora/Denver and Porteos property boundary and connect to existing Jackson Gap Street within DIA. It should be noted that the Porteos site requires this connection for development of any of the planning areas and is intended to serve as the second point of access.

Per discussions with Aurora and DIA this roadway connection and alignment will be finalized at time of initial CSP submittal. Based on initial design parameters and existing topography, it is anticipated minimal drainage improvements would be required. Developed flow rates would continue to follow historical drainage patterns with improvements primarily consisting of roadside ditches and erosion control BMPs.

It is proposed that Jackson Gap Street be constructed off of the quarter section line within the property until the southwest land parcels are developed as part of Planning Area 'D', Exhibit 5 of 8. At that time the south end of Jackson Gap Street would be revised to its final alignment locating the intersection at 56th Avenue to the easterly line of the southwest quarter section of Section 8. Spacing of the Jackson Gap Street intersections at 56th Avenue (initial and final) shall be designed per the parameters outlined in the "56th Avenue Control Access Plan." Additional roadways to be completed consist of Harvest Road, a six lane arterial, which will be constructed northerly from 56th Avenue to 64th Avenue. 60th Avenue, a 4 lane collector, shall be fully constructed from Harvest Road to

20 PORTEOS PUBLIC IMPROVEMENT PLAN - INFRASTRUCTURE PLANNING AREAS

Roadway Improvements

The following roadways shall be required to support the developments within Planning Area 'D', however, as previously stated only adjacent half sections will be necessary at this time except for 60th Avenue which will require a full roadway section. Jackson Gap Street, a four lane collector will be constructed north from 56th Avenue to the 1- intersection of 68th Avenue, the common Aurora/Denver and Porteos property boundary. A roadway development agreement has been established with DIA allowing Jackson Gap to be extended from the common Aurora/Denver and Porteos property boundary and connect to existing Jackson Gap Street within DIA. It should be noted that the Porteos site requires this connection for development of any of the planning areas and is intended to serve as the second point of access.

Per discussions with Aurora and DIA this roadway connection and alignment will be finalized at time of initial CSP submittal. Based on initial design parameters and existing topography, it is anticipated minimal drainage improvements would be required. Developed flow rates would continue to follow historical drainage patterns with improvements primarily consisting of roadside ditches and erosion control BMPs.

At the time of development of Planning Area 'D' the existing alignment of Jackson Gap Street (if constructed with a previous planning area) will be evaluated and revised to its final alignment with the intersection of Jackson Gap Street and 56th Avenue being realigned to the easterly line of the southwest quarter section of section 8. Spacing of the Jackson Gap Street intersections at 56th Avenue (initial and final) shall be designed per the parameters outlined in the "56th Avenue Control Access Plan." Additionally, a portion of the temporary Jackson Gap Street will be removed between Design Point A and B and realigned to a tie connection at Design Point C as shown in the exhibit. 56th Avenue, a 6 lane arterial, shall be constructed from Harvest Road along the southern property boundary and frontage of land parcels PA10 & PA11. 60th Avenue, a 4 lane collector, shall be fully constructed from Jackson Gap Street along frontages of land parcel PAB8, 10b & 11. 64th Avenue, a 6 lane arterial, shall be constructed along the northern frontage of land parcel PAB8. Half roadway sections shall include half of the median curb/gutter (if necessary), flowline curb/gutter and sidewalk per City of Aurora Design and Construction Specifications. As identified in the traffic study, intersections may require full sections with proper transitions to adequately handle the ultimate traffic volumes and turning movements. Additionally, sidewalks will initially be installed adjacent to the developed parcel, however, as the site continues to develop sidewalks may need to extend along undeveloped parcels as necessitated by the City during site plan processes. Completion of the full roadway section will be constructed as adjacent planning areas are developed.

Drainage Improvements

Required drainage improvements include water/quality and detention, open channels, box culverts, and storm sewer. Refer to the "Porteos Harvest Road and 56th Avenue Master

17 PORTEOS PUBLIC IMPROVEMENT PLAN - INFRASTRUCTURE PLANNING AREAS

Jackson Gap Street between both frontages of land parcels PAB & 10. 64th Avenue, a 6 lane arterial, shall be constructed from Harvest Road to Jackson Gap Street along the northern frontage of land parcel PAB8. Half roadway sections shall include half of the median curb/gutter (if necessary), flowline curb/gutter and sidewalk per City of Aurora Design and Construction Specifications. As identified in the traffic study, intersections may require full sections with proper transitions to adequately handle the ultimate traffic volumes and turning movements. Additionally, sidewalks will initially be installed adjacent to the developed parcel, however, as the site continues to develop sidewalks may need to extend along undeveloped parcels as necessitated by the City during site plan processes. Completion of the full roadway section will be constructed as adjacent planning areas are developed.

Drainage Improvements

Required drainage improvements include water/quality and detention, open channels, box culverts, and storm sewer. Refer to the "Porteos Harvest Road and 56th Avenue Master Drainage Report" prepared by Martin/Martin Inc., dated June 2012 for specific information.

Water Improvements

Regional
The Porteos site is located within Zone 3 of the City of Aurora water network. As analyzed and determined through water system modeling, the Porteos Development experiences extremely high water pressures within the entire site with pressures in the central and northern land parcels exceeding Aurora Water limits. Per discussions with Aurora Water, the site will need to be served by two water pressure zones. Pressure reducing valves (PRV) have been incorporated within the water model as necessary to facilitate the two pressure zones. Based on the PRV water model the resulting water pressures within the Porteos water network lie within the acceptable pressure range. Refer to the Porteos Master Utility Report for additional water models and detail information.

The off-site water infrastructure requires the existing 24 inch water transmission line to be constructed to 68th Avenue and Harvest Road from the existing point of connection within 48th Avenue. A 24 inch water transmission line will also be extended east within 56th Avenue to the phase 1 alignment of Jackson Gap Street. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site
The on-site water infrastructure will require a 16 inch water main to be extended from 56th Avenue within the phase 1 Jackson Gap Street alignment to the northerly property boundary of 68th Avenue. A 24 inch transmission main shall also be constructed east within 64th Avenue from Harvest Road to Jackson Gap Street. A 16" water main will be constructed within 60th Avenue from Harvest Road to Jackson Gap Street.

21 PORTEOS PUBLIC IMPROVEMENT PLAN - INFRASTRUCTURE PLANNING AREAS

Porteus :: Framework Development Plan Aurora, Colorado Public Improvements Plan

Sanitary Sewer Improvements

Off-Site

Off-site sanitary sewer infrastructure shall be required as the existing sewer system will need to be brought to the site from the existing gravity point of connection in 48th Avenue. However, since the entire Porteus site is lower in elevation than the existing sewer system a temporary lift station and force main(s) will be required. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site

On-site sewer construction required for Planning Area 'E' will consist of gravity lines including an 15 inch line within 60th Avenue from Jackson Gap Street to Harvest Road. A 10 inch line will also be constructed southerly within Harvest Road from 60th Avenue along PA10a. From the intersection of Harvest Road and 60th Avenue the sewer line will be extended as a 15 inch line to 64th Avenue. This line will then continue as an 18 inch line for the final reach prior to connecting to the temporary lift station near the northwest corner of the site. Additionally, a 10 inch sanitary line will also be required within PA8a and will follow the alignment of the open drainage channel to 64th Avenue. Lastly, an 8 inch line increasing to a 15 inch sewer line will be constructed within 64th Avenue to Harvest Road upon connecting to the 18 inch main within Harvest Road.

PLANNING AREA 'F'-PA12

(Exhibit 7 of 8)

As previously noted Planning Area 'F' was analyzed to determine the minimum required infrastructure necessary to support it independently. However, the actual sequential development of this project shall more than likely be solely determined by market demands. Furthermore, dependent upon market needs, identified planning areas may be combined or partially skipped as needed.

Utility alignments (water, sanitary sewer, storm drainage) are shown in Exhibit 7 for illustrative purposes to identify required infrastructure but are also subject to revisions as additional planning areas are developed. Final water, sanitary sewer, and storm drainage alignments will be provided in the subsequent CSP and construction document submittals. Each planning area shall have two distinct points of access into the Porteus property (described in further detail below) and sufficient roadways to assure emergency vehicle access with sufficient fire hydrants to provide adequate fire flows. On-site roadway geometry (i.e. overall road width, and curb radii), including unpaved sections, will allow for emergency vehicle access. Additionally, each planning area prepared for site development shall also provide adequate access, utility service infrastructure, and ROW dedication as necessary and as required by City of Aurora for review and approval at the time of their submittal processes. It is also expressly understood that the City may be unable to provide fire protection to the property prior to the installation of required emergency access roadways and operable fire hydrants.

property (described in further detail below) and sufficient roadways to assure emergency vehicle access with sufficient fire hydrants to provide adequate fire flows. On-site roadway geometry (i.e. overall road width, and curb radii), including unpaved sections, will allow for emergency vehicle access. Additionally, each planning area prepared for site development shall also provide adequate access, utility service infrastructure, and ROW dedication as necessary and as required by City of Aurora for review and approval at the time of their submittal processes. It is also expressly understood that the City may be unable to provide fire protection to the property prior to the installation of required emergency access roadways and operable fire hydrants.

It is anticipated with this planning area that half roadway sections shall be constructed adjacent to the planning area as necessary to accommodate access locations as well as to satisfy Life Safety and traffic movement requirements. Remaining roadway and utility infrastructure shall be completed as future planning areas are developed. However, as development occurs within Porteus and the surrounding area, unpaved sections may be required to be constructed prior to development of the adjacent planning areas.

Developments adjacent to Porteus will be responsible to complete the remaining half road sections of Harvest Road, 56th Avenue and 68th Avenue. As requested by City of Aurora, planning areas shall adhere to and address within their respective CSP submittals the following requirements: 1) Roadway sections shall terminate with appropriate pavement transitions beyond the end of the constructed section, 2) proposed utility alignments identified within unpaved road sections shall be graded to final subgrade elevations to ensure adequate soil cover and depths, 3) proposed roadway sections, either half or full, will require wet utilities to be installed prior to paving 4) proposed roadway design shall include street lighting, striping and signage 5) the Porteus Traffic Impact Study will need to be reviewed and updated if necessary to ensure proper street sections and movements can be accommodated as planning areas are developed, and 6) on-site four lane collectors are required to be constructed to full roadway sections when on-site traffic volumes reach 13,000 vpd (prior to additional traffic volumes resulting from a new planning area development within Porteus (sidewalks may be omitted until adjacent development occurs).

Land Development

The land development in Planning Area 'G' is approximately 170.7 acres and is located in the central section of the Porteus site and includes land-use parcel PA7 & 9B. Land uses are identified as Industrial and Mixed Commercial, respectively.

The infrastructure requirements necessary for the completion of this planning area include the construction of arterial and collector roadways, a detention/water quality pond, box culverts, open channels, and storm sewer, sanitary sewer and force main, and water transmission lines.

It is anticipated with this planning area that half roadway sections shall be constructed adjacent to the planning area as necessary to accommodate access locations as well as to satisfy Life Safety and traffic movement requirements. Remaining roadway and utility infrastructure shall be completed as future planning areas are developed. However, as development occurs within Porteus and the surrounding area, unpaved sections may be required to be constructed prior to development of the adjacent planning areas.

Developments adjacent to Porteus will be responsible to complete the remaining half road sections of Harvest Road, 56th Avenue and 68th Avenue. As requested by City of Aurora, planning areas shall adhere to and address within their respective CSP submittals the following requirements: 1) Roadway sections shall terminate with appropriate pavement transitions beyond the end of the constructed section, 2) proposed utility alignments identified within unpaved road sections shall be graded to final subgrade elevations to ensure adequate soil cover and depths, 3) proposed roadway sections, either half or full, will require wet utilities to be installed prior to paving 4) proposed roadway design shall include street lighting, striping and signage 5) the Porteus Traffic Impact Study will need to be reviewed and updated if necessary to ensure proper street sections and movements can be accommodated as planning areas are developed, and 6) on-site four lane collectors are required to be constructed to full roadway sections when on-site traffic volumes reach 13,000 vpd (prior to additional traffic volumes resulting from a new planning area development within Porteus (sidewalks may be omitted until adjacent development occurs).

Land Development

The land development in Planning Area 'F' is approximately 211 acres and is located in the southwest corner of the Porteus site and includes land-use parcel PA12. Land use is identified as Mixed Commercial.

The infrastructure requirements necessary for the completion of this planning area include the construction of arterial and collector roadways, a detention/water quality pond, box culverts and storm sewer, sanitary sewer and force main, and water transmission lines.

Roadway Improvements

The following roadways shall be required to support the developments within Planning Area 'F'; however, as previously stated only adjacent half sections will be necessary at this time. Jackson Gap Street, a four lane collector, will be constructed north from 64th Avenue to the T-intersection of 68th Avenue, the common Aurora/Denver and Porteus property boundary. A roadway development agreement has been established with PA12 allowing Jackson Gap to be extended from the common Aurora/Denver and Porteus property boundary and connect to existing Jackson Gap Street within DIA. It should be noted that the Porteus site requires this connection for development of any of the planning areas and is intended to serve as the second point of access.

Roadway Improvements

The following roadways shall be required to support the developments within Planning Area 'G'; however, as previously stated only adjacent half sections will be necessary at this time except for 64th Avenue which will require a full roadway section. Jackson Gap Street, a four lane collector, will be constructed north from 56th Avenue to the T-intersection of 68th Avenue, the common Aurora/Denver and Porteus property boundary. A roadway development agreement has been established with DIA allowing Jackson Gap to be extended from the common Aurora/Denver and Porteus property boundary and connect to existing Jackson Gap Street within DIA. It should be noted that the Porteus site requires this connection for development of any of the planning areas and is intended to serve as the second point of access.

Per discussions with Aurora and DIA this roadway connection and alignment will be finalized at time of initial CSP submittal. Based on initial design parameters and existing topography, it is anticipated minimal drainage improvements would be required. Developed flow rates would continue to follow historical drainage patterns with improvements primarily consisting of roadside ditches and erosion control BMPs.

It is proposed that Jackson Gap Street be constructed off of the quarter section line within the property until the southwest land parcels are developed as part of Planning Area 'D', Exhibit 5 of 8. At that time the south end of Jackson Gap Street would be revised to its final alignment, locating the intersection of 56th Avenue at the eastern line of the southwest quarter section of Section 8. Spacing of the Jackson Gap Street intersections at 56th Avenue (initial and final) shall be designed per the parameters outlined in the "56th Avenue Control Access Plan". Additional roadways to be completed consist of 64th Avenue, a 6 lane arterial, to be constructed as a full section from Jackson Gap Street to Powlath. Powlath, a four lane collector, will also be required from 64th Avenue, north, along the frontage of PA7. Specific to this development, if 56th Avenue and Powlath Roads from 64th Avenue (north) have not yet been constructed from adjacent planning areas the internal PA7 & PA9B roadway layout shall provide the second point of access to the constructed arterial/collector roadways (i.e. based on the acreage size of the land parcels the internal roadway layout is anticipated to provide additional points of connection to Jackson Gap Street, 64th Avenue or Powlath Road as the conceptual land plans are developed). These second points of access shall be evaluated by City of Aurora and Life Safety at the time of site plan processes. Additionally, the continuation of 60th Avenue, a four lane collector, from Jackson Gap Street to Powlath Road along the southern property boundary of Porteus will be evaluated at the time of CSP process. Paving of this roadway, including half section, may be required until agreements between the Porteus development, the adjacent property owner, and City of Aurora have been established. Half roadway sections shall include half of the median curb/gutter (if necessary), flowline curb/gutter and sidewalk per City of Aurora Design and Construction Specifications. As identified in the traffic study, intersections may require full sections with proper transitions to adequately handle the ultimate traffic volumes and turning movements. Additionally, sidewalks will initially be installed adjacent to the developed parcel, however, as the site continues to develop sidewalks may need to extend

Per discussions with Aurora and DIA this roadway connection and alignment will be finalized at time of initial CSP submittal. Based on initial design parameters and existing topography, it is anticipated minimal drainage improvements would be required. Developed flow rates would continue to follow historical drainage patterns with improvements primarily consisting of roadside ditches and erosion control BMPs.

Additional roadways to be completed consist of 64th Avenue, a 6 lane arterial, to be constructed from Jackson Gap Street to the east property boundary of the site. 64th Avenue shall continue to Valley Head Street as a two lane section by others. 56th Avenue, a 6 lane arterial, is also required along the southern property boundary and frontage of land parcel PA12 and Powlath Road, a 6 lane arterial, from 56th Avenue to 64th Avenue. Half roadway sections shall include half of the median curb/gutter (if necessary), flowline curb/gutter and sidewalk per City of Aurora Design and Construction Specifications. As identified in the traffic study, intersections may require full sections with proper transitions to adequately handle the ultimate traffic volumes and turning movements. Additionally, sidewalks will initially be installed adjacent to the developed parcel, however, as the site continues to develop sidewalks may need to extend along undeveloped parcels as necessitated by the City during site plan processes. Completion of the full roadway section will be constructed as adjacent planning areas are developed.

Drainage Improvements

Required drainage improvements include water/quality and detention, open channels, box culverts, and storm sewer. Refer to the "Porteus Harvest Road and 56th Avenue Master Drainage Report" prepared by Martin/Martin Inc., dated June 2012 for specific information.

Water Improvements

Regional

The Porteus site is located within Zone 3 of the City of Aurora water network. As analyzed and determined through water system modeling, the Porteus Development experiences extremely high water pressures within the entire site with pressures in the central and northern land parcels exceeding Aurora Water limits. Per discussions with Aurora Water, the site will need to be served by two water pressure zones. Pressure reducing valves (PRV) have been incorporated within the water model as necessary to facilitate the two pressure zones. Based on the PRV water model the resulting water pressures within the Porteus water network lie within the acceptable pressure range. Refer to the Porteus Master Utility Report for additional water models and detail information.

The off-site water infrastructure requires the existing 24 inch water transmission line to be constructed to 56th Avenue and Harvest Road from the existing point of connection within 48th Avenue. A 24 inch water transmission line will also be extended east within 56th Avenue from Harvest Road to Powlath Road. A 16 inch water main will continue

along undeveloped parcels as necessitated by the City during site plan processes. Completion of the full roadway section will be constructed as adjacent planning areas are developed.

Drainage Improvements

Required drainage improvements include water/quality and detention, open channels, box culverts, and storm sewer. Refer to the "Porteus Harvest Road and 56th Avenue Master Drainage Report" prepared by Martin/Martin Inc., dated June 2012 for specific information.

Water Improvements

Regional

The Porteus site is located within Zone 3 of the City of Aurora water network. As analyzed and determined through water system modeling, the Porteus Development experiences extremely high water pressures within the entire site with pressures in the central and northern land parcels exceeding Aurora Water limits. Per discussions with Aurora Water, the site will need to be served by two water pressure zones. Pressure reducing valves (PRV) have been incorporated within the water model as necessary to facilitate the two pressure zones. Based on the PRV water model the resulting water pressures within the Porteus water network lie within the acceptable pressure range. Refer to the Porteus Master Utility Report for additional water models and detail information.

The off-site water infrastructure requires the existing 24 inch water transmission line to be constructed to 56th Avenue and Harvest Road from the existing point of connection within 48th Avenue. A 24 inch water transmission line will also be extended east within 56th Avenue to the phase 1 alignment of Jackson Gap Street. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site

The on-site water infrastructure will require a 16 inch water main to be extended from 64th Avenue within the phase 1 Jackson Gap Street alignment to 64th Avenue. A 24 inch transmission main will be constructed east within 64th Avenue from Harvest Road to Powlath Road and a 16 inch water main within Powlath Road from 64th Avenue along the frontage of PA7.

within 56th Avenue from Powlath Road to the eastern property boundary. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

The on-site water infrastructure will require the 24 inch transmission main to be constructed north within Powlath Road from 56th Avenue to 64th Avenue, and a 16 inch main from Powlath Road along the frontage of PA 12 within 64th Avenue. To complete a looped system within PA12 a 12 inch water main will need to be extended internal to the planning area from 64th Avenue to 56th Avenue.

Sanitary Sewer Improvements

Off-Site

Off-site sanitary sewer infrastructure shall be required as the existing sewer system will need to be brought to the site from the existing gravity point of connection in 48th Avenue. However, since the entire Porteus site is lower in elevation than the existing sewer system a temporary lift station and force main(s) will be required. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site

On-site sewer construction required for Planning Area 'F' will consist of gravity lines including a 10 inch line increasing to a 15 inch line within Powlath Road from 56th Avenue to 64th Avenue. A 10 inch line will be provided at 56th Avenue for tributary sewer flows from the future off-site basin south of the site. A 10 inch line will be required within 64th Avenue easterly of Powlath Road. From the intersection of Powlath Road and 64th Avenue the sewer line will continue as a 15 inch to Jackson Gap Street. This line will then continue as a 18 inch sewer line within Jackson Gap Street to 68th Avenue upon being up-sized to a 21 inch, for the final reach prior to connecting to the temporary lift station near the northwest corner of the site.

PLANNING AREA 'G'-PA7 & PA9B

(Exhibit 8 of 8)

As previously noted Planning Area 'G' was analyzed to determine the minimum required infrastructure necessary to support it independently. However, the actual sequential development of this project shall more than likely be solely determined by market demands. Furthermore, dependent upon market needs, identified planning areas may be combined or partially skipped as needed.

Utility alignments (water, sanitary sewer, storm drainage) are shown in Exhibit 8 for illustrative purposes to identify required infrastructure but are also subject to revisions as additional planning areas are developed. Final water, sanitary sewer, and storm drainage alignments will be provided in the subsequent CSP and construction document submittals. Each planning area shall have two distinct points of access into the Porteus

Sanitary Sewer Improvements

Off-Site

Off-site sanitary sewer infrastructure shall be required as the existing sewer system will need to be brought to the site from the existing gravity point of connection in 48th Avenue. However, since the entire Porteus site is lower in elevation than the existing sewer system a temporary lift station and force main(s) will be required. Refer to the section above "Public Improvements, Required Off-Site Infrastructure" for additional information.

On-Site

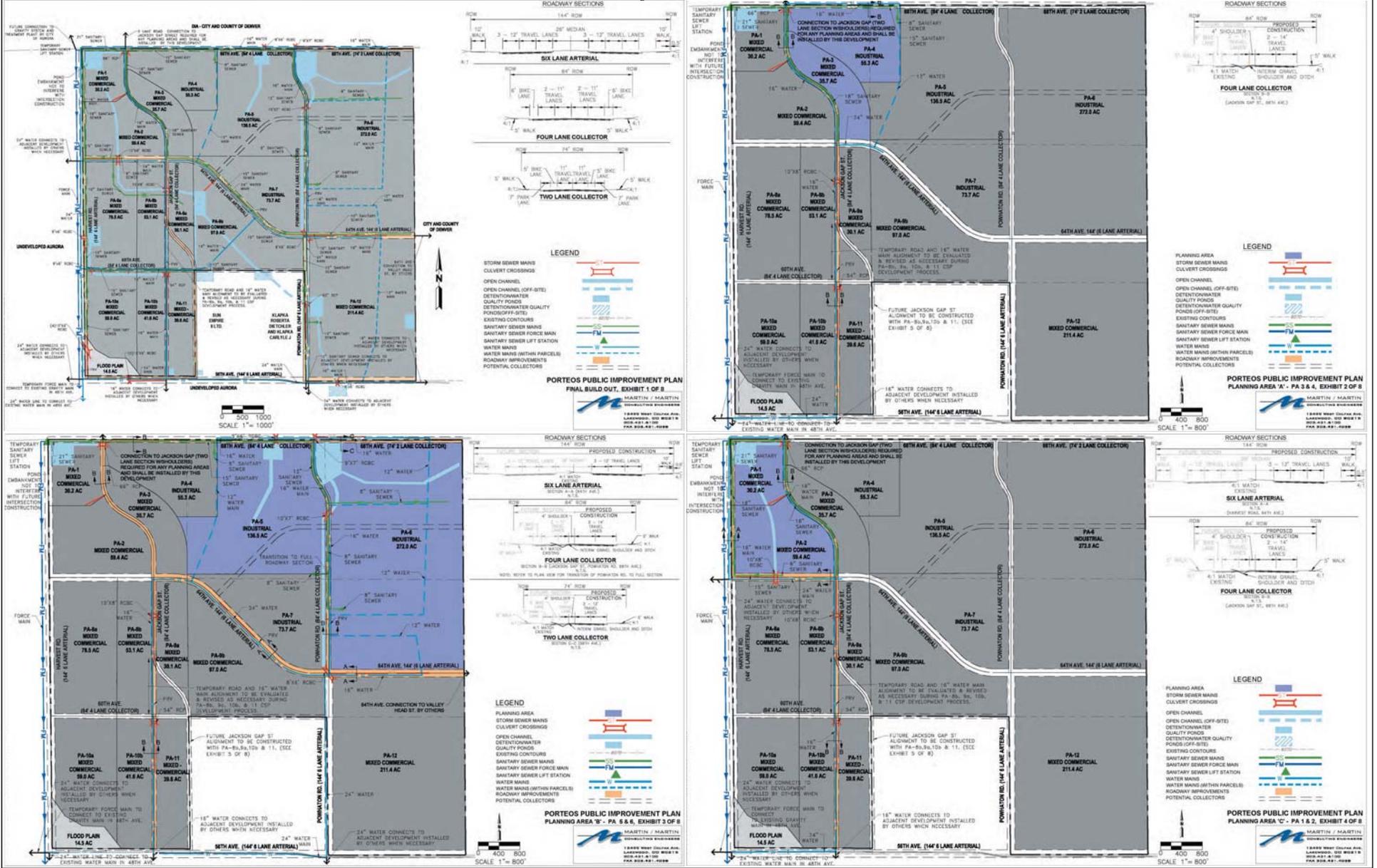
On-site sewer construction required for Planning Area 'G' will consist of gravity lines including a 15 inch line from the intersection of Powlath Road and 64th Avenue to Jackson Gap Street. An 18 inch line will continue within Jackson Gap Street to Harvest Road. From this intersection the line will continue as a 21 inch sewer line to 68th Avenue upon being up-sized to a 24 inch, for the final reach prior to connecting to the temporary lift station near the northwest corner of the site. Additionally, construction of an 8 inch sewer line increasing to a 12 inch within Powlath Road will be required from 64th Avenue to 68th Avenue. This line will then be extended to the west as a 15 inch sewer line within 68th Avenue to Jackson Gap Street upon connecting to the 21 inch line.

It should be noted in order to gravity serve portions of Planning Area 'G' (PA7) as well as Planning Area 'B' and the east side of PA4 portions of the proposed sewer system within 68th Avenue could be extremely deep (approximately 50 ft +/-) as the system traverses thru an existing ridge line. The depth could be reduced if the sewer line was routed within the planning area of PA4 thus allowing the ridge/line to be cut down yet still maintain the existing roadway elevations along 68th Avenue. PA4 could route all flows internally to the northwest corner depending on final site grading. Consequently, however, a parallel line but much deeper would still be required within 68th Avenue at the time of development for Planning Areas 'B' or 'G'. Nonetheless, during the development process of these planning areas the design will need to anticipate the upstream planning areas as well as analyze various other options to determine the final alignment.

CONCLUSIONS

The Master Land Use/Public Improvement report was prepared in order to discuss the relevant issues regarding infrastructure planning for the Porteus Development. As detailed in the above report the Porteus Development is anticipated to be completed within seven identified planning areas. Planning areas are analyzed to determine the minimum infrastructure necessary to support each of them independently while at the same time providing a methodical extension/expansion of the areas to complete the development as a whole.

Porteos :: Framework Development Plan Aurora, Colorado Public Improvements Plan



Porteos :: Framework Development Plan Aurora, Colorado Public Improvements Plan

