

**AGENDA
CITY OF ST. CHARLES
PLANNING & DEVELOPMENT COMMITTEE
ALD. CLIFF CARRIGNAN – CHAIRMAN**

**MONDAY, NOVEMBER 5, 2012 - 7:05 PM
IMMEDIATELY FOLLOWING GOVERNMENT OPERATION MEETING
CITY COUNCIL CHAMBERS
2 E. MAIN STREET**

- 1. CALL TO ORDER**
- 2. ROLL CALL**
- 3. COMMUNITY DEVELOPMENT**
 - a. Recommendation to approve a Map Amendment, Amendment to a Special Use for a Planned Unit Development, and a PUD Preliminary Plan (Corporate Reserve Multi-Family Residential).
- 4. Executive Session**
 - Personnel
 - Pending Litigation
 - Probable or Imminent Litigation
 - Property Acquisition
 - Collective Bargaining
- 5. ADDITIONAL BUSINESS**
- 6. ADJOURNMENT**



AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve a Map Amendment, Amendment to a Special Use for a Planned Unit Development, and a PUD Preliminary Plan (Corporate Reserve Multi-Family Residential Development)
Presenter:	Matthew O'Rourke

Please check appropriate box:

	Government Operations		Government Services
X	Planning & Development - (11/5/12)		City Council
	Public Hearing		

Estimated Cost:	N/A	Budgeted:	YES		NO	
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If NO, please explain how item will be funded:

Executive Summary:

Corporate Reserve Development, LLC. has submitted applications for a proposal to modify Lot 8 of the Corporate Reserve PUD from the approved office use to multi-family rental units. The applicant presented this proposal at the 7/16/12 and 8/13/12 P & D Committee meetings. The proposal includes: 317 multi-family residential units, a fitness center/clubhouse, multiple park and open spaces, and a Housing Trust Fund contribution of \$1,300,000.

Housing Commission Recommendation

At the request of the P&D Committee, the Housing Commission reviewed the proposed \$1,300,000 contribution to the Housing Trust Fund on 10/18/12. The Housing Commission finds the proposed deviation to the Inclusionary Housing Ordinance and proposed contribution amount of \$1,300,000 acceptable. That the Housing Commission further recommends that the developer utilize this contribution to create affordable rental units onsite. For each affordable unit created onsite, the developer would receive a \$104,500 credit to be deducted from the \$1,300,000 contribution. The vote was 5-Aye, 0-Nay, 3-Absent, and 1-Abstain.

Comprehensive Plan Task Force Discussion

At the suggestion of the Committee, the Comprehensive Plan Task Force discussed future land use planning for this property at their meeting on 9/26/12. The general consensus:

- Given the surrounding uses, the site is appropriate for residential, although more office could be included.
- Matching density to the adjacent developments is appropriate, but greater density could be considered if:
 - Traffic and infrastructure issues were adequately analyzed and addressed.
 - The site design had minimal impact on surrounding land uses.

The Task Force did not review or comment on the specific development plan being considered by the Committee.

Plan Commission Recommendation

The Plan Commission held a public hearing on 6/5/12 to discuss the proposal. The Plan Commission recommended approval of the proposal on 6/19/12. The vote was 4-Aye to 3-Nay. The dissenting voters cited the proposed density as the basis for their objection to the proposal.

New Attachments: *(please list)*

Staff Memo, Housing Commission Recommendation; dated 10/24/12; Staff Memo, Comprehensive Plan Task Discussion, dated 10/24/12.

Recommendation / Suggested Action *(briefly explain):*

Recommend approval of an Application for a Map Amendment, an Application for an Amendment to a Special Use, and an Application for a PUD Preliminary Plan contingent upon resolution of any outstanding Staff Comments.

<i>For office use only:</i>	<i>Agenda Item Number: 3a</i>
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STAFF MEMO

TO: Chairman Cliff Carrigan
and Members of the Planning & Development Committee

FROM: Matthew O'Rourke, Planner

RE: Corporate Reserve Multi-Family Development –**Housing Commission Discussion**

DATE: October 24, 2012

I. HOUSING COMMISSION REVIEW

At the recommendation of the Planning & Development Committee, the applicant presented the Corporate Reserve Inclusionary Housing Proposal of a \$1,300,000 Housing Trust Fund Contribution to the Housing Commission on 10/18/12 for an advisory review and feedback. The following summarizes this conversation:

- The Housing Commission discussed the merits of the \$1,300,000 contribution. The Commission discussed whether this amount was sufficient based on the current economic conditions and the lack of an available density bonus.
- There is a general preference for units to be created onsite as opposed to a cash contribution to the Housing Trust Fund.
- The applicant stated that they are willing to provide affordable units onsite.

II. HOUSING COMMISSION RECOMMENDATION

The Housing Commission finds the proposed deviation to the Inclusionary Housing Ordinance and proposed contribution amount of \$1,300,000 acceptable. The Housing Commission further recommends that the developer utilize this contribution to create affordable rental units onsite. For each affordable unit created onsite, the developer would receive a \$104,500 credit to be deducted from the \$1,300,000 contribution.

The \$104,500 amount is that same as the current per-unit fee-in-lieu amount for an affordable unit.

The vote was 5-Aye, 0-Nay, 3-Absent, and 1-Abstain.

Community Development
Planning Division

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ST. CHARLES
SINCE 1834

STAFF MEMO

TO: Chairman Cliff Carrigan
and Members of the Planning & Development Committee

FROM: Russell Colby, Planning Division Manager

RE: Corporate Reserve PUD site – **Comprehensive Plan Task Force Discussion**

DATE: October 24, 2012

At the suggestion of the Planning & Development Committee, the Comprehensive Plan Task Force discussed future land use planning for the Corporate Reserve Lot 8 property at their meeting on September 26, 2012. The following summarizes this conversation:

- The West Gateway area has changed significantly since the property was designated for “Business Enterprise” when the Comprehensive Plan for the area was last updated in 2003. At that time, it was not known how surrounding properties in the area would develop. Specifically:
 - No residential developments were approved or developed on the north side of Main St. between Randall and Peck Roads.
 - Cardinal Industries was still in operation on the Corporate Reserve site.
 - The railroad spur was active in this area.
 - The feasibility of developing what is now Pine Ridge Park was unknown.
- Given the current surrounding residential uses and the proximity to the forest preserve, the Task Force felt that residential would be an appropriate use. More office on the site would be appropriate also, and it could be mixed with residential.
- The Task Force did not reach a clear consensus on an appropriate residential density. The Task Force discussed that matching the density of surrounding developments would be appropriate, but a higher density could be considered if:
 - Traffic and infrastructure issues were adequately analyzed and addressed.
 - The site design had minimal impact on surrounding land uses.
- The Task Force did not discuss a specific residential use type, nor did they give any indication of a preference for single family vs. townhomes vs. apartments. However, the Task Force noted the adjacent residential developments (Remington Glen and Regency Estates) are not yet completed, and there may not be a market for more of a similar development type.
- When considering future land use vs. current market potential for the site, the Task Force did not feel that facilitating immediate development of this site was a priority compared to other sites in the City.
- The Task Force did not review or comment on the specific development plan being considered by the Committee.

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Staff Report

TO: Chairman
 And Members of the Government Operations Committee

FROM: Matthew O'Rourke, AICP
 Planner

RE: Corporate Reserve Planned Unit Development (Multi-Family Residential)

DATE: August 1, 2012

I. APPLICATION INFORMATION:

Project Name: Corporate Reserve Multi-Family Residential Development

Applicant: Corporate Reserve Development, LLC. (Paul Robertson)

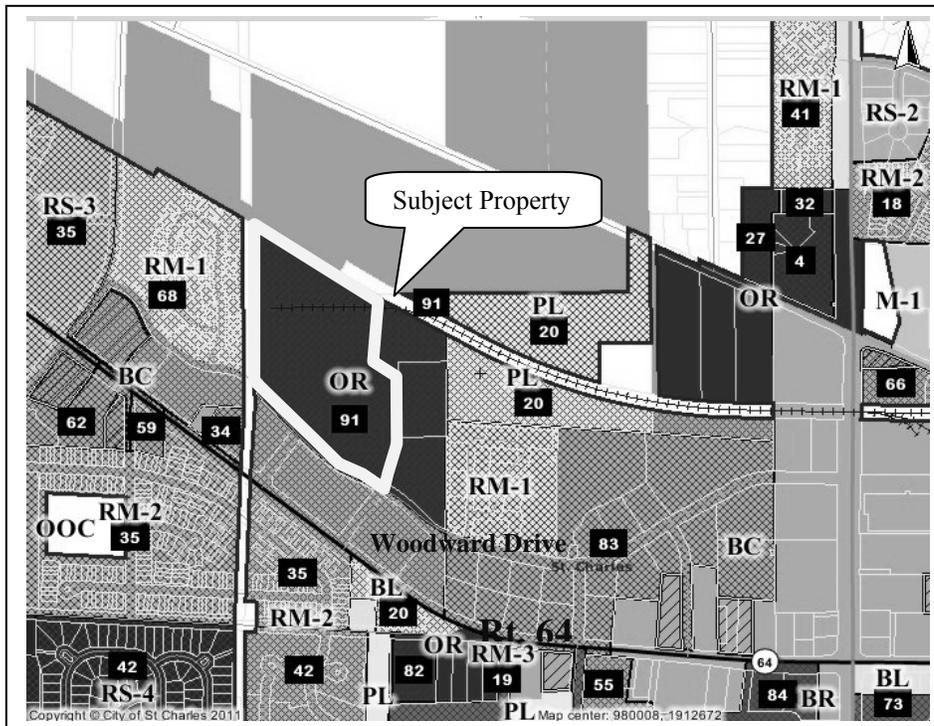
Purpose: Review of Proposed Changes to the approved Planned Unit Development from Office Development to Multi-Family Residential Development

General Information:		
Site Information		
Location	Lot 8 located west of the existing office building and north of Woodward Drive, in the Corporate Reserve Business Park	
Acres 2	2.63	
Applications	1) Amendment to Special Use for a Planned Unit Development 2) Map Amendment 3) PUD Preliminary Plan	
Applicable Zoning Code Sections	17.04.430 Changes in Planned Unit Developments 17.12 Residential Districts Table 17.12-2 Residential District Bulk Requirements	
PUD ORD-2008-Z-18	"An Ordinance Rezoning Property and Granting a Special Use as a Planned Unit Developed for Corporate Reserve of St. Charles PUD (A Portion of the West Gate Property)"	
Existing Conditions		
Land Use	Vacant	
Zoning	OR- Office and Research (PUD)	
Zoning Summary		
North	Unincorporated Kane County/ PL Public Land	Forest Preserve
East	OR- Office and Research (PUD)	Vacant Office Land / Office Buildings
South	BC-Community Business (PUD)	Vacant
West	RM-1 Mixed Medium Density Residential District	Remington Glen Townhomes
Comprehensive Plan Designation		
Business Enterprise		

Aerial Photograph



Surrounding Zoning



II. BACKGROUND:

A. PROJECT HISTORY

In 2008, the Corporate Reserve Business Park was approved by Ordinance 2008-Z-18 “An Ordinance Rezoning Property and Granting a Special Use as a Planned Unit Developed for Corporate Reserve of St. Charles PUD (A Portion of the West Gateway Property)” on the former Cardinal Industries property. The 37.8 acre property was rezoned as follows:

- The portion of the property north of Woodward Drive was zoned OR – Office Research PUD (29.8 acres)
- The portion of the property south of Woodward Drive was zoned BC- Community Business PUD (8.00 acres)

In addition to the rezoning of the entire property, the development of the site was bifurcated into two phases in the following manner:

Phase I

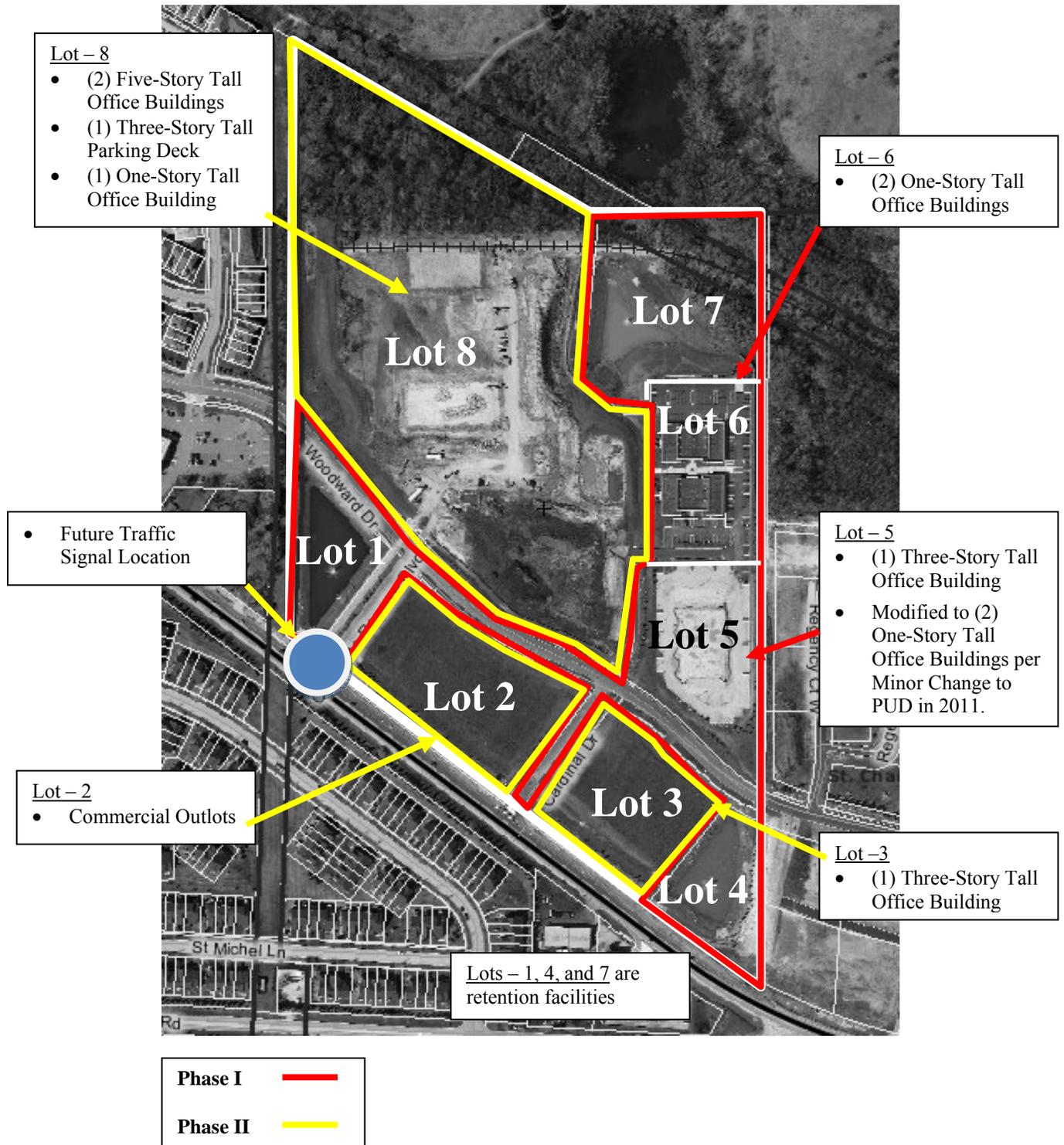
- A preliminary PUD Plan was approved for lots 1, 4, 5, 6, and 7 which included the majority of site infrastructure, retention ponds, and utility work. In Phase I, a combination of one and three-story offices building were approved on lots 5 and 6.
- At this time the 2 one story office buildings on lot 6, Woodward Drive, Corporate Reserve Blvd., and the retention ponds on lots 1, 4, 5, 6, and 7 have been constructed.

Phase II

- Lots 2, 3, and 8 of the site were not included in the PUD Preliminary Plan approval. Phase II included a combination of 2 five-story tall office buildings, 1 one-story office building, 1 three-story office building, 1 three-story parking deck along the western property line, and commercial outlots along Rt. 64.
- The construction of a traffic signal at the intersection of Rt.64 and Corporate Reserve Blvd. and related improvements to Rt. 64 was also contemplated as part of Phase II.

Staff has incorporated an illustration indicating the locations of the phases and lots originally contemplated in the Corporate Reserve development. This illustration also indicates the type of uses planned on those lots.

Original Corporate Reserve Lot Layout and Contemplated Uses



B. CONCEPT PLAN REVIEW

1. Concept Plan Proposal

In the fall of 2011, Corporate Reserve Development, LLC. submitted an Application for a Concept Plan to seek feedback for a potential change to Lot 8 of the Corporate Reserve PUD from the approved office uses to multi-family rental units.

2. Plan Commission and Planning & Development Committee Concept Plan Comments

The Plan Commission held a public meeting on November 8, 2011 and the Planning and Development Committee held a public meeting on November 14, 2011 to discuss the Corporate Reserve multi-family Concept Plan. The following is a bullet point summary of the both the Commission and Committee's comments:

- There was general support for residential use on this portion of the Corporate Reserve property.
- The site layout should be more cohesive and streets should be planned in a regular grid-like pattern.
- The surface parking should be more dispersed and less visually prevalent.
- More open/park space for families and useable open space is needed.
- Preserve views to Leroy Oaks Forest Preserve and the surrounding properties.
- The 60 foot tall height of the proposed 4-story buildings is too tall when compared to the surrounding neighborhoods.
- Building Architecture:
 - Members of the Plan Commission felt that the applicant should consider an architectural style that is more compatible with surrounding developments or representative of the Midwest such as "Prairie Style".
 - Members of the Planning and Development Committee felt that the architecture of the proposed buildings was well designed.
- The proposed buildings should be setback an adequate distance from the Remington Glen development to the west.
- There were concerns stated regarding the number of proposed units.
- There should be a new traffic study to ensure that any traffic generated by the development is properly mitigated.

C. PROPOSAL

Corporate Reserve Development, LLC., represented by Paul Robertson, has submitted applications to modify the approved Special Use for a Planned Unit Development for the Corporate Reserve Business Park. The applicant is proposing to change Lot – 8 (northwest 22.63 acres) of the property to multi-family residential.

The following table details the current proposal and provides a comparison to the fall 2011 Concept Plan:

Development Category	Current Proposal	Concept Plan	Changes from the Concept Plan
Number of Units	317	407	Reduction from 407 to 331 units
Total Number of Multi-Family Buildings	15	14 including two mixed-use buildings	Increase in total multi-family buildings from 14 to 15
Maximum Building Height	45' 60	,	Reduction of all 4-story buildings to 3-story buildings
Off-Street Parking Spaces	526 7	86	Reduction from 786 to 526 off-street parking spaces
Mixed Use Buildings	0 2		Mixed-use buildings no longer proposed
Fitness Club	1 1		Changes to the proposed architecture of the building

Other significant changes/additions to the current proposal from the Concept Plan:

- The site plan layout has been reconfigured to link the buildings with proposed open spaces.
- Greater links have been created between all proposed open and green spaces.
- The layout has been modified to a more grid-like pattern.
- 2 monument development identification signs.
 - 1 is located at the entrance to the development north of Woodward Drive.
 - 1 is located at the intersection of Rt. 64 and Corporate Reserve Blvd.

Staff has attached the Site Plan Submitted with the Concept Plan Application for comparative purposes.

The proposal was discussed during the 7/16/2012 Planning & Development Committee meeting. JCF Real Estate has submitted a letter, received 7/25/2012, proposing the following modifications to the submitted PUD Preliminary Plans:

- The number of units has been reduced from 331 to 317.
 - The two buildings located along the western property line have been reduced to 2 stories tall.
- The amount of contribution to the Housing Trust Fund has been increased from \$50,000 to \$1,300,000.

D. COMPREHENSIVE PLAN

1. Land Use Designation

The current Comprehensive Plan Land Use designation for this property is Business Enterprise. Business Enterprise is defined as follows:

“Business Enterprise. Includes older manufacturing areas in transition and/or in need of rehabilitation. Uses include light assembly, processing or other uses suitable for rehabilitation of the area. The maximum Floor Area Ratio is 0.40.”

2. West Gateway Planning Component

This property is located in the West Gateway – Planning Component 18 subarea of the Chapter 13, Land Use of the Comprehensive Plan. The pertinent 2003 Future Land Use Directions from this component are:

- *Consider development of this area as a unified whole, maintaining the overall average residential density with strong relationships and transitions between different residential neighborhoods.*
- *The macro scale development pattern is retail commercial development along Randall Road; business enterprise, office and fairgrounds use in the next tier; and further west, higher density residential then lower density residential blending into county subdivisions.*
- *Behind the Randall Road frontage property west to the NiGas right of way should be developed for business enterprise uses. Support desired land uses with an interconnected network of streets west of Randall Road.*

3. Regency Estates Approval

In 2006, the City Council approved the Pine Ridge/Regency Estates PUD. The Regency Estates portion of this PUD is a residential development north of Woodward Drive.

It is important to note that the Regency Estates residential portion of that site is also designated as Business Enterprise in the Comprehensive Plan. However, the Staff Report dated 4-8-05, composed at the time of the original project and PUD approval, indicated that the Plan Commission and City Council considered the residential component appropriate during the concept plan review of this PUD. It was further stated that, given the site's unique development challenges, that residential units would act as a catalyst and fuel retail and business enterprise development in this area.

III. ANALYSIS

Staff performed a detailed plan review and analysis of the submitted plans. The following is a description of Staff's analysis:

A. SITE DESIGN

Staff analyzed the proposed plans, dated 5-14-12, to ensure that they comply with the standards listed in **Table 17.12-2 Residential District Bulk Requirements** for the RM-3 General Residential Zoning District. The following table details that review:

ZONING CATEGORY	ZONING ORDINANCE STANDARD (RM-3)		SUBMITTED PLANS
Minimum Lot Area (Acres)	Multi-Family 2,200 Square Feet per Dwelling Unit		3,109 Square Feet per Dwelling Unit
Minimum Lot Width (Feet)	65' 749'		
Maximum Building Coverage	40% 21%		
Setbacks			
Minimum Front Yard Parking and Building Setbacks from Woodward Drive	30' 12'		<i>(variance requested)</i>
Minimum Side Yard Building Setback from West Property Line	25' 25'		
Minimum Side Yard Building Setback from East Property Line	25' 45'		
Minimum Rear Yard Building Setback from North Property Line (Detention Parcel)	30' 10'		(variance requested)
Maximum Building Height	45' 45'		
Required Parking Spaces	Studio	1.2 Spaces per Dwelling Unit	526 Total Spaces Proposed <i>476 Spaces Required</i>
	1 Bed Room	1.2 Spaces per Dwelling Unit	
	2 Bed Room	1.7 Spaces per Dwelling Unit	

Proposed Site Design Variances

The applicant has requested two setback variances as follows:

1. Front Yard setback reduction from 30' to 12'.
2. Rear Yard setback reduction from 30' to 10'.

B. ARCHITECTURE

Staff has reviewed the proposed building elevations for conformance with the design standards stated in **Section 17.06.050 Standards and Guidelines – RM1, RM2, and RM3 Districts**. The following is summary of Staff's review:

- The buildings have been designed to include balconies, dormers, overhangs, and bump-outs to avoid the appearance of blank walls.
- Staff has reviewed the proposed exterior materials with the standards listed in **Section 17.06.050.F.2 Prohibited Materials**. None of the proposed materials indicated on the building elevations are prohibited.
- The building elevations indicate a uniform look and similar rooflines with enough variation to maintain visual interest.

C. LANDSCAPING

Staff reviewed the proposed Landscape Plan, dated 5-16-12, to ensure conformance with the applicable standards of **Chapter 17.26 Landscaping and Screening** of Title 17 the Zoning Ordinance. The following table summarizes that review:

The landscaping shown along Woodward Drive was approved as part of the 2008 Corporate Reserve PUD and has already been installed by the applicant.

1. Apartment Buildings and Overall Site

Category	Zoning Ordinance Standard	Proposed
Required Site Greenspace	20% 41	%
Foundation Landscaping		
<i>Trees</i>	2 per every 50 lineal feet of building wall - (381 Required)	242 <i>(Variance Requested)</i>
<i>Bushes, Shrubs, and perennials</i>	20 per every 50 lineal feet of building wall - (3,807 required)	6,008
Parking Lot Screening	50% of lineal footage from a public street up 30” in height	The appropriate screening has been provided in locations where proposed parking lots abut Woodward Drive.
Parking Lot Greenspace	10% 18	.5%
Interior Parking Lot Trees	168 1	12

2. Club House

Category	Zoning Ordinance Standard	Proposed
Foundation Landscaping		
<i>Trees</i>	2 per every 50 lineal feet of building wall - (19 Required)	39
<i>Bushes, Shrubs, and perennials</i>	20 per every 50 lineal feet of building wall - (189 required)	872

3. Requested Variances

The applicant has requested the following variances to the standards of **Chapter 17.26 Landscaping and Screening**:

1. Reduction in the number of shade trees located in the interior of the proposed off-street parking lot areas from 168 to 112.
 - While there are a reduced number of trees shown in the interior area of the parking lots, there are a total of 366 proposed shade and evergreen trees distributed throughout the parking lot and site. This results in an increase of 198 more trees than required by the Zoning Ordinance.
 - The trees have been distributed throughout the greenspaces and boundaries of the site as opposed to placing them strictly in the interior of the parking lot.
2. Reduction in the number of ornamental, shade, or evergreen trees located around the foundation of the proposed apartment buildings from 381 to 242.
 - To accommodate the lack of required foundation trees, the applicant is proposing to distribute more bushes, shrubs, and perennials throughout the entire site. There are 3,996 bushes, shrubs, and perennials required around the foundations of all buildings in this development. The proposed Landscape Plans indicate that a total of 6,238 bushes, shrubs, and perennials will be distributed throughout the site.

D. SIGNS

The applicant is proposing two monument signs for this development. The design of the proposed signs is consistent with the standards of **Chapter 17.28 Signs**.

E. INCLUSIONARY HOUSING - (REVISED PER MODIFIED PROPOSAL 7/25/2012)

Per the standards established in **Chapter 17.18 Inclusionary Housing**, the applicant is required to provide a total of 15% of the total unit count as affordable units. This would equate to a total of 48 affordable units.

Per **Section 17.18.050 Fee-In-Lieu of Affordable Units**, the applicant has the option to request that 50% of the required units be paid as a fee-in-lieu to the Housing Trust Fund and that 50% of the required units be constructed onsite. Based on the current fee-in-lieu amount of \$104,500 per unit, this would result in a total fee-in-lieu amount of \$2,484,487.50 and the construction of 24 onsite units.

Deviation Request

The applicant is requesting a variance from the provisions of **Chapter 17.18 Inclusionary Housing** to provide zero onsite units as part of the application for an Amendment to the PUD. JCF Real Estate, representing Corporate Reserve Development, LLC., has stated in an **letter dated 7/25/12** that they are able to make a reduced contribution of **\$1,300,000** to the Housing Trust Fund.

F. INFRASTRUCTURE

In order to ensure that adequate facilities exist or will be constructed as part of this development proposal, sanitary sewer capacity and traffic impact studies were conducted. The following is brief explanation of the two studies findings:

1. Sanitary Sewer Capacity Study

Wills, Burke, Kelsey and Associates (WBK) examined the sanitary sewer network to ensure that there is sufficient capacity to convey waste from the proposed development site. WBK examined the sewer pipes, lift stations, and total west side treatment plant facility capacity as part their study. WBK has determined that there is adequate sewer capacity to serve the full build out of the proposed development within the existing system. A draft copy of the study is attached to this memo.

2. Traffic Study

In 2008, when the Corporate Reserve PUD was approved, Hampton, Lenzini, and Renwick (HLR) studied the traffic impacts of the proposed office and retail uses contemplated at that time. That study (dated 1-8-2008) recommended certain improvements to the street network based on the original proposed uses.

HLR was hired to study the traffic impacts of the proposal for multi-family units, and analyze how this change in use would affect the improvements recommended as part of the 2008 Study. A draft of this study dated 5-11-12 is attached to this Memo. The following is a summary of those findings:

- HLR confirmed that the overall improvements contemplated in the 2008 study will be adequate to serve the proposed residential development.
- The proposed change from 490,000 square feet of office space to 331 multi-family units on lot 8 will result in a reduction in the total number of trips generated by the Corporate Reserve development.
- A traffic signal will be warranted at the intersection of Rt. 64 and Corporate Reserve Blvd. once all phases of the development are constructed.
- Additional through lanes in the east and westbound directions should be considered on Rt. 64 at the intersection with Peck Rd. Only a very small portion of the traffic at this intersection (1.8%) can be attributed to the Corporate Reserve proposal.
- The contemplated future traffic signal at Woodward Drive and Randall Road will divert some of the traffic from the proposed development away from Rt. 64 and Peck Rd. Traffic from the Corporate Reserve development will contribute to the justification of this signal.

These improvements will require review and approval from outside government agencies including the Illinois Department of Transportation and the Kane County Department of Transportation. Based on the need for outside agency approval, the timing of these improvements has not yet been determined.

G. SCHOOL AND PARK DISTRICT CONTRIBUTIONS - (REVISED PER MODIFIED PROPOSAL 7/25/2012)

The applicant is proposing to provide both the School and Park Districts with a cash contribution in lieu of physical land per the standards established in **Section 16.32.090 Criteria for requiring a cash contribution in lieu of park and school land of Title 16 Subdivisions and Land Improvement.**

The applicant has submitted a land cash worksheet that indicates the following contributions will be owed to the School and Park Districts:

- Park District - \$1,379,445.47. **(Revised per new unit count-7/25/2012)**
- School District - \$265,159.84. **(Revised per new unit count-7/25/2012)**

H. ANNEXATION AGREEMENT

The property is currently subject to an annexation agreement titled, “Thirteenth Amendment to and Restatement of Annexation Agreement City of St. Charles and West Gateway Property Owners (The Corporate Reserve of St. Charles PUD)” which was an amendment to and restatement of the original West Gateway annexation agreement approved in 1990. This annexation agreement amendment was approved in 2008 to accommodate the office park project.

The applicant’s legal counsel, Rathje – Woodward, LLC. has submitted a letter stating that the current annexation agreement is no longer applicable since the original agreement has exceeded the 20 year time limit as stated in Section 11-15.1 of the Illinois Municipal Code. This item is currently under review by the City’s legal counsel, The Law Offices of Gorski and Good. Based on the advice of legal counsel, the City Council will need to take action to either confirm that the agreement has expired or to direct Staff to work with the applicant to prepare an amendment to the existing agreement to accommodate the proposed residential project. If there are new provisions related to the proposed development that the Council would like to consider, then Staff and legal counsel will

need to evaluate these provisions and determine if they can be accommodated through the PUD amendment or need to be included in an amended annexation agreement.

It should be noted that the majority of the provisions in the annexation agreement were also incorporated into Ordinance 2008-Z-18 “An Ordinance Rezoning Property and Granting a Special Use as a Planned Unit Developed for Corporate Reserve of St. Charles PUD (A Portion of the West Gate Property)”, and will still be in effect even if the annexation agreement is considered expired.

IV. PLAN COMMISSION RECOMMENDATION

The Plan Commission held a public hearing on 6-5-12 to discuss the proposal.

The Plan Commission recommended approval of the proposal on 6-19-12. The vote was 4 AYE to 3 NAY.

The dissenting voters cited the proposed density as the basis for their objection to the proposal.

V. RECOMMENDATION

Recommend approval of the Application for a Map Amendment, the Application for an Amendment to a Special Use, and the Application for a PUD Preliminary Plan contingent upon resolution of any outstanding Staff Comments.

Staff has attached draft Findings of Fact to support this recommendation.

VI. ATTACHMENTS

- Site Plans; BSB Design, Inc. dated 5/14/12.
- Preliminary Engineering Plans; Mackie Consultants, LLC.; dated 5/16/12.
- Landscape Plans; Kinsella Landscape, Inc.; dated 05/16/12.
- Sanitary Sewer Study; Wills, Burke, Kelsey and Associates; dated 4/24/2012.
- Memorandum to Sanitary Sewer Study; Wills, Burke, Kelsey and Associates; dated 5/7/2012.
- Memorandum to Sanitary Sewer Study; Wills, Burke, Kelsey and Associates; dated 5/21/2012.
- Traffic Study; Hampton, Lenzini, and Renwick; dated 7/3/2012.
- Concept Plan Site Plan; BSB Design, Inc.; received 11/14/2011.
- Email from Paul Robertson – Housing Trust Fund Contribution; dated 6/1/12.
- Letter from JCF Real Estate; received 7/25/12.

VII. PROPOSED FINDINGS OF FACT

MAP AMENDMENT TO REZONE PROPERTY FROM OR OFFICE RESEARCH TO RM-3 GENERAL RESIDENTIAL

1. The existing uses and zoning of nearby property.

The subject property is surrounded by a mix of residential, open space, office, and commercial uses. The property to the north is park land and forest preserve. The property to the west is zoned RM-1 Mixed Medium Density and is an attached single-family residential development. The property immediately to the east is a part of the Corporate Reserve Business Park and is zoned OR Office/Research. This property is developed or planned to be developed as office. East of the Corporate Reserve property is the Pine Ridge/Regency Estates development and is zoned a combination of BC- Community Business and RM-1 Mixed Medium Density. The Regency Estates portion (north of Woodward Drive) of this development is being developed as a single-family detached residential development. The properties to the south are zoned as BC- Community Business and BR-Regional Business. These properties are in various stages of commercial/retail development.

The surrounding properties consist of commercial/retail uses located along Rt. 64 and residential uses located north of Woodward Drive.

2. The extent to which property values are diminished by the existing zoning restrictions.

The extent to which the property values are diminished by the existing zoning is not known. The subject property is located in an area west of Randall Road that is currently in transition. There are several approved developments both north and south of Rt. 64 (Pine Ridge Business Park and the Zylstra Development) that are in various stages of completion. However, there has been a lack of sustained commercial and office development for the last several years. Given the amount of available similarly zoned properties, the lack of development activity may diminish the value of this property as currently zoned.

3. The extent to which the reduction of the property's value under the existing zoning restrictions promotes the health, safety, morals or general welfare of the public.

The property is currently graded and ready to be developed, but due to the lack of demand for new office space has remained dormant. Under the existing zoning, the site will continue to have unfinished site improvements, landscape installation, and no permanent structures, until there is greater demand for office uses.

4. The suitability of the property for the purposes for which it is presently zoned, i.e. the feasibility of developing the property for one or more of the uses permitted under the existing zoning classification.

The property is currently zoned OR-Office Research PUD and is part of a development that is specifically approved as an office park. The site is suitable for this use; however, due to the lack of demand for office development in the area, the feasibility of this land developing as office has been significantly diminished.

5. The length of time that the property has been vacant, as presently zoned, considered in the context of the land development in the area where the property is located.

The land was rezoned in 2008 as part of Ordinance 2008-Z-18 “An Ordinance Rezoning Property and Granting a Special Use as a Planned Unit Developed for Corporate Reserve of St. Charles PUD (A Portion of the West Gate Property)” Since that approval the property has remained vacant.

6. The evidence, or lack of evidence, of the community’s need for the uses permitted under the proposed district.

The continued lack of commercial and office development on the subject and surrounding properties highlights the decreased demand for the current permitted uses. The infusion of increased residential units could act as a catalyst to spur development for the adjacent and nearby undeveloped commercial and office properties.

7. The consistency of the proposed amendment with the City’s Comprehensive Plan.

The Comprehensive Plan land use designation for this property is Business Enterprise. This designation is geared towards a mix of light manufacturing, distribution, offices, hospitality, and business services and does not include residential uses.

However, in 2005, The City Council approved the Regency Estates portion of the Pine Ridge /Regency Estates PUD, which is also designated as Business Enterprise by the Comprehensive Plan. At that time, it was stated that residential units would act as a catalyst and fuel retail and business enterprise development along Rt. 64 and Randall Road. Therefore, this amendment will continue this trend by permitting construction of new residential units north of Woodward Drive.

The Comprehensive Plan does not designate this site for residential use; therefore, no density level is specified for this property. The proposed RM-3 Zoning District will permit a density up to a maximum of 19.8 dwelling units per acre. Comprehensive Plan Chapter 13 Land Use, Subsection II, Subsection B, Section Residential Density states that, Most new development should fall within the 10 du/acre limitation. However this section further states, “Exceptions may be made for unique projects which demonstrate a substantial benefit to the Community.” The Comprehensive plan recommends that all such higher density projects should be subject to a Special Use (PUD) so that any impacts on adjoining properties, traffic, utilities, and other factors can be assessed and controlled.

8. Whether the proposed amendment corrects an error or omission in the Zoning Map.

Not Applicable

9. The extent to which the proposed amendment creates nonconformities.

The site is currently vacant; therefore, the proposed amendment will not create any nonconformities.

10. The trend of development, if any, in the general area of the property in question.

The general trend of the adjacent properties is for the location of commercial and office uses along Rt. 64 and residential uses north of Woodward Drive.

AMENDMENT TO SPECIAL USE FOR A PUD ORDINANCE
2008-Z-18 “AN ORDINANCE REZONING PROPERTY AND GRANTING A SPECIAL USE AS
A PLANNED UNIT DEVELOPED FOR CORPORATE RESERVE OF ST. CHARLES PUD
(A PORTION OF THE WEST GATEWAY PROPERTY)”

From the St. Charles Zoning Ordinance, Section 17.04.410.D.3:

The Plan Commission shall not favorably recommend, and the City Council shall not approve, a Special Use for a PUD or an amendment to a Special Use for a PUD unless they each make findings of fact based on the application and the evidence presented at the public hearing that the PUD is in the public interest, based on the following criteria:

i. The proposed PUD advances one or more of the purposes of the Planned Unit Development procedure stated Section 17.04.400.A.

The proposed PUD advances the following purposes stated in Section 17.04.400.A Purposes:

Purpose # 2 states the following, “To create places oriented to the pedestrian that promote physical activity and social interaction, including but not limited to walkable neighborhoods, usable opens space, and recreation facilities for the enjoyment of all.” The proposed multi-family residential development incorporates a variety of greenspaces and clubhouse facility to promote social and physical activity for potential residents. The site plan includes a network of sidewalks and bicycle paths to connect the site to an existing network of bike trails and surrounding properties. This layout will encourage residents to walk or bike to nearby park and open space facilities such as Leroy Oaks, Renaux Manor Park, and James O. Breen Park. This location may also encourage walking to adjacent businesses.

Purposes #3 states the following, “To encourage a harmonious mix of land uses and a variety of housing types and process.” The proposed development encourages the continued development pattern of residential uses north of Woodward Drive. This development will create an additional housing type that does not currently exist west of Randall Road in St. Charles.

ii. The proposed PUD and PUD Preliminary Plans conform to the requirements of the underlying zoning district or districts in which the PUD is located and to the applicable Design Review Standards contained in Chapter 17.06, except where:

a) Conforming to the requirements would inhibit creative design that serves community goals, or

The proposed development does comply with the standards established per the proposed underlying RM-3 General Residential Zoning District except for the following proposed deviations:

Site Plan Design Variances:

1. Front Yard setback reduction from 30’ to 12’.
2. Rear Yard setback reduction from 30’ to 10’.

These variances are being proposed to create a more “grid-like” layout of the proposed multi-family residential buildings. This layout will help facilitate efficient pedestrian and

vehicular traffic flow as well as accommodate larger vehicles such as fire and garbage trucks.

Landscape Variances:

1. Reduction in the number of shade trees located in the interior of the proposed off-street parking lot areas from 168 to 112.
2. Reduction in the number of ornamental, shade, or evergreen trees located around the foundation of the proposed apartment buildings from 381 to 242.

The requested variances will allow a more creative landscape design and result in a greater amount of landscape materials placed throughout the site in a comprehensive manner. Per Chapter 17.26 Landscaping and Screening, the vegetation is required to be concentrated in the interior of the parking lot and around the foundation of the multi-family buildings. The proposed landscape plan indicates that a significantly increased amount of vegetation from 3,996 to 6,238 bushes, shrubs, and perennials is proposed to be spread throughout the entire site. This will enhance the visual aesthetics of the entire site as opposed to just concentrating the landscaping in limited areas.

- b) Conforming to the requirements would be impractical and the proposed PUD will provide benefits that outweigh those that would have been realized by conforming to the applicable requirements.**

Factors listed in Section 17.04.400.B shall be used to justify the relief from requirements.

- 1. The PUD will provide community amenities beyond those required by ordinance, such as recreational facilities, public plazas, gardens, public art, pedestrian and transit facilities.**

The proposed PUD Preliminary plans show a number of internal green and open spaces that can be used for passive recreation. The plan also includes a number of pedestrian and bike path facilities that will connect to the regional park system and Leroy Oaks Forest Preserve.

- 2. The PUD will preserve open space, natural beauty and critical environmental areas in excess of what is required by ordinance or other regulation.**

The site is currently graded and ready for development. 41% of the proposed multi-family residential layout will be dedicated to greenspace. The Zoning Ordinance requires that 20% of the site be dedicated to greenspace.

- 3. To encourage a harmonious mix of land uses and a variety of housing types and prices.**

The proposed multi-family residential uses will continue the surrounding area's land use trend of commercial and office uses being located adjacent to Rt. 64 and residential uses located north of Woodward Drive. The proposed multi-family residential use will create a new type of residential housing than the surrounding residential developments. The proposed use will create an appropriate land use transition from the commercial uses to the south and east with the residential uses to the west.

- 4. The buildings within the PUD offer high quality architectural design.**

The proposed architecture of the multi-family residential and clubhouse buildings is consistent with the requirements established in **Section 17.06.050 Standards and Guidelines – RM1, RM2, and RM3 Districts**. The proposed elevations show a mix of materials and interesting design features.

5. The PUD provides for energy efficient building and site design.

Energy efficiency standards for the buildings have not been identified.

6. The PUD provides of the use of innovative stormwater management techniques.

The PUD Preliminary Plans include a stormwater management system in compliance with City Code requirements.

7. The PUD provides accessible dwelling units in numbers or with features beyond what is required by the Americans with Disabilities Act (ADA).

The proposed buildings will comply with the standards of the Americans with Disabilities Act. The applicant has stated at the public hearing that the required number of accessible units will be provided.

8. The PUD provides affordable dwelling units in conformance with, or in excess of, City policies and ordinances.

The applicant has requested a deviation from the provisions of Chapter 17.18 Inclusionary Housing and will not be providing affordable housing units onsite and will not be paying a fee-in-lieu at the level required by the ordinance.

Instead, the applicant has proposed to contribute \$50,000 to the Housing Trust Fund to support the City of St. Charles' affordable housing efforts.

9. The PUD preserves historic building, sites, or neighborhoods.

Not Applicable

iii. The proposed PUD conforms with the standards applicable to Special Uses (Section 17.04.330.C.2).

a. Public Convenience: The Special Use will serve the public convenience at the proposed location.

A Special Use for a Planned Unit Development is already approved on this site. The proposed amendment will permit the construction of a multi-family residential development.

The addition of new residential units within a close proximity to employment and shopping destinations will create new potential customers for existing business and may foster the development of the surrounding commercial and office properties.

b. Sufficient Infrastructure: That adequate utilities, access roads, drainage and/or necessary facilities have been, or are being, provided;

The utilities and infrastructure already exist on or immediately adjacent to the site. These improvements were constructed as part of the overall Corporate Reserve Planned Unit Development.

As part of this proposal, the impacts to both the surrounding road system and sanitary sewer system have been studied to compare the impacts of the proposed residential use to the approved office uses. Both studies have determined that there are sufficient road and sanitary sewer capacity, existing and planned, to accommodate the proposed residential use.

- c. Effect on Nearby Property: That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood;**

The amendment to the existing Special Use for the PUD will permit the development of multi-family homes as opposed to office buildings and multi-story parking deck structures which could be built to a maximum of five-stories tall. The visual intensity of the proposed use will be less than the use that is currently permitted on this site.

The proposed multi-family residential use will generate a decreased number of peak hour traffic trips when compared to the current permitted uses.

- d. Effect on Development of Surrounding Property: That the establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.**

The surrounding properties are already developed or located within PUDs that contain specific development standards and entitlements. This amendment to the Special Use for a PUD will not affect the orderly development of those properties as they are already developed or entitled to develop. The proposed use will create an appropriate land use transition from the commercial uses to the south and east with the residential uses to the west.

The proposed residential uses will also create an increased number of residents in the area that may help spur the development of the surrounding properties.

- e. Effect on General Welfare: That the establishment, maintenance or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort or general welfare.**

The property is currently graded and ready to be developed, but due to the lack of demand for new office space the site has remained dormant. This amendment to the Special Use for a PUD will provide for the timely development of the site.

- f. Conformance with Codes: That the proposed Special Use conforms to all existing Federal, State and local legislation and regulation and meets or exceeds all applicable provisions of this Title, except as may be varied pursuant to a Special Use for Planned Unit Development.**

This Special Use for a PUD amendment will conform to all applicable regulations with the exception of the variances requested as part of this amendment.

iv. The proposed PUD will be beneficial to the physical development, diversity, tax base and economic well-being of the City.

The office development has remained inactive for three years. The change to permit multi-family units as opposed to office buildings will result in the continued physical development of the site. The modification to the permitted uses will add to the diversity of residential uses west of Randall Road. Continued development of the site will ultimately add to the tax base and economic well-being of the City, as opposed to a vacant property.

v. The proposed PUD conforms to the purposes and intent of the Comprehensive Plan.

The Comprehensive Plan land use designation for this property is Business Enterprise. This designation is geared towards a mix of light manufacturing, distribution, offices, hospitality, and business services and does not include residential uses.

However, in 2005, The City Council approved the Regency Estates portion of the Pine Ridge /Regency Estates PUD, which is also designated as Business Enterprise by the Comprehensive Plan. At that time, it was stated that residential units would act as a catalyst and fuel retail and business enterprise development along Rt. 64 and Randall Road. Therefore, this amendment will continue this trend and further act as a catalyst for commercial development by permitting the construction of new residential units.

The Comprehensive Plan does not designate this site for residential use; therefore, no density level is specified for this property. The proposed RM-3 Zoning District will permit a density up to a maximum of 19.8 dwelling units per acre. Comprehensive Plan Chapter 13 Land Use, Subsection II, Subsection B, Section Residential Density states that, Most new development should fall within the 10 du/acre limitation. However this section further states, “Exceptions may be made for unique projects which demonstrate a substantial benefit to the Community.” The Comprehensive plan recommends that all such higher density projects should be subject to a Special Use (PUD) so that any impacts on adjoining properties, traffic, utilities, and other factors can be assessed and controlled.

The density requested through the Amendment to the Special Use for a Planned Unit Development is 14.62 dwelling units per acre. The traffic and utilities have been studied and it has been determined that there is adequate capacity to serve the proposed development. The proposed residential development is located within close proximity to land uses (park/recreation areas, commercial services, employment centers) and infrastructure (regional arterial roadways – Rt. 64 and Randall Road.) which can support the requested density.



THE CORPORATE RESERVE
OF ST. CHARLES

INSPIRED DISTINCTIVE IMPRESSIVE

The Corporate Reserve of St. Charles
Mixed Use Development

A 50-acre Class A office, apartment and retail development

OFFICE:

Approximately five buildings totaling 105,000-130,000 square feet developed over the next five years. Two single-story office buildings containing 30,000 square feet developed and leased in four years. Two additional single-story buildings and one three-story office building are planned.

MULTIFAMILY:

317-unit Class A modern apartment community to be developed on 20 of the 50 acres.

RETAIL:

Approximately two to three white tablecloth restaurants on parcels fronting on Main Street.

REVISIONS TO APARTMENT APPLICATION:

- Reduction of density from 331 units to 317 units
- Reduction in height of two buildings on west property line from three stories to two stories.
- Increase in Inclusionary Housing payment to \$1.3 million.

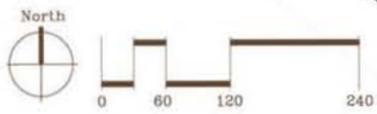
SALIENT POINTS:

- Each use (office, retail and multifamily) drives and complements the others. The apartment construction stimulates demand for the restaurant uses and restarts the office demand that was created with the first two office buildings.
- Office demand for the next 10-20 years will be accommodated with the current and planned office component.
- The apartments provide a high-quality addition to the current housing stock on the west side which retains a segment of the population and their disposable income which would otherwise leave the community.
- Overall, as is shown on the attached site plan, it is a first class mixed use development.

JCF Real Estate, Inc.

1930 Thoreau Drive Suite 175 Schaumburg, IL 60173

tel: 847.348.7800 fax: 847.348.7801 web: www.thecorporatereserve.com



64

CITY OF ST. CHARLES

TWO EAST MAIN STREET
ST. CHARLES, ILLINOIS 60174-1984

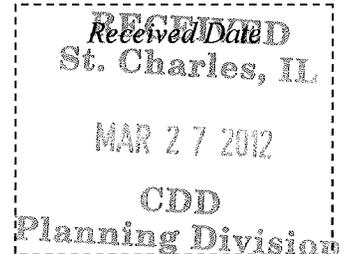


COMMUNITY DEVELOPMENT/PLANNING DIVISION

PHONE: (630) 377-4443 FAX: (630) 377-4062

ZONING MAP AMENDMENT APPLICATION

CITYVIEW	
Project Name:	<u>Corporate Reserve Apartments</u>
Project Number:	<u>2007 -PR- 004</u>
Application Number:	<u>2012 -AP- 008</u>



Instructions:

To request a zoning map amendment (rezoning) for a property, complete this application and submit it with all required attachments to the Planning Division.

City staff will review submittals for completeness and for compliance with applicable requirements prior to establishing a Plan Commission public hearing or meeting date.

The information you provide must be complete and accurate. If you have a question please call the Planning Division and we will be happy to assist you.

1. Property Information:	Parcel Number (s): <u>09-29-326-001</u>	
	Street Address (or common location if no address is assigned): <u>North side of Woodland Drive at Corporate Reserve Boulevard</u>	
2. Applicant Information:	Name: <u>Corporate Reserve Development, LLC</u>	Phone: <u>847 348 7800</u>
	Address: <u>1930 N. Thoreau Drive, Suite 175 Schaumburg IL 60173</u>	Fax: <u>847 348 7800</u>
		Email: <u>P-Robertson@JCPRC.com</u>
3. Record Owner Information:	Name: <u>St. Charles Fairgrounds Office Park Investors LLC</u>	Phone: <u>847 348 7800</u>
	Address: <u>1930 N. Thoreau Drive Suite 175 Schaumburg IL 60173</u>	Fax: <u>847 348 7801</u>
		Email: <u>P-Robertson@JCPRC.com</u>
4. Billing: <i>To whom should costs for this application be billed?</i>	Name: <u>Corporate Reserve Development</u>	Phone: <u>847 348 7800</u>
	Address: <u>1930 N. Thoreau Drive Suite 175 Schaumburg IL 60173</u>	Fax: <u>847 348 7801</u>
		Email: <u>P-Robertson@JCPRC.com</u>

Zoning and Use Information:

Comprehensive Plan Land Use Designation of the property: Business Enterprise

Current zoning of the property: OR-Office Research

Is the property a designated Landmark or in a Historic District? No

Current use of the property: Vacant land

Proposed zoning of the property: Rm-3

Proposed use of the property: Multi-family residential

If the proposed Map Amendment is approved, what improvements or construction are planned? (An accurate site plan may be required to establish that the proposed improvement can meet the minimum zoning requirements)

We plan to develop a 331-unit luxury apartment community on the site. The project will include 15 3-story apartment buildings plus a clubhouse/amenity building.

Attachment Checklist

- APPLICATION:** Completed application form signed by the applicant.
- APPLICATION FEE:** Application fee in accordance with Appendix B of the Zoning Ordinance.
- REIMBURSEMENT OF FEES AGREEMENT:** An original, executed Reimbursement of Fees Agreement and deposit of funds in escrow with the City, as provided by Appendix B of the Zoning Ordinance.
- PROOF OF OWNERSHIP and DISCLOSURE:**
 - a) A current title policy report; or
 - b) A deed and a current title search.

If the owner is not the applicant, an original letter of authorization from the owner permitting the applicant to act on his/her behalf is required. If the owner or applicant is a Trust, a disclosure of all beneficiaries; if the owner or applicant is a Partnership, a disclosure of all partners; if the owner or applicant is a Corporation, a disclosure of all owners with an interest of at least ten percent (10%).

LEGAL DESCRIPTION: For entire subject property, on 8 1/2 x 11 inch paper

PLAT OF SURVEY:
A current plat of survey for the Subject Realty showing all existing improvements on the property, prepared by a registered Illinois Professional Land Surveyor.

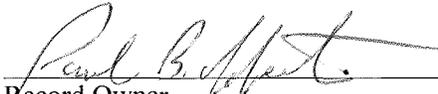
SITE PLAN:
Simple site plan drawn to scale to demonstrate that the property can meet the requirements of the proposed zoning district (parking requirements, setbacks, landscaping, etc.)

SOIL AND WATER CONSERVATION DISTRICT APPLICATION:
Copy of completed Land Use Opinion application as required by state law, as submitted to The Kane-Dupage Soil and Water Conservation District. <http://www.kanedupageswcd.org/>

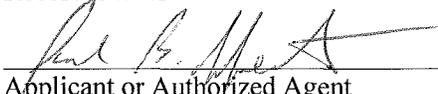
□ **ENDANGERED SPECIES REPORT:**

Copy of Endangered Species Consultation Agency Action to be filed with the Illinois Department of Natural Resources. <http://dnrecocat.state.il.us/ecopublic/>

I (we) certify that this application and the documents submitted with it are true and correct to the best of my (our) knowledge and belief.



Record Owner 03/26/12
Date



Applicant or Authorized Agent 03/26/12
Date

Finding of Fact Sheet – Map Amendment

The St. Charles Zoning Ordinance requires the Plan Commission to consider the factors listed below in making a recommendation to the City Council.

As the Applicant, the “burden of proof” is on you to show how your proposed Special Use will comply with each of the following standards. Therefore, you need to “make your case” by explaining how the following factors support your proposal. If a factor does not apply to the property in question, indicate “not applicable” and explain why it does not apply.

Corporate Reserve Apartments
Ordinance 2008-Z-18

March 26, 2012

From the St. Charles Zoning Ordinance, Section 17.04.320.D:

In making its recommendation to grant or deny an application for a Zoning Map Amendment, including changes to Zoning District and Overlay boundaries, the Plan Commission shall consider:

1. The existing uses and zoning of nearby property. *(Relate the proposed land use and zoning to the land use and zoning of other properties in the area.)*

The proposed residential use is consistent with the residential uses to the east, west and south of the site. Further, the residential use is consistent with the use of the land immediately north which is recreational/forest preserve land.

2. The extent to which property values are diminished by the existing zoning restrictions. *(Compare the value of the subject property to nearby properties under the current zoning to their potential value under the proposed zoning.)*

The current OR – Office/Research zoning allows for commercial buildings similar to some of the available land in Pine Ridge Park immediately east of the subject. The value of commercial land in the area has been significantly compromised by the deep and protracted poor economic conditions. Office land value has been hurt by negative job growth.

3. The extent to which the reduction of the property’s value under the existing zoning restriction promotes the health, safety, morals and general welfare of the public. *(If the existing zoning decreases the value of the subject realty, does it also produce any perceptible public benefits?)*

The current OR – Office/Research zoning does not produce any perceptible public benefits aside from potential future tax base contributions if/when the site is eventually developed for that use.

4. The suitability of the property for the purposes for which it is presently zoned, i.e. the feasibility of developing the property for one or more of the uses permitted under the existing zoning classification. *(Can the subject property reasonably be used for any of the uses currently*

permitted? Physical and market conditions may be considered.)

The market for commercial office space does not support large-scale office development. Rental rates have fallen and bank financing is not readily available so feasibility of new development under the existing zoning is extremely limited. These changes are not forecast to change in the foreseeable future.

5. The length of time that the property has been vacant, as presently zoned, considered in the context of the land development in the area where the property is located. *(If a property has been vacant longer than other similar properties in the area, it may be an indicator that the existing zoning is inappropriate.)*

The subject site has been vacant since the property was zoned OR – Office/Research in May 2008. Properties immediately east and west of the site have experienced construction of residential units since the subject zoning was put in place.

6. The evidence or lack of evidence, of the community's need for the uses permitted under the proposed district. *(Development trends, market forces, and the Comprehensive Plan may be considered.)*

The housing collapse that has been experienced throughout the United States has caused a fundamental shift from owner-occupied housing to the rental housing. Home ownership rates across the country have declined, creating large demand for rental housing. In addition to households who have lost their homes to foreclosure, there are many potential home buyers who are electing to rent until the housing market stabilizes. These elective renters demand modern, Class A apartment properties with abundant amenities. The lack of this product in the housing stock has forced these high quality renters out of St. Charles and into other markets.

7. The consistency of the proposed amendment with the City's Comprehensive Plan.

While the proposed amendment is not consistent with the City's Business Enterprise designation in the Comprehensive Plan, the proposed amendment is consistent with surrounding land uses.

8. Whether the proposed amendment corrects an error or omission in the Zoning Map.

It does not correct an error or omission in the Zoning Map.

9. The extent to which the proposed amendment creates nonconformities. *(Generally, it is not appropriate to rezone a property unless it can comply with the requirements of the new zoning.)*

Several minor nonconformities are being requested as part of the PUD application to allow for land planning and architectural elements that will enhance the overall appearance, functionality

and openspace in the proposed development.

10. The trend of development, if any, in the general area of the property in question. (*New development, redevelopment, changes in use, or other changes in the area may help to justify a change in zoning.*)

Residential construction is currently underway immediately east of the subject site in Regency Estates. Additionally, residential construction has recently been completed in Remington Glen immediately west of the site. In contrast, no new commercial development has been started since 2008 in Pine Ridge Park which fronts Main Street immediately east of the subject.

Plan Commission recommendation shall be based upon the preponderance of evidence presented and the Commission shall not be required to find each Finding of Fact in the affirmative to recommend approval of an application for Map Amendment.

CITY OF ST. CHARLES

Two East Main Street
St. Charles, Illinois, 60174-1984

Community Development/Planning Division

Phone: (630) 377-4443

Fax: (630) 377-4062

Special Use Application

Cityview Project No.:

2007PB004

Cityview Application No.:

2012AP007

Project Name:

Corporate Reserve Apartments

RECEIVED
St. Charles, IL

MAR 27 2012

CDD
Planning Division

Instructions:

To request a Special Use for a property, complete this application and submit it with all required attachments to the Planning Office.

The City staff will review submittals for completeness and for compliance with applicable requirements prior to establishing a Plan Commission public hearing or meeting date.

The information you provide must be complete and accurate. If you have a question please call the Planning Office and we will be happy to assist you.

1. Property Information:	Parcel Number(s): 09-29-326-001	
	Street Address (or common location if no address is assigned) North side of Woodward Drive at Corporate Reserve Boulevard	

2. Applicant Information:	Name: Corporate Reserve Development, LLC	Phone: 847-348-7800
	Address: 1930 N. Thoreau Drive, Suite 175 Schaumburg, IL 60173	Fax: 847-348-7801
		Email: p-robertson@jcfre.com

3. Record Owner Information:	Name: St. Charles Fairgrounds Office Park Investors, LLC	Phone: 847-348-7800
	Address: 1930 N. Thoreau Drive, Suite 175 Schaumburg, IL 60173	Fax: 847-348-7801
		Email: p-robertson@jcfre.com

4. Billing: <i>To whom should costs for this application be billed?</i>	Name: Corporate Reserve Development, LLC	Phone: 847-348-7800
	Address: 1930 N. Thoreau Drive, Suite 175 Schaumburg, IL 60173	Fax: 847-348-7801
		Email: p-robertson@jcfre.com

Information Regarding Proposed Amendment to Special Use:

Comprehensive Plan designation of the property: Business Enterprise

Is the property a designated Landmark or in a Historic District? No

What is the property's current zoning? OR – Office/Research District

What is the property currently used for? Vacant land

What Special Use(s) are you applying for? Please select from the list of Special Uses in the Zoning Ordinance for the appropriate zoning district.

We are proposing to change the underlying zoning of the property to RM3 – General Residential Zoning District.

If the proposed Special Use is approved, what improvements or construction are planned?

We plan to develop a 331-unit luxury apartment community on the site. The project will include 15 3-story apartment buildings (some with additional walk-out level) plus a clubhouse/amenity building for use by residents of the property.

For Special Use Amendments only:

What Special Use ordinance do you want to amend? Ordinance No. 2008-Z-18

Why is the proposed change necessary?

The underlying OR – Office/Research District zoning must be amended to RM3 – General Residential Zoning District to allow for development of multifamily apartment community.

What are the proposed amendments? (Attach proposed language if necessary)

Ordinance No. 2008-Z-18 will be modified to reflect the changes to the underlying zoning.

Note for existing buildings:

If your project involves using an existing building, whether you plan to alter it or not, please contact the St. Charles Fire Department (630-377-4458) and the Building and Zoning Department (630-377-4406) for information on building, life safety and other code requirements. Depending on the proposed use, size of structure and type of construction, these requirements can result in substantial costs.

Attachment Checklist

- APPLICATION:** Completed application form signed by the applicant
- APPLICATION FEE:** Application fee in accordance with Appendix B of the Zoning Ordinance.
- REIMBURSEMENT OF FEES AGREEMENT:** An original, executed Reimbursement of Fees Agreement and deposit of funds in escrow with the City, as provided by Appendix B of the Zoning Ordinance.
- PROOF OF OWNERSHIP and DISCLOSURE:**
 - a) A current title policy report; or
 - b) A deed and a current title search.

If the owner is not the applicant, an original letter of authorization from the owner permitting the applicant to act on his/her behalf is required. If the owner or applicant is a Trust, a disclosure of all beneficiaries; if the owner or applicant is a Partnership, a disclosure of all partners; if the owner or applicant is a Corporation, a disclosure of all owners with an interest of at least ten percent (10%).

- LEGAL DESCRIPTION:** For entire subject property, on 8 1/2 x 11 inch paper
- PLAT OF SURVEY:**

A current plat of survey for the Subject Realty showing all existing improvements on the property, prepared by a registered Illinois Professional Land Surveyor.

- SOIL AND WATER CONSERVATION DISTRICT APPLICATION:**

Copy of completed Land Use Opinion application as required by state law, as submitted to The Kane-Dupage Soil and Water Conservation District. <http://www.kanedupageswcd.org/>

- ENDANGERED SPECIES REPORT:**

Copy of Endangered Species Consultation Agency Action to be filed with the Illinois Department of Natural Resources. <http://dnrecocat.state.il.us/ecopublic/>

- TRAFFIC STUDY:** If requested by the Director of Community Development.
- PLANS:**

All required plans shall be drawn on sheets no larger than 24" x 36", unless the Director of Community Development permits a larger size when necessary to show a more comprehensive view of the project. All required plans shall show north arrow and scale, and shall be drawn at the same scale (except that a different scale may be used to show details or specific features). All plans shall include the name of the project, developer or owner of site, person or firm preparing the plan, and the date of plan preparation and all revisions.

Copies of Plans:

- Initial Submittal - Fifteen (15) full size copies, Three (3) 11" by 17", and a PDF electronic file on a CD-ROM.

- Revision Submittal for Plan Commission - Twenty-Two (22) full size copies, Three (3) 11" by 17" and a PDF electronic file on a CD-ROM

□

□ **SITE PLAN (Note: For a Special Use for PUD, submit PUD Preliminary Plan Application in lieu of Site Plan)**

A plan or plans showing the following information:

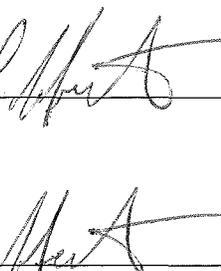
1. Accurate boundary lines with dimensions
2. Streets on and adjacent to the tract: Name and right-of-way width
3. Location, size, shape, height, and use of existing and proposed structures
4. Location and description of streets, sidewalks, and fences
5. Surrounding land uses
6. Date, north point, and scale
7. Ground elevation contour lines
8. Building/use setback lines
9. Location of any significant natural features
10. Location of any 100-year recurrence interval floodplain and floodway boundaries
11. Location and classification of wetland areas as delineated in the National Wetlands Inventory
12. Existing zoning classification of property
13. Existing and proposed land use
14. Area of property in square feet and acres
15. Proposed off-street parking and loading areas
17. Angle of parking spaces
18. Parking space dimensions and aisle widths
19. Driveway radii at the street curb line
20. Width of driveways at sidewalk and street curb line
21. Provision of handicapped parking spaces
22. Dimensions of handicapped parking spaces
23. Depressed ramps available to handicapped parking spaces
24. Location, dimensions and elevations of freestanding signs
25. Location and elevations of trash enclosures
26. Provision for required screening, if applicable
27. Exterior lighting plans showing:
 - a. Location, height, intensity and fixture type of all proposed exterior lighting
 - b. Photometric information pertaining to locations of proposed lighting fixture Number of parking spaces provided, and number required by ordinance

I (we) certify that this application and the documents submitted with it are true and correct to the best of my (our) knowledge and belief.



Record Owner

03/26/12
Date



Applicant or Authorized Agent

03/26/12
Date

Finding of Fact Sheet – Special Use

The St. Charles Zoning Ordinance requires the Plan Commission to consider the factors listed below in making a recommendation to the City Council.

As the Applicant, the “burden of proof” is on you to show how your proposed Special Use will comply with each of the following standards. Therefore, you need to “make your case” by explaining specifically how your project meets each of the following standards.

Corporate Reserve Apartments Ordinance 2008-Z-18

March 26, 2012

- A. Public Convenience: The Special Use will serve the public convenience at the proposed location;

The proposed Special Use will allow for the development of a modern, Class A multifamily rental residential community. This property type is not currently available and will add to the housing stock of St. Charles. Fundamental shifts in the housing market have created significant unmet demand for high quality rental housing. Further, the proposed special use will add to the growth on the dynamic west side of St. Charles where significant commercial development has occurred.

The development will generate significant real estate and sales tax revenue without adding a material burden to city services.

- B. Sufficient Infrastructure: That adequate utilities, access roads, drainage and/or necessary facilities have been, or are being, provided;

Roadway improvements have already been completed as part of the Corporate Reserve to further enhance traffic flow on SRA Route 64. Further, we have already completed the connection of Woodward Drive from its former termini on the east and west of the site which now provides an alternative to travel on Main Street.

Sanitary sewer, storm sewer, water and electric capacities have all been designed in anticipation of the development of this site. Connection points to all utilities have been provided in proximity to the subject site. The stormwater management systems have been designed to provide adequate capacity for the site and all existing flow from adjacent sites.

- C. Effect on Nearby Property: That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood;

The proposed Special Use will enhance the surrounding properties by blending with the existing residential developments to the west, east and south of the property. The high quality of the development will enhance the value of properties within the neighborhood.

- D. Effect on Development of Surrounding Property: That the establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

The proposed Special Use will enhance the development of surrounding properties by adding to the housing stock. The rental nature of the Special Use will not compete with existing for sale product and will enhance the value by providing a complimentary residential use.

- E. Effect on General Welfare: That the establishment, maintenance or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort or general welfare.

The Special Use will not be detrimental to or endanger the public health, safety, comfort or general welfare of the citizens of St. Charles. The Special Use will allow the property to serve as an asset to the community and will generate substantial revenue for the City's use. The high quality of the product will attract citizens interested in renting in St. Charles who currently do not have a modern, Class A alternative. The property will be attractive to a wide range of residents.

- F. Conformance with Codes: That the proposed Special Use conforms to all existing Federal, State and local legislation and regulation and meets or exceeds all applicable provisions of this Title, except as may be varied pursuant to a Special Use for Planned Unit Development.

The Special Use conforms to all existing Federal, State and local legislation and regulation. In addition, the Special Use exceeds the applicable Design Review Standards by incorporating substantial open space and natural features into the site plan to create an environment for the aesthetically pleasing architecture of the buildings. Particular attention has been paid to outdoor features such as bike/walking paths, picnic areas, ponds, water features and open space. Abundant landscaping will further enhance the natural environment. Buildings will be designed and constructed to Class A standards and will feature interesting and varied architecture with common design elements and harmonious materials and colors.

Finding of Fact Sheet – Special Use for a Planned Unit Development

- *The law requires that before the City can approve a Special Use for a Planned Unit Development, it must state “findings of fact” which show that the proposed Special Use for a Planned Unit Development will meet the following standards of the Zoning Code.*
- *As the Applicant, the “burden of proof” is on you to show how your proposed Special Use will comply with each of the following standards. Therefore, you need to “make your case” by explaining specifically how your project meets each of the following standards.*

Corporate Reserve Apartments
Ordinance 2008-Z-18

March 26, 2012

From the St. Charles Zoning Ordinance, Section 17.04.410.3:

The Plan Commission shall not favorably recommend, and the City Council shall not approve, a Special Use for a PUD or an amendment to a Special Use for a PUD unless they each make findings of fact based on the application and the evidence presented at the public hearing that the PUD is in the public interest, based on the following criteria:

- i. The proposed PUD advances one or more of the purposes of the Planned Unit Development procedure stated in Section 17.04.400A:
 1. To promote a creative approach to site improvements and building design that result in a distinctive, attractive development that has a strong sense of place, yet becomes an integral part of the community.

The proposed PUD will create a housing type not currently provided in the residential housing stock. The proposed luxury rental community will feature abundant modern amenities that provide entertainment, social, recreational and physical fitness opportunities to the residents of the complex. The architecture and site plan create a community feel for the project while ample biking and walking paths will provide connectivity to The Great Western Trail and the adjacent LeRoy Oaks forest preserve. The location on Main Street, proximate to the growing Randall Road corridor, makes the PUD and the use appropriate for this site.

2. To create places oriented to the pedestrian that promote physical activity and social interaction, including but not limited to walkable neighborhoods, usable open space and recreational facilities for the enjoyment of all.

Sidewalks and bike paths located throughout the property provide great opportunities to the residents to be physically active outdoors on the site. Further, the property is directly connected to The Great Western Trail which is part of a tremendous regional recreation network. The clubhouse will include an indoor fitness center with numerous pieces of exercise equipment and a

social room with televisions and internet access. There will be an outdoor pool and social gathering area adjacent to the clubhouse. The site will also include “pocket parks” and open greenspace scattered throughout the property.

3. To encourage a harmonious mix of land uses and a variety of housing types and prices.

The proposed multifamily use is consistent with surrounding multifamily residential properties to the east, west and south of the subject. The proposed development will offer renters an array of modern amenities not currently available in the growing and dynamic west side.

4. To preserve native vegetation, topographic and geological features, and environmentally sensitive areas.

The PUD incorporates the potential sensitive wetlands and their buffer areas as undisturbed open space. This will allow these areas to continue to benefit the natural environment. The site plan follows the current sloping topography with grading to satisfy engineering requirements.

5. To promote the economical development and efficient use of land, utilities, street improvements, drainage facilities, structures and other facilities.

The proposed development will utilize infrastructure improvements that were completed in previous phases of The Corporate Reserve in anticipation of construction on this site. Further, the development will provide construction jobs and ongoing property operation positions and will contribute to the tax base of the community.

6. To encourage redevelopment of sites containing obsolete or inappropriate buildings or uses.

The proposed improvements will replace the obsolete industrial building which was demolished in a previous phase of this project. The proposed multifamily use is more consistent with the adjacent uses than the previous manufacturing/industrial building that formerly occupied the site.

7. To encourage a collaborative process among developers, neighboring property owners and residents, governmental bodies and the community.

The proposed site plan is the result of numerous meetings with the City, public hearings with governmental leaders and meetings with surrounding property owners. This iterative process has incorporated the feedback from all stakeholders associated with the PUD.

- ii. The proposed PUD and PUD Preliminary Plans conform to the requirements of the underlying zoning district or districts in which the PUD is located and to the applicable Design Review Standards contained in Chapter 17.06 except where:

- A. Conforming to the requirements would inhibit creative design that serves community goals, or
- B. Conforming to the requirements would be impractical and the proposed PUD will provide benefits that outweigh those that would have been realized by conforming to the applicable requirements.

Factors listed in Section 17.04.400.B shall be used to justify the relief from requirements:

1. The PUD will provide community amenities beyond those required by ordinance, such as recreational facilities, public plazas, gardens, public area, pedestrian and transit facilities.
2. The PUD will preserve open space, natural beauty and critical environmental areas in excess of what is required by ordinance or other regulation.
3. The PUD will provide superior landscaping, buffering or screening.
4. The buildings within the PUD offer high quality architectural design.
5. The PUD provides for energy efficient building and site design.
6. The PUD provides for the use of innovative stormwater management techniques.
7. The PUD provides accessible dwelling units in numbers or features beyond what is required by the Americans with Disabilities Act (ADA) or other applicable codes.
8. The PUD provides affordable dwelling units in conformance with, or in excess of, City policies and ordinances.
9. The PUD preserves historic buildings, sites or neighborhoods.

Three variances to the proposed RM-3 residential are being requested. The first relates to interior side yard and rear yard setbacks. The buildings located adjacent to neighboring properties all conform to the setback requirements of the underlying zoning. There are a few incidents where building internal to the site do not conform. The rear yards on the north buildings are smaller due to the legal subdivision of the stormwater pond that is being done to facilitate transfer of the pond to the existing property owner association that owns all of the stormwater facilities. Also, an interior side yard setback is smaller than required where the buildings are angled in order to maximize the park/greenspace.

A second variance relates to building height of buildings of 47 feet 6 inches versus the RM-3 maximum of 45 feet. The additional height allows for a roof pitch that is harmonious with the architecture of the buildings. This was done for aesthetic reasons.

A third variance relates to the landscape requirement for trees around the buildings. The eight driveways that occupy a portion of one of the sides of the building limit the ability to plant trees in these areas. To address this deficiency, we have designed more than the required number of trees throughout the site so that while the requirement for individual buildings may not meet the code, the overall site exceeds the code.

- iii. The proposed PUD conforms with the standards applicable to Special Uses (section 17.04.330.C.2).

Submit responses on form: "Findings of Fact Sheet – Special Use"

- iv. The proposed PUD will be beneficial to the physical development, diversity, tax base and economic well-being of the City.

The proposed PUD will be beneficial to the physical development of St. Charles by creating a high quality luxury apartment community offering abundant open space, superior architectural design and modern amenities not currently available in the market. This development will contribute to the housing stock of the City by offering prospective residents a high quality rental product on the growing west side. Fundamental shifts in the housing market in St. Charles and the United States have created unsatisfied demand for modern, class A apartments.

The real estate taxes immediately generated by the proposed multifamily development will greatly exceed those that would otherwise be generated by the protracted development of the site as office use. Initial projections of the full buildout of the property as office space have been greatly extended by the economic realities of the last 4 years. This project offers economic activity on a site that would otherwise likely stay vacant for years to come. In addition, the City will benefit from increased daytime and nighttime population and the attendant spending at local restaurants and businesses.

- v. The proposed PUD conforms to the intent of the Comprehensive Plan.

The property is designated as Business Enterprise in the current St. Charles Comprehensive Plan. The proposed underlying zoning of RM-3 is consistent with adjacent land uses.

CITY OF ST. CHARLES

Two East Main Street
St. Charles, Illinois, 60174-1984

Community Development/Planning Division Phone: (630) 377-4443 Fax: (630) 377-4062

PUD Preliminary Plan Application

Cityview Project No.: 2007 PH004
 Cityview Application No.: 2012 AP006
 Project Name: Corporate Reserve Apartments

Received Date
RECEIVED
 St. Charles, IL

 MAR 27 2012

CDD
Planning Division

Instructions:

To request approval of a PUD Preliminary Plan, complete this application and submit it with all required plans and attachments to the Planning Division. Normally this application will track with an application for a Special Use for a PUD, unless a Special Use for a PUD has previously been granted and no amendment is necessary.

When the application is complete staff will distribute the plans to other City departments for review. When the staff has determined that the plans are ready for Plan Commission review, we will place the PUD Preliminary Plan on a Plan Commission meeting agenda..

The information you provide must be complete and accurate. If you have a question please call the Planning Division and we will be happy to assist you.

1. Property Information:	Parcel Number(s): 09-29-326-001	
	Street Address (or common location if no address is assigned) North side of Woodward Drive at Corporate Reserve Boulevard	
2. Applicant Information:	Name: Corporate Reserve Development, LLC	Phone: 847-348-7800
	Address: 1930 N. Thoreau Drive, Suite 175 Schaumburg, IL 60173	Fax: 847-348-7801
		Email: p-robertson@jcfre.com
3. Record Owner Information:	Name: St. Charles Fairgrounds Office Park Investors, LLC	Phone: 847-348-7800
	Address: 1930 N. Thoreau Drive, Suite 175 Schaumburg, IL 60173	Fax: 847-348-7801
		Email: p-robertson@jcfre.com
4. Billing: <i>To whom should</i>	Name: Corporate Reserve Development, LLC	Phone: 847-348-7800

<i>costs for this application be billed?</i>	Address: 1930 N. Thoreau Drive, Suite 175 Schaumburg, IL60173	Fax: 847-348-7801
		Email: p-robertson@jcfre.com

Attachment Checklist

Note: The City Staff, Plan Commission, or City Council, may request other pertinent information during the review process.

- Application:** Completed application form signed by the applicant
- Application Fee:** Application fee in accordance with Appendix B of the Zoning Ordinance.
- Reimbursement of Fees Agreement:**
An original, executed Reimbursement of Fees Agreement and deposit of funds with the City, as provided by Exhibit B of the Zoning Ordinance.
- Proof of Ownership and Disclosure:**
 1. A current title policy report; or
 2. A deed and a current title search.

If the owner is not the applicant, an original letter of authorization from the owner permitting the applicant to act on his/her behalf is required. If the owner or applicant is a Trust, a disclosure of all beneficiaries; if the owner or applicant is a partnership, a disclosure of all partners; if the owner or applicant is a Corporation, a disclosure of all owners with an interest of at least ten percent (10%).

- Legal Description:** For entire subject property, on 8 ½ x 11 inch paper.
- Plat of Survey:**

A current plat of survey for the Subject Realty showing all existing improvements on the property, prepared by an Illinois Registered Land Surveyor.
- Soil and Water Conservation District Application:**

Copy of completed Land Use Opinion application as required by state law, as submitted to The Kane-Dupage Soil and Water Conservation District. <http://www.kanedupageswcd.org/>
- Endangered Species Assessment:**

Copy of the Endangered Species Consultation Agency Action to be filed with the Illinois Department of Natural resources. <http://dnecocat.state.il.us/ecopublic/>
- Plans:**

All required plans shall be drawn on sheets no larger than 24” x 36”, unless the Director of Community Development permits a larger size when necessary to show a more comprehensive

view of the project. All required plans shall show north arrow and scale, and shall be drawn at the same scale (except that different scale may be used to show details or specific features). All plans shall include the name of the project, developer or owner of the site, person or firm preparing the plan, and the date of plan preparation and all revisions.

Initial submittal for staff review shall be eight (8) full size sets of plans, one 11" x 17" reduction and a pdf file. Submittal for Plan Commission review shall be twenty-four (24) full size sets of plans, one 11" x 17" reduction and a pdf document file. Twenty-four (24) copies of all sheets printed in color shall be required, regardless of their size.

Site/Engineering Plan:

A plan or plans showing the following information:

1. Accurate boundary lines with dimensions
2. Existing and proposed easements: location, width, purpose
3. Streets on and adjacent to the tract: Name and right-of-way width, center line elevation, and culverts
4. Location, size, shape, height, and use of existing and proposed structures
5. Location and description of streets, sidewalks, and fences
6. Surrounding land uses
7. Legal and common description
8. Date, north point, and scale
9. Existing and proposed topography
10. All parcels of land intended to be dedicated for public use or reserved for the use of all property owners with the proposal indicated
11. Location of utilities
12. Building/Use setback lines
13. Location of any significant natural features
14. Location of any 100-year recurrence interval floodplain and floodway boundaries
15. Location and classification of wetland areas as delineated in the National Wetlands Inventory
16. Existing zoning classification of property
17. Existing and proposed land use
18. Area of property in square feet and acres
19. Proposed off-street parking and loading areas
20. Number of parking spaces provided and number required by ordinance
21. Angle of parking spaces
22. Parking space dimensions and aisle widths
23. Driveway radii at the street curb line
24. Width of driveways at sidewalk and street curb line
25. Provision of handicapped parking spaces
26. Dimensions of handicapped parking spaces
27. Depressed ramps available to handicapped parking spaces
28. Location, dimensions and elevations of freestanding signs
29. Location and elevation of trash enclosures
30. Provision for required screening, if applicable
31. Provision for required public sidewalks
32. Certification of site plan by a registered land surveyor or professional engineer
33. Geometric plan showing all necessary geometric data required for accurate layout of the site
34. Grading plans showing paving design, all storm sewers, and detention/retention facilities (including detention/retention calculations) and erosion control measures

35. Utility plans showing all storm sewers, sanitary sewers, watermains, and appropriate appurtenant structures
36. Exterior lighting plans showing:
 - Location, height, intensity and fixture type of all proposed exterior lighting
 - Photometric information pertaining to locations of proposed lighting fixtures
37. Typical construction details and specifications
38. Certification of site engineering plans by a registered professional engineer
39. Proof of application of Stormwater Management Permit

Sketch Plan for Later Phases of PUD:

For phased PUD's, where a sketch plan is permitted, it shall include, at minimum, the following:

1. General location of arterial and collector street
2. Location of any required landscape buffers
3. Location of proposed access to the site from public streets
4. Maximum number of square feet of floor area for nonresidential development
5. Maximum number of dwelling units for residential development
6. Open space and storm water management land

Architectural Plans:

Architectural plans and data for all principal buildings shall be submitted in sufficient detail to permit an understanding of the exterior appearance and architectural style of the proposed buildings, the number, size and type of dwelling units, the proposed uses of nonresidential and mixed use buildings, total floor area and total building coverage of each building.

Tree Preservation Plan:

Tree Preservation Plan when required in accordance with Chapter 8.30 of the St. Charles Municipal Code. The information required for this plan may be included as part of the Landscape Plan set.

Landscape Plan:

Landscape Plan showing the following information:

- Delineation of the buildings, structures, and paved surfaces situated on the site and/or contemplated to be built thereon
- Delineation of all areas to be graded and limits of land disturbance, including proposed contours as shown on the Site/Engineering Plan
- Accurate property boundary lines
- Accurate location of proposed structures and other improvements, including paved areas, berms, lights, retention and detention areas, and landscaping
- Site area proposed to be landscaped in square feet and as a percentage of the total site area
- Percent of landscaped area provided as per code requirements
- Dimensions of landscape islands
- Setbacks of proposed impervious surfaces from property lines, street rights-of-way, and private drives
- Location and identification of all planting beds and plant materials

- Planting list including species of all plants, installation size (caliper, height, or spread as appropriate) and quantity of plant species
- Landscaping of ground signs and screening of dumpsters and other equipment

Public Benefits, Departures From Code:

A description of how the PUD meets the purposes and requirements set out in Section 17.04.400 of the Zoning Ordinance. Any requests for departures from the requirements of Title 16, "Subdivisions and Land Improvement," and Title 17, "Zoning," shall be listed and reasons for requesting each departure shall be given.

Three variances to the proposed RM-3 residential are being requested. The first relates to interior side yard and rear yard setbacks. The buildings located adjacent to neighboring properties all conform to the setback requirements of the underlying zoning. There are a few incidents where building internal to the site do not conform. The rear yards on the north buildings are smaller due to the legal subdivision of the stormwater pond that is being done to facilitate transfer of the pond to the existing property owner association that owns all of the stormwater facilities. Also, an interior side yard setback is smaller than required where the buildings are angled in order to maximize the park/greenspace.

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Schedule: Construction schedule indicating:

- a. Phases in which the project will be built with emphasis on area, density, use and public facilities, such as open space, to be developed with each phase. Overall design of each phase shall be shown on the plat and through supporting material.

The site is currently mass graded so sitework/underground improvements can begin upon approval of final engineering drawings. Vertical construction will begin with the clubhouse and the three buildings to the north of the clubhouse. Construction will proceed in a general north-to-south direction, building from the rear of the site toward the front.

- b. Approximate dates for beginning and completion of each phase.

Construction will begin immediately upon receipt of zoning and engineering approval. Assuming three months to secure zoning approval, we would begin sitework improvements on July 1 and vertical improvements October 1. Vertical construction will begin with the clubhouse and three apartment buildings and will continue with each apartment building in sequence. Total construction scheduled to take 24 to 30 months.

c. If different land use types are to be included within the PUD, the schedule must include the mix of uses to be built in each phase.

Inclusionary Housing Summary: For residential developments, submit information describing how the development will comply with the requirements of Chapter 17.18, Inclusionary Housing, including:

- The number and rental/for sale status of Market-Rate Units and Affordable Units to be constructed including type of dwelling, number of bedrooms per unit, proposed pricing, and construction schedule, including anticipated timing of issuance of building permits and occupancy certificates.
- Documentation and plans regarding locations of Affordable units and Market-Rate units, and their exterior appearance, materials, and finishes.
- A description of the marketing plan that the Applicant proposes to utilize and implement to promote sale or rental of the Affordable Units within the development; and,
- Any proposal to pay fees in lieu of providing the required Affordable Unit, per section 17.18.050.

Based on feedback obtained from neighboring property owners and elected officials during the Concept Plan review process, we will not be complying with the Inclusionary Housing Ordinance.

Subdivision Preliminary Plan Checklist:

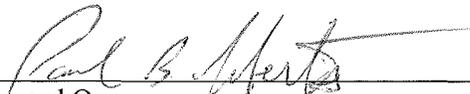
If the PUD Preliminary Plan involves the subdivision of land, a completed Subdivision Preliminary Plan Checklist must be submitted. The Subdivision Checklist may reference may reference the same set(s) of plans as the preceding checklists for Site/Engineering , Sketch Plan, Tree Preservation, and Landscape Plans, but the additional information required by the Subdivision Preliminary Plan Checklist must be included, where applicable.

Application for a Special Use for a PUD:

This application for a PUD Preliminary Plan must be accompanied by an application for a Special Use for a PUD, unless the Special Use was previously granted and no amendment is needed. Documentation required for both applications need not be duplicated.

Historic Designation: Is the property a designated Landmark or in a Historic District? No

I (we) certify that this application and the documents submitted are true and correct to the best of my (our) knowledge and belief.



Record Owner

03/26/12
Date



Applicant or Authorized Agent

03/26/12
Date

LEGAL DESCRIPTION

LOT 8 IN THE CORPORATE RESERVE OF ST. CHARLES, BEING A SUBDIVISION OF PART OF THE SOUTHWEST QUARTER AND THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 40 NORTH, RANGE 8, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JANUARY 28, 2009 AS DOCUMENT NO. 2009K005931, ALL IN KANE COUNTY, ILLINOIS.

RESIDENTIAL ZONING COMPLIANCE TABLE

Name of Development: _____ RIM - 3 Underlying zoning _____

	Zoning District Requirement	Existing PUD Requirement (if applicable)	Proposed
	District:	Ordinance #:	
Minimum Lot Area	2,200 SF/Unit		2,671 SF/Unit
Minimum Lot Width	65'		749' (overall parcel width)
Maximum Building Coverage	45%		21%
Maximum Building Height	45' (to ridge)		47' 6" (3 story) 56' (4 story walkout)
Minimum Front Yard	30'		30'
Interior Side Yard	25'		22' (44' bldg - bldg)
Exterior Side Yard	30'		30' 10' to detention lot
Minimum Rear Yard	30'		
Yards Adjoining Major Arterials ¹	NA		NA
% Overall Landscape Area	NA		
Building Foundation Landscaping	NA		
Landscape Buffer Yards ²	NA		
# of Parking Spaces	476		526 (1-6:1)

1- For purpose of this Section, Major Arterials Include Randall Road, Main Street East of Tyler Road, and Kirk Road

2- Within the zoning districts specified, a Landscape Buffer Yard shall be provided along any lot line that abuts or is across a street from property in any RE, RS, or RT District. See Chapter 17.26 for planting and screening requirements for Landscape Buffers.



SUMMARY OF PROPOSED DEVELOPMENT

Name of Development	Corporate Reserve Apartments
Number of years expected for build out	2-3 years

Acreage or Square Ft. Breakdown:

Area of residential development	20.24
Area of nonresidential development	0
Area of private open space	0
Area of stormwater ponds/basins	2.39
Park land dedication	0
School land dedication	0
Total Acres	22.63

Residential Breakdown:

	<u>Number of units</u>
Single Family Detached:	0
Attached Single Family (Townhomes):	0
Multi-Family:	331
Other:	0
Total Dwelling Units	331
Gross Density (Total D.U./Total Residential Acres)	16.35
Estimated Total Population (from Park Worksheet)	598
Estimated Student Population (from School Worksheet)	27.6

City of St. Charles Land/Cash Worksheet

Dwelling Type/Bedroom Count		# of Units	Park	Est. Park Pop.	Elem.	Est. Pop.	Middle School	Est. Pop.	High School	Est. Pop.
Detached Single Family										
	3 bedroom	0	2.899	0	0.369	0	0.173	0	0.184	0
	4 bedroom	0	3.764	0	0.53	0	0.298	0	0.36	0
	5 bedroom	0	3.77	0	0.345	0	0.248	0	0.3	0
Attached Single Family (Townhomes)										
	1 bedroom	0	1.193	0	0	0	0	0	0	0
	2 bedroom	0	1.99	0	0.088	0	0.048	0	0.038	0
	3 bedroom	0	2.392	0	0.234	0	0.058	0	0.059	0
	4 bedroom	0	3.145	0	0.322	0	0.154	0	0.173	0
Multi Family (Condo/Apartment)										
	Efficiency	16	1.294	20.704	0	0	0	0	0	0
	1 bedroom	160	1.758	281.28	0.002	0.32	0.001	0.16	0.001	0.16
	2 bedroom	155	1.914	296.67	0.086	13.33	0.042	6.51	0.046	7.13
	3 bedroom	0	3.053	0	0.234	0	0.123	0	0.118	0
Estimated Population		331		598.654		13.65		6.67		7.29
							27.61			
Park Acreage @ 10 acres per 1,000 population				5.98654	acres					
Park Land Dedication				0	acres					
Park Cash in Lieu @ \$240,500 per acre				\$1,439,762.87						
Elementary School Acreage @.025 acres per student						0.34125				
Middle School Acreage @ .0389 acres per student							0.259463			
High School Acreage @ .072 acres per student									0.52488	
Total School Acreage				1.125593						
Total School Cash in Lieu @ \$240,500 per acre				\$270,705.12						

1 1/2 Mile Jurisdiction Park Cash in Lieu
 1 1/2 Mile Jurisdiction School Cash in Lieu

\$1,047,644.50
\$196,978.78

(Not for development within City of St. Charles)
 (Not for development within City of St. Charles)



Inclusionary Housing

Paul Robertson

to:

morourke

06/01/2012 11:39 AM

Hide Details

From: Paul Robertson <p-robertson@jcfre.com>

To: <morourke@stcharlesil.gov>

In response to the recommendations we received during the concept plan review, we propose to have no income-restricted units in the development. We are, however, willing to make a \$50,000 contribution to the housing authority in lieu of compliance with the ordinance. The project's feasibility is challenged by the impact fees requested by KDOT, the school district, the park district and the inclusionary housing ordinance, particularly in light of the uncertain economic environment and tenuous banking climate.

We are very optimistic about the success of the proposed apartment development and look forward to working through the zoning change with you. Please let me know if you have any questions about this exciting addition to the St. Charles housing stock.

Thank you.

Paul Robertson

Executive Vice President

JCF Real Estate

1930 North Thoreau Drive, Suite 175

Schaumburg, IL 60173

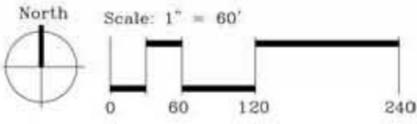
p 847.348.7800 x21

f 847.348.7801

c 847-899-5013

SITE DATA

Total Site Bedroom Count	Total # Units	Total Unit %	Total Parking Req.	Total Parking Provided
STUDIO	16	4.8%	1.2/du	20
1 BR	160	48.4%	1.2/du	192
2 BR	155	46.8%	1.7/du	264
Tot. Rental Units	331	100.0%		476
Rental Site Lot Area/Unit	20.30 Ac.			
	2,671 SF/Unit			
				Surface 406
				Garage 120
				Total 526
				(1.6:1)



The drawings presented are illustrative of character and design intent only and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, and post / floor plan changes, etc.)

Sheet LP-1
Corporate Reserve of St. Charles
 Concept Site Plan



Date: May 14, 2012
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- Asphalt Shingles
- Metal Roof
- Metal Gutters / Downspouts
- Vinyl Windows
- Composite Siding / Board
- Composite Trim
- Typical Railing
- Cast Stone Cap
- Cast Stone Head
- Metal Garage Door
- Cast Stone Veneer

Front Elevation

scale: 3/16" = 1'-0"



Right Side Elevation

scale: 3/16" = 1'-0"

Left Side Elevation

scale: 3/16" = 1'-0"



Rear Elevation

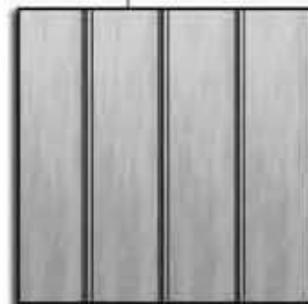
scale: 3/16" = 1'-0"



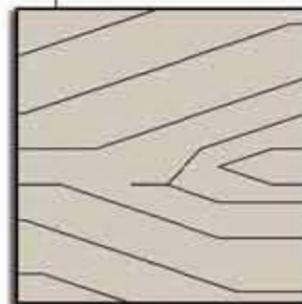
Front Elevation
 scale: 3/16" = 1'-0"



Composite Siding / Board



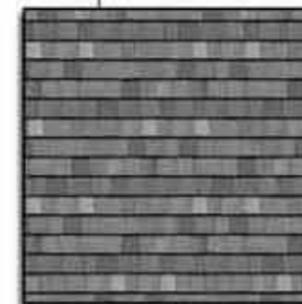
Metal Roof



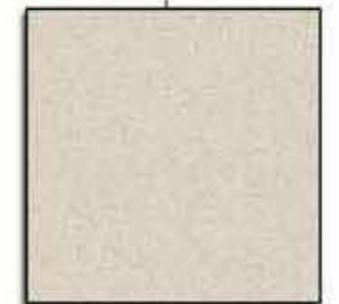
Composite Trim



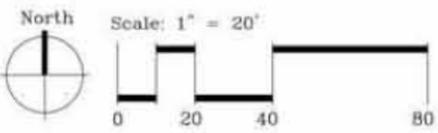
Cast Stone Veneer



Asphalt Shingles



Cast Stone Cap



The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e., applicable codes, structural, and MEP design requirements, and plan / floor plan changes, etc.)

Club Area

Corporate Reserve of St. Charles
Concept Plan

Date: May 14, 2012
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Front Elevation



Left Side Elevation



Right Side Elevation



Rear Elevation



LANDSCAPE CALCULATIONS

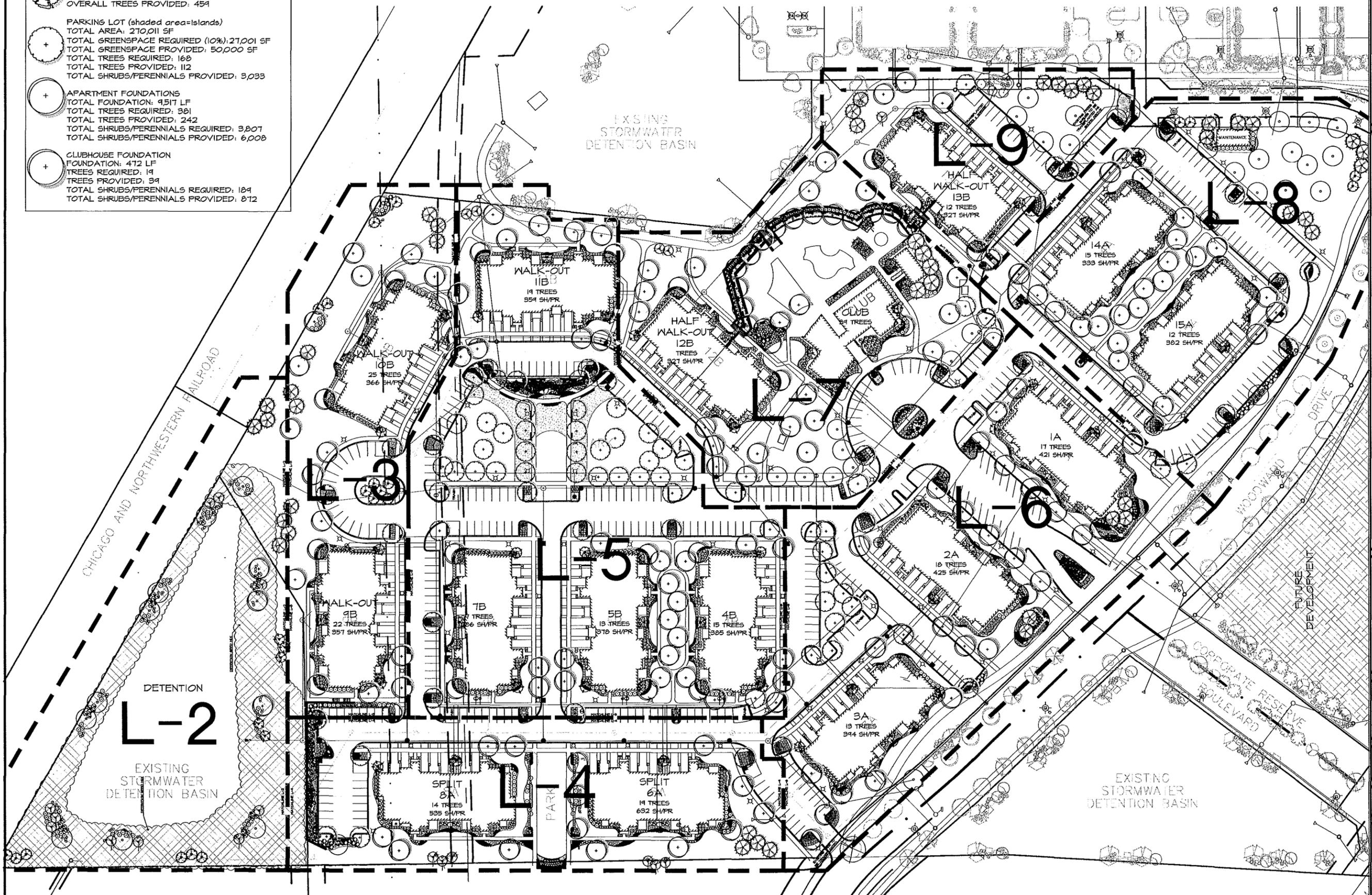
- 

OVERALL SITE: 862,488 SF
 IMPERMEABLE SURFACES: 510,415 SF (59%)
 GREENSPACE: 352,073 SF (41%)
 OVERALL TREES PROVIDED: 454
- 

PARKING LOT (shaded area=islands)
 TOTAL AREA: 270,011 SF
 TOTAL GREENSPACE REQUIRED (10%): 27,001 SF
 TOTAL GREENSPACE PROVIDED: 50,000 SF
 TOTAL TREES REQUIRED: 168
 TOTAL TREES PROVIDED: 112
 TOTAL SHRUBS/PERENNIALS PROVIDED: 3,033
- 

APARTMENT FOUNDATIONS
 TOTAL FOUNDATION: 9,517 LF
 TOTAL TREES REQUIRED: 381
 TOTAL TREES PROVIDED: 242
 TOTAL SHRUBS/PERENNIALS REQUIRED: 3,807
 TOTAL SHRUBS/PERENNIALS PROVIDED: 6,008
- 

CLUBHOUSE FOUNDATION
 FOUNDATION: 472 LF
 TREES REQUIRED: 14
 TREES PROVIDED: 34
 TOTAL SHRUBS/PERENNIALS REQUIRED: 184
 TOTAL SHRUBS/PERENNIALS PROVIDED: 872



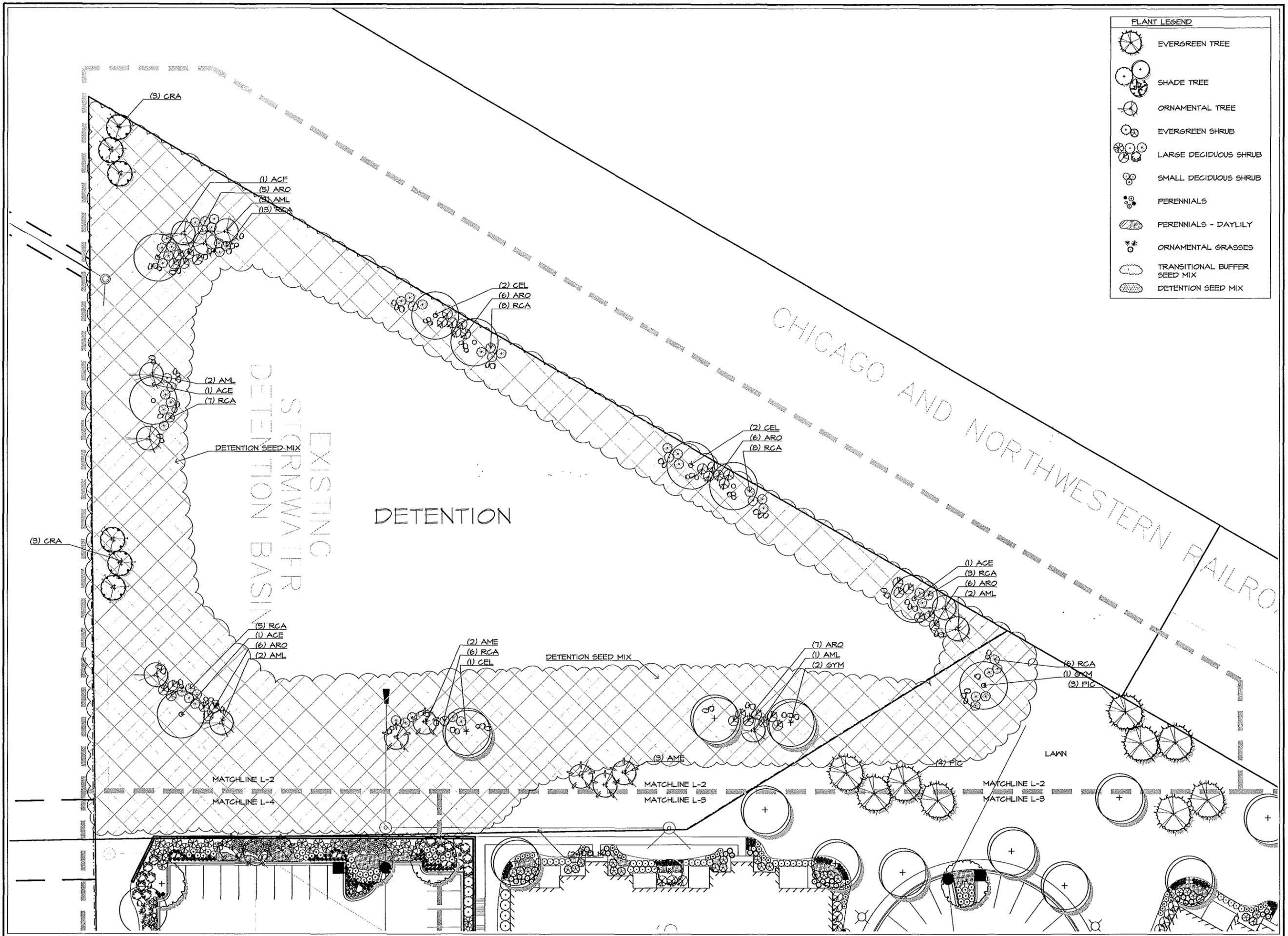
CORPORATE RESERVE
 OF ST CHARLES

REVISIONS	Remarks
Date	2012.04.03
2011.05.03	DRT meeting
2011.05.16	PC meeting

DATE	2012.04.03
DESIGNER	MNR
PROJECT MANAGER	EK
CLIENT	12101



SCALE:
1:50



PLANT LEGEND

- EVERGREEN TREE
- SHADE TREE
- ORNAMENTAL TREE
- EVERGREEN SHRUB
- LARGE DECIDUOUS SHRUB
- SMALL DECIDUOUS SHRUB
- PERENNIALS
- PERENNIALS - DAYLILY
- ORNAMENTAL GRASSES
- TRANSITIONAL BUFFER SEED MIX
- DETENTION SEED MIX



**CORPORATE RESERVE
 OF ST. CHARLES**

REVISIONS

2011.03.03	PRT meeting
2011.03.16	PC meeting

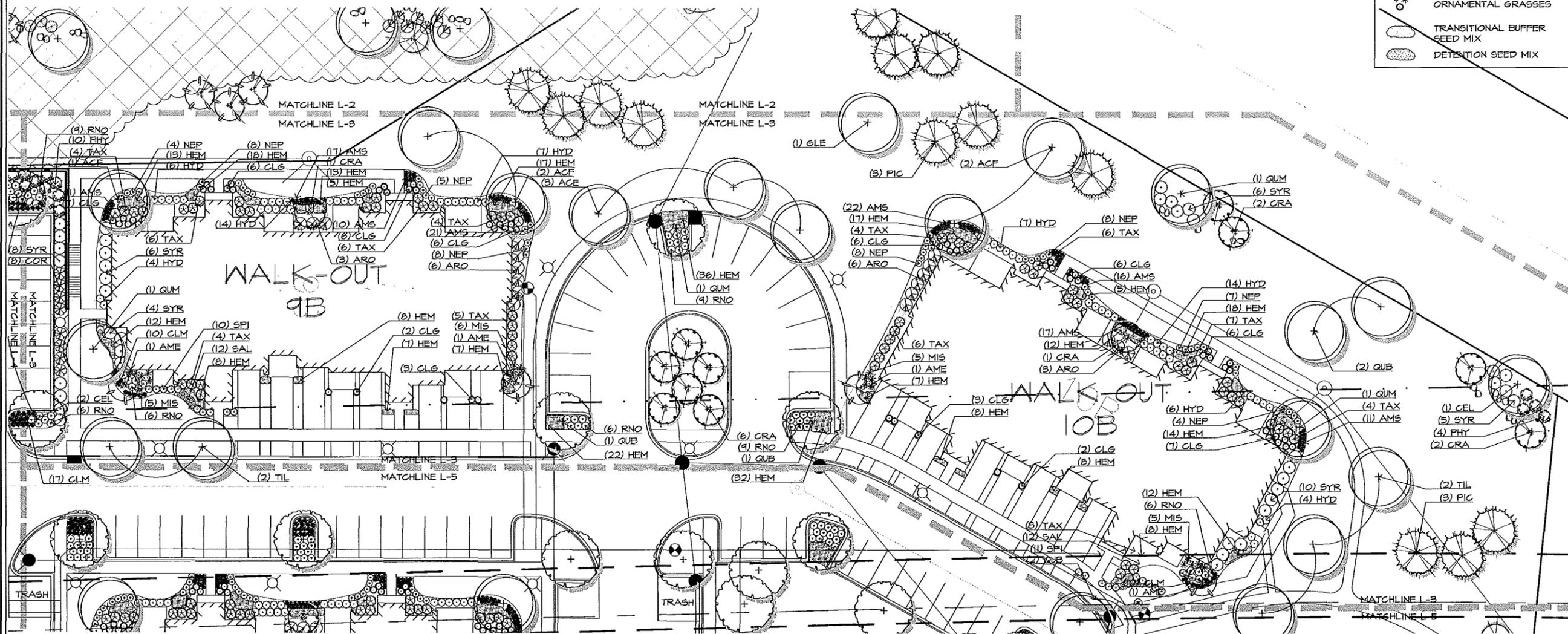
DATE 2012.04.03
DESIGNER MMR
PROJECT MANAGER EK
CLIENT 12101



SCALE:
 1:20

L-2

PLANT LEGEND	
	EVERGREEN TREE
	SHADE TREE
	ORNAMENTAL TREE
	EVERGREEN SHRUB
	LARGE DECIDUOUS SHRUB
	SMALL DECIDUOUS SHRUB
	PERENNIALS
	PERENNIALS - DAYLILY
	ORNAMENTAL GRASSES
	TRANSITIONAL BUFFER SEED MIX
	DETECTION SEED MIX



**CORPORATE RESERVE
 OF ST. CHARLES**

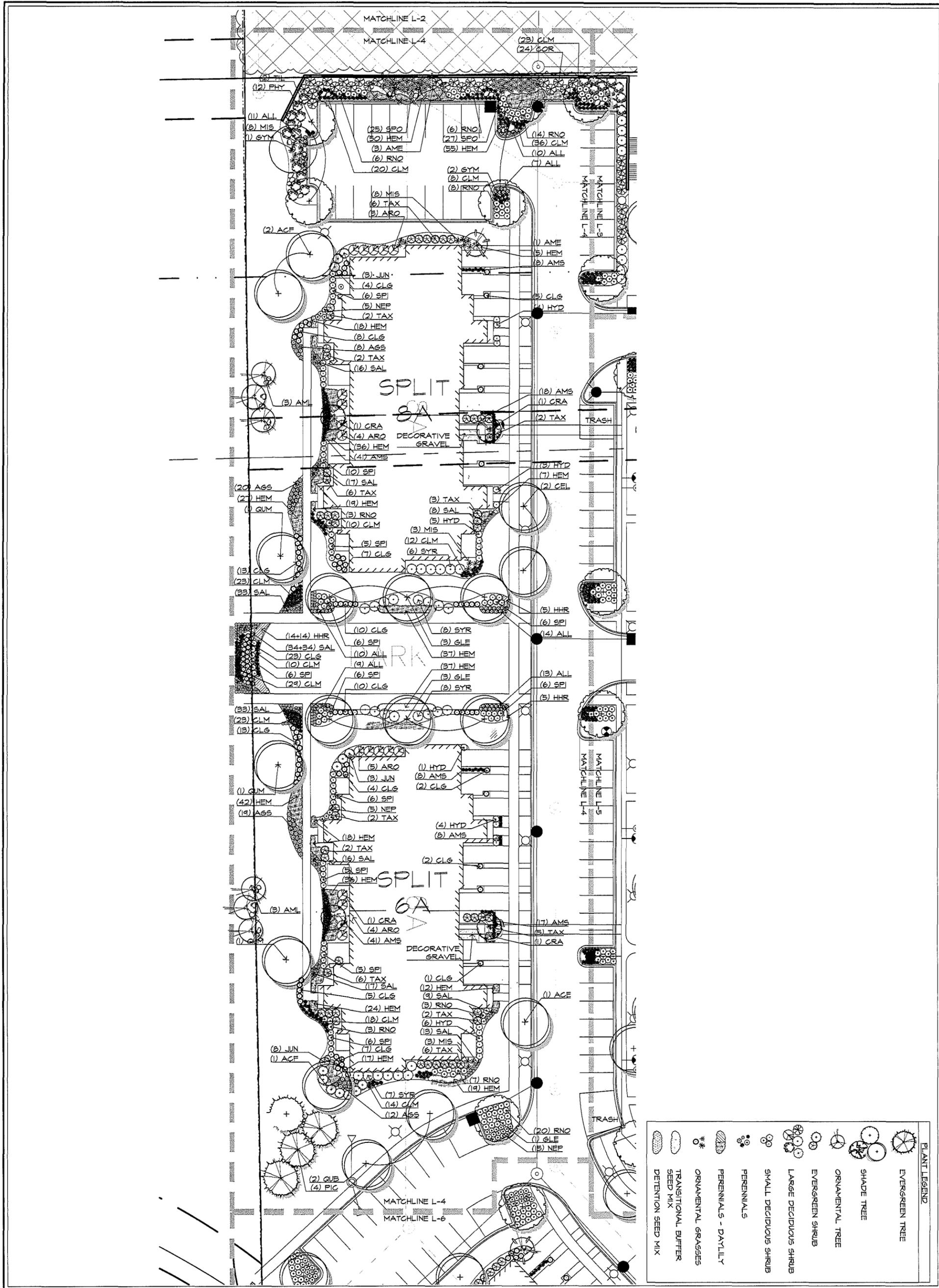
REVISIONS
Date Drawings 2010.03.03
2010.03.03 PRT meeting
2010.03.16 PC meeting

DATE	2012.04.03
DESIGNER	MHR
PROJECT MANAGER	EK
CLIENT	12101



SCALE:
1:20

L-3



PLANT LEGEND	
	EVERGREEN TREE
	SHADE TREE
	ORNAMENTAL TREE
	EVERGREEN SHRUB
	LARGE DECIDUOUS SHRUB
	SMALL DECIDUOUS SHRUB
	PERENNIALS - DAYLILY
	PERENNIALS
	ORNAMENTAL GRASSES
	TRANSITIONAL BUFFER SEED MIX
	DETENTION SEED MIX

L-4

SCALE:
1:20

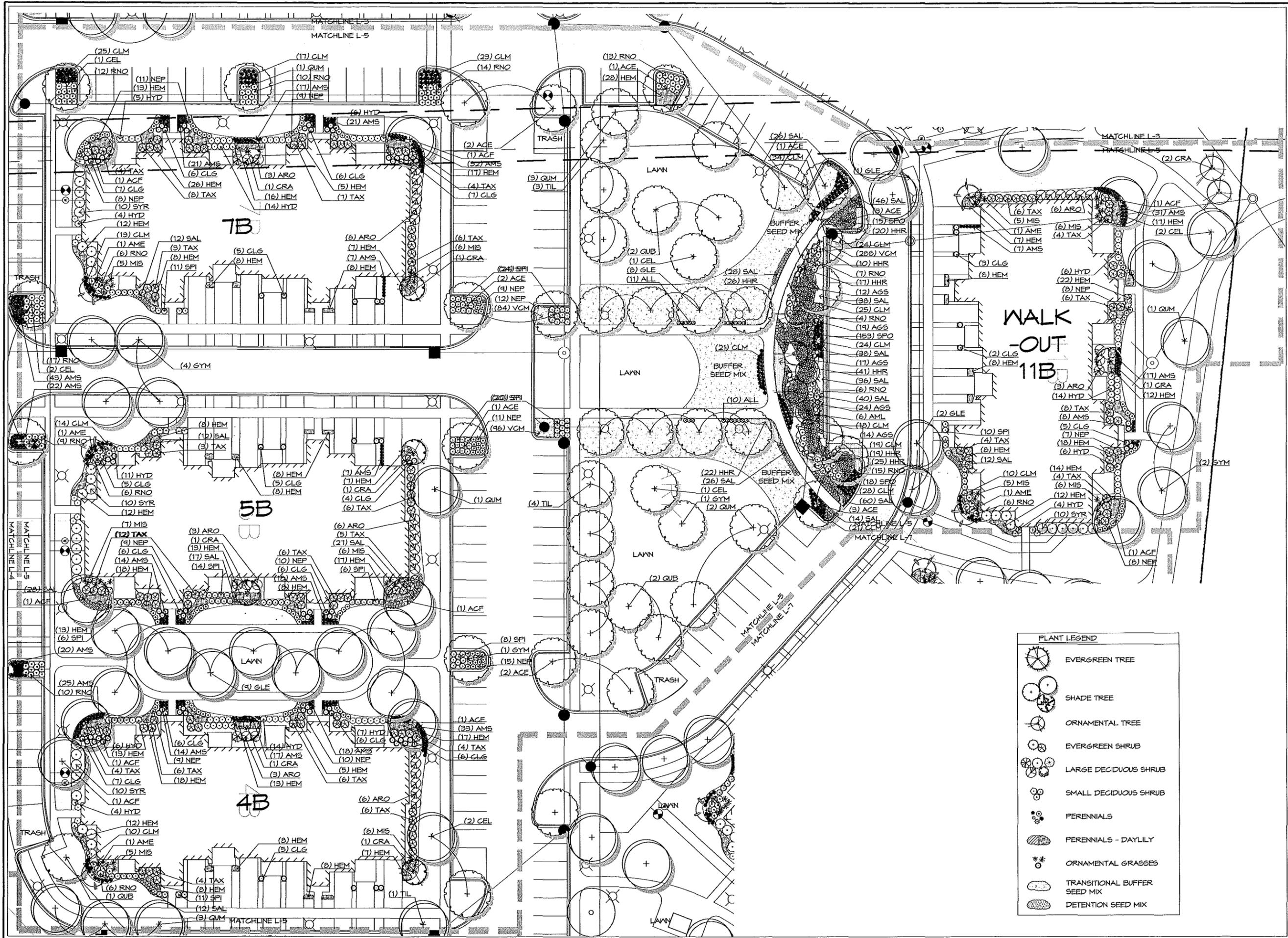


DATE: 2012.04.03
 DESIGNER: MHR
 PROJECT MANAGER: GK
 CLIENT: ZNO

DATE	REVISIONS
2011.05.03	Date Drain Remarks
2011.05.16	PRT meeting
2011.05.16	PC meeting

CORPORATE RESERVE OF ST. CHARLES

Kinsella Landscape, Inc.
 Design/Construction/Maintenance
 Phone: 708-371-8830
 Fax: 708-371-9576



PLANT LEGEND

	EVERGREEN TREE
	SHADE TREE
	ORNAMENTAL TREE
	EVERGREEN SHRUB
	LARGE DECIDUOUS SHRUB
	SMALL DECIDUOUS SHRUB
	PERENNIALS
	PERENNIALS - DAYLILY
	ORNAMENTAL GRASSES
	TRANSITIONAL BUFFER SEED MIX
	DETENTION SEED MIX



**CORPORATE RESERVE
OF ST. CHARLES**

REVISIONS

Date	Drawn	Remarks
2011.05.03	DRT	meeting
2011.05.16	PC	meeting

DATE 2012.04.03
DESIGNER MMR
PROJECT MANAGER GK
CLIENT 12101



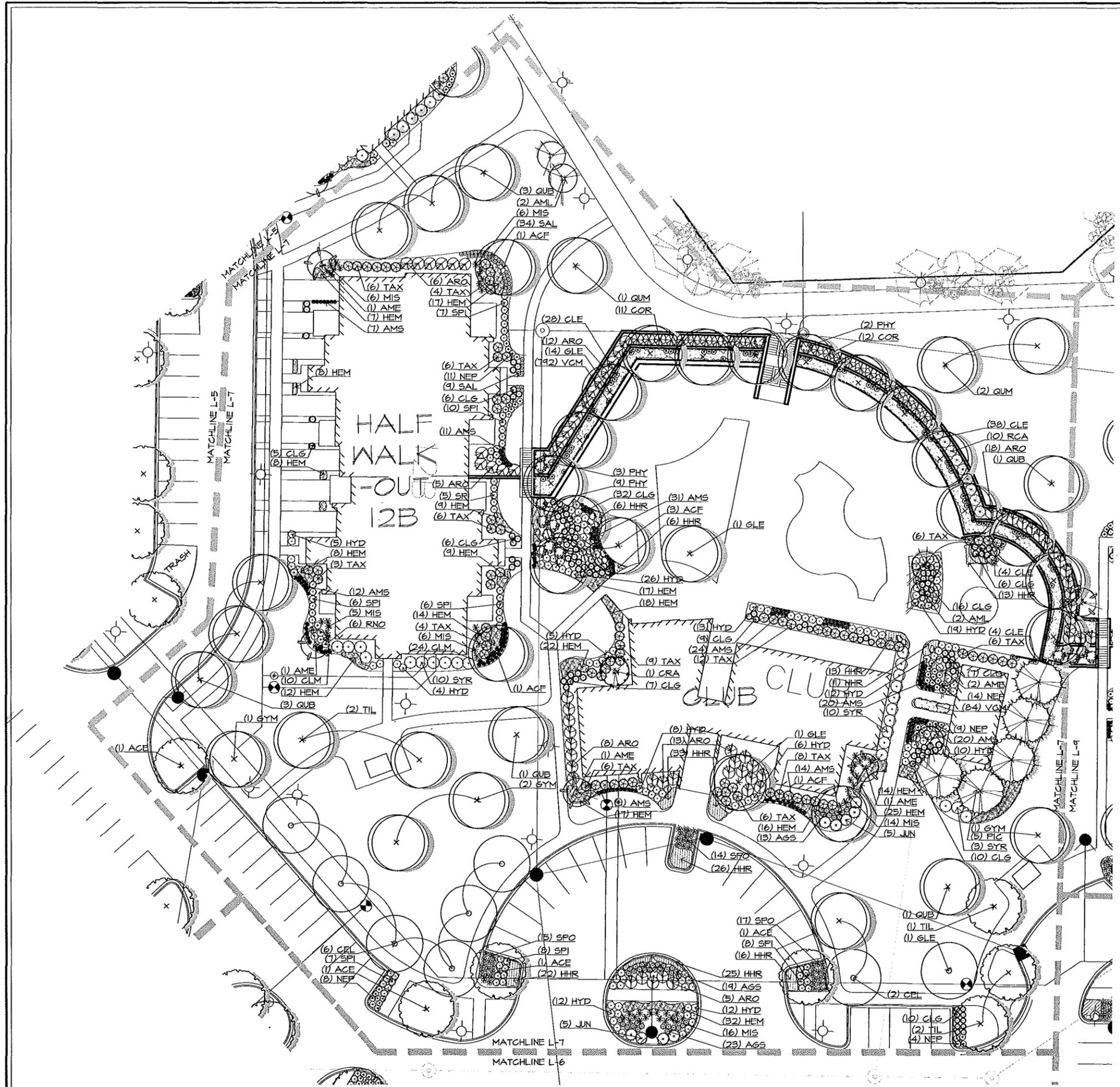
SCALE:
1:20

L-5

Kinsella Landscape, Inc.
 Design/Construction/Maintenance
 Phone: 708-371-8838
 Fax: 708-371-9576

PLANT LEGEND	
	EVERGREEN TREE
	SHADE TREE
	ORNAMENTAL TREE
	EVERGREEN SHRUB
	LARGE DECIDUOUS SHRUB
	SMALL DECIDUOUS SHRUB
	PERENNIALS
	PERENNIALS - DAYLILY
	ORNAMENTAL GRASSES
	TRANSITIONAL BUFFER SEED MIX
	DETECTION SEED MIX

**CORPORATE RESERVE
 OF ST. CHARLES**



REVISIONS	
Date	Drawn/Revised
2011.05.03	PC meeting
2011.05.16	PC meeting

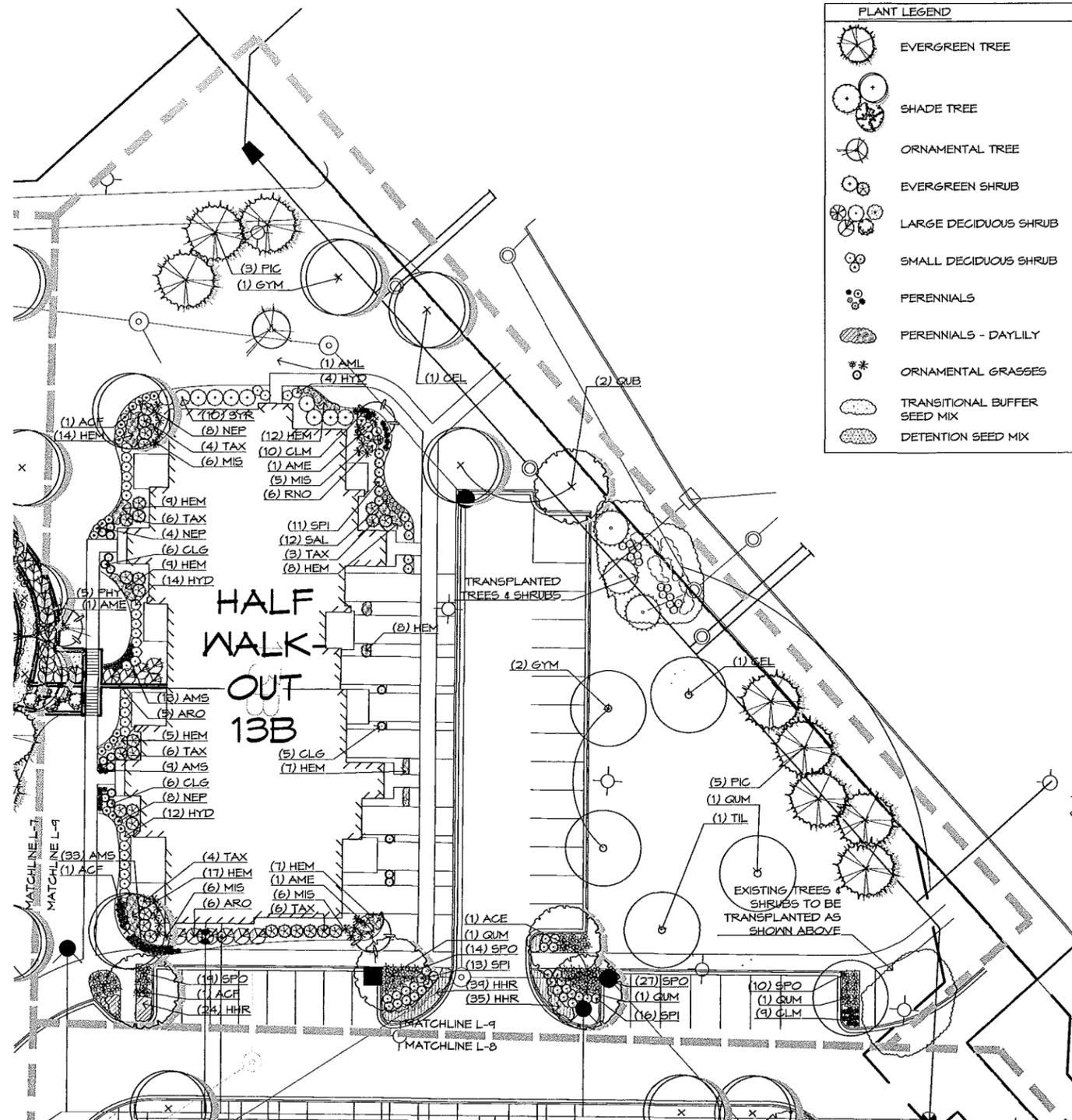
DATE	2012.04.03
DESIGNER	MHR
PROJECT MANAGER	SK
CLIENT	12101



SCALE:
1:20

L-7

PLANT LIST					
ABBRV.	LATIN NAME	COMMON NAME	QUANTITY	SIZE & SHAPE	LOCATION
DECIDUOUS TREES (308 total)					
ACE	Acer x freemanii 'Marmo'	MARMO MAPLE	42	25"/CENTRAL LEADER	ALL
ACF	Acer x freemanii 'Armstrong'	ARMSTRONGS MAPLE	35	25"/CENTRAL LEADER	ALL
CEL	Celtis occidentalis	HACKBERRY	43	25"/CENTRAL LEADER	ALL
GLE	Gleditsia triacanthos inermis	HONEYLOCUST	64	25"/CENTRAL LEADER	ALL
GYM	Gymnocladus dioica	KENTUCKY COFFEE TREE	28	25"/CENTRAL LEADER	ALL
QUB	Quercus bicolor	SWAMP WHITE OAK	36	25"/CENTRAL LEADER	ALL
QUM	Quercus macrocarpa	BUR OAK	34	25"/CENTRAL LEADER	ALL
TIL	Tilia americana	LINDEN	26	25"/CENTRAL LEADER	ALL
EVERGREEN TREES (45 total)					
PIK	Picea glauca densata	BLACK HILLS SPRUCE	45	8' B&B	ALL
ORNAMENTAL TREES (106 total)					
AME	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	29	6'/CLUMP FORM	FOUNDATION
AML	Amelanchier laevis	ALLEGHENY SERVICEBERRY	31	6'/CLUMP FORM	SWALE, ALL
CRA	Crataegus veridis 'Winter King'	WINTER KING HAWTHORN	46	6'/CLUMP FORM	ALL
EVERGREEN SHRUBS					
JUN	Juniperus chinensis 'Kallay's Compact'	KALLAY'S COMPACT JUNIPER	41	5 GAL.	FOUNDATION
TAX	Taxus x media 'Densiflora'	DENSE YEW	492	24" B&B	FOUNDATION
DECIDUOUS SHRUBS					
ARO	Aronia arbutifolia 'Brilliantissima'	RED CHOKEBERRY	227	36" B&B	ALL
COR	Cornus 'Bailey'	RED TINE DOGWOOD	61	36" B&B	BERMS
HYD	Hydrangea macrophylla 'Ballermer'	ENDLESS SUMMER HYDRANGEA	391	#5 CONT.	FOUNDATION
PHY	Physocarpus opulifolius 'Mondo'	DIABOLO NINEBARK	62	36" B&B	BERMS, DETENTION
RCA	Rosa carolina	CAROLINA ROSE	55	#5 CONT.	DETENTION
RNO	Rosa var. 'Noare'	FLOYER CARPET ROSE	486	#5 CONT.	FOUNDATION
SPI	Spiraea betulifolia 'Tor'	BIRCHLEAF SPIREA	415	#5 CONT.	ALL
SYR	Syringa meyer 'Palibin'	DWARF KOREAN LILAC	190	36" B&B	ALL
ORNAMENTAL GRASSES & PERENNIALS					
AGS	Agastache 'Blue Fortune'	BLUE FORTUNE AGASTACHE	343	1 GAL.	ALL
ALL	Allium 'Summer Beauty'	SUMMER BEAUTY ALLIUM	45	1 GAL.	ALL
AMS	Amsonia x 'Blue Ice'	BLUE ICE BLUE STAR	1185	1 GAL.	ALL
CLG	Calamagrostis brachytricha	KOREAN FEATHER REED GRASS	474	1 GAL.	ALL
GLM	Calamintha nepeta spp. 'Nepeta'	CALAMINTHA	887	1 GAL.	ALL
DAYLILY MIX:					
	Hemerocallis 'Fairy Tale Pink' (33%)	FAIRY TALE DAYLILY	819	1 GAL.	ALL
	+ Hemerocallis 'Mary Todd' (33%)	MARY TODD DAYLILY	819	1 GAL.	ALL
	+ Hemerocallis 'Prairie Blue Eyes' (33%)	PRAIRIE BLUE EYES DAYLILY	819	1 GAL.	ALL
HHR	Hemerocallis 'Happy Returns'	HAPPY RETURNS DAYLILY	630	1 GAL.	ALL
MIS	Miscanthus sinensis 'Gracillimus'	MAIDEN GRASS	296	1 GAL.	BERMS/PARKING ISLANDS
NEP	Nepeta 'Walkers Low'	WALKERS LOW CATMINT	343	1 GAL.	ALL
SAL	Salvia nemorosa 'Yesuue'	YESUVE SALVIA	1010	1 GAL.	ALL
SPO	Sporobolus heterolepis	PRAIRIE DROPSIDE	699	1 GAL.	ALL
GROUNDCOVER & VINES					
Clematis Mix:					
CLE	Clematis 'Huldine' (50%)	HULDINE CLEMATIS	37	1 GAL.	CLUBHOUSE
	+ Clematis 'Comtesse de Bouchaud' (50%)	COMTESSE CLEMATIS	37	1 GAL.	CLUBHOUSE
VCM	Vinca minor	COMMON PERIWINKLE	1344	3" POTS	CLUBHOUSE
TRANSITIONAL BUFFER SEED MIX					
	Bouteloua curtipendula	SIDE-OATS GRAMA			
	Bouteloua dactyloides 'Bowie'	BOWIE BUFFALO GRASS			
DETENTION SEED MIX					
Permanent Grasses					
	Andropogon gerardii	BIG BLUESTEM	Panicum virgatum	SWITCH GRASS	
	Calamagrostis canadensis	BLUEJOINT GRASS	Scirpus pendulus	RED BULRUSH	
	Carex spp.	PRAIRIE SEDGE MIX	Sorghastrum nutans	INDIAN GRASS	
	Carex lurida	BOTTLEBRUSH SEDGE	Spartina pectinata	PRAIRIE CORD GRASS	
	Elymus virginicus	VIRGINIA WILD RYE			
Temporary Cover					
	Avena sativa	COMMON OAT			
	Lolium multiflorum	ANNUAL RYE			
Forbs					
	Aster novae-angliae	NEW ENGLAND ASTER	Pycnanthemum virginianum	COMMON MOUNTAIN MINT	
	Baptisia lactea	WHITE WILD INDIGO	Ratibida pinnata	YELLOW CONEFLOWER	
	Chamaecrista fasciculata	PARTRIDGE PEA	Rudbeckia hirta	BLACK-EYED SUSAN	
	Coreopsis lanceolata	SAND COREOPSIS	Rudbeckia laciniata	WILD GOLDEN GLOW	
	Coreopsis tripteris	TALL COREOPSIS	Rudbeckia subtomentosa	SWEET BLACK-EYED SUSAN	
	Desmodium illinoense	ILLINOIS TICK TREFOIL	Silphium integrifolium	ROBIN WEEED	
	Echinacea purpurea	PURPLE CONEFLOWER	Silphium laciniatum	COMPASS PLANT	
	Eryngium yuccifolium	RATTLESNAKE MASTER	Silphium perfoliatum	CUP PLANT	
	Helenium autumnale	SNEEZEWEED	Silphium terebinthinaceum	PRAIRIE DOCK	
	Heliopsis scabra	SAWTOOTH SUNFLOWER	Solidago juncea	EARLY GOLDENROD	
	Lespedeza capitata	ROUND-HEADED BUSH CLOVER	Solidago rigida	STIFF GOLDENROD	
	Liatris spicata	MARSH BLAZING STAR	Solidago rugosa	ROUGH GOLDENROD	
	Lupinus perennis	WILD LUPINE	Tradescantia ohnensis	COMMON SPIDERWORT	
	Monarda fistulosa	WILD BERGAMOT	Veronica spp.	IRONWEED MIX	
	Parthenium integrifolium	WILD QUININE	Veronicastrum virginicum	CULVER'S ROOT	
	Physostegia virginiana	OBEDIENT PLANT	Zizia aurea	GOLDEN ALEXANDER	



Kinsella Landscape, Inc.
 Design, Construction & Maintenance
 Phone: 781-571-5850
 Fax: 781-571-5976

**CORPORATE RESERVE
 OF ST. CHARLES**

REVISIONS
Date Drawn: 2011.05.03
Remarks: DRT meeting
Date: 2011.05.16
PC meeting

DATE: 2012.04.03
DESIGNER: MMR
PROJECT MANAGER: GK
CLIENT: 12101



SCALE:
1:20

L-9

PRELIMINARY PLAN THE CORPORATE RESERVE OF ST. CHARLES – PHASE II ST. CHARLES, ILLINOIS

LEGEND

	EXISTING	PROPOSED
SANITARY SEWER		
FORCE MAIN		
STORM SEWER		
UNDERDRAIN		
MANHOLE		
CATCH BASIN		
INLET		
CLEANOUT		
WATER MAIN		
VALVE VAULT		
VALVE BOX		
FIRE HYDRANT		
FLARED END SECTION		
COMBINED SEWER		
SANITARY SEWER SERVICE		
WATER SERVICE		
STREET LIGHT/PARKING LOT LIGHT		
POWER POLE		
STREET SIGN		
FENCE		
GAS MAIN		
OVERHEAD LINE		
TELEPHONE LINE		
ELECTRIC LINE		
CABLE TV LINE		
HIGH WATER LEVEL		
NORMAL WATER LEVEL		
CONTOUR LINE		
TOP OF CURB ELEVATION		
TOP OF DEPRESSED CURB		
PAVEMENT ELEVATION		
SPOT ELEVATION		
FINISHED FLOOR ELEVATION		
TOP OF FOUNDATION		
GRADE AT FOUNDATION		
HIGH OR LOW POINT		
OVERLAND FLOOD ROUTE		
PAVEMENT FLOW DIRECTION		
SWALE FLOW DIRECTION		
DEPRESSED CURB AND GUTTER		
REVERSE CURB AND GUTTER		

ABBREVIATIONS

AC	ACRE	HWL	HIGH WATER ELEVATION	SAN	SANITARY SEWER
BC	BACK OF CURB	INL	INLET	SMH	SANITARY MANHOLE
BTM	BOTTOM	INV	INVERT	STA	STATION
CB	CATCH BASIN	LF	LINEAL FEET/FOOT	STM	STORM SEWER
CFS	CUBIC FEET PER SECOND	LP	LIGHT POLE	SY	SQUARE YARD
CY	CUBIC YARD	LT	LEFT	SWPP	STORMWATER POLLUTION PREVENTION PLAN
DIA	DIAMETER	L/W	LOWEST GRADE ADJACENT TO RETAINING WALL	TDC	TOP OF DEPRESSED CURB
DIWM	DUCTILE IRON WATER MAIN	MAX	MAXIMUM	TC	TOP OF CURB
EL	ELEVATION	MH	MANHOLE	TF	TOP OF FOUNDATION
EP	EDGE OF PAVEMENT	MIN	MINIMUM	T/W	TOP OF RETAINING WALL
FES	FLARED END SECTION	NWL	NORMAL WATER ELEVATION	TYP	TYPICAL
FT	FOOT/FEET	OCS	OUTLET CONTROL STRUCTURE	VB	VALVE BOX
G	GUTTER ELEVATION	P	PAVEMENT ELEVATION	VC	VERTICAL CURVE
GF	GRADE AT FOUNDATION	PVC	POLYVINYL CHLORIDE PIPE	VV	VALVE VAULT
GR	GRADE RING ELEVATION	R	RADIUS	W	WALK ELEVATION
HDPE	HIGH DENSITY POLYETHYLENE PIPE	ROP	REINFORCED CONCRETE PIPE	WM	WATER MAIN
HYD	FIRE HYDRANT	RIM	RIM ELEVATION	VPI	VERTICAL POINT OF INTERSECTION
HMA	HOT MIX ASPHALT	RT	RIGHT		
		ROW	RIGHT OF WAY		

INDEX

- 1 COVER SHEET
- 2 EXISTING CONDITIONS PLAN
- 3 PRELIMINARY PLAT OF RESUBDIVISION
- 4 PRELIMINARY GRADING PLAN
- 5 PRELIMINARY UTILITY PLAN

SOURCE BENCHMARK:

1. SOUTHWEST TAG BOLT ON 1ST FIRE HYDRANT NORTH OF ROUTE 64 ON WEST SIDE OF PECK ROAD.
ELEV. = 747.11
2. CHISELLED "*" IN CENTERLINE-CENTERLINE OF CONCRETE SIDEWALK AT SOUTHEAST CORNER OF ROUTE 64
ELEV. = 744.53



PROFESSIONAL ENGINEER'S CERTIFICATION

I, KEVIN J. MATRAY, A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THIS SUBMISSION WAS PREPARED ON BEHALF OF THE ST. CHARLES FAIRGROUNDS OFFICE PARK INVESTORS, LLC BY MACKIE CONSULTANTS, LLC, UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

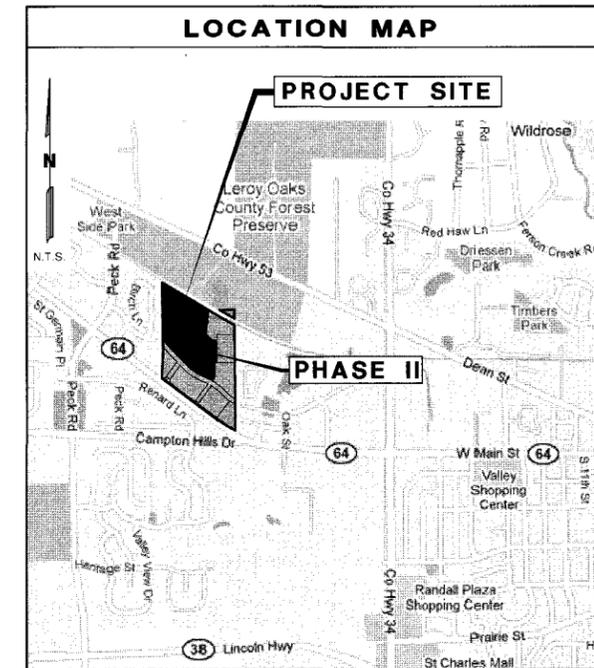
DATED THIS 16TH DAY OF MAY, 2012, A.D. 2012.

Kevin J. Matray
ILLINOIS LICENSED PROFESSIONAL ENGINEER 062-058360
EXPIRATION DATE: NOVEMBER 30, 2013



ENGINEER'S SEAL

LOCATION MAP



DRAINAGE CERTIFICATION

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF SAID IMPROVEMENTS OR ANY PART THEREOF, OR THAT IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISION HAS BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREA OR DRAINS WHICH THE SUBDIVIDER HAS A RIGHT TO USE AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THE IMPROVEMENTS.

Kevin J. Matray
ENGINEER'S SIGNATURE



ENGINEER'S SEAL



CLIENT: **ST. CHARLES FAIRGROUNDS OFFICE PARK INVESTORS, LLC**
1930 THOREAU DRIVE, SUITE 175
SCHAUMBURG, ILLINOIS 60173
PHONE: (630) 885-7890 FAX: (647) 348-7801

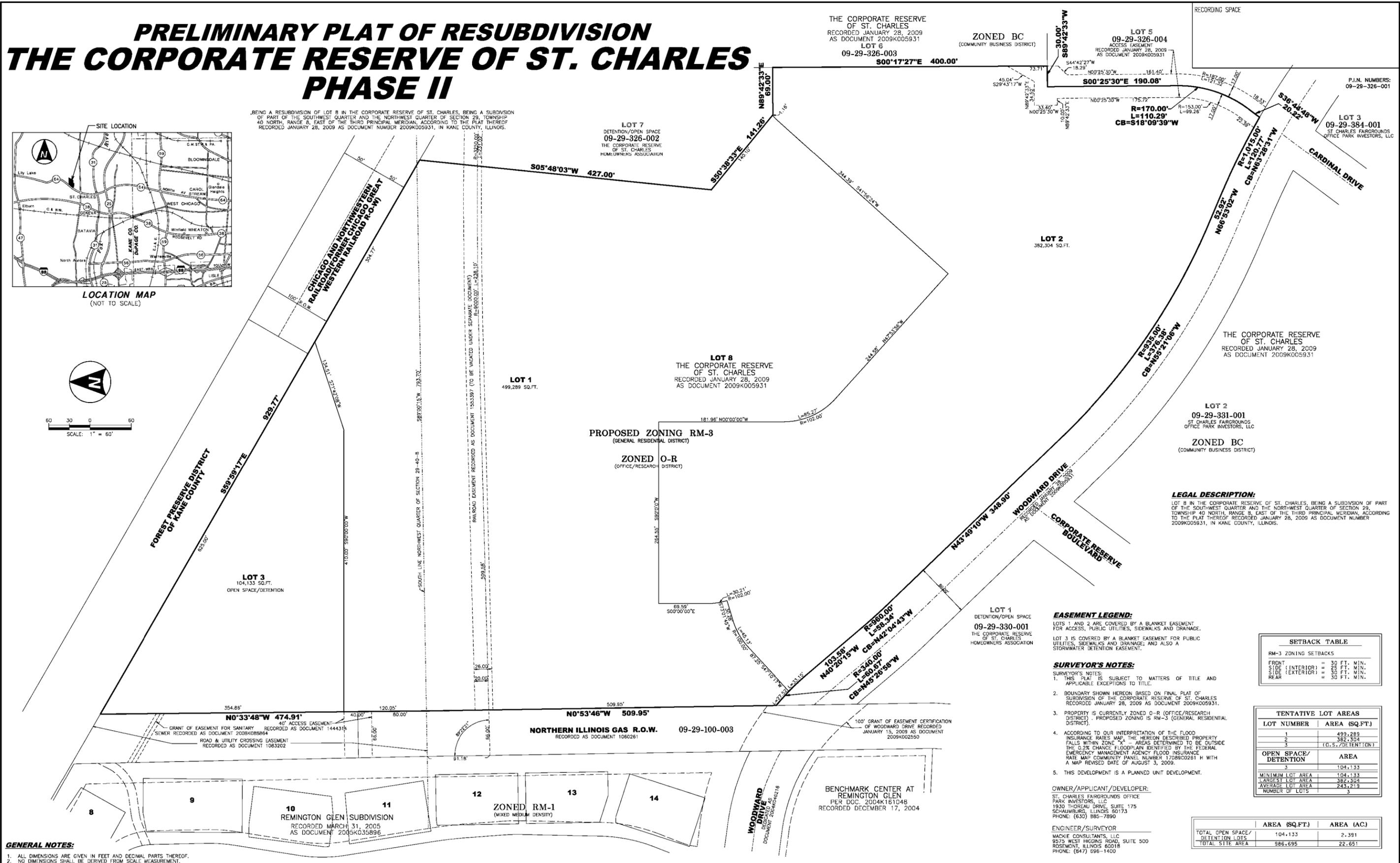
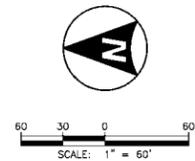
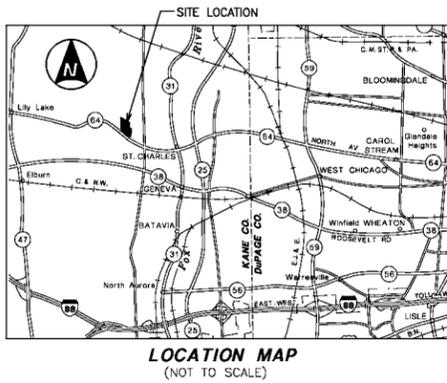
DESIGNED	KJM/TRB	
DRAWN	WHM	
APPROVED	DAS	
DATE	03-22-12	
REVISION		
05-16-12	REVISED PER CITY COMMENTS	KJM
DATE	DESCRIPTION OF REVISION	BY

COVER SHEET
PRELIMINARY RESUBDIVISION PLAN
THE CORPORATE RESERVE OF ST. CHARLES PHASE II
ST. CHARLES, ILLINOIS

SHEET
1 OF **5**
PROJECT NUMBER: 1521
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ILLINOIS FIRM LICENSE 164-002694

PRELIMINARY PLAT OF RESUBDIVISION THE CORPORATE RESERVE OF ST. CHARLES PHASE II

BEING A RESUBDIVISION OF LOT 8 IN THE CORPORATE RESERVE OF ST. CHARLES, BEING A SUBDIVISION OF PART OF THE SOUTHWEST QUARTER AND THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 40 NORTH, RANGE 8, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED JANUARY 28, 2009 AS DOCUMENT NUMBER 2009K005931, IN KANE COUNTY, ILLINOIS.



GENERAL NOTES:
 1. ALL DIMENSIONS ARE GIVEN IN FEET AND DECIMAL PARTS THEREOF.
 2. NO DIMENSIONS SHALL BE DERIVED FROM SCALE MEASUREMENT.

EASEMENT LEGEND:
 LOTS 1 AND 2 ARE COVERED BY A BLANKET EASEMENT FOR ACCESS, PUBLIC UTILITIES, SIDEWALKS AND DRAINAGE.
 LOT 3 IS COVERED BY A BLANKET EASEMENT FOR PUBLIC UTILITIES, SIDEWALKS AND DRAINAGE; AND ALSO A STORMWATER DETENTION EASEMENT.

SURVEYOR'S NOTES:
 1. THIS PLAT IS SUBJECT TO MATTERS OF TITLE AND APPLICABLE EXCEPTIONS TO TITLE.
 2. BOUNDARY SHOWN HEREON BASED ON FINAL PLAT OF SUBDIVISION OF THE CORPORATE RESERVE OF ST. CHARLES RECORDED JANUARY 28, 2009 AS DOCUMENT 2009K005931.
 3. PROPERTY IS CURRENTLY ZONED O-R (OFFICE/RESEARCH DISTRICT). PROPOSED ZONING IS RM-3 (GENERAL RESIDENTIAL DISTRICT).
 4. ACCORDING TO OUR INTERPRETATION OF THE FLOOD INSURANCE RATES MAP, THE HEREON DESCRIBED PROPERTY FALLS WITHIN ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE FLOODPLAIN IDENTIFIED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 1708900281 H WITH A MAP REVISED DATE OF AUGUST 3, 2009.
 5. THIS DEVELOPMENT IS A PLANNED UNIT DEVELOPMENT.

SETBACK TABLE	
RM-3 ZONING SETBACKS	
FRONT	= 30 FT. MIN.
SIDE (INTERIOR)	= 25 FT. MIN.
SIDE (EXTERIOR)	= 30 FT. MIN.
REAR	= 30 FT. MIN.

TENTATIVE LOT AREAS	
LOT NUMBER	AREA (SQ.FT.)
1	499,289
2	382,304
3	104,133
TOTAL LOT AREA	
985,726	
AVERAGE LOT AREA	
328,575	
NUMBER OF LOTS	
3	

	AREA (SQ.FT.)	AREA (AC.)
TOTAL OPEN SPACE/DETENTION LOTS	104,133	2.391
TOTAL SITE AREA	985,695	22.651

OWNER/APPLICANT/DEVELOPER:
 ST. CHARLES FAIRGROUNDS OFFICE
 PARK INVESTORS, LLC
 1930 THOREAU DRIVE, SUITE 175
 SCHAUMBURG, ILLINOIS 60173
 PHONE: (630) 885-7890

ENGINEER/SURVEYOR:
 MACKIE CONSULTANTS, LLC
 9575 WEST HIGGINS ROAD, SUITE 500
 ROSEMONT, ILLINOIS 60018
 PHONE: (647) 696-1400

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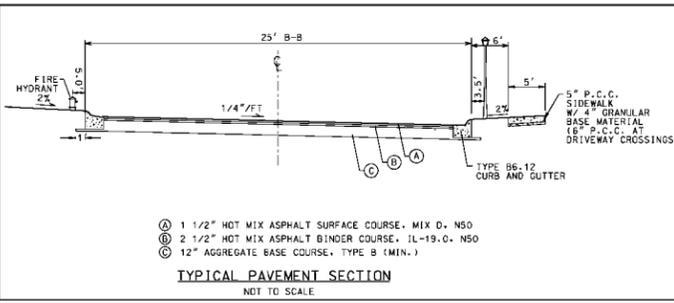
CLIENT: ST. CHARLES FAIRGROUNDS OFFICE PARK INVESTORS, LLC
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 PHONE: (630) 885-7890 FAX: (847) 348-7801

DATE	DESCRIPTION OF REVISION	BY	SCALE
05-16-12	REVISED PER CITY COMMENTS	KJM	1"=60'

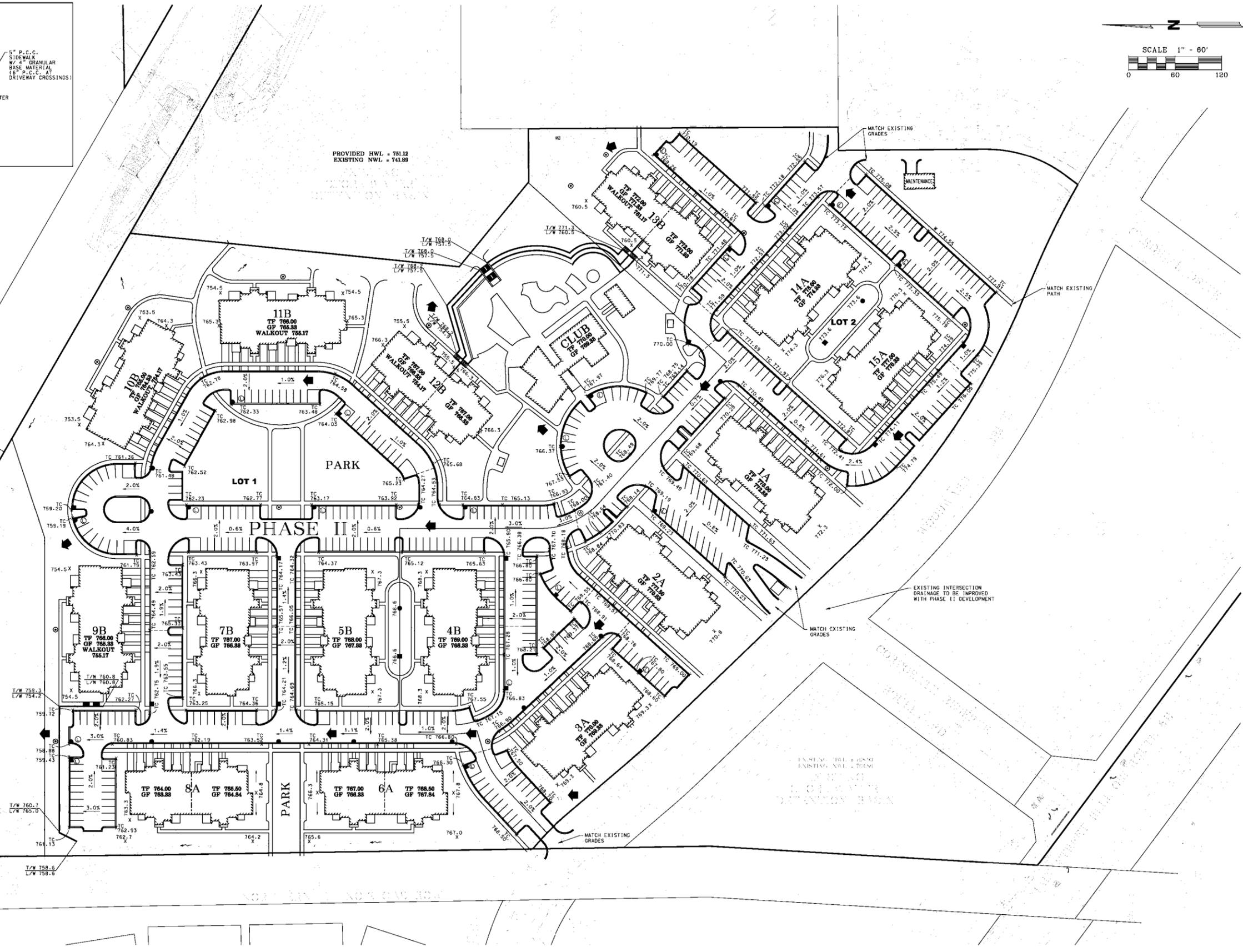
**PRELIMINARY PLAT OF RESUBDIVISION
 PRELIMINARY RESUBDIVISION PLAN
 THE CORPORATE RESERVE OF ST. CHARLES PHASE II
 ST. CHARLES, ILLINOIS**

SHEET 3 OF 5
 PROJECT NUMBER: 1621
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- GRADING PLAN GENERAL NOTES**
- EXISTING CONDITIONS SHOWN ARE BASED ON RECORD TOPOGRAPHY BY MACKIE CONSULTANTS, LLC, LATEST FIELD DATE 09/14/11. CONTRACTOR SHALL FIELD CHECK EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES.
 - ALL DISTURBED AREAS SHALL BE RESTORED WITH 6-INCHES OF TOPSOIL AND SEEDING.
 - EXCAVATION AND EMBANKMENT SHALL BE PERFORMED PER FINAL DETAILED SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
 - ALL CURB ELEVATIONS ARE TO BE TOP OF CURB. ALL GUTTER ELEVATIONS ARE 0.5' BELOW TOP OF CURB ELEVATION UNLESS OTHERWISE NOTED.
 - DRIVEWAY SLOPES FROM THE RIGHT-OF-WAY SHALL BE A MINIMUM OF 2% AND A MAXIMUM OF 10%.
 - GRADING INDICATED MAY NEED TO BE ADJUSTED BASED ON FIELD CONDITIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITH FIELD CONDITIONS PRIOR TO FINE GRADING.
 - GRADING INDICATED MAY BE ADJUSTED AT TIME OF FINAL ENGINEERING.
 - ALL DRAIN TILES ENCOUNTERED DURING MASS GRADING/UTILITY WORK MUST BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM. A RECORD MUST BE KEPT, OF ANY DRAIN TILE ENCOUNTERED, TO BE INCLUDED IN RECORD DRAWINGS.
 - OVERFLOW DRAINAGE ROUTES AND SWALES MUST BE INSTALLED AT THE ELEVATION AND LOCATION SHOWN.
 - DO NOT INTERRUPT DRAINAGE FROM OFF SITE DURING CONSTRUCTION OPERATIONS. PROVIDE TEMPORARY DRAINAGE DITCHES WHERE REQUIRED.
 - CONTRACTOR SHALL MEET EXISTING GROUND ELEVATIONS AT PROPERTY LINE, UNLESS OTHERWISE NOTED AND THE APPROPRIATE EASEMENTS OR PERMISSION HAS BEEN OBTAINED.
 - ALL PROPOSED ROADWAYS SHALL BE PRIVATELY OWNED AND MAINTAINED.



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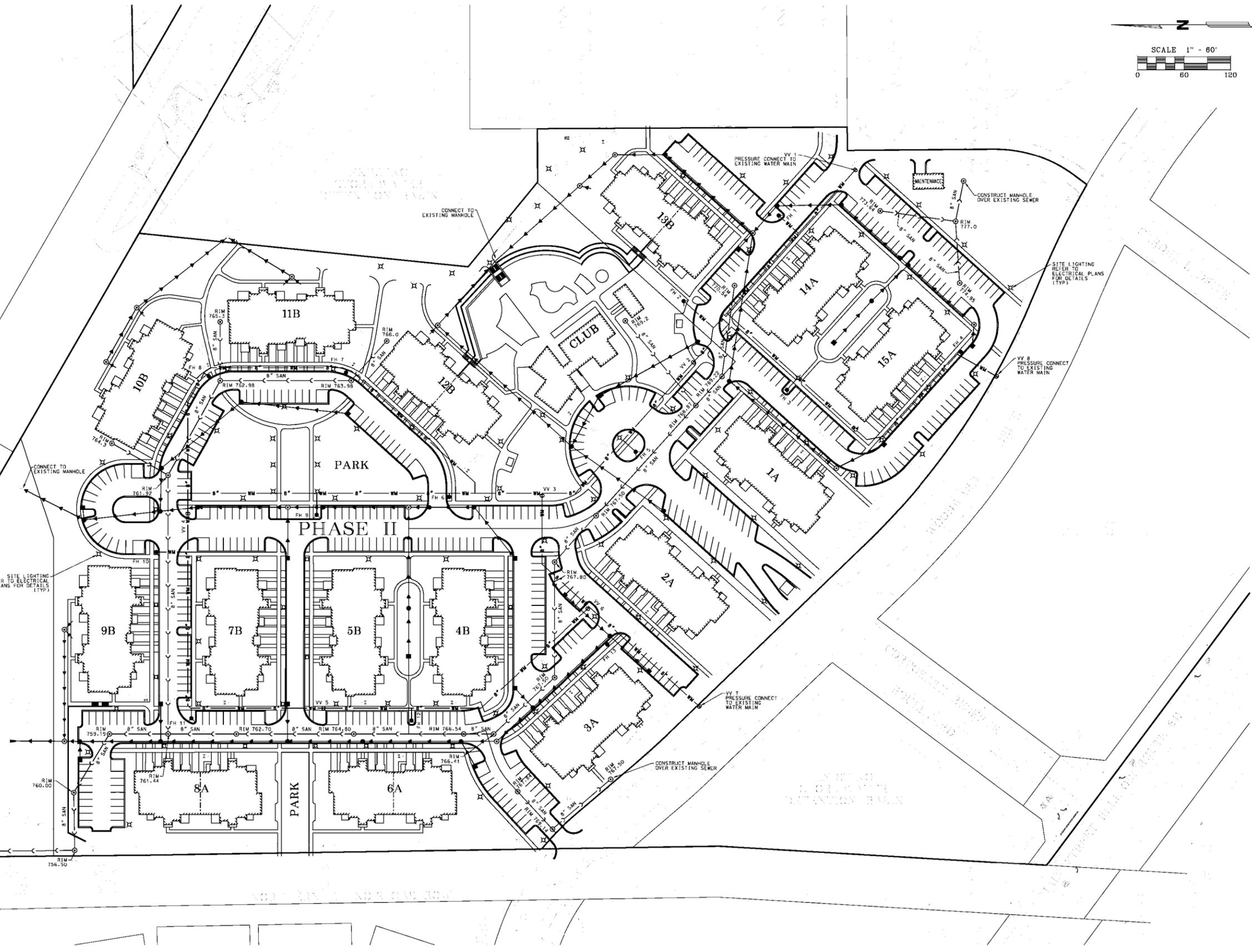
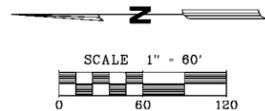
DATE	DESCRIPTION OF REVISION	BY
05-16-12	REVISED PER CITY COMMENTS	KJM

DESIGNED	KJM/TRB
DRAWN	WHM
APPROVED	DAS
DATE	03-09-12
SCALE	1" = 60'

**PRELIMINARY GRADING PLAN
PRELIMINARY RESUBDIVISION PLAN
THE CORPORATE RESERVE OF ST. CHARLES PHASE II
ST. CHARLES, ILLINOIS**

SHEET
4 OF 5
PROJECT NUMBER: 1621
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- GENERAL NOTES
1. ALL MANHOLES AND CATCH BASINS SHALL BE 48-INCH DIAMETER, UNLESS OTHERWISE INDICATED.
 2. ALL SANITARY SEWER, LESS THAN 20 FEET DEEP, SHALL BE PVC, SDR 26, UNLESS OTHERWISE INDICATED. ALL SANITARY SEWERS GREATER THAN 20 FEET DEEP, SHALL BE DUCTILE IRON, CLASS 52, UNLESS OTHERWISE INDICATED.
 3. PVC SANITARY SEWER PIPE SHALL CONFORM TO ASTM D-41 WITH ASTM D-33212 OR ASTM A-746 JOINTS.
 4. ALL WATER MAIN SHALL BE DUCTILE IRON PIPE, CLASS 52, AWWA C-600 WITH "PUSH-ON" TYPE JOINTS, UNLESS OTHERWISE INDICATED. ALL WATER MAIN SHALL HAVE A MINIMUM OF 5'-6" OF COVER FROM TOP OF WATERMAIN TO FINISHED GRADE.
 5. ALL STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE, MINIMUM CLASS III, WITH ASTM C76 PIPE AND C443 JOINTS, UNLESS OTHERWISE INDICATED. ALL STORM SEWERS WHICH ARE LOCATED IN THE SIDE YARD SHALL HAVE "OT" RING GASKETED JOINTS. ALL OTHER SEWERS SHALL HAVE BITUMINOUS MASTIC JOINTS.
 6. GRANULAR TRENCH BACKFILL (CA-7) SHALL BE PROVIDED FOR ALL SANITARY, WATER AND STORM UTILITIES WHEN THE TRENCH LIMITS FALL WITHIN THREE FEET OF STREETS, SIDEWALKS, DRIVEWAYS AND AS NOTED.
 7. ALL SUMP PUMP MUST BE CONNECTED TO THE STORM SEWER SYSTEM. SUMP PUMP CONNECTIONS SHALL BE 4" PVC, UNLESS OTHERWISE NOTED.
 8. ALL WATERMAIN AND WATER SERVICE LINES SHALL BE PROTECTED FROM OTHER UTILITIES IN ACCORDANCE WITH SECTION 41-2.01 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS.
 9. ALL DRAIN TILES ENCOUNTERED DURING MASS GRADING UTILITY WORK MUST BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM. A RECORD MUST BE KEPT, OF ANY DRAIN TILE ENCOUNTERED, TO BE INCLUDED WITH THE RECORD DRAWINGS.
 10. ALL UNDERGROUND UTILITY INFORMATION NOTED ON THE PLANS IS BASED ON INFORMATION OBTAINED FROM THE MUNICIPALITY, UTILITY COMPANIES OR FIELD MEASUREMENTS. THIS INFORMATION, WHILE BELIEVED TO BE COMPLETE AND ACCURATE CANNOT BE GUARANTEED.
 11. CONTRACTOR SHALL VERIFY ALL BUILDING SERVICE LOCATIONS AND SIZES WITH ARCHITECTURAL PLANS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE ENGINEER OR OWNER OF ANY DISCREPANCIES.
 12. LOCATION OF ALL BUILDING SIAMSE CONNECTIONS TO BE APPROVED BY CITY FIRE MARSHALL.
 13. CONTRACTOR SHALL CONTACT JULIE (1-800-892-0123) PRIOR TO START OF CONSTRUCTION TO LOCATE ALL UTILITIES.
 14. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES AT ALL PROPOSED CONNECTIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE ENGINEER AND OWNER OF ANY DISCREPANCIES.
 15. FIELD LOCATION OF ALL HOUSE SERVICES TO BE SUPPLIED BY CONTRACTOR AND SHOWN ON "AS-BUILT" PLANS. SEE GENERAL CONSTRUCTION NOTES FOR MARKING WATER AND SANITARY SERVICES ON CURB.
 16. A TEN (10) FOOT MINIMUM SEPARATION SHALL BE PROVIDED BETWEEN THE WATERMAIN SERVICE AND THE SANITARY OR STORM SEWER SERVICES.
 17. IN CASE OF CONFLICTS, THE CITY OF ST CHARLES STANDARDS AND NOTES SHALL TAKE PRECEDENCE.
 18. PLUMBING CONTRACTOR TO MAKE ALL CONNECTIONS WITH BUILDING SERVICES CONSTRUCTED BY UTILITY CONTRACTOR. SITE UTILITY CONTRACTOR TO CONSTRUCT SERVICES TO WITHIN 5-FEET OF BUILDING, EXCEPT WATER INTO BUILDING 1-FOOT ABOVE FLOOR WITH BLIND FLANGE AND PROVIDE TESTING.
 19. EXISTING PAVEMENT REMOVED FOR UTILITY CONSTRUCTION SHALL BE DONE BY THE RESPECTIVE UTILITY COMPANY AND PAID FOR SEPARATELY BY THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THIS WORK INCIDENTAL TO THE CONTRACT.
 20. EXISTING OR PROPOSED MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS REQUIRING OVER 12-INCHES OF ADJUSTMENT RINGS SHALL USE AN ADDITIONAL BARREL SECTION TO MAINTAIN A MAXIMUM OF 12-INCH TOTAL ADJUSTMENT RING DEPTH.
 21. ALL PROPOSED SANITARY SEWER AND WATER MAIN TO BE PUBLICALLY OWNED AND MAINTAINED BY THE CITY OF ST CHARLES.
 22. ALL PROPOSED STORM SEWER TO BE PRIVATELY OWNED AND MAINTAINED.



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05-16-12	REVISED PER CITY COMMENTS	KJM

DESIGNED	KJM/TRB
DRAWN	WHM
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SCALE	1" = 60'

**PRELIMINARY UTILITY PLAN
 PRELIMINARY RESUBDIVISION PLAN
 THE CORPORATE RESERVE OF ST. CHARLES PHASE II
 ST. CHARLES, ILLINOIS**

SHEET
5 OF 5
 PROJECT NUMBER: 1621
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Site Data	
Site A Area (Gross)	17.83 Ac. (Gross)
Detention	2.26 Ac.
Site A Area (Net)	15.57 Ac. (Net)
Site B Area (Net)	4.23 Ac. (Net)
Total Area (Net)	19.80 Ac. (Net)
Total Units	407
Total Area/Unit	2,119 SF/Unit
Ground FL. Retail/Flex	3,500 SF GLA

Residential Parking	
468 Surface Spaces	
256 Garage Spaces	
714 Total Net Spaces (1.75:1)	
72 Tandem (Stacked) Spaces	
786 Total Spaces (1.93:1)	
Retail/Flex Parking	
14 Surface Spaces (4/1,000 SF)	



Corporate Reserve of St. Charles

Traffic Impact Study



Prepared for:

The City of St. Charles
July 3, 2012

Prepared by:



Hampton, Lenzini and Renwick, Inc.
Civil Engineers ▫ Structural Engineers ▫ Land Surveyors
380 Shepard Drive
Elgin, Illinois 60123

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I. Executive Summary

This report presents the findings and conclusions of a traffic impact study conducted for a proposed residential development located on the north side of Illinois Route 64 (IL 64), the second phase of the Corporate Reserve of St. Charles, approximately 1,500 feet east of Peck Road.

The proposed development will utilize the existing full access, Corporate Reserve Boulevard, onto IL 64 approximately 1,500 feet east of Peck Road and the existing right-turn in only/right-turn out only (RIRO) entrance approximately 2,000 feet east of Peck Road. Access to Peck Road is provided via Woodward Drive.

The findings of this report are as follows:

IL Route 64 & Peck Road: This intersection is currently operating over capacity with the existing traffic volumes. Site traffic will be an incremental addition to this over-saturated condition. The addition of the site traffic along with a re-optimization of the signal timings will result in improved intersection operations, though the traffic volumes will still exceed the capacity of the intersection. In order to bring all movements of this intersection to an acceptable LOS for all scenarios (Existing, 2022 Base Traffic, 2022 Build Traffic, and 2022 Total Traffic) an additional through lane is needed in each direction on IL 64 along with traffic signal timing optimization.

IL Route 64 & Campton Hills Road: This intersection is currently operating over capacity with the existing traffic volumes. The large amount of east/west traffic leaves very few gaps for drivers from Campton Hills Road to turn on to IL 64. The IL 64 & Oak Street improvement will provide an additional through lane to both the east- and westbound approaches of this intersection. Once completed, all movements at this intersection will operate at an acceptable LOS. The addition of the site traffic will not noticeably affect the delay observed at this intersection. No additional changes are needed to accommodate the proposed site traffic.

IL Route 64 & Corporate Reserve Boulevard:

With the assumption that an additional through lane in each direction on IL 64 will be added and this intersection will be signalized, this intersection has the overall capacity to accommodate the 2022 Total Traffic.

Peck Road & Woodward Drive:

This intersection has the overall capacity to accommodate the 2022 Total Traffic. No changes are needed from the existing geometrics.

Woodward Drive & Corporate Reserve Boulevard:

This intersection has the overall capacity to accommodate the 2022 Total Traffic. No changes are needed from the existing geometrics.

Woodward Drive & Cardinal Drive:

This intersection has the overall capacity to accommodate the 2022 Total Traffic. No changes are needed from the existing geometrics.

Comparison to the Cardinal Property Traffic Impact Study:

The results of this study were compared to the Cardinal Property Traffic Impact Study (TIS) performed in 2008. The key difference between the original Cardinal Property TIS and this report is a modification of the proposed site plan to replace 490,000 s.f. of office space with 331 residential apartments. This results in a lower volume of trips generated by the site. Overall, the delay and LOS are improved with the change from office to residential. When the intersections included in both studies are compared, all intersections except for one observe a decrease in average delay. The exception is the AM peak period of IL 64 & Corporate Reserve Boulevard, which increases from 8 to 21 seconds.

II. Introduction

This report presents the findings and conclusions of a traffic impact study conducted for a proposed residential development located on the north side of Illinois Route 64 (IL 64), the second phase of the Corporate Reserve of St. Charles, approximately 1,500 feet east of Peck Road. A general location map of the study area is provided as Exhibit 1 in the Appendix. A preliminary site plan of the proposed development is provided as Exhibit 2.

The proposed development will utilize the existing full access, Corporate Reserve Boulevard, onto IL 64 approximately 1,500 feet east of Peck Road and the existing right-turn in only/right-turn out only (RIRO) entrance approximately 2,000 feet east of Peck Road. Access to Peck Road is provided via Woodward Drive.

III. Existing Conditions

A field reconnaissance of the site was conducted to inventory information of surrounding land uses and the area roadway network. In addition, traffic counts were conducted during the morning and evening peak periods at four critical intersections.

Surrounding Land Uses

Land uses surrounding the site to the west include predominantly residential and office properties. The land uses along IL 64 to the east of the site become more dense, consisting of commercial/retail and industrial/manufacturing uses. Immediately north of the site is the Leroy Oakes Forest Preserve. The Great Western Trail multi-use path separates the proposed development from the forest preserve. To the south of the site, at the intersection of Peck Road and Campton Hills Road, is the Campton Hills Park operated by the St. Charles Park District. This is a regional park that offers a variety of recreation opportunities.

Surrounding Roadway Network

The primary roadways servicing the study area are IL 64, Peck Road, and Woodward Drive. As mentioned above, access is proposed to/from both IL 64 and Peck Road. A brief description of the primary roadways is provided below:

- **Illinois Route 64** is a two-lane east-west principal arterial roadway with continuity throughout DeKalb, Kane, Dupage, and Cook counties. Because of its regional significance in the Chicago metropolitan area, the Illinois Department of Transportation (IDOT) has designated IL 64 as a Strategic Regional Arterial (SRA). Near the proposed development, IL 64 consists of rural cross-section with one lane in each direction with exclusive left-turn lanes at Peck Road and other critical intersections. Sidewalks are not present along IL 64. IL 64 near the site has a posted speed limit of 45 miles per hour (mph). IL 64 is under the jurisdiction of IDOT and, according to IDOT traffic maps, carries approximately 22,700 vehicles per day in the vicinity of the proposed development.
- **Peck Road** is a two-lane north-south collector roadway that extends from Kaneville Road in the City of Geneva north to Dean Street. The north Peck Road approach to the IL 64 intersection consists of an urban cross-section with curb and gutter which then

transitions to a rural cross-section with aggregate/ turf shoulders and open ditch drainage north to Dean Street. There is an existing bike path along the west side of Peck Road adjacent to the existing residential subdivision. At the IL 64 intersection, Peck Road consists of a wider urban cross-section that includes one through lane in each direction with separate left-turn lane for vehicles turning onto IL 64. Peck Road is posted with a 35 mph speed limit in the vicinity of the site and is under the jurisdiction of the City of St. Charles.

The intersection of Peck Road with IL 64 was improved about ten years ago to include exclusive left-turn lanes and span-wire mounted traffic signals. Actuated (push-button) pedestrian signals are present along the west side of Peck Road to cross IL 64. Abbreviated or “Chicago” style left-turn lane tapers are striped on both the north and south approaches.

- **Woodward Drive** is a two-lane, two-way, east-west collector street that extends from Peck Road east to a dead end approximately 500 feet west of Randall Road. Woodward Drive is ultimately planned to connect to Randall Road as this area develops further. Woodward Drive is under the jurisdiction of the City of St. Charles and is posted with a 25 mph speed limit.

Existing Traffic Conditions

Peak period turning movement traffic counts were conducted on weekdays from 6:30 – 8:30 AM and from 4:30 – 6:30 PM March 2012 at the following intersections:

- IL Route 64 & Peck Road
- IL Route 64 & Campton Hills Road
- Peck Road & Woodward Drive
- Woodward Drive & Cardinal Drive

Exhibit 3 in the Appendix presents the existing peak hour volumes at these intersections. Using these counts and knowledge of the surrounding area, traffic volumes were estimated at the intersections of IL 64 & Corporate Reserve Boulevard and Woodward Drive & Corporate Reserve Boulevard. In order to gain an understanding of existing traffic operations, capacity analyses were conducted for the existing morning and evening peak hours at each of these intersections. The results of these analyses are discussed later in this report.

Historical traffic data in the area near the project site were reviewed to determine if there were any growth trends. After this review and in conjunction with City of St. Charles staff comments, it was determined that an annual growth rate of 0.5% would be applied linearly (5% total over 10 years) to the existing volumes to develop the 2022 Base Traffic volumes shown in Exhibit 4.

Capacity analyses for the 2022 Base Traffic scenario were performed at each of the project intersections. Note that the capacity analysis for IL 64 & Campton Hills Road includes improvements from the IL 64 & Oak Street Traffic Signal Installation project. The improvements include an additional through lane on the both the east- and westbound approaches of IL 64.

Level of Service (LOS) criteria for signalized and stop-sign controlled intersections are based on the methodologies presented in the “Highway Capacity Manual” published by the Transportation Research Board (TRB). LOS criteria range from “A” (good) to “F” (poor) and are based on

average delay in seconds per vehicle. It should be noted that the LOS thresholds are different for signalized and stop-sign controlled intersections. At two-way stop intersections, LOS criteria for stop-sign controlled intersections are defined for each minor movement and are **not** defined for the intersection as a whole. The LOS delay thresholds for stop-sign controlled intersections are also lower than for signalized intersections since driver expectation at a signalized intersection is for a greater delay. The LOS criteria for signalized and stop-sign controlled intersections are presented below in Table 1.

Table 1
Level of Service Criteria for Signalized and Stop-Sign Controlled Intersections¹
Signalized Intersections

Level of Service	Type of Operating Condition	Average Vehicle Delay (seconds)
A	Very low delay, most vehicles arrive during the green and do not stop at all.	≤ 10.0
B	More vehicles stop at the traffic signal than LOS "A", but otherwise good progression of traffic through the intersection.	10.1 – 20.0
C	Congestion starts to occur; number of vehicles stopping at the intersection is significant.	20.1 – 35.0
D	Congestion is more noticeable, longer delays; some vehicles may not clear on a single cycle.	35.1 – 55.0
E	High delays, poor progression through intersection. Most vehicles do not clear the intersection on a single cycle.	55.1 – 80.0
F	Unacceptable high delay to drivers, demand exceeds capacity, increasing queue lengths.	> 80.0

Stop-Sign Controlled Intersections

Level of Service	Average Control Delay (sec/veh.)
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	>50

Table 2 below presents the existing and 2022 Base Traffic operations at IL 64 & Peck Road. Analysis of existing traffic was conducted using existing signal controller settings and existing intersection geometry. Analysis of 2022 Base Traffic retained existing intersection geometry *but assumed that the traffic signal timings would be re-optimized*. Copies of the capacity analysis summaries conducted for the existing critical intersections are contained in the Appendix.

¹ Source: Highway Capacity Manual 2010, Transportation Research Board, National Research Council, Washington, D.C

Table 2
Summary of Existing and 2022 Base Traffic Conditions
Intersection Level of Service (LOS) and Delay (seconds)
Signalized Intersections

Intersection	Existing 2012 Traffic		2022 Base Traffic	
	AM Peak	PM Peak	AM Peak	PM Peak
IL 64 & Peck Rd.	F (104)	D (47)	E (56)	D (42)

It should be noted that some individual movements operate at LOS E or F. Table 3 below gives a detailed breakdown of the 2022 Base Traffic, showing each individual movement's Level of Service.

Table 3
LOS & Delay by Movement for 2022 Base Traffic

Intersection	Peak Hour	Overall LOS & (delay)	LOS & (delay) by Movement							
			Eastbound		Westbound		Northbound		Southbound	
			L	TR	L	TR	L	TR	L	TR
IL 64 & Peck Rd.	AM	E (56)	A (7)	E (60)	C (34)	B (15)	D (45)	F (98)	D (46)	E (61)
	PM	D (42)	C (25)	C (28)	B (16)	D (40)	D (53)	D (53)	D (48)	E (66)

Analysis results show that under the existing conditions and signal timings, this intersection operates at an overall LOS F during the AM peak and LOS D during the PM peak. With background traffic growth projected to 2022, *and signal timings re-optimized*, there will be a noticeable decrease in delay during the AM peak and a slight decrease during the PM peak. Vehicle queues (stacking) exceed the provided left turn lane storage in both the existing and 2022 Base Traffic scenarios. *Traffic volumes currently exceed the capacity of the intersection.*

Table 4 on the following page shows a summary of analysis results for stop-sign controlled intersections. Capacity analyses of stop-sign controlled intersections provide Levels of Service and delays for individual intersection movements, but not the intersection as a whole. Results for the most critical movement at each intersection are shown in the table on the following page.

Table 4
Summary of Existing and 2022 Base Traffic Conditions
Level of Service (LOS) and Delay (seconds)
Stop-sign Controlled Intersections

Critical Movement	Existing 2012 Traffic		2022 Base Traffic	
	AM Peak	PM Peak	AM Peak	PM Peak
Campton Hills Rd. at IL 64*	N.B. F (271)	N.B. C (20)	N.B. D (28)	N.B. B (13)
Corp. Reserve Blvd. at IL 64	S.B.Left C (17)	S.B.Left C (18)	S.B.Left C (18)	S.B.Left C (18)
Woodward Dr. at Peck Rd.	W.B. B (11)	W.B. B (11)	W.B. B (10)	W.B. B (12)
Cardinal Dr. at Woodward Dr.	N.B. A (9)	N.B. A (9)	N.B. A (9)	N.B. A (9)
Corp. Reserve Blvd. at Woodward Dr.	N.B. A (8)	N.B. A (8)	N.B. A (8)	N.B. A (8)

* Northbound movement represents eastbound Campton Hills Road

Analysis of existing conditions and 2022 Base Traffic shows that the critical movements at the majority of the stop-controlled intersections included in the analysis operate at acceptable LOS C or better. There is one exception described below, which operates below an acceptable Level of Service.

Campton Hills Road at IL Route 64: The northbound (eastbound Campton Hills Road) movement during the AM peak hour currently operates at LOS F. Delays up to 271 seconds (4.5 minutes) may be observed. This delay can be attributed to the large IL 64 east- and westbound through traffic conflicting with the northbound (eastbound Campton Hills Road) movement. The expected 95% queue (vehicle stacking) approaches 595 feet.

This condition is alleviated with the IL 64 & Oak Street improvement. The IL 64 & Oak Street improvement adds an additional through lane to both the east- and westbound approaches of the Campton Hills Road intersection. With this geometric improvement, the expected delay and LOS improve to an acceptable level.

IV. Site Traffic Characteristics of Proposed Development

Proposed Land Uses

The site plan for phase 2 of the proposed development consists of 331 residential apartments and a clubhouse.

Estimated Site-Generated Traffic

Site-generated traffic was estimated using the ITE *Trip Generation Manual, 8th Edition*. The volume generated by the apartments was modeled with ITE Code 220, Apartment. The anticipated number of units, 331, was used to estimate morning and evening peak hour trips to and from the site. The resulting generated traffic is shown in Table 5 on the following page.

**Table 5
Trip Generation Table**

Land Use	ITE Code	Units	Qty	AM Peak Hour Volumes (veh/hr)			PM Peak Hour Volumes (veh/hr)		
				In	Out	Total	In	Out	Total
Residential	220	D.U.	331	34	135	169	133	72	205

Source: ITE Trip Generation Manual, 8th Edition

Estimated Trip Distribution

The direction by which traffic will approach and depart the site is dependent on a variety of factors. These factors include existing travel patterns, characteristics and operating conditions of the surrounding roadways, ease of access, and location of population and employment centers. Based on these factors and a familiarity with the sites and the environs, trip distribution estimates were developed and are presented in Table 6 below and on Exhibit 5 in the Appendix.

It should be noted that the intersection of IL 64 & Oak Street will be signalized by the time this site is developed. It is assumed that until the out lots of the Corporate Reserve are developed and occupied, all traffic traveling from the site to the east during the peak hours will utilize the new traffic signal at Oak Street. Once the proposed site and out lots are developed and occupied, it is expected that a traffic signal at IL 64 & Corporate Reserve Boulevard will be warranted and installed. At this time, it is assumed that traffic traveling from the site to the east during peak hours will utilize this new signal.

**Table 6
Trip Distribution Estimates**

Direction To/From	Percentage of Trips
West on IL 64	5%
East on IL 64	70%
North on Peck Rd.	10%
South on Peck Rd.	15%

Site Traffic Assignments

The estimated site-generated traffic volumes from the proposed development were assigned to the area roadway system based on the directional distribution identified above and on Exhibit 5. The site generated trip assignments for the proposed Corporate Reserve development are illustrated on Exhibit 6 in the Appendix.

Total Traffic Assignments

The development's generated site traffic assignment was then combined with the 2022 Base Traffic projected traffic to develop a 2022 Build Traffic assignment, shown on Exhibit 7 in the Appendix.

An additional scenario, 2022 Total Traffic, was developed combining the 2022 Build Traffic with the traffic generated by the outlots of the Corporate Reserve. The outlots of the Corporate Reserve are described in a previous traffic impact study performed by Hampton, Lenzini & Renwick, Inc. (HLR)². These outlots are anticipated to include 60,000 s.f. of office space and

² Cardinal Property Traffic Impact Study dated July 14, 2008

20,000 s.f. of restaurant (no breakfast service). Trip generation rates and distributions used in this study remain unchanged from the original report and are shown in Table 7 below. The 2022 Total Traffic assignment can be seen in Exhibit 8.

Table 7
Trip Generation Table

Land Use	ITE Code	Units	Qty	AM Peak Hour Volumes (veh/hr)			PM Peak Hour Volumes (veh/hr)		
				In	Out	Total	In	Out	Total
General Office	710	1000 s.f.	30,000	62	8	70	20	100	120
General Office	710	1000 s.f.	45,000	88	12	100	24	116	140
Quality Restaurant	931	1000 s.f.	20,000	10	5	15	100	50	150
Restaurant Pass-by Trips				0	0	0	(15)	(15)	(30)
Total Trips				160	25	185	129	251	380

Source: ITE Trip Generation Manual, 7th Edition

V. Future Traffic Operations

Traffic Operations

Capacity analyses were conducted using the estimated 2022 Build Traffic volumes at the five intersections included in this study. Table 8 below presents the results of the capacity analyses at IL 64 & Peck Road and provides a comparison to the year 2022 Base Traffic discussed earlier in this report.

Table 8
Summary of 2022 Base Traffic and 2022 Build Traffic Conditions
Intersection Level of Service (LOS) and Delay (seconds)
Signalized Intersections

Intersection	2022 Base Traffic		2022 Build Traffic	
	AM Peak	PM Peak	AM Peak	PM Peak
IL 64 & Peck Rd.	E (56)	D (42)	E (57)	D (42)

Note that when site traffic is added, the overall average intersection delay during the AM peak increases by approximately one second and remains unchanged during the PM peak.. Table 9 below shows a detailed breakdown of individual movements for the 2022 Build Traffic.

Table 9
LOS & Delay by Movement for 2022 Build Traffic

Intersection	Peak Hour	Overall LOS & (delay)	LOS & (delay) by Movement							
			Eastbound		Westbound		Northbound		Southbound	
			L	TR	L	TR	L	TR	L	TR
IL 64 & Peck Rd.	AM	E (57)	A (7)	E (60)	D (35)	B (15)	D (45)	F (105)	D (46)	E (61)
	PM	D (42)	C (25)	C(29)	B (17)	D (41)	D (53)	D (55)	D (48)	E (66)

Analysis of the 2022 Build Traffic shows that with the projected site traffic and re-optimized signal timings, the intersection operates at an overall LOS E during the AM peak and LOS D during the PM peak. These are the same levels of service calculated for the 2022 Base Traffic. Some individual movements operate at LOS E and F during peak times. Individual movements observe either no increase or small increases in average delay when compared to the 2022 Base Traffic. Like the existing condition, vehicle queues are expected to exceed the provided left-turn storage lanes during peak times. As is the case with the existing conditions, vehicle volumes are expected to exceed the capacity of the intersection.

Table 10 shows a summary of analysis results for stop-sign controlled intersections. As noted before, capacity analyses of stop-sign controlled intersections provide Levels of Service and delays for individual intersection movements, but not the intersection as a whole. Results for the most critical movement at each intersection are shown in Table 10 below.

Table 10
Summary of 2022 Base Traffic and 2022 Build Traffic Conditions
Level of Service (LOS) and Delay (seconds)
Stop-sign Controlled Intersections

Critical Movement	2022 Base Traffic		2022 Build Traffic	
	AM Peak	PM Peak	AM Peak	PM Peak
Campton Hills Rd. at IL 64*	N.B. D (28)	N.B. B (13)	N.B. D (28)	N.B. B (13)
Corp. Reserve Blvd. at IL 64	S.B.Left C (18)	S.B.Left C (18)	S.B.Left C (18)	S.B.Left C (19)
Woodward Dr. at Peck Rd.	W.B. B (10)	W.B. B (12)	W.B. A (10-)	W.B. B (12)
Cardinal Dr. at Woodward Dr.	N.B. A (9)	N.B. A (9)	N.B. A (10-)	N.B. A (9)
Corp. Reserve Blvd. at Woodward Dr.	N.B. A (8)	N.B. A (8)	S.B. A (10-)	N.B. B (11)

* Northbound movement represents eastbound Campton Hills Road

Analysis of 2022 Build Traffic shows that critical movements at the stop-controlled intersections included in the analysis all operate at LOS D or better. LOS D is considered an acceptable LOS.

VI. Total Traffic Operations

In order to compare the traffic impacts from this study to the previous Cardinal TIS referenced earlier in this report, capacity analyses were conducted using the estimated 2022 Total Traffic volumes at the five intersections included in this study. The 2022 Total Traffic condition includes the proposed residential site as well as the office and restaurant uses in the outlots of the Corporate Reserve. Table 11 on the following page presents the results of the capacity analyses at IL 64 & Peck Road and provides a comparison to the year 2022 Build Traffic discussed earlier in this report.

Table 11
Summary of 2022 Build Traffic and 2022 Total Traffic Conditions
Intersection Level of Service (LOS) and Delay (seconds)
Signalized Intersections

Intersection	2022 Build Traffic		2022 Total Traffic	
	AM Peak	PM Peak	AM Peak	PM Peak
IL 64 & Peck Rd.	E (57)	D (42)	E (72)	D (53)

When compared to the Build Traffic, the overall average intersection delay increases by 12 seconds during the AM peak and 11 seconds during the PM peak. Table 12 below shows a detailed breakdown of individual movements for the 2022 Total Traffic.

Table 12
LOS & Delay by Movement for 2022 Total Traffic

Intersection	Peak Hour	Overall LOS & (delay)	LOS & (delay) by Movement							
			Eastbound		Westbound		Northbound		Southbound	
			L	TR	L	TR	L	TR	L	TR
IL 64 & Peck Rd.	AM	E (72)	A (7)	E (79)	D (36)	B (15)	D (45)	F (129)	D (46)	E (62)
	PM	D (53)	C (32)	C (31)	B (18)	E (61)	E (66)	E (57)	D (48)	E (78)

Analysis of the 2022 Total Traffic shows that with the projected site traffic, the Corporate Reserve out lot traffic, and re-optimized signal timings, the intersection operates at an overall LOS E during the AM peak and LOS D during the PM peak. Some individual movements operate at LOS E and F during peak times. Like the existing and 2022 Build Traffic conditions, vehicle queues are expected to exceed the provided left-turn storage lanes during peak times. As is the case with the existing and 2022 Build Traffic conditions, vehicle volumes are expected to exceed the capacity of the intersection.

It is anticipated that with the 2022 Total Traffic, a traffic signal will be warranted and installed at the intersection of IL 64 & Corporate Reserve Boulevard. A traffic signal warrant analysis is presented later in this report. Table 13 below provides a summary of the capacity analysis at this intersection with traffic signal control. It is assumed that when this traffic signal is installed that IL 64 will be widened to two through lanes in each direction.

Table 13
LOS & Delay by Movement for 2022 Total Traffic

Intersection	Peak Hour	Overall LOS & (delay)	LOS & (delay) by Movement				
			Eastbound		Westbound	Southbound	
			L	TR	TR	L	R
IL 64 & Corp. Reserve Blvd.	AM	C (21)	A (9)	C (21)	B (17)	C (32)	C (31)
	PM	C (23)	B (14)	B (18)	C (24)	C (33)	C (33)

Table 14 shows a summary of analysis results for the stop-sign controlled intersections. As noted before, capacity analyses of stop-sign controlled intersections provide Levels of Service

and delays for individual intersection movements, but not the intersection as a whole. Results for the most critical movement at each intersection are shown in Table 14 below.

Table 14
Summary of 2022 Build Traffic and 2022 Total Traffic Conditions
Level of Service (LOS) and Delay (seconds)
Stop-sign Controlled Intersections

Critical Movement	2022 Build Traffic		2022 Total Traffic	
	AM Peak	PM Peak	AM Peak	PM Peak
Campton Hills Rd. at IL 64*	N.B. D (28)	N.B. B (13)	N.B. D (35-)	N.B. B (14)
Corp. Reserve Blvd. at IL 64	S.B.Left C (18)	S.B.Left C (19)	Signalized	
Woodward Dr. at Peck Rd.	W.B. A (10-)	W.B. B (12)	W.B. B (10)	W.B. B (13)
Cardinal Dr. at Woodward Dr.	N.B. A (10-)	N.B. A (9)	N.B. A (10-)	N.B. B (11)
Corp. Reserve Blvd. at Woodward Dr.	N.B. A (10-)	N.B. B (11)	S.B. B (10)	N.B. C (16)

* Northbound movement represents eastbound Campton Hills Road

Analysis of 2022 Total Traffic shows that critical movements at the stop-controlled intersections included in the analysis all operate at LOS D or better. LOS D is considered an acceptable LOS.

Traffic Signal Warrants:

A traffic signal warrant was analyzed for IL 64 & Corporate Reserve Boulevard per Chapter 4 of the Manual on Uniform Traffic Control Devices (MUTCD) and IDOT guidelines³. IL Route 64 is designated an SRA route by IDOT. IDOT uses higher thresholds on SRA routes for signal warrants 1A & 1B than are in the MUTCD and does not allow the use of warrants 2 & 3. In order to produce 8th maximum hour traffic volumes for warrant 1, IDOT guidelines allow using 55% of the peak hour traffic volumes⁴. The traffic signal warrant summary sheets are Exhibit 9 in the Appendix.

IL Route 64 & Corporate Reserve Boulevard (2022 Build Traffic): The traffic signal warrant analysis for this intersection was performed with all eastbound traffic from the site using this intersection rather than Oak Street. Using the 55% factor to estimate 8th maximum hour traffic along with the required IDOT right turn reduction, projected traffic at this intersection does not meet a traffic signal warrant.

IL Route 64 & Corporate Reserve Boulevard (2022 Total Traffic): Using the 55% factor to estimate 8th maximum hour traffic along with the required IDOT right turn reduction, it is anticipated that this intersection will warrant a traffic signal once all phases of the development are occupied.

³ IDOT Signal Warrant Worksheet Procedures

⁴ IDOT BDE Manual, 2002 Ed., p. 14-3(3), item 4c. Proposed Volumes

VII. Findings and Recommendations

The estimates and analyses discussed in the preceding pages, based on the proposed site layout and access as shown in Exhibit 2, indicate the following:

IL Route 64 & Peck Road:

This intersection is currently operating over capacity with the existing traffic volumes. Site traffic will be an incremental addition to this over-saturated condition. Re-optimization of the signal timings will result in improved intersection operations, though the traffic volumes will still exceed the capacity of the intersection.

In order to bring all movements of this intersection to an acceptable LOS for all scenarios (Existing, 2022 Base Traffic, 2022 Build Traffic, and 2022 Total Traffic) an additional through lane is needed in each direction on IL 64 along with traffic signal timing optimization. Table 15 below shows how the additional through lanes would improve the intersection operations.

Table 15
IL 64 and Peck Road
LOS & Delay by Movement for 2022 Total Traffic

Condition	Peak Hour	Overall LOS & (delay)	LOS & (delay) by Movement							
			Eastbound		Westbound		Northbound		Southbound	
			L	TR	L	TR	L	TR	L	TR
No Improvements	AM	E (69)	A (7)	E (76)	D (36)	B (15)	D (45)	F (127)	D (46)	E (62)
	PM	D (53)	C (32)	C(31)	B (18)	E (60)	E (65)	E (57)	D (48)	E (77)
With Improvements	AM	C (32)	B (12)	C (29)	B (17)	C (20)	C (34)	D (55)	C (34)	D (48)
	PM	D (35)	B (20)	C (29)	B (18)	C (32)	D (37)	D (44)	D (41)	D (54)

Table 15 shows that with traffic signal timing optimization and one additional through lane in each direction on IL 64, all movements of the intersection can operate at an acceptable LOS D or better.

The proportion of projected 2022 traffic that is due to the new development is shown in Table 16 on the following page. The overall percentage of peak period traffic that can be attributed to the proposed residential development in the Corporate Reserve site is 1.8% for the AM peak and 1.7% for the PM peak.

Table 16
IL Route 64 and Peck Road
Site Trips as Percent of Projected 2022 Total Traffic

Intersection Approach	AM Peak Hour				PM Peak Hour			
	Base	Site	Total	%	Base	Site	Total	%
Eastbound IL 64	1096	2	1098	0.2%	658	7	665	1.1%
Westbound IL 64	270	27	297	9.1%	948	15	963	1.6%
Southbound Peck Rd.	182	0	182	0%	301	0	301	0%
Northbound Peck Rd.	318	5	323	1.5%	531	20	551	3.7%
Total Intersection	1866	34	1900	1.8%	2438	42	2480	1.7%

IL Route 64 & Campton Hills Road:

This intersection is currently operating over capacity with the existing traffic volumes. The large amount of east/west traffic leaves very few gaps for northbound (eastbound Campton Hills Road) vehicles to turn on to IL 64. This intersection is expected to operate at an acceptable LOS D or better after the completion of the IL 64 & Oak Street improvement. This intersection will have the overall capacity to accommodate the 2022 Total Traffic. No changes beyond what is included in the IL 64 & Oak Street improvement are needed.

IL Route 64 & Corporate Reserve Boulevard:

With the assumption that an additional through lane in each direction on IL 64 will be added and this intersection will be signalized, this intersection has the overall capacity to accommodate the 2022 Total Traffic.

Peck Road & Woodward Drive:

This intersection has the overall capacity to accommodate the 2022 Total Traffic. No changes are needed from the existing geometrics.

Woodward Drive & Corporate Reserve Boulevard:

This intersection has the overall capacity to accommodate the 2022 Total Traffic. No changes are needed from the existing geometrics.

Woodward Drive & Cardinal Drive:

This intersection has the overall capacity to accommodate the 2022 Total Traffic. No changes are needed from the existing geometrics.

Traffic Calming:

Traffic calming measures are not anticipated to be needed on Woodward Drive. Should measures be required in the future, the City of St. Charles has a traffic calming policy in place that should be followed at that time.

On-site Traffic Circulation:

A detailed review of the site plan should be conducted by City staff and by the Fire Department to ensure that adequate access is provided for emergency vehicles throughout the site. When geometric plans for the access lanes within the site are finalized, they should be reviewed for access by the largest St. Charles Fire Department truck, which can be approximated with a WB-50 turning template.

Comparison to the Cardinal Property Traffic Impact Study:

The results of this study were compared to the Cardinal Property TIS referenced earlier in this report to see how the impacts changed when the proposed site's land use was changed from office to residential. The key difference between the original Cardinal Property TIS and this report is a modification of the proposed site plan to replace 490,000 s.f. of office space with 331 residential apartments. This results in a reduction in the volume of trips generated by the site. Table 17 below shows a comparison of the total trips generated by the Corporate Reserve and its outlots.

Table 17
Comparison of Cardinal Property TIS and Corporate Reserve TIS
2022 Total Traffic
Total Site Trips Generated

Study	AM Peak			PM Peak		
	In	Out	Total	In	Out	Total
2008 Cardinal Property TIS	670	95	765	220	650	870
2012 Corporate Reserve TIS	194	160	354	262	323	585

Table 18 below shows a comparison between the average delays at intersections included in both studies. For the signalized intersections, the delay and LOS shown are for the intersection as a whole. For the stop-sign controlled intersection, the delay and LOS are for the critical movement.

Table 18
Comparison of Cardinal Property TIS and Corporate Reserve TIS
2022 Total Traffic
Level of Service (LOS) and Delay (seconds)

Critical Movement	Cardinal TIS		Corp. Reserve TIS	
	AM Peak	PM Peak	AM Peak	PM Peak
Peck Rd. at IL 64	F (111)	F (120)	E (69)	D (53)
Corp. Reserve Blvd. at IL 64*	A (8)	D (44)	C (21)	C (23)
Campton Hills Rd. at IL 64**	N.B. F (736)	N.B. F (***)	N.B. D (35-)	W.B. B (14)

* Analyzed as a signalized intersection

** Northbound movement represents eastbound Campton Hills Road

*** Report does not provide delay due to capacity software limits.

Table 18 shows that for most situations, the delay and LOS are improved with the new proposed residential use. The delay at IL 64 & Corporate Reserve Boulevard is increased for the AM peak hour period. This is because residential uses have a larger exiting volume in the AM than office uses. Therefore, there is a larger amount of traffic on the minor approach to this intersection, increasing the delay.

Woodward Drive Extension:

It is in the City's long range plans to extend Woodward Drive to Randall Road and construct a new signalized intersection at this location. When this happens, there will be a benefit to several of the study intersections. A majority of vehicles traveling to and from the north as well as some of the vehicles traveling to and from the south on Randall Road will utilize this new intersection. This will divert some of the traffic using Woodward Drive & Peck Road and IL 64 & Corporate Reserve Boulevard. A more detailed analysis will be required to determine the anticipated level of benefit to sites along Woodward Drive, including the Corporate Reserve.

It should be noted that if this extension and new intersection are completed before the proposed Corporate Reserve development, the traffic signal warrants anticipated at IL 64 & Corporate Reserve Boulevard may be affected. If this situation occurs, it is recommended that the traffic distributions be reevaluated and a new traffic signal warrant analysis be prepared.

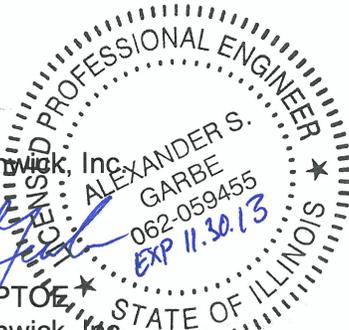
Respectfully Submitted,



P. Brien Funk, EI
Hampton, Lenzini and Renwick, Inc.



Alexander S. Garbe, PE, PTOE
Hampton, Lenzini and Renwick, Inc.



Diane Lukas, PE
Hampton, Lenzini and Renwick, Inc.



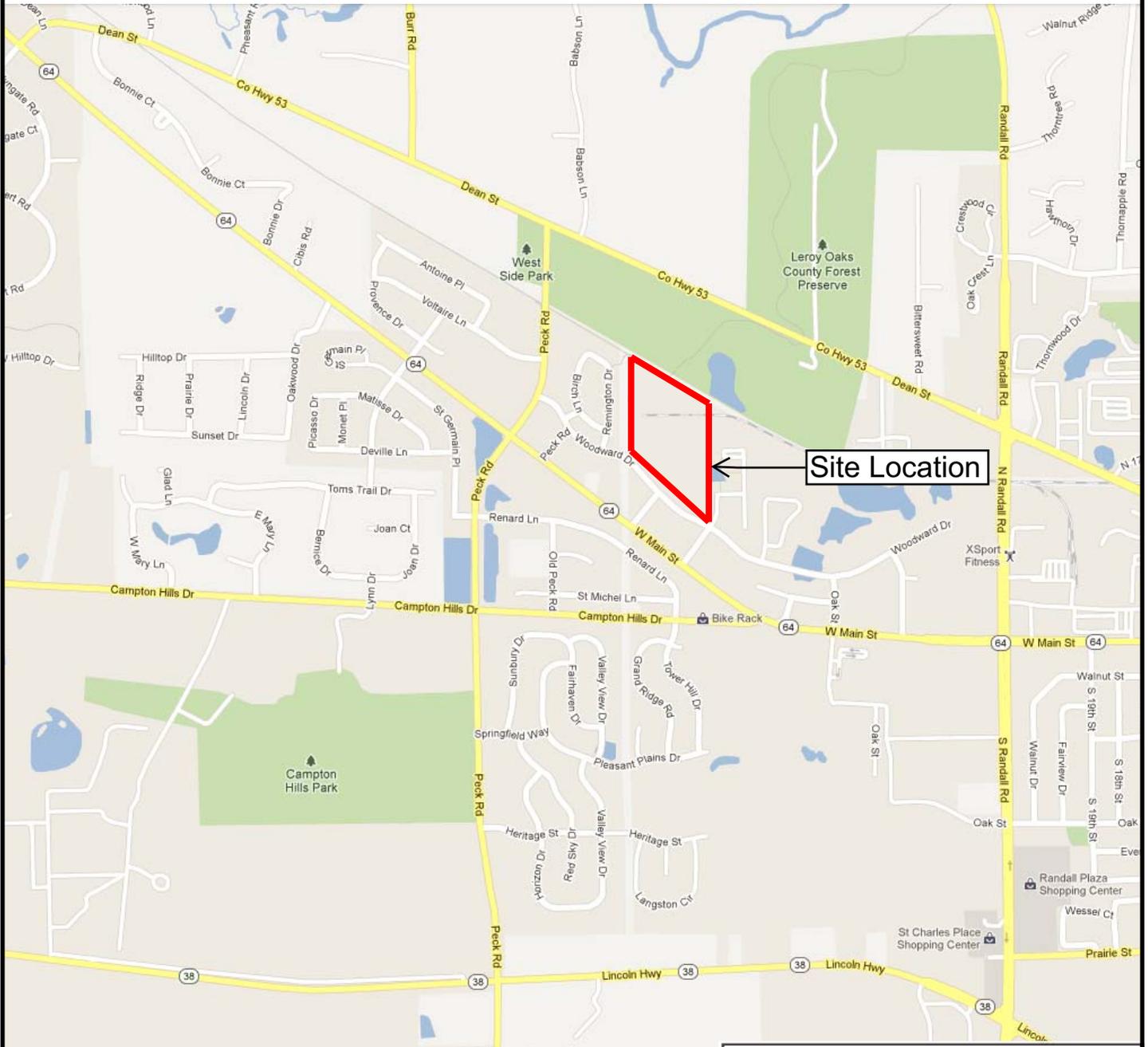


Exhibit 1

Corporate Reserve of St. Charles

Location Map

Hampton, Lenzini and Renwick, inc.
 Civil & Structural Engineers · Land Surveys · Environmental Services
ELR ELGIN · SPRINGFIELD · ROMEOVILLE
www.hirengineering.com

SITE DATA

Total Site Bedroom Count	Total # Units	Total Unit %	Total Parking Req.	Total Parking Provided
STUDIO	16	4.8%	1.2/du	20
1 BR	160	48.4%	1.2/du	192
2 BR	155	46.8%	1.7/du	264
Tot. Rental Units	331	100.0%		476
Rental Site Lot Area/Unit	20.30 Ac.			
	2,671 SF/Unit			

Phase I
266 Units
Phase II
65 Units

3 Story Walk-Up with Walkout Level
25 Units/ Building
8 Garages/ Building

3 Story Walk-Up
21 Units/ Building
8 Garages/ Building

3 Story Walk-Up with Half Walkout Level
23 Units/ Building
8 Garages/ Building

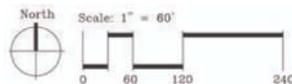


Exhibit 2

Corporate Reserve Of St. Charles

Preliminary Site Plan

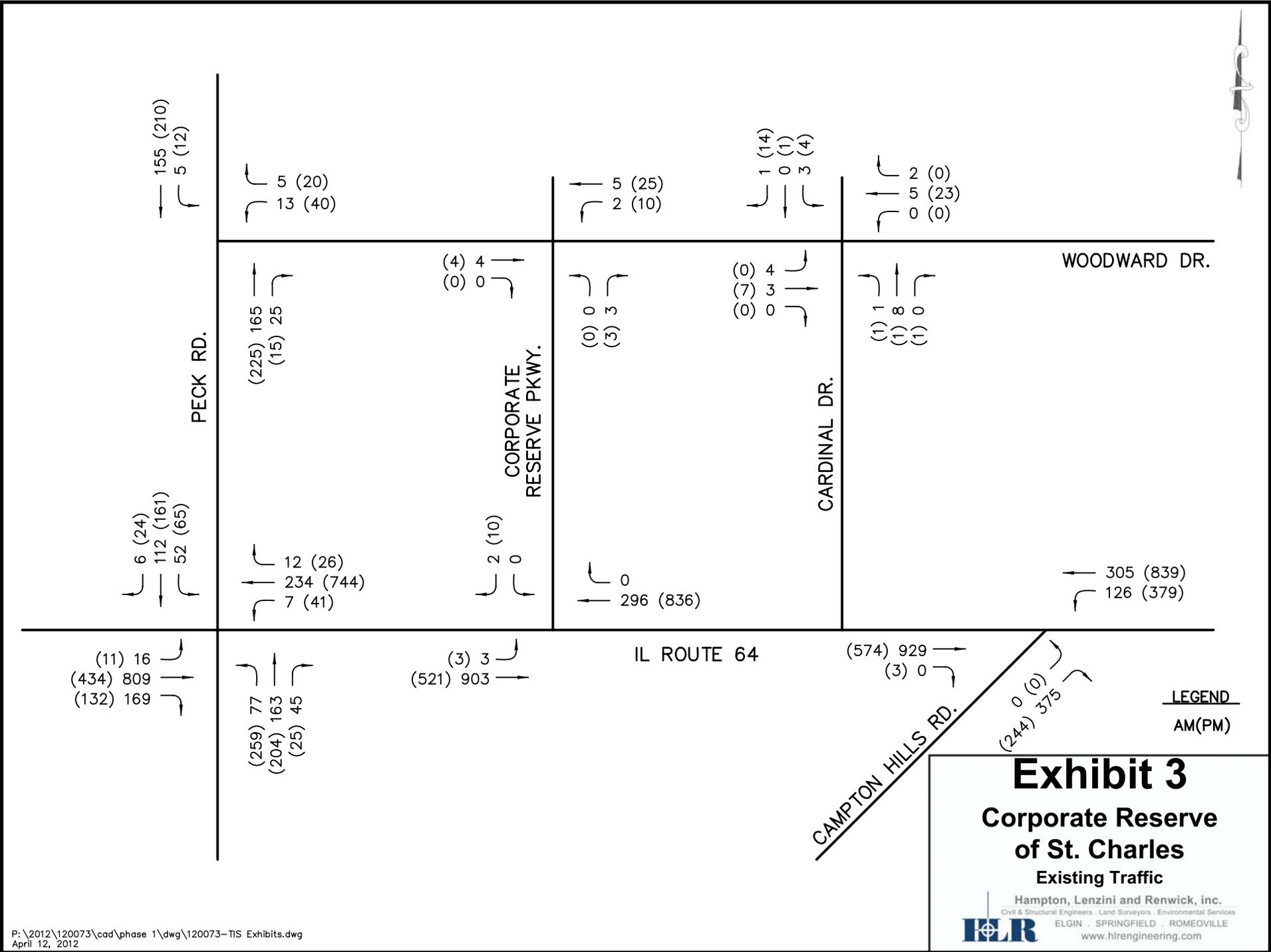
Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers · Land Surveyors · Environmental Services
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Sheet LP-1
Corporate Reserve of St. Charles
Concept Site Plan



Date: March 21, 2012
© 2012 BSB Design, Inc.



WOODWARD DR.

CARDINAL DR.

CORPORATE RESERVE PKWY.

PECK RD.

IL ROUTE 64

CAMPTON HILLS RD.

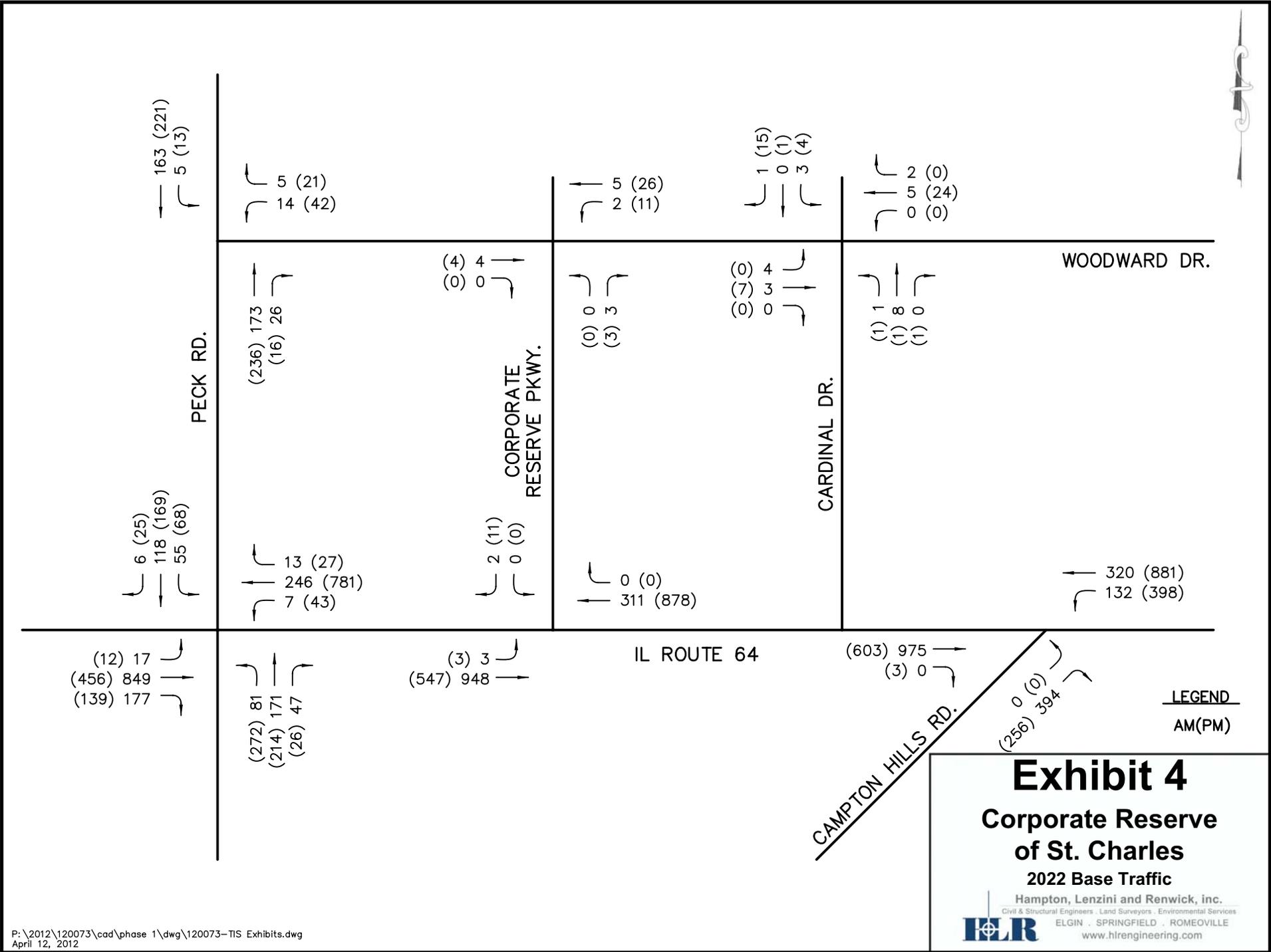
LEGEND
AM(PM)

Exhibit 3

Corporate Reserve of St. Charles

Existing Traffic

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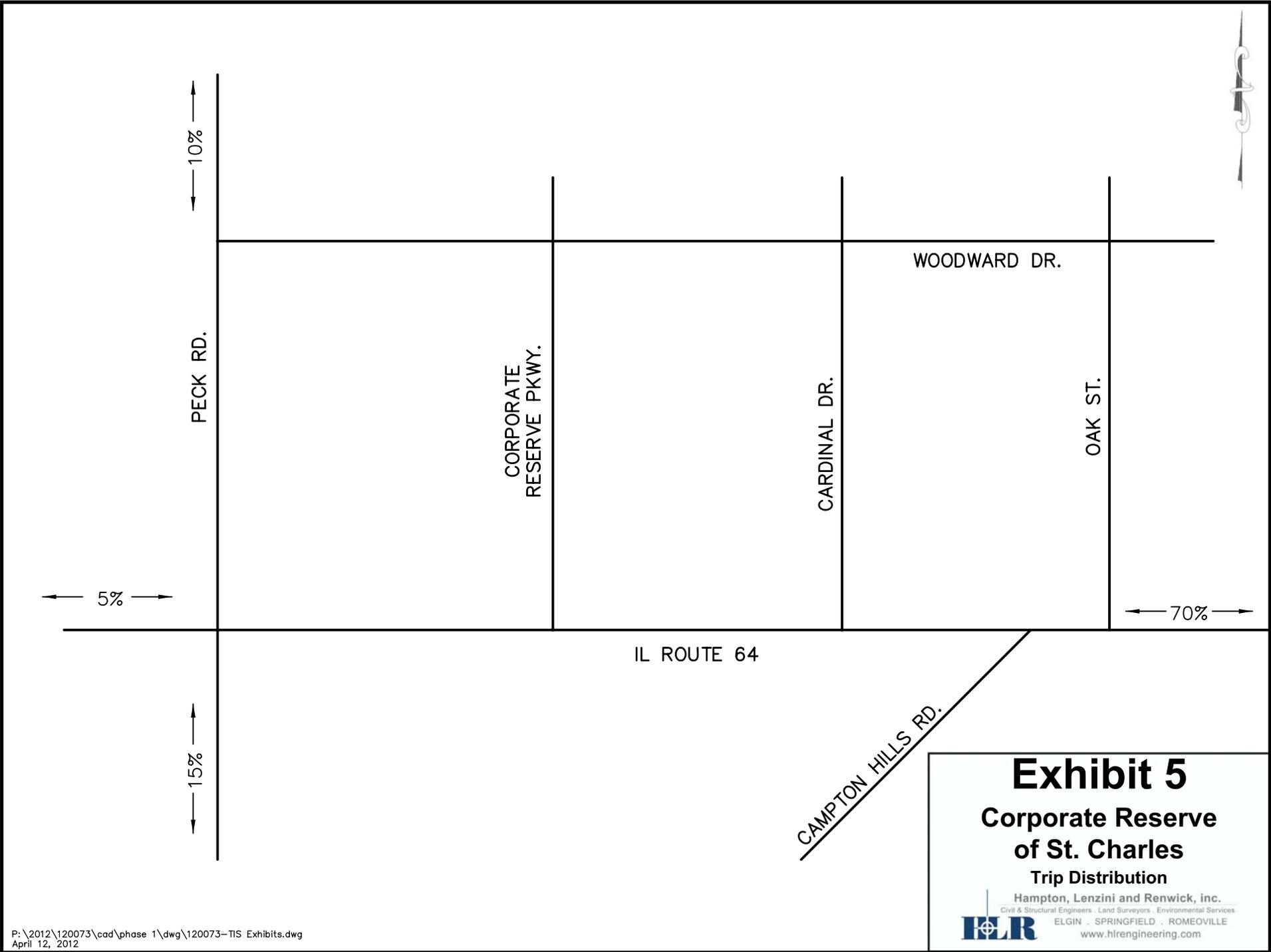
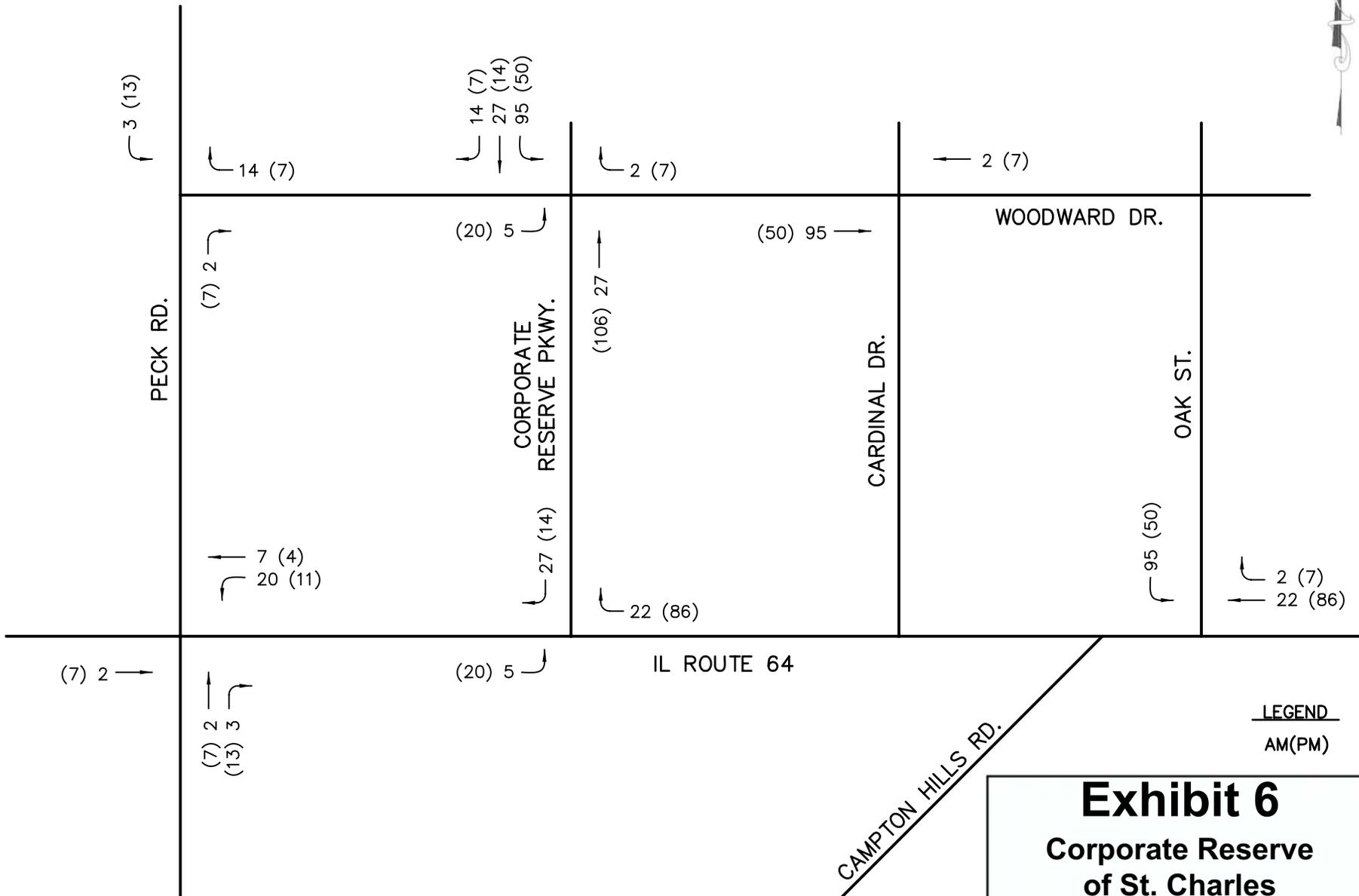


Exhibit 5

**Corporate Reserve
of St. Charles
Trip Distribution**

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LEGEND

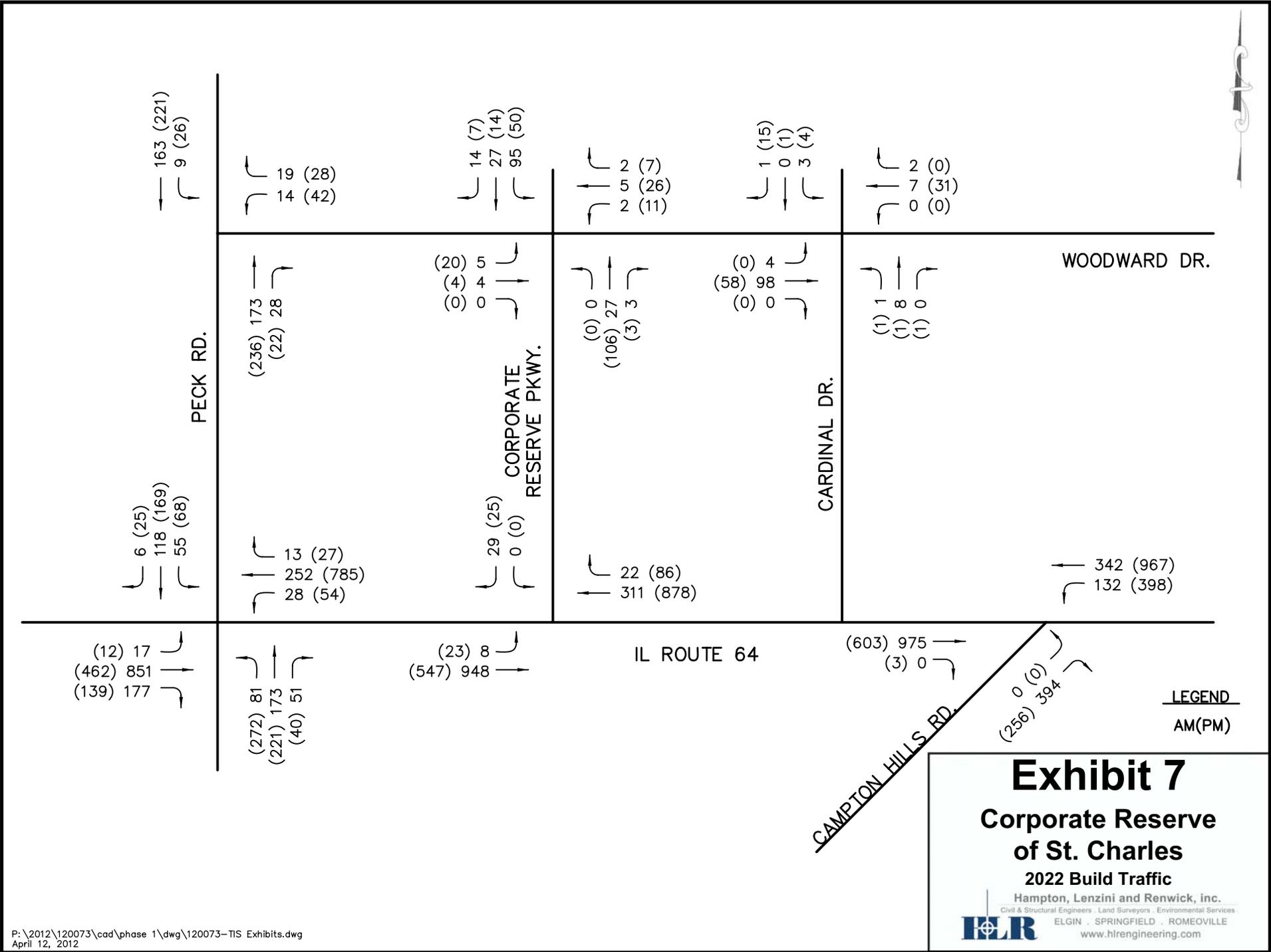
AM(PM)

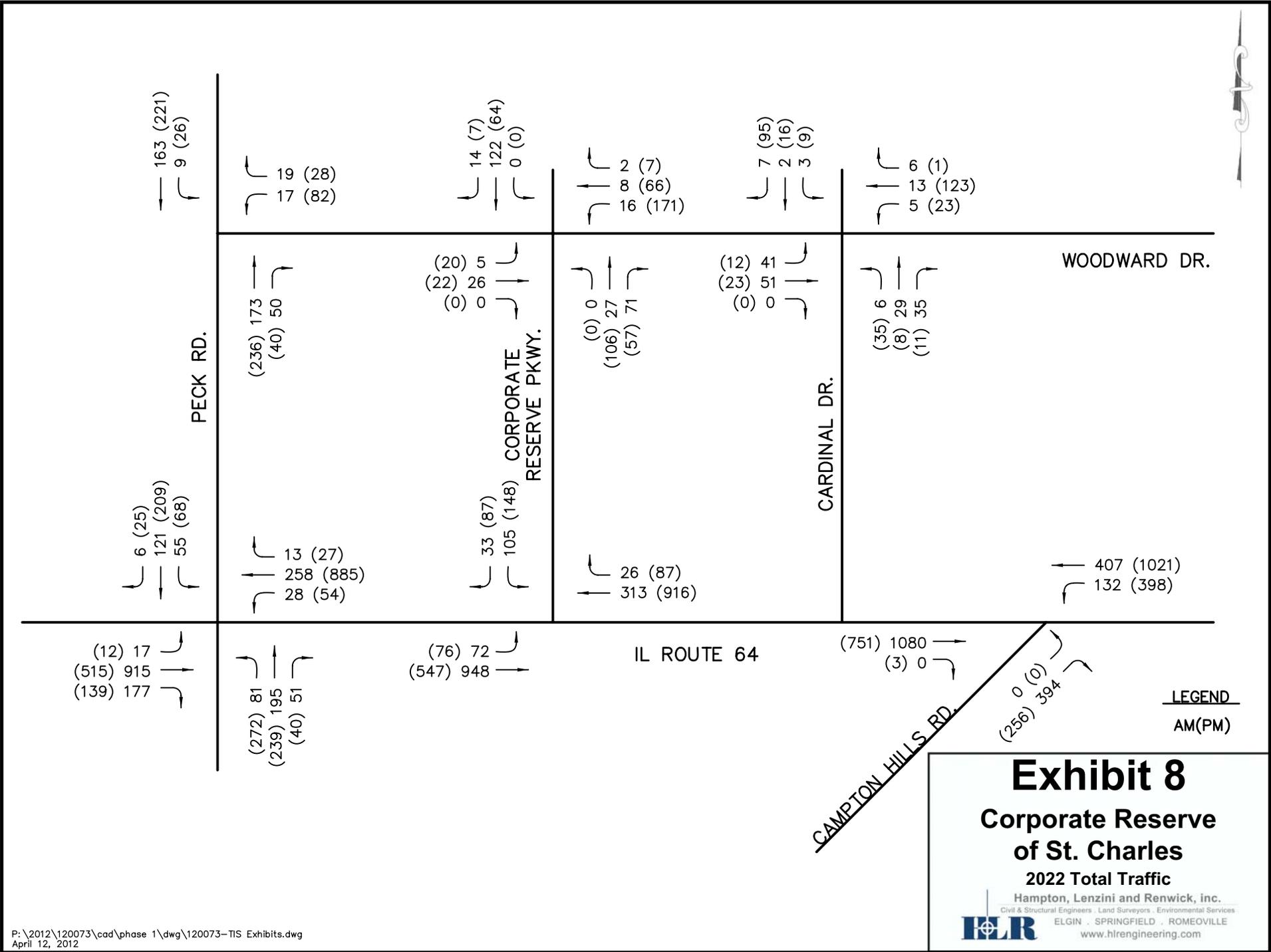
Exhibit 6

Corporate Reserve of St. Charles

Site Traffic

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LEGEND
AM(PM)

Exhibit 8
Corporate Reserve of St. Charles
2022 Total Traffic
 Hampton, Lenzini and Renwick, inc.
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 ELGIN · SPRINGFIELD · ROMEOVILLE
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TRAFFIC SIGNAL WARRANT REVIEW SHEET

Intersection: IL Route 64 & Corporate Reserve Blvd

2022 Total Traffic

Municipality: City of St. Charles/IDOT

Speed limit of major route: 45

Isolated Community with population <10,000? No

Number of lanes for major approach: 1

Number of lanes for minor approach: 1

SRA: Yes

MUTCD: 2009

Hour	Veh. per hr. on major street (total of both approaches)	Veh. per hr. on higher volume minor street approach (one direction only)	Check any hours that meet the following warrants					Requirement Satisfied?
			Warrant 1 Condition A	Warrant 1 Condition B	Warrant 2	Warrant 3	Warrant 4	
7:00 AM	1359	113	X	X				Warrant 1 Condition A Minimum Vehicular Volume Yes <input checked="" type="radio"/> No <input type="radio"/>
↓								Warrant 1 Condition B Interruption of Continuous Traffic Yes <input type="radio"/> No <input checked="" type="radio"/>
55% of DHV	894	108		X				Warrant 2 Four Hour Volume Yes <input type="radio"/> No <input checked="" type="radio"/>
↓								Warrant 3 Peak Hour Yes <input type="radio"/> No <input checked="" type="radio"/>
5:00 PM	1626	196		x				Warrant 4 Pedestrian Volume Yes <input type="radio"/> No <input checked="" type="radio"/>
↓								Warrant 5 School Crossing Yes <input type="radio"/> No <input checked="" type="radio"/>
↓								Warrant 6 Coordinated Signal System Yes <input type="radio"/> No <input checked="" type="radio"/>
↓								Warrant 7 Crash Experience Yes <input type="radio"/> No <input checked="" type="radio"/>
↓								Warrant 8 Roadway Network Yes <input type="radio"/> No <input checked="" type="radio"/>
↓								Warrant 9 Grade Crossing Yes <input type="radio"/> No <input checked="" type="radio"/>

Volume Requirements:	Major Street	600	750				
	Minor Street	150	100				

Completed By:	<u>P. Brien Funk, EI</u> Hampton, Lenzini and Renwick, Inc.
Date:	<u>5/9/2012</u>

ST. CHARLES
 Corporate Reserve of St. Charles
 Traffic Signal Warrant Review
 EXHIBIT 9B

Corporate Reserve of St. Charles

Sanitary Sewer Evaluation

Performed for
The City of St. Charles, Illinois



Performed by
Wills Burke Kelsey Associates, Ltd.



April 24, 2012

INTRODUCTION

On behalf of JCF Real Estate and the City of St. Charles, Wills Burke Kelsey Associates, Ltd. (WBK) has evaluated the impacts of the proposed land use change within the Corporate Reserve of St. Charles project. Impact evaluation is related to the City of St. Charles wastewater collection system. The Corporate Reserve site is located in St. Charles west of Randall Road and north of IL Route 64, near the intersection of Woodward Drive and Corporate Reserve Boulevard. Original development concepts anticipate primarily office use with some commercial use along IL 64. Two single story office buildings have been constructed and a site prepared for a third. JCF is proposing to change a majority of land use from office to high density residential. Based on a Concept Site Plan submitted by JCF Real Estate on March 21, 2012, the proposed development consists of 331 rental units and a club area on approximately twenty acres. JCF Real Estate is interested in connecting to the City of St. Charles wastewater collection system and receiving wastewater treatment service from the City of St. Charles West Side Wastewater Treatment Plant. This report considers existing conditions of the sanitary sewer which includes the potential for future development to be serviced by the existing sanitary system, and assesses the impact to the sanitary sewer as a result of land use changes and increased flows from the proposed Corporate Reserve development.

SCOPE OF EVALUATION

The system components to be evaluated as part of this study include three sanitary sewer pipe networks and the Renaux Manor Lift Station. If it is found that these components can facilitate flows and are within the original design capacities, future evaluation of downstream force main and gravity sewer is not warranted.

The first pipe network is the trunk sanitary sewer that extends from the Renaux Manor Lift Station (just east of the intersection of Peck Road and Campton Hills Road), north along Peck Road to Voltaire Lane. The second pipe network is the existing collection system along Woodward Drive, which begins along Cardinal Drive, flows west along Woodward Drive, and into the Peck Road trunk sewer. A connection into this system from the Corporate Reserve improvements is proposed along Cardinal Drive. The third sanitary sewer pipe network is within the Remington Glen subdivision. This system is tributary to the Woodward Drive collection system and a connection into this system from the Corporate Reserve development is also proposed. This portion of the City's wastewater collection system includes pipe ranging in size from 8 inches to 15 inches in diameter.

All three sanitary sewer systems were evaluated utilizing a simplified approach considering flowing full capacity based on manning's equation. Two different wet weather flow regimes were considered; with and without proposed flows from Corporate Reserve. Conservatively,

we did not evaluate dry weather flows because wet weather conditions will be most critical and the “minimum” flow condition that the system must be able to handle. A spreadsheet was developed to determine the capacity of representative pipe segments in the network and tributary flows to each segment. In addition to existing sites tributary to the system, future development bound by Woodward Drive and IL Route 64 was identified and considered in the evaluation. The collection system to be evaluation also includes the lift station at Renaux Manor. The Renaux Manor Lift Station was initially evaluated based on a comparison of existing and projected flows to the original design flows and calculations. Additionally, pump run time provided by the City of St. Charles was reviewed and compared to flow estimates.

PIPE CAPACITY ANALYSIS

The first component of the evaluation was to determine the capacity of the existing pipe network. All areas tributary to the collection system were identified and considered. Sanitary sewers pipes range in size from 8 to 15 inches in diameter and all sewers were constructed with relatively new subdivisions and commercial developments that were built starting in the mid 1990’s. The pipe slopes, sizes, lengths, rim elevations, and invert elevations utilized in the analysis were determined from the following sources:

- Remington Glen Record Drawings, prepared by Cowhey Gudmundson Leder, Ltd., dated 09/20/05
- Record Plans for Final Engineering Renaux Manor and the Towns of Renaux Manor Unit 1, prepared by Wiseman-Hughes Enterprises, dated 08/18/99
- Record Drawings Grading Improvements – Phase II The Corporate Reserve of St. Charles, prepared by Mackie Consultants LLC, dated 03-29-11
- City of St. Charles GIS Data, provided by the City of St. Charles
- Renaux Manor Sanitary Sewer Mains, Lift Station, and Force Main Record Drawings, prepared by Intech Consultants, INC., dated 4/21/97

Detailed sanitary sewer information for all three pipe networks is located on Exhibit 1 in the Appendix.

Design Flow Determination for Capacity Analysis

A capacity analysis was performed for all three sanitary sewer pipe networks. Two wet weather conditions flow regimes were considered:

- Existing (without Corporate Reserve development); and
- Proposed (with Corporate Reserve development)

It should be noted the “Existing” flow regime includes all existing conditions as well as undeveloped parcels which will be served by the system under evaluation. All lots tributary to each network were included and flows were input at select manholes. Inflow and infiltration was added at the upstream manhole of all pipe networks at 500 gal/in/mi/day. Supporting calculations can be found in the Appendix.

Remington Glen subdivision is serviced by a sanitary sewer pipe network with pipe sizes ranging from 8 to 12 inches in diameter. Based on the approved Illinois Environmental Protection Agency (IEPA) Water Pollution Control Permit, a total of 26 multiple dwelling units were estimated to generate a total of 36,050 gallons per day (gpd).

The existing collection system that runs along Cardinal Drive, and extends west along Woodward Drive before connecting to the Peck Road trunk system was evaluated based on the existing development serviced by the system and potential future development on the three vacant lots bound by IL Route 64 to the south and Woodward Drive to the north. Existing development tributary to the system includes office buildings at Corporate Reserve, Main Street Center, Autumn Leaves Assisted Living, and Remington Glen subdivision. Approved IEPA Water Pollution Control permits yielded an average daily flow rate of 6,000 gpd and 3,200 gpd at the assisted living facility and Main Street Center, respectively. Wastewater flows for the Corporate Reserve office buildings were estimated based on a wastewater generation rate of 15 gpd/employee. The number of employees was calculated based on one employee per 250 square feet of office space. Future wastewater generation rates for the three vacant lots were conservatively calculated using a population equivalent (PE) of 20 per acre of land.

Land uses tributary to the trunk system along Peck Road include single family homes (Renaux Manor Unit 1, Renaux Manor Unit 3 and Artesian Springs), multi-family homes (Renaux Manor Unit 2), and commercial space (Valley Springs Auto, Westgate, and Walgreens). Approved IEPA Water Pollution Control permits for Valley Springs Auto, Westgate, and Walgreens were used to estimate the respective wastewater flows. Flows for the single and multi-family homes were estimated using the IEPA wastewater average daily flow generation rates. For single family homes, a rate of 350 gallons/household/day was used. For multi-family homes, all units were conservatively estimated to be 3 bedroom units with a rate of 300 gallons/unit/day. A total of 152 households in Renaux Manor Unit 1 and Artesian Springs are tributary to the system. 117 single family homes in Renaux Manor Unit 3 are also tributary to the system, in addition to the 29 multi-family homes in Renaux Manor Unit 2.

The Renaux Manor Lift Station receives flow from the sanitary sewer trunk line along Peck Road, which is the collector for both the sanitary sewer system that serves the Remington Glen subdivision and the system along Woodward Drive. The lift station also accepts wastewater flow from tributary land uses to the east. These tributary areas include 35 multi-family units

from Renaux Manor Unit 2, Pine Ridge and Regency Estates (includes Aldi), The Bike Rack & adjacent commercial, the assisted living facility and St. Charles Fire Station No. 3. As mentioned above, wastewater generation rates were estimated at 300 gallons/unit/day for the multi-family units. The approved IEPA rate for Pine Ridge and Regency Estates was used, and flow rates for The Bike Rack & adjacent commercial, and the fire station were based on one employee for every 250 square feet of building, with an average daily use of 15 gpd/employee.

Based on the average daily flow, a peaking factor was calculated and applied in accordance with The Ten State Standards. The existing peak wet weather sanitary flow tributary to the Renaux Manor Lift Station is 1.155 cfs. The capacity analysis and peaking factor calculations for each manhole are shown in the Appendix on Exhibits 2 and 3 following this report. An exhibit showing the entire Renaux Manor Lift Station service area is also provided in Appendix A as Drawing OV1.

Results of Capacity Analysis

Based on the results of the capacity analysis, the pipe network can handle the existing condition wet weather flows. The existing conditions wet weather pipe capacity utilization ranges from 1% to 41% flowing full. Please note, our peak flow assumptions are conservative because all future development estimated at 20 PE per acre.

Next we looked at adding flows from the proposed land use changes at Corporate Reserve. Land use for the proposed development includes 15 buildings with a total of 331 rental units ranging from studios to two bedroom apartments. The percentage of studios, one bedroom, and two bedroom apartments in each building was estimated as shown on Exhibit 4 in the Appendix. Based on the calculated percentages, it was estimated that the average building includes 1 studio, 11 one bedroom apartments, and 10 two bedroom apartments. Using the IEPA waterwater average daily flow generation rates, a value of 4750 gpd was calculated for each building. This calculation can be found in Appendix A.

Based on the Preliminary Utility Plan for Corporate Reserve of St. Charles Phase II prepared by Mackie Consultants on 03-09-12, sanitary sewer is proposed to enter the existing pipe network in two locations. The collection system for Remington Glen will accept 0.375 cfs of additional peak flow from 20 buildings at manhole 6.4062. The remaining 0.062 cfs from 2 buildings will discharge into manhole 6.3194 along Cardinal Drive. After including flow from these additional 22 multi-family homes, the pipe utilization for the proposed condition wet weather flow is estimated to range from 1% to 58% flowing full. The proposed capacity analysis and peaking factor calculations for tributary flows into each manhole are shown in the Appendix on Exhibits 5 and 6 following this report. The Preliminary Utility Plan is also in the Appendix and labeled as Exhibit 7.

It is our opinion that the existing system can convey the proposed condition wet weather flows.

RENAUX MANOR LIFT STATION EVALUATION

The second component of the evaluation was to determine the capacity of the Renaux Manor Lift Station. All tributary areas to the Renaux Manor Lift Station were identified and considered. Design flow rate calculations and rates were taken from *"The Renaux Manor Pump Station Calculations,"* prepared by Wiseman-Hughes Enterprises, revised March 16, 1998.

Per the calculations prepared by Wiseman-Hughes Enterprises, the Renaux Manor Lift Station is designed for an average daily flow of 400,000 gallons per day. The associated Renaux Manor Lift Station Calculations are provided in the Appendix as Exhibit 8. Based on a survey conducted by WBK with City of St. Charles Staff, there are no major operational problems associated with the lift station that suggest it cannot handle the existing flow. There are also no indicators that the lift station will not be able to handle an increased flow, as long as its design peak flow capacity is not exceeded.

WBK estimated the existing average daily flow prior to the connection of the proposed improvements at Corporate Reserve to be 316,723 gallons per day. Including proposed improvements at Corporate Reserve would add an additional average daily flow of 71,250 gallons per day, totaling 387,973 gallons per day. A breakdown of the calculated average daily flow rates are on Exhibit 9 in the Appendix. Therefore, since the total estimated average daily flow is less than the average design daily flow, no improvements are necessary.

Furthermore, based on pump run time data from the City, the average pump run time is 1.2 hours a day for the months of January 2012 to March 2012. This equates to an average daily flow of 99,360 gpd which is significantly less than our estimate average daily flow in the proposed condition of 316,723 gpd. Additionally, peak run time from the data is 3.7 hours a day, which equates to a flow of 306,360 gpd. Therefore, since the real time peak run time is also less than the estimate average daily flow in the proposed condition, it is our opinion that the lift station will be able to handle the additional flow.

Further, average daily flow for the existing conditions in addition to the proposed project are less than the design average daily flow at the Renaux Manor Lift Station. An email survey was also conducted by WBK with the City of St. Charles staff to determine operational condition and concerns. Results of the survey indicated that there are no major operational problems with the Renaux Manor lift station (aside from inoperable VFD's that are determined unnecessary, a panel view screen, and control circuit board memory backup battery holder that is loose). In regards to the sanitary sewer system, there are no known trouble spots in the existing collection system, nor are there any issues with the force main along Peck Road.

SUMMARY AND RECOMMENDATIONS

Based on our evaluation, the proposed land use changes in Corporate Reserve can be facilitated by the existing wastewater collection system as shown on the Preliminary Utility Plan submitted by Mackie Consultants on 3/09/12. A conservative approach was made by WBK to analyze the existing pipe system by including future development on vacant lots and estimating flows for unoccupied buildings that are currently connected to the collection system. Adding projected sanitary sewer flows into the existing system will increase the flow, however; in the fullest pipe will still have over 40% capacity available. Therefore, no improvements are necessary.

Since there are no known operational issues with the lift station to date and it has not reached its maximum operational capacity, WBK believes the Renaux Manor Lift Station will be able to handle the additional wastewater flow generated from the proposed land use change at Corporate Reserve.

EXISTING CONDITIONS CAPACITY ANALYSIS - CORPORATE RESERVE TO PECK ROAD

Upstream Manhole	Downstream Manhole	Upstream Elevation	Downstream Elevation	Pipe Length	Pipe Diameter	Pipe Slope	Pipe Capacity (CFS)	Cummulative Peak Sanitary Flow (CFS)	Total I & I (CFS)	Cummulative Wet Weather Flow (CFS)	Pipe Capacity (%)
6.3196	6.3198	766.10	764.10	122	8	1.64%	1.551	0.007	0.00360	0.011	0.7
6.3198	6.3194	764.10	762.68	329	8	0.43%	0.796	0.014	0.00360	0.018	2.2
6.3194	6.3193	762.68	761.87	188	8	0.43%	0.795	0.025	0.00360	0.028	3.5
6.3193	6.3189	761.87	761.45	66	8	0.64%	0.967	0.025	0.00360	0.028	2.9
6.3189	6.3188	761.45	761.06	129	8	0.30%	0.666	0.067	0.00360	0.071	10.6
6.3188	6.3192	761.06	759.49	378	8	0.42%	0.781	0.067	0.00360	0.071	9.1
6.3192	6.3190	759.49	758.74	188	8	0.40%	0.765	0.120	0.00360	0.124	16.2
6.3190	6.3191	758.74	758.27	95	8	0.49%	0.852	0.120	0.00360	0.124	14.5
6.3191	6.3200	758.27	756.90	309	8	0.44%	0.807	0.120	0.00360	0.124	15.3
6.3200	6.3105	756.90	755.81	153	8	0.71%	1.023	0.120	0.00360	0.124	12.1
6.3105	6.3104	755.81	754.16	53	8	3.38%	2.227	0.144	0.00360	0.148	6.6
6.3104	6.3103	754.16	752.19	63	8	3.13%	2.143	0.144	0.00360	0.148	6.9
6.3103	7.3089	752.19	748.53	114	8	3.21%	2.171	0.144	0.00360	0.148	6.8
7.3089	7.3088	748.53	746.70	94	8	1.95%	1.691	0.144	0.00360	0.148	8.8
7.3088	7.3087	746.70	745.11	87	8	1.83%	1.638	0.144	0.00360	0.148	9.0
7.3087	7.3086	745.11	742.24	147	8	1.95%	1.693	0.164	0.00360	0.168	9.9
7.3086	7.3085	742.24	740.40	80	8	2.30%	1.838	0.164	0.00360	0.168	9.1
7.3085	7.3084	740.40	736.98	82	8	4.17%	2.475	0.164	0.00360	0.168	6.8
7.3084	7.3083	736.98	731.72	114	8	4.61%	2.603	0.164	0.00360	0.168	6.4
7.3083	7.3082	731.72	731.15	69	12	0.83%	3.247	0.376	0.00590	0.382	11.8
7.3082	7.3081	731.15	730.77	99	12	0.38%	2.213	0.376	0.00590	0.382	17.2
7.3081	7.3080	730.77	730.20	112	12	0.51%	2.549	0.410	0.00590	0.416	16.3

EXISTING CONDITIONS CAPACITY ANALYSIS - REMINGTON GLEN SYSTEM INTO MH 7.3083 ALONG WOODWARD DRIVE

Upstream Manhole	Downstream Manhole	Upstream Elevation	Downstream Elevation	Pipe Length	Pipe Diameter	Pipe Slope	Pipe Capacity (CFS)	Cummulative Peak Sanitary Flow (CFS)	Total I & I (CFS)	Cummulative Wet Weather Flow (CFS)	Pipe Capacity (%)
6.3110	6.3109	748.79	747.56	114	8	1.08%	1.259	0.226	0.00230	0.228	18.1
6.3109	6.3108	747.56	746.07	125	8	1.19%	1.323	0.226	0.00230	0.228	17.2
6.3108	6.3107	746.07	745.57	126	8	0.40%	0.763	0.226	0.00230	0.228	29.8
6.3107	6.3106	745.57	742.99	162	8	1.59%	1.529	0.226	0.00230	0.228	14.9
6.3106	6.4063	742.99	741.70	137	8	0.94%	1.176	0.226	0.00230	0.228	19.4
6.4063	6.4062	741.70	740.50	129	8	0.93%	1.169	0.226	0.00230	0.228	19.5
6.4062	7.4049	735.18	734.99	87	12	0.22%	1.669	0.226	0.00230	0.228	13.6
7.4049	7.4048	734.99	734.30	180	12	0.38%	2.212	0.226	0.00230	0.228	10.3
7.4048	7.4047	734.30	734.14	43	12	0.37%	2.179	0.226	0.00230	0.228	10.5
7.4047	7.4046	734.14	733.62	167	12	0.31%	1.993	0.226	0.00230	0.228	11.4
7.4046	7.4045	733.62	733.02	184	12	0.33%	2.040	0.226	0.00230	0.228	11.2
7.4045	7.3094	733.02	732.75	114	12	0.24%	1.739	0.226	0.00230	0.228	13.1
7.3094	7.3090	732.75	732.16	132	12	0.45%	2.388	0.226	0.00230	0.228	9.5
7.3093	7.3092	746.22	745.07	118	8	0.97%	1.196	0.226	0.00230	0.228	19.0
7.3092	7.3091	745.07	740.60	116	8	3.85%	2.379	0.226	0.00230	0.228	9.6
7.3091	7.3090	740.60	737.63	85	8	3.49%	2.265	0.226	0.00230	0.228	10.1
7.3090	7.3083	737.63	731.72	202	12	2.93%	6.111	0.226	0.00230	0.228	3.7

EXISTING CONDITIONS CAPACITY ANALYSIS - PECK ROAD INTO RENAUX MANOR LIFT STATION

Upstream Manhole	Downstream Manhole	Upstream Elevation	Downstream Elevation	Pipe Length	Pipe Diameter	Pipe Slope	Pipe Capacity (CFS)	Cummulative Peak Sanitary Flow (CFS)	Total I & I (CFS)	Cummulative Wet Weather Flow (CFS)	Pipe Capacity (%)
7.4002	7.4050	730.98	729.79	307	8	0.39%	0.754	0.255	0.00890	0.263	34.9
7.4050	7.3080	725.47	725.15	108	15	0.30%	3.526	0.255	0.00890	0.263	7.5
7.3080	7.3034	725.15	724.84	142	15	0.22%	3.026	0.636	0.01480	0.651	21.5
7.3034	7.3033	724.84	723.47	401	15	0.34%	3.786	0.636	0.01480	0.651	17.2
7.3033	7.3032	723.47	722.89	320	15	0.18%	2.758	0.636	0.01480	0.651	23.6
7.3032	7.3031	722.89	722.40	281	15	0.17%	2.705	0.671	0.01480	0.686	25.3
7.3031	7.3018	722.40	721.99	257	15	0.16%	2.587	0.671	0.01480	0.686	26.5
7.3018	7.3017	721.99	721.42	292	15	0.20%	2.862	1.126	0.02910	1.155	40.4
7.3017	7.3016	721.42	720.88	291	15	0.19%	2.790	1.126	0.02910	1.155	41.4
7.3016	7.3015	720.88	720.33	290	15	0.19%	2.821	1.126	0.02910	1.155	41.0
7.3015	7.3053	720.33	719.44	312	15	0.29%	3.459	1.126	0.02910	1.155	33.4

EXISTING PEAK FLOW CALCULATIONS

EXHIBIT 3

Manhole 6.3196 Sanitary Sewer Peak Flow	
PE	10
Peaking Factor	4.41
Peak Flow (Million Gallons Per Day)	0.005
Peak Flow (Gallons Per Day)	4613
Flow (Gallons Per Minute)	3
Flow (CFS)	0.007

Manhole 6.3198 Sanitary Sewer Peak Flow	
PE	21
Peaking Factor	4.38
Peak Flow (Million Gallons Per Day)	0.009
Peak Flow (Gallons Per Day)	9154
Flow (Gallons Per Minute)	6
Flow (CFS)	0.014

Manhole 6.3194 Sanitary Sewer Peak Flow	
PE	37
Peaking Factor	4.34
Peak Flow (Million Gallons Per Day)	0.016
Peak Flow (Gallons Per Day)	15881
Flow (Gallons Per Minute)	11
Flow (CFS)	0.025

Manhole 6.3189 Sanitary Sewer Peak Flow	
PE	103
Peaking Factor	4.24
Peak Flow (Million Gallons Per Day)	0.044
Peak Flow (Gallons Per Day)	43504
Flow (Gallons Per Minute)	30
Flow (CFS)	0.067

EXISTING PEAK FLOW CALCULATIONS

EXHIBIT 3

Manhole 6.3192 Sanitary Sewer Peak Flow	
PE	187
Peaking Factor	4.16
Peak Flow (Million Gallons Per Day)	0.078
Peak Flow (Gallons Per Day)	77601
Flow (Gallons Per Minute)	54
Flow (CFS)	0.120

Manhole 6.3105 Sanitary Sewer Peak Flow	
PE	226
Peaking Factor	4.13
Peak Flow (Million Gallons Per Day)	0.093
Peak Flow (Gallons Per Day)	93373
Flow (Gallons Per Minute)	65
Flow (CFS)	0.144

Manhole 7.3087 Sanitary Sewer Peak Flow	
PE	258
Peaking Factor	4.11
Peak Flow (Million Gallons Per Day)	0.106
Peak Flow (Gallons Per Day)	106000
Flow (Gallons Per Minute)	74
Flow (CFS)	0.164

Manhole 7.3083 Sanitary Sewer Peak Flow	
PE	619
Peaking Factor	3.92
Peak Flow (Million Gallons Per Day)	0.243
Peak Flow (Gallons Per Day)	242827
Flow (Gallons Per Minute)	169
Flow (CFS)	0.376

EXISTING PEAK FLOW CALCULATIONS

EXHIBIT 3

Manhole 7.3081 Sanitary Sewer Peak Flow	
PE	679
Peaking Factor	3.90
Peak Flow (Million Gallons Per Day)	0.265
Peak Flow (Gallons Per Day)	264843
Flow (Gallons Per Minute)	184
Flow (CFS)	0.410

Manhole 7.3080 Sanitary Sewer Peak Flow	
PE	1,088
Peaking Factor	3.78
Peak Flow (Million Gallons Per Day)	0.411
Peak Flow (Gallons Per Day)	410905
Flow (Gallons Per Minute)	285
Flow (CFS)	0.636

Manhole 7.3032 Sanitary Sewer Peak Flow	
PE	1,153
Peaking Factor	3.76
Peak Flow (Million Gallons Per Day)	0.433
Peak Flow (Gallons Per Day)	433494
Flow (Gallons Per Minute)	301
Flow (CFS)	0.671

Manhole 7.3018 Sanitary Sewer Peak Flow	
PE	2,033
Peaking Factor	3.58
Peak Flow (Million Gallons Per Day)	0.728
Peak Flow (Gallons Per Day)	727910
Flow (Gallons Per Minute)	505
Flow (CFS)	1.126

EXISTING PEAK FLOW CALCULATIONS

EXHIBIT 3

Manhole 7.4002 Sanitary Sewer Peak Flow	
PE	410
Peaking Factor	4.02
Peak Flow (Million Gallons Per Day)	0.165
Peak Flow (Gallons Per Day)	164508
Flow (Gallons Per Minute)	114
Flow (CFS)	0.255

Manhole 6.3110 Sanitary Sewer Peak Flow	
PE	361
Peaking Factor	4.04
Peak Flow (Million Gallons Per Day)	0.146
Peak Flow (Gallons Per Day)	145757
Flow (Gallons Per Minute)	101
Flow (CFS)	0.226

Sanitary Sewer Peak Flow Tributary to Renaux Manor Lift Station	
PE	1,134
Peaking Factor	3.76
Peak Flow (Million Gallons Per Day)	0.427
Peak Flow (Gallons Per Day)	426883
Flow (Gallons Per Minute)	296
Flow (CFS)	0.660

SITE DATA

Total Site Bedroom Count	Total # Units	Total Unit %	Total Parking Req.	Total Parking Provided
STUDIO	16	4.8%	1.2/du	20
1 BR	160	48.4%	1.2/du	192
2 BR	155	46.8%	1.7/du	264
Tot. Rental Units	331	100.0%		476
Rental Site Lot Area/Unit	20.30 Ac.			
	2,871 SF/Unit			

Phase I
266 Units
Phase II
65 Units

7% studio = 4.83%
7% 1BR = 48.3%
7% 2BR = 46.8%

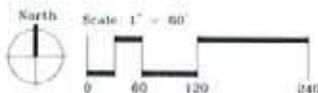
— = SANITARY SEWER

3 Story Walk-Up with Walkout Level
25 Units/ Building
8 Garages/ Building

3 Story Walk-Up
21 Units/ Building
8 Garages/ Building

3 Story Walk-Up with Half Walkout Level
23 Units/ Building
8 Garages/ Building

Average:
22 units/bldg
1.0 studio, say 1
10.6 1BR, say 11
10.3 2BR, say 10



Sheet LP-1
Corporate Reserve of St. Charles
Concept Site Plan



Date: March 21, 2012

PROPOSED CONDITIONS CAPACITY ANALYSIS - CORPORATE RESERVE TO PECK ROAD

Upstream Manhole	Downstream Manhole	Upstream Elevation	Downstream Elevation	Pipe Length	Pipe Diameter	Pipe Slope	Pipe Capacity (CFS)	Cummulative Peak Sanitary Flow (CFS)	Total I & I (CFS)	Cummulative Wet Weather Flow (CFS)	Pipe Capacity (%)
6.3196	6.3198	766.10	764.10	122	8	1.64%	1.551	0.007	0.00390	0.011	0.7
6.3198	6.3194	764.10	762.68	329	8	0.43%	0.796	0.014	0.00390	0.022	2.8
6.3194	6.3193	762.68	761.87	188	8	0.43%	0.795	0.087	0.00390	0.095	11.9
6.3193	6.3189	761.87	761.45	66	8	0.64%	0.967	0.087	0.00390	0.095	9.8
6.3189	6.3188	761.45	761.06	129	8	0.30%	0.666	0.130	0.00390	0.138	20.6
6.3188	6.3192	761.06	759.49	378	8	0.42%	0.781	0.130	0.00390	0.138	17.6
6.3192	6.3190	759.49	758.74	188	8	0.40%	0.765	0.183	0.00390	0.190	24.9
6.3190	6.3191	758.74	758.27	95	8	0.49%	0.852	0.183	0.00390	0.190	22.3
6.3191	6.3200	758.27	756.90	309	8	0.44%	0.807	0.183	0.00390	0.190	23.6
6.3200	6.3105	756.90	755.81	153	8	0.71%	1.023	0.183	0.00390	0.190	18.6
6.3105	6.3104	755.95	754.16	53	8	3.38%	2.227	0.207	0.00390	0.215	9.6
6.3104	6.3103	754.16	752.19	63	8	3.13%	2.143	0.207	0.00390	0.215	10.0
6.3103	7.3089	752.19	748.53	114	8	3.21%	2.171	0.207	0.00390	0.215	9.9
7.3089	7.3088	748.53	746.70	94	8	1.95%	1.691	0.207	0.00390	0.215	12.7
7.3088	7.3087	746.70	745.11	87	8	1.83%	1.638	0.207	0.00390	0.215	13.1
7.3087	7.3086	745.11	742.24	147	8	1.95%	1.693	0.226	0.00390	0.234	13.8
7.3086	7.3085	742.24	740.40	80	8	2.30%	1.838	0.226	0.00390	0.234	12.7
7.3085	7.3084	740.40	736.98	82	8	4.17%	2.475	0.226	0.00390	0.234	9.5
7.3084	7.3083	736.98	731.72	114	8	4.61%	2.603	0.226	0.00390	0.234	9.0
7.3083	7.3082	731.72	731.15	69	12	0.83%	3.247	0.438	0.00800	0.450	13.9
7.3082	7.3081	731.15	730.77	99	12	0.38%	2.213	0.438	0.00800	0.454	20.5
7.3081	7.3080	730.77	730.20	112	12	0.51%	2.549	0.847	0.00800	0.863	33.9

PROPOSED CONDITIONS CAPACITY ANALYSIS - REMINGTON GLEN SYSTEM INTO MH 7.3083 ALONG WOODWARD DRIVE

Upstream Manhole	Downstream Manhole	Upstream Elevation	Downstream Elevation	Pipe Length	Pipe Diameter	Pipe Slope	Pipe Capacity (CFS)	Cummulative Peak Sanitary Flow (CFS)	Total I & I (CFS)	Cummulative Wet Weather Flow (CFS)	Pipe Capacity (%)
6.3110	6.3109	748.79	747.56	114	8	1.08%	1.259	0.226	0.00410	0.230	18.2
6.3109	6.3108	747.56	746.07	125	8	1.19%	1.323	0.226	0.00410	0.234	17.7
6.3108	6.3107	746.07	745.57	126	8	0.40%	0.763	0.226	0.00410	0.234	30.6
6.3107	6.3106	745.57	742.99	162	8	1.59%	1.529	0.226	0.00410	0.234	15.3
6.3106	6.4063	742.99	741.70	137	8	0.94%	1.176	0.226	0.00410	0.234	19.9
6.4063	6.4062	741.70	740.50	129	8	0.93%	1.169	0.226	0.00410	0.234	20.0
6.4062	7.4049	735.18	734.99	87	12	0.22%	1.669	0.601	0.00410	0.609	36.5
7.4049	7.4048	734.99	734.30	180	12	0.38%	2.212	0.601	0.00410	0.609	27.5
7.4048	7.4047	734.30	734.14	43	12	0.37%	2.179	0.601	0.00410	0.609	27.9
7.4047	7.4046	734.14	733.62	167	12	0.31%	1.993	0.601	0.00410	0.609	30.5
7.4046	7.4045	733.62	733.02	184	12	0.33%	2.040	0.601	0.00410	0.609	29.8
7.4045	7.3094	733.02	732.75	114	12	0.24%	1.739	0.601	0.00410	0.609	35.0
7.3094	7.3090	732.75	732.16	132	12	0.45%	2.388	0.601	0.00410	0.609	25.5
7.3093	7.3092	746.22	745.07	118	8	0.97%	1.196	0.601	0.00410	0.609	50.9
7.3092	7.3091	745.07	740.60	116	8	3.85%	2.379	0.601	0.00410	0.609	25.6
7.3091	7.3090	740.60	737.63	85	8	3.49%	2.265	0.601	0.00410	0.609	26.9
7.3090	7.3083	737.63	731.72	202	12	2.93%	6.111	0.601	0.00410	0.609	10.0

PROPOSED CONDITIONS CAPACITY ANALYSIS - PECK ROAD INTO RENAUX MANOR LIFT STATION

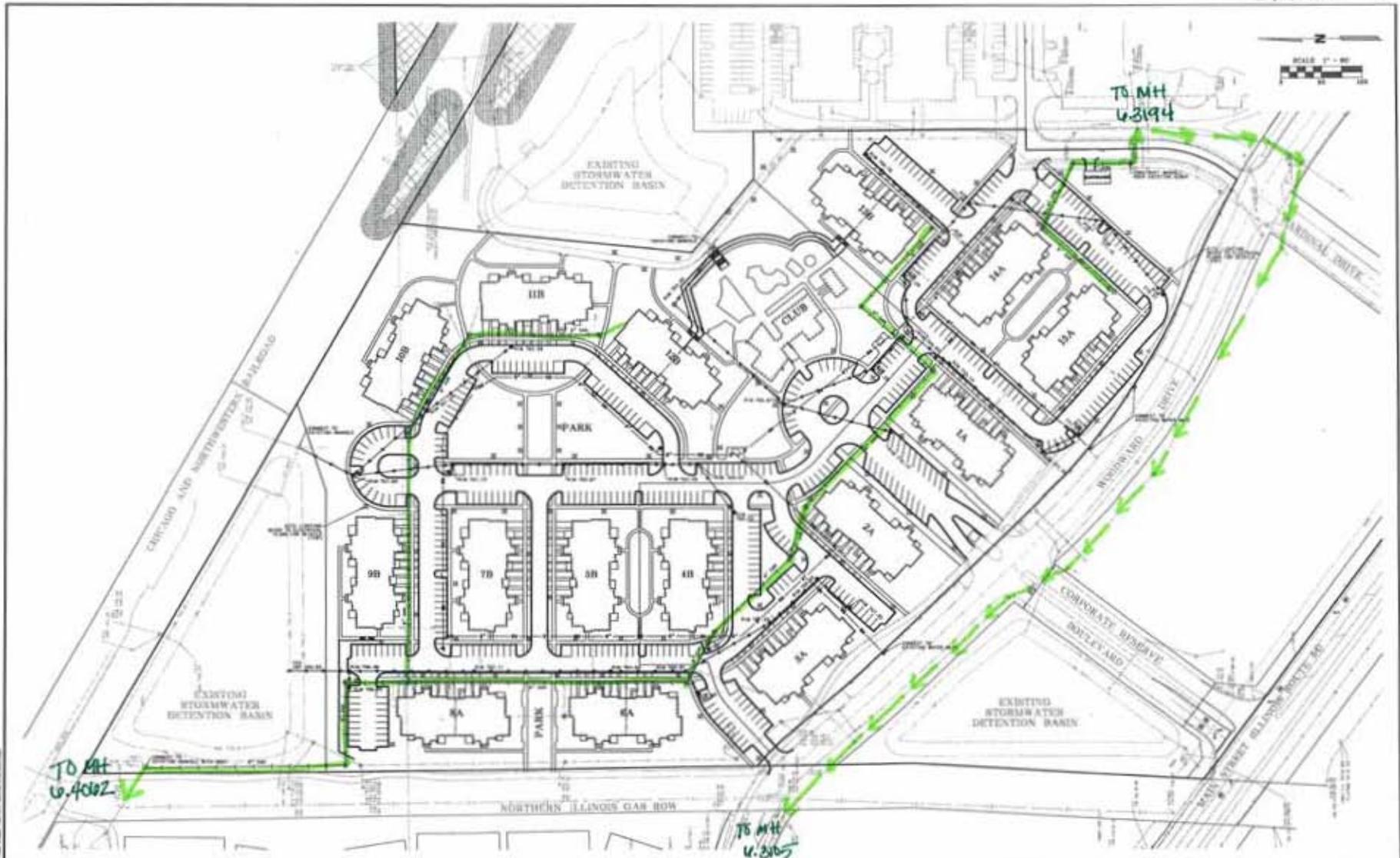
Upstream Manhole	Downstream Manhole	Upstream Elevation	Downstream Elevation	Pipe Length	Pipe Diameter	Pipe Slope	Pipe Capacity (CFS)	Cummulative Peak Sanitary Flow (CFS)	Total I & I (CFS)	Cummulative Wet Weather Flow (CFS)	Pipe Capacity (%)
7.4002	7.4050	730.98	729.79	307	8	0.39%	0.754	0.255	0.00890	0.263	34.9
7.4050	7.3080	725.47	725.15	108	15	0.30%	3.526	0.255	0.00890	0.272	7.7
7.3080	7.3034	725.15	724.84	142	15	0.22%	3.026	1.073	0.01690	1.099	36.3
7.3034	7.3033	724.84	723.47	401	15	0.34%	3.786	1.073	0.01690	1.107	29.2
7.3033	7.3032	723.47	722.89	320	15	0.18%	2.758	1.073	0.01690	1.107	40.1
7.3032	7.3031	722.89	722.40	281	15	0.17%	2.705	1.108	0.01690	1.142	42.2
7.3031	7.3018	722.40	721.99	257	15	0.16%	2.587	1.108	0.01690	1.142	44.1
7.3018	7.3017	721.99	721.42	292	15	0.20%	2.862	1.564	0.03120	1.612	56.3
7.3017	7.3016	721.42	720.88	291	15	0.19%	2.790	1.564	0.03120	1.626	58.3
7.3016	7.3015	720.88	720.33	290	15	0.19%	2.821	1.564	0.03120	1.626	57.6
7.3015	7.3053	720.33	719.44	312	15	0.29%	3.459	1.564	0.03120	1.626	47.0

PROPOSED PEAK FLOW CALCULATIONS

EXHIBIT 6

Manhole 6.3194 Sanitary Sewer Peak Flow	
PE	95
Peaking Factor	4.25
Peak Flow (Million Gallons Per Day)	0.040
Peak Flow (Gallons Per Day)	40371
Flow (Gallons Per Minute)	28
Flow (CFS)	0.062

Manhole 6.4062 Sanitary Sewer Peak Flow	
PE	618
Peaking Factor	3.93
Peak Flow (Million Gallons Per Day)	0.242
Peak Flow (Gallons Per Day)	242388
Flow (Gallons Per Minute)	168
Flow (CFS)	0.375



M Mackie Consultants, LLC
 8075 W. Higgins Road, Suite 006
 Skokie, IL 60076
 847.986.1400
 www.mackieconsult.com

CLIENT: **ST. CHARLES FAIRGROUNDS
 OFFICE PARK INVESTORS, LLC**
 1945 THOREAU DRIVE, SUITE 104
 SCHAMBERG, ILLINOIS 60173
 PHONE: 630.895.7882 FAX: 630.348.7801

DATE	DESCRIPTION OF REVISION	BY

DESIGNED: CAUTRE
 DRAWN: BWH
 APPROVED: DAE
 DATE: 03-28-12
 SCALE: 1" = 40'

**PRELIMINARY UTILITY PLAN
 SUBDIVISION PRELIMINARY PLAN
 THE CORPORATE RESERVE OF ST. CHARLES PHASE II
 ST. CHARLES, ILLINOIS**

SHEET
5 - **5**
PREPARED BY: MACKIE CONSULTANTS, LLC
 CHECKED BY: MACKIE CONSULTANTS, LLC
 DATE: 03-28-12

RENAUX MANOR
PUMP STATION CALCULATIONS

PREPARED FOR:

WISEMAN-HUGHES ENTERPRISES
975 EAST 22nd STREET
WHEATON, ILLINOIS 60187

PREPARED BY:

INTECH CONSULTANTS, INC.
5413 WALNUT AVENUE
DOWNERS GROVE, ILLINOIS 60515

April 23, 1997

Revised June 27, 1997

Revised January 21, 1998

REVISION 1/21/98

JOB NO. 95026

FLOW RATE CALCULATIONS

I. RENAUX MANOR FLOWS

A. SINGLE FAMILY AREA

1. 265 units * 3.5 PE/unit = 927.5 PE
2. 927.5 PE * 100 gpcpd = 92,750 gpd (average)

B. MULTI-FAMILY AREA

1. 238 units * 3.0 PE/unit (assumed all 3 bedroom units) = 714 PE
2. 714 PE * 100 gpcpd = 71400 gpd (average)

C. COMMERCIAL SITE

1. 7.6 acres * 15 PE/ acre = 114 PE
2. 114 PE * 100 gpcpd = 11400 gpd (average)

II. OFFSITE FLOWS

A. AREA TRIBUTARY TO MANHOLE 46 (RHA&A plans) MINUS RENAUX MANOR AREA

1. 2747 PE (manhole 46) - 612 PE (from Renaux Manor) + 70 PE (from Area 2) = 2205 PE
2. 2205 PE * 100 gpcpd = 220500 gpd (average)

B. AREA TRIBUTARY TO MANHOLE 33 (RHA&A plans) MINUS RENAUX MANOR AREA

1. 2422 PE (manhole 33) - 582 PE (from Renaux Manor) - 70 PE (from Renaux Manor) - 1740 PE (from water treatment plant, per Greg Chismark, City of St. Charles) = 30 PE
2. 30 PE * 100 gpcpd = 3000 gpd (average)

III. TOTAL FLOW TO LIFT STATION

- A. $[927.5 + 714 + 114 \text{ (Renaux Manor)}] + [2205 + 30 \text{ (offsite area)}] = 3990.5 \text{ PE}$
use **4000 PE**

- B. Average flow: $4000 \text{ PE} * 100 \text{ gpcpd} = 400,000 \text{ gpd} = 277.7 \text{ gpm}$

- C. Calculated peaking factor = $(18 + (4^{-5})) / (4 + (4^{-5})) = 3.33$

- D. Q max. using 3.33 peaking factor = $1,333,333 \text{ gpd}$ calculated max = 925 gpm

- E. Q max. using 4.0 peaking factor = $1,600,000 \text{ gpd}$ design maximum = 1111 gpm
1111 gpm flow used for lift station design

Tributary To Renoux Manor Lift Station: Existing Condition Residentialia					
Area	Manhole Location	Single Family Units	Multi Family Units	Flow Per Unit (GPD)	Total Flow (GPD)
Renaux Manor Unit 1 & Artesian Springs	7.3018	152	-	350	53,200
Renaux Manor Unit 2 ²	To Lift Station	-	35	1200	42,000
Renaux Manor Unit 2 ²	7.3018	-	29	1200	34,800
Renaux Manor Unit 3	7.4002	117	-	350	40,950
Remington Glen ¹	7.3083	-	26	-	36,050
Autumn Leaves Assisted Living ¹	7.3081	-	1	6000	6,000
Pine Ridge & Regency Estates ¹	To Lift Station	-	-	-	56,900
Assisted Living ³	To Lift Station	-	1	12000	12,000
Total Daily Flow for Residential					281,900

Notes:

- 1) Total flow value based on information obtained from IEPA permit supplied by the City of St. Charles
- 2) Renaux Manor Unit 2: 1 Multi Family Unit = 4 3-BR units. See calculation sheet for breakdown of flow per unit (gpd)
- 3) Assisted Living: Complex located off of IL Rt 64. Estimated flow (gpd) based on two times the value of Autumn Leaves Assisted Living

Tributary To Renoux Manor Lift Station: Existing Condition Non-Residentialia						
Building	Manhole Location	Use	Acres	Employees or PE/acre	GPD/Employee (GPD)	Total Flow (GPD)
Walgreens ^{2,4}	7.3032	Commercial	-	73	15.00	1,095
Corporate Reserve - north ³	6.3196	Office Buildings	0.4	70	15.00	1,045
Corporate Reserve - central ³	6.3198	Office Buildings	0.4	70	15.00	1,045
Corporate Reserve - south ³	6.3194	Office Buildings	0.6	105	15.00	1,568
Corporate Reserve - vacant west ¹	6.3192	Commercial	4.2	20	-	8,400
Corporate Reserve - vacant east ¹	6.3189	Commercial	3.3	20	-	6,600
Vacant Lot ¹	6.3105	Commercial	2.0	20	-	3,960
Valley Springs Auto ²	7.3032	Commercial	-	-	-	3,000
Main Street Center ²	7.3087	Office Buildings	-	-	-	3,200
Westgate ²	7.3032	Commercial	-	-	-	2,400
The Bike Rack & Adjacent Commercial ³	To Lift Station	Commercial	0.8	132	15	1,986
Fire Station ³	To Lift Station	-	0.2	35	15	523
Total Daily Flows for Non-Residential						34,823

Notes:

- 1) Area in acres measured by planimeter. 20 PE/acre used as conservative estimate for projected future use
- 2) PE value taken from issued IEPA permits supplied by the City of St. Charles
- 3) Number of employees based on 1 person per 250 square feet
- 4) Total flow based on IEPA permit; 73 estimated employees

Tributary To Renoux Manor Lift Station: Proposed Condition Residential (Corporate Reserve of St. Charles Ph II)					
Area	Manhole Location	Single Family Units	Multi Family Units	Flow Per Unit (GPD)	Total Flow (GPD)
Corporate Reserve - proposed	6.4062	-	13	4750	61,750
Corporate Reserve - proposed	6.3194	-	2	4750	9,500
Total Daily Flow for Residential					71,250

Notes:

- 1) 1 Multi Family Unit = 1 studio, 11-1BR, 10-2BR units. See calculation sheet for breakdown of flow per unit (gpd)

Summary of Average Daily Flows into Renaux Manor Lift Station	
	GPD
Existing Condition Residential	281,900
Existing Condition Non-Residential	34,823
Proposed Condition Residential	71,250
TOTAL	387,973

SUPPORTING DOCUMENTS



Wills Burke Kelsey Associates, Ltd.

116 West Main Street, Suite 201, St. Charles, Illinois 60174

TEL: (630) 443-7755 FAX: (630) 443-0533

8 East Galena Boulevard, Suite 402, Aurora, Illinois 60506

TEL: (630) 701-2245 FAX: (630) 800-1626

JOB 12-01210

SHEET NO. 1

OF

CALCULATED BY JCB

DATE 4/4/12

CHECKED BY

DATE

SCALE

Average Flow per Multi Family Bldg @ Corporate Reserve

avg units per building = 22

#studio = 1

#1BR = 11

#2BR = 10

22 units

Population Equivalent (PE)

studio = 1 persons

1BR = 1.5 persons

2BR = 3 persons

1 PE = 100 gpd

$$1\text{-studio (1PE)} + 11\text{-1BRs (1.5PE)} + 10\text{-2BRs (3PE)} = \underline{\underline{41.5PE}}$$

$$41.5\text{ PE (100 gpd)} = 4150\text{ gpd / building}$$

Renaux Manor Unit 2

avg units per building = 4, assume all 3BR (PE = 3)

$$3\text{ PE} \times 4\text{ units} = 12\text{ PE}$$

$$12\text{ PE (100 gpd)} = 1200\text{ gpd / building}$$

**INSTRUCTIONS FOR SCHEDULE A -- SEWER SERVICE CONNECTIONS
OR SCHEDULE B -- PUBLICLY OWNED OR REGULATED SEWER EXTENSIONS**

Revised November 2005

Schedule A must be filled out and completed for all sewer connections, which must be covered by a permit in accordance with the Illinois Pollution Control Board Regulations or where the municipality or local public sewer owner will not provide maintenance on said sewer. Sewer extensions which are to be maintained by the municipality or local sewer owner use Schedule B.

When the schedule item is not applicable to your project write "not applicable" or N/A.

1. The name of the project must be the same as the project name indicated on Form WPC-PS-1.
2. The sewer connection or non-public sewer will serve the indicated type of user such as the residential, commercial, light industrial (domestic only), manufacturing, recreational, other. It may be possible that one, two, or all of the appropriate blanks would be checked as well.
3. The nature of the project is intended to be a brief summary description of the type of project covered by the permit application.
- 4.1. Either submit the required map or a letter from the Illinois Historic Preservation Agency indicating that they have reviewed the project. The Agency has committed to a cooperative effort with the Illinois Historic Preservation Agency (IHPA). Under the provisions of the State Agency Historic Resources Preservation Act, 30 ILCS 605/1, IEPA informs IHPA of construction permit applications shortly after they are received. We would appreciate your submission of location maps and legal descriptions to facilitate this process. IEPA is obligated not to issue the permit until 30 days from the date that IHPA has received the copy of the application or until a letter is received from them. Permit applicants should submit information to IHPA independently from applying for construction permits from IEPA. If the project has previously been reviewed by the Illinois Historic Preservation Agency, inclusion of the sign off letter or approval with your application will enable IEPA to process your application more expeditiously. IHPA contact information is:

ILLINOIS HISTORIC PRESERVATION AGENCY
Division of Review and Compliance
1 Old State Capitol Plaza
Springfield, Illinois 62701

Telephone Number: 217/785-4512
Fax Number: 217/782-8161

- 4.2. Please submit a sketch of the project. If a suitable clear layout is included on the plan drawings, this request will be considered met.
- 4.3. A map of the immediate area to be served by the sewer in question must be submitted.
- 4.4. All potential future service area must also be shown.

It should be emphasized that the loading allocated against the waste treatment facility and intermediate sewer system will be based on the immediate area and population to be served by the permit. Any review fee for this project (see 6.4 below) will be based on the design loading of the sewer.

5. A facilities planning area (FPA) is a defined area that anticipates sewer service to be provided by a specific wastewater treatment facility. This information should be available from the owner/operator of the sewerage system or the owner of the sewage treatment plant. Sewers serving areas not identified in the proper FPA will be denied.
6. The following design criteria should be used in estimating the population equivalent of a residential building:

Efficiency or Studio Apartment	= 1	person
1 Bedroom Apartment	= 1.5	persons
2 Bedroom Apartment	= 3	persons
3 Bedroom Apartment	= 3	persons
Single Family Home	= 3.5	persons
Mobile Home	= 2.25	persons

- ALSO USE FOR TOWN HOME

Commonly used quantities of sewage flows from miscellaneous type facilities are listed in Appendix B, Table No. 2 of the Illinois Recommended Standards for Sewage Works.

- 6.3 Total of Items 6.1 and 6.2.



Wills Burke Kelsey Associates, Ltd.

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8 East Galena Boulevard, Suite 402, Aurora, Illinois 60506

TEL: (630) 701-2245 FAX: (630) 800-1626

JOB 12-012U

SHEET NO. 1

OF 1

CALCULATED BY JCG

DATE 4/23/12

CHECKED BY

DATE

SCALE 1" = 1' calculations

I & I calculation

I & I rate: 500 gal/in/mi/day
= for calculation, all pipe sizes = 8"

CORPORATE RESERVE TO PECK RD, EXISTING:

total pipe length = 3080 LF / 5280 = 0.58 mi

Rate = 500 (8) (0.58) = 2320 gal/day = 0.0036 cfs

CORPORATE RESERVE TO PECK RD, PROPOSED:

add total pipe length of 280 LF / 5280 = 0.053 mi

Rate = 500 (8) (0.58 + 0.053) = 2532 gal/day = 0.0039 cfs

REMINGTON GLEN, EXISTING

total pipe length = 1970 LF / 5280 = 0.37 mi

Rate = 500 (8) (0.37) = 1480 gal/day = 0.0023 cfs

REMINGTON GLEN, PROPOSED

add total pipe length of 1520 LF / 5280 = 0.29 mi

Rate = 500 (8) (0.37 + 0.29) = 2640 gal/day = 0.0041 cfs

PECK RD TRUNK, EXISTING + PROPOSED

total pipe length = 5410 LF (R.M. unit + 3 x 1840' (PECK to 1.3018))
= 1580 LF / 5280 = 1.44 mi

Rate = 500 (8) (1.44) = 5160 gal/day = 0.0079 cfs

PECK RD TRUNK, EXISTING + PROPOSED

total pipe length = 910' (1.3018 to US) + 8010 (RM UNIT 1) +
3140 (RM UNIT 2) = 12,180 LF / 5280 = 2.31 mi

Rate = 500 (8) (2.31) = 9217 gal/day = 0.0143 cfs

Note: Rate calculated w/ conservative approach. EPA rate = 200 gal/in/mi/day
Flow input at upstream MH.



Wills Burke Kelsey Associates, Ltd.

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8 East Galena Boulevard, Suite 402, Aurora, Illinois 60506

TEL: (630) 701-2245 FAX: (630) 800-1626

JOB 12-0126

SHEET NO. _____

OF _____

CALCULATED BY JCB

DATE 4/23/12

CHECKED BY _____

DATE _____

SCALE _____

Average Daily Flow per real time pump data:

Pump Capacity = 690 gpm (per Specs)

average daily pump time = 1.2 hrs (per data from Jan 2012 - Mar 2012)

$$\frac{690 \text{ gal}}{\text{min}} \times 1.2 \text{ hrs} \times \frac{60 \text{ min}}{1 \text{ hr}} = 49,680 \text{ gallons}$$

$$2 \text{ pumps} = 49,680 \text{ gal} \times 2 = 99,360 \text{ gal}$$

*third pump run time data suggests it is not utilized.

Average daily flow = 99,360 gal/day

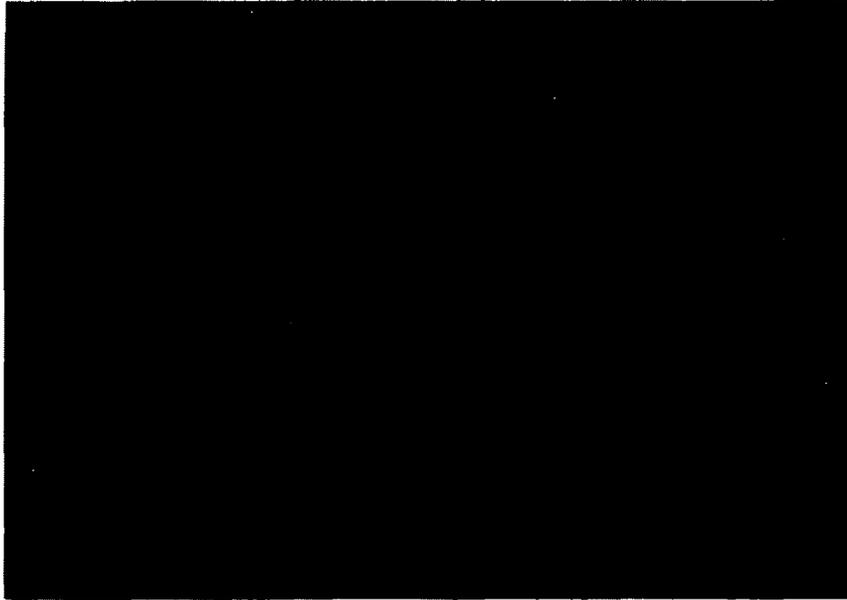
Peak Flow per real time pump data:

Pump Capacity = 690 gpm

peak pump time = 3.1 hrs (Jan 2012)

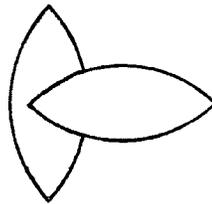
$$\frac{690 \text{ gal}}{\text{min}} \times 3.1 \text{ hr} \times \frac{60 \text{ min}}{1 \text{ hr}} = 153,180 \text{ gallons}$$

$$2 \text{ pumps} \times 153,180 \text{ gal} = 306,360 \text{ gal/day}$$



Metropolitan Industries, Inc.

Metropolitan Pump Company



Metropolitan Marketing

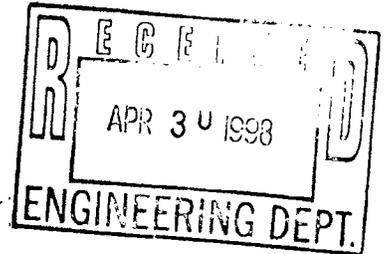
Metropolitan Equipment

MANUFACTURERS & DISTRIBUTORS OF QUALITY EQUIPMENT

Metropolitan Industries, Inc.

SUBMISSION FOR APPROVAL

PROJECT
TRIPLEX COMPONENT LIFT STATION



LOCATION
RENAUX MANOR
ST. CHARLES, ILLINOIS

ENGINEER
INTECH CONSULTANTS

CONTRACTOR
DEMPSY INC

REPRESENTATIVE
ROBERT L. WEDELL

DATE
April 28, 1998

Specifications

- PROJECT:** Sanitary Lift Station
Renaux Manor
St. Charles, Illinois
- Application:** Triplex Component Lift Station
- Model:** (3) Hydromatic model S4BX750 submersible non-clog explosion proof sewage pumps with 75' dual cords.
- Capacity:** 690 GPM @ 29' TDH
3" dia. solids / 4" discharge
- Motor(s):** (2) 7 1/2 HP, 1150 RPM, 460 volt, 3 phase 60 Hz., 1.20 service factor
Explosion Proof: Class I, Division I, Group C and or D Locations
- Control:** (1) Submersible level transducer (**primary**)
(5) Submersible mercury level switches to control on, off, override and alarm levels (**secondary**). All with 75' cords.
- Control Panel:** Furnished
Control panel to include magnetic starters, circuit breakers, run lights, H-O-A switches, electric alternator, main disconnect switch, ETM's, heat and seal failure sensors, intrinsically safe relays, automatic transfer switch (by Patton Power), Level Master and variable frequency drives all in a NEMA 3R "traffic box" type enclosure.
- Alarm:** High water alarm light & ~~AUTOMATIC~~ CONNECTION TO MAIN CONTROL PANEL @ WIN/TP
- Basin:** 10' dia. X 33.13' deep with outside valve box
Concrete, piping and valves - by others
- Accessories:**
- ✓ (3) Simplex Aluminum wet well access hatch model: APS300-36x32
 - ✓ (1) Simplex aluminum valve vault access hatch model APS300-36x36
 - ✓ (3) 4" M-T-M base elbows
 - ✓ (3) 4" M-T-M seal flanges
 - ✓ (3) 33' lengths of 3/16" stainless steel lifting chain
 - ✓ (12) 17' lengths of 2" sched. 40 stainless steel guide rails
 - ✓ (3) Sets of lower guide rail supports (located on base elbow)
 - ✓ (3) Sets of intermediate guide rail supports
 - ✓ (3) Sets of upper guide rail supports (mounted to wet ell access hatches)
 - (1) Stainless steel 5 float mounting bracket
 - ✓ (2) 10 lbs cast iron anchor and stainless steel chain float mounting system
 - ✓ (1) Heat and seal failure probes (per pump)

METROPOLITAN PUMP COMPANY
division of Metropolitan Industries, Inc.
37 Forestwood Drive
Romeoville, Illinois 60446
phone: (815)886-9200 fax: (815)886-4573

Renaux Manor							
Jan. 2012	Pump #1		Pump #2		Pump #3		
Date	Hour Meter	Hours Run	Hour Meter	Hours Run	Hour Meter	Hours Run	
1	6169.9	0.0	7994.9	0.0	9294.9	0.0	
2	6169.9	3.4	7994.9	0.0	9294.9	2.6	
3	6173.3	1.4	7994.9	0.0	9297.5	1.1	
4	6174.7	1.2	7994.9	0.0	9298.6	0.9	
5	6175.9	1.4	7994.9	0.0	9299.5	1.1	
6	6177.3	0.0	7994.9	0.0	9300.6	0.0	
7	6177.3	2.5	7994.9	0.0	9300.6	1.9	
8	6179.8	0.0	7994.9	0.0	9302.5	0.0	
9	6179.8	3.3	7994.9	0.0	9302.5	2.6	
10	6183.1	1.4	7994.9	0.0	9305.1	1.1	
11	6184.5	1.1	7994.9	0.0	9306.2	0.8	
12	6185.6	1.5	7994.9	0.0	9307.0	1.2	
13	6187.1	0.0	7994.9	0.0	9308.2	0.0	
14	6187.1	2.4	7994.9	0.0	9308.2	1.9	
15	6189.5	1.4	7994.9	0.0	9310.1	1.6	
16	6190.9	0.0	7994.9	0.0	9311.7	0.0	
17	6190.9	2.2	7994.9	0.0	9311.7	3.1	
18	6193.1	1.0	7994.9	0.0	9314.8	1.3	
19	6194.1	0.9	7994.9	0.0	9316.1	0.0	
20	6195.0	0.0	7994.9	0.0	9316.1	0.0	
21	6195.0	1.8	7994.9	0.0	9316.1	3.7	
22	6196.8	1.4	7994.9	0.0	9319.8	2.0	
23	6198.2	0.0	7994.9	0.0	9321.8	0.0	
24	6198.2	2.4	7994.9	0.0	9321.8	3.3	
25	6200.6	0.8	7994.9	0.0	9325.1	1.0	
26	6201.4	1.1	7994.9	0.0	9326.1	1.6	
27	6202.5	0.0	7994.9	0.0	9327.7	0.0	
28	6202.5	2.5	7994.9	0.0	9327.7	2.0	
29	6205.0	1.9	7994.9	0.0	9329.7	1.5	
30	6206.9	0.0	7994.9	0.0	9331.2	0.0	
31	6206.9	0.0	7994.9	0.0	9331.2	0.0	
Carried Forward	6206.9		7994.9		9331.2		
Total		37.0		0.0		36.3	
Daily Avg.		1.2		0.0		1.2	
Daily Max.		3.4		0.0		3.7	

Renaux Manor							
Feb. 2012	Pump #1		Pump #2		Pump #3		
Date	Hour Meter	Hours Run	Hour Meter	Hours Run	Hour Meter	Hours Run	
1	6209.8	1.2	7994.9	0.0	9333.4	1.0	
2	6211.0	1.5	7994.9	0.0	9334.4	1.2	
3	6212.5	0.0	7994.9	0.0	9335.6	0.0	
4	6212.5	2.6	7994.9	0.0	9335.6	2.0	
5	6215.1	2.0	7994.9	0.0	9337.6	1.6	
6	6217.1	0.0	7994.9	0.0	9339.2	0.0	
7	6217.1	2.7	7994.9	0.0	9339.2	2.2	
8	6219.8	0.9	7994.9	0.0	9341.4	0.8	
9	6220.7	1.8	7994.9	0.0	9342.2	1.5	
10	6222.5	0.0	7994.9	0.0	9343.7	0.0	
11	6222.5	2.5	7994.9	0.0	9343.7	1.9	
12	6225.0	1.4	7994.9	0.0	9345.6	1.8	
13	6226.4	0.0	7994.9	0.0	9347.4	0.0	
14	6226.4	2.2	7994.9	0.0	9347.4	3.0	
15	6228.6	0.8	7994.9	0.0	9350.4	1.1	
16	6229.4	1.1	7994.9	0.0	9351.5	1.5	
17	6230.5	0.0	7994.9	0.0	9353.0	0.0	
18	6230.5	2.1	7994.9	0.0	9353.0	2.9	
19	6232.6	1.7	7994.9	0.0	9355.9	1.3	
20	6234.3	0.0	7994.9	0.0	9357.2	0.0	
21	6234.3	2.4	7994.9	0.0	9357.2	2.5	
22	6236.7	0.9	7994.9	0.0	9359.7	1.2	
23	6237.6	1.4	7994.9	0.0	9360.9	1.6	
24	6239.0	0.0	7994.9	0.0	9362.5	0.0	
25	6239.0	2.8	7994.9	0.0	9362.5	2.8	
26	6241.8	0.5	7994.9	0.0	9365.3	1.8	
27	6242.3	0.0	7994.9	0.0	9367.1	0.0	
28	6242.3	2.2	7994.9	0.0	9367.1	3.1	
29	6244.5	0.0	7994.9	0.0	9370.2	0.0	
Carried Forward	6244.5		7994.9		9370.2		
Total		34.7		0.0		36.8	
Daily Avg.		1.2		0.0		1.3	
Daily Max.		2.8		0.0		3.1	

Renaux Manor							
Mar. 2012	Pump #1		Pump #2		Pump #3		
Date	Hour Meter	Hours Run	Hour Meter	Hours Run	Hour Meter	Hours Run	
1	6245.5	0.8	7994.9	0.0	9371.5	0.7	
2	6246.3	0.0	7994.9	0.0	9372.2	0.0	
3	6246.3	1.9	7994.9	0.0	9372.2	3.0	
4	6248.2	1.4	7994.9	0.0	9375.2	1.9	
5	6249.6	0.0	7994.9	0.0	9377.1	0.0	
6	6249.6	2.2	7994.9	0.0	9377.1	3.1	
7	6251.8	0.7	7994.9	0.0	9380.2	1.0	
8	6252.5	1.2	7994.9	0.0	9381.2	1.6	
9	6253.7	0.0	7994.9	0.0	9382.8	0.0	
10	6253.7	1.8	7994.9	0.0	9382.8	2.8	
11	6255.5	1.4	7994.9	0.0	9385.6	1.6	
12	6256.9	0.0	7994.9	0.0	9387.2	0.0	
13	6256.9	2.2	7994.9	0.0	9387.2	3.0	
14	6259.1	1.1	7994.9	0.0	9390.2	1.6	
15	6260.2	0.8	7994.9	0.0	9391.8	1.2	
16	6261.0	0.0	7994.9	0.0	9393.0	0.0	
17	6261.0	2.0	7994.9	0.0	9393.0	2.7	
18	6263.0	1.3	7994.9	0.0	9395.7	1.8	
19	6264.3	0.0	7994.9	0.0	9397.5	0.0	
20	6264.3	2.0	7994.9	0.0	9397.5	2.8	
21	6266.3	1.3	7994.9	0.0	9400.3	1.7	
22	6267.6	0.8	7994.9	0.0	9402.0	1.1	
23	6268.4	0.0	7994.9	0.0	9403.1	0.0	
24	6268.4	1.8	7994.9	0.0	9403.1	2.6	
25	6270.2	1.3	7994.9	0.0	9405.7	1.8	
26	6271.5	0.0	7994.9	0.0	9407.5	0.0	
27	6271.5	1.8	7994.9	0.0	9407.5	2.5	
28	6273.3	0.9	7994.9	0.0	9410.0	1.2	
29	6274.2	1.0	7994.9	0.0	9411.2	1.4	
30	6275.2	0.0	7994.9	0.0	9412.6	0.0	
31	6275.2	0.0	7994.9	0.0	9412.6	0.0	
Carried Forward	6275.2		7994.9		9412.6		
Total		29.7		0.0		41.1	
Daily Avg.		1.0		0.0		1.3	
Daily Max.		2.2		0.0		3.1	

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Legend

- EXISTING SANITARY STRUCTURE
- EXISTING SANITARY SEWER
- - - SUB SEWER-SHED AREA
- FUTURE DEVELOPMENT AREAS

0 300 600 1200 Feet

TITLE: CORPORATE RESERVE SANITARY SEWER EVALUATION
RENAUX MANOR LIFT STATION OVERALL SERVICE AREA

NO.	DATE	NATURE OF REVISION

PROJECT NO. 12-0128
DATE 04/19/2012
SHEET 1 OF 1
DRAWING NO. OV1

WILLS BURKE KELSEY ASSOCIATES LTD.
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7755



MEMORANDUM

Date: May 7, 2012

To: Chris Tiedt P.E.

CC:

From: Greg Chismark

Subject: Corporate Reserve Sanitary Sewer Study

This memo is a follow up to the subject study at the request of City staff. The purpose is to document the projected wastewater flow from the Corporate Reserve development (former Cardinal Property) comparing several sources. These are:

- Improvements Phasing Plan Update for Fairgrounds / West Gateway Development dated January 1996
- West Side WRF Facility Plan Update dated August 2008
- Corporate Reserve of St. Charles Sanitary Sewer Evaluation dated April 2012

The Corporate Reserve development is located on the former Cardinal Property. Generally, it is located between IL Route 64 (Main Street) and the former UPRR tracks / Great Western Trail and Remington Glen and Regency Estates / Pine Ridge Park. The entire property consists of approximately 50 acres. Find below a table comparing projected wastewater flows.

Source	Est P.E.	Flow gpd	Land Use	Comments
Improvements Phasing Plan Fairgrounds/West Gateway - 1996	903	90,300	Mixed	Significant residential component @ 24 P.E./ac.
West Side WRF Facility Plan Update- 2008	500	50,000		10 P.E./ac.
Corporate Reserve Sanitary Sewer Study - 2012	899	89,908	Mixed	Office/ commercial & proposed multi-unit residential

It is noted that the 2012 flows and the 1996 flows are similar in magnitude. However, the 2008 flows are significantly less. Most likely this is a result of the land use proposed (or approved) at the time the study was prepared and may be based on the assumption that a majority of the property will be an office use.



MEMORANDUM

Date: May 21, 2012

To: Chris Tiedt P.E.

CC: James Bernahl P.E.

From: Greg Chismark

Subject: Corporate Reserve Sanitary Sewer Study

This memo is in response to City staff comments regarding the sanitary sewer evaluation for the Corporate Reserve project. The goal of this supplement is to take a more refined look at the wastewater flows generated from the Corporate Reserve site. Although we took a conservative approach, City staff is concerned that the clubhouse and pool area has not been specifically accounted for in the analysis. The following documents were utilized:

- Improvements Phasing Plan Update for Fairgrounds / West Gateway Development dated January 1996
- Clubhouse Floor Plan prepared by BSB Design dated March 19, 2012
- Title 35 of the Illinois Administrative Code Part 370 – Recommended Standards for Sewage Works
- Title 15A North Carolina Administrative Code – Wastewater Design Flow Rates

Upon evaluation of the clubhouse floor plan we identified three separate uses. These uses include the pool, the social room/fitness room and the office area. We have assumed these uses would occur daily and throughout the year. This is a very conservative assumption but a good starting point. The flow generate rates were taken from both the Illinois and North Carolina Administrative Codes. The North Carolina Administrative Code was utilized to establish a flow rate for the pool and fitness areas because the Illinois Administrative Code does not address these uses. The estimated flow rate for the clubhouse facility is 2,100 gpd or 21 P.E.

We also verified the residential unit count and flows. Based on a rounding error the entire residential component could generate 72,100 (721 P.E) in comparison to the 71,250 (712.5 P.E.) originally estimated. This is an increase of 850 gpd or 8.5 P.E.

Finally, we re-evaluated the 7.5 acres of vacant commercial land use adjacent to Main Street (IL 64). The original estimate used a very conservative flow generation rate of 20 P.E./acre. This is 5 P.E./acre greater than the rate used in the original Fairgrounds / West Gateway Development Improvements Phasing Plan. It is reasonable to adjust flow rates for the commercial areas utilizing the original flow generation rates. The resultant is a reduction of 3,750 gpd or 37.5 P.E.

Taking into account all the afore-noted adjustments to total flow from the project can be reduced by 800 gpd or 8 P.E. We recommend the originally calculated flow rates and analysis remain unchanged as a conservative approach.

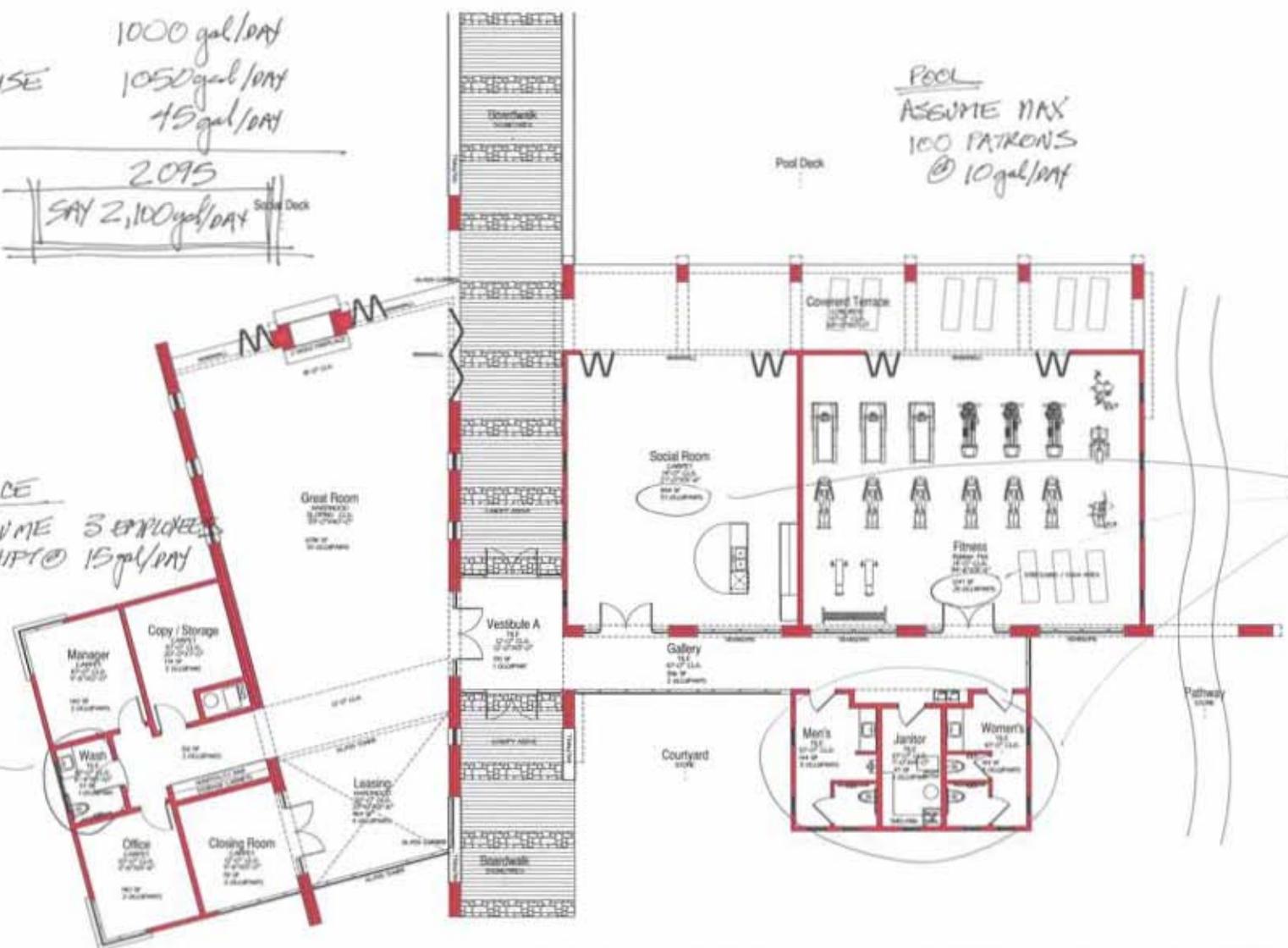
POOL 1000 gal/DAY
 SOCIAL EXERCISE 1050 gal/DAY
 OFFICE 45 gal/DAY

2095
 SAY 2,100 gal/DAY

POOL
 ASSUME MAX
 100 PATRONS
 @ 10 gal/DAY

OFFICE
 ASSUME 3 EMPLOYEES
 1 SHIFT @ 15 gal/DAY

SOCIAL/EXERCISE
 BASED ON
 SQUARE FOOTAGE
 210/SF
 @ 50 gal/100SF



Clubhouse - 5790 GSF

The Corporate Reserve of St. Charles
 St. Charles, Illinois



03-19-2012

Tributary To Renoux Manor Lift Station: Existing Condition Residential					
Area	Manhole Location	Single Family Units	Multi Family Units	Flow Per Unit (GPD)	Total Flow (GPD)
Renoux Manor Unit 1 & Artesian Springs	7.3018	152	-	350	53,200
Renoux Manor Unit 2 ¹	To Lift Station	-	35	1200	42,000
Renoux Manor Unit 2 ²	7.3018	-	29	1200	34,800
Renoux Manor Unit 3	7.4002	117	-	350	40,950
Remington Glen ¹	7.3083	-	26	-	36,050
Autumn Leaves Assisted Living ¹	7.3081	-	1	6000	6,000
Pine Ridge & Regency Estates ¹	To Lift Station	-	-	-	56,900
Assisted Living ¹	To Lift Station	-	1	12000	12,000
Total Daily Flow for Residential					281,900

Notes:

- 1) Total flow value based on information obtained from IEPA permit supplied by the City of St. Charles
- 2) Renoux Manor Unit 2:1 Multi Family Unit = 4 3-BR units. See calculation sheet for breakdown of flow per unit (gpd)
- 3) Assisted Living: Complex located off of IL Rt 64. Estimated flow (gpd) based on two times the value of Autumn Leaves Assisted Living

Tributary To Renoux Manor Lift Station: Existing Condition Non-Residential						
Building	Manhole Location	Use	Acres	Employees or PE/acre	GPD/Employee (GPD)	Total Flow (GPD)
Walgreens ^{1,4}	7.3032	Commercial	-	73	15.00	1,095
Corporate Reserve - north ¹	6.3196	Office Buildings	0.4	70	15.00	1,045
Corporate Reserve - central ¹	6.3198	Office Buildings	0.4	70	15.00	1,045
Corporate Reserve - south ¹	6.3194	Office Buildings	0.6	105	15.00	1,568
Corporate Reserve - vacant west ¹	6.3192	Commercial	4.2	30 15	-	8,400
Corporate Reserve - vacant east ¹	6.3189	Commercial	3.3	30 15	-	6,600
Vacant Lot ¹	6.3105	Commercial	2.0	20	-	3,960
Valley Springs Auto ²	7.3032	Commercial	-	-	-	3,000
Main Street Center ³	7.3087	Office Buildings	-	-	-	3,200
Westgate ³	7.3032	Commercial	-	-	-	2,400
The Bike Rack & Adjacent Commercial ³	To Lift Station	Commercial	0.8	132	15	1,986
Fire Station ¹	To Lift Station	-	0.2	35	15	523
Total Daily Flows for Non-Residential						34,823

01300
41950
Δ = - 3750 gpd/day
2759E

Notes:

- 1) Area in acres measured by planimeter. 20 PE/acre used as conservative estimate for projected future use
- 2) PE value taken from issued IEPA permits supplied by the City of St. Charles
- 3) Number of employees based on 1 person per 250 square feet
- 4) Total flow based on IEPA permit; 73 estimated employees

Tributary To Renoux Manor Lift Station: Proposed Condition Residential (Corporate Reserve of St. Charles Ph II)					
Area	Manhole Location	Single Family Units	Multi Family Units	Flow Per Unit (GPD)	Total Flow (GPD)
Corporate Reserve - proposed	6.4062	-	13	4750	61,750
Corporate Reserve - proposed	6.3194	-	2	4750	9,500
Total Daily Flow for Residential					71,250

Notes:

- 1) 1 Multi Family Unit = 1 studio, 11-1BR, 10-2BR units. See calculation sheet for breakdown of flow per unit (gpd)



TRACY CROSS & ASSOCIATES, INC.

**Market Support Analysis – A Summary
--- Corporate Reserve of St. Charles Apartments ---
St. Charles, Illinois**

August 3, 2012

INTRODUCTION

At the request of JCF Real Estate, Tracy Cross & Associates, Inc. evaluated the market potential for rental apartment development in St. Charles, Illinois. Specifically, this summary analysis, which focuses upon JCF Real Estate's proposed 331-unit Corporate Reserve apartment community and is suitable for submission to the City of St. Charles, establishes the following:



- ❑ Conclusions regarding the depth of the St. Charles area for rental apartment development over the next five years based upon pertinent economic, demographic, and residential market trends which define the marketplace.
- ❑ Conclusions regarding the overall marketability of 331 rental apartments to be distributed within a series of three-story residential buildings with optional garage parking available. These conclusions are based upon factors associated with the location of the property, absorption, vacancy and rent characteristics of like developments, and the near term outlook for rental housing development in St. Charles and its immediate west suburban environs, defined as the *St. Charles Market Area*.

THE SUBJECT PROPERTY

The Corporate Reserve Apartments property consists of 20.3 acres situated immediately north of Main Street/Route 64 at the intersection of Corporate Reserve Boulevard and Woodward Drive in the western portion of the city of St. Charles, Illinois. It is located less than three-quarters of a mile west of Randall Road, a major north-south arterial serving all of Kane County.



Adjacent to the subject property to the east is the commercial component of Corporate Reserve of St. Charles, consisting of two 15,000 square foot Class A office buildings built in 2010. Future plans call for additional one- and three-story office structures north of Woodward Drive together with possible standalone restaurant, retail, and other business uses oriented to Main Street.

Directly west is Remington Glen, a townhome community developed by Remington Homes which opened in January 2005. Originally slated for 103 units, Remington Homes sold a total of 58 townhomes through the second quarter of 2010 at which time marketing efforts ceased and the development was formally closed. Units sold during this timeframe ranged from 1,645 to 2,020 square feet in size and were priced from \$255,000 to \$285,000. However, based upon recent closing activity, units resold in this community have been priced just under the \$200,000 mark.

The property's northern boundary is formed by the Great Western Trail which follows 17 miles of former railway corridor through Kane and DeKalb counties. The trail's crushed limestone bed provides access for cyclists, walkers and joggers and, in the winter, cross-country skiers. Adjacent to the Great Western Trail is the Leroy Oaks Forest Preserve, a popular St. Charles destination for passive and active recreation. The preserve includes an equestrian area together with picnic locations and shelters, prairie restorations, grassy fields, and deep forests.

The Environs

The Corporate Reserve property is well served by local and regional transportation systems including Main Street which provides direct linkage to downtown St. Charles and its numerous quaint boutiques, antique stores, and restaurants. Randall Road, too, offers access to numerous shopping, dining, and entertainment venues with the nearest concentrations found to the south of Main Street and into the city of Geneva. Of particular interest to prospective renters of

the Corporate Reserve community is the Geneva Commons lifestyle center located on Randall Road one mile to the south. Here, over 70 specialty retail and dining establishments have a distinctive presence including, among others, Crate & Barrel, Coach, Pottery Barn, Dick's Sporting Goods, and Williams Sonoma.

Randall Road also represents a major north-south commutation arterial joining with the four-lane U.S. 20 expressway to the north and the Ronald Reagan Memorial Tollway (I-88) to the south. Via U.S. 20 and its connection with the Elgin O'Hare Expressway, major sources of employment in and around the Itasca, Schaumburg, and O'Hare areas can be reached within a 40 to 60-minute drive time. I-88, in turn, provides linkage to heavy satellite employment concentrations in Naperville, Warrenville, Lisle, Lombard, and Oak Brook. Finally, for employed residents working in the city of Chicago, Union Pacific's West Line from Geneva offers rail transportation to the Loop reaching the central business district in approximately one hour.

Proximate to Corporate Reserve are five newer rental communities in St. Charles and Geneva which, combined, support a total of 520 apartment units. As shown in the following text table, rents in these five developments currently average \$1,360 monthly for a residence that offers 1,027 square feet of living area. This equals a value ratio of \$1.32 per square foot. At present, only 13 units are unoccupied which translates to a vacancy factor of just 2.5 percent.

LOCALIZED COMPETITION
-- ST. CHARLES AND GENEVA --

Program/ Address	Year Built	Number of Units	Occupied		Vacant		Average Plan Size (Sq. Ft.)	Average Monthly Posted Rent	
			Number	Percent	Number	Percent		\$	\$/Sq. Ft.
St. Charles									
AmlI at St. Charles	1999	400	391	97.8	9	2.3	995	\$1,350	\$1.36
Fox Place	2004	20	20	100.0	0	0.0	980	990	1.01
Geneva									
Dodson Place	2009	22	22	100.0	0	0.0	1,455	\$1,900	\$1.31
Residence at Will Creek	2009	48	44	91.7	4	8.3	1,161	1,443	1.24
The Village at Mill Creek	2006	30	30	100.0	0	0.0	956	1,210	1.26
Total/Average	---	520	507	97.5	13	2.5	1,027	\$1,360	\$1.32

Source: Tracy Cross & Associates, Inc.

Situated in St. Charles, and the largest of the five localized competitors, is AMLI at St. Charles, a 400-unit community that opened in 1999. This development offers a variety of one bedroom, one bedroom plus den, two bedroom, and two bedroom plus den units in the size band from 694 to 1,452 square feet. Rents currently range from \$1,086 monthly to \$1,946 and average \$1,350 for a 995 square foot unit.



AML at St. Charles, which reached stabilized occupancy levels in a 21-month period at a rate of 18.0 units monthly, features an extensive level of community amenities including a resort-style swimming pool and sun deck, two fitness centers, a business and conference center, and a multimedia room with surround sound. The community's clubhouse and swimming pool area are centrally located and overlook an expansive lake and walking trail. A number of units within the development are afforded lake views with attendant premiums averaging \$30 monthly. These view charges apply to approximately 20 percent of all units.

***The Proposed
Development***

As conceptualized by JCF Real Estate, Corporate Reserve of St. Charles Apartments will consist of 331 garden-style rental apartments distributed among a series of three-story residential buildings to include attached one-car garages. Several of the buildings will feature walk-out or partial walk-out lower levels. In total, 120 garages will be provided, along with 406 internal surface parking spaces to accommodate residents and guests, equating to a parking ratio of 1.6 to 1.0. The residential buildings will feature color palettes and coordinated architectural details inspired by the surrounding conservancy.

Community amenities will include several internal parks and other green space, walking/jogging trails and detention ponds, along with appropriate landscape and hardscape. A centrally-located 5,790 square foot clubhouse will also be provided featuring a great room with fireplace, a social center, a fully-equipped fitness center with yoga area, commercial-grade kitchen, a business center proximate to main gathering areas, a small conference room, and a media room, along with landscaped boardwalks, courtyards and outdoor terraces, an outdoor pool and expansive sundeck and grilling areas. This community center will also facilitate leasing and management offices.



Design concepts envision a variety of primarily one bedroom, one bedroom plus den and two bedroom designs, along with a modicum of studios, ranging in unit size from 611 to 1,167 square feet, *exclusive* of patio or balconies. As summarized in the following table, Corporate Reserve of St. Charles Apartments will provide 315,043 net leasable square feet, with the average apartment residence offering 952 square feet of living area.





PROPOSED PRODUCT MATRIX: CORPORATE RESERVE OF ST. CHARLES

Plan Designation	Bedroom/ Bath Mix	Total Units	Percent of Total	Net Rentable Square Feet		Proposed Rent	
				Per Unit	Total	\$	\$/Sq. Ft.
A	0 / 1.0	16	4.8	611	9,776	\$1,008	\$1.65
B-1	1 / 1.0	49	14.8	751	36,799	1,202	1.60
B-2	1 / 1.0	66	19.9	886	58,476	1,391	1.57
C	1+Den / 1.0	44	13.3	951	41,844	1,474	1.55
D-1	2 / 2.0	70	21.1	1,033	72,310	1,591	1.54
D-2	2 / 2.0	58	17.5	1,089	63,162	1,666	1.53
D-3	2 (Dbl Mbr) / 2.0	28	8.5	1,167	32,676	1,739	1.49
Total/ Wtd. Average	---	331	100.0	952	315,043	\$1,475	\$1.55

Source: JCF Real Estate Pro Forma dated 6/11/2012.

Monthly lease rates, which include floor and unit location premiums and are weighted by plan type, are expected to average \$1,475 for a 952 square foot residence which translates to a value ratio of \$1.55 per square foot. In current 2012 dollars, average monthly rents extend from \$1,008 for studio units, \$1,202 for the one bedroom and \$1,474 for one bedroom plus den units, with two bedroom units supporting average rents extending from \$1,591 to \$1,739 monthly. An attached, hallway access one car garage will be available for an incremental \$120 per month.

All apartments will feature an enhanced level of interior appointments commensurate with higher-quality new construction apartment development found in select areas of the suburban Chicago marketplace and elsewhere in other metropolitan areas of the country such as Houston, Dallas, Denver, Austin and the like that have



witnessed a significant upturn in apartment construction activity of late. These include stainless steel kitchen appliances, granite kitchen countertops/islands, in-unit washer and dryer, walk-in closets in all master bedrooms, patios and balconies, internet and cable television access, and in-unit storage. It is expected that the resident will be responsible for all utilities.

Construction of the Corporate Reserve Apartments is expected to commence in late-2012, with leasing to begin in mid-2013 in anticipation of phased occupancies beginning in the fall of the year.



CONCLUSION

Based upon a thorough analysis of defining factors of influence, Corporate Reserve of St. Charles Apartments is viewed as a viable development opportunity. This general conclusions is based, in part, upon the property's *excellent* location in the city of St. Charles proximate to significant concentrations of shopping, dining and other daily consumer services; its contiguity to the Great Western Trail and the Leroy Oaks Forest Preserve; access to regional transportation systems and sources of employment; and, perhaps most importantly, upon tight rental market conditions found not only locally but throughout Chicago's west suburban area.

**Defining the
St. Charles
Market Area**

Given the intended resident constituency of the Corporate Reserve apartment development, the geographic area from which demand support will emanate consists of a seven township area that includes St. Charles, Geneva, Batavia, Campton, and Blackberry in Kane County along with Wayne and Winfield in DuPage County. This area, defined as the *St. Charles Market Area*, extends *roughly* west from the city of Warrenville to Illinois Route 47 and south from West Bartlett Road to the northern village boundaries of North Aurora. This area forms a homogenous component of the Chicago region defined by its dependence upon like sources of employment, socio-economic similarities in demographic and household composition, and the alignment and location of residential developments which will serve as a source of competition, both direct and indirect.



**GEOGRAPHIC DELINEATION:
THE ST. CHARLES MARKET AREA**



Source: Microsoft Streets & Trips and Tracy Cross & Associates, Inc.



**Population,
Households,
And Tenure**

The 2000 Census revealed that during the 1990s, the population of the St. Charles Market Area grew by 6,360 persons yearly to a 2000 base of 224,530. Market area households in turn advanced by 2,054 annually to a level of 73,874 in 2000. During the decade, St. Charles Township accounted for 13.8 percent of total population growth in the market area and 17.0 percent of all household additions.

As detailed in **Exhibit 1**, growth in both population and households slowed appreciably over the last twelve years. Estimates derived from the 2010 Census, for example, indicate that the population of the market area currently totals 262,353 representing an annual increase of 3,152 persons since 2000, or 50.4 percent *below* gains witnessed during the 1990s. Household growth, too, slowed during the 2000-2012 timeframe averaging 1,180 per year, down 42.6 percent from the pace set between 1990 and 2000. These rather steep declines can be attributed largely to the built-out nature of component market area townships in DuPage County coupled with the higher price of housing in most of Wayne Township and in the unincorporated areas of Kane County where larger lot sizes are mandated due to the lack of municipal water and sewer.

Tenure distributions in the St. Charles Market Area continue to favor ownership housing which currently accounts for 85.7 percent of all occupied units. During the 2000-2012 period, however, renter household additions accounted for 13.4 percent of total household growth in the market area compared with only 3.9 percent during the 1990s. Numerically, renter household growth in the market area moved upward at an annual pace of 158 between 2000 and 2012 to a 2012 total of 12,555 households. Of this total, 3,567 renter households are found in St. Charles Township representing 19.4 percent of all households in the township as a whole and 28.4 percent of all renter households in the seven-township market area.

Age and Income

Households in the St. Charles Market Area are relatively affluent evidenced by an estimated 2012 median income of \$85,611. As shown in the following table and detailed in **Exhibit 2**, in the strongest renter age categories of under 35 and from 55 to 65, incomes are also high with the younger subset supporting a 2012 median of \$74,845 and the 55 to 65 age group carrying a \$88,587 median.





POPULATION, HOUSEHOLDS, AND INCOME
-- ST. CHARLES MARKET AREA --

Attribute/Year	St. Charles Market Area	St. Charles Township	Attribute/Year	St. Charles Market Area	St. Charles Township
Population			Households		
1990	160,931	33,247	1990	53,333	11,375
2000	224,530	42,051	2000	73,874	14,861
2012	262,353	51,951	2012	88,034	18,383
2017	275,203	55,142	2017	92,066	19,339
Average Annual Change			Average Annual Change		
1990 - 2000	6,360	880	1990 - 2000	2,054	349
2000 - 2012	3,152	825	2000 - 2012	1,180	294
2012 - 2017	2,570	638	2012 - 2017	806	191
2012 Population by Race/Hispanic or Latino			2012 Households by Type		
Total Population	262,353	51,951	Total Households	88,034	18,383
Not Hispanic or Latino	224,722	46,900	Married Couple with Children	32,549	6,165
White Alone Not Hispanic	182,492	41,006	Married Couple without Children	27,471	5,823
Black Alone Not Hispanic	6,443	1,132	Other Family with Children	6,512	1,191
Asian Alone Not Hispanic	16,323	2,031	Other Family without Children	3,853	963
All Other Races Not Hispanic	19,464	2,731	Nonfamily with Children	92	17
Hispanic or Latino	37,631	5,051	Nonfamily without Children	17,557	4,224
2012 Housing Units and Tenure			2012 Household Income		
Total Housing Units	91,908	19,339	Total Households	88,034	18,383
Occupied Housing Units	88,034	18,383	Under \$25,000	6,796	1,773
Owner Occupied	75,479	14,816	25,000 - 34,999	4,671	1,073
Percent	85.7	80.6	35,000 - 49,999	8,720	2,062
Renter Occupied	12,555	3,567	50,000 - 74,999	17,107	3,430
Percent	14.3	19.4	75,000 - 99,999	15,840	2,943
Vacant	3,874	956	100,000 - 149,999	20,505	3,780
Percent	4.2	4.9	150,000 and Over	14,395	2,894
			Median	\$85,611	\$82,250

Source: U.S. Department of Commerce, Bureau of the Census: Census 1990 and 2000; Nielsen Solution Center; and estimates by Tracy Cross & Associates, Inc.



HOUSEHOLD INCOME BY AGE OF HOUSEHOLDER - 2012
-- ST. CHARLES MARKET AREA --

Age of Householder	2012 Income												Total	Median
	Under \$25,000		\$25,000 - 34,999		\$35,000 - 49,999		\$50,000 - 74,999		\$75,000 - 99,999		\$100,000 and Over			
	Number of Households	Percent of Total Households	Number of Households	Percent of Total Households	Number of Households	Percent of Total Households	Number of Households	Percent of Total Households	Number of Households	Percent of Total Households	Number of Households	Percent of Total Households		
St. Charles Market Area														
15 - 24 Years	458	0.52	268	0.30	379	0.43	458	0.52	160	0.18	138	0.16	1,861	\$30,089
25 - 34 Years	547	0.62	645	0.73	1,398	1.59	2,988	3.39	2,871	3.26	3,932	4.47	12,381	66,800
35 - 44 Years	627	0.71	439	0.50	1,364	1.55	3,880	4.41	3,764	4.28	8,221	9.34	18,295	77,437
45 - 54 Years	998	1.13	671	0.76	1,639	1.86	3,999	4.54	4,625	5.25	13,148	14.94	25,080	75,203
55 - 64 Years	1,238	1.41	994	1.13	1,661	1.89	3,162	3.59	2,989	3.40	7,315	8.31	17,359	63,951
65 - 74 Years	1,229	1.40	958	1.09	1,381	1.57	1,949	2.21	1,052	1.19	1,701	1.93	8,270	36,699
75 - 84 Years	1,190	1.35	539	0.61	688	0.78	548	0.62	304	0.35	349	0.40	3,618	24,320
85 Years & Over	509	0.58	157	0.18	210	0.24	123	0.14	75	0.09	96	0.11	1,170	22,449
Total	6,796	7.72	4,671	5.31	8,720	9.91	17,107	19.43	15,840	17.99	34,900	39.64	88,034	\$85,611
St. Charles Township														
15 - 24 Years	189	1.03	57	0.31	111	0.60	128	0.70	28	0.15	24	0.13	537	\$20,313
25 - 34 Years	102	0.55	195	1.06	356	1.94	582	3.17	605	3.29	839	4.56	2,679	61,596
35 - 44 Years	176	0.96	102	0.55	374	2.03	794	4.32	637	3.47	1,451	7.89	3,534	81,063
45 - 54 Years	315	1.71	106	0.58	320	1.74	639	3.48	809	4.40	2,630	14.31	4,819	77,805
55 - 64 Years	318	1.73	172	0.94	371	2.02	671	3.65	582	3.17	1,605	8.73	3,719	75,316
65 - 74 Years	292	1.59	283	1.54	330	1.80	437	2.38	181	0.98	375	2.04	1,898	58,291
75 - 84 Years	264	1.44	118	0.64	157	0.85	143	0.78	79	0.43	147	0.80	908	39,817
85 Years & Over	117	0.64	40	0.22	43	0.23	36	0.20	22	0.12	31	0.17	289	32,794
Total	1,773	9.64	1,073	5.84	2,062	11.22	3,430	18.66	2,943	16.01	7,102	38.63	18,383	\$82,250

Source: Nielsen Solution Center and Tracy Cross & Associates, Inc.

HOUSEHOLD INCOME BY SELECTED AGE CATEGORIES
 -- ST. CHARLES MARKET AREA --
 2012



Household Income 2012	Total Households		Householders Age Under 35		Householders Age 55 - 64	
	Number	Percent	Number	Percent	Number	Percent
Under \$15,000	3,328	3.78	488	3.43	583	3.36
15,000 - 24,999	3,468	3.94	517	3.63	655	3.77
25,000 - 34,999	4,671	5.31	913	6.41	994	5.73
35,000 - 49,999	8,720	9.91	1,777	12.48	1,661	9.57
50,000 - 74,999	17,107	19.43	3,446	24.20	3,162	18.22
75,000 - 99,999	15,840	17.99	3,031	21.28	2,989	17.22
100,000 - 124,999	12,442	14.13	2,067	14.51	2,376	13.69
125,000 - 149,999	8,063	9.16	929	6.52	1,676	9.65
150,000 - 199,999	7,068	8.03	681	4.78	1,381	7.96
200,000 and Over	7,327	8.32	393	2.76	1,882	10.84
Total Households (Est.)	88,034	100.01	14,242	100.00	17,359	100.00
Median	----- \$85,611 -----		----- \$74,845 -----		----- \$88,587 -----	
Households with Income \$50,000 - \$99,999	32,947	37.43	6,477	45.48	6,151	35.43

Sources: Nielsen Solution Center and Tracy Cross & Associates, Inc.

Employment

Our favorable conclusion also reflects the fact that there are some 837,493 private sector jobs within a 45-minute drive time of St. Charles, representing roughly 27 percent of total private sector employment in the metropolitan region. The most proximate job centers to St. Charles with private sector employment levels totaling 15,000 or more in 2011 included Naperville (63,790), Elgin (39,366), Aurora (33,515), Lisle (19,362), and St. Charles proper (18,400).



PRIVATE SECTOR EMPLOYMENT
 AREAS INCLUDING AND PROXIMATE TO ST. CHARLES
 2011



Area	Total Private Sector Employment 2011	
	Number of Workers	Percent of Six-County Metro Area
Six-County Chicago Metro Area ⁽¹⁾	3,192,426	100.0
Within a 30-Minute Commute of St. Charles:	280,920	8.8
Kane County	156,499	4.9
St. Charles	18,400	0.6
Remainder of Kane County	138,099	4.3
Glen Ellyn, DuPage County	9,937	0.3
Lisle, DuPage County	19,362	0.6
Naperville, DuPage County	63,790	2.0
West Chicago, DuPage County	15,951	0.5
Wheaton, DuPage County	15,381	0.5
Within a 30 to 45-Minute Commute of St. Charles:	565,775	17.7
Remainder of DuPage County	375,707	11.8
Arlington Heights, Cook County	44,007	1.4
Barrington, Cook/Lake Counties	10,249	0.3
Hoffman Estates, Cook County	22,881	0.7
Palatine, Cook County	24,468	0.8
Rolling Meadows, Cook County	17,556	0.5
Schaumburg, Cook County	70,907	2.2
All Areas Within a 45-Minute Commute of St. Charles	846,695	26.5

⁽¹⁾ Includes Cook, DuPage, Kane, Lake, McHenry, and Will counties in Illinois.

Source: Illinois Department of Employment Security: *Where Workers Work 2012*

One cannot, however, discount the current economic crisis which has had a profound impact not only upon employment sources supporting the Corporate Reserve development but regionally as well. Focusing first upon localized and secondary sources of employment proximate to St. Charles finds private sector job losses of some 52,400 between 2005 and 2011 with the largest declines found in the eastern and northern portions of DuPage County and throughout Kane County as a whole. In these latter areas, payrolls declined by some 39,132 during the 2005-2011 timeframe, representing 74.7 percent of all jobs lost in areas proximate to St. Charles and 19.5 percent of total employment erosion in the Chicago metropolitan region.



**TRENDS IN PRIVATE SECTOR EMPLOYMENT
 AREAS INCLUDING AND PROXIMATE TO ST. CHARLES
 2000 - 2011**



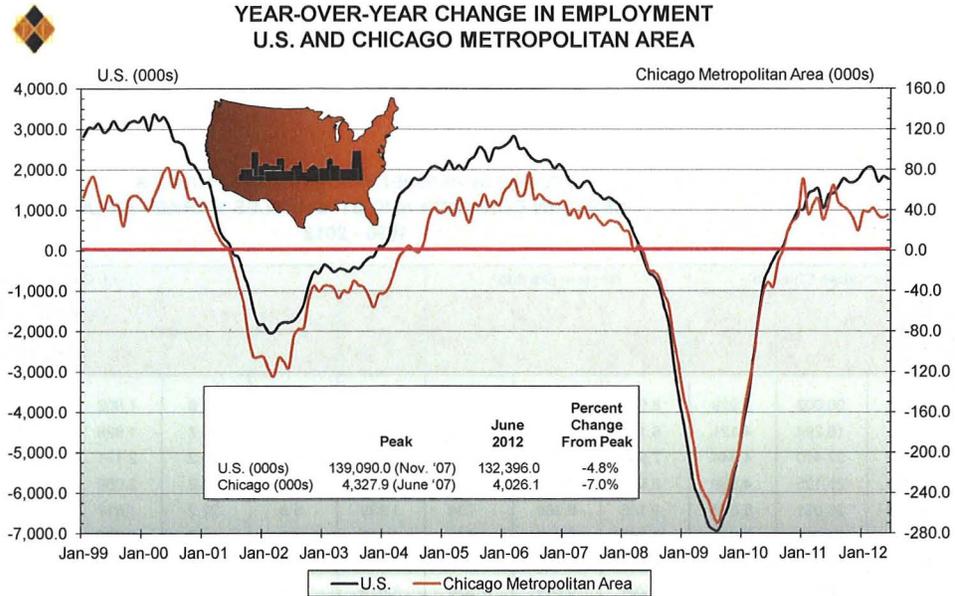
Area	Total Private Sector Employment			Average Annual Change	
	2000	2005	2011	2000 - 2005	2005 - 2011
Six-County Chicago Metro Area ⁽¹⁾	3,487,542	3,333,380	3,133,051	-30,832	-33,388
Within a 30-Minute Commute of St. Charles:	293,583	294,835	280,920	250	-2,319
Kane County	165,760	171,148	156,499	1,078	-2,442
St. Charles	22,510	23,016	18,400	101	-769
Remainder of Kane County	143,250	148,132	138,099	977	-1,672
Glen Ellyn, DuPage County	10,448	10,884	9,937	87	-158
Lisle, DuPage County	21,275	20,644	19,362	-126	-214
Naperville, DuPage County	63,877	60,099	63,790	-756	615
West Chicago, DuPage County	13,826	14,923	15,951	219	171
Wheaton, DuPage County	18,397	17,137	15,381	-252	-293
Within a 30 to 45-Minute Commute of St. Charles:	610,218	604,266	565,775	-1,190	-6,415
Remainder of DuPage County	396,202	396,194	375,707	-2	-3,415
Arlington Heights, Cook County	53,982	46,471	44,007	-1,502	-411
Barrington, Cook/Lake Counties	10,761	11,605	10,249	169	-226
Hoffman Estates, Cook County	20,710	24,293	22,881	717	-235
Palatine, Cook County	23,687	21,969	24,468	-344	417
Rolling Meadows, Cook County	24,125	23,239	17,556	-177	-947
Schaumburg, Cook County	80,751	80,495	70,907	-51	-1,598
All Areas Within a 45-Minute Commute of St. Charles	903,801	899,101	846,695	-940	-8,734

⁽¹⁾ Includes Cook, DuPage, Kane, Lake, McHenry, and Will counties in Illinois.

Source: Illinois Department of Employment Security: *Where Workers Work 2012*

The current recession has, in fact, taken a significant toll on employment throughout the entire Chicago region. As shown in the following graphic, the ten-county metropolitan area's nonfarm employment rosters through June of this year are down close to 302,000 from their peak in June 2007 with year-over-year job losses of 221,300 experienced in 2009 alone.





Source: U.S. Department of Labor, Bureau of Labor Statistics

The intensity of job losses in 2009 began to reverse in 2010 with job growth in the metro area turning positive in 2011. Between 2010 and 2011, for example, the ten-county region added 41,000 net workers, representing an increase of 1.0 percent year-over-year, with year-over-year job additions of 36,700 or 0.9 percent recorded through June 2012. Although these lethargic rates are hardly enough to make a dent in continued high levels of regional unemployment, they do signal that the Corporate Reserve of St. Charles Apartments will enter the market at a time of improving economic conditions which will initially create a positive influence upon the rental sector and as consumer confidence is restored over time, ultimately extend to the for sale sector.

Residential Building Activity

Since 1990 and through May 2012, residential building activity in the St. Charles Market Area has averaged 1,344 units annually, distributed between 1,220 single family units (including single address townhomes and duplexes) and 124 in the multi-family sector. As shown in **Exhibit 3**, the strongest periods of new residential construction in the market area occurred during the early 1990s when volumes averaged over 2,000 units annually due in large part to intense development along the Illinois Route 59 corridor, and again during the 1999-2005 period when authorizations averaged 1,665 units yearly. Contributing to this latter robust period of activity was the exuberant single family and multi-family for sale markets fostered by relatively low interest rates, shifts in renter to ownership tenure, and, as we now know, extremely lenient and lax lending practices.

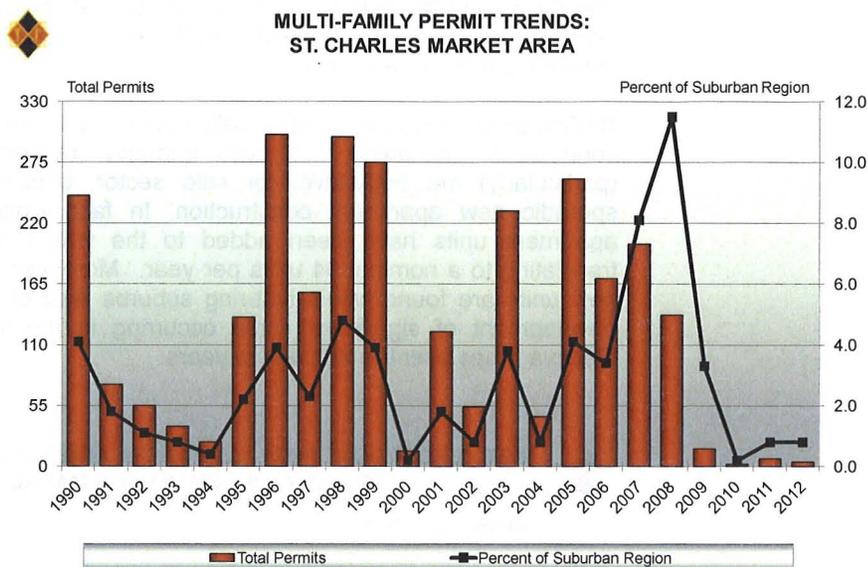


**TRENDS IN RESIDENTIAL BUILDING PERMITS
WESTERN CORRIDOR AND ST. CHARLES MARKET AREA
1990 - 2012**

Year	Suburban Chicago			Western Corridor			St. Charles Market Area								
	Total	Single Family	Multi-Family	Total	Single Family	Multi-Family	Total	Percent of Suburban Area	Percent of Western Corridor	Single Family	Percent of Suburban Area	Percent of Western Corridor	Multi-Family	Percent of Suburban Area	Percent of Western Corridor
1990	25,931	20,002	5,929	8,615	5,982	2,633	2,047	7.9	23.8	1,802	9.0	30.1	245	4.1	9.3
1991	22,415	18,294	4,121	6,122	5,544	579	2,002	8.9	32.7	1,928	10.5	34.8	74	1.8	12.8
1992	27,354	22,410	4,944	7,902	7,015	886	2,226	8.1	28.2	2,171	9.7	30.9	55	1.1	6.2
1993	29,664	25,125	4,539	8,507	7,838	669	2,125	7.2	25.0	2,089	8.3	26.7	36	0.8	5.4
1994	31,639	26,051	5,588	9,103	8,369	734	1,839	5.8	20.2	1,817	7.0	21.7	22	0.4	3.0
1995	30,020	23,969	6,051	8,556	6,726	1,830	1,432	4.8	16.7	1,297	5.4	19.3	135	2.2	7.4
1996	32,110	24,320	7,790	9,937	6,721	3,217	1,721	5.4	17.3	1,421	5.8	21.1	300	3.9	9.3
1997	28,879	22,188	6,691	8,204	6,264	1,939	1,410	4.9	17.2	1,253	5.6	20.0	157	2.3	8.1
1998	30,813	24,668	6,145	9,516	7,096	2,420	1,811	5.9	19.0	1,513	6.1	21.3	298	4.8	12.3
1999	34,812	27,789	7,023	10,355	7,771	2,585	2,207	6.3	21.3	1,932	7.0	24.9	275	3.9	10.6
2000	32,476	26,475	6,001	9,282	7,384	1,898	1,719	5.3	18.5	1,705	6.4	23.1	14	0.2	0.7
2001	34,970	28,072	6,898	10,715	7,495	3,220	1,676	4.8	15.6	1,554	5.5	20.7	122	1.8	3.8
2002	37,252	30,469	6,783	10,182	7,571	2,611	1,597	4.3	15.7	1,543	5.1	20.4	54	0.8	2.1
2003	37,409	31,402	6,007	9,027	7,382	1,645	1,429	3.8	15.8	1,198	3.8	16.2	231	3.8	14.0
2004	36,905	31,200	5,705	8,946	7,836	1,110	1,413	3.8	15.8	1,368	4.4	17.5	45	0.8	4.1
2005	38,523	32,181	6,342	9,937	8,511	1,426	1,615	4.2	16.3	1,355	4.2	15.9	260	4.1	18.2
2006	29,149	24,216	4,933	8,929	7,016	1,913	969	3.3	10.9	799	3.3	11.4	170	3.4	8.9
2007	17,359	14,868	2,491	4,684	4,027	657	697	4.0	14.9	496	3.3	12.3	201	8.1	30.6
2008	7,301	6,113	1,188	1,857	1,610	247	411	5.6	22.1	274	4.5	17.0	137	11.5	55.5
2009	3,752	3,263	489	994	880	114	167	4.5	16.8	151	4.6	17.2	16	3.3	14.0
2010	4,223	3,169	1,054	1,222	901	321	115	2.7	9.4	113	3.6	12.5	2	0.2	0.6
2011	4,048	3,213	835	1,040	1,022	18	151	3.7	14.5	144	4.5	14.1	7	0.8	38.9
2012 ⁽¹⁾	4,530	4,056	474	1,358	1,322	36	130	2.9	9.6	126	3.1	9.5	4	0.8	11.1
Annual Average															
1990 - 2012	25,284	20,588	4,697	7,173	5,751	1,422	1,344	5.3	18.7	1,220	5.9	21.2	124	2.6	8.7
1990 - 2000	29,647	23,754	5,893	8,736	6,973	1,763	1,867	6.3	21.4	1,721	7.2	24.7	146	2.5	8.3
2001 - 2005	37,012	30,665	6,347	9,761	7,759	2,002	1,546	4.2	15.8	1,404	4.6	18.1	142	2.2	7.1
2006 - 2012	10,052	8,414	1,638	2,869	2,397	472	377	3.8	13.1	300	3.6	12.6	77	4.7	16.2

⁽¹⁾ Seasonally adjusted, annualized rate, YTD May.

More recently, residential construction volume in the St. Charles Market Area began to slide downward in 2006 and precipitously so after 2008. During the 2009-May 2012 period, for example, residential building activity dropped to a yearly average of only 141 units, representing a decline of 91.5 percent from the 1999-2005 period. Virtually *all* of recent decline in residential building activity in the market area can be attributed to erosion in the for sale market as only four very small scale apartment communities have been introduced within its boundaries over the last eight and one-half years. The St. Charles Market Area, in fact, has accounted for less than 3.0 percent of all new multi-family family construction in the whole of suburban Chicago since 2000, with the vast majority of these newer units reflecting condominium for sale idioms concentrated in areas east of Route 59 or aligning the Fox River in the downtown districts of Batavia (Quarry Stone Pond), Geneva (Crossings at Geneva) and St. Charles (Milestone Row).



Source: U.S. Bureau of the Census: C-40 Construction Reports and Tracy Cross & Associates, Inc.

In the for sale sector, single family production sales, which averaged 845 per year during the 1999-2005 timeframe dropped to an annualized pace of only 84 over the last 18 months while townhome/condominium sales declined from the same 845 annual rate between 1999 and 2005 to an 18-month yearly pace of just 90 units during the 2011-June 2012 period.

***The Rental
Marketplace—
An Overview***

Our favorable conclusion is also predicated upon a detailed examination of the west suburban area's rental market, focusing upon newer construction (i.e., built and/or fully renovated in 1985 or later) in St. Charles itself, as well as within the component municipalities of the region's Western Corridor, an area *generally*



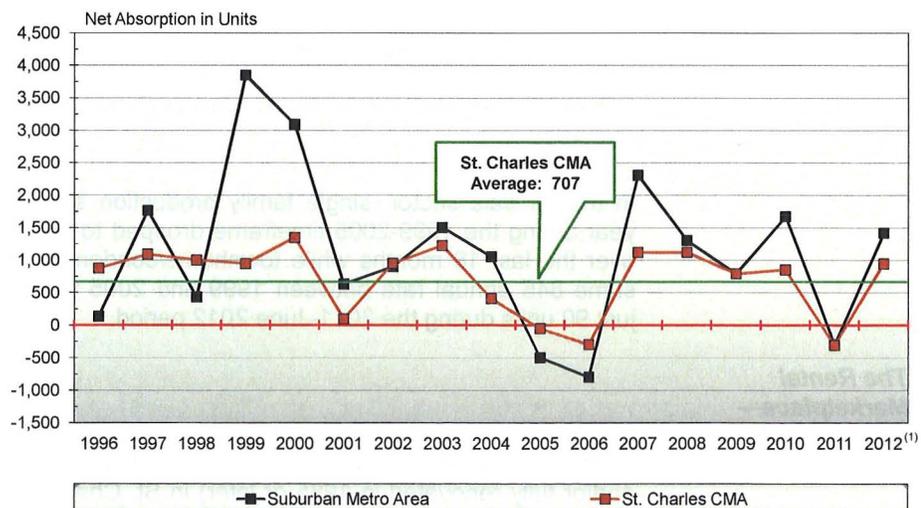
encompassing west suburban Cook, DuPage and southern Kane counties. This area is defined for purposes of this analysis as the *St. Charles Competitive Market Area (CMA)*. As of June 2012, there were 78 separate communities marketing a total of 23,355 rental units in the CMA. Roughly two-thirds of all units in this competitive area (15,640 units or 67.0 percent) are found within suburban areas west of I-355, concentrated in the Aurora/Naperville area which alone accounts for 9,582 units or 41.1 percent of the total.

In the St. Charles CMA, net absorption has averaged 707 units annually since 1995, accounting for 62.8 percent of net absorption throughout suburban Chicago. Cyclical in nature, absorption levels over the last 15.5 years peaked in 2000 at 1,348 units, reflecting strong new construction activity during the 1995-1999 period (again) concentrated in areas west of I-355. Subsequently, absorption levels began to subside, falling to the 101-unit mark in 2001, before improving modestly during the 2002-2003 timeframe. Thereafter, the strength of the regional *for sale* market had an adverse impact upon the rental marketplace, with absorption falling to a net *loss* of 296 units by the close of 2006 reflecting the interest rate impetus of the 2003-2005 period which stimulated unprecedented movership to for sale idioms.

Net absorption improved dramatically over the last five and one-half years (2007-June 2012) averaging 755 units annually, responding to the collapse of (particularly) the entry-level for sale sector, coupled with very limited and sporadic new apartment construction. In fact, since 2003, only 795 rental apartment units have been added to the whole of the St. Charles CMA, translating to a nominal 94 units per year. Moreover, the vast majority of these new units are found within first-ring suburbs east of I-355, with no new rental development of significant scale occurring in the immediate St. Charles or Geneva areas over the last twelve years.



**NET ABSORPTION: POST-1985 RENTAL APARTMENT DEVELOPMENTS
 -- ST. CHARLES COMPETITIVE MARKET AREA --**



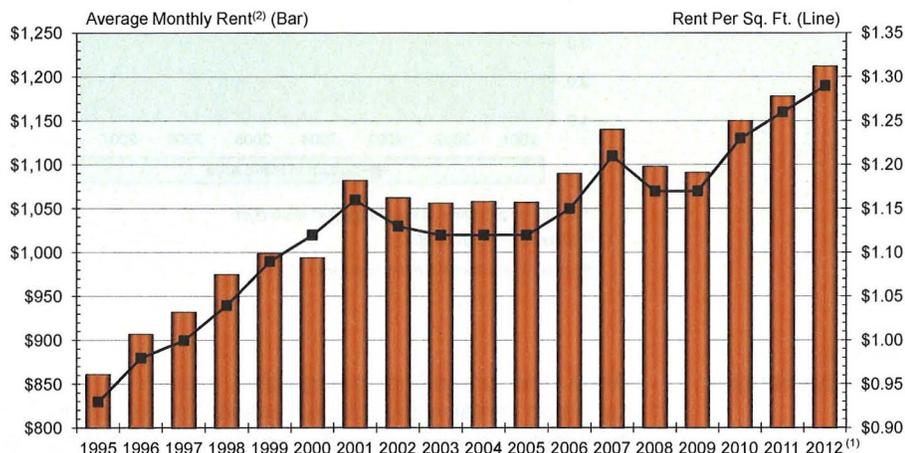
⁽¹⁾ Annualized rate YTD June 2012.
 Source: Tracy Cross & Associates, Inc.



Rental rate growth among the 78 newer apartment developments in the St. Charles CMA has also been subject to market forces. Efforts to encourage lease-up during the 2003-2005 period necessitated substantial concessions and/or rent rollbacks which remained in place through most of 2005. Beginning late in the year, however, as the for-sale market began to moderate, concessions began to disappear. In 2006, rent levels advanced 2.7 percent to the \$1.15 per square foot mark, and continued to climb during 2007, reaching \$1.21 per square foot by year end, reflecting another 5.2 percent increase during the twelve-month period. Exacerbated by the effects of the national recession which resulted in staggering job losses region wide, suburban apartment developments once again began to initiate rent concessions and rollbacks in 2008 and 2009 to encourage lease-up and/or higher occupancy levels, with average rents settling at \$1.17 per square foot at the close of 2009. Most recently rents have rebounded, establishing a new peak level of \$1.29 per square foot in June 2012.



TRENDS IN POSTED RENTS: APARTMENTS CONSTRUCTED SINCE 1985
-- ST. CHARLES COMPETITIVE MARKET AREA --



⁽¹⁾ As of December 31st 1995-2011; June 2012.

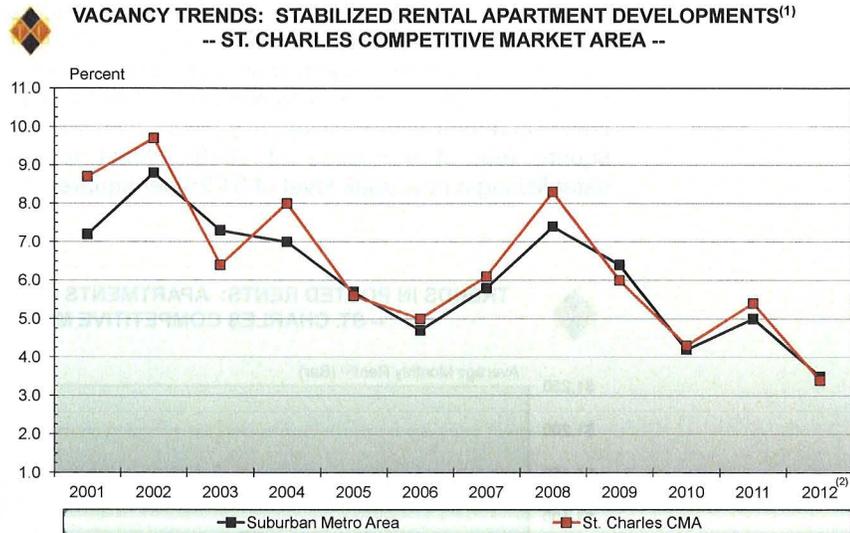
⁽²⁾ Represents weighted average base posted rent (i.e. excluding floor, unit location and/or view premiums) before incentives, if applicable.

Source: Tracy Cross & Associates, Inc.

Rent concessions and/or rollbacks initiated during the 2003-2005 timeframe, coupled with the overall lack of new construction led to tighter market conditions as vacancies fell from a high of 9.7 percent in 2002 to a balanced 5.0 percent by the close of 2006. For perspective a marketplace is generally considered balanced when vacancies hover at the 5.0 to 6.0 percent level which allows for filtering or movement within the marketplace. In tandem with rising rents, vacancies among the 78 developments again began to advance in 2007, reaching the 8.3 percent mark in 2008. Notably, by the close of 2011, rent concessions and discounts, coupled with continued upheaval and uncertainty in the for sale sector, saw vacancies settle at a relatively balanced 5.4 percent.



However, over the last six months and given improving conditions in the overall economy, vacancies have again tightened as evidenced by an overall vacancy rate of 3.4 percent, reflecting the lowest level seen in the west suburban marketplace in more than a decade.



⁽¹⁾ Excludes programs in initial stages of absorption.

⁽²⁾ Statistics YTD June 2012.

Source: Tracy Cross & Associates, Inc.

Newer Developments

While the preceding paragraphs present a general overview of the west suburban rental marketplace, certainly not all of the 78 apartment complexes will be directly or even indirectly competitive with the proposed Corporate Reserve development, especially those which were built *before* 1995. Hence, attention is now directed to the newest construction communities, as this latter subset reflects higher levels of potential substitution relative to future offerings within the St. Charles property.

Since 1995, 35 fair market developments containing a total of 9,132 units have been introduced in the St. Charles CMA including two projects with separate phases. These developments reached stabilized occupancy levels at an average rate of 12.1 units per month. By individual development, absorption rates have ranged from a lows of 3.0 monthly at the relatively small Lincolnshire Court in far southwest suburban Yorkville to a high of 30.2 monthly at Lincoln at the Parks in Naperville which is one of the better located developments in the area relative to proximate employment.

The four newest *larger-scale* communities to open in the western suburbs include City View at The Highlands in Lombard (opened in 2003), Regency Place in Oakbrook Terrace (March 2007), The Residences at The Grove in Downers



Grove (August 2008), and Oak Park Place (November 2008). These four developments reached stabilized occupancy levels at an average rate of 8.4 monthly. Excluded from this group is the 69-unit Two Itasca Place which opened in May 2012. This development was initially introduced as a for sale condominium program in 2006; however, a stagnant marketplace undermined sales volumes, with the developer converting the second phase of the community to rental apartments in May of 2012. To date, eight units at Two Itasca Place have been leased, translating to an initial absorption pace of 4.0 monthly.

At the June 2012 audit, and consistent with the marketplace as a whole, vacancies among the 34 stabilized newer developments stood at a relatively tight 3.5 percent, reflecting a collective 317 unoccupied units. Notably, in the immediate St. Charles/Geneva area, conditions are *extremely strained* as evidenced by an overall vacancy factor of only 2.5 percent, or a mere 13 of 520 units unoccupied.

Reflecting conditions throughout the general area, *posted* asking rents among the 35 newer developments have begun to rise, currently averaging \$1,366 monthly for a typical 1,013 square foot apartment home. This translates to a value ratio of \$1.35 per square foot, a level 3.8 percent higher than the \$1.30 per square foot value noted in December 2011 and a sharp 7.1 percent higher than the \$1.26 per square foot rate noted one year ago (June 2011). Posted rents in St. Charles and Geneva advanced at a rate of 9.9 percent over the last six months to a current \$1.33 per square foot average led by the 400-unit AMLI at St. Charles where average rents advanced a substantial 14.3 percent since December 2011.

Despite these posted rate increases, it is important to note that several of the 35 comparable rental developments continue to offer discounts and lease incentives. Specifically, current discounts among the 35 equate to an overall average *effective* rent of \$1,354 monthly or \$1.34 per square foot, reflecting a net rent increase of 3.0 percent since December 2011. Throughout the marketplace, discounts vary widely from waiving of application fees and reduced parking rates to up to two months of free rent on a 12- or 13-month lease. By component sub-area, discounts and incentives are strongest among those developments in near west suburban areas east of I-355, where the average incentive equates to 4.5 percent below posted rents, *fully negating* posted rate advances since year end 2011. Among developments located in St. Charles and Geneva, posted and effective rents are the same with the immediate area's tight market condition absent the need of incentives.

**Direct
Competition**

From a practical standpoint and considering developments of scale, plan designs, community amenities, and/or location, 24 of the 35 newer developments are viewed to represent the most direct sources of competitive substitution vis-a-vis the proposed Corporate Reserve apartments. These include five communities in St. Charles and Geneva, six programs found in intercepting locales in Downers Grove, Lombard, Villa Park, Bloomingdale, Warrenville, and Wheaton, and 13 developments in Aurora, Naperville, and Woodridge.



Weighted by unit type, posted rents among the 24 direct competitors average \$1,373 monthly or \$1.36 per square foot, ranging from a low of \$1,015 for the limited number of studio apartments to a high of \$1,845 monthly for a three bedroom plus den flat. Townhome-style apartments, in turn, carry average lease rates extending from \$1,783 monthly for a one bedroom to \$1,853 per month for a three bedroom unit. Posted lease rates are *exclusive* of utilities, premiums, other incremental fees and, for the most part, parking.

**Future
Competition**

The competitive landscape is likely to intensify over the next few years as the overall strength of the market has not gone unnoticed. At present, for example, there are ten larger-scale rental communities in various stages of the planning pipeline in suburban areas proximate to St. Charles. Three of these developments are currently under construction and will be in their initial leasing stage in tandem with Corporate Reserve of St. Charles. These communities include *Arboretum Landmark* in Lisle (310 units), *The Oaks at Naperville Crossing* (298 units) in Naperville, and in South Elgin, *Arbor Green* (347 units). This latter development, located near the intersection of Randall and McDonald roads, five miles north of the subject property, will consist of 347 units distributed among a variety of one and two bedroom plan types. In addition, Sho-Deen Company has proposed a 400-unit rental program within the Mill Creek master-planned community in Geneva, and St. Charles is looking toward various mixed-use plans for its downtown area as well as for the Charlestown Mall. There are also a number of larger-scale projects on the drawing boards just outside the St. Charles Market Area in Aurora, Elmhurst, Lombard and farther north in Algonquin, while it is quite probable that a number of other developments abandoned as for sale product will re-emerge as rental.

**Condominium
Rentals**

In the communities of St. Charles, Geneva, Batavia, and North Aurora, potential competition from what is commonly referred to as the "shadow market" is minimal. Listings in this market, which include previously owner-occupied units that are now available for rent, total only ten units at this time. In this townhome dominated sector, asking rents currently average \$1,479 monthly which includes an average 1,396 square foot unit. This translates to a value ratio of \$1.06 per square foot. These ownership rentals are *generally* in communities of smaller scale, and lack the level of community amenities or on-site management to be provided at Corporate Reserve. Moreover, these rentals continue to be *actively marketed for sale* based upon temporary lease expirations, fully negating their competitive influence.

**Residential
Demand Potentials**

During the 2012-2016 forecast period, new housing construction in the St. Charles Market Area will average only 1,020 units yearly largely due to a continued depressed for sale market. This sector is expected to account for volumes ranging from only 300 units in 2012 to a high of 1,200 in 2016 as this sector transitions slowly from deep recession to a new normal which is expected to be more in line with activity witnessed during the mid-1990s. On the rental side, absorption potentials will average a sustained volume of 300 units annually reconciled as follows:



- ❑ During the 2000-2012 period, renter households in the *localized* seven-township St. Charles Market Area advanced by an estimated average of 160 annually.
- ❑ As detailed in the next section, absorption within apartment projects built since 1985 in the St. Charles Market Area and adjoining areas to the east and south averaged 707 units yearly during the 1996-June 2012 period and 755 units annually over the last five and one-half years.
- ❑ To the east, there is limited land available for larger scale apartment development resulting in increasing spillover growth pressure to the St. Charles Market Area.
- ❑ It is also evident that tenure shifts from renter to owner status evident during the 1999-2005 timeframe in the St. Charles Market Area have now fully abated given tighter lending standards, foreclosures, and a decline in home values. This will provide new stimulus to apartment potentials in the market with even some segments relinquishing their ownership status in favor of an enhanced amenity supported rental environment.
- ❑ Chicago's employment picture is slowly improving which will stimulate job finding by many college graduates who are now unemployed and living at home. These 21 to 29 year olds are the prime target for new apartment development not only in the city itself but also in the suburbs.
- ❑ Finally, the overall St. Charles Competitive Market Area currently supports no fewer than 85,000 occupied rental housing units. On average, between 18,000 and 24,000 of these current renter households will move annually, with at least 40 percent of these mobile households remaining in the rental sector. These mobile renters represent a significant additional pool of potential consumers, especially considering that the "newest" rental communities in the localized area are, in fact, now some twelve years old.

ABSORPTION FORECASTS

At proposed rents, Corporate Reserve of St. Charles will reach stabilized occupancy of 94.0 percent (311 units of the 331 available) within a 22.0 month period *from the first occupancy*. Rationale supporting this forecasted absorption period is summarized as follows:

- ❑ The suggested product line is representative of rental offerings in newer Class A apartment development found in the western suburban Chicago market as well as in other parts of the region and throughout the Midwest in general. It offers a continuum of plan designs which appeal across a broad range of consumer segments and leaves a very narrow gap in rent levels between various plan sizes which will allow the community to essentially follow and remain in concert with the pattern of household incomes.
- ❑ The *inclusive* pro forma rents position Corporate Reserve in proper context to newer apartment development in the west suburban marketplace and modestly higher than *base* rents among older communities in Naperville, Wheaton, and Woodridge that are arguably better located to the



south and east. Referencing the latter, the comparative Class A developments include ten projects which were built, on average, 16 years ago and do not include the higher-end interior and community features suggested for Corporate Reserve of St. Charles.

- ❑ The Corporate Reserve development will be positioned on a value basis \$174 monthly over *base* rents of AMLI at St. Charles, the community's nearest and largest direct competitor. AMLI at St. Charles is now 13 years old and, while perhaps better located east of the Fox River, provides somewhat outdated floor plans and elevation treatments, white-on-white kitchen cabinetry and appliances, older kitchen and bath flooring, and fewer contemporary features associated with technology, security, and energy efficiency.
- ❑ At pro forma rents, Corporate Reserve will be well within affordability levels in the market. For example, based upon a typical 27.0 percent housing cost allocation, benchmark rents require annual incomes in the range of \$45,000 to \$77,000 with the average standing close to \$65,000. In the St. Charles Market Area, there are currently 32,947 households that have incomes between \$50,000 and \$100,000 including 12,628 households aged under 35 years and between 55 and 65, the principal target age groups for rental housing.
- ❑ The absorption forecast established for Corporate Reserve compares with the 15.1 monthly leasing achieved by 25 newer and larger apartment programs found in the St. Charles Competitive Market Area. It also compares with the 13.8 monthly average achieved by 24 programs in the CMA that are viewed as most comparable and the 18.0 monthly rate seen at AMLI at St. Charles when new.
- ❑ Throughout the St. Charles Competitive Market Area and in St. Charles and Geneva in particular, the apartment market is in a tight, unbalanced market condition as evidenced by an overall vacancy rate of 3.5 percent, and a localized, very low 2.5 percent vacancy rate.
- ❑ Finally, apartment demand potentials in the St. Charles Market Area will average 300 units annually during the 2012-2016 timeframe with Corporate Reserve expected to capture roughly 60 percent of this aggregate. This capture rate should be considered fair given the fact that there is very limited *localized* future competition in the planning pipeline, as the majority of new development is located in areas east of Route 59 and/or south of I-88. In addition, the expected absorption period of Corporate Reserve can be supported by turnover in the St. Charles Market Area's existing rental stock which in 2012 was represented by 12,555 households. Of these, an estimated 3,100 will move annually with approximately 40 percent, or 1,240 staying in the rental sector and representing part of Corporate Reserve's "pool" of prospective renters. From this aggregate of 1,414 new and existing base of renters, Corporate Reserve's project capture rate stands at a very pragmatic level of 12.3 percent.

