



**KNOXVILLE/KNOX COUNTY METROPOLITAN PLANNING COMMISSION  
USE ON REVIEW REPORT**

▶ **FILE #:** 10-T-06-UR

**AGENDA ITEM #:** 114

**AGENDA DATE:** 10/12/2006

▶ **APPLICANT:** UNIVERSITY RESIDENCES, KNOXVILLE LLC

OWNER(S): UNIVERSITY RESIDENCES, KNOXVILLE LLC

TAX ID NUMBER: 122 7, 8, 9 & 122EA001 & 002

JURISDICTION: County Commission District 9

▶ **LOCATION:** South side of Cherokee Trail, west side of Edington Rd.

▶ **APPX. SIZE OF TRACT:** 34.597 acres

SECTOR PLAN: South County

GROWTH POLICY PLAN: Urban Growth Area (Outside City Limits)

ACCESSIBILITY: Access is via Cherokee Trail, a minor collector street with an 18' pavement width within a 50' right-of-way and Edington Rd., a minor collector street with an 18' pavement width within a 40' right-of-way.

UTILITIES: Water Source: Knoxville Utilities Board

Sewer Source: Knoxville Utilities Board

▶ **ZONING:** PR (Planned Residential)

▶ **EXISTING LAND USE:** Mining and mineral extraction operation

▶ **PROPOSED USE:** Student housing development

DENSITY PROPOSED: 7.28 du/ac

HISTORY OF ZONING: Property rezoned to PR (Planned Residential) at a density of up to 7.5 du/ac by Knox County Commission on August 28, 2006.

SURROUNDING LAND USE AND ZONING: North: Residences and vacant land / R-1 (Low Density Residential)

South: Vacant land and residences / RA (Low Density Residential)

East: Residences / RA (Low Density Residential)

West: Vacant land / A-1 (General Agricultural) & A (Agricultural)

NEIGHBORHOOD CONTEXT: This site which is located on the north side of Cherokee Trail and east of UT Hospital is in an area that has a mix of multi-family, low density residential and vacant land areas.

**STAFF RECOMMENDATION:**

▶ **APPROVE the development plan for a 252 unit apartment development with up to 840 bedrooms subject to 12 conditions**

1. Connection to sanitary sewer and meeting any other relevant requirements of the Knox County Health Department.
2. Meeting all applicable requirements of the Knox County Zoning Ordinance.
3. Provision of street names which are consistent with the Uniform Street Naming and Addressing System within Knox County (County Ord. 0-280-90).
4. Revising the landscape plan to include additional landscaping within the peripheral setback along Cherokee Trail and Edington Rd., subject to approval by Planning Commission Staff.
5. Installing all landscaping, as shown on the revised landscape plan, within 6 months of the issuance of

occupancy permits for this project, or posting a bond with the Knox County Dept. of Engineering and Public Works to guarantee such installation. The proposed landscape materials shall not interfere with the required sight triangles and required sight distances at driveway and street intersections.

6. Obtaining approval of a final plat consolidating the tax parcels into a single lot and recording that plat with the Knox County Register of Deeds.

7. Prior to obtaining a grading permit for the site, submitting a bank stabilization plan for review and approval to the Knox County Department of Engineering and Public Works to address stabilization of the steep banks that are located outside of the proposed development area.

8. Meeting all applicable requirements of the Knox County Department of Engineering and Public Works.

9. Installation of eastbound right turn lanes on Cherokee Trail at the development entrance and at Edington Rd. as recommended in the traffic impact study. The design of the turn lanes are subject to review and approval by the Knoxville Engineering Division since Cherokee Trail is a City street.

10. Posting a bond with the Knoxville Engineering Division for the applicant's proportionate share of the cost for the traffic signal at the intersection of Cherokee Trail and Hospital Dr. The applicant's proportionate share shall be determined by the Knoxville Engineering Division following a review of the traffic impact analysis for the development and projected costs for the signal improvement. If the traffic signal is not installed within five years of the approval date of this use-on-review application, the bond shall be released.

11. Upon completion of the road safety audit of Cherokee Trail between Candora Rd. and Scottish Pike, the Knoxville Engineering Division will determine the road improvements that will be required for Cherokee Trail. The applicant for this project will be responsible for their proportionate share (percentage of projected trips generated on this road segment by this development and both phases of the Woodlands of Knoxville development) of the cost of the recommended road improvements. Those improvements would have to be implemented prior to the issuance of any certificate of occupancy for this development.

12. Working with Knoxville Area Transit (KAT) on establishing a shuttle service between the proposed student housing projects and the University of Tennessee Campus.

With the conditions noted, this plan meets the requirements for approval within a PR (Planned Residential) district and the criteria for approval of a use on review.

#### **COMMENTS:**

The applicant is proposing to develop a 252 unit apartment complex on a 34.597 acre site at a density of 7.28 du/ac. The property which is located at the southwest corner of the intersection of Cherokee Trail and Edington Rd. is the site of a mining and mineral extraction operation (soil extraction) that was approved by the Planning Commission in 2000. Access to the site will be provided from both Cherokee Trail and Edington Rd.

The Planning Commission recommended approval of a sector plan amendment (5-D-06-SP) to MDR (Medium Density Residential) and rezoning request (5-H-06-RZ) to PR (Planned Residential) at a density of up to 6.5 du/ac for this property on June 8, 2006. The Knox County Commission approved the sector plan amendment to MDR and the rezoning to PR at a density of up to 7.5 du/ac on August 28, 2006.

This 252 unit development is being designed as student housing and will be rented out by the number of bedrooms. There are a total of 840 bedrooms in this project. As a multiple dwelling development, the required parking for the project would be 378 spaces. Since the units will be rented out by the number of bedrooms, the applicant is providing a total of 743 parking spaces which is approximately 0.88 spaces per bedroom. Recreational amenities provided for the development include a clubhouse, pool and a central sidewalk system.

The applicant has submitted a traffic impact study prepared by Wilbur Smith Associates for the proposed development (see attachment). This analysis is based on trip rates for student housing instead of using apartment trip rates. The analysis uses a distribution of 90% of the trips going westbound in the am peak hour, and a 65% of the trips going westbound in the pm peak hour. Based on the analysis, eastbound right turn lanes are recommended on Cherokee Trail at the development entrance and at Edington Rd. The signalization of the intersection of Cherokee Trail and the entrance drive for the Hospital was also identified. This intersection is currently on the City of Knoxville's signal index list and is not currently funded. Staff is recommending a condition that the applicant post a bond with the Knoxville Engineering Division for the applicant's proportionate share of the cost for the traffic signal. If the traffic signal is not installed within five years of the approval date of this use-on-review application, the bond would be released.

On conducting site visits for other student housing projects in the area, Staff had observed road safety issues with the section of Cherokee Trail between Candora Rd. and Scottish Pike. Some of the problems include narrow sections of pavement with no shoulders, sharp drop-offs with no guardrails and sharp curves with limited visibility. The Knoxville Engineering Division Staff had conducted a crash history analysis of this sector

of the road and identified that there have been 19 crashes over the past 5 ½ years. The accident rate for this road section is 14.41 accidents per million vehicle miles. The State average for this type of road is 1.68 accidents per million vehicle miles. To address this road safety issue, Staff had recommended a condition on the previous student housing project for the area, that a road safety audit of the section of Cherokee Trail between Candora Rd. and Scottish Pike be conducted. As a follow-up to that previous condition, a road safety audit is being conducted on October 6, 2006. Upon completion of the audit, the Knoxville Engineering Division will determine the road improvements that will be required for Cherokee Trail. Staff is recommending a condition that the applicant for this project pay a proportionate share of the cost of the recommended road improvements. Those improvements would have to be implemented prior to the issuance of any certificate of occupancy for this development. The type of improvements that may be required include, but are not limited to, the addition of guardrails, removal of obstacles near the edge of the road, and cutting back the bank in a curve to improve visibility and to allow for the addition of pavement through the curve.

To help reduce the traffic impacts on the street system that will result from this development, and since the proposed parking is less than one space per bedroom, Staff is recommending a condition that the applicant work with Knoxville Area Transit (KAT) on establishing a shuttle service between the proposed student housing project and the University of Tennessee Campus.

Being the site of a mining and mineral extraction operation (soil extraction), the applicant has a number of site grading and stabilization issues to address in preparing the site for the proposed development. An engineering firm has been conducting a geotechnical analysis of the site for the applicant. Staff has recommended a condition regarding this issue.

#### EFFECT OF THE PROPOSAL ON THE SUBJECT PROPERTY, SURROUNDING PROPERTIES AND THE COMMUNITY AS A WHOLE

1. Public water and sewer utilities are available to serve the site.
2. The traffic impact study that has been prepared for the development recommends eastbound right turn lanes at the proposed entrance and at Edington Rd., and the installation of a traffic signal at the intersection of Cherokee Trail and the entrance road to the Hospital. With these improvements and the condition on implementation of any road safety improvements on Cherokee Trail as identified from the road safety audit, the traffic impact of this development will be addressed. The establishment of a shuttle service between the proposed student housing project and the University of Tennessee Campus is also an important component in reducing traffic congestion.

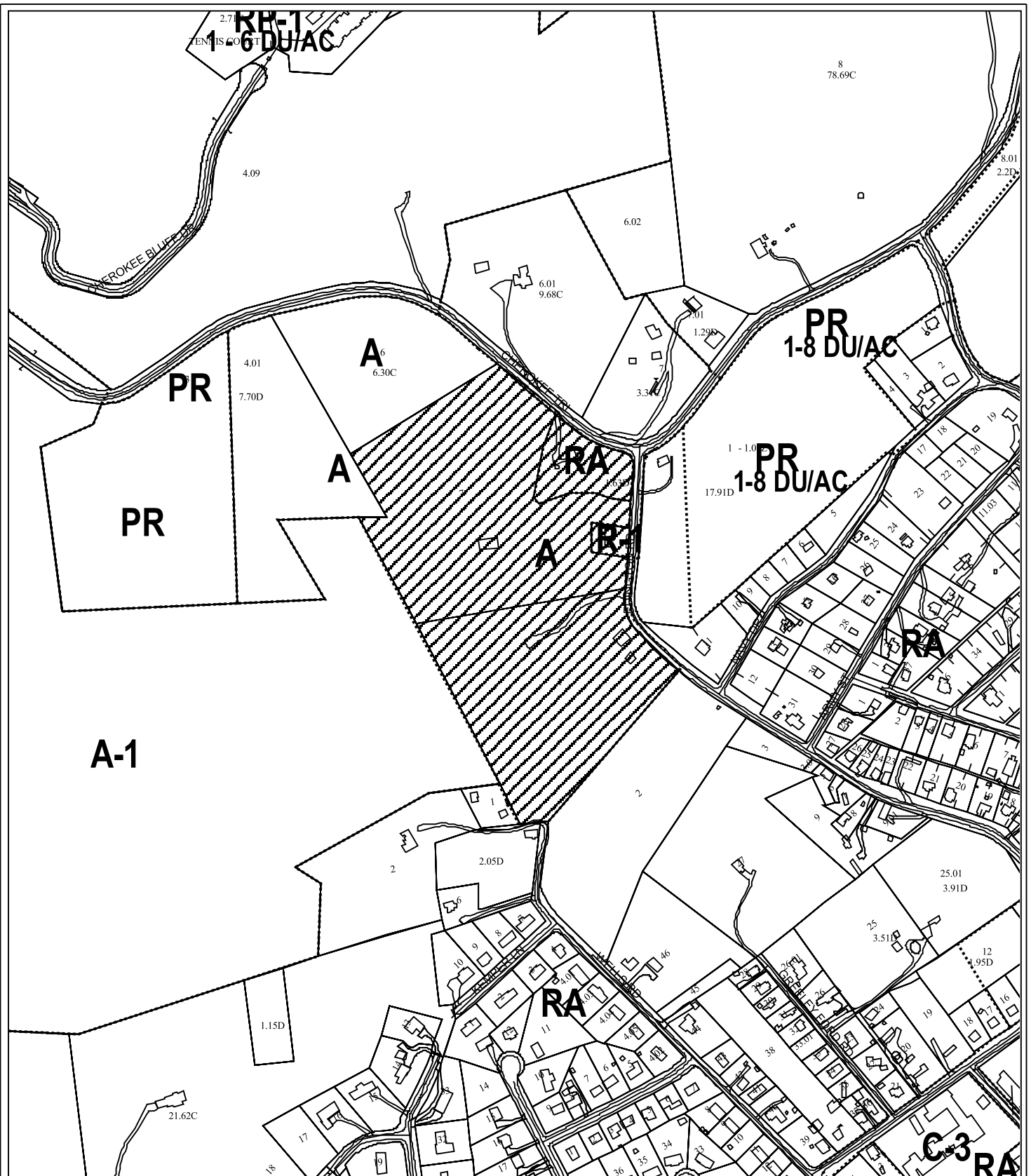
#### CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE KNOX COUNTY ZONING ORDINANCE

1. With the recommended conditions, the proposal meets all requirements of the PR zoning as well as the general criteria for approval of a use-on-review.
2. The proposed apartments are consistent with the following general standards for uses permitted on review: The proposal is consistent with the adopted plans and policies of the General Plan and Sector Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. The use is compatible with the character of the neighborhood where it is proposed. The use will not significantly injure the value of adjacent property. The use will not draw substantial additional traffic through residential areas since the development is located on a collector street. No surrounding land uses will pose a hazard or create an unsuitable environment for the proposed use.

#### CONFORMITY OF THE PROPOSAL TO ADOPTED MPC PLANS

1. The amended South County Sector Plan proposes medium density residential uses for the site. At a proposed density of 7.28 du/ac, the development complies with the Sector Plan and the current zoning of the site (PR at up to 7.5 du/ac).
2. The site is located within the Urban Growth Area on the Knoxville-Knox County-Farragut Growth Policy Plan map.

MPC's approval or denial of this request is final, unless the action is appealed to the Knox County Board of Zoning Appeals. The date of the Knox County Board of Zoning Appeals hearing will depend on when the appeal application is filed. Appellants have 30 days to appeal an MPC decision in the County.



10-T-06-UR  
 USE ON REVIEW



Student housing development in PR (Planned Residential)

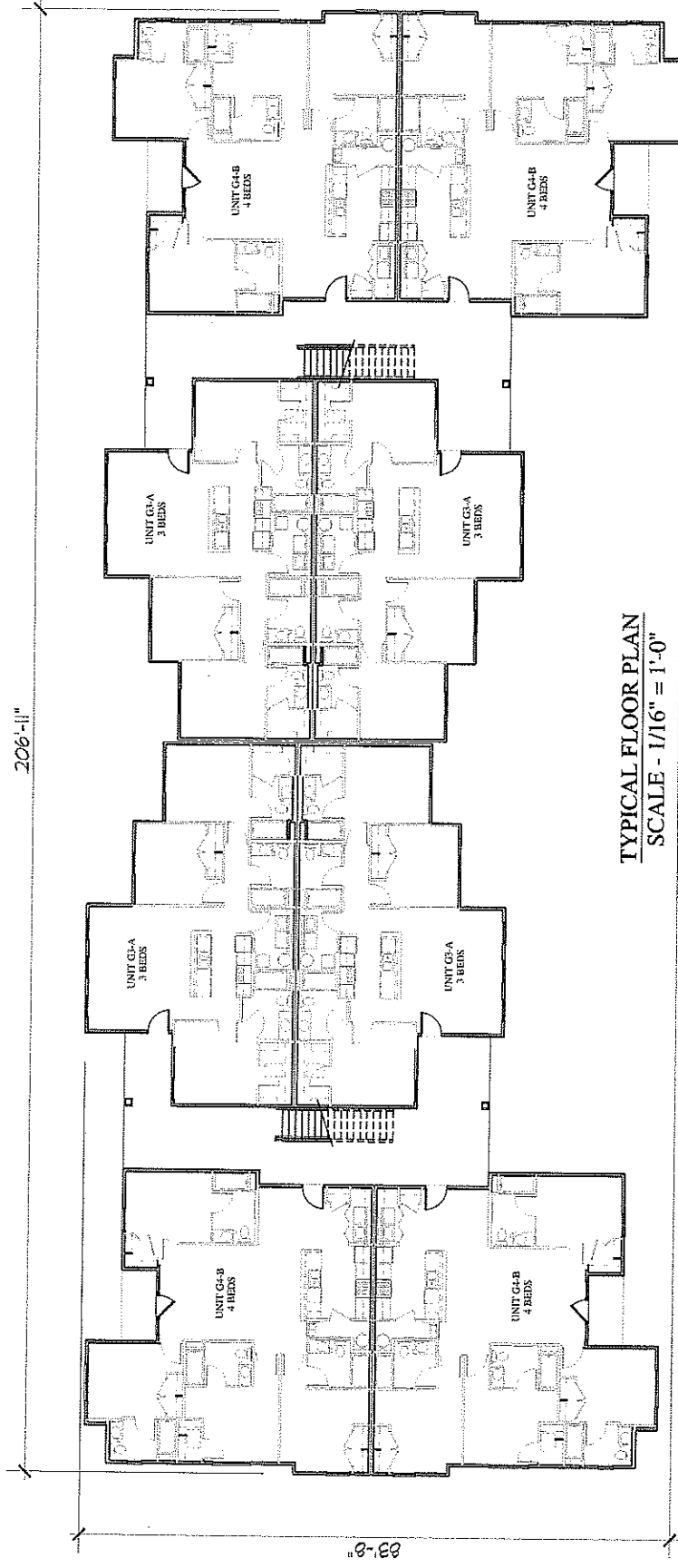
Original Print Date: 09/27/06    Revised:  
 Metropolitan Planning Commission \* City / County Building \* Knoxville, TN 37902

Petitioner: University Residences,  
 Knoxville LLC

Map No: 122

Jurisdiction: County





TYPICAL FLOOR PLAN  
SCALE - 1/16" = 1'-0"

3 STORY BUILDING

24 UNITS PER BUILDING

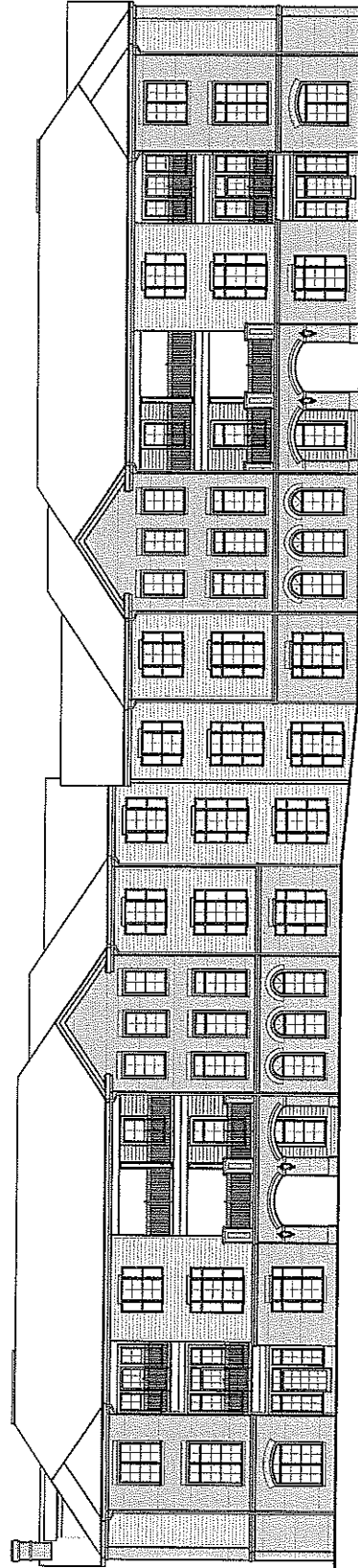
28 BEDS / FLOOR = 84 BEDS TOTAL

10-T-06-UR

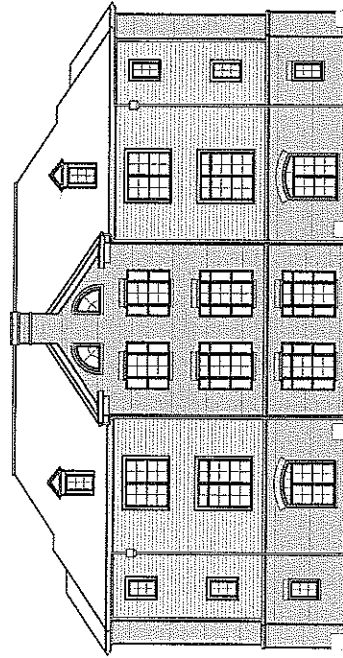
**ARCHITECTURAL DRAWINGS**  
BUILDING 'A' PLAN VIEW

CHEROKEE TRAIL & EDINGTON  
KNOXVILLE, TN





PRINCIPAL ELEVATIONS  
SCALE - 1/16" = 1'-0"

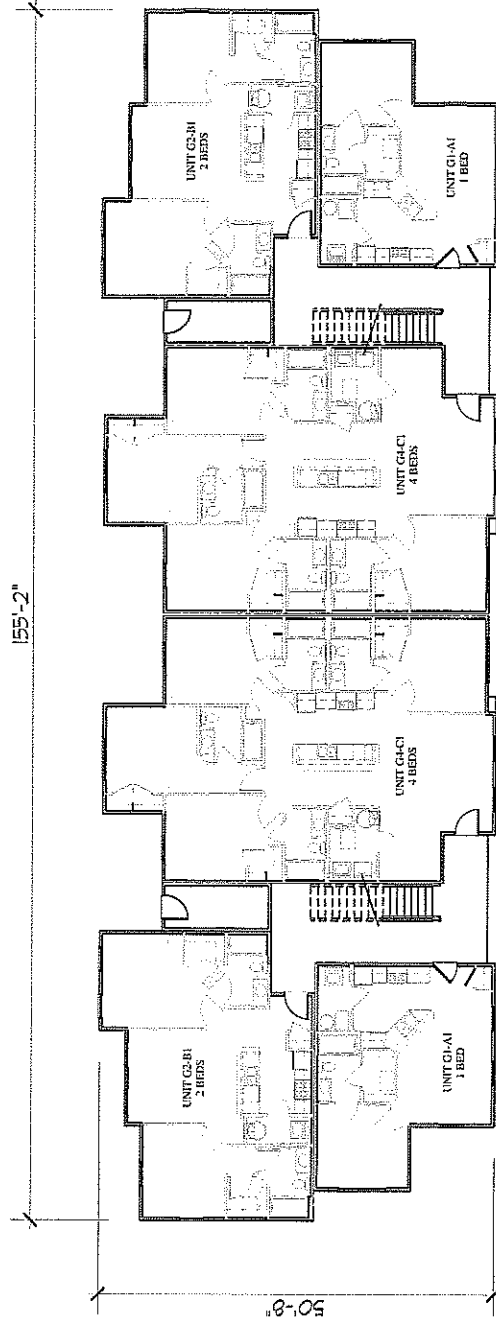


10-T-06-UR

ARCHITECTURAL DRAWINGS  
BUILDING 'A' ELEVATIONS

CHEROKEE TRAIL & EDINGTON  
KNOXVILLE, TN

EDWARDS COMMUNITIES



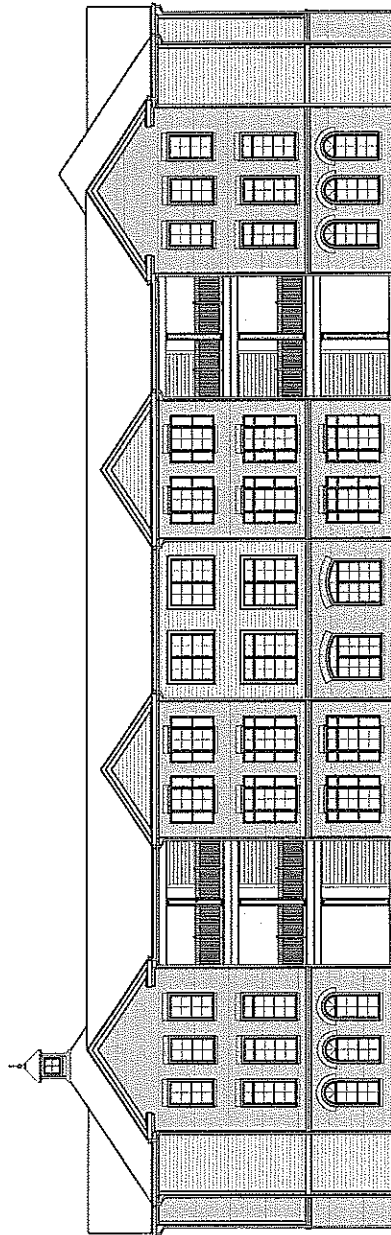
TYPICAL FLOOR PLAN  
SCALE - 1/16" = 1'-0"

3 STORY BUILDING

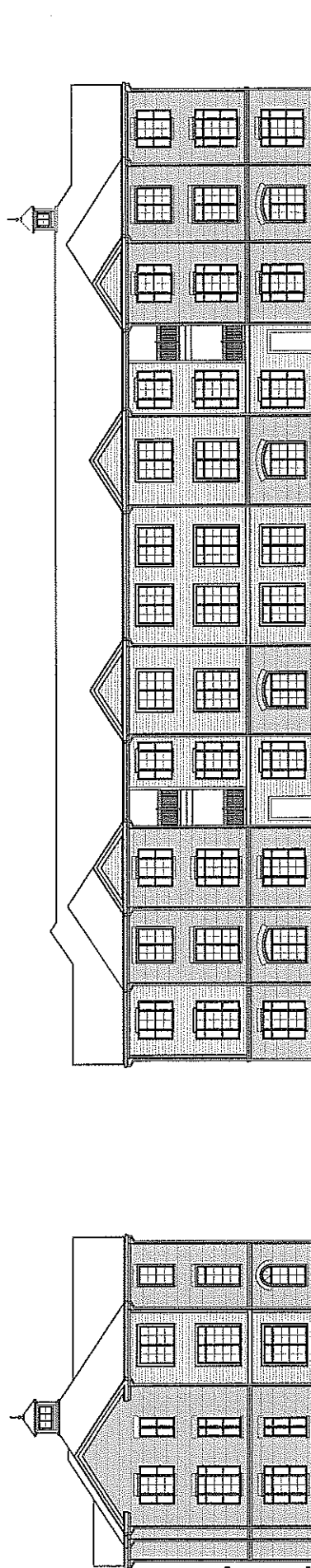
18 UNITS PER BUILDING

14 BEDS / FLOOR = 42 BEDS TOTAL

10-T-06-UR



EXTERIOR ELEVATIONS  
SCALE - 1/16" = 1'-0"



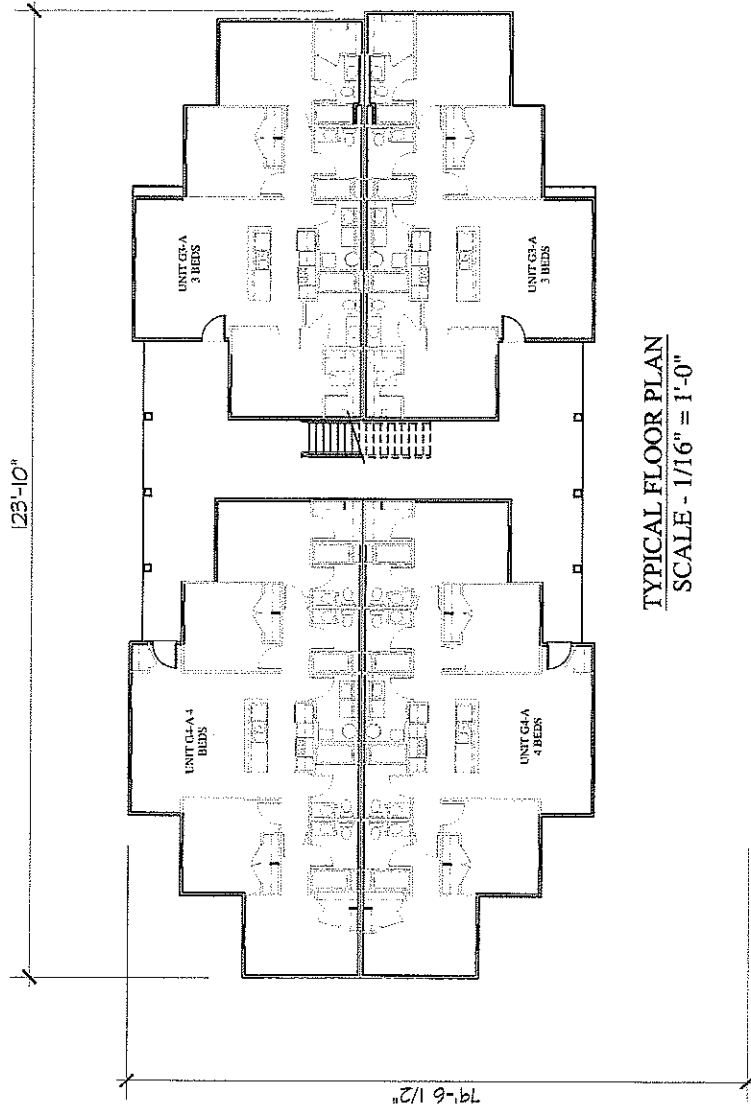
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ARCHITECTURAL DRAWINGS  
BUILDING 'B' ELEVATIONS

CHEROKEE TRAIL & EDINGTON  
KNOXVILLE, TN

EDWARDS COMMUNITIES





TYPICAL FLOOR PLAN  
SCALE - 1/16" = 1'-0"

3 STORY BUILDING

12 UNITS PER BUILDING

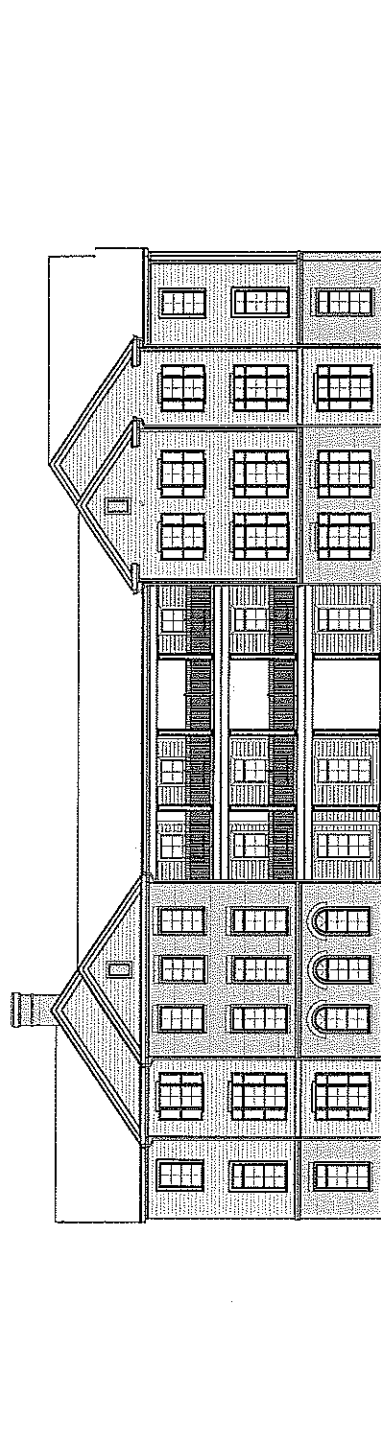
14 BEDS / FLOOR = 42 BEDS TOTAL

10-T-06-UR

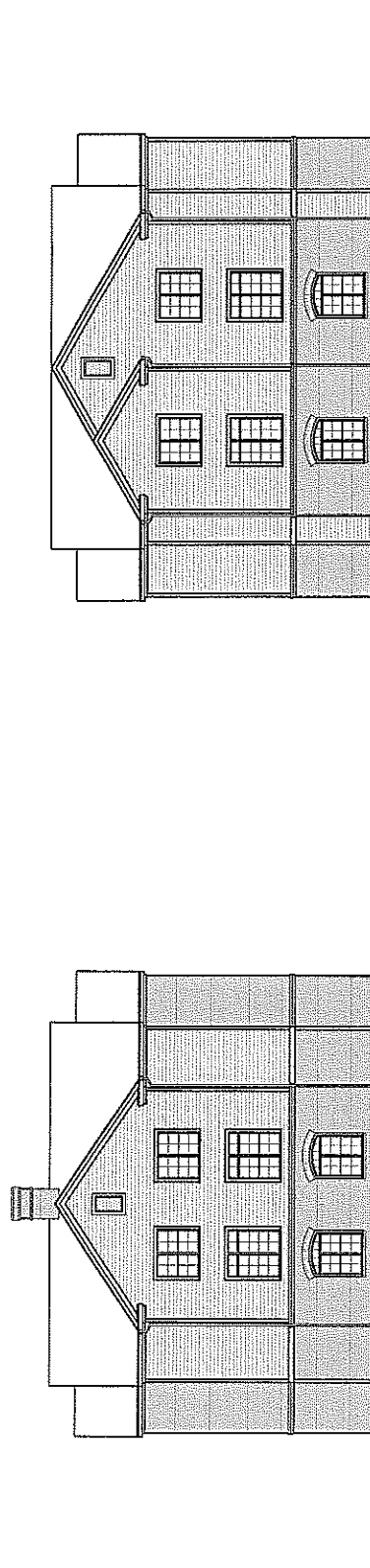
**ARCHITECTURAL DRAWINGS**  
BUILDING 'C' PLAN VIEW

CHEROKEE TRAIL & EDINGTON  
KNOXVILLE, TN

EDWARDS COMMUNITIES



EXTERIOR ELEVATIONS  
SCALE - 1/16" = 1'-0"



10-T-06-UK

ARCHITECTURAL DRAWINGS  
BUILDING 'C' ELEVATIONS

CHEROKEE TRAIL & EDINGTON  
KNOXVILLE, TN

EDWARDS COMMUNITIES

**GARY HINES PROPERTY**  
 FOR  
**UNIVERSITY RESIDENCES, KNOXVILLE LLC**  
 9th CIVIL DISTRICT OF KNOX COUNTY, TENNESSEE

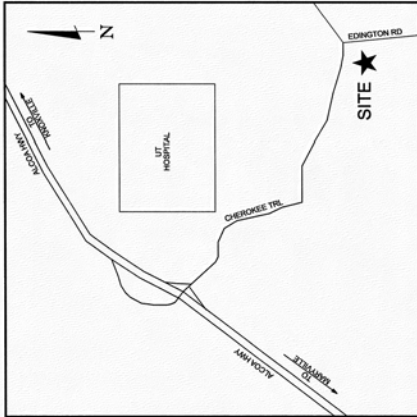
**PROJECT INFORMATION**

1. TAX MAP 122, PARCELS 122007, 122008, 1226A01, 1226A02, 122609
2. UTILITIES: KNOXVILLE UTILITIES BOARD  
 GAS: KNOXVILLE UTILITIES BOARD  
 SAN: KNOXVILLE UTILITIES BOARD  
 TELEPHONE: NALCO  
 WATER: NALCO
3. ZONING: APPROVED 28 AUGUST 2006 FOR PK - UP TO 7.5 DU PER ACRE
4. 9th CIVIL DISTRICT, KNOX COUNTY, TENNESSEE
5. DEED REFERENCE: SEE ATTACHED SITE BOUNDARY SURVEY SHEET
6. TOTAL DEVELOPMENT/ACREAGE: 34.897 ACRES  
 NUMBER OF UNITS: 252  
 NUMBER OF BEDROOMS: 480  
 TOTAL PARKING SPACES PROVIDED: 742  
 ACCESSIBLE PARKING SPACES PROVIDED: 18

**OWNER**  
 GARY HINES  
 100 N. WOODRIDGE  
 POWELL, TENNESSEE 37849

**DEVELOPER**  
 UNIVERSITY RESIDENCES, KNOXVILLE LLC  
 1400 GORDALE BOULEVARD  
 COLUMBUS, OHIO 43218  
 CONTACT: JAMES PAGANO

**LAND PLANNING**  
 BERGE, INC.  
 1400 GORDALE BOULEVARD  
 COLUMBUS, OHIO 43218  
 CONTACT: ROY PEARSON, L.A.S.A.



**INDEX OF DRAWINGS**

SHEET NO.	DESCRIPTION
C0.00	COVER SHEET
C1.01	BOUNDARY & TOPOGRAPHIC SURVEY
C1.02	SITE LAYOUT PLAN
C2.01	GRADING & DRAINAGE PLAN
C2.02	GRADING & DRAINAGE PLAN
C5.01	PARKING LOT PROFILE
C7.01	SITE SECTIONS & DETAILS

**SITE ENGINEERING**

BARGE, WAGGONER, SUMNER & CANNON, INC.  
 1400 GORDALE BOULEVARD  
 COLUMBUS, OHIO 43218  
 CONTACT: STUART HENRY, P.E.

**GEOTECHNICAL ENGINEERING**

TRAVIS  
 1413 TYPERSIDE ROAD  
 KNOXVILLE, TENNESSEE 37777  
 CONTACT: BRAD SALSBURY, P.E.

**ENVIRONMENTAL ENGINEERING**

BARGE, INC.  
 1413 TYPERSIDE ROAD  
 KNOXVILLE, TENNESSEE 37777  
 CONTACT: LEE PORTER, P.E.

**U.O.R.**  
 DATE  
 /0-7-06-0R

REVISED  
 /0-2-06

**BWSC**  
 ENGINEERS ARCHITECTS AND SURVEYORS  
 LANDSCAPE ARCHITECTS AND PLANNERS  
 BARGE WAGGONER SUMNER & CANNON, INC.  
 1033 Sherwood Blvd., Suite 200, Knoxville, Tennessee 37932  
 PHONE: 865-521-2800 FAX: 865-575-9554

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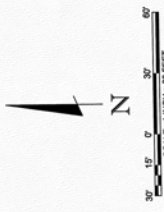




NO.	DATE	DESCRIPTION
01	09-29-08	PRELIMINARY
02	09-29-08	FOR REVIEW
03	09-29-08	FOR COMMENTS
04	09-29-08	FOR REVIEW
05	09-29-08	FOR REVIEW
06	09-29-08	FOR REVIEW
07	09-29-08	FOR REVIEW
08	09-29-08	FOR REVIEW
09	09-29-08	FOR REVIEW
10	09-29-08	FOR REVIEW



MATCH LINE - SEE C1.01



ENGINE: A. S. CAROL B. HUTTON  
 S.D. 1472/PL 10/04  
 10-T-06-04







**BWSC**  
 BARGE  
 WANDERER  
 GANNON, INC.  
 ENGINEERS ARCHITECTS PLANNERS  
 LANDSCAPE ARCHITECTS AND SURVEYORS  
 1019 S. MAIN ST., SUITE 200, KNOXVILLE, TN 37902  
 PHONE: (615) 257-2022 FAX: (615) 257-0998

PRELIMINARY  
 NOT FOR  
 CONSTRUCTION  
 29 SEPTEMBER 2006

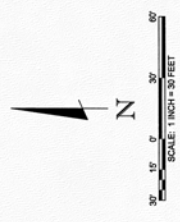
SITE GRADING AND DRAINAGE PLAN  
 GARY HINES PROPERTY  
 UNIVERSITY RESIDENCES, KNOXVILLE LLC  
 9TH CIVIL DISTRICT OF KNOX COUNTY, TENNESSEE

NO.	DATE	DESCRIPTION
01	08/01/06	PRELIMINARY
02	08/01/06	REVISED
03	08/01/06	REVISED
04	08/01/06	REVISED
05	08/01/06	REVISED
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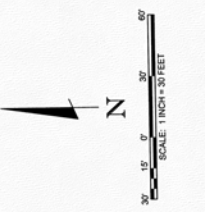
**C2.02**  
 FILE NO. 33897.03  
 STATE OF TENNESSEE  
 DEPARTMENT OF REVENUE  
 TAX COLLECTOR  
 IT'S THE LAW



MATCHLINE - SEE C2.01



DATE	DESCRIPTION	BY
10-28-06	REV. ON REVIEW	MM
10-28-06	REV. ON REVIEW	MM
10-28-06	REV. ON REVIEW	MM
10-28-06	REV. ON REVIEW	MM
10-28-06	REV. ON REVIEW	MM
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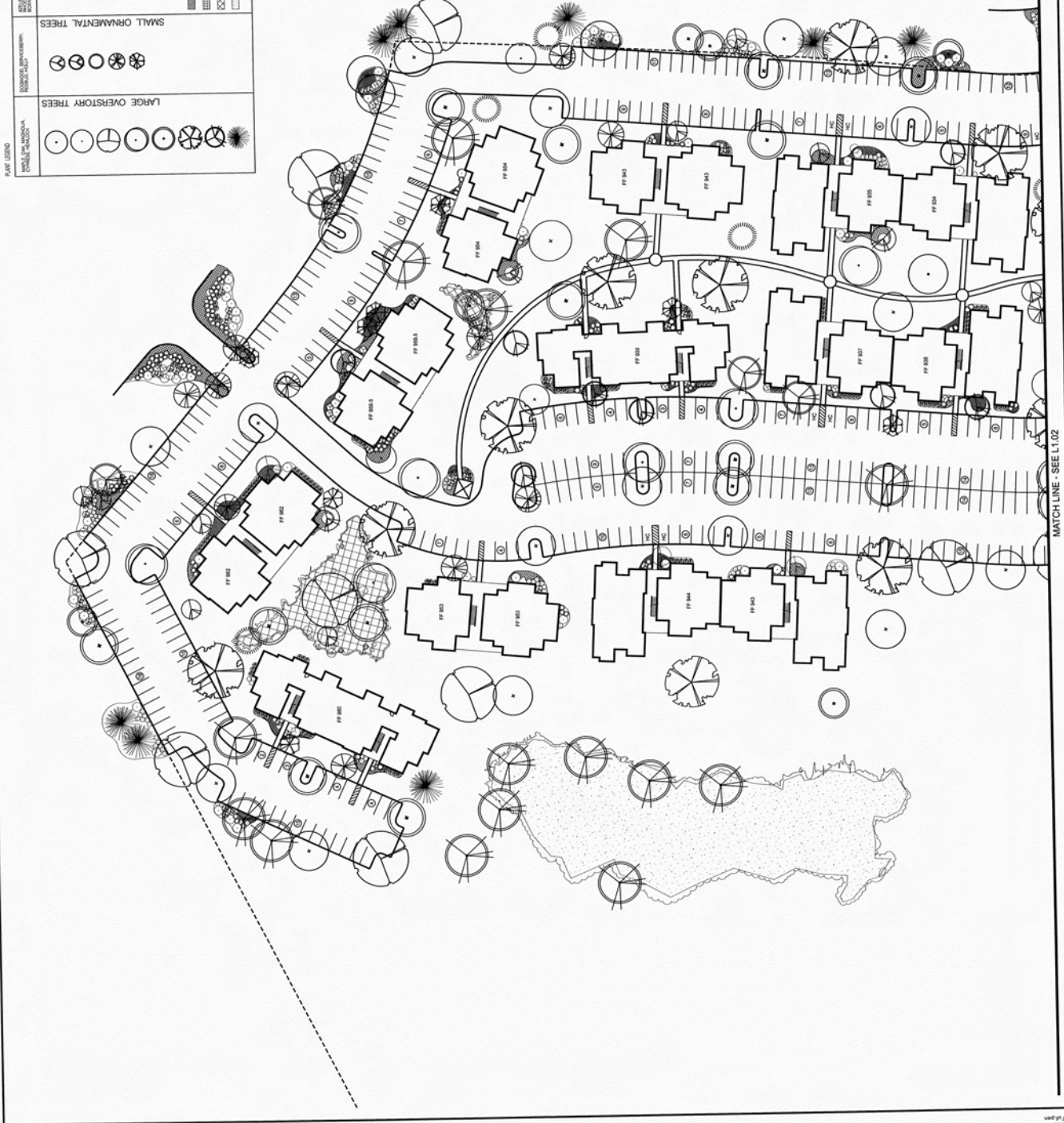


**PLANT LEGEND**

SYMBOL	PLANT SPECIES
(Large circle with cross-hatch)	LARGE OVERSTORY TREES
(Medium circle with cross-hatch)	SMALL ORNAMENTAL TREES
(Small circle with cross-hatch)	SHRUBS AND GROUNDCOVERS

**NOT FOR CONSTRUCTION**

SYMBOL	DESCRIPTION
(Dotted pattern)	GRASS COVER
(Cross-hatch pattern)	LANDSCAPE COVER
(Diagonal lines)	LANDSCAPE COVER
(Horizontal lines)	LANDSCAPE COVER
(Vertical lines)	LANDSCAPE COVER
(Stippled pattern)	LANDSCAPE COVER



IF YOU DO, TENNESSEE  
 CAN AFFORD TO LIVE  
 IT'S THE LAW

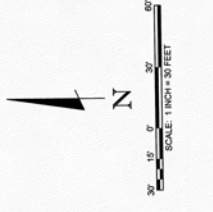
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MATCH LINE - SEE L1.02

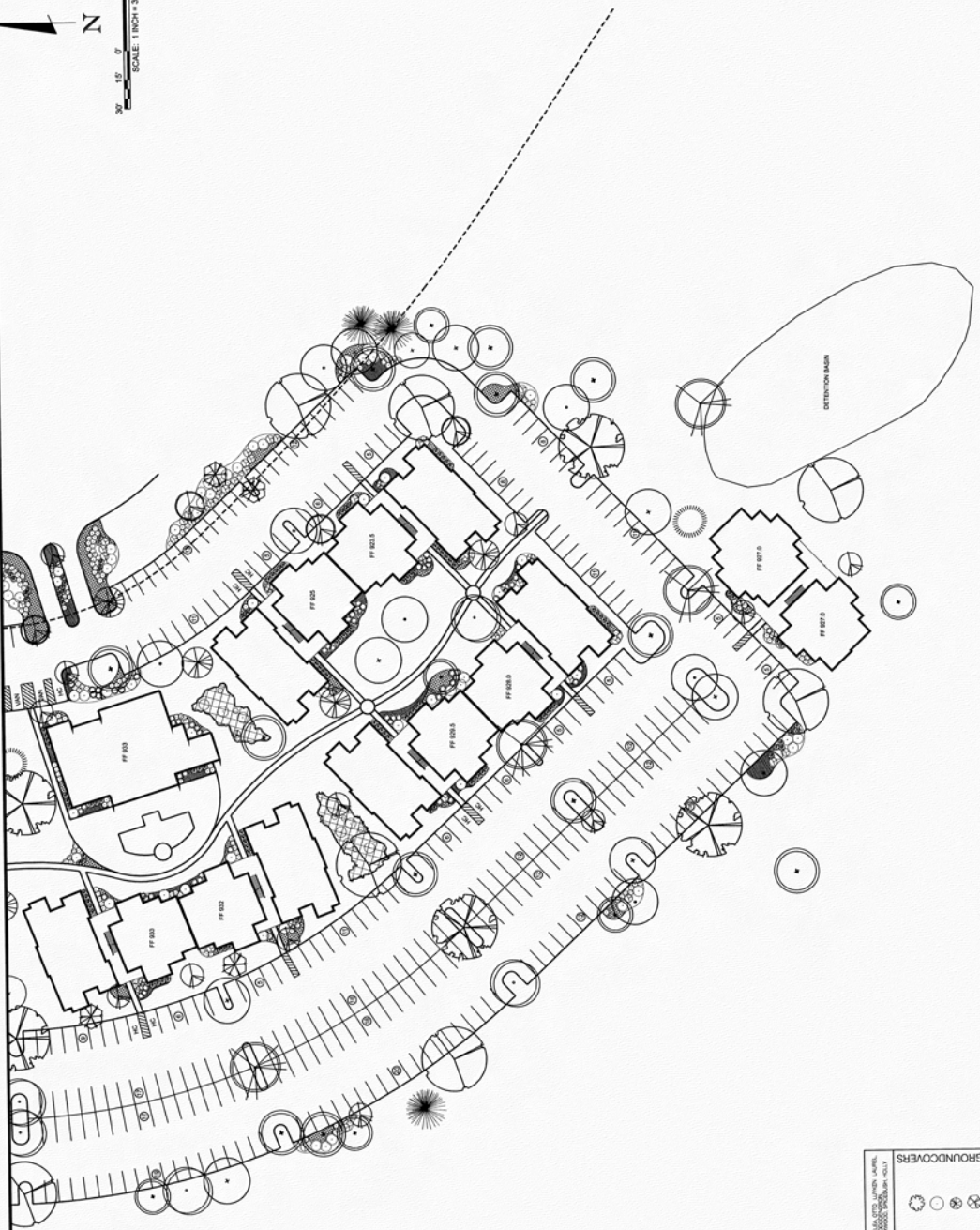
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 04105500.dwg



DATE	DESCRIPTION	BY	CHK
9-28-06	ISSUE FOR REVIEW		



MATCH LINE - SEE L1.01



PART LEGEND	SHRUBS AND GROUNDCOVERS (various symbols for shrubs and groundcovers)
	SMALL ORNAMENTAL TREES (various symbols for small trees)
	LARGE OVERSTORY TREES (various symbols for large trees)

IF YOU ARE A TENNESSEE  
 LANDSCAPE ARCHITECT  
 PLEASE SIGN AND SEAL  
 YOUR WORK AS REQUIRED  
 BY THE STATE BOARD OF  
 LANDSCAPE ARCHITECTS  
 10/17/06  
 11:00 AM  
 8/17/06  
 10:00 AM

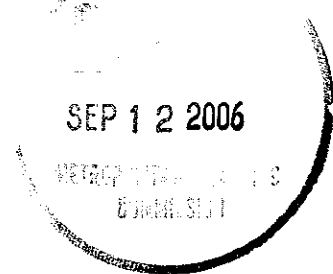
DATE: 9/28/06  
 TIME: 10:00 AM  
 PROJECT: GARY HINES PROPERTY  
 DRAWING: L1.02  
 SHEET: 1 OF 1  
 SCALE: 1" = 30'

10-T-06-UR

# CHEROKKEE TRAIL DEVELOPMENT

KNOX COUNTY, TENNESSEE

## TRAFFIC IMPACT STUDY



Prepared for

**EDWARDS COMPANIES**  
495 South High Street  
Suite 150  
Columbus, Ohio 43215-7615



September 2006

Prepared by

**WILBUR SMITH ASSOCIATES**  
1100 Marion Street  
Suite 200  
Knoxville, Tennessee 37921

Project No. 100727

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## Sight-Distances

The project is proposed to access Cherokee Trail and Edington Road. Speed limits are currently posted for 30mph. Measured sight distances are illustrated in Figure 9. The restriction of sight distances were due to roadside vegetation, but sight-distances in excess of 300 feet are acceptable for the posted speed limits. The required distance is 200 feet to meet the minimum stopping sight-distance for American Association of State Highway and Transportation Officials (AASHTO) and 300 feet to satisfy the minimum corner sight-distances required by the County.

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## **RECOMMENDATIONS**

The analyses conducted and the review of the traffic volumes identified the following recommendations:

- Provide a 75-foot minimum eastbound right-turn lane on Cherokee Trail to the proposed site access.
- Provide a 100-foot minimum eastbound right-turn lane on Cherokee Trail at Edington Road.
- Provide separate left- and right-turn lanes for the proposed site street at their intersections with Cherokee Trail and Edington Road.
- Provide access and circulation for the Knoxville Area Transit Service within the site.
- Signalize the intersection of Cherokee Trail at the Alcoa Highway interchange.
- Minimize landscaping, using low growing vegetation, and signing at the proposed street accesses to insure that safe sight distance is maintained.
- Use a minimum intersection radius of 35-foot for the efficient and safe ingress and egress of the site.
- Intersection design should conform to the recommended standards and practices of the American Association of State Highway and Transportation Officials, the Institute of Transportation Engineers, and the Knox County.

# SIGHT-DISTANCES Edwards Communities

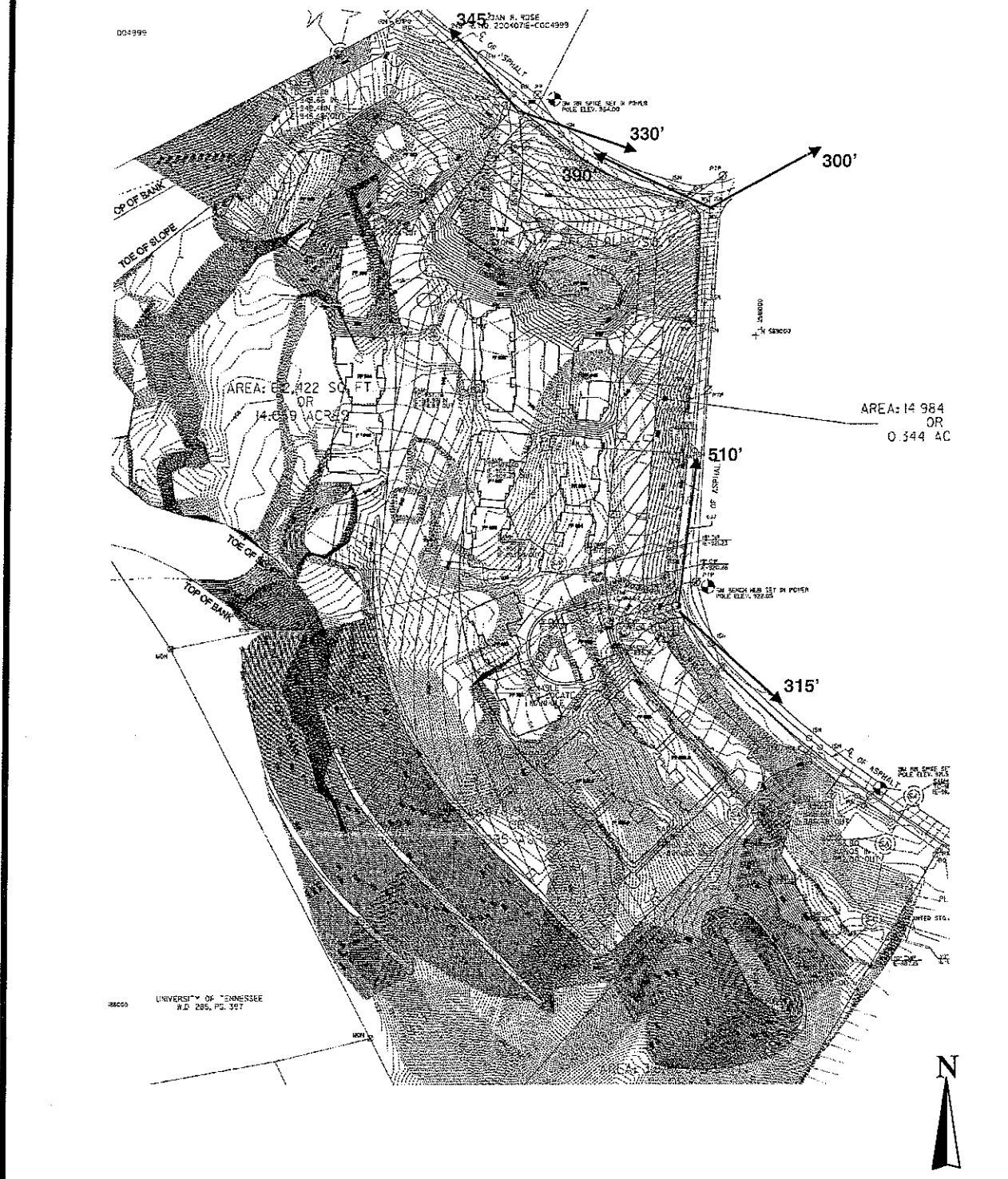


Figure 9

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## CONCLUSION

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The study of this proposed residential development evaluated the projected traffic conditions. Background traffic was determined using a 3.0-percent annual compounded growth rate until the years 2010 and included trips generated by the Woodlands of Knoxville. Traffic associated with the proposed project was then generated and distributed to the proposed site access. Using the identified turning movements for the projected traffic conditions, unsignalized and signalized capacity and level of service analyses were conducted using the **2000 Highway Capacity Manual**. Unsignalized levels of service were found to be acceptable for the existing traffic conditions adjacent to the proposed site, and continued to be acceptable for 2010 background traffic with and without the proposed development for the study intersections.

Unsignalized conditions and the 2010 projected traffic, however, will fail without signalization for the intersection of Cherokee Trail and the Alcoa interchange. Traffic signal warrants are currently satisfied and would resolve the unacceptable levels of service. Signalization of the Cherokee Trail and the Alcoa Highway interchange may operate at an E LOS during the PM peak hour for 2010 with or without the development which would require a double left-turn lane from Cherokee Trail or the planned interchange improvements. With improvements for the interchange and signalization, acceptable access from the site may be achieved.

The roads adjacent to the site will provide the necessary access for the site but will need the signalization of the Cherokee Trail intersection with the Alcoa Highway interchange. Signalization will provide a LOS E without further improvements of the intersection and until an improved interchange can be constructed. Acceptable LOS and sight-distances can be achieved for the site access; therefore, traffic generated by the proposed site can be managed with the existing adjacent roads.

