



**KNOXVILLE/KNOX COUNTY METROPOLITAN PLANNING COMMISSION  
PLAN AMENDMENT/REZONING REPORT**

▶ **FILE #:** 11-I-15-RZ  
11-D-15-SP

**AGENDA ITEM #:** 37  
**AGENDA DATE:** 11/12/2015

▶ **APPLICANT:** M & M PARTNERS  
OWNER(S): M & M Partners

TAX ID NUMBER: 129 PT. OF PARCEL 032 MAP ON FILE AT MPC [View map on KGIS](#)

JURISDICTION: Commission District 6

STREET ADDRESS: 12531 Lovelace Rd

▶ **LOCATION:** Northeast side Lovelace Rd., northwest side Hickory Creek Rd.

▶ **TRACT INFORMATION:** 19.5 acres.

SECTOR PLAN: Northwest County

GROWTH POLICY PLAN: Rural Area

ACCESSIBILITY: Access is via Hickory Creek Rd., a minor collector street with 24' of pavement within 60' of right-of-way, and via Lovelace Rd., a local street with 18' of pavement within 40' of right-of-way.

UTILITIES: Water Source: West Knox Utility District  
Sewer Source: West Knox Utility District

WATERSHED: Hickory Creek and Conner Creek

▶ **PRESENT PLAN DESIGNATION/ZONING:** AG/RR (Agricultural/Rural Residential) / A (Agricultural)

▶ **PROPOSED PLAN DESIGNATION/ZONING:** LDR (Low Density Residential) / PR (Planned Residential)

▶ **EXISTING LAND USE:** Vacant land

▶ **PROPOSED USE:** Detached residential subdivision

**DENSITY PROPOSED:** 4 du/ac

EXTENSION OF PLAN DESIGNATION/ZONING: No

HISTORY OF ZONING REQUESTS:

SURROUNDING LAND USE, PLAN DESIGNATION, ZONING  
North: Agricultural and Rural residential / A (Agricultural)  
South: Single family and Vacant / A (Agricultural) and RA (Low Density Residential)  
East: Rural residential, Forested and Agricultural / A (Agricultural)  
West: Single family and Rural residential / A (Agricultural)

NEIGHBORHOOD CONTEXT: The subject property is approximately 3 miles west of Hardin Valley Elementary School. This area is predominantly developed with agricultural and rural residential uses under the A zone, however, low density residential uses under PR zoning are being developed east of this site. The subdivision under construction on Hickory Creek Rd. to the east is zoned PR less than

2.8 du/ac and is being developed at this density. The subdivision at the corner of Hickory Creek Rd. and Hardin Valley Rd. (Covered Bridge) is zoned PR less than 1.8 du/ac and is developed at approximately 1.5 du/ac.

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**STAFF RECOMMENDATION:**

- **DENY the request to amend the Northwest County Sector Plan from AG/RR (Agricultural and Rural Residential) to LDR (Low Density Residential) land use classification.**

The subject property is within the Rural Area of the Growth Policy Plan which allows consideration of low density residential development (densities of 1 to 3 dwelling units per acre) if certain criteria can be met, but no more than 3 du/ac. The sector plan designation AG/RR (Agricultural/Rural Residential) allows densities consistent with the Growth Policy Plan. The requested LDR sector plan designation allows consideration of up to 5 du/ac, which is not consistent with the Growth Policy Plan. Staff is recommending denial of the sector plan amendment because the property meets the minimum criteria of the Growth Policy Plan to allow consideration of up to 3 du/ac and does not allow consideration above this which would require the sector plan amendment to LDR.

- **RECOMMEND that County Commission APPROVE PR (Planned Residential) zoning at a density of up to 2.5 dwelling units per acre.**

PR zoning at the recommended density is consistent with the Growth Policy Plan, sector plan and density recommendations of the Hillside and Ridgetop Protection Plan. Under PR zoning, a development plan would have to be reviewed and approved by MPC as a use on review.

**COMMENTS:**

SECTOR PLAN REQUIREMENTS FROM GENERAL PLAN (May meet any one of these):

CHANGES OF CONDITIONS WARRANTING AMENDMENT OF THE LAND USE PLAN:

INTRODUCTION OF SIGNIFICANT NEW ROADS OR UTILITIES THAT WERE NOT ANTICIPATED IN THE PLAN AND MAKE DEVELOPMENT MORE FEASIBLE:

1. Water and sewer utilities are available to this site. When the Growth Policy Plan was adopted in 2000, sewer service was not available.
2. The greater Hardin Valley area has seen substantial growth and continued development pressure since the Northwest County Sector Plan was last amended in 2003.

AN OBVIOUS OR SIGNIFICANT ERROR OR OMISSION IN THE PLAN:

1. The current sector plan designation (AG/RR) is appropriate for the subject property because it is located within the Rural Area of the Growth Policy Plan and a substantial distance from the Planned Growth Area boundary at Steele Road.

CHANGES IN GOVERNMENT POLICY, SUCH AS A DECISION TO CONCENTRATE DEVELOPMENT IN CERTAIN AREAS:

1. Densities above 1 du/ac that align with the requirements of the Growth Policy Plan have been approved within close proximity to this site. However, if approved this site will be the furthest west along Hickory Creek Road to have density above 1 du/ac. When the Growth Policy Plan is amended in the future, this area should then be considered to be included within the Planned Growth Area.

TRENDS IN DEVELOPMENT, POPULATION OR TRAFFIC THAT WARRANT RECONSIDERATION OF THE ORIGINAL PLAN PROPOSAL:

1. The area to the east, particularly along Hardin Valley Road, has seen increased residential, office and commercial development, and new public schools. However, until the road infrastructure in the area is improved the residential development in the area of the subject site should continue to align with the requirements of the Rural Area of the Growth Policy Plan.

State law regarding amendments of the general plan (which include Sector Plan amendments) was changed with passage of Public Chapter 1150 by the Tennessee Legislature in 2008. The law now provides for two methods to amend the plan at TCA 13-3-304:

1. The Planning Commission may initiate an amendment by adopting a resolution and certifying the amendment to the Legislative Body. Once approved by majority vote of the Legislative Body, the amendment is operative.

2. The Legislative Body may also initiate an amendment and transmit the amendment to the Planning Commission. Once the Planning Commission has considered the proposed amendment and approved, not approved, or taken no action, the Legislative Body may approve the amendment by majority vote and the amendment is operative.

REZONING REQUIREMENTS FROM ZONING ORDINANCES (must meet all of these):

THE PROPOSED AMENDMENT SHALL BE NECESSARY BECAUSE OF SUBSTANTIALLY CHANGED OR CHANGING CONDITIONS IN THE AREA AND DISTRICTS AFFECTED, OR IN THE CITY/COUNTY GENERALLY:

1. The property is located in the Rural Area on the Growth Policy Plan and is proposed for agricultural/rural residential uses on the sector plan, consistent with the recommended zoning and density.
2. The recommended PR zoning up to 2.5 du/ac allows the property to be developed with up to 50 dwelling units, which is consistent with the policies of the Growth Policy Plan and the policies of the Hillside and Ridgetop Protection Plan (see attached Slope / Density Analysis). The current agricultural zoning would require minimum lot sizes of 1 acre and likely yield less than 19 lots, once legal access to the lots is established.
3. The PR zone requires use on review approval of a development plan by MPC prior to construction. This will provide the opportunity for staff to review the plan and address issues such as traffic circulation, lot layout, recreational amenities, drainage, types of units and other potential development concerns. It will also give the opportunity for public comment at the MPC meeting.

THE PROPOSED AMENDMENT SHALL BE CONSISTENT WITH THE INTENT AND PURPOSE OF THE APPLICABLE ZONING ORDINANCE:

1. PR zoning is intended to provide optional methods of land development which encourage more imaginative solutions to environmental design problems. Residential areas thus established would be characterized by a unified building and site development program, open space for recreation and provision for commercial, religious, educational and cultural facilities which are integrated with the total project by unified architectural and open space treatment.
2. Additionally, the zoning states that each development shall be compatible with the surrounding or adjacent zones. Such compatibility shall be determined by the Planning Commission by review of development plans. PR zoning is required by the Growth Policy Plan in the Rural Area if the density is greater than 1 du/ac and staff maintains that PR is the most appropriate zone for this request. □

THE PROPOSED AMENDMENT SHALL NOT ADVERSELY AFFECT ANY OTHER PART OF THE COUNTY, NOR SHALL ANY DIRECT OR INDIRECT ADVERSE EFFECTS RESULT FROM SUCH AMENDMENT:

1. In order to allow consideration of densities of 1 - 3 du/ac in the Rural Area of the Growth Policy Plan, the property must be zoned PR, sewer and water services must be available, frontage road must connect to a collector or arterial, and a traffic impact evaluation letter (attached) must be completed demonstrating to the satisfaction of the planning commission that the effect of the proposed and similar developments in the traffic analysis zone will not unreasonably impair traffic flow along the arterial roads through the adjacent Planned Growth Area.
2. The traffic impact evaluation submitted by the applicant outlines that the estimated 2015 average daily traffic (ADT) volume for Hickory Creek Road without the new residential development is 2056 vehicles and the estimated 2020 ADT is 2624 vehicles. The analysis assumes the proposed residential subdivision will have 72 single-family detached houses that will yield an estimated new vehicle trips of 776, and assumes that 80 percent of those trips will orient east on Hickory Creek Road (621 vehicles). Combining the 2020 estimated ADT of 2624 with the estimated subdivision generated trips of 621, the estimated 2020 ADT east of the project site is 3245 vehicles. This will be lower for the portion of Hickory Creek Road west of the project site.
3. The analysis states that Hickory Creek Road has a minimum measurement of 20 feet wide along the study section of the roadway, and includes a striped centerline and two edgelines. In accordance with Knox County road standards, the recommended maximum ADT for a 20-foot width road is 4000 vehicles.
4. The conclusion of the traffic impact evaluation is that the existing pavement width and geometry of Hickory Creek Road in the study area are adequate for the proposed development.

THE PROPOSED AMENDMENT SHALL BE CONSISTENT WITH AND NOT IN CONFLICT WITH THE GENERAL PLAN OF KNOXVILLE AND KNOX COUNTY, INCLUDING ANY OF ITS ELEMENTS, MAJOR ROAD PLAN, LAND USE PLAN, COMMUNITY FACILITIES PLAN, AND OTHERS:

1. The Northwest County Sector Plan proposes agricultural/rural residential uses for this property, which allows consideration of a density of up to 3 du/ac when consistent with the requirements of the Growth Policy Plan, which is consistent with the staff recommendation of 2.5 du/ac. The applicant is requesting 4 du/ac which is not consistent with the Growth Policy Plan and the sector plan.

2. Approval of this request could lead to future requests for PR zoning in this area.

Upon final approval of the rezoning, the developer will be required to submit a development plan for MPC consideration of use on review approval prior to the property's development. The plan will show the property's proposed development, landscaping and street network and will also identify the types of residential units that may be constructed. Grading and drainage plans may also be required at this stage, if deemed necessary by Knox County Engineering and MPC staff.

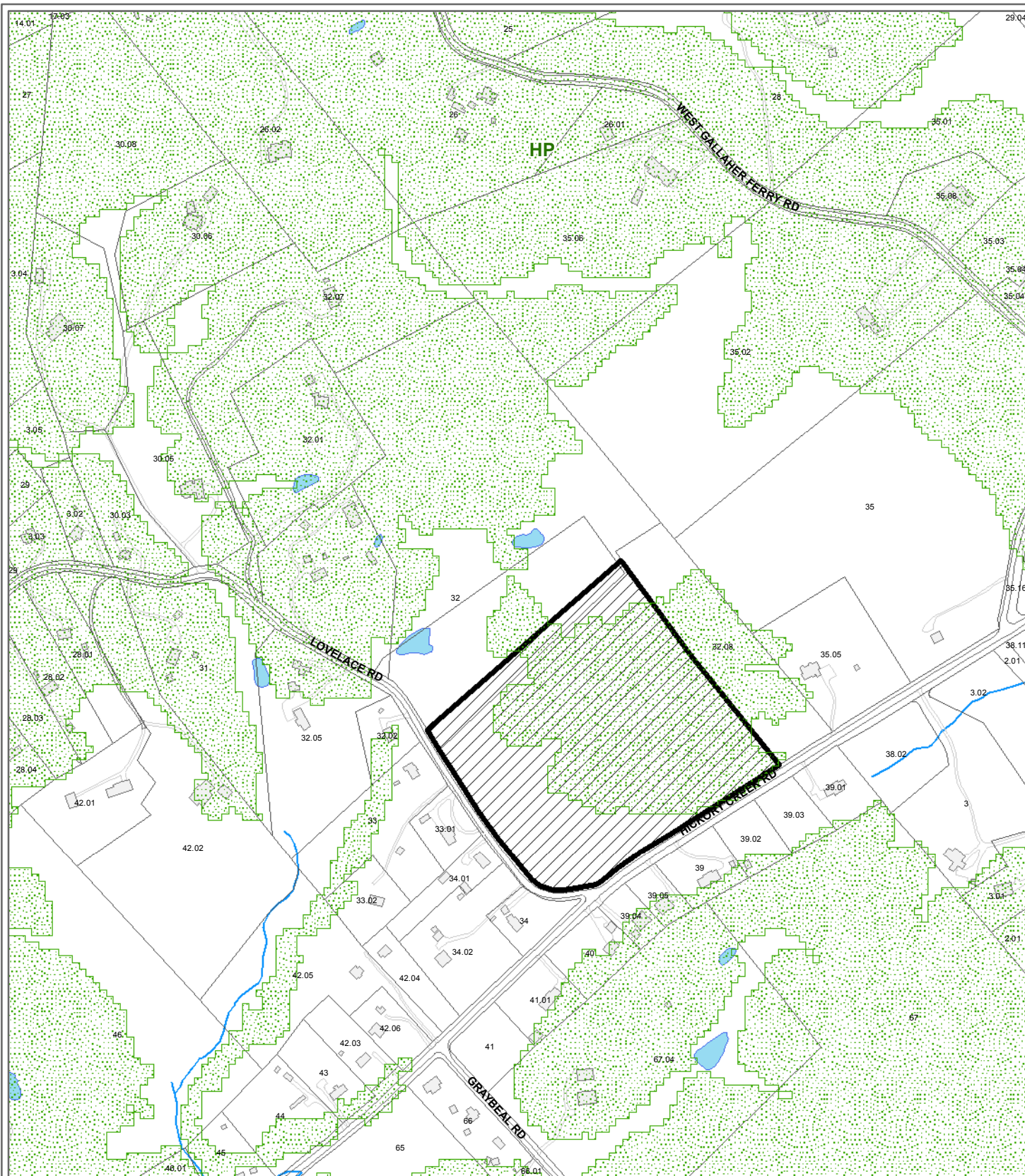
ESTIMATED TRAFFIC IMPACT: A traffic impact study was prepared by the applicant. The findings of that study were used in formulating the recommendations of this staff report.

ESTIMATED STUDENT YIELD: 41 (public and private school children, ages 5-18 years)

Schools affected by this proposal: Hardin Valley Elementary, Karns Middle, and Hardin Valley Academy.

- School-age population (ages 5–18) is estimated by MPC using data from a variety of sources.
- While most children will attend public schools, the estimate includes population that may be home-schooled, attend private schools at various stages of enrollment, or drop out of the public system.
- Students are assigned to schools based on current attendance zones as determined by Knox County Schools. Zone boundaries are subject to change.
- Estimates presume full build-out of the proposed development. Build-out is subject to market forces, and timing varies widely from proposal to proposal.
- Student yields from new development do not reflect a net addition of children in schools. Additions occur incrementally over the build-out period. New students may replace current population that ages through the system or moves from the attendance zone.
- School capacities are subject to change by Knox County Schools through building additions, curriculum or scheduling changes, or amendments to attendance zone boundaries.

If approved, this item will be forwarded to Knox County Commission for action on 12/21/2015. If denied, MPC's action is final, unless the action to deny is appealed to Knox County Commission. The date of the appeal hearing will depend on when the appeal application is filed. Appellants have 30 days to appeal an MPC decision in the County.



**11-D-15-SP / 11-I-15-RZ  
NORTHWEST COUNTY SECTOR PLAN AMENDMENT**

From: AG/RR (Agricultural/Rural Residential)

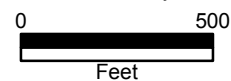
To: LDR (Low Density Residential)



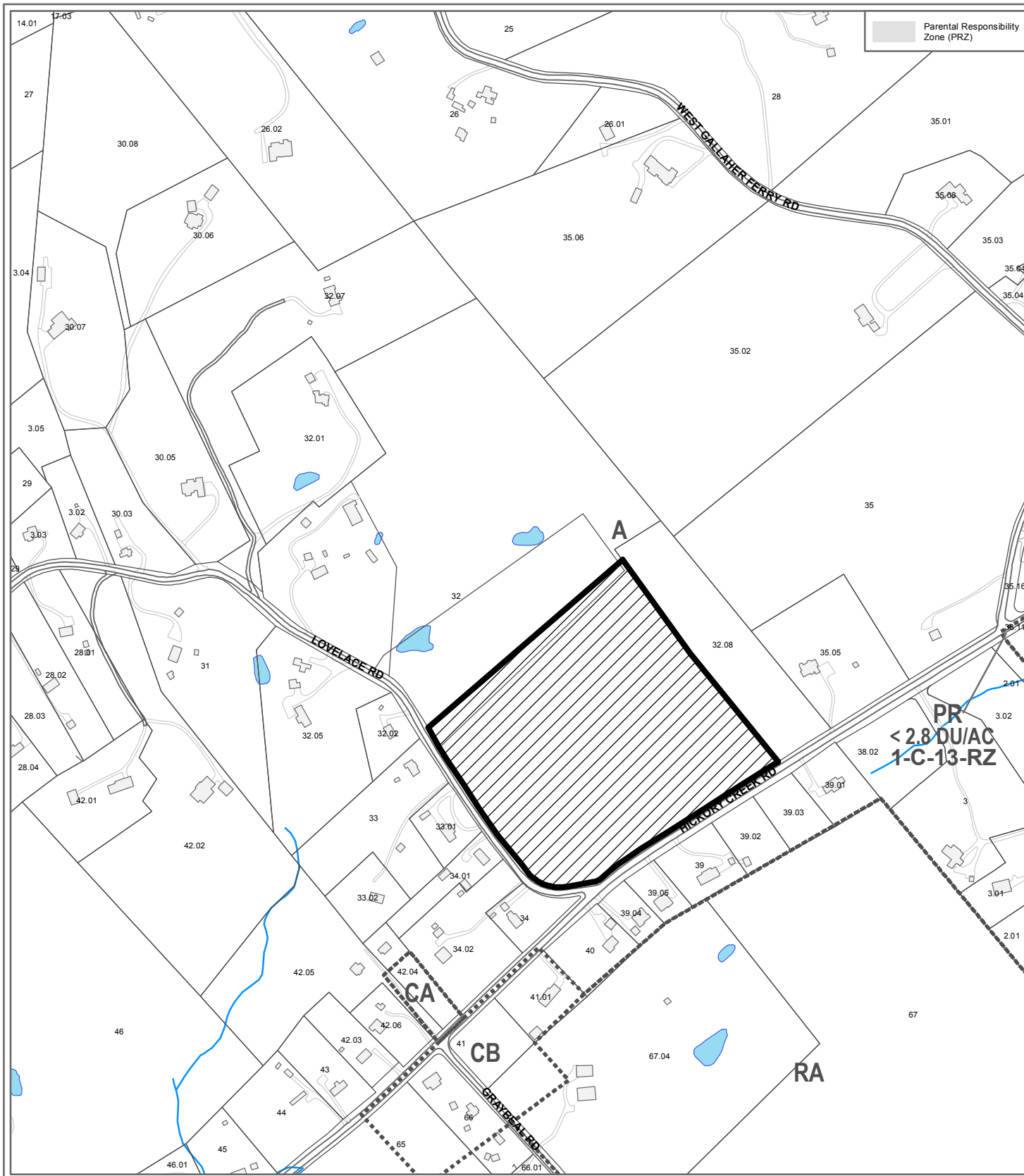
Petitioner: M & M Partners

Map No: 129

Jurisdiction: County



Original Print Date: 10/27/2015      Revised: 11/5/2011  
Metropolitan Planning Commission \* City / County Building \* Knoxville, TN 37902



**11-I-15-RZ  
REZONING**

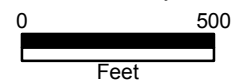
From: A (Agricultural)  
To: PR (Planned Residential)



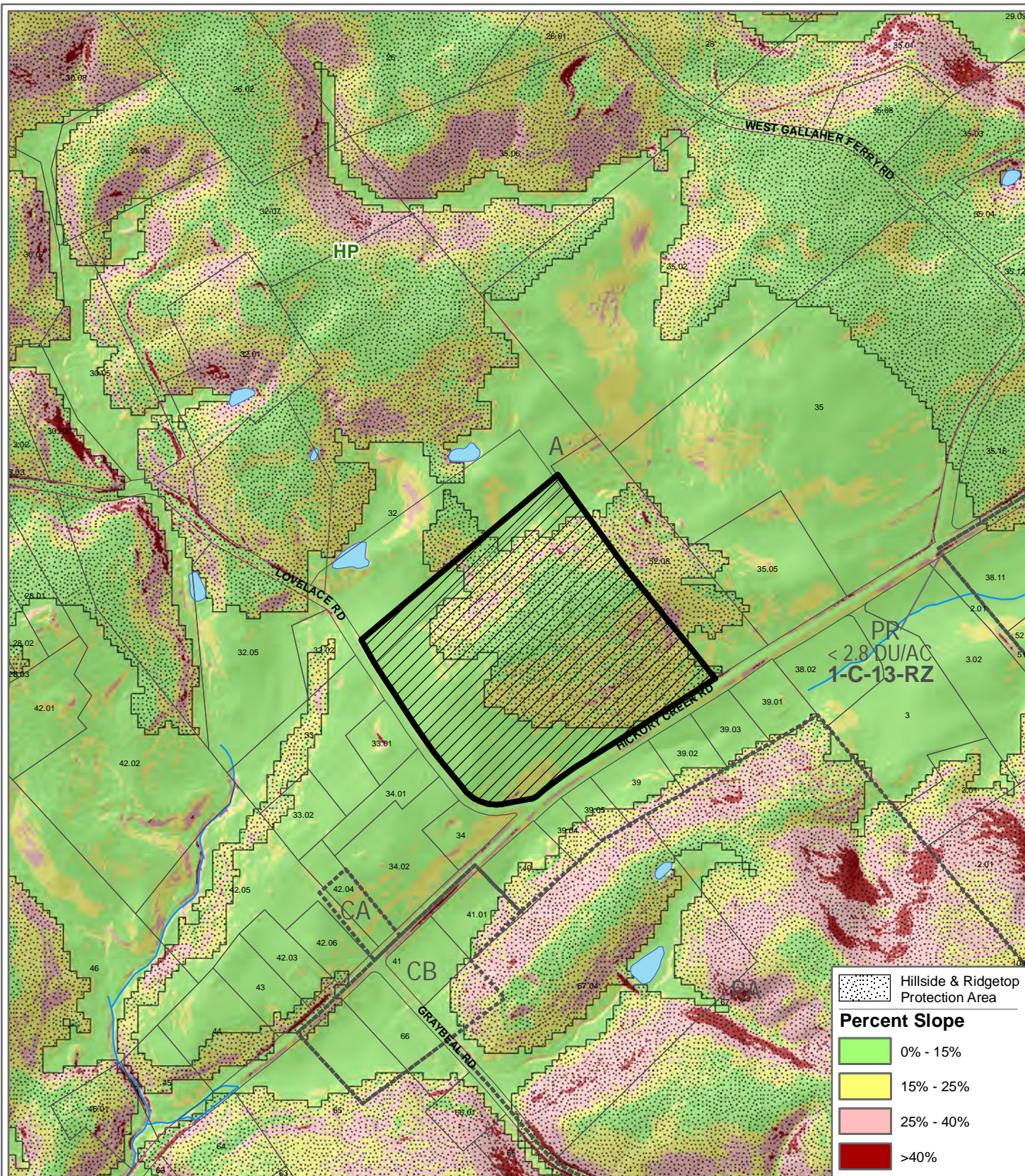
Petitioner: M & M Partners

Map No: 129

Jurisdiction: County

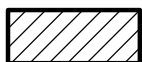


Original Print Date: 10/27/2015      Revised: 11/5/2015  
Metropolitan Planning Commission \* City / County Building \* Knoxville, TN 37902



**11-I-15-RZ  
REZONING - SLOPE ANALYSIS**

From: A (Agricultural)  
To: PR (Planned Residential)



Original Print Date: 11/2/2015      Revised:  
Metropolitan Planning Commission \* City / County Building \* Knoxville, TN 37902

Petitioner: M & M Partners

Map No: 129  
Jurisdiction: County



**MPC STAFF - SLOPE / DENSITY ANALYSIS**  
**11-I-15-RZ / M & M Partners / A to PR (1-4 DUA)**

CATEGORY	ACRES	RECOMMENDED DENSITY (Dwelling Units / Acre)	NUMBER OF UNITS
Outside Hillside (HRPA) area	7.87	3.00	23.6
<b>Inside Hillside (HRPA) area</b>			
0-15% Slope	4.53	3.00	13.6
15-25% Slope	6.21	2.00	12.4
25-40% Slope	0.92	0.50	0.5
Greater than 40% Slope	0.03	0.20	0.0
Ridgetops	0	3.00	0.0
Subtotal: Inside HRPA	11.69		26.5
<b>Maximum Density Guideline</b> (Hillside & Ridgetop Protection Plan)	<b>19.56</b>	<b>2.56</b>	<b>50.1</b>
<b>Proposed Density (Applicant)</b>	<b>19.56</b>	<b>4.00</b>	<b>78.2</b>

**From Hillside & Ridgetop Protection Plan, page 33**

**LOW DENSITY AND RURAL RESIDENTIAL USES**

**Density and Land Disturbance Guidelines**

As proposals for changes to the zoning map and development plans/concept plans are considered, the following factors are recommended to determine the overall allowable density for residential rezonings and the overall land disturbance allowable in new development or subdivisions for those portions of parcels that are within the Hillside and Ridgetop Protection Area. These factors should be codified as regulations in the future. The areas of the Growth Policy Plan referenced below are presented on page 18.

**Table 3: Residential Density and Land Disturbance Guidelines**  
for Recommendations on Changes to the Zoning Map and Development Plan/  
Concept Plan Review within the Hillside and Ridgetop Protection Area  
that is within the Urban Growth and the Planned Growth Area

Percent of Slope	Recommended Maximum Density Factor*	Recommended Maximum Land Disturbance Factor**
0 - 15	Knox County: 5 dua City of Knoxville: 6 dua	100%
15 - 25	2 dua	50%
25 - 40	0.5 dua	20%
40 or more	0.2 dua	10%
Ridgetops***	***	***

*dua: dwelling units per acre*

\* These factors should be considered guidelines to determine an overall recommended residential density for requests for changes to the zoning map to planned residential (RP-1 in the city and PR in the county) zone districts that are considered by the Metropolitan Planning Commission prior to being considered by the appropriate legislative body. The resulting zone district development right would be considered a budget for dwelling units to be applied over the entire proposed development.

\*\* Until such time as regulations are codified by the appropriate legislative body, these factors should be considered guidelines to determine an overall recommended land disturbance area for development plans and concept plans that are considered for approval by the Metropolitan Planning Commission. The overall land disturbance area would be considered a budget for land disturbance to be applied over the entire proposed development.

\*\*\* Ridgetops are generally the more level areas on the highest elevations of a ridge. Because the shapes of Knox County ridges are so varied (see pages 8 – 9), the ridgetop area should be determined on a case-by-case basis with each rezoning and related development proposal.

The Knoxville Knox County Hillside and Ridgetop Protection Plan — 33



November 5, 2015

Ms. Tarren Barrett  
Transportation Engineer  
Knoxville-Knox County MPC  
City/County Building, Suite 403  
400 Main Street  
Knoxville, TN 37902

**RE: Lovelace Road and Hickory Creek Road Subdivision – Traffic Impact Evaluation Letter  
Knox County, Tennessee**

Dear Ms. Barrett:

This letter is provided in order to summarize a traffic impact evaluation that was conducted for the referenced proposed subdivision. Traffic volumes, pavement width, roadway geometry and corner sight distance along Hickory Creek Road in the vicinity of the proposed project were all included as part of this evaluation. Hickory Creek Road is the roadway where the subdivision access is proposed, and the study section of this roadway is the portion located east of Lovelace Road.

Traffic Volumes

A traffic count was conducted on the study section of Hickory Creek Road in early November 2015. A sheet summarizing this count is attached, which indicates that the 24 hour volume counted was 2210 vehicles per day. Applying ADT correction factors for the two days that this count covered (Tuesday November 3 and Wednesday November 4), the estimated 2015 ADT is 2056 vehicles. Expanding this ADT to the estimated full project build-out year of 2020, by applying a growth rate of 5.0 percent per year for a 5 year period, yields an estimated year 2020 background traffic ADT of 2624.

The proposed project includes a maximum of 72 single-family detached housing units. Utilizing the fitted curve equation from the *ITE Trip Generation Manual, 9<sup>th</sup> Edition* (Code 210, page 296), the estimated number of newly generated weekday trips is 776. Assuming 80 percent of the subdivision traffic will orient east on Hickory Creek Road from the project site, this yields an estimated number of new trips on the study section of roadway of 621.

Combining the year 2020 estimated ADT of 2624 with the estimated subdivision generated trips of 621, the future year estimated ADT on the study section of roadway, Hickory Creek Road to the east of Lovelace Road, is 3245. This is the ADT that will be expected on this section of roadway when the proposed subdivision project is fully built-out and occupied.

Pavement Width

The existing pavement on Hickory Creek Road was measured to be at least 20 feet wide along the study section of roadway, and includes a striped centerline and two edgelines. In accordance with the *Knox County, Tennessee Strategic Transportation Plan Needs Assessment Report, December 2014*, the recommended maximum ADT for a 20 foot width road is 4000 vehicles. Therefore, given the year 2020 estimated ADT of 3224 with full project build-out, the existing pavement width of Hickory Creek Road appears adequate for the proposed development.

Roadway Geometry and Corner Sight Distance

Hickory Creek Road in the study area possesses a relatively straight horizontal alignment and vertically it generally conforms to the rolling terrain, possessing a series of vertical hillcrests. The speed limit on Hickory Creek Road is 40 mph. Therefore, the required corner sight distance for the proposed subdivision entrance is a minimum of 400 feet. If the subdivision street intersection is located at or in close proximity to one of the vertical hillcrests, then the required corner sight distance appears attainable.

Conclusions

It is the primary conclusion of this evaluation that the existing pavement width and geometry of Hickory Creek Road in the study area are adequate for the proposed development. This conclusion is supported by both the existing and projected traffic volumes, as well as the ability to provide the required corner sight distance for the proposed subdivision entrance intersection.

Please do not hesitate to contact me with any questions or if you require additional information.

Sincerely,



Alan L. Childers, P.E.  
Vice President



Attachments

cc: David Harbin

# Basic Volume Summary: Hickory Creek Road

Between Lovelace Road and W. Gallaher Ferry Road

Grand Total For Data From: 14:30 - 11/03/2015 To: 15:14 - 11/04/2015

Lane *	Total Count	# Of Days	ADT	Avg. Period	Avg. Hour	AM Total & Percent	PM Total & Percent
#1.	1195 (52.4%)	1.03	1159	12.1	48.3	358 (30.0%)	837 (70.0%)
#2.	1084 (47.6%)	1.03	1051	10.9	43.8	504 (46.5%)	580 (53.5%)
ALL	2279	1.03	2210	23.0	92.1	862 (37.8%)	1417 (62.2%)

Lane	Peak AM Hour	Date	Peak AM Factor	Peak PM Hour	Date	Peak PM Factor
#1.	10:45 = 80	11/04/2015	0.800	16:45 = 132	11/03/2015	0.868
#2.	07:15 = 128	11/04/2015	0.780	17:00 = 88	11/03/2015	0.880

\* Lane #1 is Westbound, #2 is Eastbound

Total 24 hour Count = 2210

TDOT Variation Factor Adjustment:

• Tuesday (11/3) -  $1159 \times 0.94 = 1089$

• Wednesday (11/4) -  $1051 \times 0.92 = 967$

Estimated ADT (2015) = 2056

Apply 5 years of growth at 5%/year:

•  $2056 \times 1.05^5 = 2624$

(Estimated ADT in Year 2020)

Single Family Detached Housing (ITE Code 210)  
(Lovelace Road at Hickory Creek Subdivision)

Trips with fitted curve equation

Trip Ends on a Weekday:

$$\ln(T) = 0.92 \ln(x) + 2.72$$

where  $X = 72$  (max) dwelling units

$T = 776$  Total Trips

(388 enter, 388 exit)

(See attached sheet from ITE Trip Gen. Manual)

# Single-Family Detached Housing (210)

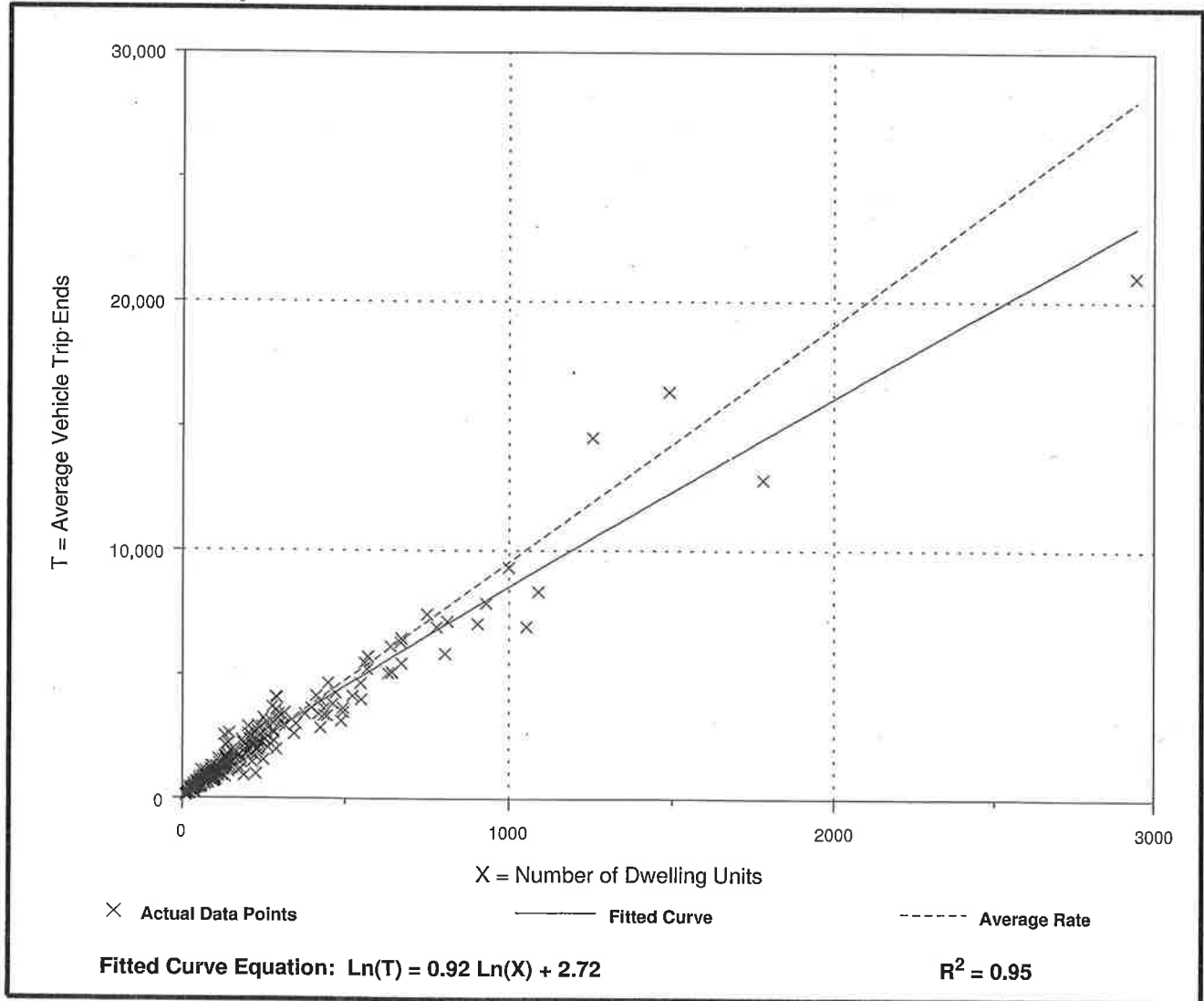
**Average Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday**

Number of Studies: 355  
Avg. Number of Dwelling Units: 198  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.52	4.31 - 21.85	3.70

## Data Plot and Equation





## Traffic History

Station #	County	Location	Route #
000135	Knox	HICKORY CR DR-NEAR LOUDON CO LINE	02422

### Record Year AADT

1	2014	1787
2	2013	1454
3	2012	1778
4	2011	1564
5	2010	1403
6	2009	1387
7	2008	1669
8	2007	1742
9	2006	1632
10	2005	1521
11	2004	1477
12	2003	1024
13	2002	1461
14	2001	1515
15	2000	1826
16	1999	1223
17	1998	1555
18	1997	1400
19	1996	1381
20	1995	1379
21	1994	1024
22	1993	1377
23	1992	991
24	1991	977
25	1990	1092
26	1989	967
27	1988	882

5 year annual growth  
 $\approx 5\%$  per year

Recommended Traffic Volumes by Pmnt. Width From  
"Knox County, Tennessee Strategic Transportation Plan  
Needs Assessment Report, December 2014"

<u>Pmnt Width</u>	<u>Recommended Max. ADT</u>
12'-16'	500
17'	1,000
18'	2,000
19'	3,000
20'	4,000
21'	5,000
22'	6,000
23'	7,000
24'	10,000