



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

▶ **FILE #:** 10-K-15-RZ
10-E-15-SP

AGENDA ITEM #: 45
AGENDA DATE: 10/8/2015

▶ **APPLICANT:** **WORLEY BUILDERS, INC.**
OWNER(S): Worley Builders, Inc.

TAX ID NUMBER: 130 129 PART ZONED A IN KNOX CO. [View map on KGIS](#)
JURISDICTION: Commission District 5
STREET ADDRESS:

▶ **LOCATION:** **Southeast side Black Rd., southwest of Snyder School Rd.**

▶ **TRACT INFORMATION:** **18.4 acres.**

SECTOR PLAN: Northwest County

GROWTH POLICY PLAN: Rural Area

ACCESSIBILITY: Access is via Black Rd., a minor collector with 17-18' of pavement width within 40' of right-of-way.

UTILITIES: Water Source: First Utility District

Sewer Source: First Utility District

WATERSHED: Turkey 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: Single family and Rural residential / A (Agricultural)
South: Private school / Farragut: R-2 (General single-family residential district)
East: Single family and Rural residential / A (Agricultural)
West: Single family and Rural residential / A (Agricultural)

NEIGHBORHOOD CONTEXT: This area is developed with agricultural, rural residential and low density residential uses under A, PR and RA zoning, and is adjacent to a private school that is in the Town of Farragut. The subdivision at the corner of Black Rd. and Snyder School Rd. zoned PR at 1-3 du/ac is accessed from Snyder Rd. and is built out at 2.5 du/ac. The vast majority of properties that access Black Rd. have a minimum lot size of 1 acre.

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 LDR sector plan designation allows consideration of up to 5 du/ac, which is not consistent with the Growth Policy Plan. The current sector plan designation (AG/RR) allows consideration of density consistent with the policies adopted in 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, which is compatible with surrounding development and zoning.

- **RECOMMEND that County Commission APPROVE PR (Planned Residential) zoning at a density of up to 3 du/ac.**

PR zoning at the recommended density is consistent with the sector plan and Growth Policy Plan and is compatible with surrounding development and zoning. 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. The intersection of Black Rd. and N. Campbell Station Rd. has been improved.
2. Water and sewer utilities are available.

AN OBVIOUS OR SIGNIFICANT ERROR OR OMISSION IN THE PLAN:

1. The current sector plan designation (AG/RR) is appropriate for the subject property.

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

1. No policies have changed since the adoption of the Northwest County Sector Plan in 2003.

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

1. The surrounding area has seen increased development of all use types, however, these have predominantly been in the nearby Planned Growth area for Knox County and the Urban Growth Boundary for the Town of Farragut.

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 3 du/ac allows the property to be developed with up to 55 dwelling units,

which is consistent with the policies of the Growth Policy Plan. The current agricultural zoning would require minimum lot sizes of 1 acre and likely yield less than 18 lots, once legal access to the lots is established.

4. 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 development. □

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 analysis (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 analysis submitted by the applicant outlines that the estimated 2015 average daily traffic (ADT) volume for Black Rd. without the new residential development is 330 vehicles and the estimated 2020 ADT is 364 vehicles. The analysis assumes the proposed residential subdivision will have 55 single-family detached houses that will yield an estimated new vehicle trips of 606, and assumes that 80 percent of those trips will orient east on Black Rd (485 vehicles). Combining the 2020 estimated ADT of 364 with the estimated subdivision generated trips of 485, the estimated 2020 ADT east of the project site is 849 vehicles. This will be lower for the portion of Black Rd. west of the project site.

3. The analysis states that Black Rd. has a minimum measurement of 17 feet wide, with the majority being 18 feet wide or slightly more. In accordance with Knox County road standards, the recommended maximum ADT for a 17-foot width road is 1000 vehicles and for an 18-foot width road is 2000 vehicles.

4. The most recent crash data from Knox County for the years 2012 and 2013, did not identify any crashes on Black Rd.

5. The conclusion of the traffic impact analysis is that the existing pavement width of Black Rd. appears adequate for the proposed development. This conclusion is supported by both existing and projected traffic volumes, as well as the past crash history that does not show crash concerns. □

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 what staff is recommending. 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.

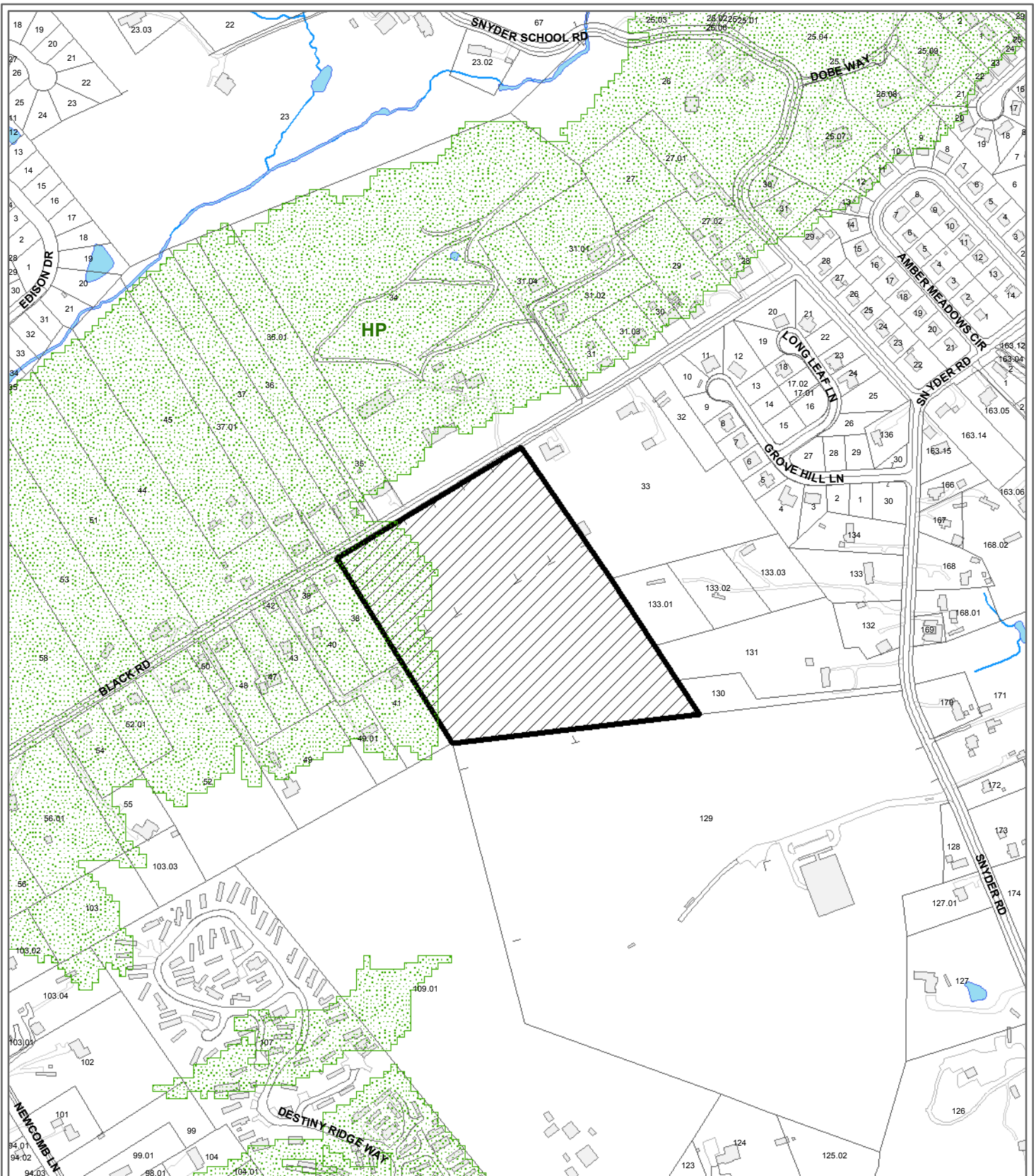
ESTIMATED TRAFFIC IMPACT: A traffic impact study was prepared by the applicant. The findings of that study were used in formulating the recommendations of this staff report.

ESTIMATED STUDENT YIELD: 39 (public and private school children, ages 5-18 years)

Schools affected by this proposal: Farragut Primary/Intermediate, Farragut 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 11/16/2015. 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.



**10-E-15-SP / 10-K-15-RZ
NORTHWEST COUNTY SECTOR PLAN AMENDMENT**

From: AG/RR (Agricultural/Rural Residential)

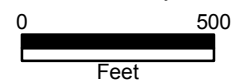
To: LDR (Low Density Residential)



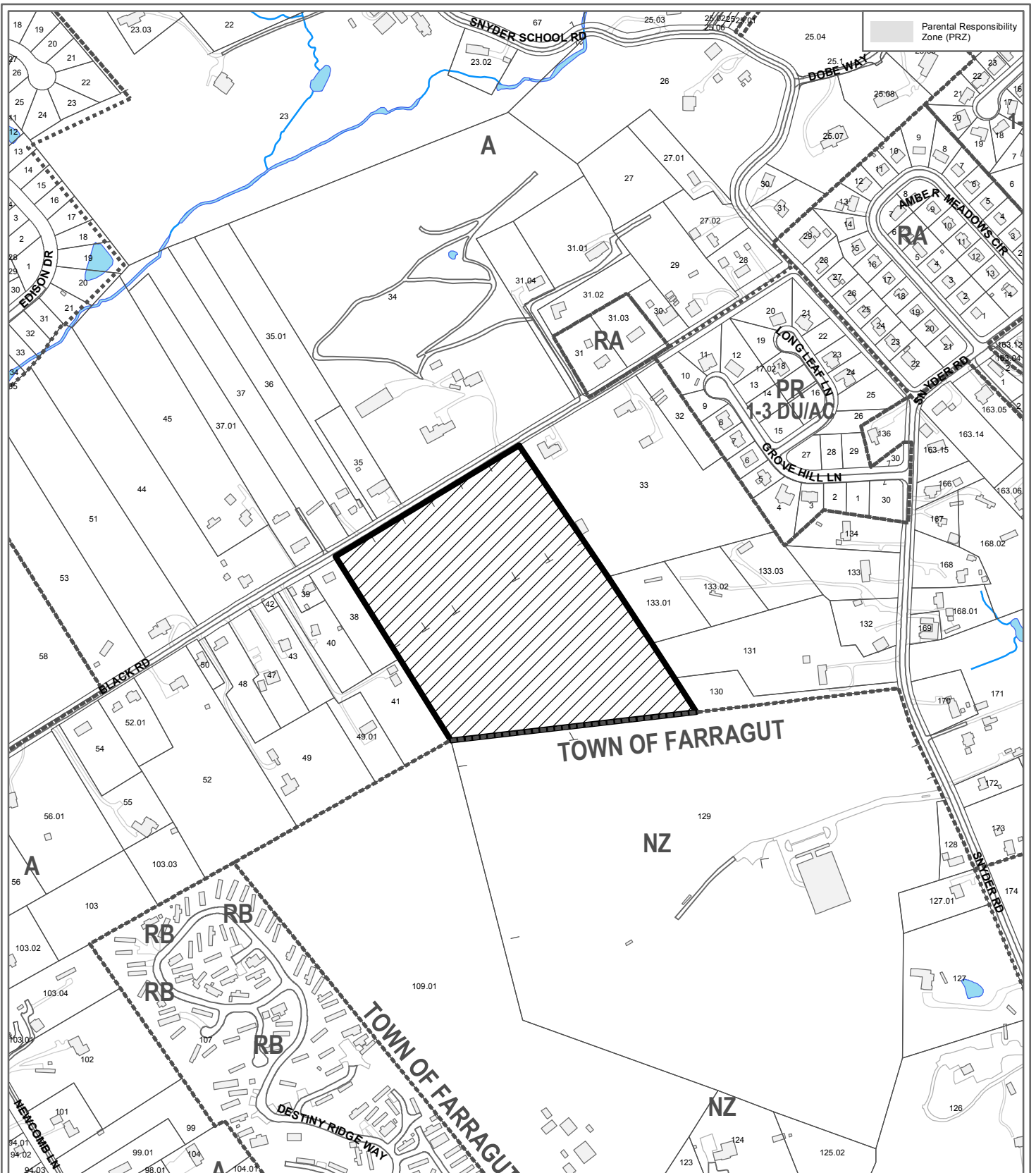
Petitioner: Worley Builders, Inc.

Map No: 130

Jurisdiction: County



Original Print Date: 9/22/2015 Revised:
Metropolitan Planning Commission * City / County Building * Knoxville, TN 37902



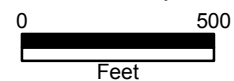
**10-K-15-RZ
REZONING**

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

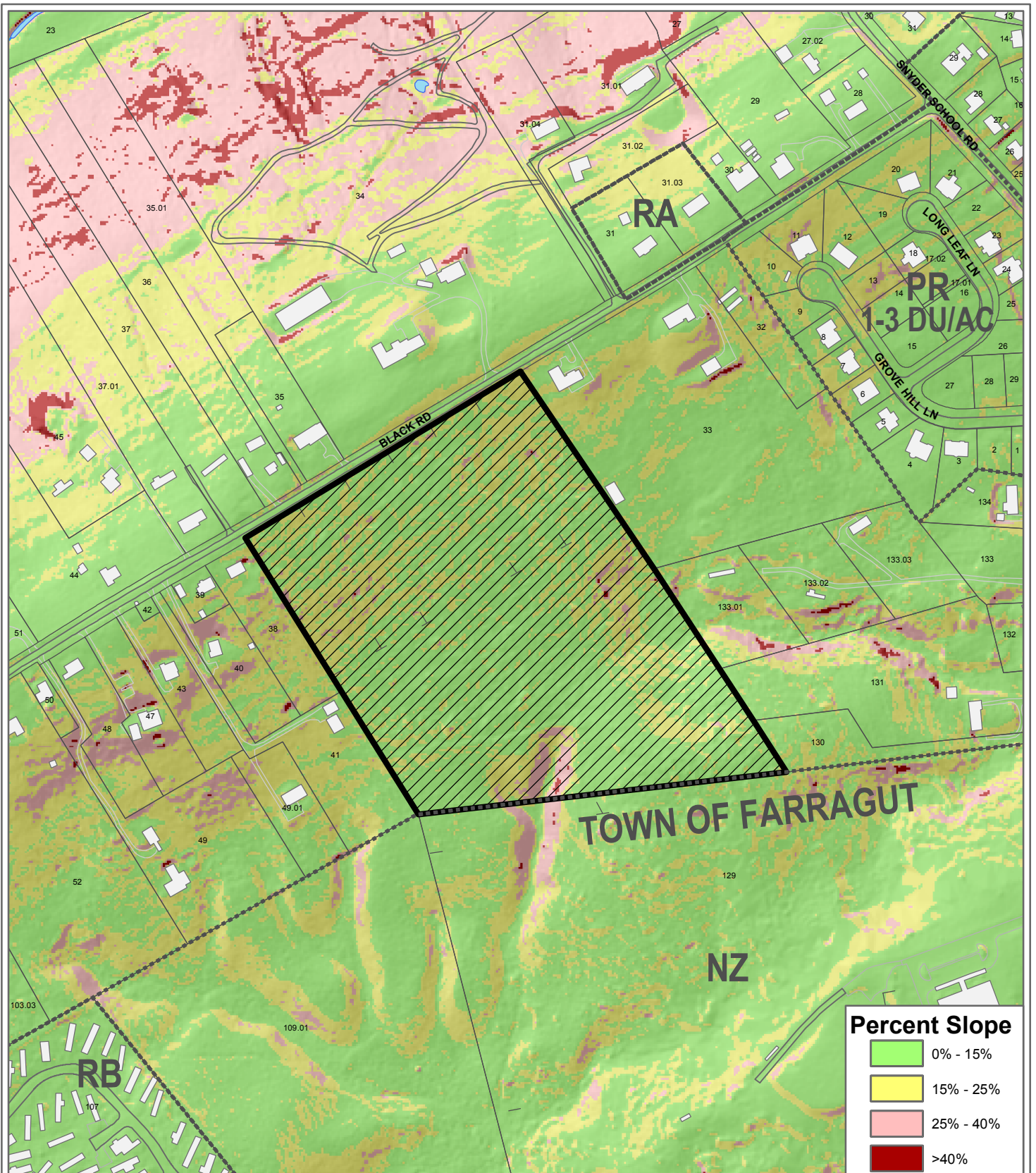


Petitioner: Worley Builders, Inc.

Map No: 130
Jurisdiction: County



Original Print Date: 9/22/2015 Revised:
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**10-K-15-RZ
REZONING - SLOPE ANALYSIS**

From: A (Agricultural)

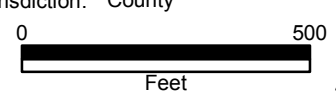
To: PR (Planned Residential)



Petitioner: Worley Builders, Inc.

Map No: 130

Jurisdiction: County



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MPC STAFF - SLOPE / DENSITY ANALYSIS
10-K-15-RZ / WORLEY BUILDERS, INC (RON WORLEY) / A to PR (1-4 DUA)

| CATEGORY | ACRES | RECOMMENDED DENSITY (Dwelling Units / Acre) | NUMBER OF UNITS |
|---|-------------|---|-----------------|
| Non-Hillside (HRPA) | 15.68 | 3.00 | 47.0 |
| 0-15% Slope | 1.32 | 3.00 | 4.0 |
| 15-25% Slope | 1.33 | 2.00 | 2.7 |
| 25-40% Slope | 0.07 | 0.50 | 0.0 |
| Greater than 40% Slope | 0 | 0.20 | 0.0 |
| Ridgetops | 0 | 3.00 | 0.0 |
| Subtotal: Sloped Land | 2.72 | | 6.7 |
| Maximum Density Guideline (Hillside & Ridgetop Protection Plan) | 18.4 | 2.92 | 53.7 |
| Proposed Density (Applicant) | 18.4 | 4.00 | 73.6 |

From Hillside & Ridgetop Protection Plan, page 33

| LOW DENSITY AND RURAL RESIDENTIAL USES | | |
|---|--|--|
| Density and Land Disturbance Guidelines | | |
| <p>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.</p> | | |
| 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 | | |
| <i>Percent of Slope</i> | <i>Recommended Maximum Density Factor*</i> | <i>Recommended Maximum Land Disturbance Factor**</i> |
| 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*** | *** | *** |
| <i>dua: dwelling units per acre</i> | | |
| <p>* 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.</p> | | |
| <p>** 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.</p> | | |
| <p>*** 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.</p> | | |
| The Knoxville Knox County Hillside and Ridgetop Protection Plan — 33 | | |

Sept. 29, 2015

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

RE: Black 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 and crash history along Black Road in the vicinity of the proposed project were all included as part of this evaluation.

Traffic Volumes

A traffic count was conducted on the study section of Black Road in October 2014. This count, a copy of which is attached, provided a raw 24 hour volume of 369 vehicles. Applying ADT correction factors for the two days that this count covered (Thursday October 30 and Friday October 31) and a growth rate of 2.0 percent, the estimated 2015 ADT is 330 vehicles. Expanding this ADT to year 2020 by applying the 2.0 percent growth rate for 5 years yields an estimated year 2020 background traffic ADT of 364.

The proposed project includes 55 single-family detached housing units. Utilizing the fitted curve equation from the *ITE Trip Generation Manual, 9th Edition* (Code 210, page 296), the estimated number of newly generated weekday trips is 606. Assuming that 80 percent of the subdivision traffic will orient east on Black Road from the project site, this yields an estimated number of new trips on this section of Black Road of 485.

Combining the year 2020 estimated ADT of 364 with the estimated subdivision generated trips of 485, the future year estimated ADT on Black Road, east of the project site, is 849. This is the ADT that would be expected on this section of roadway if the proposed subdivision project is fully built-out and occupied.

Pavement Width

The pavement width on Black Road was field measured at several locations. The minimum measured width was 17 feet, with the majority being 18 feet or slightly more. The wider measurements tended to be where the roadway has been recently refurbished and overlaid. In accordance with the *Knox County, Tennessee Strategic Transportation Plan Needs Assessment Report, December 2014*, the recommended maximum ADT for a 17 foot width road is 1000 vehicles and for an 18 foot width is 2000 vehicles. Therefore, given the year 2020 estimated ADT of 849 with full project build-out, the existing pavement width of Black Road appears adequate for the proposed development.

Crash History

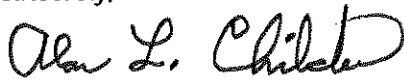
The latest available crash history data from Knox County is for years 2012 and 2013. This data did not identify any crashes on Black Road for this time period. In addition, in accordance with the latest ranking of roadway sections in Knox County for possible improvement, Black Road rated no. 556 out of 556 sections.

Conclusions

The existing pavement width of Black Road appears adequate for the proposed development. This conclusion is supported by both existing and projected traffic volumes, as well as the past crash history that does not show crash concerns.

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

24 Hour Volume, per Channel

#58 BLACK RD

| Interval Start | |
|---------------------|------------|
| 11:00 AM | 10 |
| 12:00 PM | 14 |
| 1:00 PM | 15 |
| 2:00 PM | 19 |
| 3:00 PM | 34 |
| 4:00 PM | 48 |
| 5:00 PM | 57 |
| 6:00 PM | 53 |
| 7:00 PM | 17 |
| 8:00 PM | 14 |
| 9:00 PM | 5 |
| 10:00 PM | 3 |
| 11:00 PM | 2 |
| 10/31/2014 12:00 AM | 1 |
| 1:00 AM | 0 |
| 2:00 AM | 2 |
| 3:00 AM | 1 |
| 4:00 AM | 0 |
| 5:00 AM | 3 |
| 6:00 AM | 10 |
| 7:00 AM | 37 |
| 8:00 AM | 19 |
| 9:00 AM | 3 |
| 10:00 AM | 2 |
| Total | 369 |

Thursday 10/30
 ↑ Total = 291

↓ Friday 10/31
 Total = 78

Peak Hours

12:00 AM - 12:00 PM

Started 7:00 AM
 Peak Volume 37
 Factor -

12:00 PM - 12:00 AM

Started 5:00 PM
 Peak Volume 57
 Factor -

TDOT ADT Factors: *
 • Thursday in Oct. = 0.89 → 291
 • Friday in Oct. = 0.83 → 78

| Portion of Volume | Assumed Growth Rate 2014 to 2015 | Adjusted Portion of ADT |
|-------------------|----------------------------------|-------------------------|
| 291 | 2% | 264 |
| 78 | 2% | 66 |

2015 ADT Estimate = 330

* From TDOT 2011 Variation Factors

Single-Family Detached Housing (ITE Code 210)

Trips with fitted curve equation

Trip Ends on a Weekday:

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

where $X = 55$ dwelling units

$$\underline{T = 606 \text{ trips (303 enter; 303 exit)}}$$

(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

