

SUBDIVISION REPORT -CONCEPT/DEVELOPMENT PLAN

AGENDA ITEM #: ► FILE #: 61 11-SG-24-C

> AGENDA DATE: 11-J-24-DP 11/14/2024

SUBDIVISION: **8014 ASHEVILLE HIGHWAY**

APPLICANT/DEVELOPER: MESANA INVESTMENTS, LLC (OPTION HOLDER)

Vaulton Family Holdings, LLC OWNER(S):

View map on KGIS TAX IDENTIFICATION: 73 08003, 08008 062 165 (PART OF)

JURISDICTION: County Commission District 8

0 STRAWBERRY PLAINS PIKE (8003 STRAWBERRY PLAINS PIKE; 8014 STREET ADDRESS:

ASHEVILLE HWY)

South side of Asheville Hwy, north side of Strawberry Plains Pike, west ▶ LOCATION:

side of Tribute Ln

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

FIRE DISTRICT: Rural Metro Fire Sinking East Creek WATERSHED:

APPROXIMATE ACREAGE: 43.07 acres

ZONING: PR (Planned Residential) up to 5 du/ac

EXISTING LAND USE: Agriculture/Forestry/Vacant Land, Rural Residential

PROPOSED USE: Attached and detached residential subdivision

SURROUNDING LAND North: Agriculture/forestry/vacant land, rural residential - A (Agricultural), OA

(Office Park) **USE AND ZONING:**

South: Rural residential, agriculture/forestry/vacant land, single family

residential - A (Agricultural)

East: Rural residential, agriculture/forestry/vacant land, single family residential - A (Agricultural), PR (Planned Residential) up to 4.5 du/ac West: Rural residential, agriculture/forestry/vacant land - A (Agricultural), CA

(General Business)

NUMBER OF LOTS: 238

SURVEYOR/ENGINEER: Chris Sharp, P.E. Urban Engineering, Inc.

ACCESSIBILITY: Access is via Asheville Highway, a median-divided, 4-lane major arterial

within a 155 ft right-of-way; and via Strawberry Plains Pike, a minor arterial

street with 26 ft of pavement width within a right-of-way of 70 ft.

SUBDIVISION VARIANCES

REQUIRED:

STAFF RECOMMENDATION:

Postpone the concept plan to the December 12, 2024, Planning Commission meeting as recommended by staff.

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► Postpone the development plan to the December 12, 2024, Planning Commission meeting as recommended by staff.

COMMENTS:

Staff are recommending postponement for the plan to be revised to comply with the PR (Planned Residential) < 5 du/ac zoning for the property or providing additional information to confirm the acreage presented on the concept plan. The Planning GIS staff calculated the PR-zoned area to be 43.07 acres based on GIS parcel and zoning map data. This allows up to 215 dwelling units (lots). The proposed 238-lot concept plan is based on the PR-zoned area being 47.66 acres. This results in a 23-lot discrepancy. Staff cannot recommend the approval of a plan that is not compliant with zoning based on the information available at the time of review. In addition, the staff recommendation regarding the requested variances, alternative design standards, or other elements of the subdivision, could be impacted by these changes.

The proposed residential subdivision is for 238 residential lots (172 attached residential lots and 66 detached residential lots). The concept plan proposes 1 new access to Asheville Highway (Road 'A'), which is the main access for the subdivision, and secondary access via Tribute Lane. The plan also shows a future connection through the CA-zoned property to the west (7920 Asheville Highway) that will require a subsequent concept plan application and approval by the Planning Commission. No access to Strawberry Plains Pike is proposed.

Improvements to Asheville Highway include a westbound left turn lane in the median and eastbound right turn lane at the intersection with Road 'A'. The eastbound right turn lane can be moved to the future connection if approved with a future concept plan application.

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: 24 (public school children, grades K-12)

Schools affected by this proposal: Carter Elementary, Carter Middle, and Carter High.

- Potential new school population is estimated using locally-derived data on public school student yield generated by new housing.
- Students are assigned to schools based on current attendance zones as determined by Knox County Schools. Students may request transfers to different zones, and 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.

Knoxville-Knox County Planning Commission's approval or denial of this concept plan request is final, unless the action is appealed to Knox County Chancery Court. The date of the Knox County Chancery Court hearing will depend on when the appeal application is filed.

The Planning Commission's approval or denial of this development plan request is final, unless the action is appealed either to the Board of Zoning Appeals or to a court of competent jurisdiction within thirty (30) days of the decision being appealed (Knox County, Tennessee Code of Ordinances, Appendix A, Zoning, 6.50.08).

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Payee Name

Request to Postpone • Table • Withdraw

11/13/24 Mesana Investments, LLC Applicant Name (as it appears on the current Planning Commission agenda) Date of Request File Number(s) 11/14/24 11-SG-24-C / 11-J-24-DP Scheduled Meeting Date **POSTPONE** ☐ **POSTPONE:** All applications are eligible for postponement if the request is received in writing and paid for by noon on Thursday the week prior to the Planning Commission meeting. All requests must be acted upon by the Planning Commission, except new applications which are eligible for one 30-day automatic postponement. If payment is not received by the deadline, the item will be tabled. **SELECT ONE:** ■ 30 days □ 60 days ☐ 90 days Postpone the above application(s) until the December 12, 2024 Planning Commission Meeting. **WITHDRAW** ☐ WITHDRAW: Applications may be withdrawn automatically if the request is received in writing no later than 3:30pm on Thursday the week prior to the Planning Commission meeting. Requests made after this deadline must be acted on by the Planning Commission. Applicants are eligible for a refund only if a written request for withdrawal is received no later than close of business 2 business days after the application submittal deadline and the request is approved by the Executive Director or Planning Services Manager. *The refund check will be mailed to the original payee. **TABLE** ☐ **TABLE:** Any item requested for tabling must be acted upon by the Planning Commission before it can be officially tabled. There is no fee to table or untable an item. **AUTHORIZATION** By signing below, I certify I am the property owner, and/or the owners authorized representative. Digitally signed by Chris Sharp Chris Sharp Christopher Sharp Date: 2024.11.13 09:59:10 -05'00' Applicant Signature Please Print chris@urban-eng.com (865) 966-1924 Phone Number Email STAFF ONLY Michael Reynolds ☐ No Fee Please Print Staff Signature Date Paid Eligible for Fee Refund? ☐ Yes ☐ No Amount: Approved by: Date:

Payee Address

Payee Phone

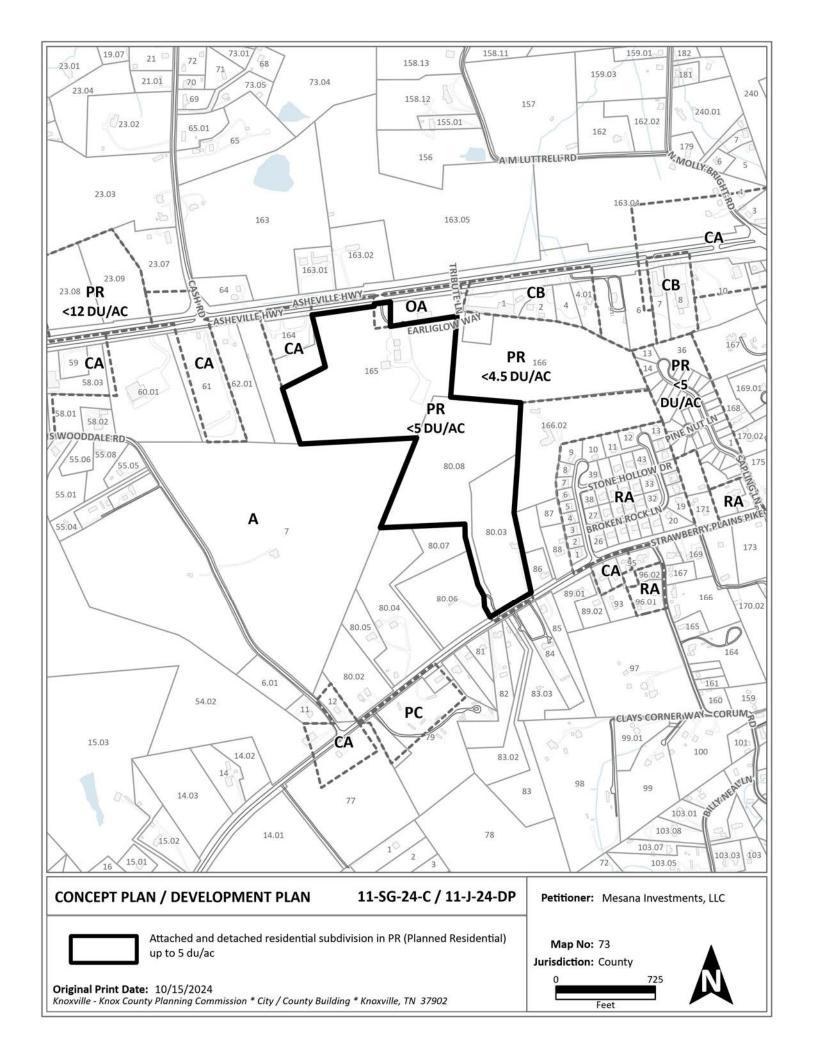


Exhibit A. Contextual Images Location Map MEADOW TRACE IN AL 3 LUTTRELL RD ASHEVILLE HWY EARLIGLOW WAY ASHEVILLE HWY STRAWBERRY PLAINS PIKE MCCUBBINS LN CLAYS CORNER WAY **Aerial Map**



CONTEXTUAL MAPS 1

11-SG-24-C / 11-J-24-DP

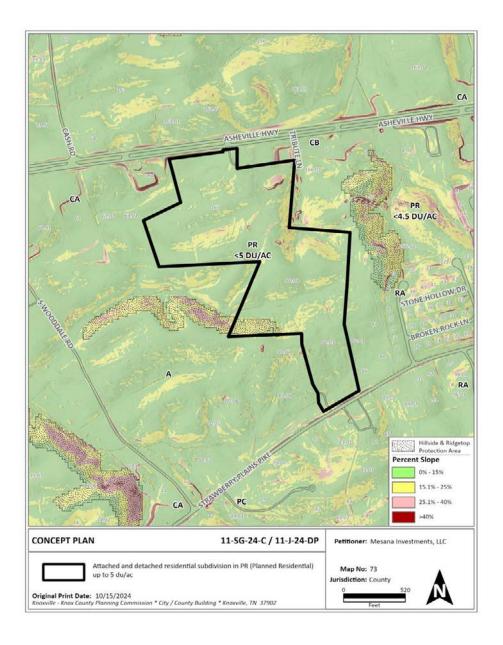
Case boundary





Case: 11-SG-24-C

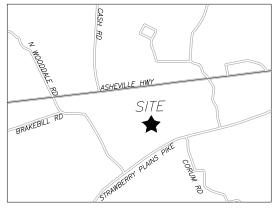
CATEGORY	ACRES	RECOMMENDED DISTURBANCE BUDGET (Percent)	DISTURBANCE AREA (Acres)
Total Area of Site	43.6		
Non-Hillside	42.5	N/A	
0-15% Slope	0.1	100%	0.1
15-25% Slope	0.9	50%	0.4
25-40% Slope	0.1	20%	0.0
Greater than 40% Slope	0.0	10%	0.0
Ridgetops			
Hillside Protection (HP) Area	1.1	Recommended disturbance budget within HP Area (acres)	0.6
		Percent of HP Area	54.6%





8014 ASHEVILLE HIGHWAY

SITE ADDRESS: 8014 ASHEVILLE HIGHWAY, KNOXVILLE, TENNESSEE 37924 CLT MAPS 62 & 73, PARCELS 165, 80.03, 80.08



LOCATION MAP - N.T.S.

DEVELOPER:

EAGLE BEND DEVELOPMENT LLC 1920 EBENEZER ROAD KNOXVILLE, TN 37922



SITE ENGINEER: URBAN ENGINEERING, INC. CHRIS SHARP 10330 HARDIN VALLEY ROAD, SUITE 201 KNOXVILLE, TENNESSEE 37932 (865) 966-1924

SPECIFICATIONS
EXCEPT WHERE DIRECTED OTHERWISE BY THE PLANS, WORKMANSHIP
AND MATERIAL (BUT NOT MEASUREMENT AND PAYMENT) FOR THIS
PROJECT SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS AND STANDARDS.

ELECTRICAL - AS DIRECTED BY KNOXVILLE UTILITIES BOARD AS DIRECTED BY KNOXVILLE UTILITIES BOARD
 AS DIRECTED BY KNOXVILLE UTILITIES BOARD WATER SEWER - AS DIRECTED BY KNOXVILLE UTILITIES BOARD

- AS DIRECTED BY AT&T - AS DIRECTED BY COMCAST TELEPHONE CABLE

SITE DEVELOPMENT - KNOX COUNTY STANDARDS AND SPECIFICATIONS

SHEET INDEX

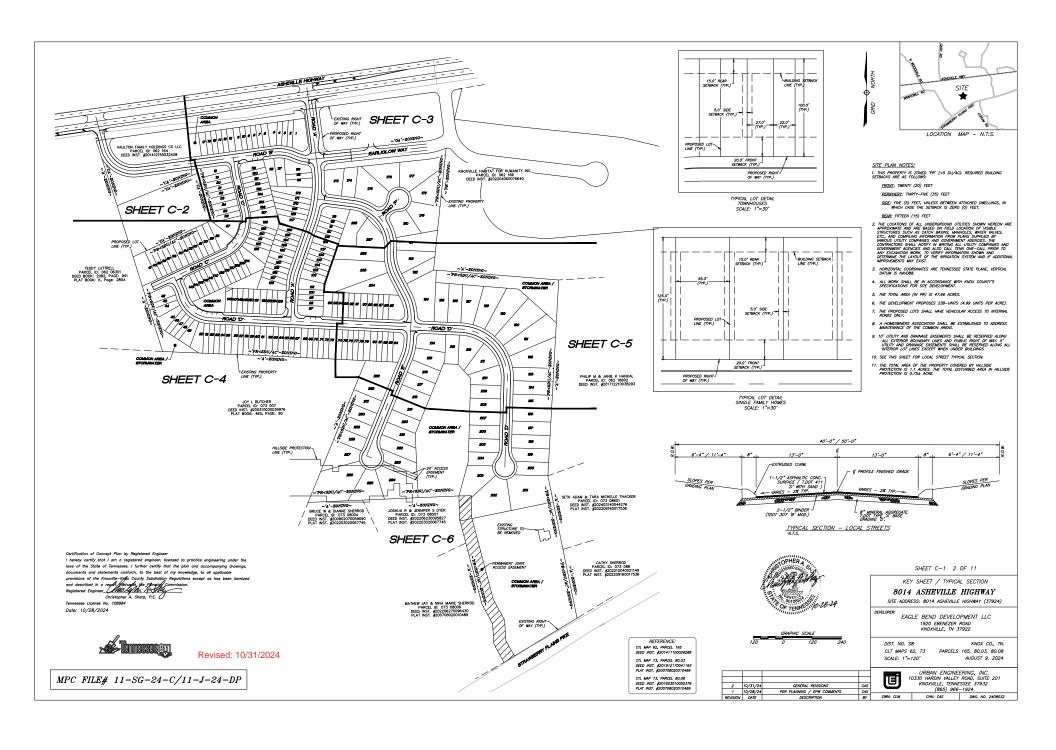
TITLE <u>SHEET</u> TITLE SHEET C-0 KEY SHEET / TYPICAL SECTION C-1PRELIMINARY DRAINAGE PLAN C-2 THRU C-6 ROAD PROFILES C-7 THRU C-10

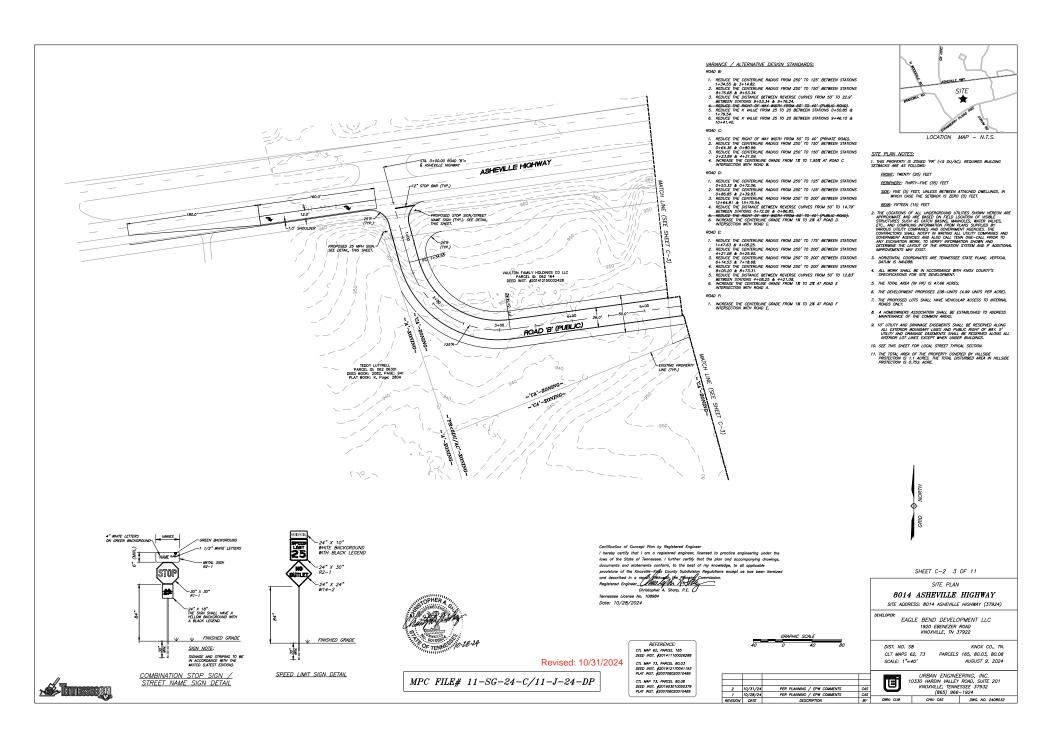
Revised: 10/31/2024

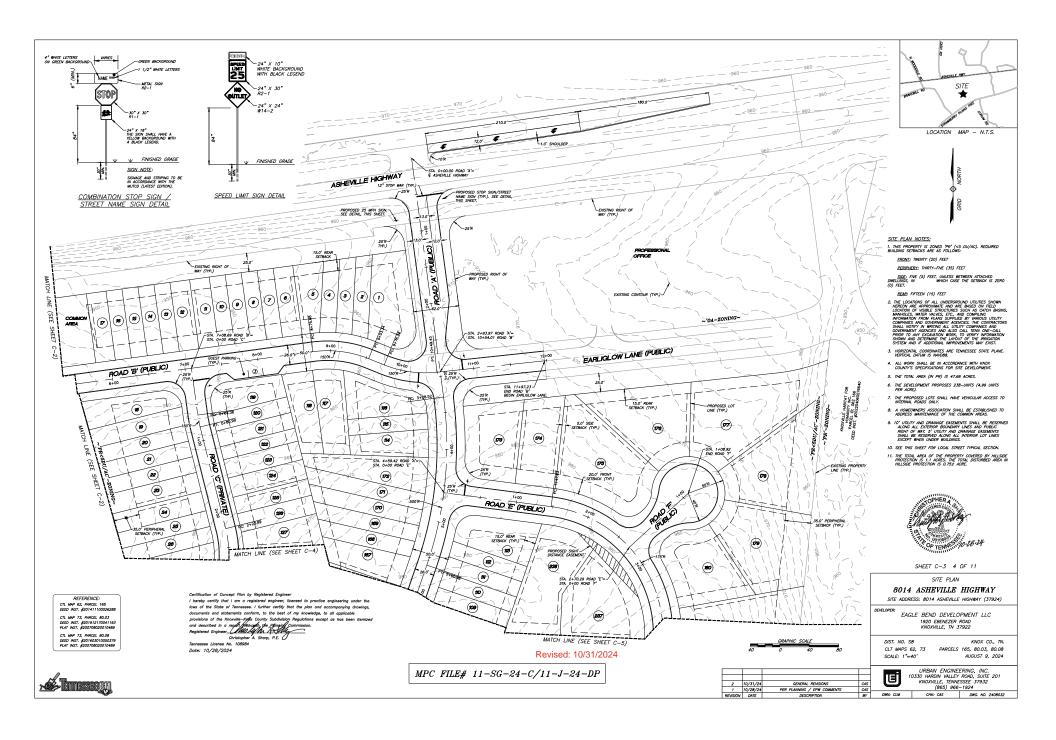
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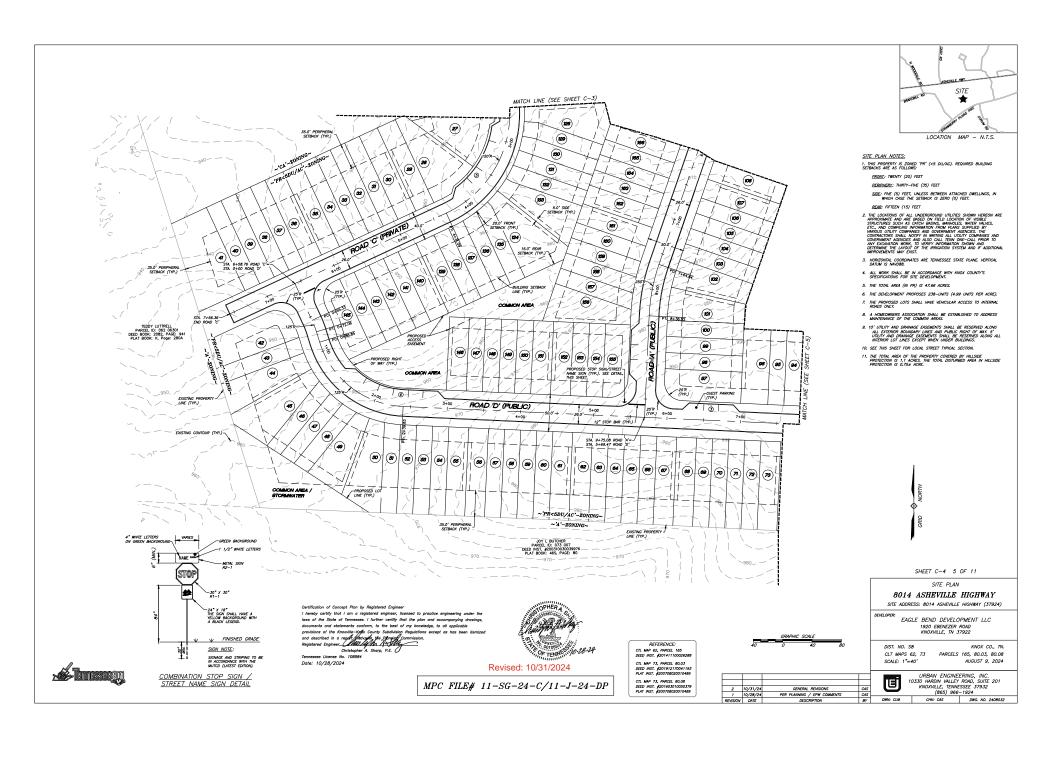


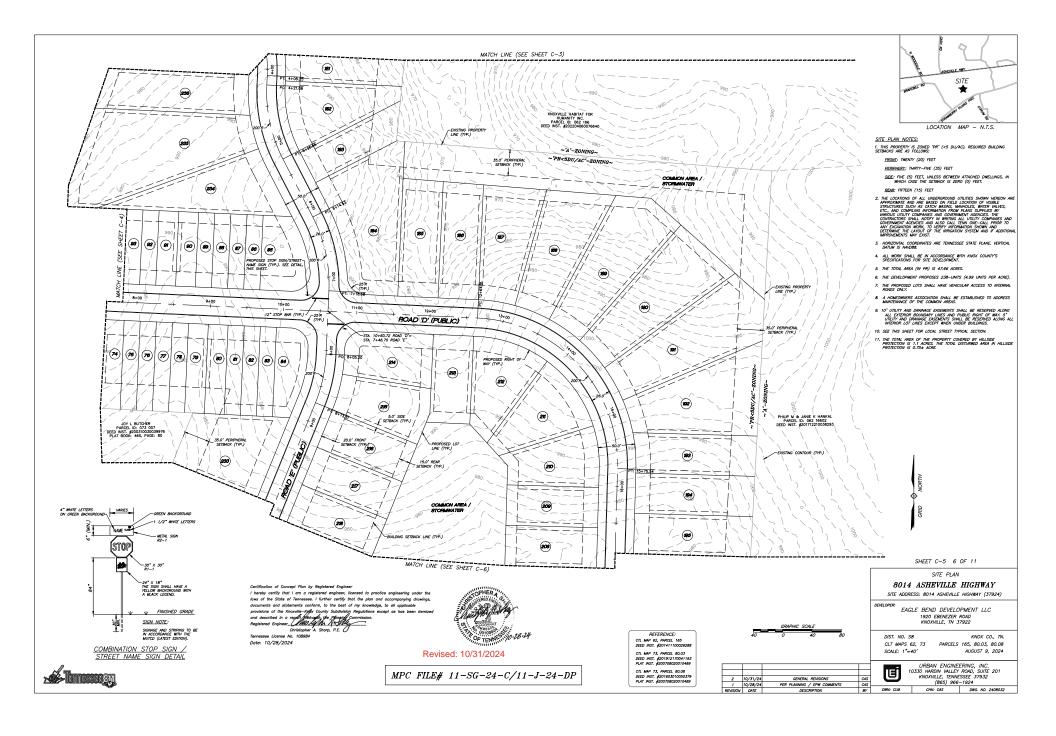
SHEET C-0 - 1 OF 11

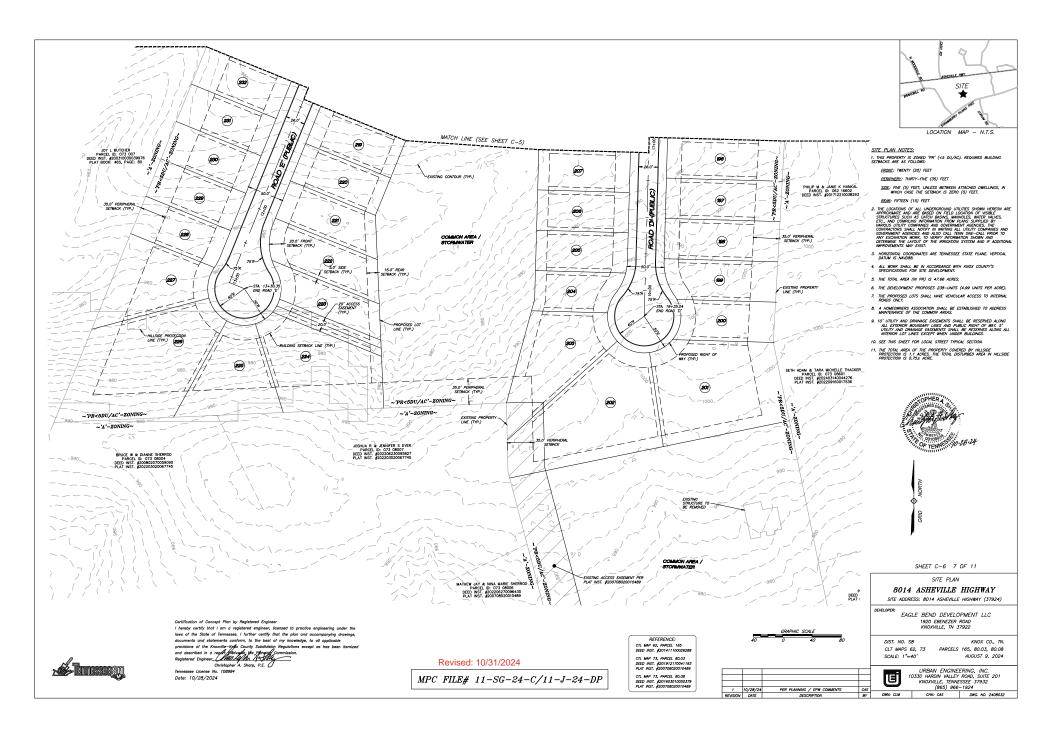


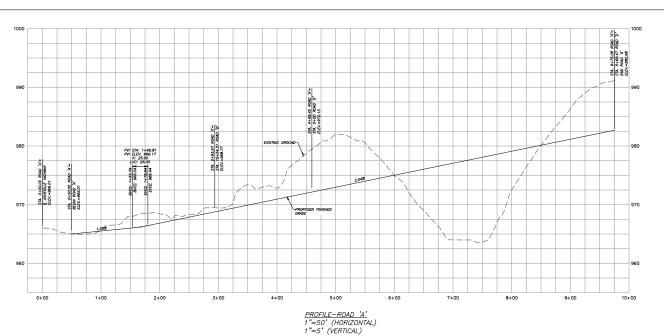












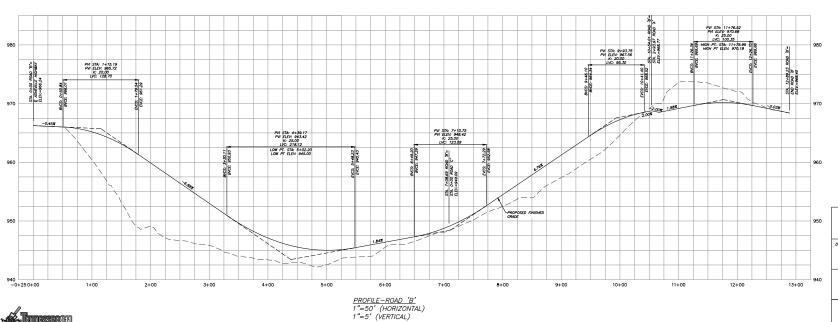


$\mathit{MPC} \;\; \mathit{FILE\#} \;\; 11 \text{--} \mathit{SG-24-C/11-J-24-DP}$

Revised: 10/31/2024

Certification of Concept Plan by Registered Engineer

I hardy certify that I am a registered engineer, Isoaned to practice engineering under the
time of the Solidor Tennesses. I harder certify that the plan and accompanying drawings,
documents and statements conform, to the best of my knowledge, to all applicable
provisions of the Knowlide-tyfic County's Solidolinian Registrates serget as has been itemized
and described in a registrificacytic by Egyphyd Commission.
Registered Engineer. July July 15 July 1





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ROAD PROFILES

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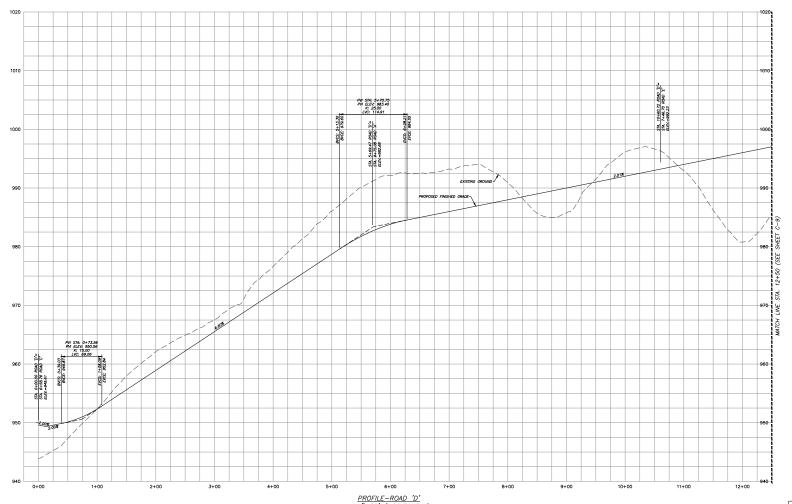
DEVELOPER: EAGLE BEND DEVELOPMENT LLC 1920 EBENEZER ROAD KNOXVILLE, TN 37922

DIST. NO. S8 KNOX CO., TN. CLT MAPS 62, 73 PARCELS 165, 80.03, 80.08 SCALE: AS NOTED AUGUST 9, 2024

E

URBAN ENGINEERING, INC.
10330 HARDIN VALLEY ROAD, SUITE 201
KNOXVILLE, TENNESSEE 37932
(685) 966—1924
CHK: CAS DMC. NO. 2408032





<u>PROFILE-ROAD 'D'</u> 1"=50' (HORIZONTAL) 1"=5' (VERTICAL)

Certification of Concept Plan by Registered Engineer
I having certify that I am a registered engineer, locensed to practice engineering under the
less of the States of Tennessee. I letter certify that the plan and accompanying drawings,
documents and statements confarm, to the best of my innewledge, to all applicable
provisions of the foreconti-right Control Subdivision Registered secures are need to engineer the control of the certification of described in a might flowcraft, the "physiology Commission."
Registered Explorer. Intelligence of the Control Control

Revised: 10/31/2024

MPC FILE# 11-SG-24-C/11-J-24-DP

1 10/28/24 REVISION DATE PER PLANNING / EPW COMMENTS



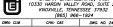
ROAD PROFILES 8014 ASHEVILLE HIGHWAY SITE ADDRESS: 8014 ASHEVILLE HIGHWAY (37924)

DEVELOPER: EAGLE BEND DEVELOPMENT LLC

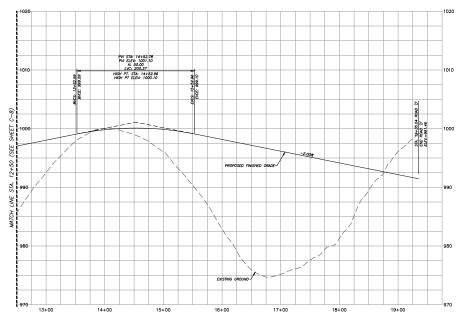
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DIST. NO. S8 CLT MAPS 62, 73 PARCELS 165, 80.03, 80.08 SCALE: AS NOTED AUGUST 9, 2024

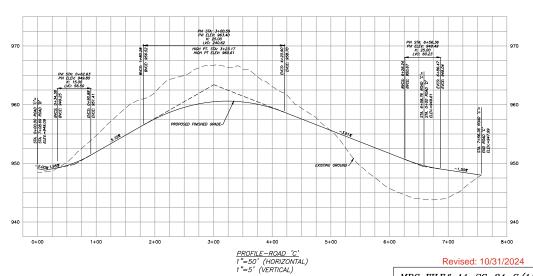
URBAN ENGINEERING, INC.
10330 HARDIN VALLEY ROAD, SUITE 201
KNOWLE, ENMESSEE 37932
(865) 966-1324
BIT DIRK: CLM ORK: CM DRK: AC468033







PROFILE-ROAD 'D' 1"=50' (HORIZONTAL) 1"=5' (VERTICAL)



Certification of Concept Plan by Registered Engineer
I hearby certify that I am a registered engineer, iscensed to practice engineering under the
less of the State of Tenessee. I further certify that the plan and accompanying drawings,
documents and attenuate conform, to the best of my increasings, to oil applicable
provisions of the Reconstituting Suddelings Registration except on that sheen itemized
and described in a registration of the State of the State of the State
Registrated Opinions. I I the State of the State

Date: 10/28/2024

SHEET C-9 10 OF 11

ROAD PROFILES

8014 ASHEVILLE HIGHWAY SITE ADDRESS: 8014 ASHEVILLE HIGHWAY (37924)

DEVELOPER: EAGLE BEND DEVELOPMENT LLC

1920 EBENEZER ROAD KNOXVILLE, TN 37922

DIST. NO. S8 KNOX CO., TN.
CLT MAPS 62, 73 PARCELS 165, 80.03, 80.08
SCALE: AS NOTED AUGUST 9, 2024



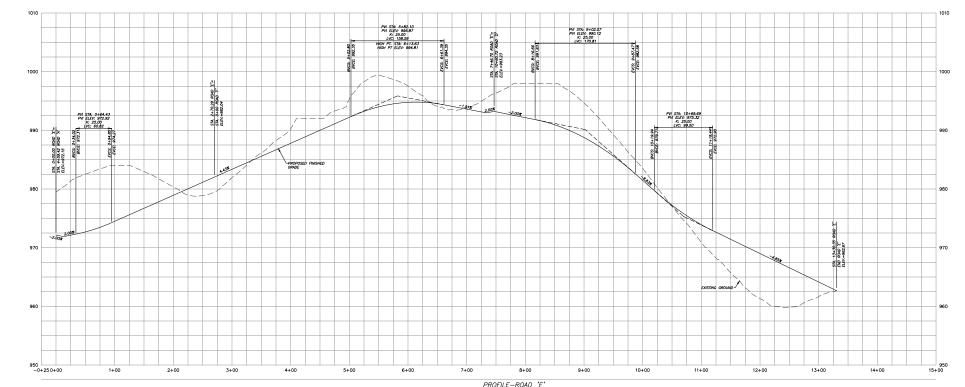
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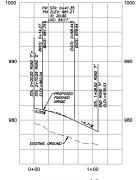
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,	10/28/24	PER PLANNING / EPW COMMENTS	CAS	_	(865) 966	-1924
REVISION	DATE	DESCRIPTION	BY	DWN: CLM	CHK: CAS	DWG. NO.
REVISION	20172	DESCRIPTION	10,			



PROFILE-ROAD 'E' 1"=50' (HORIZONTAL) 1"=5' (VERTICAL)



PROFILE-ROAD 'F' 1"=50' (HORIZONTAL) 1"=5' (VERTICAL)

Certification of Concept Plan by Registered Engineer

I hereby certify that I om a registered engineer, licensed to practice engineering under the
less of the State of Tenessee. If where certify that the plan and accompanying drawings,
documents and statements conform, to the best of my knowledge, to all applicable



SHEET C-10 11 OF 11

ROAD PROFILES 8014 ASHEVILLE HIGHWAY

SITE ADDRESS: 8014 ASHEVILLE HIGHWAY (37924)

DEVELOPER: EAGLE BEND DEVELOPMENT LLC 1920 EBENEZER ROAD KNOXVILLE, TN 37922

DIST. NO. 58 KNUX CU.,
CLT MAPS 62, 73 PARCELS 165, 80.03, 80.08
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NGINEERING, INC. VALLEY ROAD, SUITE 201 TENNESSEE 37932 5) 966–1924 DWG. NO. 2408032

Revised: 10/31/2024

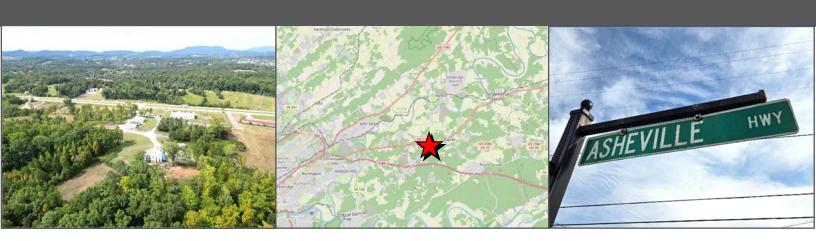
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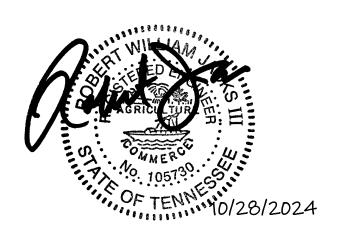


Transportation Impact Study 8014 Asheville Highway Subdivision Knox County, Tennessee



Revised October 2024

Prepared for: Mesana Investments, LLC P.O. Box 11315 Knoxville, TN 37939



11-SG-24-C 11-J-24-DP Version 2

Revised: 10/28/2024

CONCLUSIONS & RECOMMENDATIONS

The following is an overview of recommendations to minimize the transportation impacts of the 8014 Asheville Highway Subdivision on the adjacent transportation system while attempting to achieve an acceptable traffic flow and safety level. The recommendations also take into account the nearby non-related proposed residential subdivisions along Asheville Highway.

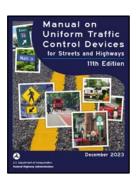


Asheville Highway at Proposed Main Entrance: This intersection is projected to operate with average vehicle delays and minimal vehicle queues for all movements except for exiting northbound left turns towards the west. This movement will experience considerable vehicle delays and queues in the AM and PM peak hours.

1a) Due to this significant, calculated vehicle delay and queues for the northbound left-turn lane at the Proposed Main Entrance in the peak hours, a further investigation was made to determine if this intersection could potentially meet traffic signal warrants in the projected 2028 conditions. The overall methodology of determining whether an intersection could be signalized is presented in the following:

Methodology:

The Manual on Uniform Traffic Control Devices – 11th Edition (MUTCD) presents nine different warrants the traffic engineering profession has developed to determine whether a traffic signal is warranted. These warrants cover a broad range of minimum elements required to indicate whether a traffic signal is justified for any particular location. These elements include traffic volumes, pedestrian volumes, crash history, and other factors. The MUTCD



explicitly states that a traffic control signal should not be installed unless one or more of the Manual's signal warrants are met. However, the satisfaction of a warrant does not entirely in itself justify the need for a traffic signal. Sometimes, further engineering studies and judgments must be applied before justifying the need for a traffic signal installation. These additional studies ensure that a traffic signal's installation will not degrade safety and efficiency.

The MUTCD defines nine different warrants, four are listed below, and two of which are potentially applicable for this intersection at this time based on TDOT's preference and are explained in the following:





Warrant #1, Eight-Hour Vehicular Volume:

Warrant #1 is comprised of 2 conditions – A and B. The Minimum Vehicular Volume, Condition A, is intended for applications where the volume of intersecting traffic is the principal reason for consideration of signal installation. The Interruption of Continuous Traffic, Condition B, is intended for use at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.



Warrant #2, Four-Hour Vehicular Volume:

The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.



Warrant #3, Peak Hour:

The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. This warrant has two conditions, A and B, and if either is satisfied, can be used to justify a traffic signal. This warrant is used for unique situations.



Warrant #7, Crash Experience

The Crash Experience signal warrant conditions are intended for applications where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

Even though nine warrants are offered to justify a traffic signal, according to the TDOT Traffic Signal Manual, the agency heavily emphasizes Warrant #1 (Eight Hour Vehicular Volume) and Warrant #7 (Crash Experience). Even though Warrant #2 and 3 are not primary warrants used by TDOT, they are included in this study.



The intersection of Asheville Highway at the Proposed Main Entrance was evaluated in the projected 2028 conditions to determine whether a traffic signal could be justified based on the MUTCD Warrants listed above. Road "A" was used as the minor side street for the warrant analysis, and Asheville Highway was the major street. Warrant #7 was not analyzed at this intersection for this study and was omitted because one of the primary criteria for an intersection to meet the warrant is an "Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency..." Furthermore, the TDOT crash data discussed previously in the report did not show any vehicle crashes at this intersection over the past three calendar years.

A spreadsheet was used to calculate the potential 2028 traffic volumes generated by the new subdivisions being added to the intersection during the highest 8 hours of traffic based on the assumed trip distribution, and it is included in Appendix I. The analysis determined that Warrants #1, #2, and #3 are not expected to be met in the projected 2028 conditions. Appendix I includes the traffic signal warrant spreadsheet for this intersection evaluation in the projected 2028 conditions.

In conclusion, concerning traffic signal warrants, this intersection is not expected to meet signalization warrants based on the projected 2028 traffic volumes. However, once and if the 8014 Asheville Highway Subdivision is entirely constructed as proposed, it is recommended that a traffic count be re-conducted to document that the actual, realized traffic volumes do not exceed what has been estimated in this study and meet traffic signal warrant thresholds.

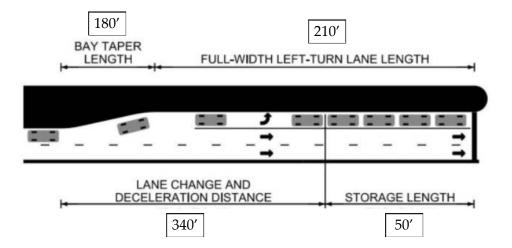
Overall, providing a secondary entrance for this development will provide a relief valve for exiting left turns towards the west, and the results that show worse vehicle delays and queues at the Proposed Main Entrance will be less than calculated with the Proposed Secondary Entrance slightly higher. The projections assumed a 3 to 2 split of trips to and from the west between the proposed entrances, with more assumed will occur at the Proposed Main Entrance. If exiting westbound motorists face long delays and queues at the main entrance, they will most likely alter their initial travel and utilize the secondary entrance and, in effect, balance the exiting left turn vehicle delay and queues at both entrances more equally than shown in the results of this study.

1b) The construction of a westbound left-turn lane on Asheville Highway at the Proposed Main Entrance for entering traffic into the proposed subdivision is warranted based on



the projected 2028 traffic volumes and TDOT's thresholds. The recommended lengths for this proposed left-turn lane in the center median include a lane change and deceleration distance of 340 feet and a storage length of 50 feet, for a total of 390 feet. The bay taper length within the lane change and deceleration distance is recommended to be 180 feet (15:1). With a 180-foot bay taper, the full-width left-turn lane will be 210 feet long.

According to TDOT's <u>Highway System Access Manual</u>, the functional area for an exclusive turn lane includes the "lane change and deceleration distance" and the storage length. The bay taper length is included in the lane change and deceleration distance, as shown in the following TDOT diagram:



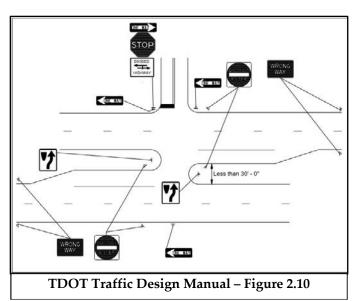
The lane change and deceleration distance are a function of vehicle speeds, and the designer can assume some deceleration before the lane change. A speed of 10 mph less than the posted speed was assumed for this location. For this proposed left-turn lane on Asheville Highway, a vehicle speed of 45 mph was assumed, with vehicle speeds slightly reduced due to some deceleration occurring before the lane change. The longest 95th percentile vehicle queue length for the eastbound left-turn lane on Asheville Highway at the Proposed Main Entrance was calculated to be 5 and 25 feet in the AM and PM peak hours, respectively, in 2028 and will be fully contained within a storage length of 50 feet.

1c) Based on TDOT's warrant thresholds and the projected 2028 traffic volumes, an eastbound right turn lane is warranted and recommended to be constructed for the Proposed Main Entrance. This lane should have a lane change and deceleration distance of 340 feet. The bay taper length within the lane change and deceleration distance is



recommended to be 180 feet (15:1), and these distances will provide a full-width lane length of 160 feet.

- 1d) Since substantial left-turning vehicle queues are anticipated, the Proposed Main Entrance should have separate left and right turn lanes for the Road "A" approach at Asheville Highway. It is recommended that the left-turn lane at the Proposed Main Entrance be the continuation of Road "A" from the south and that the right-turn lane have a separate lane with a minimum vehicle storage of 150 feet. The separate left and right exiting lanes for the development at Asheville Highway should be marked on the pavement with the appropriate white turn arrows and delineated with white lane lines.
- The construction of the Proposed Main Entrance on Asheville Highway will require a TDOT Highway Entrance Permit. The developer will need to apply for this permit and coordinate with TDOT regarding their specific requirements for this entrance and any other proposed median modifications.
- 1f) Many regulatory signs should be installed to avoid and help prevent wrong-way vehicles on Asheville Highway at the Proposed Main Entrance. Figure 2.10 in TDOT's Traffic Design Manual illustrates the signage required for the Proposed Main Entrance at Asheville Highway.





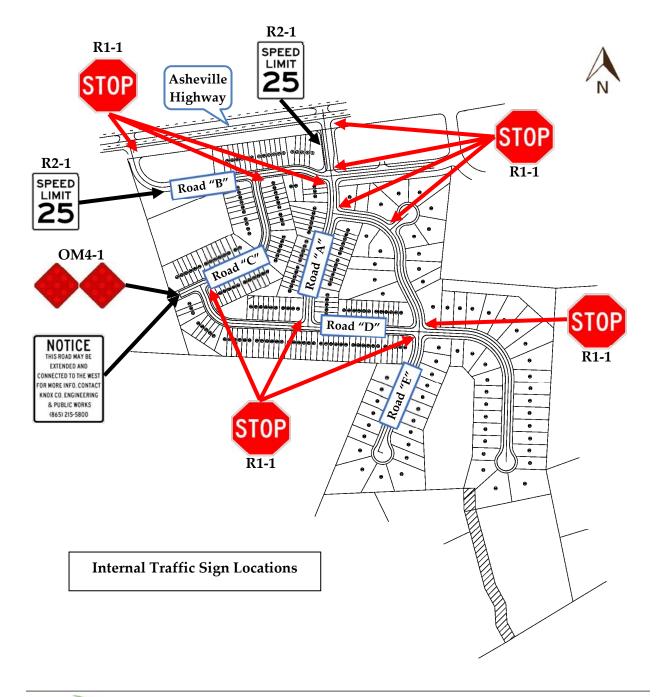
<u>Asheville Highway at Proposed Secondary Entrance</u>: The Proposed Secondary Entrance will operate sufficiently with a single exiting lane for left and right turn movements. This entrance is not expected to have any exiting right-turn movements.

- 2a) The construction of the Proposed Secondary Entrance on Asheville Highway will require a TDOT Highway Entrance Permit. The developer will need to apply for this permit and coordinate with TDOT regarding their specific requirements for this entrance and any other proposed median modifications.
- 2b) Many regulatory signs should be installed to avoid and help prevent wrong-way vehicles on Asheville Highway at the Proposed Main Entrance. Figure 2.10 in TDOT's Traffic Design Manual illustrates the signage required for the Proposed Main Entrance at Asheville Highway.
- 2c) Based on TDOT's warrant thresholds and the projected 2028 traffic volumes, an eastbound right turn lane is warranted and recommended to be constructed for the Proposed Secondary Entrance. This lane should have a lane change and deceleration distance of 340 feet. The bay taper length within the lane change and deceleration distance is recommended to be 180 feet (15:1), and these distances will provide a full-width lane length of 160 feet.
- 2d) If any further future development is proposed, particularly towards the western end of the development, a second exiting lane may be needed at the Proposed Secondary Entrance to provide separate left and right-turn lanes.



8014 Asheville Highway Subdivision Internal Roads: The layout plan shows six new streets, as shown in Figure 3.

- 3a) A 25-mph Speed Limit Sign (R2-1) is recommended to be posted near the beginning of the Proposed Main Entrance, Road "A", and the Proposed Secondary Entrance, Road "B", off Asheville Highway.
- 3b) Stop Signs (R1-1) with 24" white stop bars are recommended to be installed at the internal road locations, as shown in the image below.





At the internal intersection of Road "D" and "E", a four-way intersection is proposed. The above image shows stop Signs (R1-1) on the Road "D" approaches. However, it is recommended that a mini-roundabout with the appropriate signage at this intersection be considered. If a mini-roundabout is not feasible, further discussion with Knox County Engineering in the detailed design phase should include whether this intersection should include Stops Signs (R1-1) on all approaches, the reverse as shown, or as proposed in the image.

- 3c) The Stop Sign (R1-1) on the entrance approaches to Asheville Highway should include a One-Way Sign (R6-1) and a Divided Highway Sign (R6-3), as shown in Figure 2.10 in the TDOT Traffic Design Manual.
- 3d) Dual end-of-roadway object markers (OM4-1) should be installed at the end of subdivision Road "C", as shown in the report. The end of this internal road should include a hammerhead turnaround to facilitate vehicle returns in the opposite direction.
- 3e) An additional sign should be posted internally at the western end of Road "C" to follow Knoxville-Knox County Subdivision regulations. This sign is for notification of possible future street connections. It should state, "NOTICE – This road may be extended and connected to the west – for more info. contact Knox Co. Engineering & Public Works (865) 215-5800".
- 3f) The proposed lots within the development adjacent to and south of Asheville Highway should not be allowed direct access.
- 3g) Sight distance at the new internal intersections must not be impacted by new signage, parked cars, or future landscaping. With a proposed speed limit of 25-mph in the development, the required internal intersection sight distance is 250 feet. The site designer should ensure that this internal sight distance length is met.
- 3h) If directed by the local post office, the site designer should include a parking area and a centralized mail delivery center within the development for the subdivision residents.
- 3i) All drainage grates and covers for the residential development must be pedestrian and bicycle-safe.



- 3j) Several internal roads in the proposed subdivision will have long, straight road segments. Straight road segments encourage higher vehicle speeds. It is recommended that the civil site designer consider including traffic calming measures on these internal roads, such as speed humps or tables. Specifics regarding this recommendation should be discussed in the design phase with Knox County Engineering.
- 3k) All road and intersection elements should be designed to AASHTO, TDOT, and Knox County specifications and guidelines to ensure proper operation.



November 7, 2024

Knoxville / Knox County Planning Mike Reynolds, AICP Suite 403, City County Building 400 Main Street Knoxville, TN 37902

Re: 8014 Asheville Highway (11-SG-24-C / 11-J-24-DP)

Dear Mike:

The following is a list of our Alternative Design Standard requests:

Road A:

1. Increase the centerline grade from 1% to 2.05% for Road A at its intersection with Road D.

Road B:

- 1. Increase the centerline grade from 1% to 2% for Road B at its intersection with Road A.
- 2. Reduce the centerline radius from 250' to 150' between stations 8+75.68 & 9+53.34.
- 5. Reduce the K value from 25 to 20 between stations 9+40.10 & 10+41.40.

Road C:

- 1. Reduce the right of way width from 50' to 40' (public road).
- 2. Reduce the centerline radius from 250' to 150' between stations 0+64.36 & 0+80.99.3. Reduce the centerline radius from 250' to 150' between stations 2+23.89 & 4+31.09.4. Increase the centerline grade from 1% to 1.95% at road C intersection with road B.

Toda D.

Road D:

- 1. Reduce the centerline radius from 250' to 125' between stations 0+53.33 & 0+72.06.
- 2. Reduce the centerline radius from 250' to 125' between stations 0+86.85 & 2+39.83.
- 3. Reduce the centerline radius from 250' to 200' between stations 12+64.81 & 15+75.54.
- 4. Increase the centerline grade from 1% to 2% at road D intersection with road C.

Road E:

- 1. Reduce the centerline radius from 250' to 175' between stations 1+47.63 & 4+08.25.
- 2. Reduce the centerline radius from 250' to 200' between stations 4+21.08 & 5+25.65.
- 3. Reduce the centerline radius from 250' to 200' between stations 6+14.53 & 7+18.68.
- 4. Reduce the centerline radius from 250' to 200' between stations 8+05.20 & 8+73.31.
- 5. Increase the centerline grade from 1% to 2% at road E intersection with road A.

Road F:

1. Increase the centerline grade from 1% to 2% at road F intersection with road E.Please do not hesitate to contact me if you have questions or need additional information.

Sincerely,

Urban Engineering, Inc.

Chris Sharp, P.E.



Variances

File No: **11-SG-24-C**

The Planning Commission may reduce or otherwise vary the requirements of the Subdivision Regulations when it finds the hardship criteria are met. In granting such variances, the Planning Commission may attach and require whatever conditions it feels are necessary to secure the basic objectives of the varied regulations. Any variance granted by the Planning Commission shall be noted in its official minutes along with the justification for granting the variance (Subdivision Regulations, Section 1.05).

HARDSHIP CONDITIONS TO BE MET:

- 1 Conditions Required: Where the Planning Commission finds that extraordinary hardships or particular difficulties may result from the strict compliance with these regulations, they may, after written application, grant variations to the regulations, subject to specified conditions, so that substantial justice may be done and the public interest secured, provided that such variations shall not have the effect of nullifying the intent and purpose of these regulations or the comprehensive plan.
- **2 Evidence of Hardship Required:** The Planning Commission shall not grant variations to these regulations if the purpose of the variation is solely for financial gain. The Planning Commission shall not grant variations to the Subdivision Regulations unless they make findings based upon the evidence presented to them in each specific case that the following hardships are met:
 - a. Because of the particular surroundings, shape, or topographical conditions of the specific property involved, a particular hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of the regulations were adhered to.
 - b. The conditions upon which the request for a variation is based is unique to the property for which the variation is sought and is not applicable, generally, to other property, and has not been created by any person having an interest in the property.
 - c. The granting of the variation will not be detrimental to the public safety, health, or welfare, or injurious to other property or improvements in the neighborhood in which the property is located.

By signing this form, I certify that the criteria for a variance have been met for each request, and that any and all requests needed to meet the Subdivision Regulations are requested above or are attached. I understand and agree that no additional variances can be acted upon by the legislative body upon appeal and none will be requested.

Chris Sharp Digitally signed by Chris Sharp Date: 2024.10.28 14:23:26	Christopher Sharp	10/28/24
Signature	Printed Name	Date

1. VARIANCE REQUESTED:

Allow for a temporary turnaround at the beginning of Road B (at the future road connection).

Specify the hardship that would result for each of the variance criteria:

A. Pertaining to the particular surroundings, shape, or topographical conditions of the subject property:

The roadway will be extended as a third connection point to Asheville Highway.

B. Pertaining to conditions unique to the property that are not applicable to other property and has not been created by any person having an interest in the property.

The roadway will be extended as a third connection point to Asheville Highway. The geometry of the temporary turnaround and permanent connection will be coordinated with KCEPW.

C. Pertaining to the granting of a variance will not be detrimental to public safety, health, or welfare, or injurious to other property or improvements in the neighborhood in which the property is located.

Granting the variance will not create an unsafe condition or have detrimental impacts on neighboring properties.

To be completed by the City or County Department of Engineering, as applicable:

2. VARIANCE REQUESTED:

Reduce the K value from 25 to 20 between stations 9+46.10 & 10+41.40 (Road B).

Specify the hardship that would result for each of the variance criteria:

A. Pertaining to the particular surroundings, shape, or topographical conditions of the subject property:

The topography is somewhat challenging at the subject location. The request is at a stop condition.

B. Pertaining to conditions unique to the property that are not applicable to other property and has not been created by any person having an interest in the property.

The topography is somewhat challenging at the subject location. The request is at a stop condition.

C. Pertaining to the granting of a variance will not be detrimental to public safety, health, or welfare, or injurious to other property or improvements in the neighborhood in which the property is located.

Granting the variance will not create an unsafe condition or have detrimental impacts on neighboring properties.

To be completed by the City or County Department of Engineering, as applicable:

3. VARIANCE REQUESTED:

Reduce the distance between reverse curves from 50' to 22.9' between stations 9+53.34 & 9+76.24 (Road B)

Specify the hardship that would result for each of the variance criteria:

A. Pertaining to the particular surroundings, shape, or topographical conditions of the subject property:

We are attempting to provide sufficient distance between the main intersection of the property and Asheville Highway.

B. Pertaining to conditions unique to the property that are not applicable to other property and has not been created by any person having an interest in the property.

The location of the request is near a stop condition.

C. Pertaining to the granting of a variance will not be detrimental to public safety, health, or welfare, or injurious to other property or improvements in the neighborhood in which the property is located.

Granting the variance will not create an unsafe condition or have detrimental impacts on neighboring properties.

To be completed by the City or County Department of Engineering, as applicable:

4. VARIANCE REQUESTED:

Reduce the distance between reverse curves from 50' to 14.79' between stations 0+72.06 and 0+85.85 (Road D).

Specify the hardship that would result for each of the variance criteria:

A. Pertaining to the particular surroundings, shape, or topographical conditions of the subject property:

We are using the reverse curve to maintain a 90 degree intersection.

B. Pertaining to conditions unique to the property that are not applicable to other property and has not been created by any person having an interest in the property.

The location of the request is near a stop condition.

C. Pertaining to the granting of a variance will not be detrimental to public safety, health, or welfare, or injurious to other property or improvements in the neighborhood in which the property is located.

Granting the variance will not create an unsafe condition or have detrimental impacts on neighboring properties.

To be completed by the City or County Department of Engineering, as applicable:

5. VARIANCE REQUESTED:

Reduce the distance between reverse curves from 50' to 12.83' between stations 4+08.25 & 4+21.08 (Road E).

Specify the hardship that would result for each of the variance criteria:

A. Pertaining to the particular surroundings, shape, or topographical conditions of the subject property:

We are introducing curvature in an effort to limit speeds.

B. Pertaining to conditions unique to the property that are not applicable to other property and has not been created by any person having an interest in the property.

The road's horizontal geometry will not create sight distance deficiencies.

C. Pertaining to the granting of a variance will not be detrimental to public safety, health, or welfare, or injurious to other property or improvements in the neighborhood in which the property is located.

Granting the variance will not create an unsafe condition or have detrimental impacts on neighboring properties.

To be completed by the City or County Department of Engineering, as applicable:

Engineering supports the variance requested (to be completed during review process): YES \square NO \square Engineering Comments:

+



Development Request

Planning	DEVELOPMENT ✓ Development Plan ☐ Planned Development ☐ Use on Review / Special Use ☐ Hillside Protection COA	SUBDIVISION ✓ Concept Plan ☐ Final Plat	ZONING Rezoning Plan Amendment Sector Plan City OYP / County Comp Plan
Mesana Investments, LLC		Option H	older
Applicant Name		Affiliation	
10/2/2024	11/14/2024	11-SG-24-C / 11-J	-24-DP
Date Filed	Meeting Date (if applicable)	File Number(s)	
CORRESPONDENCE	correspondence related to this application sh	ould be directed to the ap	proved contact listed below.
Chris Sharp, P.E. Urban Engineering,	Inc.		
Name / Company			
10330 Hardin Valley Rd. Pk. Suite 20	1 Knoxville TN 37932		
Address			
865-966-1924 / chris@urban-eng.cor	m		
Phone / Email	"		
,			
CURRENT PROPERTY INFO			
Vaulton Family Holdings, LLC	7808 Asheville Hwy Knoxville TN	37924	
Owner Name (if different)	Owner Address	Oı	wner Phone / Email
0 STRAWBERRY PLAINS PIKE / 8003	STRAWBERRY PLAINS PIKE; 8014 ASHEV	/ILLE HWY	
Property Address	· , · · ·		
73 08003, 08008 062 165 (part of)		47	'.15 acres
Parcel ID	Part of P	arcel (Y/N)? Tr	act Size
Knoxville Utilities Board	Knoxville Utilities B	oard	No
Sewer Provider	Water Provider		Septic (Y/N)

COMMUNITY ENGAGEMENT

Sign and return the **Public Notice and Community Engagement** form with this application.

Planning strives to provide community members with information about upcoming cases in a variety of ways. In addition to posting public notice signs, our agency encourages applicants to provide information and offer opportunities for dialogue related to their upcoming case(s). We require applicants to acknowledge their role in this process.

11-SG-24-C Printed 10/22/2024 2:34:18 PM

DEVELOPMENT REQUEST						
✓ Development Plan ☐ Planne	ed Development	Use on F	Review / Special Use		Related City I	Permit Number(s)
☐ Hillside Protection COA		Resident	ial Non-resid	dential		
Home Occupation (specify)						
Other (specify) Attached and det	ached residential s	ubdivision				
SUBDIVSION REQUEST						
8014 Asheville Highway					Related Rezo	ning File Number
Proposed Subdivision Name						
			245			
Unit / Phase Number	olit Parcels		Total Number of Lot	s Created	<u> </u>	
Additional Information						
Attachments / Additional Requi	rements					
ZONING REQUEST						
☐ Zoning					Pending Pl	at File Number
Change Proposed Zoning						
☐ Plan						
Amendment Proposed Plan De	esignation(s)					
5.2 du/ac						
	revious Rezoning Re	equests				
Additional Information						
STAFF USE ONLY				,		
PLAT TYPE				Fee 1		Total
☐ Staff Review ☐ Planning	Commission			\$1,600.00		
ATTACHMENTS						
□ Property Owners / Option Holde□ Amendment Request (Compreh		e Request		Fee 2		
ADDITIONAL REQUIREMENT Use on Review / Special Use (Co				Fee 3		
☐ Traffic Impact Study	,					
☐ COA Checklist (Hillside Protection	on)					
AUTHORIZATION						
I declare under penalty of perjury all associated materials are being				er of the prop	perty, AND 2) th	e application and
all associated materials are being		estments, LLC				10/2/2024
Applicant Signature	Please Print	•				Date
Phone / Email						
·	Vaulton Fam	nily Holdings,	LLC			10/2/2024
Property Owner Signature	Please Print					Date

11-SG-24-C Printed 10/22/2024 2:34:18 PM

dotloop signature verification: dip.us/LAPp-wTBA-CJBW (1) Download and JHI out this form at your convenience. (2) Sign the application digitally (or print, sign, and scan).

(3) Either print the completed form and bring it to the Knoxville-Knox County Planning offices OR email it to applications@knoxplanning.org

Reset Form



Mesana Investments, LLC

Development	nt Keau	est
DEVELOPMENT	SUBDIVISION	ZONING
■ Development Plan	Concept Plan	☐ Plan Amendment
☐ Planned Development	☐ Final Plat	☐ SP ☐ PA
☐ Use on Review / Special Use		☐ Rezoning
☐ Hillside Protection COA		

Option Holder

Applicant Name			Affiliation		
8/19/24 9/30/2024	-10/3/24	11/14/2024	White colonis and the decimal colonis and the	V Villes Backerine de America (18 America) de America (18 America) de La America (18 America) (18 America) de La America (18 America) (File Number(s)
Date Filed	Meeting Date	e (if applicable)		11-SG- 11-J-24	
CORRESPONDENCE	correspondence related	d to this application sh	ould be directed	to the approv	ed contact listed below.
☐ Applicant ☐ Property Owner	☐ Option Holder	☐ Project Surveyor	E ngineer	☐ Architect,	/Landscape Architect
Chris Sharp		Urban	Engineering,	Inc.	
Name		Compar	ny		
10330 Hardin Valley Road, Su	iite 201	Knoxv	ille	TN	37932
Address		City		State	ZIP
(865) 966-1924	chris@urb	an-eng.com			
Phone	Email		187 mmin, 8 mm, 200 mm	r volumente e e estado e e estado e e e e e e e e e e e e e e e e e e e	
CURRENT PROPERTY INFO	\				
Vaulton Family Holdings, LLC	780	08 Asheville Hwy (3	37924)		
Property Owner Name (if different)	Prop	erty Owner Address		Pr	operty Owner Phone
8014 8104 Asheville Highway, 800 part of	3 & 0 Strawberry Pl	ains Pike	062 165,07 part of	3 08008 &	073 08003
Property Address			Parcel ID		
KUB		KUB			
Sewer Provider		Water Provider		14 (Salaha Australia Arkalia 4 Australia (Palaha 14 Pilaha 14 Pila	Septic (Y/N)

COMMUNITY ENGAGEMENT

Sign and return the Public Notice & Community Engagement form with this application.

Planning strives to provide community members with information about upcoming cases in a variety of ways. In addition to posting public notice signs, our agency encourages applicants to provide information and offer opportunities for dialogue related to their upcoming case(s). We require applicants to acknowledge their role in this process.

DEVELOPMENT REQUEST			
■ Development Plan □ Use on Review / Special Use □ Hil	Related	d City Permit Number(s)	
■ Residential □ Non-Residential		E.	
Home Occupation (specify)			
Other (specify) Attached and detached residential subdir	vision		
SUBDIVISION REQUEST			
8014 Asheville Highway		Related	d Rezoning File Number
Proposed Subdivision Name			
Unit / Phase Number ☐ Combine Parcels ☐ Divide Parce	245		
Attached and datached regidential pub	Total Number of Lots (reated	
Other (specify) Attached and detached residential sub-	uivisiori		
☐ Attachments / Additional Requirements			
ZONING REQUEST			
		Pend	ding Plat File Number
☐ Zoning Change Proposed Zoning			
☐ Plan Amendment Change			
Proposed Plan Designation(s)		-	
Proposed Density (units/acre) Previous Rezoning	Requests		
Other (specify)	The of the second		
STAFF USE ONLY	Fee 1		
PLAT TYPE	ree 1		Total
Staff Review Planning Commission	0102	\$1,600.00	
ATTACHMENTS ☐ Property Owners / Option Holders ☐ Variance Request	Fee 2		# 4 000 00
☐ Amendment Request (Comprehensive Plan)		1	\$1,600.00
ADDITIONAL REQUIREMENTS			
Use on Review / Special Use (Concept Plan)	Fee 3		
☐ Traffic Impact Study ☐ COA Checklist (Hillside Protection)		1	7
The Court of the C			
AUTHORIZATION			
I declare under penalty of perjury the foregoing is true and correct: He/she/it is the owner of the property AND 2) The application and 	all associated materials are b	eing submitted with I	his/her/its consent
Scott Davis dottoop verified 10/01/24 10:19 AM EDT CCID-FCOD-PGED-WNN7 Mesana	Investments, LLC	10/0	01/2024
Applicant Signature Please Prin		Da	ite
(865) 806-8008 swd444@gm			
Phone Number / Email			10/02/2024 50
	1/201		10/02/2024, SG
Property Owner Signature Please Prin	ry Vaulton	Da	10 01 2024
riedse Filli	V	De	ture E.M.M.



Public Notice and Community **Engagement**

Sign Posting and Removal

The Administrative Rules and Procedures of the Knoxville-Knox County Planning Commission require a sign to be posted on the property for each application subject to consideration by the Planning Commission.

Planning staff will post the required sign. If a replacement sign(s) is needed, the applicant is responsible for picking up the new sign(s) from Planning and will be charged \$10 for each replacement.

Location and Visibility

The sign must be posted on the nearest adjacent/frontage street and in a location clearly visible to vehicles traveling in either direction. If the property has more than one street frontage, the sign should be placed along the street that carries more traffic. Planning staff may recommend a preferred location for the sign to be posted at the time of application.

Timing

The sign(s) must be posted not less than 12 days prior to the scheduled Planning Commission public hearing and must remain in place until the day after the meeting. In the case of a postponement, the sign can either remain in place or be removed and reposted not less than 12 days prior to the next Planning Commission meeting. The applicant is responsible for removing the sign after the application has been acted upon by the Planning Commission.

Community Engagement

Planning strives to provide community members with information about upcoming cases in a variety of ways. In addition to posting public notice signs, our agency encourages applicants to provide information and offer opportunities for dialogue related to their upcoming case(s).

Acknowledgement			Have you engag	ed the
By signing below , you ackno posted and visible on the pro and between the dates listed	perty consistent with the		surrounding property owners to discuss your request? Yes No	
11/01/2024	11/15/2024	1	☑ No, but I plar Planning Con	n to prior to the nmission meeting
Date to be Posted	Date to be Rem	oved		
Trey Ridenour	dotloop verified 09/30/24 3:02 PM EDT FL7O-D9TG-MUNX-LPOG	Mesana Investmer	nts, LLC	09/30/2024
Applicant Signature		Applicant Name		Date

11-SG-24-C & 11-J-24-DP