

# REQUEST FOR BOARD ACTION

## Henderson County Board of Commissioners

**Meeting Date:** September 20, 2006

**Subject:** Water Line Extension – Makayla's Place

**Attachments:** Project Summary  
Engineer's Report  
County Review Sheet

### Summary of Request:

The City of Hendersonville has requested County comments on proposed water line extension for Makayla's Place.

A City of Hendersonville Project Summary sheet, with backup documents and County review sheet with staff comments are attached for Board review and action.

### County Manager's Comments:

Recommend that the Board take action to support the referenced water line extension.

**City of Hendersonville - Project Summary**  
**Water Line Extension**  
**Makayla's Place**

Date: July 7, 2006

This is a project to extend existing water lines to provide water service to a proposed residential development consisting of 46 residences.. This project is located on Pace Road.

This project is under the reviewing jurisdiction of: **Henderson County**.

This project requires approximately **3,470** linear feet of water line sized as following:

Description:	Approximate Length
6" DIP CL350	2,630
2" SDR 13.5	855

Fire Protection will be provided by the installation of 1 (one) fire hydrant.

The entire cost of the proposed water line extension is to be paid for by James and Anne Pack of Edneyville, NC.

Water pressure and flow in this area is as follows:  
Static Pressure: 78 PSI      Hydrant 04-0081  
Residual: 44 PSI  
Flow: 770 GPM      Hydrant 04-0082

*Based on the above information, the Water & Sewer department is capable of supporting the additional connections and recommends approval of the project contingent upon approval of the final plans and specifications from the Water & Sewer Department.*

A motion is needed to approve and accept this project. Suggest wording is as follows:

**I move to accept this water line extension project and to authorize the City manager to execute the water line extension agreement on behalf of the City.**

Water & Sewer Department:	<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	Date: _____
Hendersonville City Council:	<input type="checkbox"/> Approved	<input type="checkbox"/> Disapproved	Date: _____

The undersigned represents this utility extension line request has been evaluated in light of the adopted land use plan for the municipality or Henderson County. In the absence of such a plan for the general area to be served, this extension has been evaluated in terms of its future impact on existing land uses.	
Reviewing Jurisdiction: Henderson County	
Signing Official: _____	
Date of Review: _____	
<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	
Narrative Comments Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No	

ENGINEER'S REPORT  
FOR  
WATER SYSTEM IMPROVEMENTS

To Serve

MAKAYLA'S PLACE

Hendersonville

NORTH CAROLINA

*Project Number 06-145*

JUL 06 2006



Prepared By:

LAUGHTER, AUSTIN & ASSOCIATES, P.A.  
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Hendersonville, North Carolina 28792

June 15, 2006

ENGINEER'S REPORT  
MAKAYLA'S PLACE  
WATER MAIN EXTENSION

**1. NAME AND ADDRESS OF APPLICANT**

City of Hendersonville  
PO Box 1760  
Hendersonville, NC 28793

**2. PROJECT DESCRIPTION & INTRODUCTION**

This project is located on Pace Road (SR 1726) east of Hendersonville and south of the intersection of US 64 East. This water main extension is being done by contractors for the City of Hendersonville's Water and Sewer Department.

This proposed water extension will require tapping into the existing 6" water service on Pace Road approximately 3120 feet south of US 64 East and running into the proposed residential development of Makayla's Place. At the proposed first entrance into the proposed residential site a 6 inch by 6 inch tapping tee will be installed with 1 gate valve. From this tee a 6" water service line will be extended into and through the existing development for approximately 2000 feet making a loop through the proposed development and tying back into the existing 6" water service on Pace Road with another 6" by 6" tapping tee and gate valve. This 6" line within the existing development will have 1-6" by 6" tee, 3-6" gate valves and one fire hydrant installed at approximately station 11+00. From this tee, another 6" line will extend southeast for approximately 660 feet into a cul-de-sac where a 6" gate valve and a fire hydrant will be installed. This 6" line will have a 6"x6" tee and gate valve installed at approximate station 3+70. From this tee, a 2" service line will extend southwestward for approximately 420 feet with a 6" gate valve, a 6" by 2" reducer installed at the tee and a 2" blow off valve installed at the end of the line in the cul-de-sac. At approximate station 16+50 on the 6" loop line, a 6" by 6" tee will be installed and a 2" line will run from this tee in a southerly direction for approximately 385 feet. On this 2" line a 6" gate valve and a 6" by 2" reducer will be installed at the tee and a 2" blow off valve will be installed at the end of the line in the cul-de-sac.

**3. DESCRIPTION OF FUTURE SERVICE AREAS**

This extension serves 46 residences in the proposed development of Makayla's Place. Existing lines are adequate for serving surrounding areas.

**4. PRESENT AND ANTICIPATED WATER DEMANDS**

Present water demands are to serve approximately 46 proposed residences, in Makayla's Place on Pace Road, SR1726. Thus the design demand is approximately 46 connection @ 400 GPD/connection. Total demand is approximately 18,400 GPD.

**5. CHARACTER OF THE SOURCE SUPPLY**

The water supply for this project is from the City of Hendersonville Water Treatment Plant.

**6. AGREEMENTS TO PURCHASE WATER**

Not Applicable

**7. USEFUL LIFE OF FACILITIES**

The useful life of the water lines for this project is expected to be 50 years minimum.

**8. MAXIMUM DAILY TREATED WATER SUPPLY AND MAXIMUM DAILY DEMAND**

The maximum daily treated water supply for the City of Hendersonville water plant is 12MGD. The average demand is 7.2 MGD, with a daily peak (for the year) of 9.5 MGD

**9. IDENTIFICATION & DESCRIPTION OF THE SERVICE AREA**

The initial service area for this project is approximately 46 domestic connections.

**10. CONSIDERATION OF ALTERNATIVES TO CONSTRUCTING A NEW WATER SYSTEM.**

Not applicable

**11. POPULATION RECORDS AND TRENDS**

According to the Office of State Planning, The population of the City of Hendersonville in 1998 was 9,538 persons. The growth rate from 1990 to 1998 was 30.9%.

**12. PRESENT AND FUTURE YIELD FROM THE SOURCES OF SUPPLY**

The City of Hendersonville Water Plant currently draws water from the Mills River. The present and future yield of the source of supply is expected to be adequate for the City of Hendersonville's needs.

**13. PROPOSED WATER TREATMENT PROCESSES**

Not Applicable

14. **DESIGN BASIS**

The design basis for this project is to provide adequate flow @ 30 psi minimum at the street.

15. **PRIORITIZED LIST OF INFRASTRUCTURE IMPROVEMENTS**

Not Applicable

## HENDERSON COUNTY REVIEW OF CITY WATER LINE EXTENSIONS

Project Name: Makayla's Place  
 Size of Water Line (Main & Distribution Pipe Size): 2"SDR 13.5, 855 lf.; 6" DIP CL 350, 2,630 lf.  
 County Staff Reviewing Extension: Rocky Hyder, Fire Marshal; Matt Card, Subdivision Admin.; Rodney Tucker, Project Mgr.

Has the project been reviewed under the **County Subdivision Ordinance**?  Yes  No  N/A  
 Date reviewed: This Phase has not been approved by the Planning Board.  
 Action: \_\_\_\_\_  
 Conditions: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Has the project been reviewed under the **County Manufactured Park Ordinance**?  Yes  No  N/A  
 Date reviewed: \_\_\_\_\_  
 Action: \_\_\_\_\_  
 Conditions: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Has the project been reviewed under the **County Zoning Ordinance (i.e. Special-Use or Conditional-Use Permit)**?  Yes  No  N/A  
 Date reviewed: \_\_\_\_\_  
 Action: \_\_\_\_\_  
 Conditions: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Is the project subject to **any other County Land Use Ordinance**?  Yes  No  N/A  
 If yes, explain: .A portion of this development is in a Zone A, 100-year floodplain.

Does the project conform with the **2020 Henderson County Comprehensive Plan (CCP)**?  
 The proposed development is located in the Transitional Area. The CCP proposed water line access. This proposed project complies with the intent and spirit of the 2020 CCP.  Yes  No  N/A

Does the project have **adequate hydrant location and spacing**?  Yes  No  N/A

Description of **hydrant type and thread**: Mueller Centurion – National Standard Thread  
 Does the estimated flow rate (gpm) meet **fire protection standards**? Meets standard for structure spacing of more than 30 feet.  Yes  No  N/A

### BOARD OF COMMISSIONERS APPROVAL

Approved Date of Board Review: \_\_\_\_\_  
 Not Approved Comments: \_\_\_\_\_  
 Conditional Approval (See Comments)