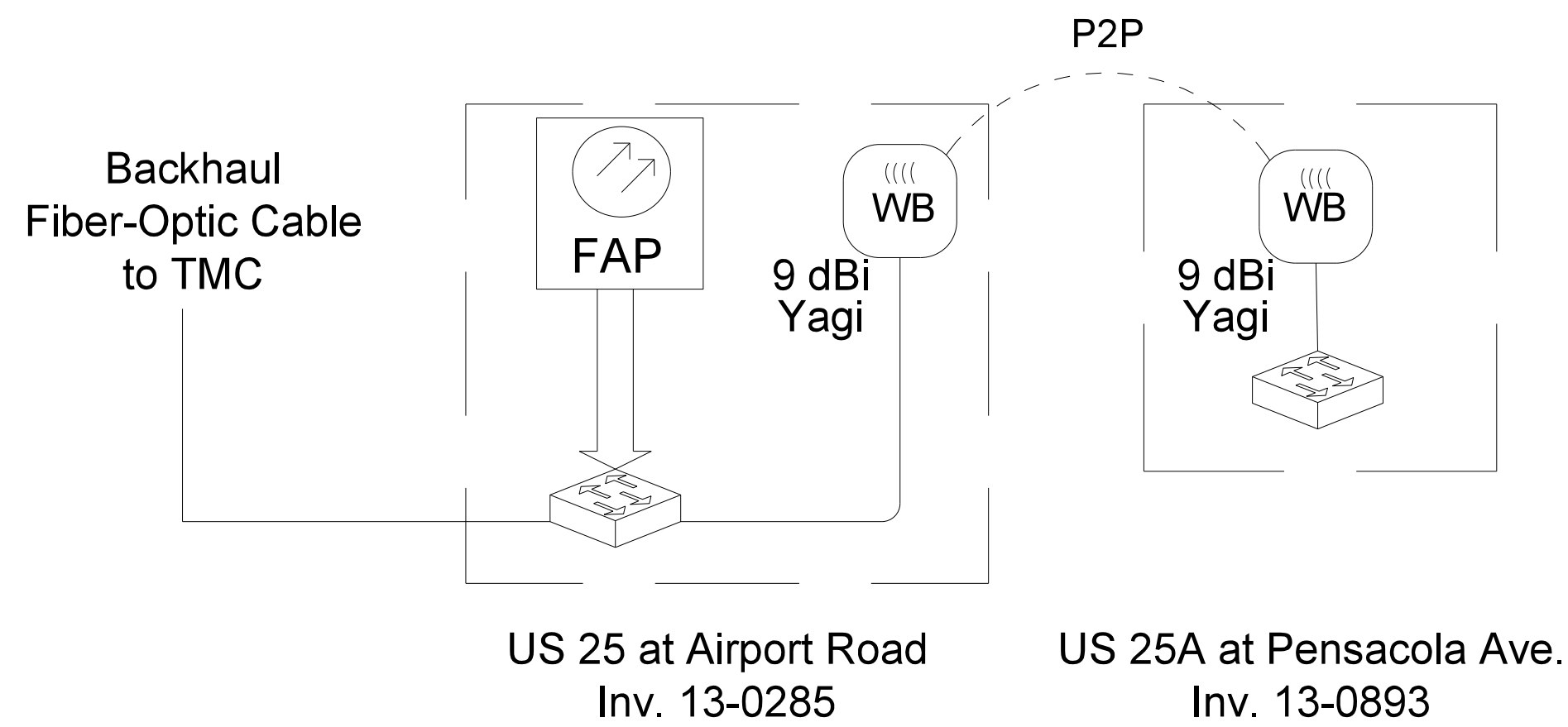
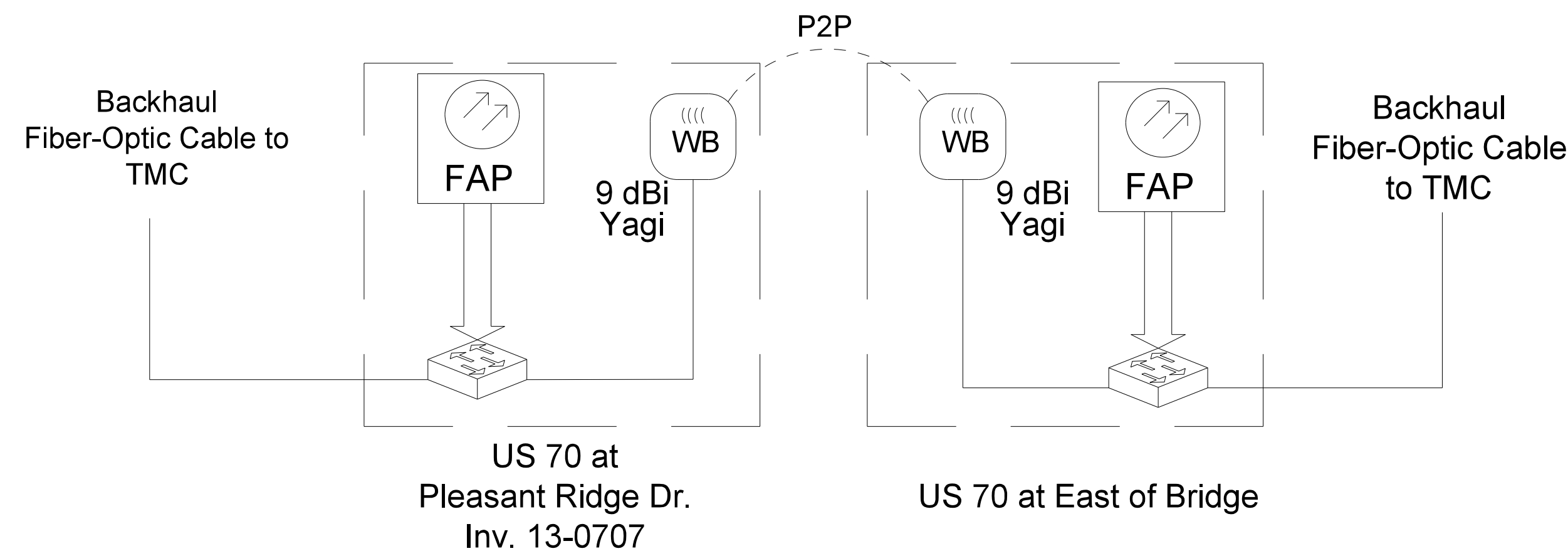


# WIRELESS COMMUNICATIONS PLAN



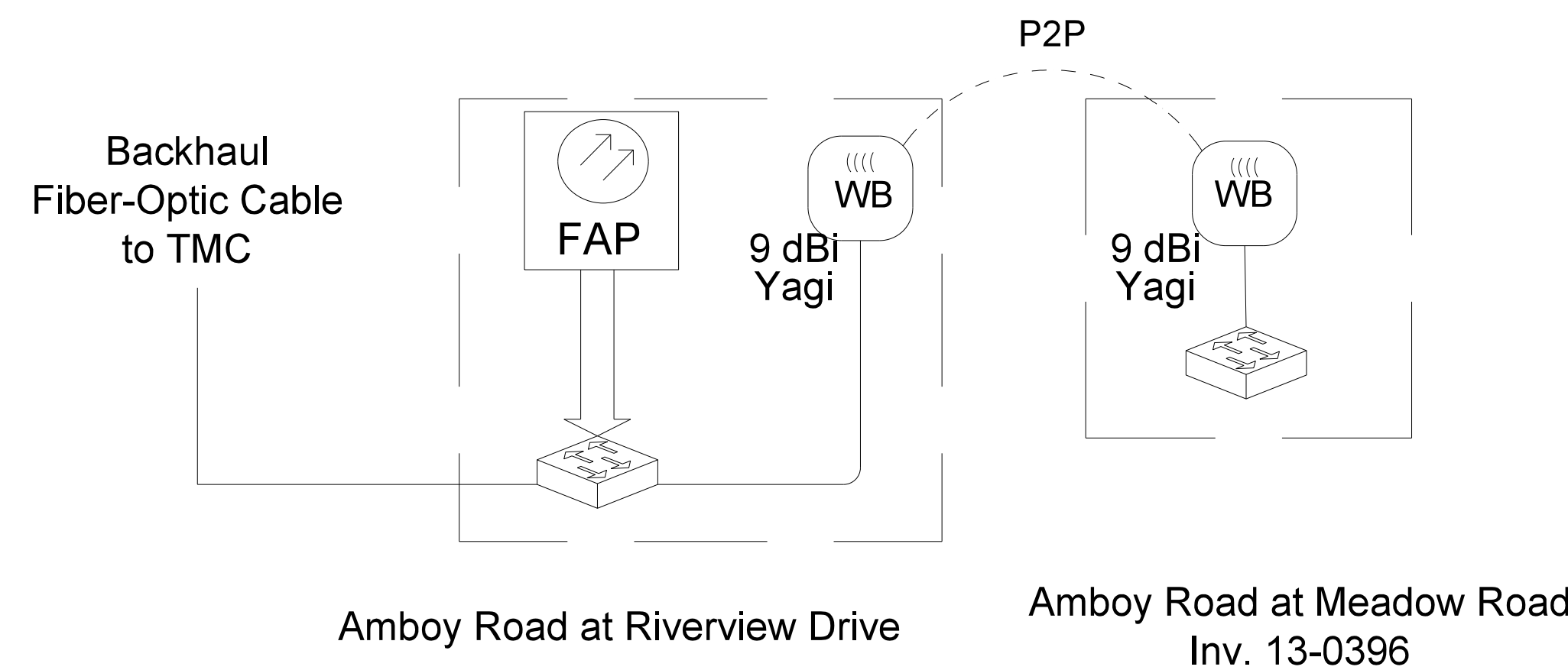
**US 25 (Hendersonville Road) at US 25A (Sweeten Creek Road)**



**US 70 (Tunnel Road) at Blue Ridge Parkway**

**LEGEND:**

- FAP- Fiber Access Point
- WB- Wireless Bridge
- WR- Wireless Repeater
- Ethernet Switch
- Firewall
- Cellular Modem



**Amboy Road**

\* ALL RADIO EQUIPMENT SHALL MEET THE REQUIREMENTS OF FCC Part 90

**NOTES:**

1. WIRELESS BRIDGE EQUIPMENT SHALL BE INSTALLED ON EXISTING SIGNAL POLES, MAST ARMS AND UTILITY POLES AS SHOWN ON THE PLANS.
2. THE CONTRACTOR SHALL INSTALL AND TEST THE WIRELESS BRIDGE SYSTEM AND ASSEMBLY BASED ON THE INSTALLATION TEST AND SETUP PROCEDURES. THE CONTRACTOR SHALL PERFORM ANTENNA ALIGNMENT TO PHYSICALLY ALIGN THE ANTENNAS FOR MAXIMUM SIGNAL TRANSFER.
3. THE CONTRACTOR SHALL CONFIGURE RADIOS FOR P2P, P2MP OR REPEATER MODE AS REQUIRED.
4. WIRELESS SITES SHALL BE INSTALLED TO PROVIDE OPTIMAL LINE-OF-SIGHT BETWEEN DEVICE LOCATIONS.
5. THE CONTRACTOR SHALL INSTALL THE APPROPRIATE ANTENNA TYPE BASED ON THE SITE CONFIGURATION AS LISTED IN THE PROJECT SPECIAL PROVISIONS.
6. THE CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROPERLY GROUNDED AS PER THE MANUFACTURER SPECIFICATIONS.
7. THE CONTRACTOR SHALL INSTALL SURGE PROTECTION TO PROTECT THE RADIO EQUIPMENT FROM STATIC ELECTRICITY AND LIGHTNING-INDUCED SURGES THAT TRAVEL ON TRANSMISSION LINES. AT LOCATIONS WHERE COAXIAL CABLE IS USED, THE CONTRACTOR SHALL GROUND THE ARRESTOR BY USING A GROUND LUG ATTACHED TO THE ARRESTOR AND A #6 SOLID CONDUCTOR AND CONNECT THE LUG TO EARTH GROUND IN THE SIGNAL CABINET.
8. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER PRIOR TO INSTALLING ANY WIRELESS EQUIPMENT.

**ATKINS** 1616 EAST MILLBROOK ROAD, SUITE 310  
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**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

 Prepared for the Offices of: <b>NC</b> Transportation <small>750 Greenfield Parkway, Garner, NC 27529</small>	<b>Wireless Corridor Design</b> (1 of 7)		SEAL  HENRY ALFRED BADGETT III PROFESSIONAL ENGINEER SEAL 019962 DATE 12/21/2016
	Division 13      Buncombe County      Asheville		
PLAN DATE: December 2016      REVIEWED BY: H A Badgett	PREPARED BY: G B Spell      REVIEWED BY: J T Brooks		
SCALE: N.T.S.	REVISIONS	INIT.      DATE	

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