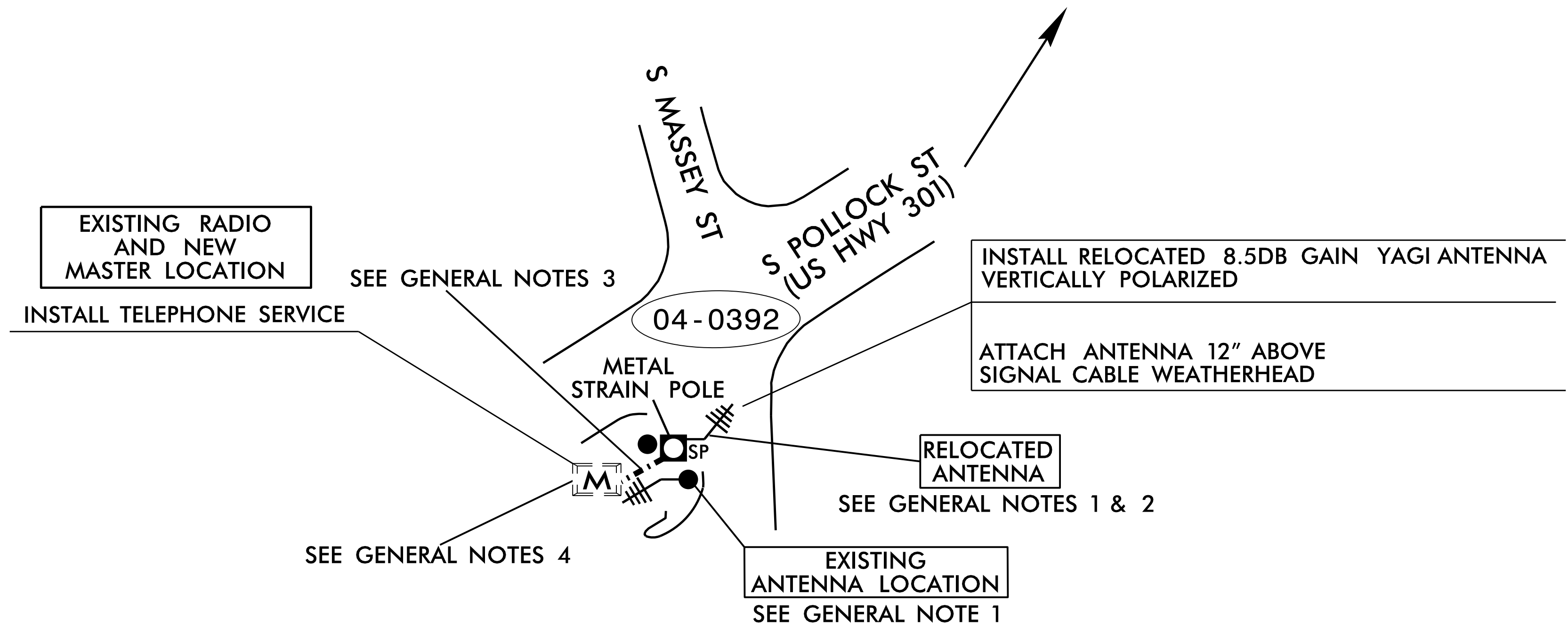


# WIRELESS SYSTEM 2

REPROGRAM EXISTING RADIO AT SIN#04-0392 AS MASTER RADIO AND INCLUDE EXISTING RADIOS AT THE FOLLOWING SIGNALS IN NEW WIRELESS SYSTEM:  
 SIN#04-0170  
 SIN#04-0192  
 SIN#04-0193  
 SIN#04-1283

**LEGEND**

- YAGI ANTENNA (DOUBLE) FOR REPEATER OPERATION
- YAGI ANTENNA (SINGLE)
- OMNI ANTENNA
- EXISTING CONTROLLER AND CABINET
- EXISTING MASTER CONTROLLER AND CABINET
- SIGNAL INVENTORY NUMBER
- NEW METAL POLE W/MAST ARM
- EXISTING WOOD POLE
- NEW METAL POLE
- SIGNAL POLE
- EXISTING METAL POLE
- NEW OVERSIZED JUNCTION BOX
- EXISTING OVERSIZED JUNCTION BOX
- EXISTING CONDUIT
- NEW CONDUIT
- EXISTING COMMUNICATIONS CABLE



NOTIFY THE DEPUTY DIVISION TRAFFIC ENGINEER, RUSSELL BROADWELL, AT (252) 640-6507 FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE WIRELESS COMMUNICATIONS SYSTEMS. NOTIFY THE DEPUTY DIVISION TRAFFIC ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT WIRELESS SYSTEMS ARE FUNCTIONING PROPERLY.

**GENERAL NOTES:**

1. RELOCATE EXISTING ANTENNA TO THE METAL STRAIN POLE.
2. REPOSITION ANTENNA ON POLE AND DIRECT IT TOWARDS EXISTING RADIOS ALONG S POLLUCK ST. (US HWY 301) (INTERSECTIONS LISTED ABOVE).
3. INSTALL NEW 2" SECTION OF CONDUIT FROM CABINET INTO BASE OF POLE AND INSTALL COAXIAL CABLE.
4. REPROGRAM EXISTING RADIO AT SIN#04-0392 AS MASTER RADIO AND INCLUDE EXISTING RADIOS LOCATED NORTH ALONG S POLLUCK ST. (US HWY 301) AND SOUTH ALONG ANDERSON ST. (INTERSECTIONS LISTED ABOVE) INTO NEW "WIRELESS SYSTEM 2".

**NOTES FOR WIRELESS COMMUNICATIONS:**

1. INSTALL COAXIAL CABLE:
  - A. ON WOOD POLES, REQUIRING A NEW RIGID GALVANIZED STEEL RISER, INSTALL A 2" RISER WITH WEATHERHEAD AND ROUTE THE COAXIAL CABLE TO THE ANTENNA.
  - B. ON METAL POLES WITH MAST ARMS, RUN COAXIAL CABLE UP THROUGH THE POLE AND OUT THE MAST ARM; FIELD DRILL A 1/2" HOLE UP THROUGH THE BOTTOM OF MAST ARM FOR INSTALLATION OF THE COAXIAL CABLE TO THE ANTENNA.
  - C. ON METAL STRAIN POLES, RUN COAXIAL CABLE UP THROUGH THE POLE AND OUT THE WEATHERHEAD AND ROUTE THE COAXIAL CABLE TO THE ANTENNA.
  - D. BETWEEN THE POINT OF EXITING THE RISER, METAL POLE OR MAST ARM AND THE ANTENNA, SECURE THE COAXIAL CABLE TO THE STRUCTURE USING 3/4" STAINLESS STEEL STRAPS EVERY 12".
2. IF AN EXISTING 2" SPARE RIGID GALVANIZED STEEL RISER IS AVAILABLE, INSTALL THE COAXIAL CABLE IN THE SPARE RISER.
3. INSTALL WIRELESS ANTENNA ON POLE WITH RF WARNING SIGN.  
(NOTE: RF WARNING SIGN NOT REQUIRED WHEN ANTENNA IS INSTALLED ON AN NCDOT-OWNED POLE.)
4. MAINTAIN PROPER CLEARANCE FROM ALL UTILITIES PER THE NATIONAL ELECTRICAL SAFETY CODE.
5. INSTALL WIRELESS SERIAL RADIO MODEM WITH EXTERIOR DISCONNECT SWITCH LOCATED ON CABINET.  
(NOTE: RF ANTENNA DISCONNECT SWITCH AND DECAL ARE NOT REQUIRED WHEN THE ANTENNA IS INSTALLED ON AN NCDOT-OWNED POLE.)
6. REFERENCE "WIRELESS RADIO ANTENNA TYPICAL DETAILS."

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

<p>750 N. Greenfield Pkwy., Garner, NC 27529</p>	<p>WIRELESS COMMUNICATIONS PLAN</p>		
	<p>DIVISION 04 JOHNSTON CO. SELMA</p>	<p>SCALE: 1" = 50'</p>	
<p>PLAN DATE: SEPTEMBER 2017</p>	<p>PREPARED BY: H. T. BERGGREN</p>	<p>REVIEWED BY:</p>	<p>SEAL: 032108</p>
<p>REVISIONS</p>	<p>INIT.</p>	<p>DATE</p>	<p>10/2/2017</p>