Date	Application	Received	bν	City	

Small Wireless Facilities Permit Application for Encroachments in the City of Winston-Salem's Right-of-Way

Applicant Information		
Business Name: NEW CINGULAR WIRELESS PCS	S, LLC (DBA A	T@T MOBILITY)
Address: 575 MOROSGO DR		
City: ATLANTA	State: GA	ZIP Code: 30324
Phone Number: 404-508-5750		
Fax Number:		
E-Mail Address:		
Information of Duly-Authorized Consultant or Agent Actin	ng on Applicant's l	Behalf
Name: ANSCO & ASSOCIATES, LLC		
Address: 736 PARK NORTH BOULEVARD SUITE 1		
city: CLARKSTON	State: GA	ZIP Code: 30021
Phone Number: 678-277-4986		
Fax Number:		
E-Mail Address: ENGPER@ANSCOLLC.COM		
Information of Wireless Services Provider That Will Use t		
Business Name: NEW CINGULAR WIRELESS PCS, L	LC (DBA AT@	T MOBILITY)
Address: 575 MOROSGO DR		
city: ATLANTA	State: GA	ZIP Code: 30324
Phone Number: 404-508-5750		
Fax Number:		
E-Mail Address:		
Project Information		
Name of City streets or right(s)-of-way in which Applicant proposes to encroach: RESEARCH PKWY		
Description of proposed work and facilities Applicant proposes to install, modify, replated a minimum, please, address: 1) whether the Applicant will install new facilities and ones, 2) whether Applicant intends to replace entire support structures, and 3) the coproposes to use to conceal or camouflage its facilities to the maximum extent practice.	d/or modify, replace, remo incealment or camouflage of	ve, or collocate on existing
ATTACH AND INSTALL SMALL CELL ANTENNA AND EQUIPMENT TO A PUBLIC RIGHT-OF-WAY.	AN EXISTING AT&T WI	RELINE POLE ON
· ·		

If additional space is necessary, please attach additional sheets and include the Applicant's name, signature, and date.

Does the Applicant propose to modify, replace, remove, or collocate on any Cityowned utility poles or other structures?	Yes	No X
If so, please, identify the City-owned utility poles or other structures and the manner or collocate on them:	n which the Applicant propo	oses to modify, replace, remove,
Does the Applicant require an estimate from the City for any make-ready work necessary to enable a City-owned utility pole to support a requested collocation of small wireless facilities, in compliance with applicable safety requirements?	Yes	No X
Please attach to this Application a sealed site plan and elevation drawings, prepared or other professional authorized to practice land development in North Carolina, with a the Applicant proposes to install, modify, replace, remove, and/or collocate in the poles and the size, type, height, width, weight, elevation, and depth of any man equipment, as well as the proximity of all such facilities to existing poles, utilities pavement, telecommunications or cable systems, and other public or private improve residential, commercial, and other structures.	sufficient detail to show the p City street(s) or right(s)-of- nholes, poles, antennae, o (water, sewer, stormwater,	proposed location of the facilities way, including any manholes or conduits, enclosures, and other electricity, gas, etc.), sidewalk,
Please attach to this Application specifications showing the size, type, height, width,	weight, elevation, and dept	h of all proposed facilities.
Please attach to this Application photographic depictions and photo simulations of the or collocation from the four (4) cardinal directions, in the context of the site.	e proposed installation, mod	lification, replacement, removal,
Third-Party Permissions		
Does the Applicant intend to encroach on a third party's real or personal property?	Yes	No X
If so, what property?	was.	
If so, what property?	••• •• •• •• •• •• •• •• •• •• •• •• ••	
If so, what property? Please have the third party sign below, indicating their consent to the proposed encr	oachment.	
	pachment.	
Please have the third party sign below, indicating their consent to the proposed encr	oachment.	
Please have the third party sign below, indicating their consent to the proposed encr Name of third party:	oachment.	
Please have the third party sign below, indicating their consent to the proposed encr Name of third party: Signature of third party:	oachment.	
Please have the third party sign below, indicating their consent to the proposed encr Name of third party: Signature of third party: Title of third party, if applicable:	oachment.	
Please have the third party sign below, indicating their consent to the proposed encr Name of third party: Signature of third party: Title of third party, if applicable: Date:	oachment.	
Please have the third party sign below, indicating their consent to the proposed encroname of third party: Signature of third party: Title of third party, if applicable: Date: Please have the third party's signature notarized, below.	pachment.	
Please have the third party sign below, indicating their consent to the proposed encr Name of third party: Signature of third party: Title of third party, if applicable: Date: Please have the third party's signature notarized, below. STATE OF COUNTY OF I,, a notary p	ublic of the County and e me this day and acknowle	edged that s/he is the Secretary
Please have the third party sign below, indicating their consent to the proposed encr Name of third party: Signature of third party: Title of third party, if applicable: Date: Please have the third party's signature notarized, below. STATE OF	ublic of the County and e me this day and acknowle , the foregoing instrume	edged that s/he is the <u>Secretary</u> , and that by authority ent was signed in its name by its
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Regulatory Approvals		7.00	
Were existing support structures and other facilities constructed, modified, or replaced with all required regulatory approvals at the time of construction, modification, replacement, removal, or collocation?	Yes	Х	No
Please attach to this Application evidence of prior regulatory approvals, demonstratin and registrations. Please attach copies of all relevant licenses, permits, and registrations.		e Applicant holds	all necessary licenses, permits,
Disruption of Vehicular and Pedestrian Traffic		and the second	tion of the second
Will the proposed work and/or the proposed installation, modification, replacement, removal, or collocation of facilities cause any disruption in vehicular or pedestrian traffic in any streets or right(s)-of-way?	Yes	Х	No
If so, what precautions will Applicant take to minimize the disruption?			
Traffic diagram attached.			
•			
The Applicant must contact the Winston-Salem Transportation Department's Operation sidewalk closures at least two (2) business days prior to the commencement of any w	ons Mana vork in th	iger, at 336-747-6 e City streets or ri	990, for approval of all lane and ghts-of-way.
Maintenance			
Applicant will be responsible for the long-term maintenance of the proposed encroach	nment		· ·
Insurance			
Please attach original, signed copies of the Applicant's and its subcontractors' in protecting the City from liability and damages pertaining to any work or encroachment and evidencing the types and amounts of coverage the City's Risk Management Offic Applicant must maintain its insurance policies in continuous effect for the duration of maintain their insurance policies in continuous effect for the duration of the work the thereafter. The Applicant must furnish the insurance certificates of all subcontract permit. Updated certificates must be submitted within ten (10) calendar days of the Contractors.	nt covere ce require f the enc e subcon ors it enç	ed by a permit issues all applicants to roachment. The Atractors perform a gages to perform	ned pursuant to this Application, furnish, by general policy. The Applicant's subcontractors must and for a period of one (1) year
Radiofrequency Exposure Compliance Report		4.	F 24 24
Please attach to this Application a radiofrequency exposure compliance report, prep proposed and existing facilities' compliance with applicable federal radiofrequency ex	ared by apposure s	a certified radiofre tandards and limit	equency engineer, certifying the ts.
Additional Information	-7 AT		
Please provide any additional information the Applicant wishes the City to consider in	reviewing	g this Application.	If additional space is necessary
to complete the answers to any section of the Application, please attach additional she	eets and	include the Applic	ant's name, signature, and date.

Certifications

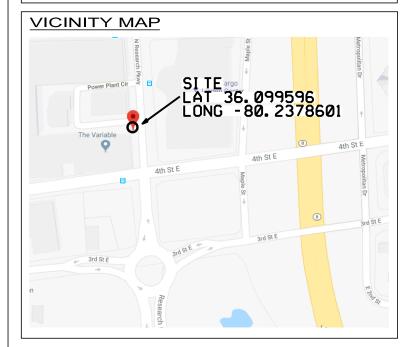
I, Edmund MacDonald (Print Name), certify/attest that I am the Sr Real Estate and Construction Manager (Print Position Title) for the Applicant and I, hereby, certify/attest, on behalf of the Applicant, that:

- The proposed and existing facilities will not interfere with any existing public or private utilities (water, sewer, stormwater, electricity, gas, etc.), public safety, or other systems.
- The proposed and existing facilities will comply with: 1) the City Code of the City of Winston-Salem, 2) the Unified
 Development Ordinances of the City of Winston-Salem and Forsyth County, 3) all applicable uniform codes, such as building,
 fire, electrical, plumbing, and mechanical codes adopted by a recognized national code organization and state and local
 amendments, thereto, enacted solely to address imminent threats of destruction of property or injury to persons, 4) approved
 plans, and 5) prior and existing conditions of approval.
- Small wireless facilities will be collocated on any utility pole or wireless support structure that Applicant proposes to install, modify, replace, or on which Applicant proposes to collocate within six (6) months of the approval of this Application, and will be activated for use, by a wireless services provider, within one (1) year from the date of the issuance of a permit, pursuant to this Application, unless the City and the Applicant or wireless services provider agree to extend the period or a delay is caused by a lack of commercial power at the site of the encroachment.
- The Applicant has secured all requisite third-party consents to the proposed encroachment.
- Existing support structures and other facilities were constructed, modified, or replaced with all required regulatory approvals
 at the time of construction, modification, replacement, removal, or collocation.
- The Applicant will minimize any disruption in vehicular or pedestrian traffic in any streets or right(s)-of-way and will contact the Winston-Salem Department of Transportation's Operations Manager, at 336-747-6990, for approval of all lane and sidewalk closures, at least two (2) business days prior to the commencement of any work in the City streets or rights-of-way.
- The Applicant will provide for the continuous, long-term maintenance of the encroachment.
- The Applicant will furnish updated insurance certificates within ten (10) calendar days of the City's demand therefor.
- The proposed encroachment will comply with applicable federal radiofrequency exposure standards and limits.
- To the best of Applicant's and my knowledge and belief, and under penalty of perjury, all of the information contained in, attached to, and submitted with, this Application is accurate and true.

Chuebonald
Please have the affiant's signature notarized, below.
STATE OF North Carolina
COUNTY OF Mecklen burg
(anik W) Sheill , a notary public of the County and State aforesaid, certify the Secretary of Warder Construction & Engineering , a Sr. Real Estate Warager (Construction), and that be authority duly given and as the act of the New Cingular Wireless PCS LLC , the foregoing instrument was signed in its name by its as its Secretary.
Witness my hand and notarial seal this, the day of, A.D., 2019. Notary Public
My commission expires: 4/10/2023 CAMIK MCNEILL Notary Public, North Carolina Mecklenburg County My Commission Expires 4/10/2023

Please	indicate which of the following submissions are included with the Application:
X	A sealed site plan and elevation drawings, prepared by a professional engineer, architect, landscape architect, or other professional authorized to practice land development in North Carolina, with sufficient detail to show the proposed location of the facilities the Applicant proposes to install, modify, replace, remove, and/or collocate in the City street(s) or right(s)-of-way, including any manholes or poles and the size, type, height, width, weight, elevation, and depth of any manholes, poles, antennae, conduits enclosures, and other equipment, as well as the proximity of all such facilities to existing poles, utilities (water, sewer, stormwater electricity, gas, etc.), sidewalk, pavement, telecommunications or cable systems, and other public or private improvements in the City street(s) or right(s)-of-way and to nearby residential, commercial, and other structures.
X	Specifications showing the size, type, height, width, weight, elevation, and depth of all proposed facilities.
	Photographic depictions and photo simulations of the proposed installation, modification, replacement, removal, or collocation from the four (4) cardinal directions, in the context of the site.
	A letter of authorization from one or more third parties, indicating their consent to the proposed encroachment. Please specify in the blank to the right how many letters are attached:
	Copies of all relevant licenses, permits, and registrations, and any other evidence of prior regulatory approvals, demonstrating that the Applicant holds all necessary licenses, permits, and registrations. Please indicate, in the space immediately below, which licenses, permits, or registrations are attached:
	Original, signed copies of the Applicant's and its subcontractors' insurance certificates, naming the City additional insured. Please indicate, in the space immediately below, which insurance certificates are attached:
	A radiofrequency exposure compliance report, prepared by a certified radiofrequency engineer, certifying the proposed and
	existing facilities' compliance with applicable federal radiofrequency exposure standards and limits.
-	Additional or supplementary sheets or other information. Please indicate, in the field below, what additional or supplementary information is attached:

LOCATION MAP AT 36. 099596 ONG -80. 2378601 Winston-Salem Old Salem Museums Q Q & Gardens...





FA LOCATION CODE: 14825255

2302A0K3P6

PACE ID:

MRCAR036729

PREPARED FOR:



PROJECT MANAGER:

& ASSOCIATES, LLC

PREPARED BY:

736 PARK NORTH BOULEVARD SUITE 100 CLARKSTON, GA 30021 404-508-5750

PROJECT INFORMATION

575 4TH STREET EAST E911 ADDRESS:

WINSTON SALEM, NC 27110

36.099596 -80.2378601 LONGITUDE:

CITY OF WINSTON-SALEM JURISDICTION:

ZONING:

WINSTON-SALEM PUBLIC RIGHT-OF-WAY PROPERTY OWNER:

STRUCTURE OWNER: AT&T

APPLICANT: NEW CINGULAR WIRELESS PCS, LLC

(DBA AT&T MOBILITY) 575 MOROSGO DR ATLANTA, GA 30324

ANSCO & ASSOCIATES, LLC 5250 TRIANGLE PKWY NW NORCROSS, GA 30092

ENGINEER: ANSCO & ASSOCIATES, LLC

736 PARK NORTH BOULEVARD SUITE 100

CLARKSTON, GA 30021 404-508-5750



GBFZ1

AT&T WIRELINE

575 4TH STREET EAST WINSTON SALEM, NC 27110

STRUCTURE COORDINATES -

36.099596 -80.2378601

DRAWING INDEX

TITLE SHEET & PROJECT INFORMATION

AERIAL OVERLAY

PROPOSED SITE PLAN

POLE ELEVATIONS & DETAILS

EQUIPMENT SPECIFICATIONS

EQUIPMENT SPECIFICATIONS

ELECTRICAL DETAILS

GROUNDING DETAILS

PLUMBING DIAGRAM

C-9 SIGNAGE DETAILS

SCOPE OF WORK

ATTACH AND INSTALL SMALL CELL ANTENNA AND EQUIPMENT TO EXISTING AT&T WIRELINE POLE ON PUBLIC RIGHT-OF-WAY.



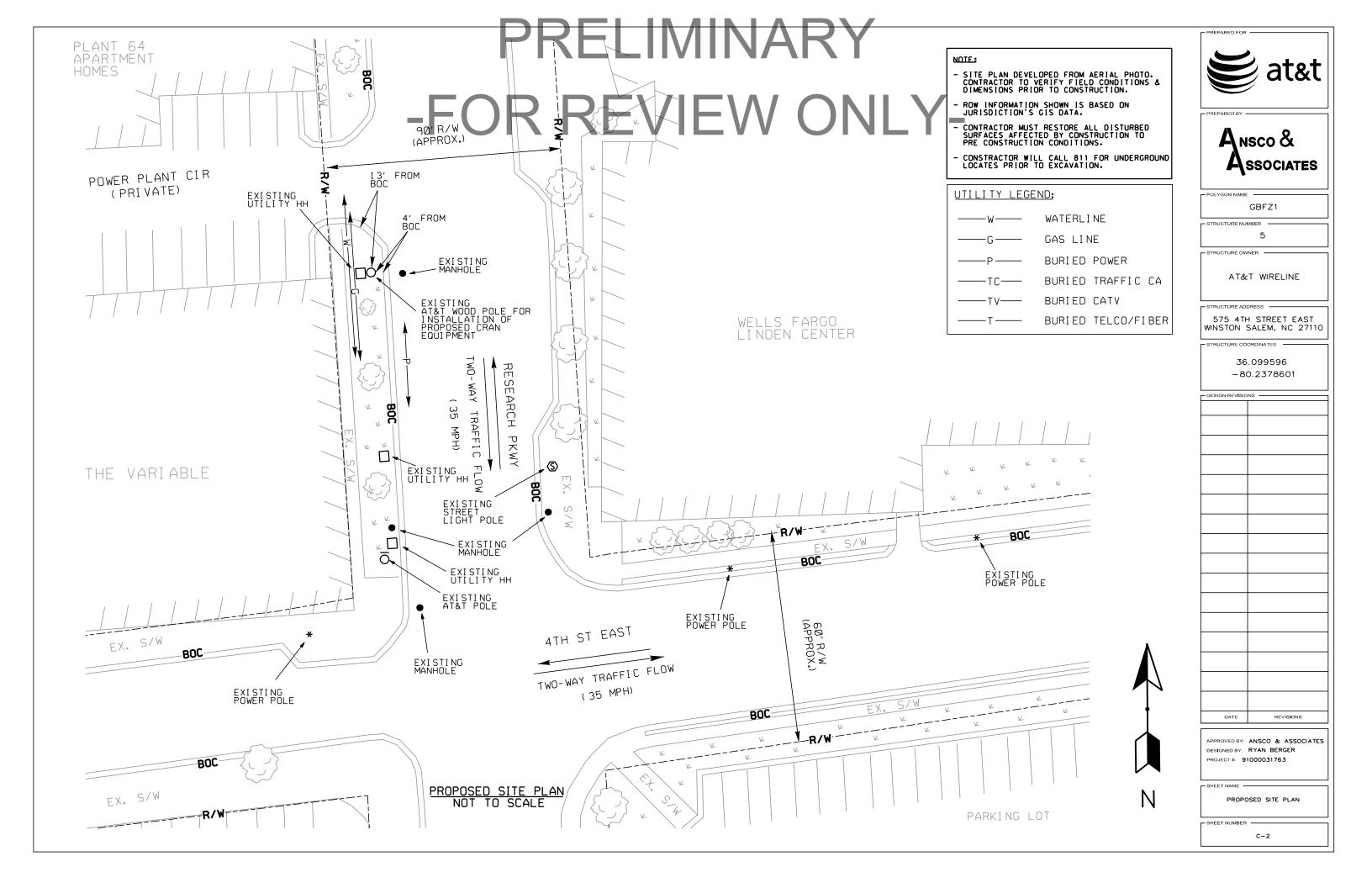
CALL BEFORE YOU DIG NORTH CAROLINA ONE-CALL 1-800-632-4949 http://www.nc811.org/

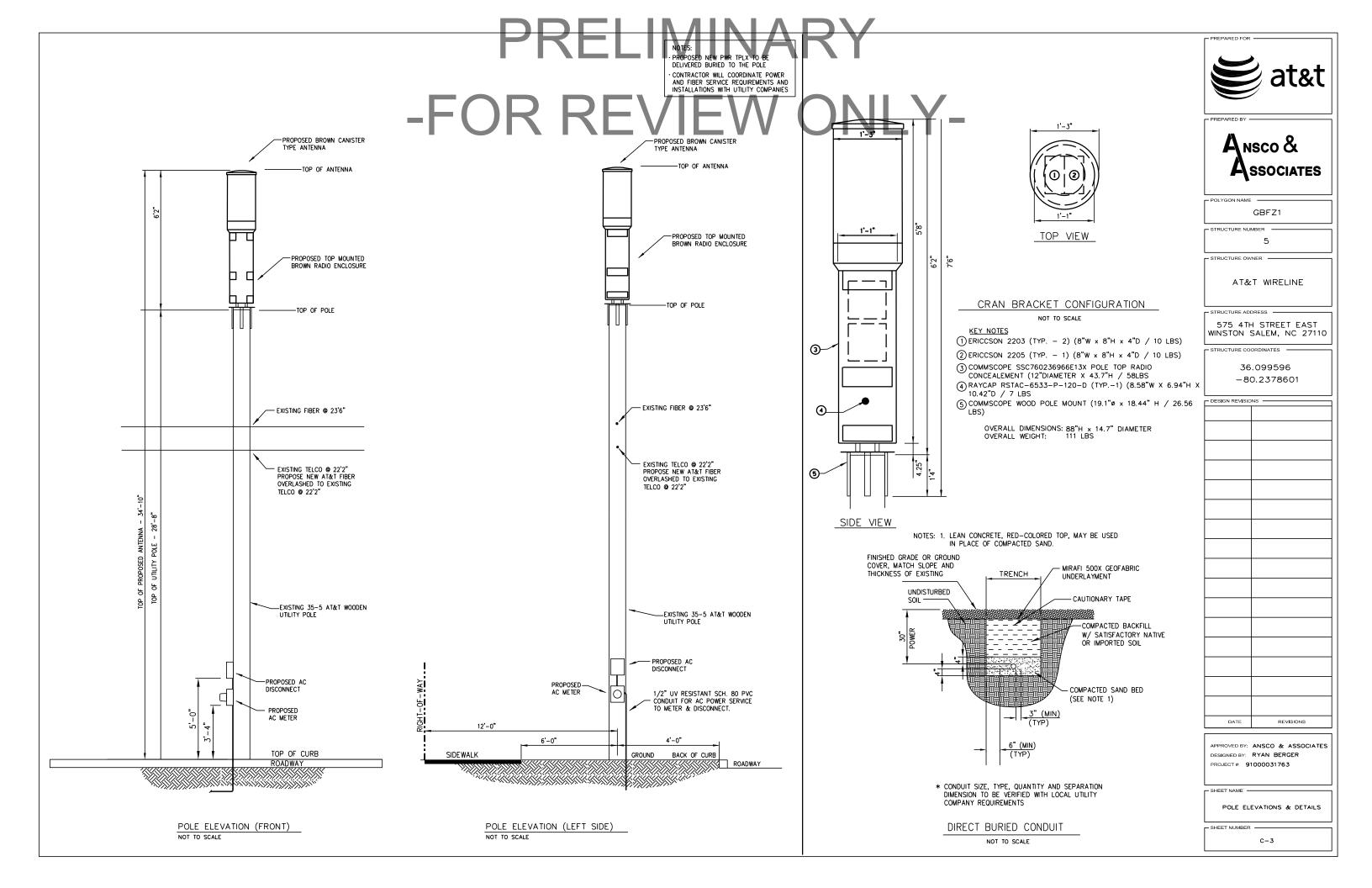
APPROVED BY: ANSCO & ASSOCIATES DESIGNED BY: RYAN BERGER PROJECT#: 91000031763

TITLE SHEET & PROJECT

T-1









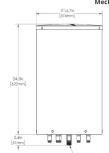
- Pseudo Omni Canister Antenna for Outdoor DAS and
- 2x ports for Low Band 698-896 MHz
- 2x ports for UNII Band 5150-5925 MHz*
- 4x ports for AWS/PCS/WCS Band 1695-2360 MHz
 4x ports for CBRS Band 3550-3700 MHz

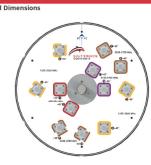
Electrical Specificat	ions				
Frequency Band [MHz]	698-896	1695-2180	2305-2360	3550-3700	5150-5925
Input Connector Type	2x 4.3-10(F)	4x 4.3-10(F)		4x 4.3-10(F)	2x 4.3-10(F)
Isolation (Typ.)		20 dB			
VSWR/Return Loss (Typ.)		1.5:1 / 14.0 dB			
Impedance	50 Ω				
Polarization	Dual slant 45° (±45°)				
Horizontal Beamwidth	Omni (360°)				
Vertical Beamwidth	41.7°	41.7° 19° 15.9°			23.7°
Max. Gain	7.8 dBi	8.9 dBi	9.1 dBi	8.5 dBi	6 dBi
Avg. Gain	6.1 dBi	6.1 dBi 7.5 dBi 8.0 dBi		7.9 dBi	5.4 dBi
Downtilt	0° Fixed				
Max Power / Port	100 Watts	50 Watts		50 Watts	1 Watt
PIM @ 2x43 dBm	<-153 dBc	<-15	3 dBc	N/A	N/A

Mechanical Specifications		
Operating Temperature	-40° to 158°F (-40° to +70°C)	
Antenna Weight	30.9 lbs (14 kg)	
Antenna Diameter	14.7"(374 mm)	
Antenna Height	24.5"(622 mm)	
Radome Material	ASA	
Radome Color	Gray, Brown, Black, 3M™ Conceal Film, Custom Colors Possible	
Wind Survival Rating	150 mpn (241 km/h)	

W W W . G A L T R O N I C S . C O M







Description:	Part Number:
Antenna with 12x 4.3-10(F) Connectors, Gray	GQ2412-06613-111
Antenna with 12x 4.3-10(F) Connectors, Brown	6Q2412-06613-611
Antenna with 12x 4.3-10(F) Connectors, Black	GQ2412-06613-B11
Antenna with 12x 4.3-10(F) Connectors, Chrome (3M™ Conceal Film)	GQ2412-06613-C11
Antenna with 12x 4.3-10(F) , Gray (including MK-06678 and MK-06679 mounting kits)	GQ2412-06613-112
Antenna with 12x 4.3-10(F), Brown (including MK-06678 and MK-06679 mounting kits)	GQ2412-06613-612
Antenna with 12x 4.3-10(F) , Black (including MK-06678 and MK-06679 mounting kits)	GQ2412-06613-B12
Antenna with 12x 4.3-10(F) , Chrome (3M™ Conceal Film) - (including MK-06678 and MK-06679 mounting kits)	GQ2412-06613-C12
Mounting Bracket(s):	Part Number:
1" Mount Rod Adapter (wind speed of 150 mph) Universal interface for pole top installation.	MK-06678
Pole Top Mounting Bracket (wind speed of 150 mph) Bracket base attached directly to wood, metal and cement poles.	MK-06679

ANTENNA SPECIFICATIONS

- > Unlicensed band in 5GHz (5150MHz-5875MHz)
 - > 3GPP: B46A/D
 - > IBW: 60MHz
 - > Up to 3 LTE carriers 20MHz
- > Support 2TX/2RX
- > Output Power:
 - > 2 x 500mW
 - > Up to +36dBm EIRP with internal antenna
- > Size: 4L
- > Weight: 4Kg
- > 2x10G CPRI
- > Power supply: AC or DC



RADIO 2205 RADIO SPECIFICATIONS



RAYCAP SPECIFICATIONS



RADIO 2203

Radio 2203 has, by use of its snall and smart dimensions, support for a wide range of mounting scenarios and has a pioneering flexibility within its product segment. With the Radio 2203, Ericason evolves the micro radio portfolio to become even more flexible thus making it easer felicient single and multi-band nicro radio installations.

The Radio 2203 support installations with integrated or external antenna systems and can by use of the versatile optical CPRI interface be connected to any of the efficient Ericsson Baseband WCDMA or LTE modules by use of

Radio 2203 support WCDMA and LTE with two duplex TX/RX branches. The Radio 2203 support up to 4 WCDMA carriers or 40 MHz LTE as well as WCDMA and LTE mixed mode configurations.





Technical Specifications Radio 2203 FREQUENCY BANDS

HW CAPACITY

Carrier capacity LTE: Up to 40 MHz B1, B3 and B66A 45 MHz. B2/B25 and B7 40 MHz. B3C, B8, B5, B12 and B13 Full band MIMO: Ves 2T/2R

INTERFACE SPECIFICATIONS Antenna Ports:

Carrier capacity WCDMA:

Output power:

CPRI: 2 x 2.5/5/10 Gbps (exchangeable SFP modules)

Up to 2 x 5 W

Optical indicators External alarms Field ground MECHANICAL SPECIFICATIONS

W x H x D: 200 mm x 200 mm x 100 mm, including mounting bracket and esthetic front cover

Weight: < 4.5 kg

ELECTRICAL SPECIFCATIONS Power Supply: -48 VDC or 100 - 250 VAC

ENVIRONMENTAL SPECIFICATIONS

Normal operating temp.: -40 °C to +55 °C (cold start at -40 °C) 5 - 100%

Outdoor class with IP65

RADIO 2203 RADIO SPECIFICATIONS



Ansco & **A**SSOCIATES

GBFZ1

STRUCTURE OWNER -

AT&T WIRELINE

575 4TH STREET EAST WINSTON SALEM, NC 27110

STRUCTURE COORDINATES -

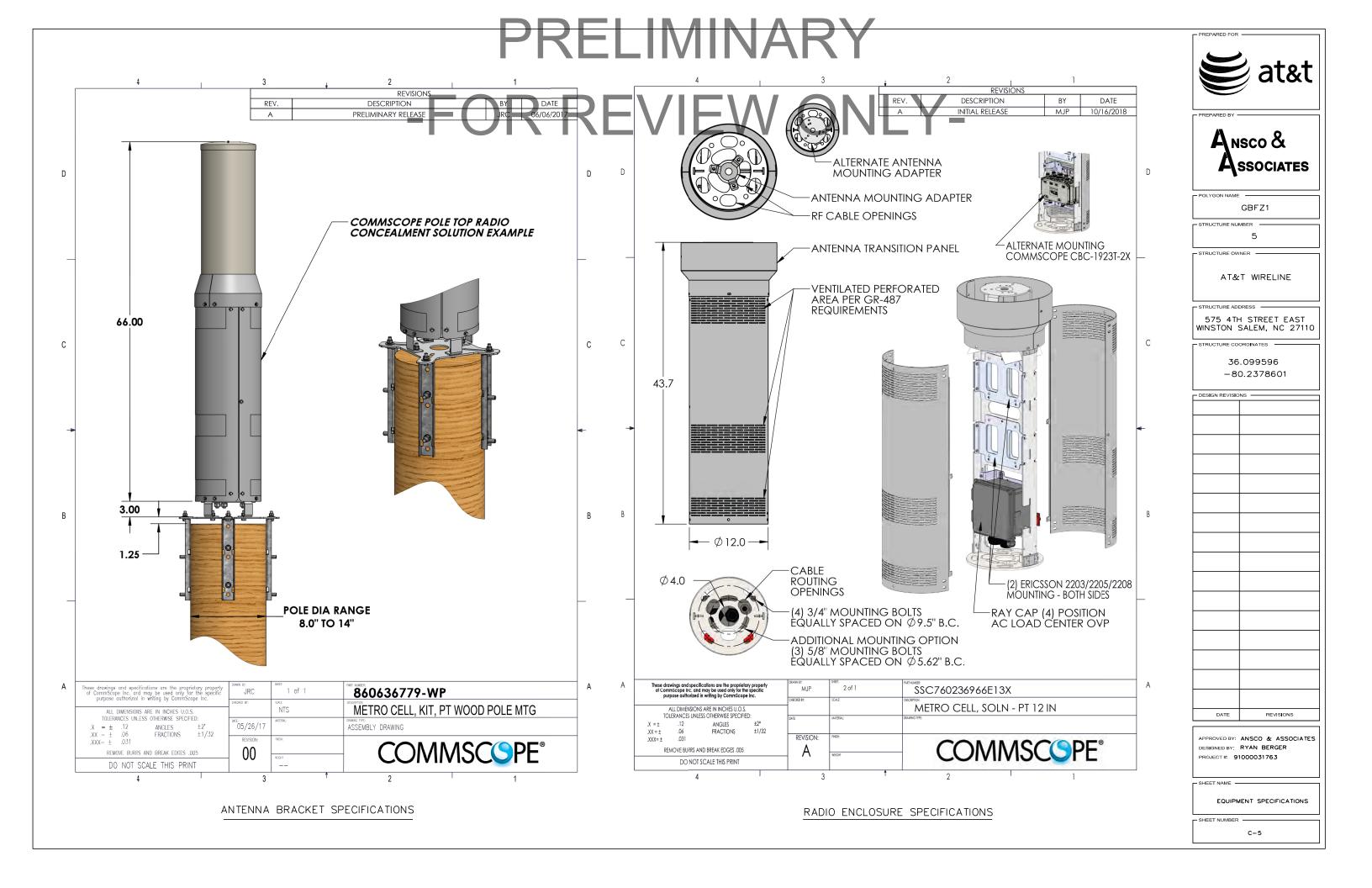
36.099596 -80.2378601

DESIGN REVISIONS — DATE REVISIONS

> APPROVED BY: ANSCO & ASSOCIATES DESIGNED BY: RYAN BERGER PROJECT#: 91000031763

EQUIPMENT SPECIFICATIONS

SHEET NUMBER -



UTILITY NOTES:

WORK INCLUDES:

THESE NOTES AND ACCOMPANYING DRAWINGS COMPLEMENT THE PROVISIONS AND INSTALLATIONS BY THE ELECTRICAL CONTRACTOR, OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE ELECTRICAL WORK COMPLETE IN CONNECTION WITH THIS CELLULAR SITE AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE

- THE PROVISIONS, INSTALLATION AND CONNECTION OF A GROUNDING ELECTRODE SYSTEM COMPLETE WITH SECONDARY GROUNDING, AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
- 2. THE PROVISION AND INSTALLATION OF AN OVERHEAD ELECTRICAL SERVICE OR UNDERGROUND ELECTRICAL SERVICE AND ALL ASSOCIATED WIRE AND CONDUIT AS REQUIRED AND/OR INDICATED ON PLANS.
 THE PROVISION AND INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL
- FIBER SERVICE.
- THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUCTORS, CONDUITS, METER SOCKET, AND CONNECTIONS TO THE SERVICE FOUIPMENT
- ALL CONDUITS SHOULD BE LEFT WITH NYLON PULL CORD FOR FUTURE USE.
- EXCAVATION, TRENCHING, AND BACKFILLING FOR CONDUIT(S), CABLE(S) AND EXTERNAL GROUNDING SYSTEM.

CODES, PERMITS AND FEES:

- ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
- THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE VARIOUS APPLICABLE STANDARD SPECIFICATIONS OF THE FOLLOWING AUTHORITIES:

N.EC.NATIONAL ELECTRICAL CODE

A.N.S.IAMERICAN NATIONAL STANDARDS INSTITUTE I.E.E.E.INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS A.S.T.M.AMERICAN SOCIETY FOR TESTING MATERIALS N.E.M.A.NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION U.L.UNDERWRITERS LABORATORIES, INC. N.F.P.A.NATIONAL FIRE PROTECTION ASSOCIATION

RACEWAYS AND WIRING:

- WIRING OF EVERY KIND MUST BE INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ARCHITECT/ENGINEER.
- OTHERWISE, OR AS APPROVED BY THE ARCHITECT/ENGINEER.

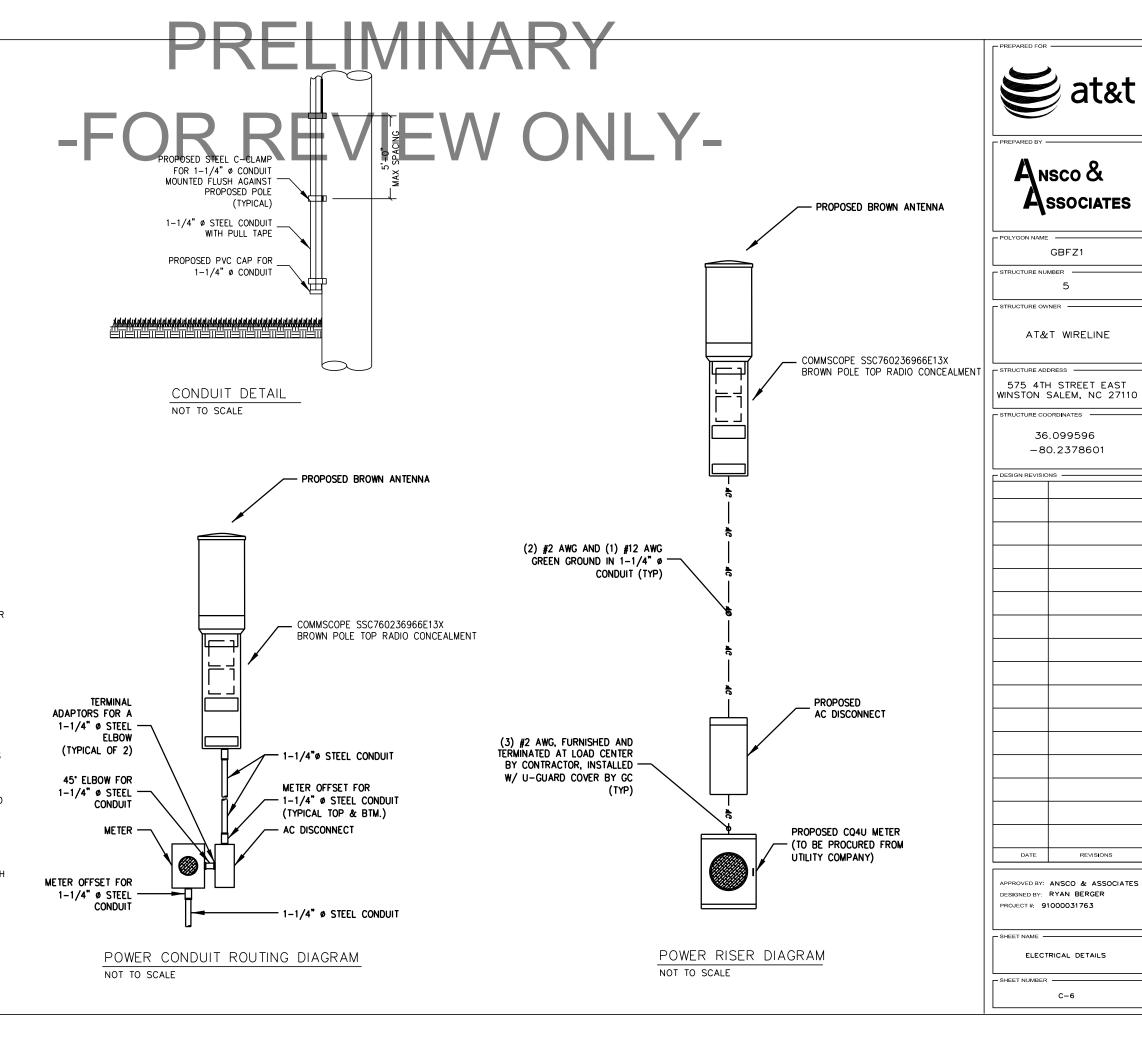
 2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.

 3. RACEWAYS SHALL BE GALVANIZED STEEL, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES UNLESS OTHERWISE NOTED. ALL RACEWAYS SHALL BE APPROVED FOR THE INSTALLATION.

 4. PULL OR JUNCTION BOXES SHALL BE PROVIDED AS REQUIRED TO FACILITATE INSTALLATION OF RACEWAYS AND WIRING. PROVIDE JUNCTION AND PULLBOXES FOR CONDUIT PLINS WITH MORE THAN (360) DECREES OF BENDS.
- CONDUIT RUNS WITH MORE THAN (360) DEGREES OF BENDS.
- PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
- 6. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUND BUSHING.

SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION, CHECK ARCHITECTURAL, STRUCTURAL, AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO ARCHITECT/ENGINEER BEFORE SUBMITTING BID. ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ÈTC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WIRE DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH—IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

COORDINATION WITH UTILITY COMPANY: THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM, INCLUDING TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, IF REQUIRED, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY SERVICE, ETC. PRIOR TO SUBMITTING BID TO INCLUDE ALL LABOR AND MATERIALS. THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID ANY OPTIONAL OR EXCESS FACILITY CHARGES ASSOCIATED WITH PROVIDING ELECTRICAL SERVICE FROM LOCAL UTILITY COMPANY. VERIFY BEFORE BIDDING TO INCLUDE ALL COSTS. THE ELECTRICAL CONTRACTOR SHALL VERIFY BIDDING TO FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVER CURRENT PROTECTION DEVICES IN THE DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM THE LOCAL UTILITY COMPANY



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ELECTRICAL DETAILS

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GROUNDING:

WIRE AND CABLE CONDUCTORS SHALL BE COPPER, 600V, TYPE THHN OR THWN, WITH A MIN. SIZE OF #12 AWG, COLOR CODED.

METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE NOTED ON THE DRAWINGS. MANUFACTURED BY MILBANK OR APPROVED EQUAL, AND SHALL BE UTILITY COMPANY APPROVED.

RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROAD WAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR, RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1 /2 LAPPED WRAPPED WITH HUNTS WRA P PROCESS NO. 3.

*** FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE " OR "SQUEEZE" TYPE. ALL FLEXIBLE CONDUITS SHALL HAVE FULL LENGTH GROUND WIRE.

IT IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE ELECTRICAL

CONTRACTOR TO NOTIFY 811 OR OTHER SUCH UTILITY LOCATING AGENCY 3 DAYS BEFORE DIGGING

CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS ARE TO BE PAID BY THE CONTRACTOR.

ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERING (MINIMUM LETTER HEIGHT SHALL BE ONE FOURTH INCH (1/4"). NAMEPLATES SHALL BE FASTENED WITH

STAINLESS STEEL SCREWS, NOT ADHESIVE.

• UPON COMPLETION OF WORK, CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS BY AN INDEPENDENT TESTING SERVICE ENGAGED BY THE CONTRACTOR SHALL BE SUBMITTED FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.

GROUNDING ELECTRODE SYSTEM

SURFACE PREPARATION: ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE ANON-OXIDIZING AGENT APPLIED PRIOR TO

••• IF CONDUCTORS MUST RUN THROUGH CONDUIT, BOTH ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.

•• EXTERNAL CONNECTIONS

ALL BURIED GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, TEE'S, CROSSES, ETC. ALL CABLE TO GROUND RODS, GROUND ROD SPLICES AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS INDICATED. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY "ULTRAWELD" AND INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES.

••• ALL ABOVE GRADE GROUNDING AND BONDING CONDUCTORS SHALL BE CONNECTED BY TWO HOLE CRI MP TYPE (COMPRESSION) CONNECTIONS (EXCEPT FOR THE ACEG AND GROUND ROD). MECHANICAL CONNECTIONS, FITTINGS OR CONNECTIONS THAT DEPEND SOLELY ON SOLDER SHALL NOT BE USED. ALL CABLE TO CABLE CONNECTIONS SHALL BE HIGH PRESSURE DOUBLE CRI MP TYPE CONNECTIONS. CONNECTIONS TO STRUCTURAL STEEL SHALL BE EXOTHERMIC WELDS.

GROUND RODS: ALL GROUND RODS SHALL BE 5/8- INCH DIAMETER X 8' -0 " LONG "COPPERWELD" OR APPROVED EQUAL, OF THE NUMBER AND LOCATIONS INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED

GROUND CONDUCTORS: ALL GROUND CONDUCTORS SHALL BE STANDARD TINNED SOLID BARE COPPER ANNEALED, AND OF SIZE INDICATED ON DRAWINGS UNLESS OTHERWISE NOTED.

LUGS SHALL BE 2-HOLE, LONG BARREL, STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. LUGS SHALL BE THOMAS AND BETTS SERIES#54_ BE OR EQUIVALENT

535 MCM DLO 262 MCM DLO 54872BE #1 /0 DLO 54862BE #4/0 THWN AND BARE 54866BE #2/0 THWN 54862BE #2 THHN #6 DLO 54205RF

WHEN THE DIRECTION OF THE CONDUCTOR MUST CHANGE, IT SHALL BE DONE GRADUALLY. THE CURVATURE OF THE TURN SHALL BE DONE IN ACCORDANCE WITH

GROUNDING CONDUCTOR SIZE

NO.6 AWG TO NO.4 AWG 6 INCHES NO. 2 AWG TO NO 1 /O AWG NO. 2/0 AWG TO 4/0 AWG 250 MCM TO 750 MCM GROUNDING RESISTANCE EACH SITE, A TEST REPORT

GROUNDING GENERAL:

CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND STARTING THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT/ENGINEER

(2) SETS OF TEST DOCUMENTS FROM THE INDEPENDENT TESTING SERVICE ARE TO BE

BOUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

INSIDE EDGE

LISTING ANY DISCREPANCIES OR CONFLICTING INFORMATION.

• ELECTRICAL PLANS, DETAILS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OR ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.

EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (0.S.H.A.)

ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN GOOD WORKING CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED " U.L." WHERE APPLICABLE. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA , NBFU AND "U.L." LISTED.

ALL CONDUIT SHALL HAVE A PULL CORD.

PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS ROLLTINGS AND CIRCUITS

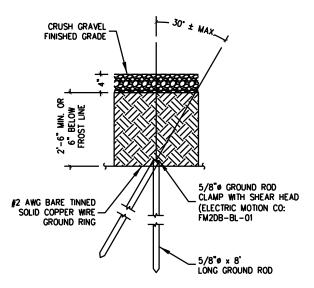
 ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.

THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY IBC, NEC AND ALL APPLICABLE CODES.

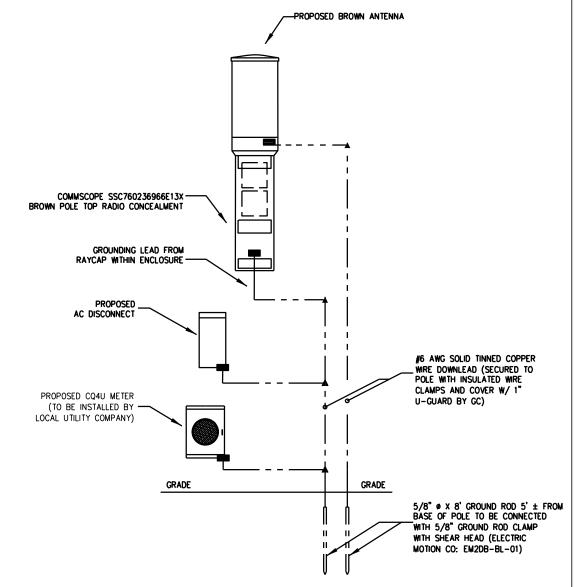
PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE

COURSE OF THE ELECTRICAL WORK.

PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #WPD-8 LIFT COVERPLATES.



GROUND ROD DETAIL NOT TO SCALE



GROUNDING DIAGRAM NOT TO SCALE



A NSCO &

STRUCTURE NUMBER -

STRUCTURE OWNER

AT&T WIRELINE

STRUCTURE ADDRESS

575 4TH STREET EAST WINSTON SALEM, NC 27110

STRUCTURE COORDINATES

36.099596 -80.2378601

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PROVED BY: ANSCO & ASSOCIATES DESIGNED BY: RYAN BERGER PROJECT#: 9100003176.3

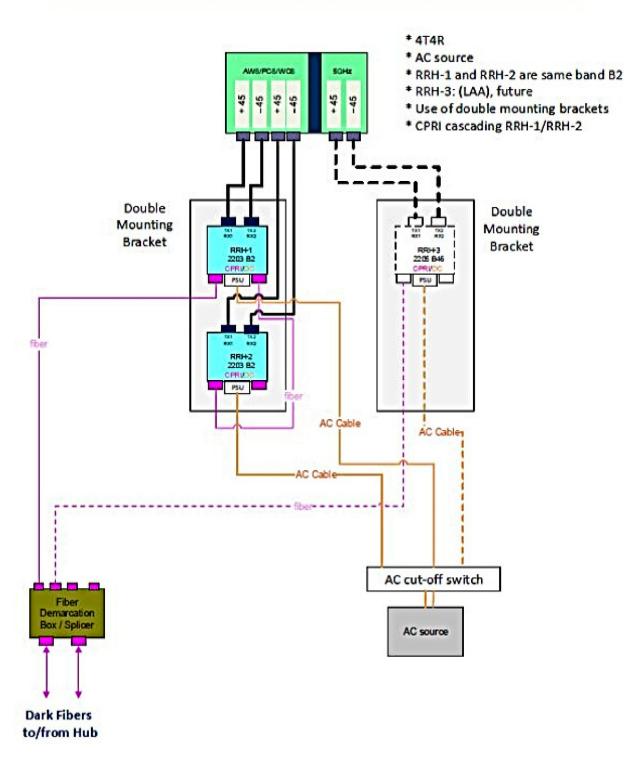
- SHEET NAME

GROUNDING DETAILS

C-7

PRELIMINARY

E/// Pico – dense urban/urban, RAD center < 35' (Markets with 15/20 MHz Max Contiguous BW in Mid-band)



TYPICAL PLUMBING DIAGRAM NOT TO SCALE

FREFARED FOR



PREPARED B

ANSCO & SSOCIATES

POLYGON NAME

GBFZ1

STRUCTURE NUMBE

5

STRUCTURE OWNER -

AT&T WIRELINE

TRUCTURE ADDRESS

575 4TH STREET EAST WINSTON SALEM, NC 27110

- STRUCTURE COORDINATES -

36.099596 -80.2378601

— DESIGN REVISIO	NS
DATE	REVISIONS

APPROVED BY: ANSCO & ASSOCIATES
DESIGNED BY: RYAN BERGER
PROJECT #: 91000031763

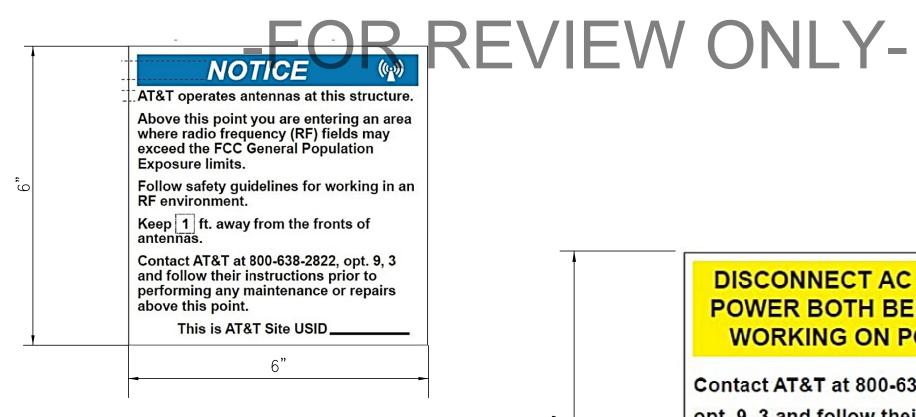
- SHEET NAM

PLUMBING DIAGRAM

SHEET NUMBE

C-8

PRELIMINARY



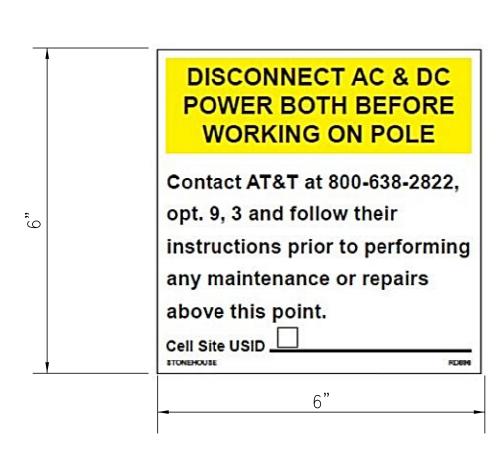
CRAN RF NOTICE SIGN NOT TO SCALE

RF energy emitted by this device may exceed the FCC's general public exposure limits. Stay at least 1 foot away from the device. Call 800-638-2822 for help if you need access within 1 foot

CRAN RF ANTENNA SIGNAGE PLACEMENT

NOT TO SCALE

NOTE: PLACE TWO STICKERS AT THIS LOCATION AND OPPOSITE EACH OTHER.



CRAN POLE POWER DISCONNECT SIGN NOT TO SCALE

NOTE: SIGN IS TO BE PLACED RIGHT ABOVE THE POLE POWER DISCONNECT; SIGN IS TOO LARGE TO BE PLACED ON DISCONNECT.



L PREPARED BY

ANSCO & SSOCIATES

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	GBFZ1

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STRUCTURE NUMBER

AT&T WIRELINE

575 4TH STREET EAST WINSTON SALEM, NC 27110

- STRUCTURE COORDINATES :

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DATE	REVISIONS

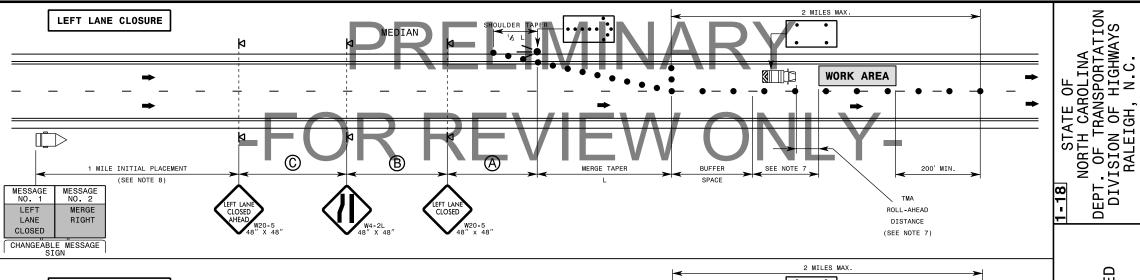
APPROVED BY: ANSCO & ASSOCIATES
DESIGNED BY: RYAN BERGER
PROJECT #: 91000031763

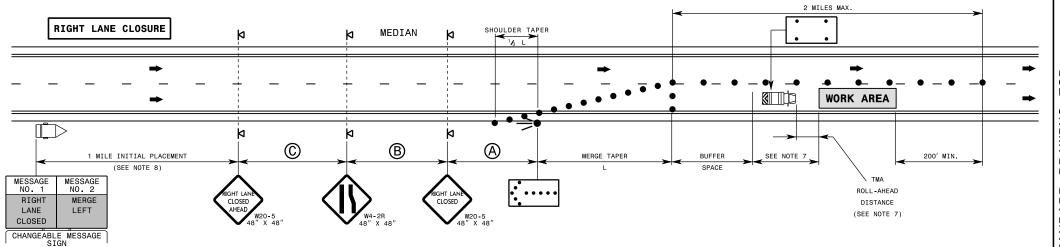
SHEET NAME -

SIGNAGE DETAILS

SHEET NUMB

C-9

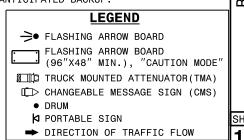




GENERAL NOTES

- 1- IF NECESSARY USE THIS RSD. FOR ONE-WAY CITY TYPE STREETS WHERE SIGNS MAY BE MOUNTED ON BOTH SIDES OF THE ROADWAY.
- 2- PLACE FLASHING ARROW BOARDS (FAB) ON THE SHOULDER (PAVED OR UNPAVED). PLACE FAB WITHIN THE TAPER IF SHOULDERS DO NOT EXIST. MEET THE REQUIREMENTS FOR STOPPING SIGHT DISTANCE AT THE FAB LOCATION. IF NEEDED, EXTEND LANE CLOSURES AT THE BUFFER SPACE, SUCH THAT STOPPING SIGHT DISTANCE TO THE FAB IS MET (SEE RSD. 1101.11, SHEET 2).
- 3- PLACE DRUMS IN TAPERS AT THE MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT. PLACE DRUMS ALONG THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- REFER TO RSD. 1101.11, SHEETS 1, 2, & 4, FOR $^{\prime\prime}L^{\prime\prime}$ DISTANCE, BUFFER SPACE, AND SIGN SPACING.
- 5- REFER TO RSD. 1101.02, SHEETS 9 & 10, FOR TREATMENT OF LANE CLOSURES THRU INTERCHANGES.
- 6- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC. REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.

- 7- POSITION THE TMAS TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER AND CONTINUOUSLY ADVANCE TMAS AS WORK PROGRESSES.
- 8- PLACE CHANGEABLE MESSAGE SIGN (CMS) ON THE OUTSIDE OF THE TRAVELWAY, UNLESS DIRECTED OTHERWISE BY THE ENGINEER. PLACE CMS APPROXIMATELY 1 MILE IN ADVANCE OF THE FIRST W2O-5 SIGNS. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP. MONITOR TRAFFIC, AND WHEN NECESSARY, MOVE CMS APPROXIMATELY 1/2 MILE IN ADVANCE OF ANTICIPATED BACKUP.
- 9- DO NOT EXCEED A 2 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER.



CLOSED CLOSURE FOR LANE DRAWING -LANE ROADW/ ROADWAYS < IAN STANDARD **EMPORARY** MULTI (FOR ROADWAY DIVIDED

DEPT

MPH

9

SHEET 3 OF 14