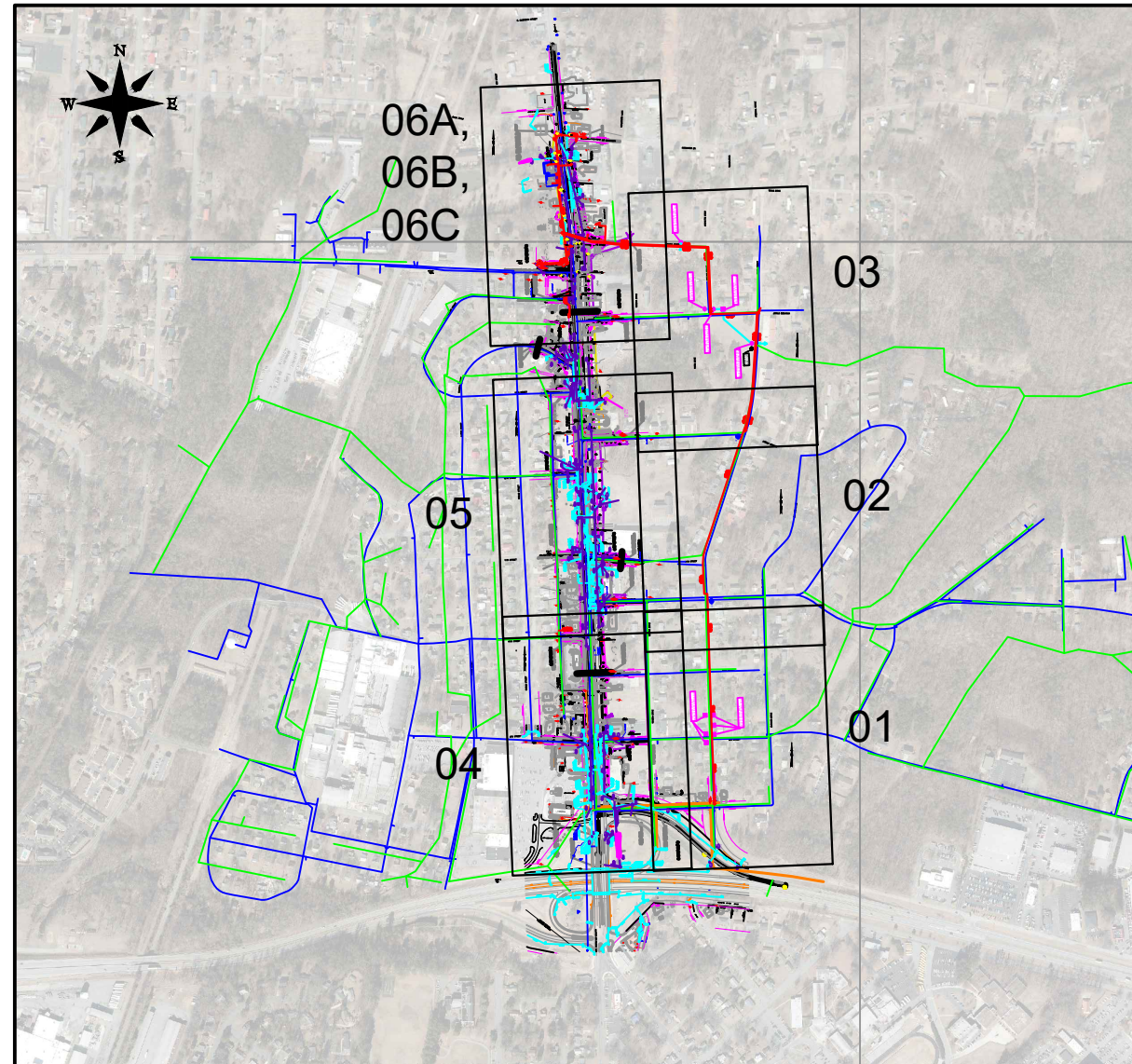


RELATED TO NCDOT PROJECT U-5757  
NC 8 WIDENING FROM US 29/70 BUS 85  
TO SR 1408 (BIESECKER ROAD) IN LEXINGTON, NC.




Map Index

## City of Lexington Natural Gas Department

NATURAL GAS SYSTEM IMPROVEMENTS  
PROJECT: 21905  
May, 2022

### Winston Road Replacement Lexington, North Carolina

PREPARED BY:

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THIS DRAWING IS FOR  
PREVIEWING THE PROJECT VIA  
THE INTERNET. OBTAIN SEALED  
DRAWINGS FOR BIDDING  
PURPOSES.

GENERAL CONSTRUCTION NOTES
NOTES ON THIS PAGE APPLY TO ALL PLAN SHEETS

GENERAL CONSTRUCTION NOTES

- 1. THE 8" STL PIPELINE IS TO BE INSTALLED BY TRENCHING WHERE EVER POSSIBLE. CERTAIN LOCATIONS ARE KNOWN TO HAVE OBSTACLES WHERE REQUIRED DEPTH OF COVERAGE AND SEPARATION FROM OTHER UTILITIES OR DRAINAGE STRUCTURES CANNOT BE MAINTAINED WITHOUT TRENCH DEPTHS EXCEEDING SIX (6') FEET OR PIPE BEING TOO SHALLOW. INSTALLING THE 8" STL PIPELINE BY HORIZONTAL DIRECTIONAL BORING WILL BE ACCEPTABLE WHERE 12" SEPARATION FROM OTHER UTILITIES CANNOT BE MAINTAINED WITHOUT TRENCH DEPTH EXCEEDING 70 INCHES, OR COVER BEING REDUCED TO LESS THAN 40".
PE PIPELINE IS TO BE INSTALLED BY TRENCHING OR BORING. NO ADDITIONAL PAYMENT WILL BE MADE FOR BORING EXCEPT FOR SPECIFIED LUMP SUM DIRECTIONAL BORES. NO ADDITIONAL PAYMENT WILL BE MADE FOR PAVEMENT (ASPHALT OR CONCRETE) EXCEPT AT TIE-IN LOCATIONS, TAP LOCATIONS OR BORE PITS. NON-SPECIFIED BORES SHALL NOT EXCEED 600' IN LENGTH.
- 2. PIPELINE ELEVATIONS OR EXTRA DEPTHS ARE SPECIFIED AT NUMEROUS PLACES IN THE WINSTON ROAD CONSTRUCTION AREA. ANYWHERE ELEVATIONS OR EXTRA DEPTH ARE NOT SPECIFIED, THE PIPELINES WILL BE INSTALLED WITH A MINIMUM OF 50" OF COVER THROUGHOUT THE ENTIRE PROJECT EXCEPT WHERE CROSSING DRAINAGE OR OTHER UTILITIES CAN BE ACCOMPLISHED WHILE MAINTAINING 12" SEPARATION AND AT LEAST 40" OF COVER.
- 3. WINSTON ROAD CROSSINGS SHALL BE BORED BY ANGER ,MOLE OR DIRECTIONAL BORING. NO WATER JET BORES WILL BE PERMITTED. WINSTON ROAD PAVEMENT WILL NOT BE CUT EXCEPT AS REQUIRED FOR TIE-INS OR ABANDONMENT OPERATIONS WITHOUT SECURING WRITTEN PERMISSION FROM THE STATE DOT.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES AND/OR PENALTIES RESULTING FROM ALL NON-COMPLIANCE WITH FEDERAL, STATE AND LOCAL PERMITS AND ENCROACHMENT AGREEMENTS.
- 5. TRACER WIRE TO BE BURIED WITH THE POLYETHYLENE PIPE SHALL BE AWG 12, SINGLE CONDUCTOR SOLID COPPER WITH 600 VOLT INSULATION DESIGNED TO MEET N.E.C. REQUIREMENTS FOR BURIED SERVICE. IT SHALL BE BURIED SIX TO TWELVE (6"-12") INCHES ABOVE THE PIPELINE.
TRACER WIRE TO BE INSTALLED WITH DIRECTIONALLY BORED PIPE SHALL BE COPPER CLAD STEEL OR SINGLE STRAND HARD COPPER, AWG 8 OR LARGER DIAMETER, WITH 600 VOLT POLYETHYLENE INSULATION MEETING CODE REQUIREMENTS FOR UNDERGROUND USE, AND MINIMUM TENSILE STRENGTH OF 500 POUNDS. TRACER WIRE SHALL BE FREE OF SPLICES IN BORE PATH. COPPER CLAD STEEL WIRE WILL REQUIRE APPROPRIATE CONNECTORS DESIGNED FOR COPPER CLAD STEEL WIRE.
- 6. A NUMBER OF UTILITIES AND DRAINAGE STRUCTURES HAVE BEEN IDENTIFIED AND ARE SHOWN ON THE PLANS DUE TO THEIR SIGNIFICANCE BUT THEIR LOCATION MAY DIFFER FROM WHAT IS SHOWN. OTHER UTILITIES AND DRAINAGE STRUCTURES ARE PRESENT ALONG THE ROUTE OF THE PROPOSED GAS MAINS AND HAVE NOT BEEN SHOWN ON THE PLANS. THE LOCATION OF THE UTILITIES AND DRAINAGE STRUCTURES WILL INFLUENCE THE EXACT PLACEMENT OF THE NEW GAS MAINS.
- 7. THE ALIGNMENT OF THE PIPELINE IS DETAILED ON THE PLAN SHEETS. IN GENERAL THE CONTRACTOR MAY VARY THIS HORIZONTAL ALIGNMENT ±1' TO AVOID OTHER UTILITIES OR DRAINAGE STRUCTURES. THE PIPELINE SHALL BE INSTALLED A MINIMUM OF 3' FROM THE TRAVEL LANE EDGE OF PAVEMENT EXCEPT WHERE OTHERWISE SPECIFIED. THE PIPELINE ALIGNMENT MUST REMAIN ON THE DOT ROW OR P.U.E. AT ALL TIMES. IF THE PRESENCE OF THE UTILITIES AND/OR DRAINAGE STRUCTURES REQUIRE THE GAS MAINS TO BE LOCATED OUTSIDE OF THE RANGES ABOVE, CONTACT THE ENGINEER FOR APPROVAL.
- 8. SOME AREAS WILL REQUIRE CLEARING. THE CONTRACTOR IS RESPONSIBLE FOR ALL NEEDED CLEARING, MINIMUM 10' EACH SIDE OF PIPE AND PROPER DISPOSAL OF BRUSH AND TIMBER. ALL COMPENSATION TO THE CONTRACTOR SHALL BE INCORPORATED IN THE LUMP SUM PRICE FOR CLEARING.
- 9. IT IS ANTICIPATED THAT SOME CONSTRUCTION LOCATIONS WILL HAVE ROCKY CONDITIONS WHICH DO NOT MEET THE SPECIFICATIONS FOR ROCK PAYMENT, BUT DO PRESENT A HAZARD TO THE PIPELINE. WHERE THE SOIL REMOVED FROM THE TRENCH IS UNSUITABLE FOR PIPELINE BEDDING BUT THE CONTRACTOR IS NOT BEING COMPENSATED FOR ROCK REMOVAL, THE OWNER WILL PROVIDE EITHER A SUITABLE BEDDING MATERIAL OR ROCK SHIELD AND COSTS ASSOCIATED WITH TRANSPORTATION TO THE CONSTRUCTION SITE AREA. THE CONTRACTOR IS TO INCLUDE STORAGE SPACE, SHORT DISTANCE (PROJECT WIDE) TRANSPORTATION, AND INSTALLATION OF THE BEDDING MATERIAL OR ROCK SHIELD IN OTHER BID ITEMS. NO OTHER COMPENSATION WILL BE MADE FOR ROCKY CONDITIONS WHICH DO NOT MEET THE REQUIREMENTS FOR ROCK REMOVAL PAYMENT.
- 10. ALL EROSION CONTROL MEASURES TO BE CONSTRUCTED IN ACCORDANCE WITH DIVISION 16 OF THE 2018 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES AND THE NCDOT BEST MANAGMENT PRACTICES (BMP).

PRESSURE TESTING

- 1. THE PIPELINE IS TO BE PIGGED AND TESTED SEPARATELY IN SECTIONS APPROVED BY CITY OF LEXINGTON STAFF. PIPE JOINS MADE AFTER TESTING ARE TO BE SOAP BUBBLE TESTED. ALL GAS LINE TESTING SHALL OCCUR AT THE TIME OF CONSTRUCTION. A DESIGNATED REPRESENTATIVE FROM THE CITY OF LEXINGTON SHALL BE NOTIFIED TO WITNESS TESTING PRIOR TO THEIR ACCEPTANCE
- 2. A MINIMUM OF TWO "PIG" RUNS SHALL BE REQUIRED. THE FINAL PIG RUN MUST BE CLEAN AND DRY.
- 3. ALL STEEL MAIN TESTS SHALL BE AT 600 psig MINIMUM FOR 24 HOURS OR MORE USING COMPRESSED AIR OR NITROGEN. ALL PE MAIN TESTS SHALL BE AT 100 psig MINIMUM FOR 24 HOURS OR MORE USING COMPRESSED AIR OR NITROGEN. SERVICE LINES WILL BE TESTED AT 100 psig MINIMUM BUT TIME MAY BE REDUCED TO 1 HOUR OR MORE, USING COMPRESSED AIR OR NITROGEN. JOINING NEW PIPE TO EXISTING WILL BE FOLLOWED BY SOAP BUBBLE TESTING.
- 4. ALL DIRECTIONAL BORES (SPECIFIED OR NOT) SHALL BE PRE TESTED AT 100 psig FOR 2 HOURS AFTER PIPE INSTALLATION, THEN RE-TESTED AGAIN WITH ADJOINING PIPE AFTER CONNECTION.
- 5. CONTRACTOR TO SUPPLY ALL LABOR, MATERIALS, AND TESTING EQUIPMENT.

HORIZONTAL DIRECTIONAL DRILLING NOTES

- 1. EACH SPECIFIED BORE HAS APPROXIMATE FOOTAGES REQUIRED TO MAKE THE BORE. THE CONTRACTOR WILL BE PAID THE LUMP SUM PRICE OF DIRECTIONAL BORING AT THESE LOCATIONS, REGARDLESS OF THE ACTUAL FOOTAGE BORED AT THESE LOCATIONS. PAYMENT IS CONTINGENT UPON COMPLETION OF CROSSING WITH THE PIPE IN CONDITION ACCEPTABLE TO THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR ROCK ENCOUNTERED DURING THE DIRECTIONAL BORE.
- 2. EXIT AND ENTRANCE PITS SHOULD BE SUFFICIENT SIZE TO CONTAIN THE DRILLING MUD AND SPOILS.
- 3. DETERGENTS ARE NOT TO BE USED TO LUBRICATE THE PIPE DURING PULLBACK.
- 4. DRILL HEAD SHOULD BE MONITORED AND LOCATION MAPPED DURING THE DRILLING OPERATION. AN AS BUILT PLAN AND PROFILE OF THE DIRECTIONAL BORE SHALL BE SUPPLIED TO THE ENGINEER.
- 5. PIPE USED IN DIRECTIONAL BORE SHALL BE WELDED OR BUTT FUSED. BACKREAM HOLE DIAMETERS SHOULD MATCH PIPE DIAMETERS AS FOLLOWS:

PIPE OUTSIDE DIAMETER (inches)	REAMER MAXIMUM DIAMETER (inches)	REAMER MINIMUM DIAMETER (inches)
8.625	12	10
6.625	10	8
4.5	8	6
2.375	6	4

- 6. TWO STRANDS OF TRACER WIRE ARE TO BE INSTALLED WITH DIRECTIONALLY BORED PE PIPE. TRACER WIRE SHALL BE COPPER CLAD STEEL OR SINGLE STRAND HARD COPPER, AWG 8 OR LARGER DIAMETER, WITH 600 VOLT POLYETHYLENE INSULATION MEETING CODE REQUIREMENTS FOR UNDERGROUND USE, AND MINIMUM TENSILE STRENGTH OF 500 POUNDS. TRACER WIRE SHALL BE FREE OF SPLICES IN BORE PATH. COPPER CLAD STEEL WIRE WILL REQUIRE APPROPRIATE CONNECTORS DESIGNED FOR COPPER CLAD STEEL WIRE.
- 7. AN MDPE WEAK LINK SHALL BE INSTALLED BETWEEN THE SWIVEL AND THE LEADING END OF THE PIPE TO PREVENT OVERSTRESSING OF PE PIPE. USE REDUCERS AS NECESSARY. MAXIMUM WEAK LINK DIAMETERS ARE AS FOLLOWS:

PIPE OUTSIDE DIAMETER (inches)	WEAK LINK MAXIMUM DIAMETER (inches)	WEAK LINK WALL (SDR)	PULL FORCE NOT TO EXCEED
8.625	6.625	11	25,109
6.625	4.5	11	14,814
4.5	3.5	11	6,840
2.375	1.5	9.3	1,904

- 8. PIPE ROLLERS, SKATES, OR OTHER PROTECTIVE DEVICES SHALL BE USED TO PREVENT DAMAGE TO THE PIPE FROM THE EDGES OF THE PIT OR SUB-STRUCTURES DURING PULL-IN. ROLLERS SHALL BE USED UNDER PIPE TO PROTECT THE PIPE FROM GOUGES, ELIMINATE GROUND DRAG, AND REDUCE THE PULL-IN FORCE.
- 9. AN ADDITIONAL FIFTEEN FEET (15') OF PIPE SHALL BE PULLED THROUGH THE EXIT PIT, EXPOSED, AND EXAMINED FOR DAMAGE.
- 10. INSTALLATION OF THE PE PIPE SHOULD BE PLANNED SO BOTH THE FINAL BACKREAM AND THE PULL BACK CAN BE COMPLETED IN THE SAME DAY.
- 11. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF EXCESS DRILLING FLUID. SPOILS AND DRILLING FLUID ARE NOT PERMITTED TO BE DISPOSED INTO STREAMS OR INTO STORM, SANITARY, OTHER DRAINAGE SYSTEMS. DISPOSAL SHOULD COMPLY WITH LOCAL ORDINANCES, REGULATIONS, AND ENVIRONMENTALLY SOUND PRACTICES.
- 12. CONTRACTOR MUST PROVIDE A WRITTEN CONTINGENCY PLAN FOR CLEAN UP OF SURFACE SEEPAGE OF DRILLING FLUID AND SPOILS BEFORE BEGINNING ANY PORTION OF PROJECT.
- 13. PIPE INSTALLED BY DIRECTIONAL BORING SHALL BE ALLOWED TO RECOVER 24 HOURS BEFORE CONNECTION TO OTHER PIPE.
- 14. PIPE INSTALLED BY DIRECTIONAL BORING SHOULD BE PIGGED AND PRESSURE TESTED ONCE AS A SEPARATE UNIT AFTER PIPE INSTALLATION AND AGAIN AS PART OF THE OTHER INSTALLATION.
- 15. CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ANY SUBSURFACE UTILITIES DAMAGED DURING BORING, BACKREAMING, AND OTHER OPERATIONS.
- 16. IF A DRILL HOLE MUST BE ABANDONED, THE HOLE SHOULD BE FILLED WITH GROUT OR CEMENT TO PREVENT FUTURE SUBSIDENCE.
- 17. THE CONTRACTOR MAY UTILIZE DIRECTIONAL BORING TECHNIQUES IN AREAS OTHER THAN WHERE SPECIFIED AT HIS OPTION. NO ADDITIONAL COMPENSATION FOR UTILIZING DIRECTIONAL BORING IN AREAS NOT SPECIFICALLY IDENTIFIED SHALL BE PAID.

ONE-CALL NOTES

THE CONTRACTOR IS RESPONSIBLE FOR CALLING THE LOCAL ONE-CALL SERVICE (811) PRIOR TO CONSTRUCTION. SEVERAL UTILITIES IN THE PROJECT AREA MAY NOT BE MEMBERS OF A ONE-CALL SERVICE. THESE COMPANIES MUST BE GIVEN SUFFICIENT NOTICE PRIOR TO CONSTRUCTION, IN ORDER TO MARK THEIR LINES

THIS DRAWING IS FOR PREVIEWING THE PROJECT VIA THE INTERNET. OBTAIN SEALED DRAWINGS FOR BIDDING PURPOSES.

REVISIONS:



CITY OF LEXINGTON
WINSTON ROAD
REPLACEMENT

NATURAL GAS SYSTEM IMPROVEMENTS
CITY OF LEXINGTON NATURAL GAS DEPARTMENT
LEXINGTON, NC

DRAWN	CMD	SCALE	SEE GRAPHIC
DATE DRAWN	05/06/2022	PROJECT NO.	21905
SHEET NAME	GENERAL CONSTRUCTION NOTES 01		



EROSION CONTROL NOTES

1. CONSTRUCTION SPOIL SHALL BE PREVENTED FROM ENTERING CULVERTS BY PROPER INSTALLATION OF ENVIRONMENTAL CONTROLS AS DESCRIBED ON THE "EROSION CONTROL NOTES" PLAN SHEETS.
2. WHERE TRENCH LINE IS NEAR BOTTOM OF DITCH LINE AT INLET OR OUTLET OF CULVERT (CONCENTRATED FLOW), DITCH SHALL BE LINED WITH EROSION CONTROL FABRIC AT LEAST 10' ALONG EACH FLOW CHANNEL.
3. WHERE TRENCH LINE IS AT OR NEAR BOTTOM OF DITCH LINE (WITHIN 4" ELEVATION) AND DITCH LINE IS AT 2% SLOPE OR STEEPER, DITCH SHALL BE LINED WITH EROSION CONTROL FABRIC.
4. CONTRACTOR IS TO HAVE WEIGHTED INLET TUBES, CHECK DAMS, SEDIMENT TRAPS, AND SEDIMENT FENCES IN PLACE AT ANY DOWNSLOPE LOCATION BEFORE BEGINNING PIPE INSTALLATION. EROSION CONTROL MEASURES MAY BE TEMPORARILY REMOVED AS NECESSARY TO FACILITATE PIPELINE INSTALLATION, AND THEN PROMPTLY REPLACED.
5. ALL DISTURBED AREAS SHALL BE MULCHED AND TACKED WITHIN FIVE (5) WORKING DAYS OR SEVEN (7) CALENDAR DAYS FOLLOWING PIPELINE INSTALLATION, OR PIPELINE INSTALLATION MUST CEASE UNTIL MULCH AND TACK ARE INSTALLED. ALL STRAW OR OTHER MULCH WHICH BLOWS AWAY OR WASHES AWAY BEFORE PERMANENT GROUND COVER IS ESTABLISHED MUST BE REPLACED AND TACKED WITHIN FIVE (5) WORKING DAYS OR SEVEN (7) CALENDAR DAYS.
6. JUTE (OR OTHER MATERIAL) NETTING IS AN ACCEPTABLE SUBSTITUTE FOR ASPHALT TACKING OF STRAW. THIS NETTING IS NOT A PAY ITEM AND IS INCLUDED IN THE COST PER LINEAR FOOT OF PIPE THE SAME AS OTHER TACK, SUCH AS ASPHALT EMULSION. IF ASPHALT EMULSION IS NOT USED, AN ACCEPTABLE SUBSTITUTE MUST BE USED IN ITS PLACE WHICH WILL NOT DEGRADE IN PERFORMANCE PRIOR TO ESTABLISHMENT OF PERMANENT GROUND COVER. SPRAYED ON POWDERED CELLULOSE MAY BE USED AS TACK BUT WILL NOT BE ACCEPTED AS MULCH MATERIAL.
7. FAILURE TO INSTALL TACK WITHIN THE TIME SPECIFIED WILL RESULT IN PROJECT SHUT DOWN. NO ADDITIONAL PIPE INSTALLATION WILL BE ALLOWED UNTIL ALL EROSION PREVENTION AND SEDIMENTATION CONTROL MEASURES ARE PROPERLY INSTALLED, INCLUDING TACK.
8. WHERE SPECIFIED ON DRAWINGS, EROSION CONTROL BLANKETS SHOULD BE NORTH AMERICAN GREEN SC150 STRAW/COCONUT FIBER MATTING. NO OTHER MATTING WILL BE ACCEPTED UNLESS PRE-APPROVED BEFORE BID OPENING. BLANKET SHOULD BE INSTALLED USING STAPLE PATTERN SHOWN ON DRAWING EC-6.

SPECIAL CONDITIONS

1. GENERAL INFORMATION: EROSION AND SEDIMENT CONTROL PROCEDURES SHALL BE INCLUDED IN THIS PROJECT. THEY SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING SECTIONS. THE CONTRACTOR SHALL INSURE THAT ALL SEDIMENTATION FEATURES ARE IN PLACE PRIOR TO CONSTRUCTION AS NECESSARY AND DESCRIBED IN SECTIONS 3, 4, 5 AND 6. CONTRACTOR SHALL REMOVE THESE FEATURES AS GROUND COVER IS ESTABLISHED WITH APPROVAL OF THE ENGINEER, OWNER'S REPRESENTATIVE AND/OR CONTROLLING AUTHORITIES. ALL COSTS OF EROSION CONTROL MEASURES SHALL BE INCLUDED IN THE COST OF PIPE PER LINEAR FOOT EXCEPTING PAY ITEM(S) FOR STONE MATERIAL (GRAVEL, RIP RAP) AND THE INSTALLATION OF EROSION CONTROL BLANKET WHERE REQUIRED BY SPECIFICATION, SITE CONDITIONS (WITH APPROVAL OF OWNER), OR LOCAL AUTHORITY.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN SEVEN (7) CALENDAR DAYS AFTER WORK HAS CEASED.

CONTRACTOR TO PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION.

CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO THE PAVED ROADWAY CONSTRUCTION AREAS. CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.

CONTRACTOR WILL CONSTRUCT TEMPORARY DIVERSION BERMS AND/OR DITCHES AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.

2. SEED AND MULCH: THIS WORK INCLUDES THE FINAL PREPARATION OF THE GROUND, DISTRIBUTION OF FERTILIZERS, LIME, MULCH, AND SEED OVER THE ENTIRE AREA DISTURBED BY CONSTRUCTION ACTIVITIES INCLUDING THE RESTORATION OF TRENCHES, DITCHES, AND OTHER DAMAGED AREAS. PRIOR TO COMMENCING THE SOIL DISTURBING ACTIVITIES, CONTRACTOR SHOULD HAVE SUFFICIENT EROSION CONTROL MATERIALS ON SITE TO PROTECT AT LEAST ONE DISTURBED ACRE PER MILE OF 6" OR SMALLER PIPE INSTALLATION, OR 1.5 DISTURBED ACRE PER MILE OF LARGER DIAMETER PIPE.

THE SEED MIXTURE SHALL BE AS SPECIFIED BELOW:

MAY 1 TO AUGUST 31	LB/ACRE
KENTUCKY 31 FESCUE	100
KOBE LESPEDEZA	10
GERMAN MILLET	25
SEPTEMBER 1 TO APRIL 30	LB/ACRE
KENTUCKY 31 FESCUE	100
SERICEA LESPEDEZA	15
RYE GRAIN	40

THE FOLLOWING FERTILIZERS SHALL BE ADDED TO THE SOIL AS NEEDED:

GROUND AGRICULTURAL LIMESTONE (FINE)	2 TONS/ACRE
10-20-20	500 LBS/ACRE

MIX FERTILIZER WITH SOIL TO A DEPTH OF 4"-6" BY DISKING OR OTHER APPROVED METHOD.

MULCH THE ENTIRE AREA (WELL DISTRIBUTED, 80-85% COVERAGE) WITH A DRY STRAW (PREFERABLY WHEAT OR OAT) FREE OF NOXIOUS WEEDS. MULCH SHALL BE REASONABLY BRIGHT IN COLOR AND SHALL NOT BE MUSTY, MOLDY, CAKED, DECAYED, OR DUSTY. ALL MULCH MUST BE TACKED. TACK MULCH WITH EMULSIFIED ASPHALT AT THE RATE OF 0.10 GAL/SY (10 GAL/1000SF) OR APPROVED EQUAL. RYE GRAIN IS AN ACCEPTABLE SUBSTITUTE FOR TACKING OF STRAW AT 15 LB/ACRE TO BE SEEDED PRIOR TO MULCH APPLICATION FROM SEPTEMBER 1 TO NOVEMBER 1. RYE GRAIN FOR TACKING IS IN ADDITION TO RYE GRAIN INCLUDED IN THE MIX IN PREVIOUS SEED MIXTURE LANGUAGE. JUTE (OR OTHER MATERIAL) NETTING IS AN ACCEPTABLE SUBSTITUTE FOR TACKING OF STRAW. NOTE THAT THIS NETTING IS NOT A PAY ITEM AND IS INCLUDED IN THE COST PER LINEAR FOOT OF PIPE THE SAME AS OTHER TACK.

EROSION CONTROL NOTES

SPECIAL CONDITIONS (CONT.)

3. RIPRAP FOR SLOPE PROTECTION: RIPRAP FOR SLOPE PROTECTION SHALL BE USED AT ALL STREAM CROSSINGS AND SHALL BE PLACED ON THE STREAM EMBANKMENTS WHERE SHOWN. RIPRAP FOR SLOPE PROTECTION SHALL BE CLASS I WEIGHING FROM 5 TO 200 POUNDS OF WHICH THIRTY (30%) PERCENT SHALL WEIGH A MINIMUM OF 60 POUNDS AND NO MORE THAN TEN (10%) PERCENT SHALL WEIGH LESS THAN 15 POUNDS EACH. RIPRAP SHALL BE HARD ANGULAR WEATHER RESISTANT STONE WITH A SPECIFIC GRAVITY OF 2.5 OR GREATER. RIPRAP SHALL BE PLACED AT A THICKNESS OF 1.5 TIMES THE MAXIMUM STONE DIAMETER AND SHALL BE EMBEDDED AT THE BASE OF THE SLOPE IN A KEYWAY. A FILTER BLANKET OF SAND AND GRAVEL SIX (6") INCHES THICK SHALL BE PLACED BETWEEN THE RIPRAP STONES AND THE SOIL.
4. DITCH PROTECTION: RIPRAP SHALL BE USED FOR DITCH EROSION AND FLOW CONTROL ON SLOPES OF GREATER THAN 5%. THE RIPRAP SHALL BE PLACED AS SHOWN ON THE DRAWING "EC-4". THIS SHALL REMAIN UNTIL THE GRASS HAS A GOOD ROOT MAT AND THEN SHALL BE REMOVED WHEN DIRECTED BY THE ENGINEER AND SEEDED AS ABOVE.

ROCK CHECK DAMS SHALL BE PLACED AS INDICATED ON THE CONSTRUCTION DRAWINGS. THESE SHALL BE IN PLACE PRIOR TO TRENCH INSTALLATION IN ANY AREA WHERE WATER WILL FLOW FROM DISTURBED AREAS VIA THE ROCK CHECK DAM LOCATION. ROCK CHECK DAMS MAY BE TEMPORARILY REMOVED AND REPLACED IMMEDIATELY THEREAFTER TO FACILITATE PIPELINE INSTALLATION. RIPRAP FOR ROCK CHECK DAMS SHALL BE 4 TO 15-INCH HARD ANGULAR WEATHER RESISTANT STONE, AND UPSTREAM FACE OF CHECK DAM SHOULD BE SIX INCHES OF #57 STONE AS A FILTER.

EXCELSIOR WATTLES MAY BE USED FOR DITCH EROSION AND FLOW CONTROL ON SLOPES LESS THAN 2.5% IN PLACE OF ROCK CHECK DAMS. ON SLOPES OF 2% - 2.5% EXCELSIOR WATTLES SHALL HAVE A MAXIMUM SPACING OF 75 FEET AND FOR SLOPES OF LESS THAN 2% THEY SHALL HAVE A MAXIMUM SPACING OF 100 FEET. EXCELSIOR WATTLES MAY ALSO BE USED AS INLET PROTECTION TO ROADWAY DRAINAGE CULVERTS.

WATTLES SHALL MEET THE FOLLOWING SPECIFICATIONS:

100% CURLED WOOD (EXCELSIOR) FIBERS	
MINIMUM DIAMETER	12 IN.
MINIMUM DENSITY	2.5 LB/FT3 +/- 10%
NET MATERIAL	SYNTHETIC
NET OPENINGS	1 IN. X 1 IN.
NET CONFIGURATION	TOTALLY ENCASED
MINIMUM WEIGHT	20 LB. +/- 10% PER 10 FT. LENGTH

ANCHORS: STAKES SHALL BE USED AS ANCHORS.

WOODEN STAKES: PROVIDE HARDWOOD STAKES A MINIMUM OF 2 FEET LONG WITH A 2 IN. X 2 IN. NOMINAL SQUARE CROSS SECTION. ONE END OF THE STAKE MUST BE SHARPENED OR BEVELED TO FACILITATE DRIVING DOWN INTO THE UNDERLYING SOIL.PROVIDE STAPLES MADE OF 0.125" DIAMETER NEW STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH WITH A THROAT OF 1" IN WIDTH.

CONSTRUCTION METHODS: WATTLES SHALL BE SECURED TO THE SOIL BY WIRE STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT AND AT THE END OF EACH SECTION OF WATTLE. A MINIMUM OF 4 STAKES SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF THE WATTLE WITH A MAXIMUM SPACING OF 2 LINEAR FEET ALONG THE WATTLE. INSTALL A MINIMUM OF 2 STAKES ON THE UPSTREAM SIDE OF THE WATTLE. STAKES SHALL BE DRIVEN INTO THE GROUND A MINIMUM OF 10 INCHES WITH NO MORE THAN 2 INCHES PROJECTING FROM THE TOP OF THE WATTLE. DRIVE STAKES AT AN ANGLE AS SHOWN ON DRAWING "EC-11". ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES. OVERLAP ADJOINING SECTIONS OF WATTLES A MINIMUM OF 6 INCHES. INSTALLATION OF MATTING SHALL BE IN ACCORDANCE WITH DRAWINGS "EC-11" AND "EC-6" AND SHALL BE STRAW/COCONUT FIBER MATTING (NORTH AMERICAN GREEN SC150).

5. WEIGHTED INLET TUBES: WHERE ASPHALT OR CONCRETE PREVENTS THE PROPER INSTALLATION OF WATTLES FOR FLOW CONTROL, WEIGHTED INLET TUBES ARE TO BE USED INSTEAD. WEIGHTED INLET TUBES ARE SEDIMENT TUBES CAPABLE OF STAYING IN PLACE WITHOUT EXTERNAL STABILIZATION METHODS SUCH AS STAKING. THESE TYPICALLY HAVE A WEIGHTED INNER CORE OR OTHER MECHANISM TO KEEP THEM IN PLACE. WEIGHTED INLET TUBES WILL BE SUPPLIED BY THE CONTRACTOR.

WEIGHTED INLET TUBES SHALL BE 6 INCHES TO 12 INCHES IN DIAMETER, WITH A MASS PER UNIT LENGTH (POUND PER FOOT) OF 1 LB. PER INCH DIAMETER MINIMUM. THAT IS, 6 INCH DIAMETER TUBES SHALL WEIGH AT LEAST 6 POUNDS PER FOOT, AND 12 INCH TUBES SHALL WEIGH AT LEAST 12 POUNDS PER FOOT. AT LEAST 80% OF THE TUBE FILLER FIBER MATERIALS SHALL BE AT LEAST 4 INCHES IN LENGTH. TUBE LENGTH WILL BE AT LEAST 6 FEET. NETTING WEIGHT WILL BE CERTIFIED AT LEAST 0.35 OZ. PER FOOT AS A MINIMUM.

WEIGHTED INLET TUBES SHALL BE INSTALLED BY LAYING THEM FLAT ON THE GROUND/ ASPHALT/ CONCRETE WITH NO GAPS BETWEEN THE UNDERLYING SURFACE AND THE BOTTOM OF THE INLET TUBE.

THE ENDS OF THE INLET TUBES SHALL BE LAPPED AT LEAST 6" TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT.

SEDIMENT TUBES SHOULD NEVER BE STACKED ON TOP OF EACH OTHER.

REFER TO DRAWING EC-10 FOR FURTHER INFORMATION AND INSTRUCTIONS.

6. SILT FENCE: SILT FENCES SHALL BE PLACED AS INDICATED ON THE CONSTRUCTION DRAWINGS. THESE SHALL BE IN PLACE PRIOR TO TRENCH INSTALLATION IN ANY AREA WHERE WATER WILL FLOW FROM DISTURBED AREAS TO THE SILT FENCE LOCATION. SILT FENCES MAY BE TEMPORARILY REMOVED AND REPLACED IMMEDIATELY THEREAFTER TO FACILITATE PIPELINE INSTALLATION. SILT FENCE SHALL BE PLACED BETWEEN THE TOP OF THE SLOPE AND THE EDGE OF THE CREEK THROUGHOUT THE DISTURBED AREA. THE SILT FENCE SHALL EXTEND FIVE (5') FEET INTO THE UNDISTURBED AREA TO INSURE SEDIMENTS ARE TRAPPED AS DESIRED. SILT FENCES SHALL BE PLACED SO THAT THE LOWER TWELVE (12") INCHES ARE PLACED BELOW THE SURFACE OF THE GROUND. POSTS SHALL BE DRIVEN TO A DEPTH OF TWENTY-FOUR (24") INCHES AND SHALL BE SPACED AT SIX (6') FOOT INTERVALS MAXIMUM. SEDIMENT FENCE FABRIC MUST HAVE A MINIMUM OF 85% FILTERING EFFICIENCY. TENSILE STRENGTH OF FABRIC AT 20% MAXIMUM ELONGATION IS TO BE 30 LB/LINEAR FOR STANDARD STRENGTH FABRIC AND 50 LB/LINEAR INCH FOR HIGH STRENGTH FABRIC.

AFTER GROUND COVER HAS BEEN ESTABLISHED AND APPROVED BY THE ENGINEER OR OWNER'S REPRESENTATIVE, THE SILT FENCE SHALL BE REMOVED AND THE REMAINING DISTURBED AREAS SEEDED AS ABOVE.

SPECIAL CONDITIONS (CONT.)

7. TEMPORARY SEDIMENT TRAPS: INSTALL TEMPORARY SEDIMENT TRAPS IN BAR DITCHES PRIOR TO STREAM CROSSINGS WHERE THE SHOULDER OF THE ROAD HAS BEEN DISTURBED BY CONSTRUCTION ACTIVITY. THESE SEDIMENT TRAPS SHALL BE EXCAVATED TO BE A MINIMUM OF ONE (1') FOOT BELOW THE LOWEST LEVEL OF THE EXISTING DITCH. THEY SHOULD BE TWO (2') FEET WIDE AND TEN (10') FEET LONG AT THE BOTTOM OF THE TRAP WITH 2:1 SIDES. AT THE DOWNSTREAM END OF THE TRAP, A GRAVEL FILTER DAM SHALL BE PLACED TO THE TOP OF THE DITCH. THIS GRAVEL DAM SHALL BE A MINIMUM OF ONE (1') FOOT AT ITS TOP ELEVATION WHEN MEASURED ALONG THE FLOW LINE OF THE DITCH. AFTER GROUND COVER HAS BEEN ESTABLISHED AND APPROVED BY THE ENGINEER OR OWNER'S REPRESENTATIVE, THE GRAVEL SHALL BE REMOVED AND THE SEDIMENT TRAP FILLED, COMPACTED, AND SEEDED AS ABOVE.
8. MAINTENANCE OF SEDIMENT CONTROL FACILITIES: THE CONTRACTOR SHALL INSPECT THE FACILITIES PERIODICALLY (MINIMUM ONCE PER WEEK) AND AFTER EACH RAIN. SEDIMENT SHALL BE REMOVED FROM SEDIMENT TRAPS AND PROPERLY DISPOSED OF AFTER THE EXCAVATED AREA HAS FILLED TO ITS ORIGINAL LEVEL. SEDIMENT, MULCH AND DEBRIS SHALL BE REMOVED FROM ABOVE RIP RAP CHECK DAMS AND PROPERLY DISPOSED OF AFTER SEDIMENT COLLECTION REACHES 6" DEPTH OR ½ OF CAPACITY WHICHEVER IS LESS. SILT FENCES SHALL BE RECONSTRUCTED AS NECESSARY BY RE-STAKING OR REPLACEMENT AS NEEDED.

ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

9. GRASS MATTING/EROSION CONTROL BLANKETS: GRASS MATTING OR EROSION CONTROL BLANKETS MAY BE REQUIRED TO ADEQUATELY STABILIZE THE DITCHES DISTURBED BY CONSTRUCTION OF GAS LINES IN DITCH LINES OF OVER 2% SLOPE. CONTRACTOR SHOULD PLAN TO INSTALL GRASS MATTING OR EROSION CONTROL MATTING WHEREVER THE TRENCH IS LESS THAN 4" ELEVATION HIGHER THAN THE PARALLEL BOTTOM OF EXISTING DRAINAGE DITCH LINE. SHOULD THE ABOVE PROCEDURES, INCLUDING SEED AND MULCH, NOT STABILIZE THE DISTURBED DITCH LINE, THE CONTRACTOR SHALL USE A GRASS MATTING AS DIRECTED BY THE ENGINEER, OWNER'S REPRESENTATIVE OR CONTROLLING AUTHORITY. THIS MATTING SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND SHALL BE OF SUFFICIENT LENGTH AND WIDTH TO ELIMINATE EROSION OF THE DITCH LINE. A PRE-SEEDED MANUFACTURED NETTING MAY BE USED IF OF SUFFICIENT SHEAR STRENGTH FOR SOIL TYPE, WATER FLOW, AND SLOPE. SUBMIT PRODUCT INFORMATION TO THE ENGINEER OR OWNER'S REPRESENTATIVE FOR APPROVAL.

SOME AREAS OF THE PROJECT MAY BE STEEP ENOUGH TO REQUIRE THE EXTRA EROSION PROTECTION OFFERED BY STRAW/COCONUT FIBER MATTING (NORTH AMERICAN GREEN SC150). IN ADDITION, ANY DISTURBED AREA WITHIN 50' OF A STREAM BED SHALL BE PROTECTED BY STRAW/COCONUT FIBER MATTING (NORTH AMERICAN GREEN SC150). BLANKET SHALL BE INSTALLED USING A MINIMUM OF THREE STAPLES PER YARD WITH THE WATER FLOW AND THREE STAPLES PER YARD ACROSS THE FLOW. THE NUMBER OF SQUARE YARDS OF NORTH AMERICAN GREEN SC150 LISTED IN THE PROPOSAL ARE REQUIRED TO FULFILL THE SPECIFICATIONS ON THE DRAWINGS. THE ENGINEER OR OWNER'S REPRESENTATIVE MAY REQUIRE ADDITIONAL MATTING INSTALLATION DURING THE PROJECT. ADDITIONAL INSTALLATION WILL BE PAID AT THE UNIT PRICE IN THE CONTRACT PROPOSAL.

CONTRACTOR IS RESPONSIBLE FOR INSURING THAT EROSION CONTROL BLANKET AND NECESSARY STAPLES/STAKES ARE ON SITE AND READY FOR INSTALLATION PRIOR TO SOIL DISTURBING ACTIVITIES.

10. CONSTRUCTION SEQUENCE: TRENCH FILLING AND TAMPING SHALL KEEP UP WITH TRENCH OPENING OPERATION. PROPER GROUND COVER (SEED, STRAW, MULCH, TACK, GRASS MATTING, FILTER BLANKET AND RIPRAP) SHALL BE APPLIED TO TRENCH AND ADJACENT SPOIL AREA AS SOON AS POSSIBLE AFTER TRENCH OPENING OR OTHER GROUND DISTURBANCE. UNLESS SHORTER TIME FRAMES ARE SPECIFIED ON CONSTRUCTION DRAWINGS, TEMPORARY OR PERMANENT GROUND COVER MUST BE IN PLACE AND FUNCTIONAL (I.E., PROPERLY TACKED MULCH, HEALTHY GROWING VEGETATION, OR EROSION CONTROL MAT PROPERLY STAPLED) WITHIN 7 CALENDAR DAYS FOLLOWING ANY GROUND DISTURBANCE. PROVISIONS FOR PERMANENT GROUND COVER MUST BE ACCOMPLISHED ON EXPOSED SLOPES WITHIN 7 CALENDAR DAYS; WITHIN 7 CALENDAR DAYS IN SENSITIVE WATERSHEDS; AND IN REMAINING AREAS WITHIN 7 CALENDAR DAYS. DISTURBED AREAS LEFT INACTIVE BETWEEN ANY PHASE OF GRADING SHALL BE TEMPORARY SEEDED WITHIN 5 WORKING DAYS OR 7 CALENDAR DAYS, WHICHEVER IS SHORTER. BOTH TEMPORARY AND PERMANENT SEEDING IS TO USE PERMANENT SEED MIXTURE LISTED ABOVE.

THIS DRAWING IS FOR PREVIEWING THE PROJECT VIA THE INTERNET. OBTAIN SEALED DRAWINGS FOR BIDDING PURPOSES.

REVISIONS:

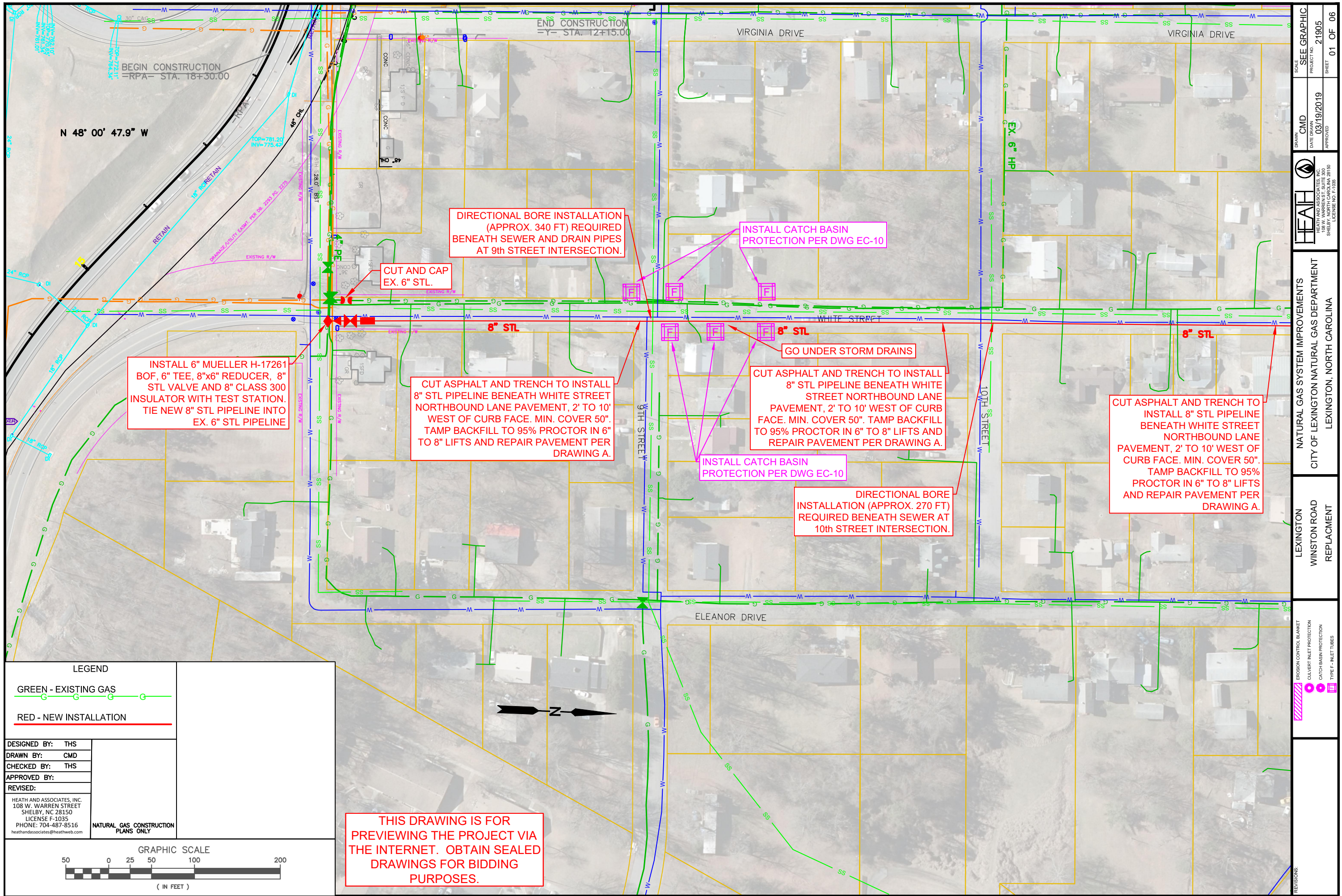


CITY OF LEXINGTON  
WINSTON ROAD  
REPLACEMENT

NATURAL GAS SYSTEM IMPROVEMENTS  
CITY OF LEXINGTON NATURAL GAS DEPARTMENT  
LEXINGTON, NC

DRAWN	CMD	SCALE	NONE
DATE DRAWN	05/06/2022	PROJECT NO.	21905
APPROVED		SHEET	EROSION CONTROL NOTES 01





LEGEND

GREEN - EXISTING GAS

RED - NEW INSTALLATION

DESIGNED BY: THS

DRAWN BY: CMD

CHECKED BY: THS

APPROVED BY:

REVISED:

HEATH AND ASSOCIATES, INC.  
108 W. WARREN STREET  
SHELBY, NC 28150  
LICENSE F-1035  
PHONE: 704-487-8516  
heathandassociates@heathweb.com

NATURAL GAS CONSTRUCTION  
PLANS ONLY

GRAPHIC SCALE

500

0

25

50

100

200

( IN FEET )

THIS DRAWING IS FOR  
PREVIEWING THE PROJECT VIA  
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DRAWINGS FOR BIDDING  
PURPOSES.

SCALE: SEE GRAPHIC

PROJECT NO: 21905

SHEET: 01 OF 06

DRAWN: CMD

DATE DRAWN: 03/19/2019

APPROVED:

HEATH AND ASSOCIATES, INC.  
108 W. WARREN STREET  
SHELBY, NORTH CAROLINA 28150  
LICENSE NO. F-1035

NATURAL GAS SYSTEM IMPROVEMENTS

CITY OF LEXINGTON NATURAL GAS DEPARTMENT

LEXINGTON, NORTH CAROLINA

LEXINGTON

WINSTON ROAD

REPLACEMENT

EROSION CONTROL BLANKET

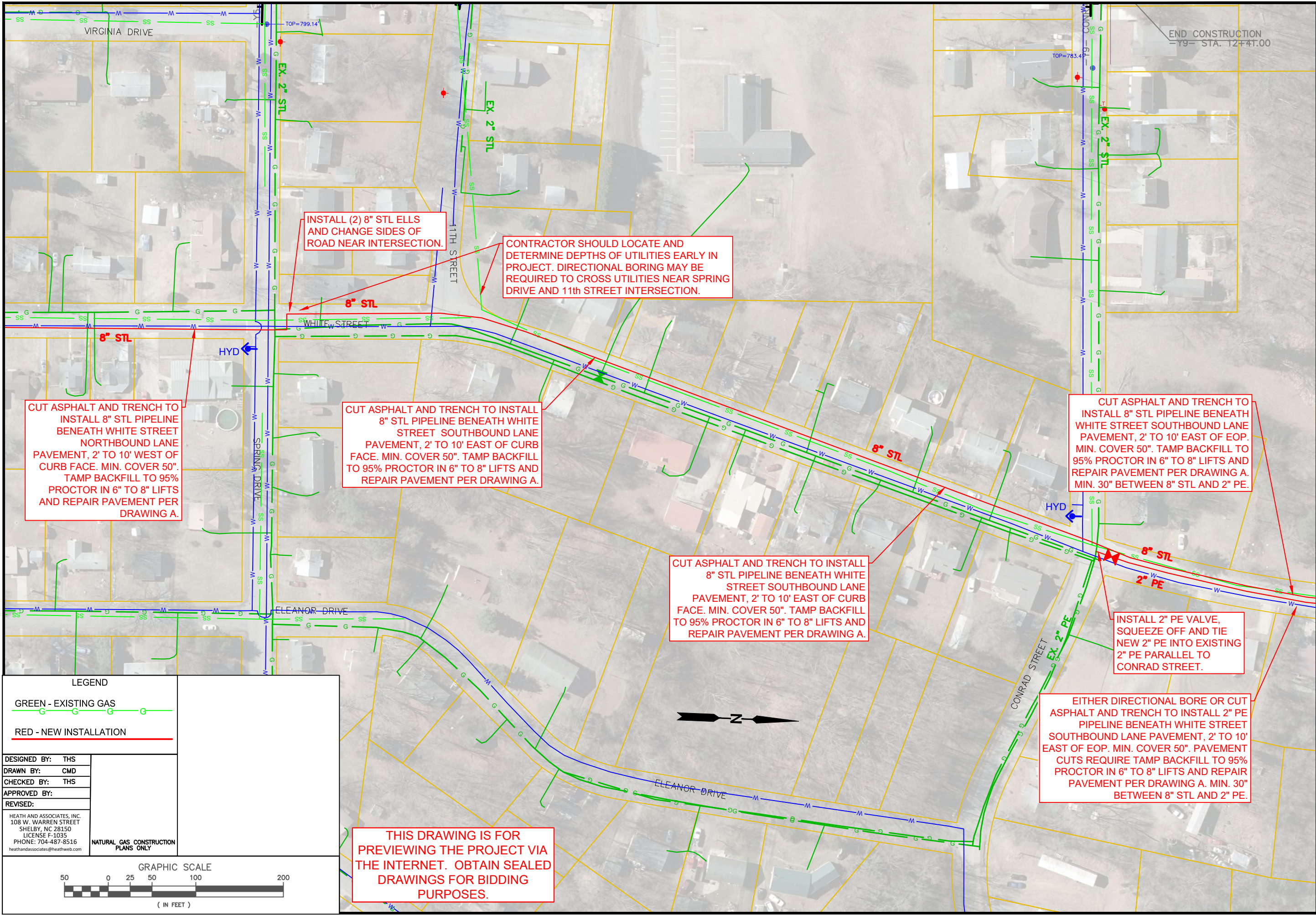
CULVERT INLET PROTECTION

CATCH BASIN PROTECTION

TYPE F - INLET TUBES

REVISIONS:





INSTALL (2) 8" STL ELLS AND CHANGE SIDES OF ROAD NEAR INTERSECTION.

CONTRACTOR SHOULD LOCATE AND DETERMINE DEPTHS OF UTILITIES EARLY IN PROJECT. DIRECTIONAL BORING MAY BE REQUIRED TO CROSS UTILITIES NEAR SPRING DRIVE AND 11TH STREET INTERSECTION.

CUT ASPHALT AND TRENCH TO INSTALL 8" STL PIPELINE BENEATH WHITE STREET NORTHBOUND LANE PAVEMENT, 2' TO 10' WEST OF CURB FACE. MIN. COVER 50". TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPAIR PAVEMENT PER DRAWING A.

CUT ASPHALT AND TRENCH TO INSTALL 8" STL PIPELINE BENEATH WHITE STREET SOUTHBOUND LANE PAVEMENT, 2' TO 10' EAST OF CURB FACE. MIN. COVER 50". TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPAIR PAVEMENT PER DRAWING A.

CUT ASPHALT AND TRENCH TO INSTALL 8" STL PIPELINE BENEATH WHITE STREET SOUTHBOUND LANE PAVEMENT, 2' TO 10' EAST OF CURB FACE. MIN. COVER 50". TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPAIR PAVEMENT PER DRAWING A.

CUT ASPHALT AND TRENCH TO INSTALL 8" STL PIPELINE BENEATH WHITE STREET SOUTHBOUND LANE PAVEMENT, 2' TO 10' EAST OF EOP. MIN. COVER 50". TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPAIR PAVEMENT PER DRAWING A. MIN. 30" BETWEEN 8" STL AND 2" PE.

INSTALL 2" PE VALVE, SQUEEZE OFF AND TIE NEW 2" PE INTO EXISTING 2" PE PARALLEL TO CONRAD STREET.

EITHER DIRECTIONAL BORE OR CUT ASPHALT AND TRENCH TO INSTALL 2" PE PIPELINE BENEATH WHITE STREET SOUTHBOUND LANE PAVEMENT, 2' TO 10' EAST OF EOP. MIN. COVER 50". PAVEMENT CUTS REQUIRE TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPAIR PAVEMENT PER DRAWING A. MIN. 30" BETWEEN 8" STL AND 2" PE.

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LEGEND

GREEN - EXISTING GAS

RED - NEW INSTALLATION

DESIGNED BY: THS

DRAWN BY: CMD

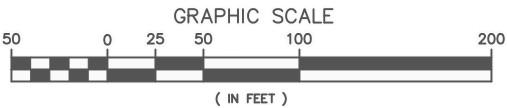
CHECKED BY: THS

APPROVED BY:

REVISED:

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NATURAL GAS CONSTRUCTION  
PLANS ONLY



SCALE: SEE GRAPHIC

DRAWN: CMD

DATE DRAWN: 03/19/2019

PROJECT NO: 21905

SHEET: 02 OF 06

HEATH AND ASSOCIATES, INC.

108 W. WARREN STREET  
SHELBY, NORTH CAROLINA 28150  
LICENSE NO. F-1035

NATURAL GAS SYSTEM IMPROVEMENTS

CITY OF LEXINGTON NATURAL GAS DEPARTMENT

LEXINGTON, NORTH CAROLINA

LEXINGTON

WINSTON ROAD

REPLACEMENT

EROSION CONTROL BLANKET

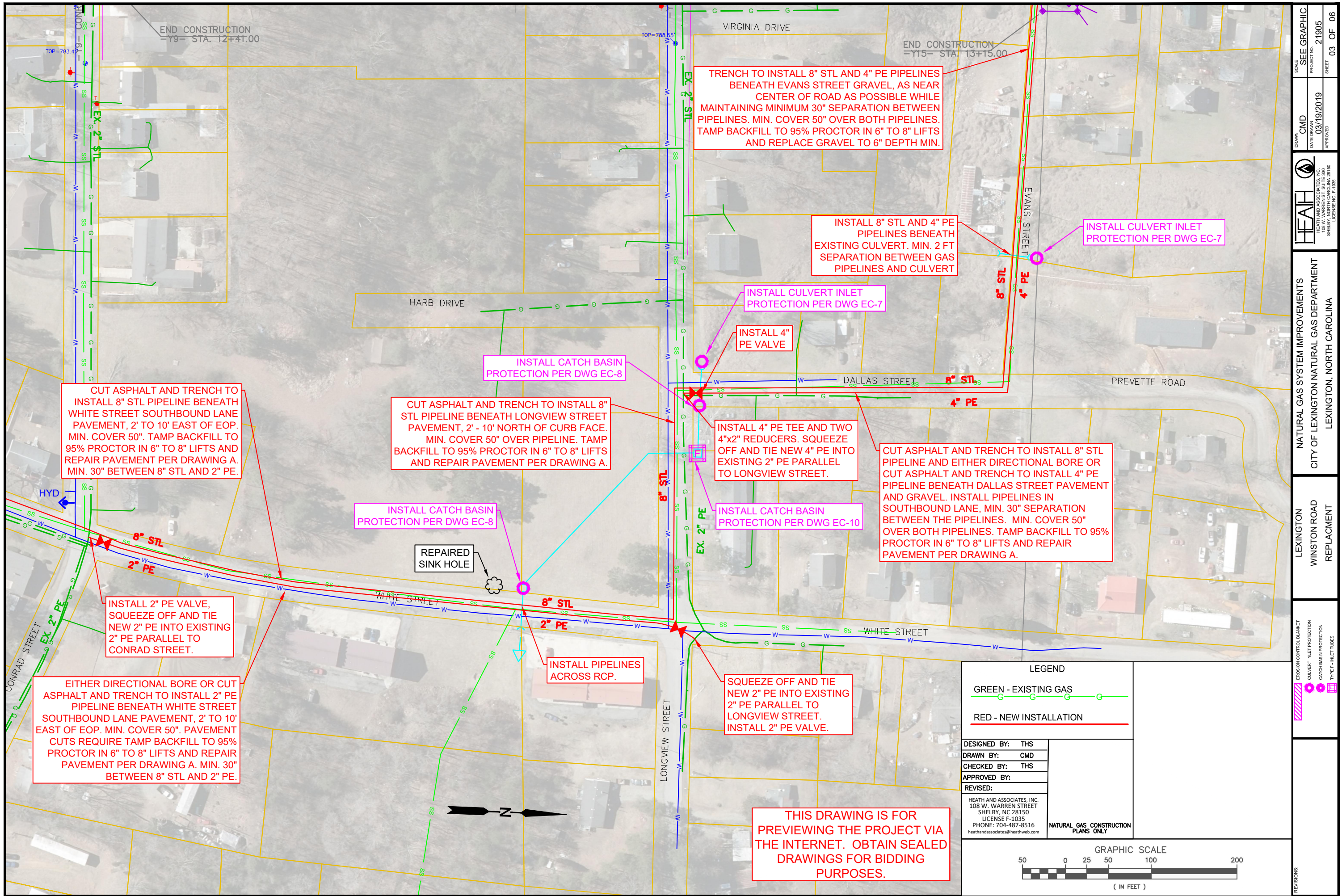
CULVERT INLET PROTECTION

CATCH BASIN PROTECTION

TYPE F - INLET TUBES

REVISIONS:





TRENCH TO INSTALL 8" STL AND 4" PE PIPELINES BENEATH EVANS STREET GRAVEL, AS NEAR CENTER OF ROAD AS POSSIBLE WHILE MAINTAINING MINIMUM 30" SEPARATION BETWEEN PIPELINES. MIN. COVER 50" OVER BOTH PIPELINES. TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPLACE GRAVEL TO 6" DEPTH MIN.

INSTALL 8" STL AND 4" PE PIPELINES BENEATH EXISTING CULVERT. MIN. 2 FT SEPARATION BETWEEN GAS PIPELINES AND CULVERT

INSTALL CULVERT INLET PROTECTION PER DWG EC-7

INSTALL CULVERT INLET PROTECTION PER DWG EC-7

INSTALL 4" PE VALVE

INSTALL CATCH BASIN PROTECTION PER DWG EC-8

CUT ASPHALT AND TRENCH TO INSTALL 8" STL PIPELINE BENEATH LONGVIEW STREET PAVEMENT, 2' - 10' NORTH OF CURB FACE. MIN. COVER 50" OVER PIPELINE. TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPAIR PAVEMENT PER DRAWING A.

INSTALL 4" PE TEE AND TWO 4"x2" REDUCERS. SQUEEZE OFF AND TIE NEW 4" PE INTO EXISTING 2" PE PARALLEL TO LONGVIEW STREET.

CUT ASPHALT AND TRENCH TO INSTALL 8" STL PIPELINE AND EITHER DIRECTIONAL BORE OR CUT ASPHALT AND TRENCH TO INSTALL 4" PE PIPELINE BENEATH DALLAS STREET PAVEMENT AND GRAVEL. INSTALL PIPELINES IN SOUTHBOUND LANE, MIN. 30" SEPARATION BETWEEN THE PIPELINES. MIN. COVER 50" OVER BOTH PIPELINES. TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPAIR PAVEMENT PER DRAWING A.

INSTALL CATCH BASIN PROTECTION PER DWG EC-10

CUT ASPHALT AND TRENCH TO INSTALL 8" STL PIPELINE BENEATH WHITE STREET SOUTHBOUND LANE PAVEMENT, 2' TO 10' EAST OF EOP. MIN. COVER 50". TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPAIR PAVEMENT PER DRAWING A. MIN. 30" BETWEEN 8" STL AND 2" PE.

INSTALL 2" PE VALVE, SQUEEZE OFF AND TIE NEW 2" PE INTO EXISTING 2" PE PARALLEL TO CONRAD STREET.

EITHER DIRECTIONAL BORE OR CUT ASPHALT AND TRENCH TO INSTALL 2" PE PIPELINE BENEATH WHITE STREET SOUTHBOUND LANE PAVEMENT, 2' TO 10' EAST OF EOP. MIN. COVER 50". PAVEMENT CUTS REQUIRE TAMP BACKFILL TO 95% PROCTOR IN 6" TO 8" LIFTS AND REPAIR PAVEMENT PER DRAWING A. MIN. 30" BETWEEN 8" STL AND 2" PE.

INSTALL PIPELINES ACROSS RCP.

SQUEEZE OFF AND TIE NEW 2" PE INTO EXISTING 2" PE PARALLEL TO LONGVIEW STREET. INSTALL 2" PE VALVE.

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LEGEND

GREEN - EXISTING GAS

RED - NEW INSTALLATION

DESIGNED BY: THS

DRAWN BY: CMD

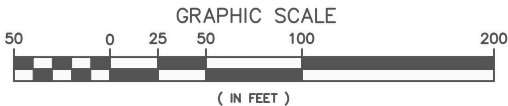
CHECKED BY: THS

APPROVED BY:

REVISED:

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NATURAL GAS CONSTRUCTION PLANS ONLY





LEGEND

GREEN - EXISTING GAS

RED - NEW INSTALLATION

DESIGNED BY: THS

DRAWN BY: CMD

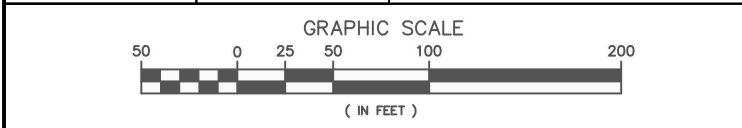
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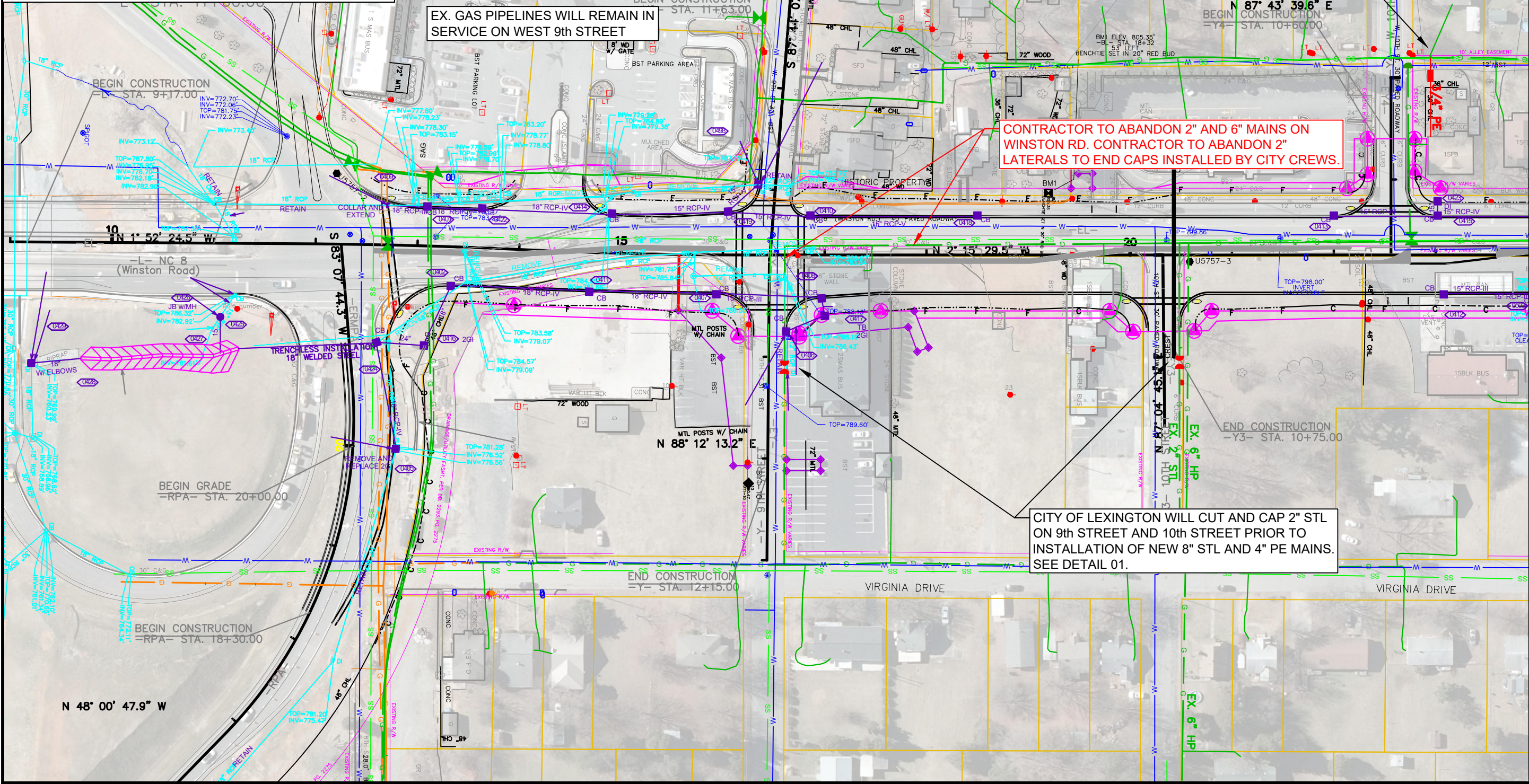
REVISED:

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NATURAL GAS CONSTRUCTION  
PLANS ONLY



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SCALE: SEE GRAPHIC

PROJECT NO: 21905

SHEET: 04 OF 06

DRAWN: CMD

DATE: 03/19/2019

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SHELBY, NC 28150  
LICENSE NO. F-1035

NATURAL GAS SYSTEM IMPROVEMENTS

CITY OF LEXINGTON NATURAL GAS DEPARTMENT

LEXINGTON, NORTH CAROLINA

LEXINGTON

WINSTON ROAD

REPLACEMENT

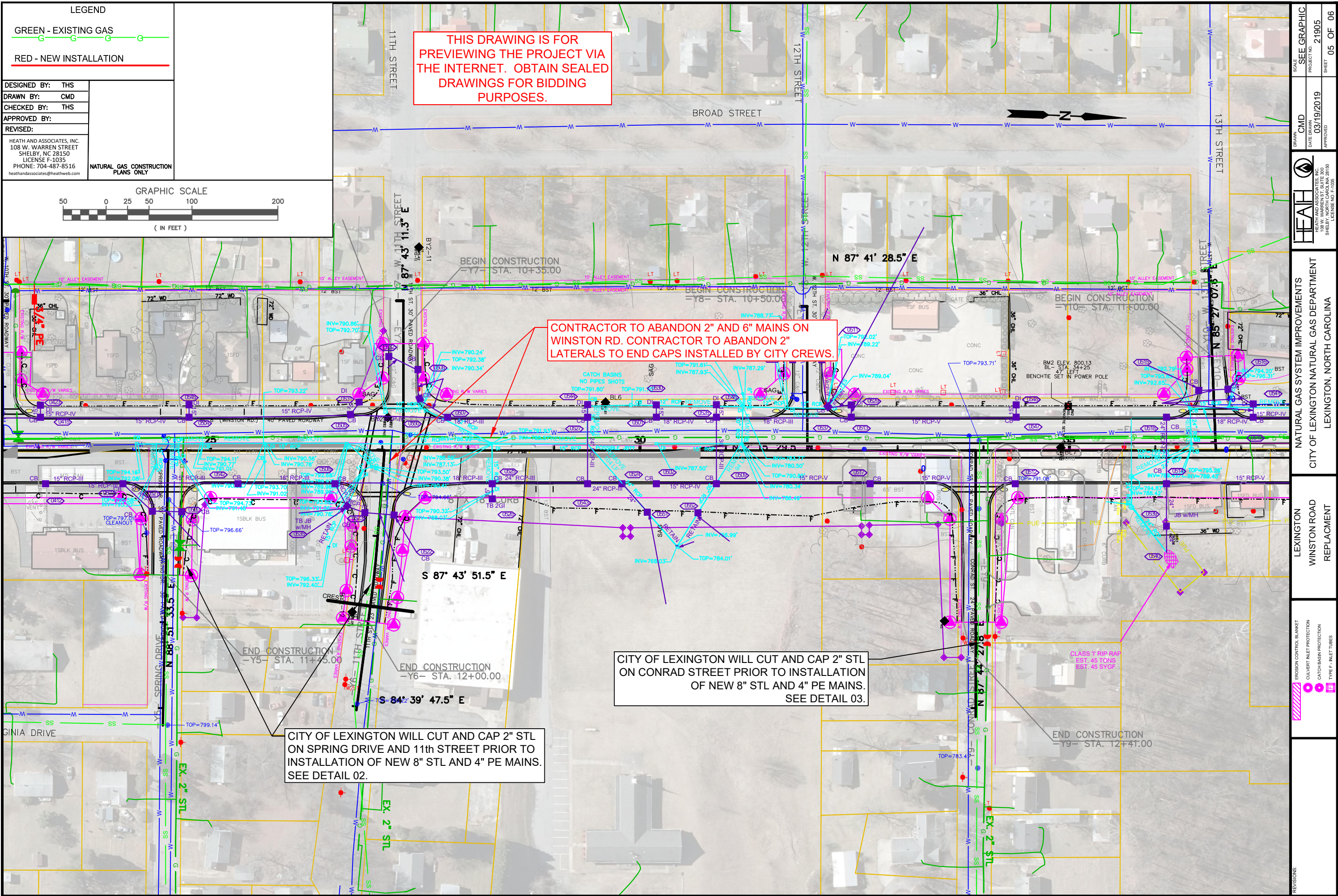
EROSION CONTROL BLANKET

CULVERT INLET PROTECTION

CATCH BASIN PROTECTION

TYPE F - INLET TUBES





LEGEND

GREEN - EXISTING GAS

RED - NEW INSTALLATION

DESIGNED BY: THS

DRAWN BY: CMD

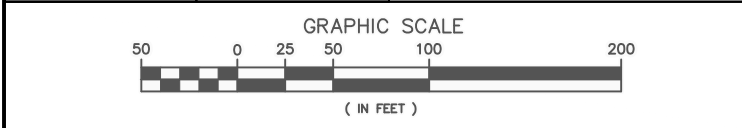
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APPROVED BY:

REVISED:

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LICENSE F-1035  
PHONE: 704-487-8516  
heathandassociates@heathweb.com

NATURAL GAS CONSTRUCTION  
PLANS ONLY



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PURPOSES.

CONTRACTOR TO ABANDON 2" AND 6" MAINS ON  
WINSTON RD. CONTRACTOR TO ABANDON 2"  
LATERALS TO END CAPS INSTALLED BY CITY CREWS.

CITY OF LEXINGTON WILL CUT AND CAP 2" STL  
ON CONRAD STREET PRIOR TO INSTALLATION  
OF NEW 8" STL AND 4" PE MAINS.  
SEE DETAIL 03.

CITY OF LEXINGTON WILL CUT AND CAP 2" STL  
ON SPRING DRIVE AND 11th STREET PRIOR TO  
INSTALLATION OF NEW 8" STL AND 4" PE MAINS.  
SEE DETAIL 02.

SCALE: SEE GRAPHIC

PROJECT NO: 21905

SHEET: 05 OF 06

DRAWN: CMD

DATE DRAWN: 03/19/2019

APPROVED:

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LICENSE NO. F-1035

NATURAL GAS SYSTEM IMPROVEMENTS

CITY OF LEXINGTON NATURAL GAS DEPARTMENT

LEXINGTON, NORTH CAROLINA

LEXINGTON

WINSTON ROAD

REPLACEMENT

EROSION CONTROL BLANKET

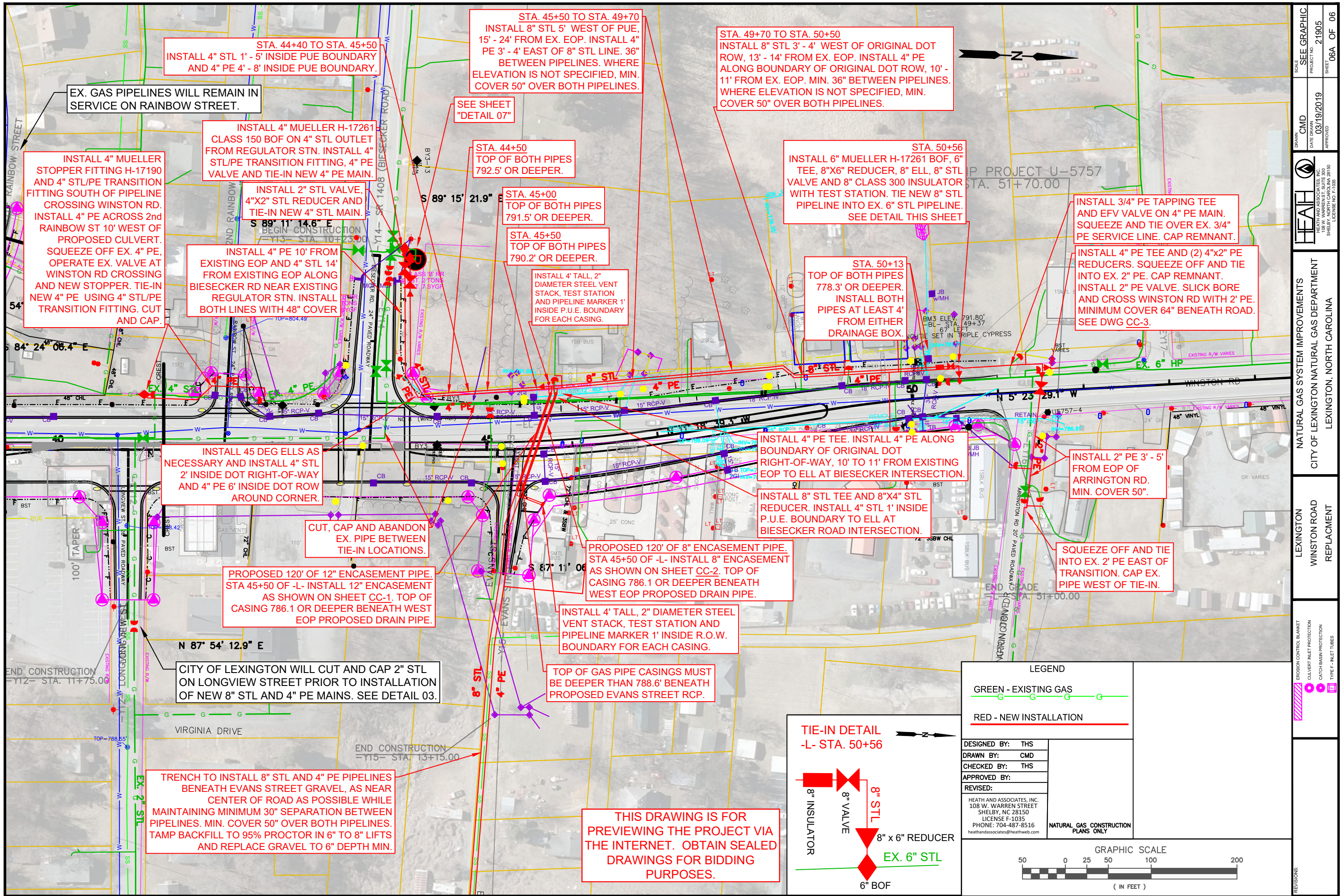
CULVERT INLET PROTECTION

CATCH BASIN PROTECTION

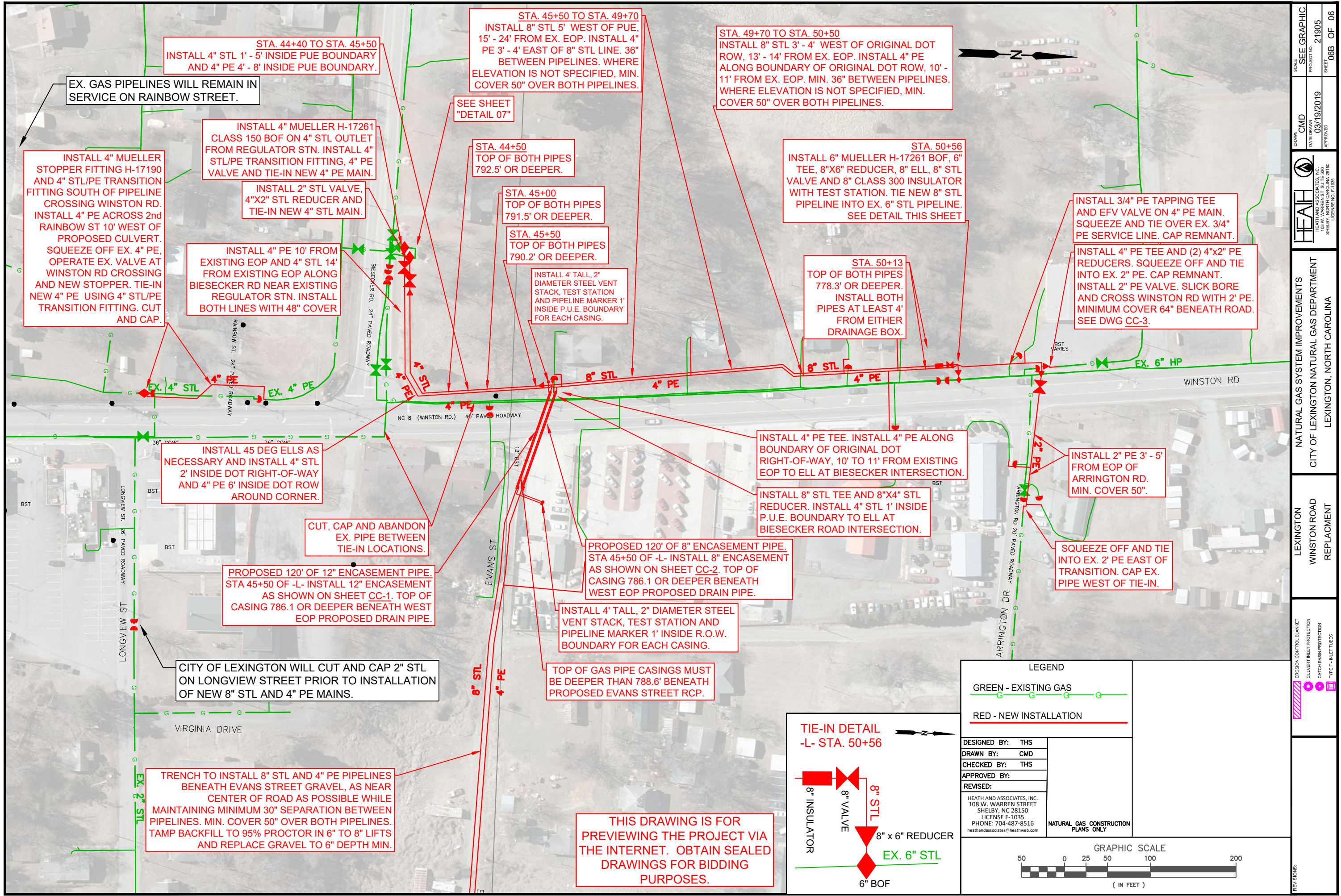
TYPE F - INLET TUBES

REVISIONS:









SCALE: SEE GRAPHIC

PROJECT NO: 21905

SHEET 06B OF 06

DRAWN: CMD

DATE DRAWN: 03/19/2019

APPROVED:

HEATH AND ASSOCIATES, INC.

108 W. WARREN STREET, SUITE 300

SHELBY, NORTH CAROLINA 28150

LICENSE NO. F-1035

NATURAL GAS SYSTEM IMPROVEMENTS

CITY OF LEXINGTON NATURAL GAS DEPARTMENT

LEXINGTON, NORTH CAROLINA

LEXINGTON

WINSTON ROAD

REPLACEMENT

EROSION CONTROL BLANKET

CULVERT INLET PROTECTION

CATCH BASIN PROTECTION

TYPE F - INLET TUBES

DESIGNED BY: THS

DRAWN BY: CMD

CHECKED BY: THS

APPROVED BY:

REVISED:

HEATH AND ASSOCIATES, INC.  
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LICENSE F-1035  
PHONE: 704-487-8516  
heathandassociates@heathweb.com

NATURAL GAS CONSTRUCTION  
PLANS ONLY

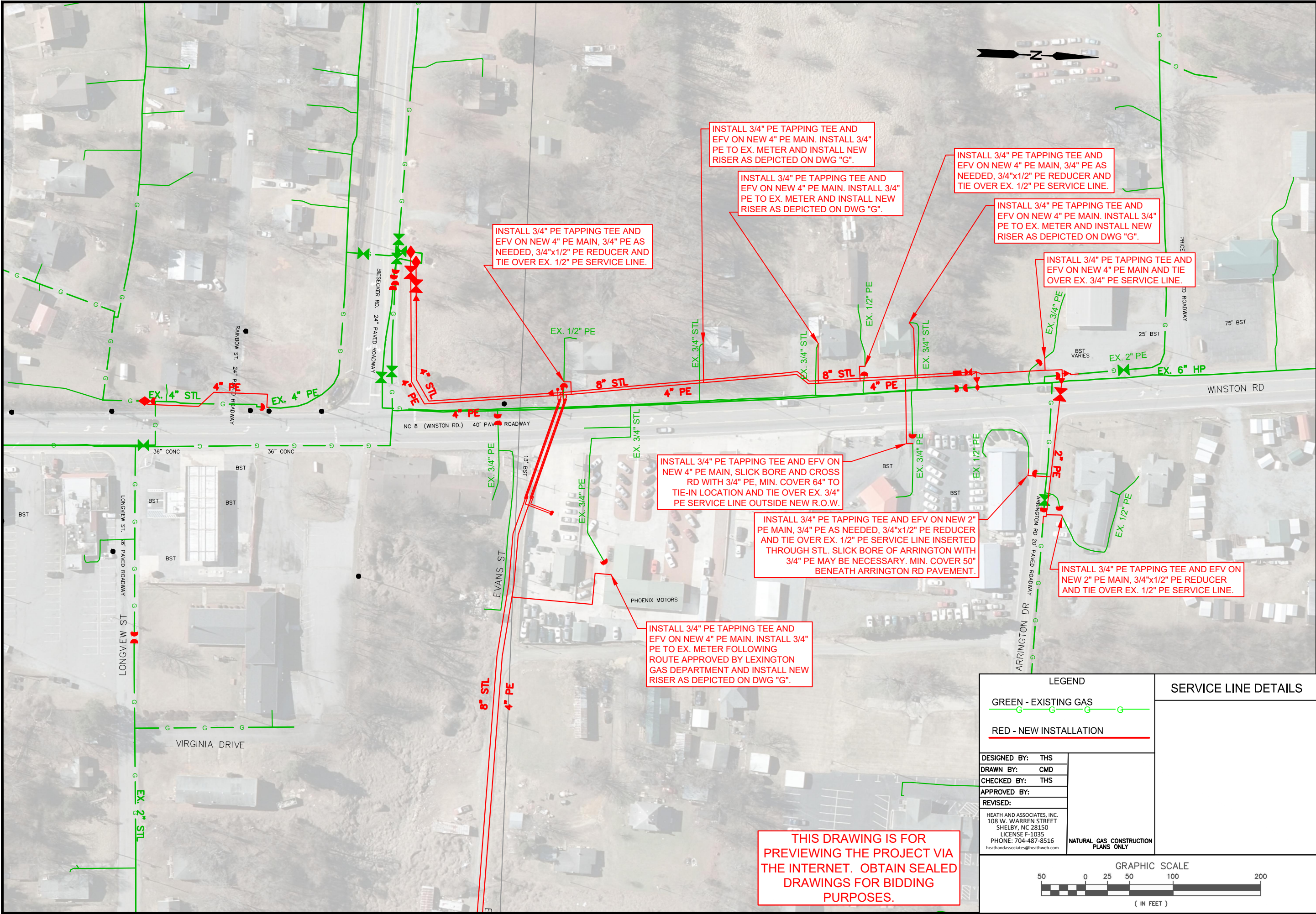
GRAPHIC SCALE

50 0 25 50 100 200

( IN FEET )

THIS DRAWING IS FOR  
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THE INTERNET. OBTAIN SEALED  
DRAWINGS FOR BIDDING  
PURPOSES.





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PURPOSES.

LEGEND

GREEN - EXISTING GAS

RED - NEW INSTALLATION

DESIGNED BY: THS

DRAWN BY: CMD

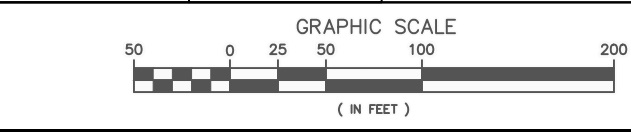
CHECKED BY: THS

APPROVED BY:

REVISED:

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108 W. WARREN STREET  
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LICENSE F-1035  
PHONE: 704-487-8516  
heathandassociates@heathweb.com

NATURAL GAS CONSTRUCTION  
PLANS ONLY



SCALE: SEE GRAPHIC

PROJECT NO: 21905

SHEET 06C OF 06

DRAWN: CMD

DATE DRAWN: 03/19/2019

APPROVED:

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108 W. WARREN STREET  
SHELBY, NORTH CAROLINA 28150  
LICENSE NO. F-1035

NATURAL GAS SYSTEM IMPROVEMENTS

CITY OF LEXINGTON NATURAL GAS DEPARTMENT

LEXINGTON, NORTH CAROLINA

LEXINGTON

WINSTON ROAD

REPLACEMENT

EROSION CONTROL BLANKET

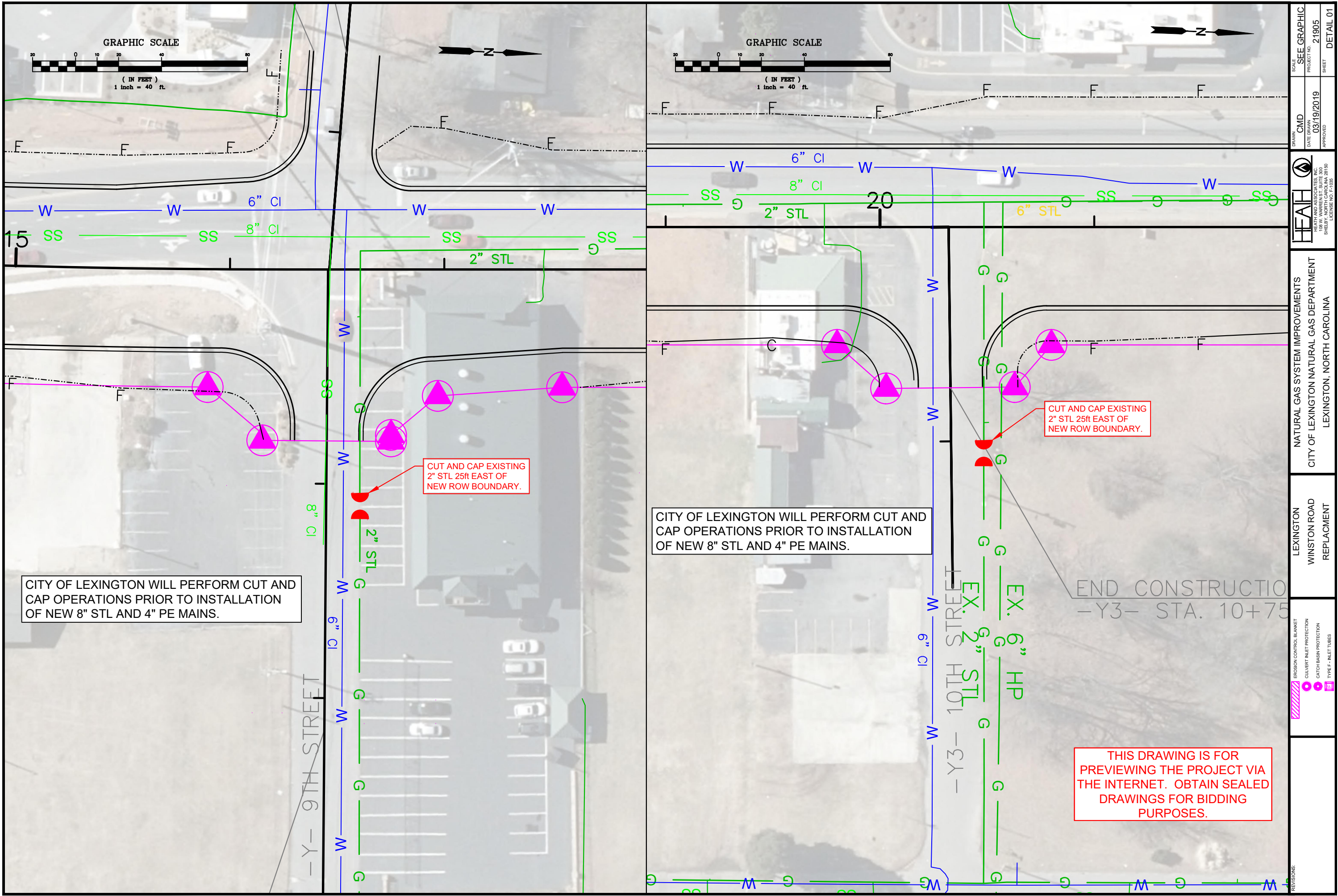
CULVERT INLET PROTECTION

CATCH BASIN PROTECTION

TYPE F - INLET TUBES

REVISIONS:





REVISIONS:	EROSION CONTROL BLANKET CULVERT INLET PROTECTION CATCH BASIN PROTECTION TYPE F - INLET TUBES	LEXINGTON WINSTON ROAD REPLACEMENT	NATURAL GAS SYSTEM IMPROVEMENTS CITY OF LEXINGTON NATURAL GAS DEPARTMENT LEXINGTON, NORTH CAROLINA	HEAH NORTH CAROLINA 100 W. WARREN ST. SUITE 300 SHELBY, NORTH CAROLINA 28150 LICENSE NO. F-1035	DRAWN CMD	SCALE SEE GRAPHIC
					DATE DRAWN 03/19/2019	PROJECT NO. 21905
					APPROVED	SHEET DETAIL 01

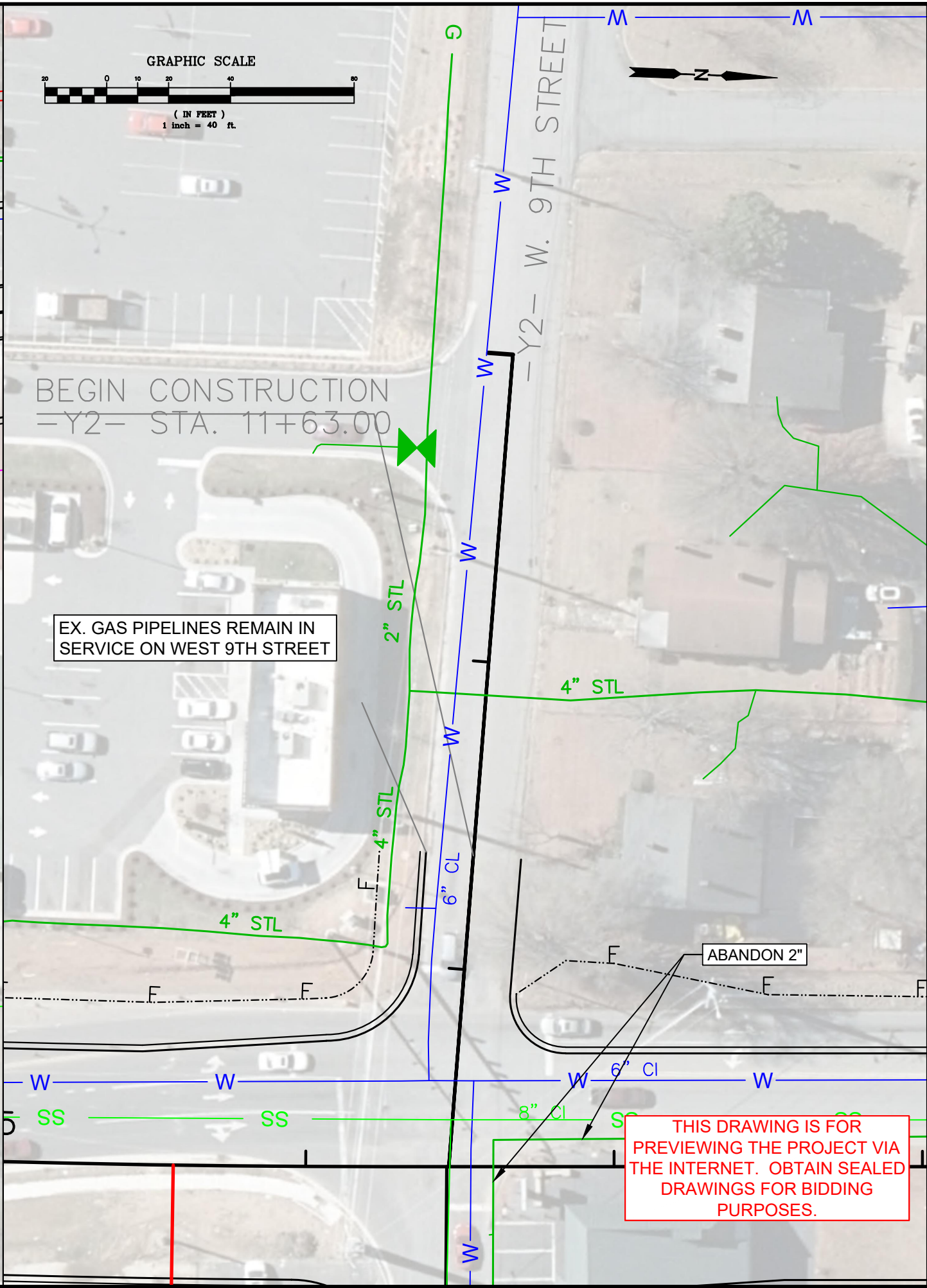
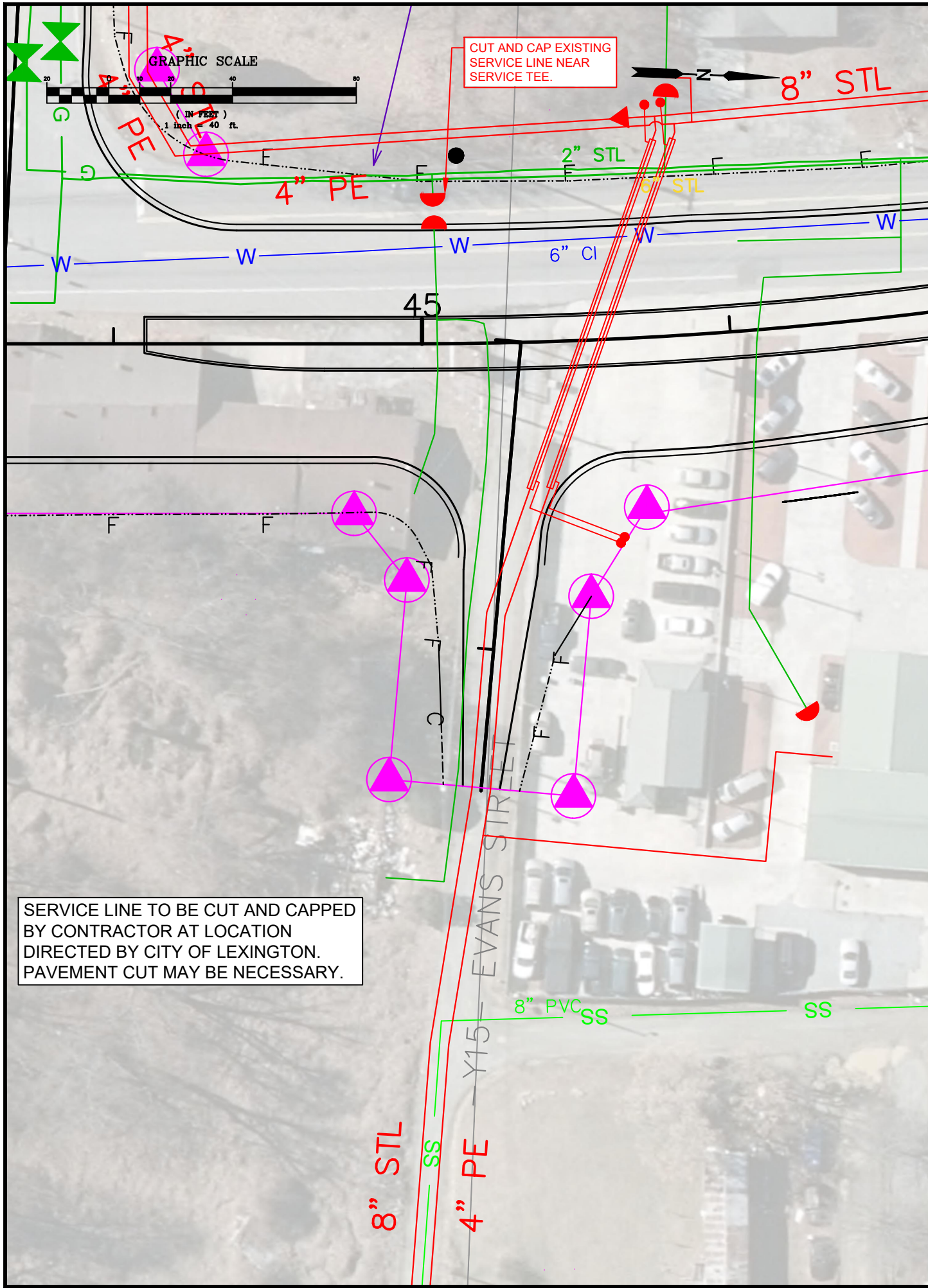








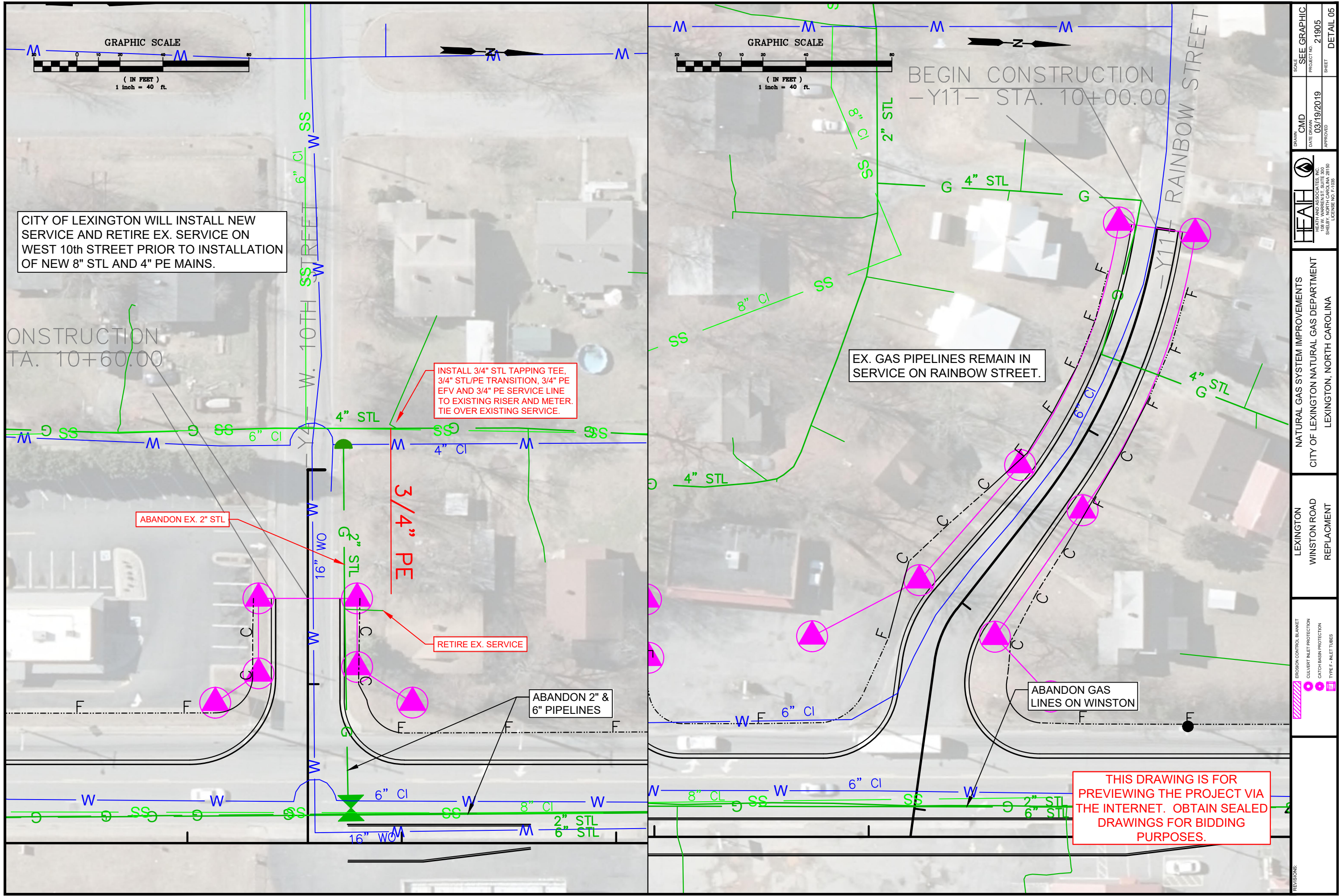




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PURPOSES.

REVISIONS:	EROSION CONTROL BLANKET					DRAWN: CMD DATE DRAWN: 03/19/2019 APPROVED:	SCALE: SEE GRAPHIC PROJECT NO: 21905 SHEET: 04 DETAIL 04
	CULVERT INLET PROTECTION						
	CATCH BASIN PROTECTION						
	TYPE F - INLET TUBES						
LEXINGTON					NATURAL GAS SYSTEM IMPROVEMENTS		
WINSTON ROAD					CITY OF LEXINGTON NATURAL GAS DEPARTMENT		
REPLACEMENT					LEXINGTON, NORTH CAROLINA		
HEA/H					HEATH AND ASSOCIATES, INC. 108 W. WARREN ST., SUITE 300 SHELBY, NORTH CAROLINA 28150 LICENSE NO. F-1036		





CITY OF LEXINGTON WILL INSTALL NEW SERVICE AND RETIRE EX. SERVICE ON WEST 10th STREET PRIOR TO INSTALLATION OF NEW 8" STL AND 4" PE MAINS.

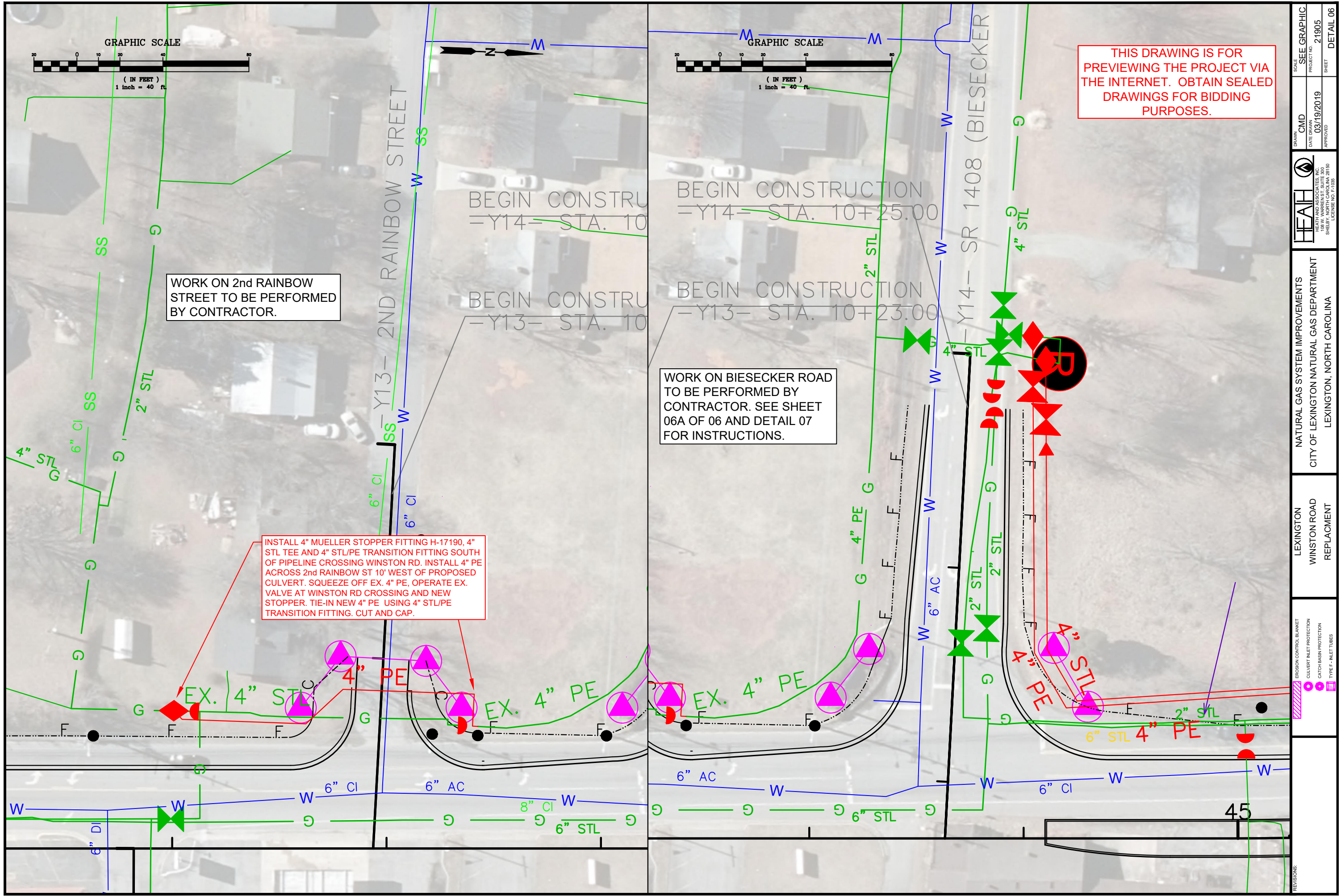
INSTALL 3/4" STL TAPPING TEE, 3/4" STL/PE TRANSITION, 3/4" PE EFV AND 3/4" PE SERVICE LINE TO EXISTING RISER AND METER. TIE OVER EXISTING SERVICE.

EX. GAS PIPELINES REMAIN IN SERVICE ON RAINBOW STREET.

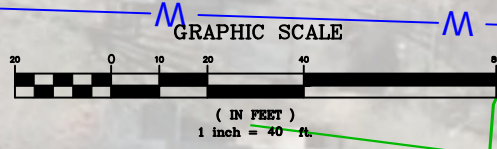
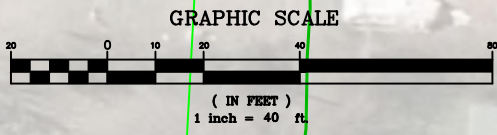
THIS DRAWING IS FOR PREVIEWING THE PROJECT VIA THE INTERNET. OBTAIN SEALED DRAWINGS FOR BIDDING PURPOSES.

REVISIONS:	SCALE	SEE GRAPHIC
	DRAWN	CMD
	DATE DRAWN	03/19/2019
	PROJECT NO.	21905
HEAH	DATE	03/19/2019
	PROJECT NO.	21905
	PROJECT NAME	100 W. WARREN ST. SUITE 300
	PROJECT ADDRESS	SHELBY, NORTH CAROLINA 28150
NATURAL GAS SYSTEM IMPROVEMENTS	PROJECT NO.	21905
	PROJECT NAME	100 W. WARREN ST. SUITE 300
	PROJECT ADDRESS	SHELBY, NORTH CAROLINA 28150
	PROJECT CITY	LEXINGTON, NORTH CAROLINA
LEXINGTON ROAD	PROJECT NO.	21905
	PROJECT NAME	100 W. WARREN ST. SUITE 300
	PROJECT ADDRESS	SHELBY, NORTH CAROLINA 28150
	PROJECT CITY	LEXINGTON, NORTH CAROLINA
WINSTON ROAD	PROJECT NO.	21905
	PROJECT NAME	100 W. WARREN ST. SUITE 300
	PROJECT ADDRESS	SHELBY, NORTH CAROLINA 28150
	PROJECT CITY	LEXINGTON, NORTH CAROLINA
REPLACEMENT	PROJECT NO.	21905
	PROJECT NAME	100 W. WARREN ST. SUITE 300
	PROJECT ADDRESS	SHELBY, NORTH CAROLINA 28150
	PROJECT CITY	LEXINGTON, NORTH CAROLINA
EROSION CONTROL BLANKET	PROJECT NO.	21905
	PROJECT NAME	100 W. WARREN ST. SUITE 300
	PROJECT ADDRESS	SHELBY, NORTH CAROLINA 28150
	PROJECT CITY	LEXINGTON, NORTH CAROLINA
CULVERT INLET PROTECTION	PROJECT NO.	21905
	PROJECT NAME	100 W. WARREN ST. SUITE 300
	PROJECT ADDRESS	SHELBY, NORTH CAROLINA 28150
	PROJECT CITY	LEXINGTON, NORTH CAROLINA
CATCH BASIN PROTECTION	PROJECT NO.	21905
	PROJECT NAME	100 W. WARREN ST. SUITE 300
	PROJECT ADDRESS	SHELBY, NORTH CAROLINA 28150
	PROJECT CITY	LEXINGTON, NORTH CAROLINA
TYPE F - INLET TUBES	PROJECT NO.	21905
	PROJECT NAME	100 W. WARREN ST. SUITE 300
	PROJECT ADDRESS	SHELBY, NORTH CAROLINA 28150
	PROJECT CITY	LEXINGTON, NORTH CAROLINA



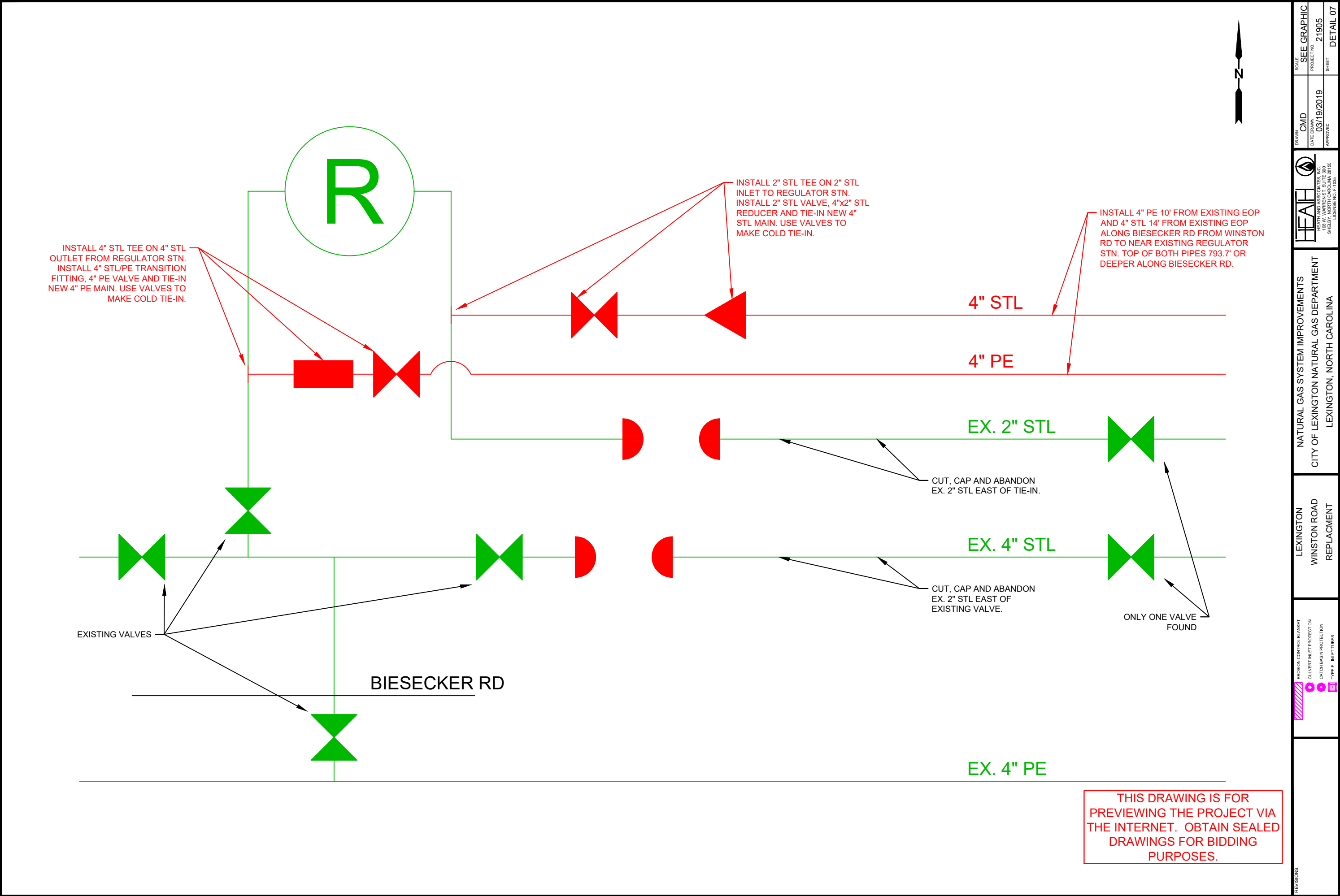


THIS DRAWING IS FOR  
PREVIEWING THE PROJECT VIA  
THE INTERNET. OBTAIN SEALED  
DRAWINGS FOR BIDDING  
PURPOSES.



 HEAH HARTMAN ENGINEERING AND ARCHITECTURE, INC. 1100 W. WARREN ST., SUITE 300 SHELBY, NORTH CAROLINA 28150 LICENSE NO. F-1038	DRAWN	CMD	SCALE	SEE GRAPHIC
	DATE DRAWN	03/19/2019	PROJECT NO.	21905
	APPROVED		SHEET	
			DETAIL	06
NATURAL GAS SYSTEM IMPROVEMENTS				
CITY OF LEXINGTON NATURAL GAS DEPARTMENT				
LEXINGTON, NORTH CAROLINA				
LEXINGTON				
WINSTON ROAD				
REPLACEMENT				
EROSION CONTROL BLANKET				
CULVERT INLET PROTECTION				
CATCH BASIN PROTECTION				
TYPE F - INLET TUBES				
REVISIONS:				





REVISIONS:	EROSION CONTROL BLANKET		NATURAL GAS SYSTEM IMPROVEMENTS  CITY OF LEXINGTON NATURAL GAS DEPARTMENT  LEXINGTON, NORTH CAROLINA	DRAWN CMD  DATE DRAWN 03/19/2019  APPROVED	SCALE SEE GRAPHIC  PROJECT NO. 21905  SHEET DETAIL 07
	CULVERT INLET PROTECTION				
	CATCH BASIN PROTECTION				
	TYPE F - INLET TUBES				



