

UTILITY NOTES

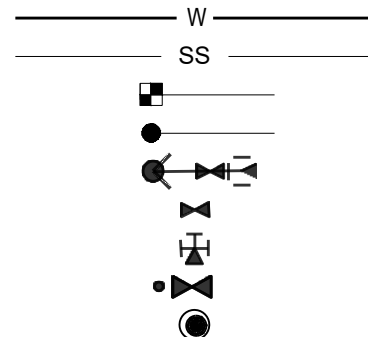
1. ALL UTILITY DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES (CORPUD) STANDARDS AND SPECIFICATIONS. UTILITY DESIGN SHALL ALSO MEET FIRE FLOW REQUIREMENTS OF NCFC.
2. UTILITY SIZES AND LOCATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN AND CONSTRUCTION DRAWING APPROVAL. THIS SHALL INCLUDE BUT NOT LIMITED TO FIRE HYDRANT LOCATIONS.
3. ANY EXISTING WATER AND SEWER LINES TO BE USED AS PART OF THE FINAL DESIGN OF THE PROJECT, SHALL BE LOCATED BY SURVEY, TESTED BY A LICENSED CONTRACTOR AND APPROVED BY THE CITY OF RALEIGH INSPECTOR PRIOR TO SUBMITTAL OF CONSTRUCTION DRAWINGS.
4. AS PART OF CONSTRUCTION DRAWING SUBMITTAL, FIRE FLOW CALCULATIONS SHALL BE PROVIDED SHOWING COMPLIANCE WITH NCFC. PROJECT MAY BE DEVELOPED IN PHASES AND ALL PHASES SHALL BE REQUIRED TO MEET THE MINIMUM REQUIRED FIRE FLOWS PER OCCUPANCY PROPOSED IN EACH PHASE.
5. AN APPROVED WATER SUPPLY FOR FIRE SUPPRESSION (TEMPORARY OR PERMANENT) SHALL BE PROVIDED AS SOON AS COMBUSTIBLE MATERIALS ARRIVE ON SITE.
6. UTILITY CONSTRUCTION APPROVAL IS REQUIRED FOR THIS PROJECT, PLANS TO BE PREPARED BY NC PROFESSIONAL ENGINEER.
7. RIGHT OF WAY AND/OR EASEMENT DEDICATION PLAT IS REQUIRED FOR THIS PROJECT (PRIOR TO CITY ACCEPTANCE OF UTILITIES).
8. ALL NECESSARY WETLAND, RIPARIAN BUFFER AND FLOODPLAIN PERMITS FROM USACE, NCDWQ & FEMA SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
9. PROJECT SHALL EXTEND PUBLIC WATER MAINS ALONG ALL INTERIOR AND ABUTTING RIGHT OF WAYS OF DEVELOPMENT.
10. FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED AT EVERY INTERSECTION AND AT 500' (RESIDENTIAL) MAX INTERVALS ALONG SITE FRONTAGE.
11. ALL MAINS UP TO 12 INCHES IN SIZE SHALL BE DESIGNED WITH A BLOW-OFF ASSEMBLY THE SAME SIZE AS THE DIAMETER OF THE PIPE.
12. ALL WATER MAINS SHALL BE PRESSURE CLASS OR THICKNESS CLASS DUCTILE IRON PIPE DESIGNED IN ACCORDANCE WITH AWWA STANDARD C-150.
13. PROJECT SHALL EXTEND PUBLIC GRAVITY SEWER TO PERIPHERY OF DEVELOPMENT BASED ON NATURAL TOPOGRAPHY.
14. ALL CITY OF RALEIGH SANITARY SEWER EASEMENTS SHALL BE A MINIMUM OF 30 FEET.
15. THE SANITARY SEWER DESIGN SHALL BE EVALUATED DURING THE CONSTRUCTION DRAWING REVIEW TO ENSURE ADJACENT PROPERTIES HAVE ACCESS TO SANITARY SEWER WHERE FEASIBLE AND IN COMPLIANCE WITH THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT STANDARDS AND SPECIFICATIONS.
16. ALL OFF-SITE EASEMENTS SHALL BE ACQUIRED BY THE DEVELOPER. THESE OFF-SITE EASEMENTS SHALL BE RECORDED BY MAP AND BY DEED OF EASEMENT PRIOR TO CONSTRUCTION APPROVAL. THE EASEMENTS SHALL BE DEDICATED TO THE CITY OF RALEIGH AND ENTITLED "CITY OF RALEIGH SANITARY SEWER EASEMENT".
17. MAINTAIN APPROPRIATE COVER AND SEPARATION ON UTILITIES AND LABEL IN PROFILES; ANY UTILITY CROSSINGS ARE SUBJECT TO MINIMUM REQUIREMENTS.
18. CONSTRUCTION APPROVAL WILL BE REQUIRED FOR ANY EXTENSIONS OF PUBLIC WATER OR SEWER MAINS.
19. PLAT RECORDATION REQUIRED AFTER CONSTRUCTION APPROVAL PRIOR TO BUILDING PERMIT.
20. DOT ENCROACHMENT AGREEMENT REQUIRED.
21. PRIVATE WATER SERVICES SIZED 3/4" - 2" SHOULD BE TYPE "K" SOFT COPPER AND IN ACCORDANCE WITH PU HANDBOOK, APP. B. STANDARD WATER DETAIL W-23 AND W-25. IF WATER METERS CANNOT BE LOCATED WITHIN THE RIGHT-OF-WAY THEY MUST BE WITHIN RECORDED "CITY OF RALEIGH WATERLINE EASEMENTS".

CORPUD STANDARD UTILITY NOTES:

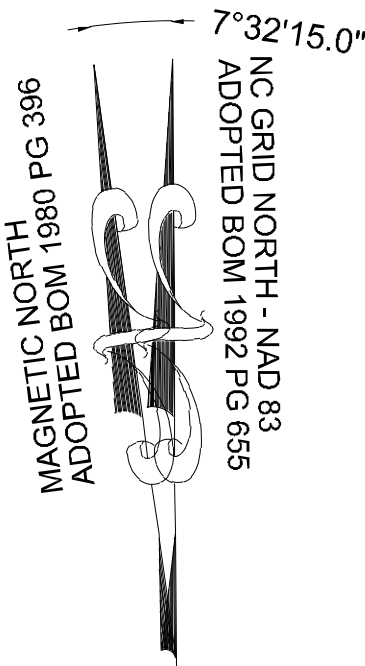
STANDARD UTILITY NOTES (AS APPLICABLE):

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION).
2. UTILITY SEPARATION REQUIREMENTS:
 - a) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
 - b) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
 - c) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, PVC MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - d) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS PVC MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - e) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS. MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY PVC MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
 - f) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION
4. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
6. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
7. INSTALL 3/4" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
8. INSTALL 4" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
9. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI. BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
10. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
11. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
12. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
13. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

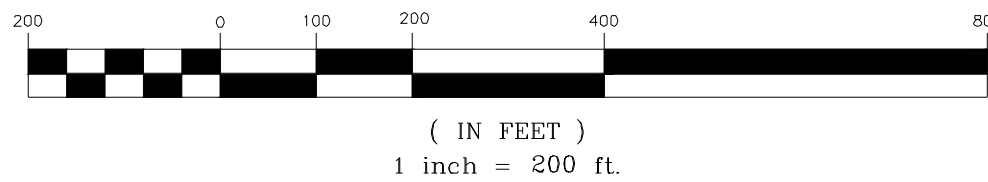
LEGEND:



WATER LINE
SANITARY SEWER LINE
WATER METER / SERVICE
SANITARY CLEANOUT / SERVICE
FIRE HYDRANT ASSEMBLY
GATE VALVE
TEE
BLOW OFF VALVE
SANITARY MANHOLE



GRAPHIC SCALE



JERRI JO MASSEY &
TAMMY G. BUTLER
DB 8265 PG 202
**PARK #6
ACTIVE OPEN SPACE**

MEGAN KULAWIAK
DEED BOOK 16226 PAGE 1133

MARCIE L. HOLDEN
DEED BOOK 15599 PAGE 1003

BERNARD MILLER
DEED BOOK 15416 PAGE 1651

KENNETH S. TOUTLOFF
DEED BOOK 9236 PAGE 2229

PHETIS JONES
BRADSHAW
PIN: 1757349473
DB 15208 PG 2320
BM 2013 PG 868

CURTIS L. HONE
AND WIFE, CHAI
HONEYCUTT
PIN: 1757540996
DB 10488 PG 184
LOT 1 - BM 2018

CHRISTOPHER GHOLSON
AND WIFE, KELLY GAITHER
GHOLSON
PIN: 1755556361
DB 17855 PG 457
LOT 4 - BM 2018 PG 1333

If the roadways / alleys for the
THs are private, 20' easement
should be shown 10' on each
side of the water main. The SS
will likely be permitted as
private. Permanent storm
structures or private sewer
should be no located within the
20' easement. Crossings of this
easement are allowed.

MOUNT CALVARY HOLINESS
CHURCH
OF WAKE COUNTY, INC.
PIN: 1757660324
DB 10124 PG 2778
LOT 1 - BM 2002 PG 991

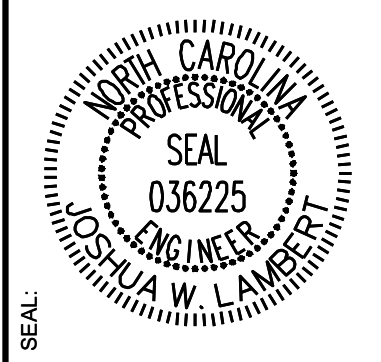
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PAGE 2778
MT. CALVARY
HOLINESS CHURCH
OF WAKE CO. INC

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DATE	BY	REVISIONS
08/01/2023		
PRELIMINARY SUBDIVISION PLAT SHEET 23-02		
01		



STRONGROCK
ENGINEERING GROUP

STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 | INFORMATION@STRONGROCKENGINEERING.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	AS SHOWN	DESIGNED BY	JWL	SRG	DRAWN BY	JWL	CHECKED BY	JWL

RESERVE @ MITCHELL MILL
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
OVERALL UTILITY PLAN

DRAWING SHEET

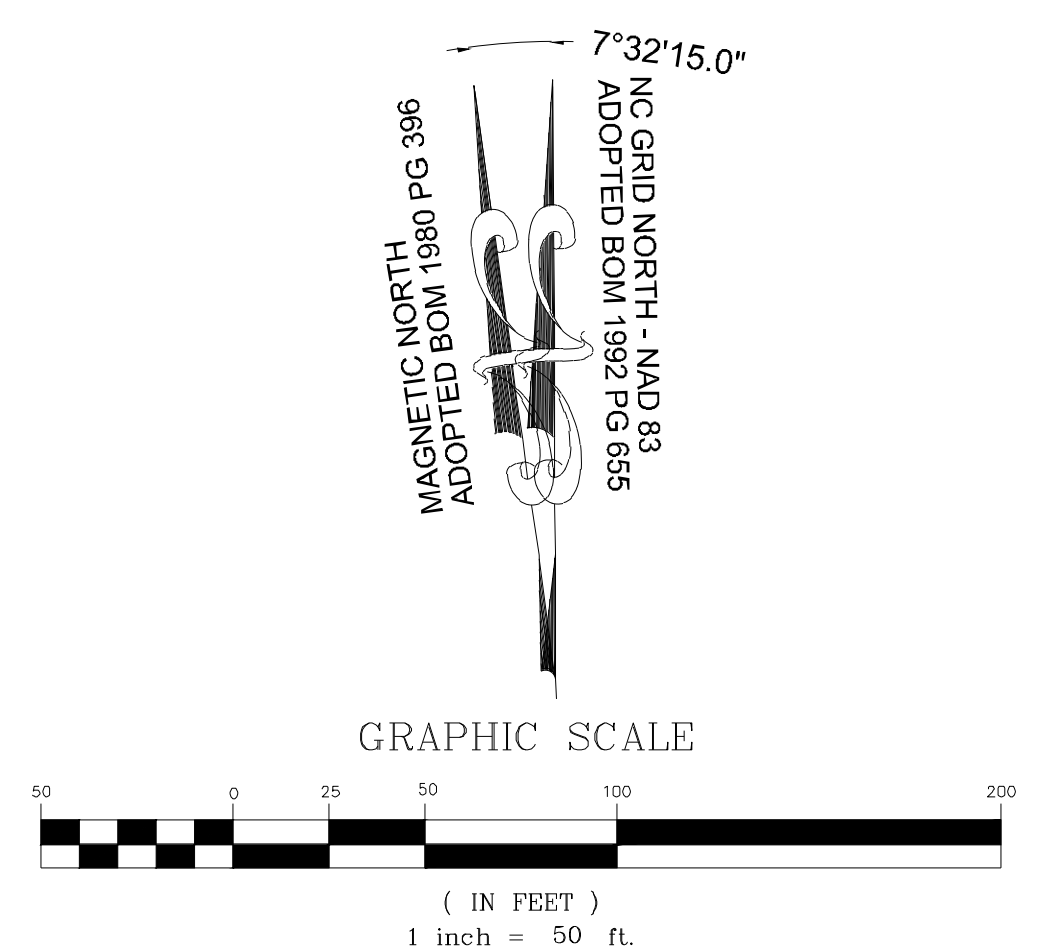
C-6.0



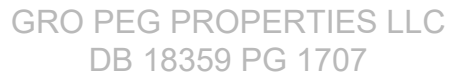
RESERVE @ MITCHELL MILL
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

PARTIAL UTILITY PLAN I

15 OF 35



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Waterline should extend close to the edge of pavement.

-Is, must be

MATCH LINE

FOR CONTINUATION, SEE C-6.3

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STRONG**ROCK**
E N G I N E E R I N G G R O U P

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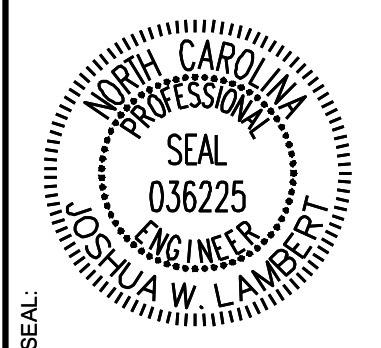
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

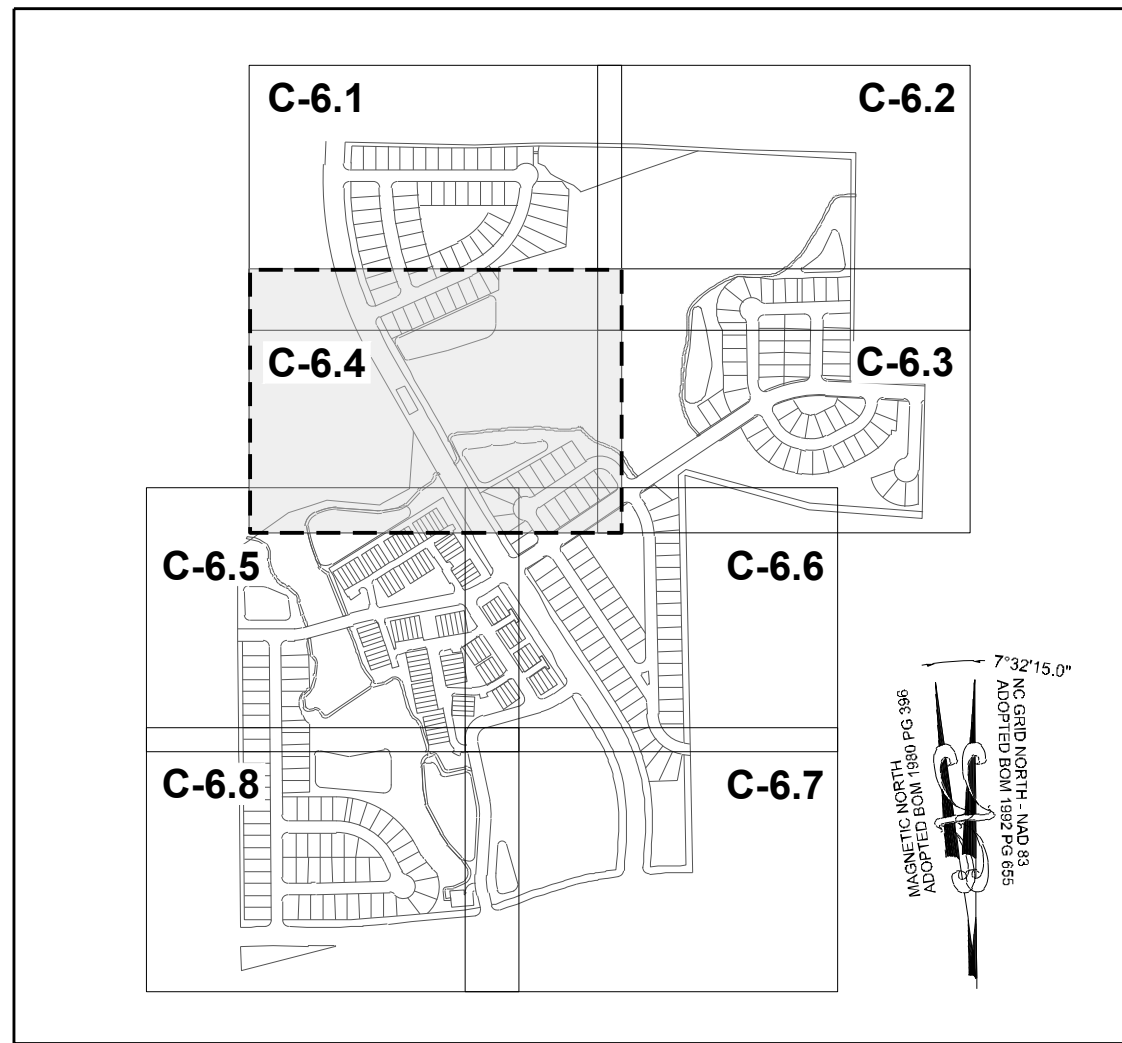
PARTIAL UTILITY PLAN II

DRAWING
SHEET

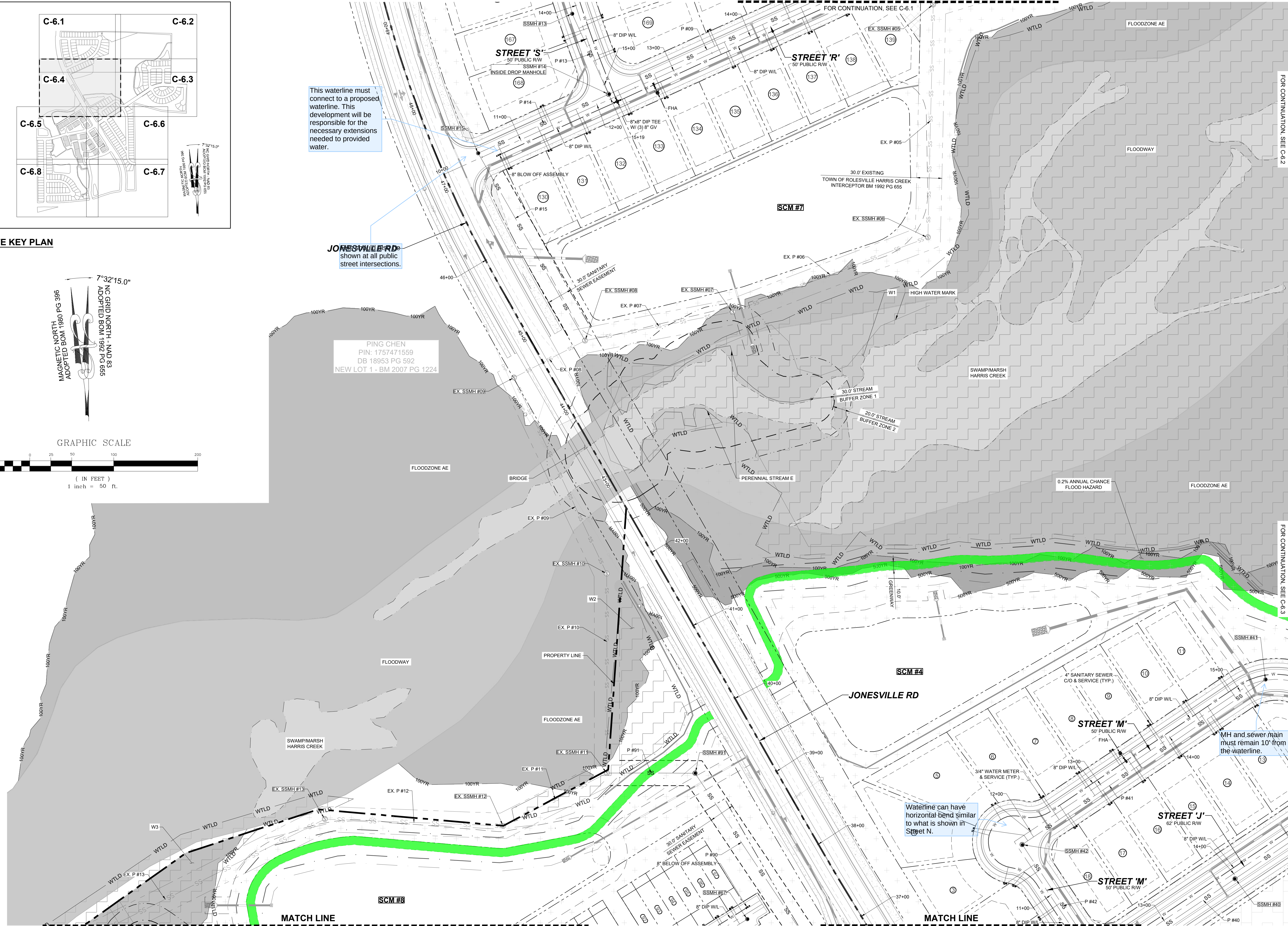
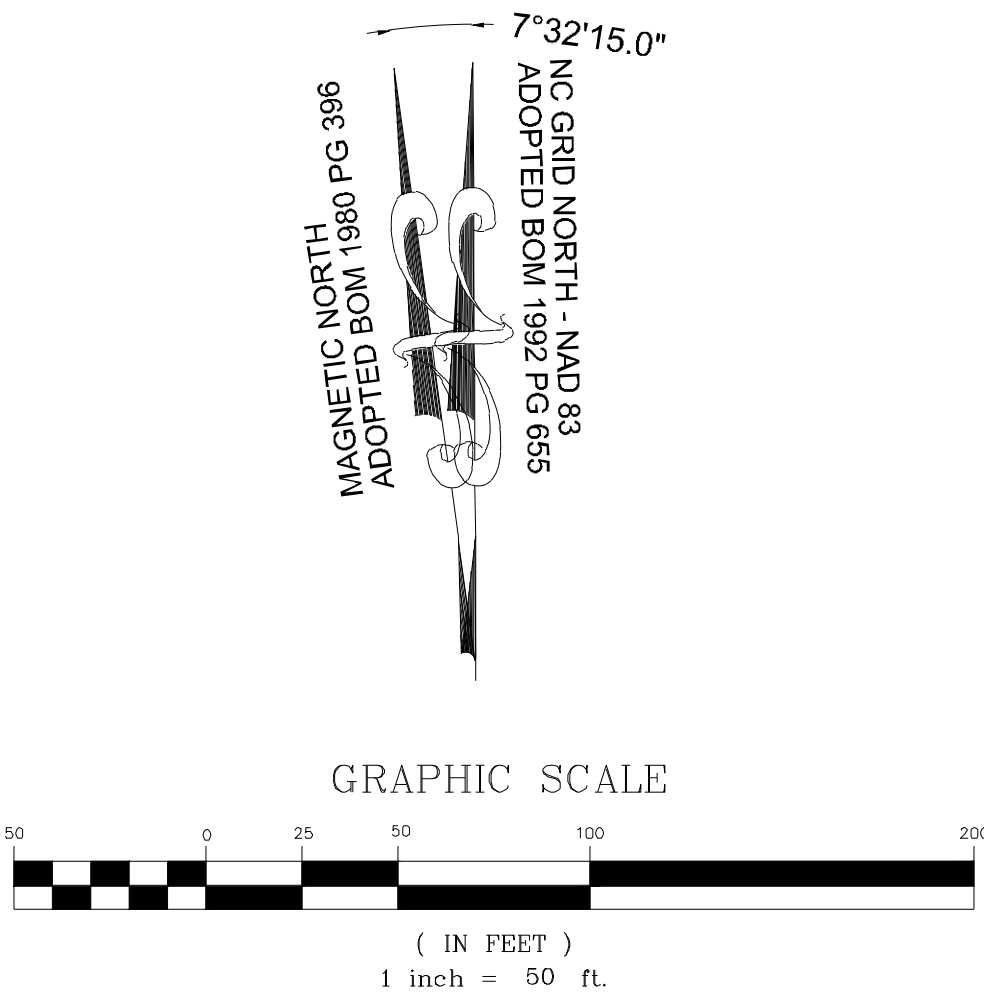
C-6.2

16 OF 35





SITE KEY PLAN



STRONG ROCK PROJECT				STRONG ROCK PROJECT			
NOT FOR CONSTRUCTION				NOT FOR CONSTRUCTION			
SCALE AS SHOWN				SCALE AS SHOWN			
DESIGNED BY JWL				DESIGNED BY JWL			
DRAWN BY SRG				DRAWN BY SRG			
CHECKED BY JWL				CHECKED BY JWL			

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ENGINEERING GROUP
6801 FALLS OF NEUSE RD, SUITE 108 RALEIGH, NC 27615 | INFORMATION@STRONGROCKENGINEERING.COM

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TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

PARTIAL UTILITY PLAN IV

C-6.4

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08/01/2023

PRELIMINARY SUBDIVISION PLAT SPS 23-02

DATE

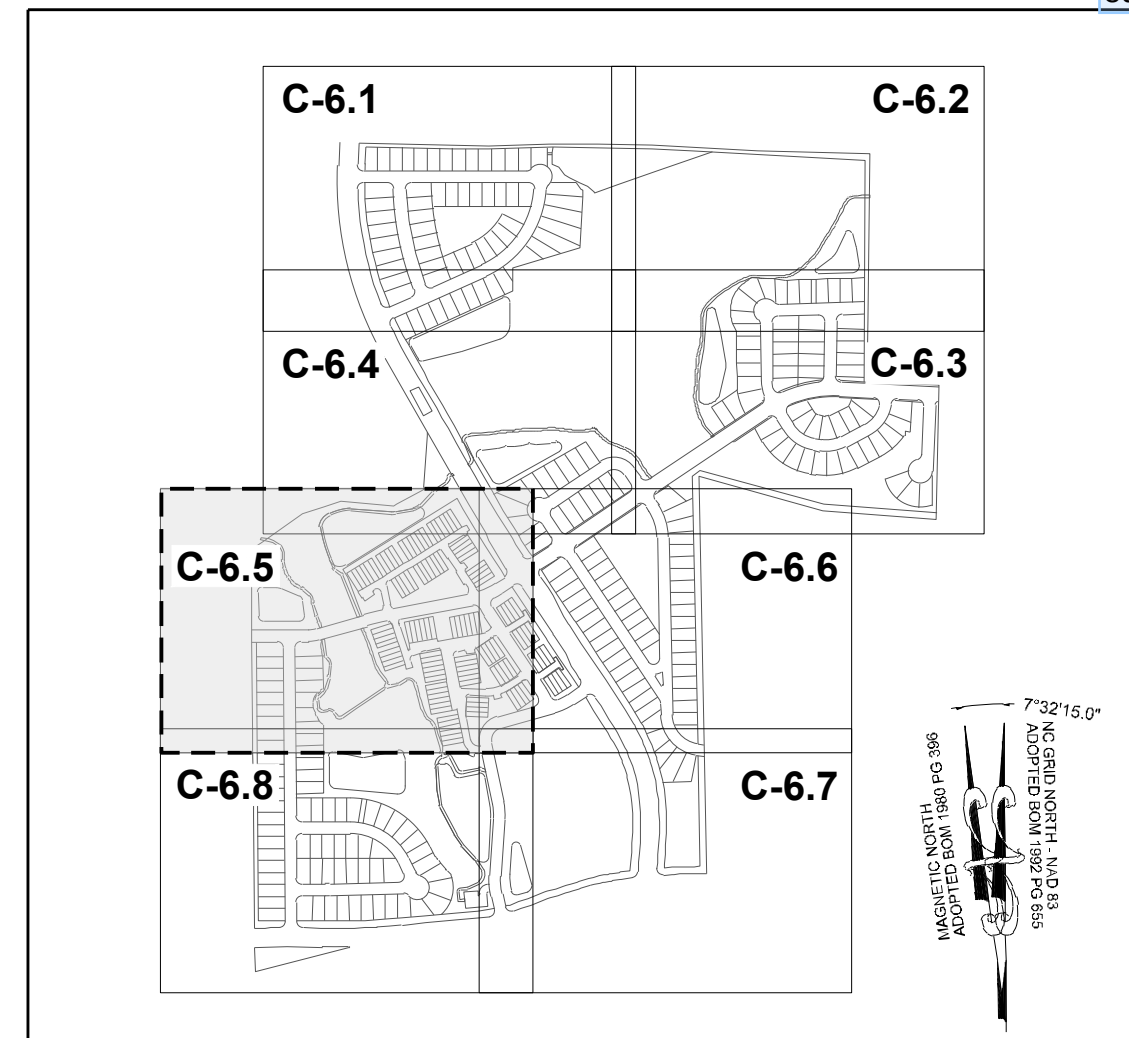
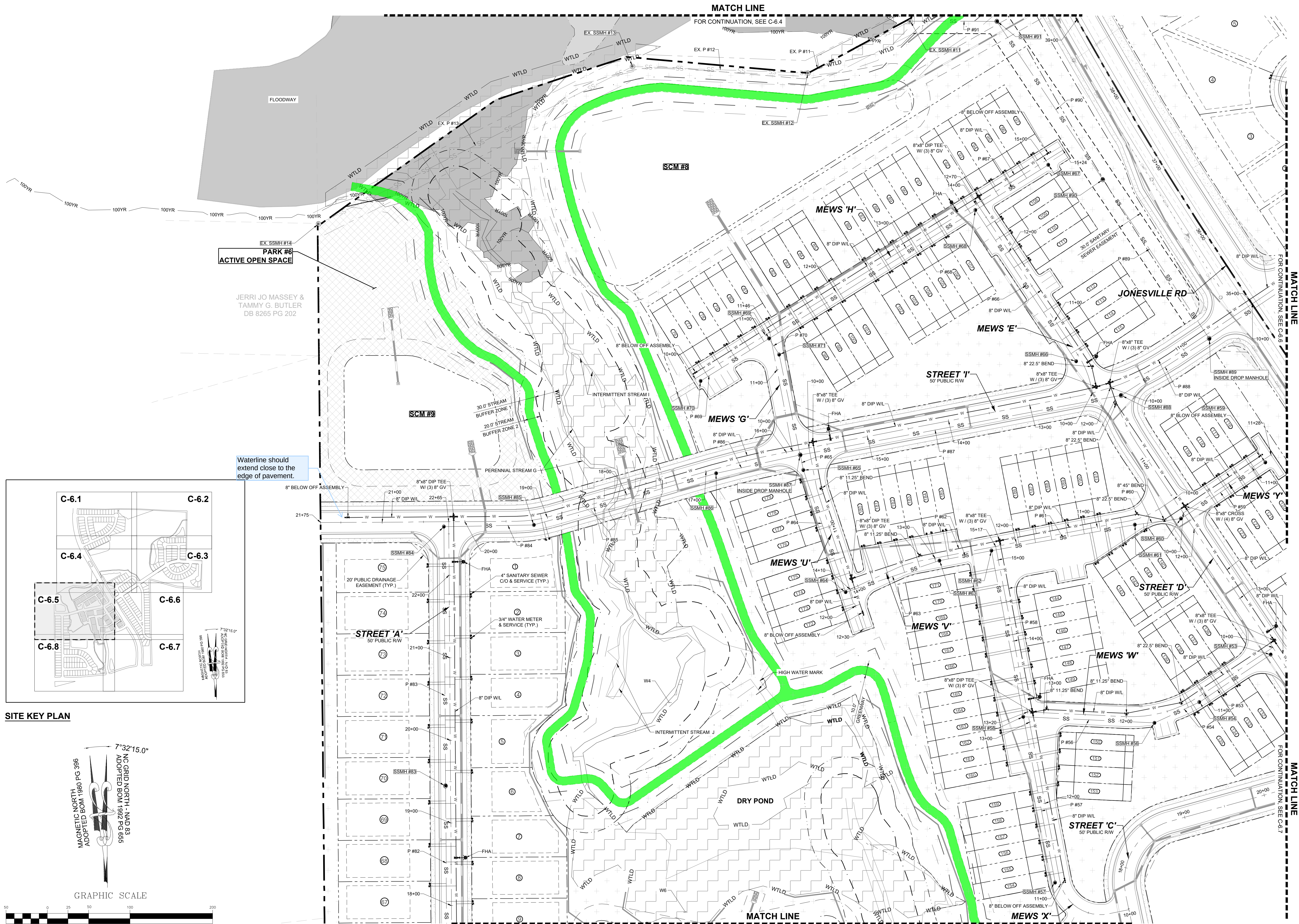
REVISIONS

BY

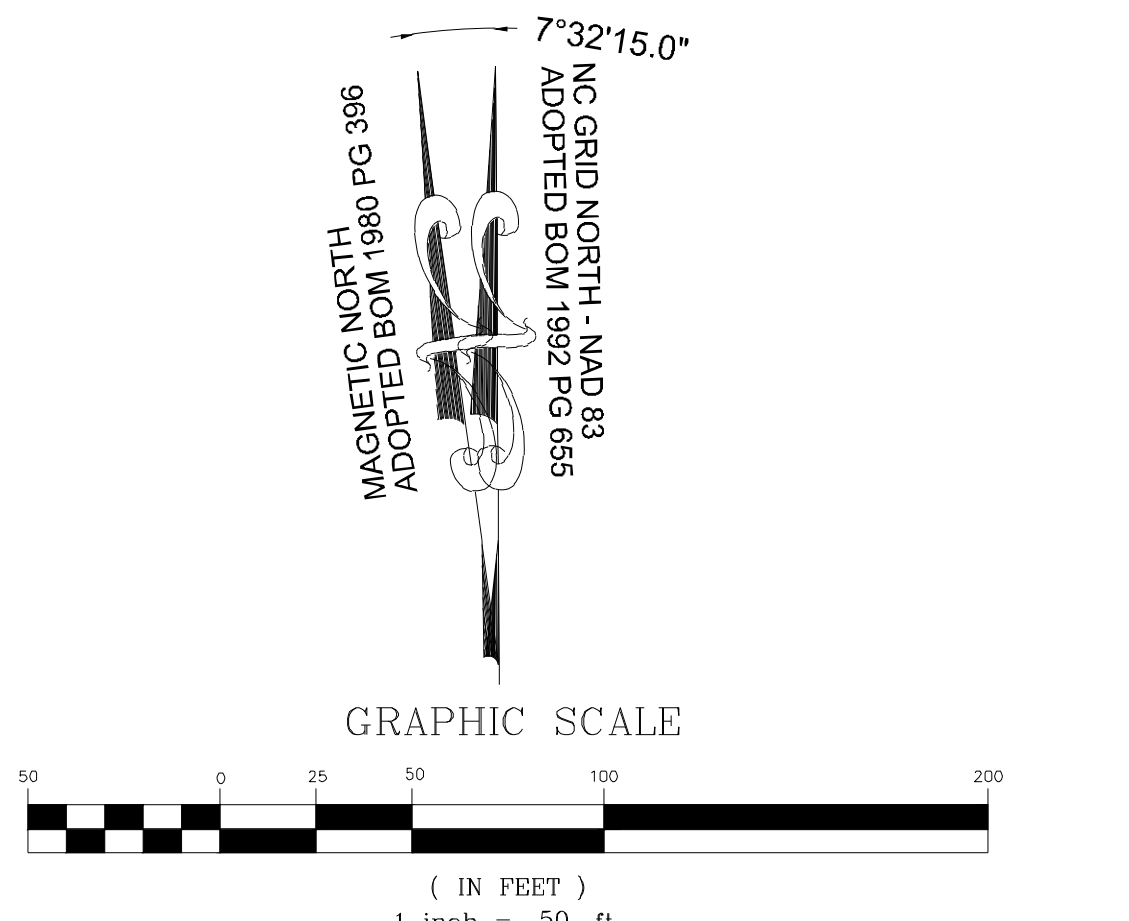
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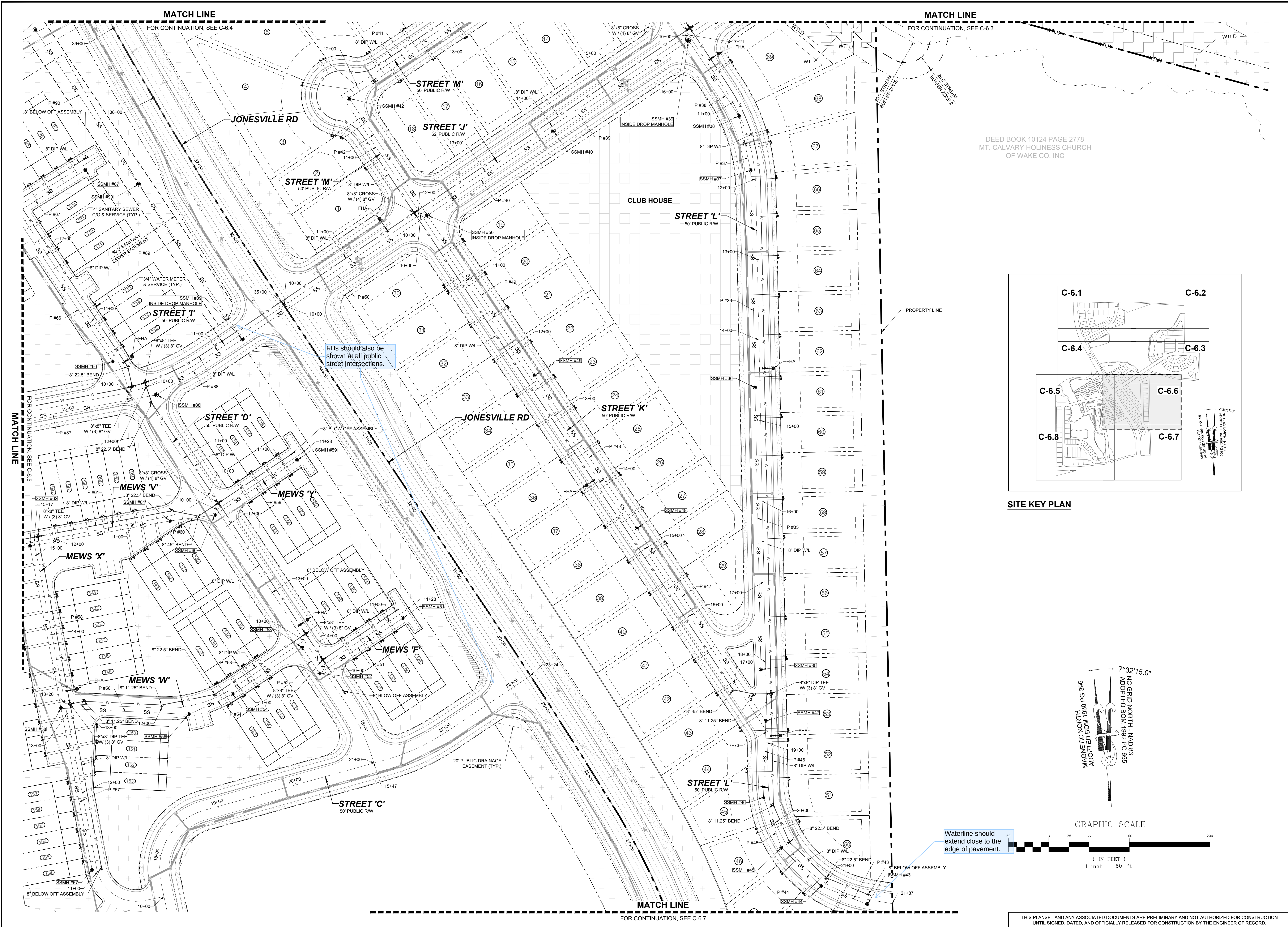
W. L. LAMBERT



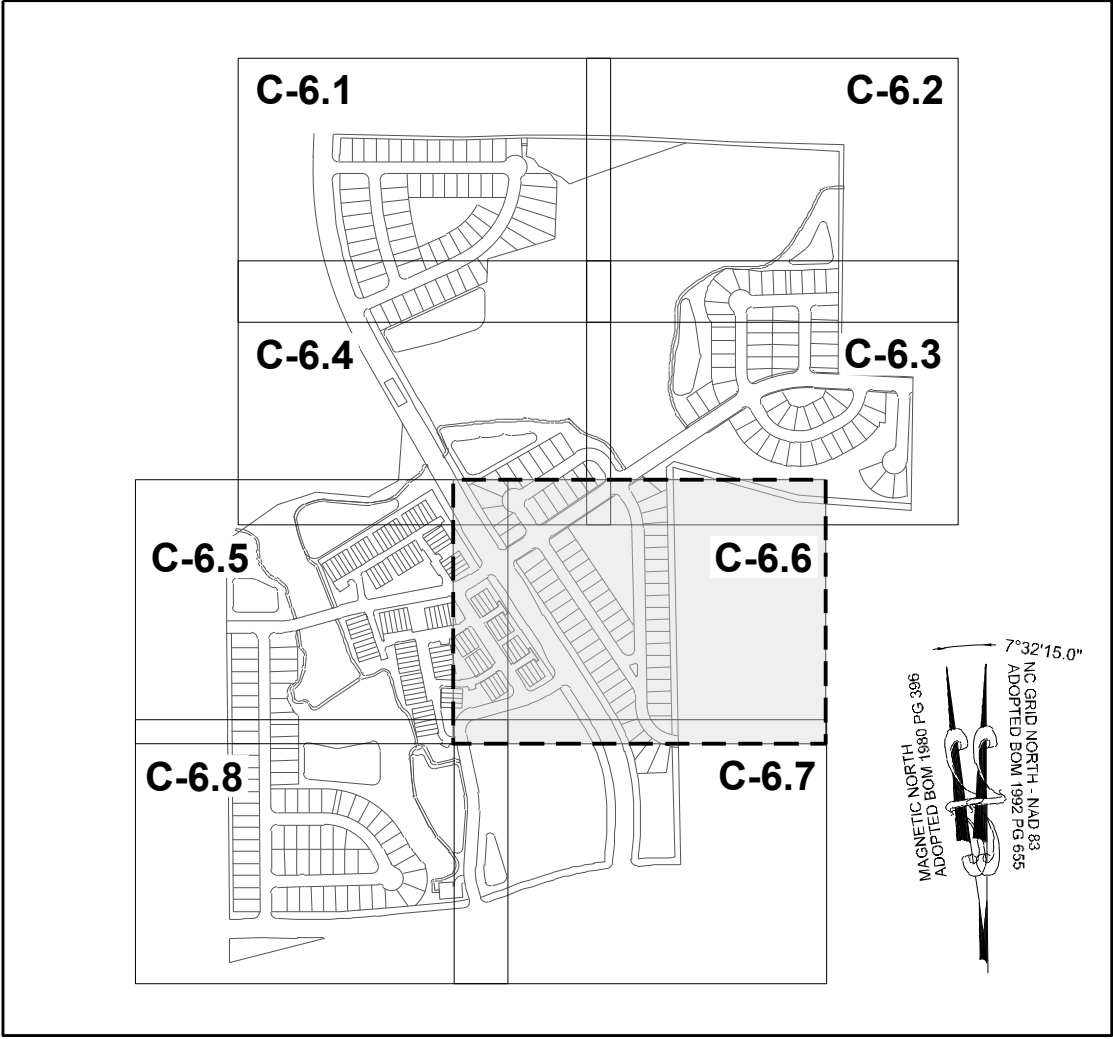
SITE KEY PLAN



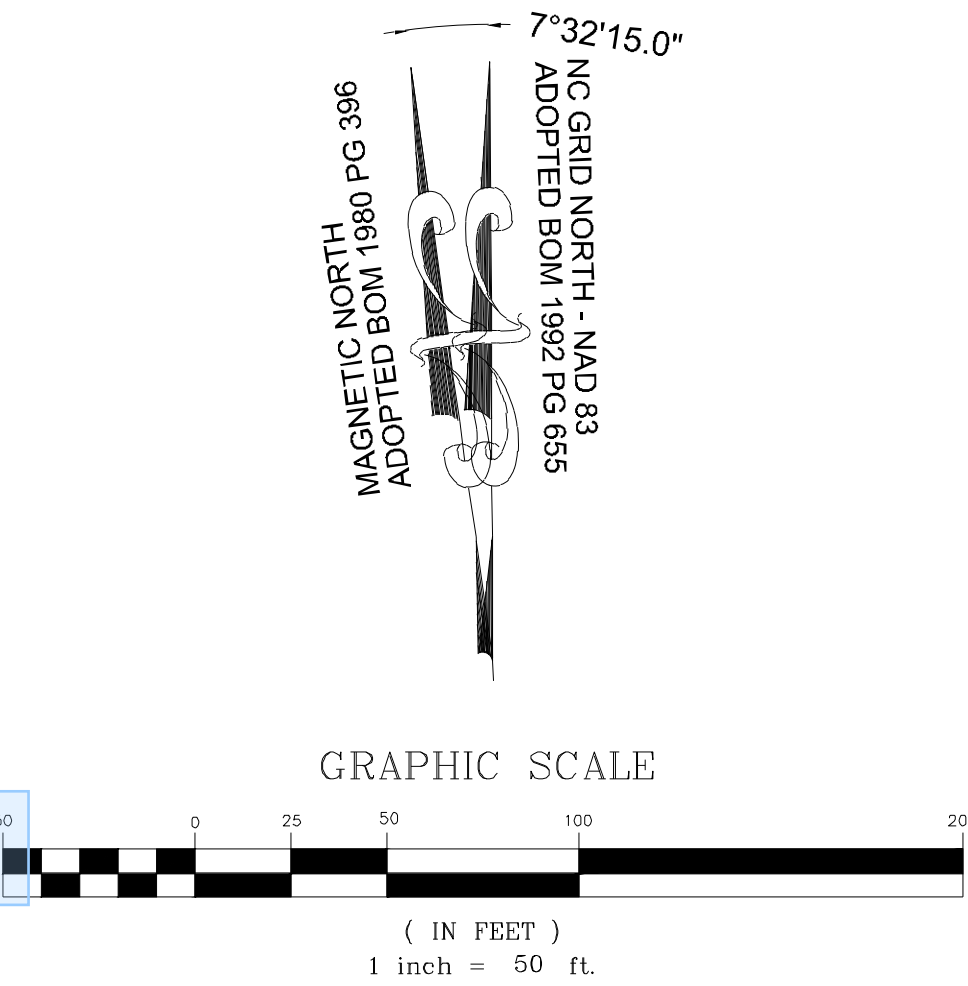
STRONG ROCK		ENGINEERING GROUP		RESERVE @ MITCHELL MILL		TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA		DRAWING SHEET		C-6.5		19 OF 35	
STRONG ROCK PROJECT		NOT FOR CONSTRUCTION		SCALE AS SHOWN		DESIGNED BY JWL		DRAWN BY SRG		CHECKED BY JWL		THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.	
STRONG ROCK ENGINEERING GROUP, PLLC COMPANY LICENSE # P-2166		6801 FALLS OF NEUSE RD, SUITE 108 RALEIGH, NC 27615 INFORMATION@STRONGROCKENGINEERING.COM		DATE		REVISIONS		BY					



DEED BOOK 10124 PAGE 2778
MT. CALVARY HOLINESS CHURCH
OF WAKE CO. INC



SITE KEY PLAN



Waterline should extend close to the edge of pavement.

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DRAWING SHEET												C-6.6	
20 OF 35													

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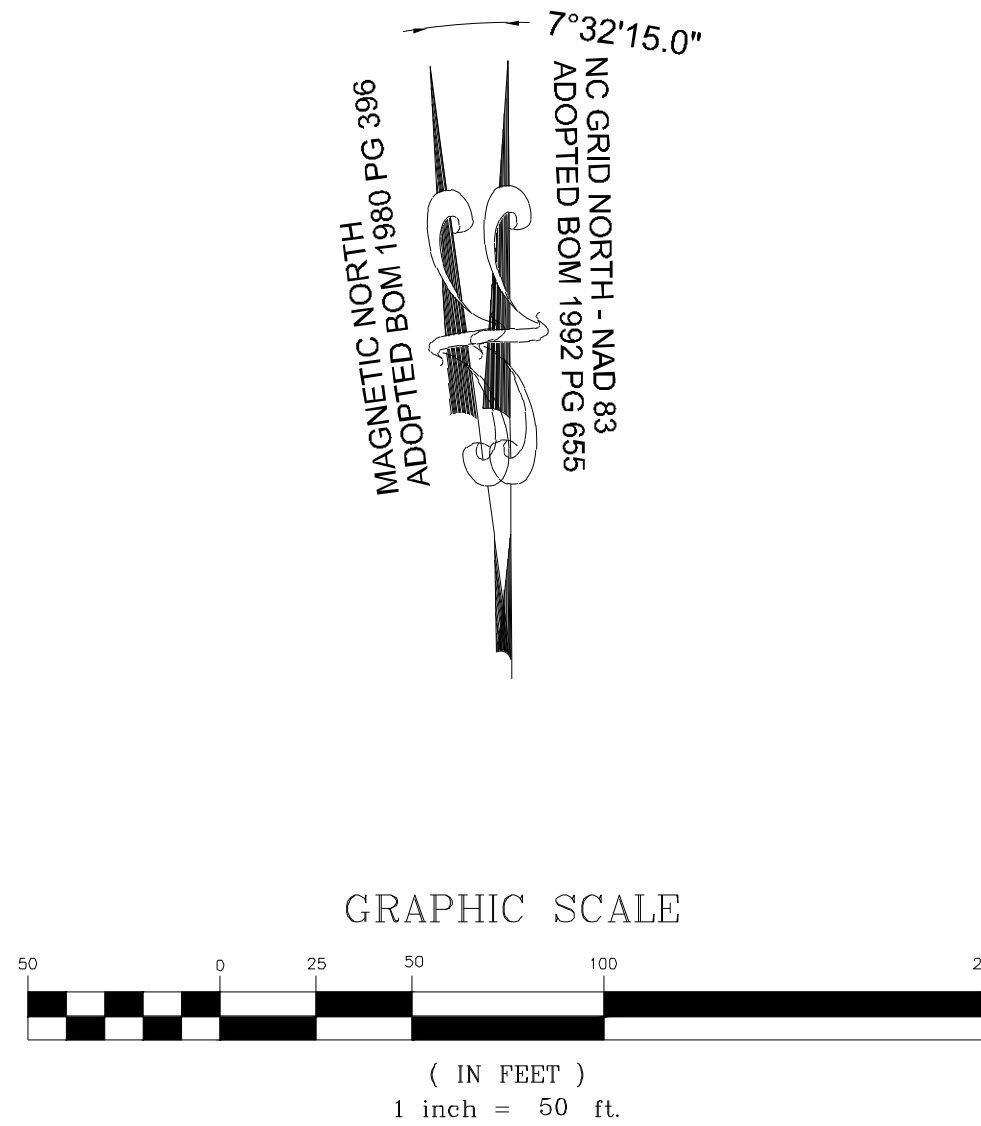
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ENGINEERING GROUP

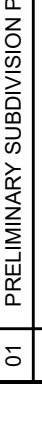
SEAL: NORTH CAROLINA PROFESSIONAL SEAL 036225 ENGINEER JULIA W. LAMBERT

DATE

REVISIONS

BY



21 OF 35	DRAWING SHEET C-6.7	RESERVE @ MITCHELL MILL TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA PARTIAL UTILITY PLAN VII	STRONG ROCK PROJECT		 STRONG ROCK ENGINEERING GROUP	STRONG ROCK ENGINEERING GROUP, PLLC COMPANY LICENSE # P-2106 6801 FALLS OF NEUSE RD., SUITE 108 RALEIGH, NC 27615 INFORMATION@STRONGROCKENGINEERING.COM		SEAL:					
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			SCALE	AS SHOWN									
			DESIGNED BY	JWL									
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