

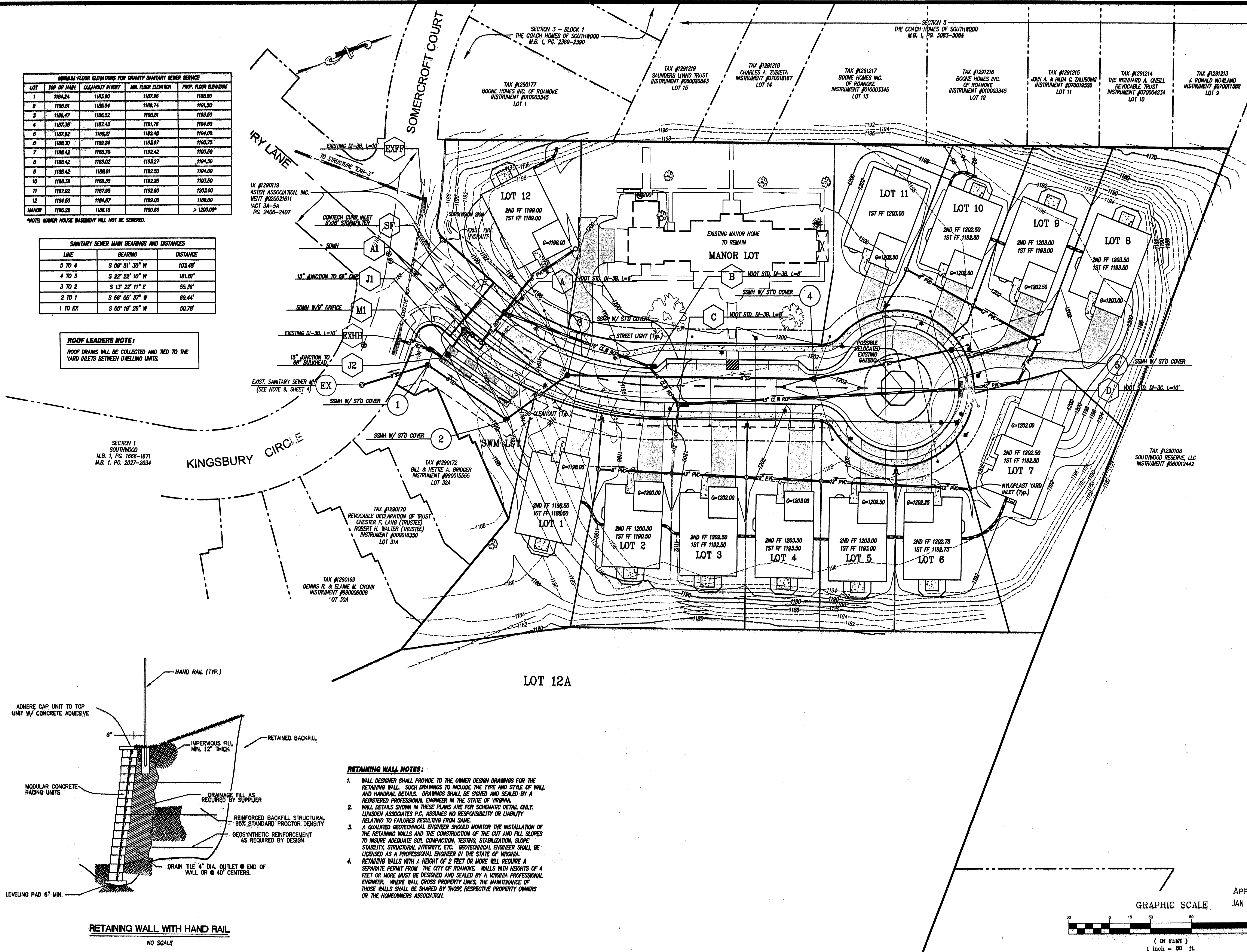
MINIMUM FLOOR ELEVATIONS FOR GRAVITY SANITARY SEWER SERVICE				
LOT	TOP OF MAN	CLEANOUT INVERT	MIN. FLOOR ELEVATION	PROP. FLOOR ELEVATION
1	1184.24	1183.80	1187.08	1188.50
2	1185.01	1185.04	1188.74	1191.50
3	1185.47	1185.52	1189.81	1193.50
4	1187.38	1187.43	1191.78	1194.50
5	1187.92	1188.21	1192.49	1194.00
6	1188.30	1188.24	1193.07	1193.75
7	1188.42	1188.70	1192.42	1193.50
8	1188.42	1188.02	1193.27	1194.50
9	1188.42	1188.01	1192.50	1194.00
10	1188.39	1188.35	1192.25	1193.50
11	1187.92	1187.83	1192.80	1203.00
12	1184.50	1184.87	1189.00	1188.00
MANOR	1188.22	1188.18	1190.88	> 1200.00*

*NOTE: MANOR HOUSE BASEMENT WILL NOT BE SEWERED.

SANITARY SEWER MAIN BEARINGS AND DISTANCES		
LINE	BEARING	DISTANCE
5 TO 4	S 08° 51' 30" W	103.48'
4 TO 3	S 22° 22' 10" W	181.81'
3 TO 2	S 13° 22' 11" E	55.36'
2 TO 1	S 56° 06' 37" W	69.44'
1 TO EX	S 05° 19' 26" W	50.78'

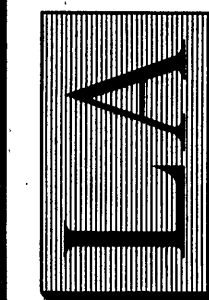
ROOF LEADERS NOTE:

ROOF DRAINS WILL BE COLLECTED AND TIED TO THE YARD INLETS BETWEEN DWELLING UNITS.

**RETAINING WALL NOTES:**

1. WALL DESIGNER SHALL PROVIDE TO THE OWNER DESIGN DRAWINGS FOR THE RETAINING WALL. SUCH DRAWINGS TO INCLUDE THE TYPE AND STYLE OF WALL AND HANDRAIL DETAILS. DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF VIRGINIA.
2. WALL DETAILS SHOWN IN THESE PLANS ARE FOR SCHEMATIC DETAIL ONLY. LUMSDEN ASSOCIATES P.C. ASSUMES NO RESPONSIBILITY OR LIABILITY RELATING TO FAILURES RESULTING FROM SAME.
3. A QUALIFIED GEOTECHNICAL ENGINEER SHOULD MONITOR THE INSTALLATION OF THE RETAINING WALLS AND THE CONSTRUCTION OF THE CUT AND FILL SLOPES TO INSURE ADEQUATE SOIL COMPACTION, TESTING, STABILIZATION, SLOPE STABILITY, STRUCTURAL INTEGRITY, ETC. GEOTECHNICAL ENGINEER SHALL BE LICENSED AS A PROFESSIONAL ENGINEER IN THE STATE OF VIRGINIA.
4. RETAINING WALLS WITH A HEIGHT OF 2 FEET OR MORE WILL REQUIRE A SEPARATE PERMIT FROM THE CITY OF ROANOKE. WALLS WITH HEIGHTS OF 4 FEET OR MORE MUST BE DESIGNED AND SEALED BY A VIRGINIA PROFESSIONAL ENGINEER. WHERE WALL CROSS PROPERTY LINES, THE MAINTENANCE OF THOSE WALLS SHALL BE SHARED BY THOSE RESPECTIVE PROPERTY OWNERS OR THE HOMEOWNERS ASSOCIATION.

LUMSDEN ASSOCIATES, P.C.
ENGINEERS-SURVEYORS-PLANNERS
ROANOKE, VIRGINIA



COMMONWEALTH OF VIRGINIA
B. LEE HENDERSON, JR.
No. 17591
PROFESSIONAL ENGINEER

GRADING PLAN

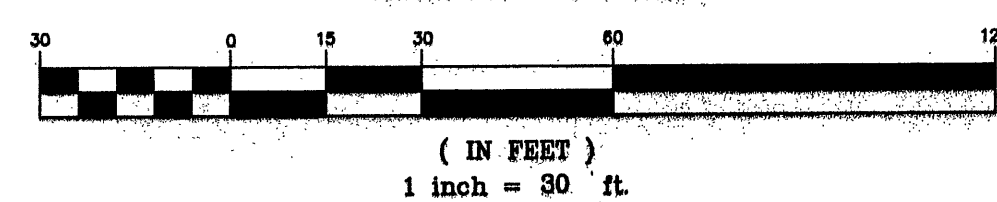
THE MANOR HOMES
OF SOUTHWOOD
PREPARED FOR
R. WILLIAM REID BUILDER, INC.
SITUATED IN
THE CITY OF ROANOKE, VIRGINIA

NO.	DATE	REVISIONS	
		DESCRIPTION	
1			
2			
3			
4			
5			

APPROVED

JAN 20 2010

GRAPHIC SCALE



DATE: November 19, 2009

SCALE: 1" = 30'

COMMISSION NO: 08-231

SHEET 5 OF 13