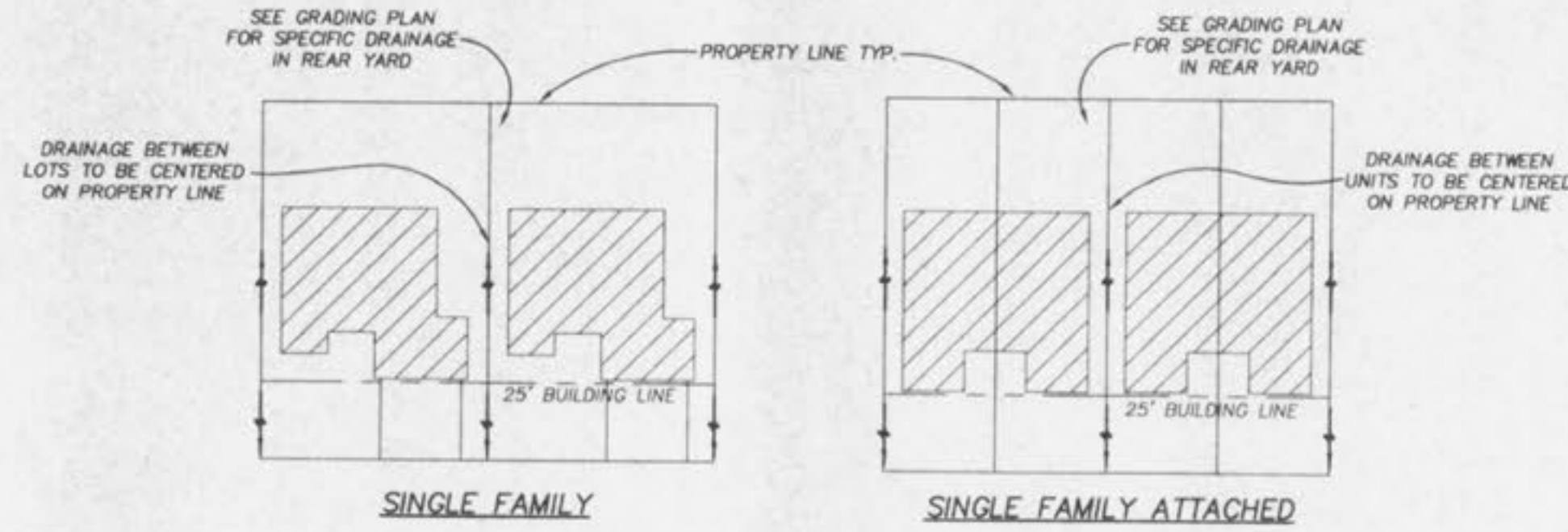
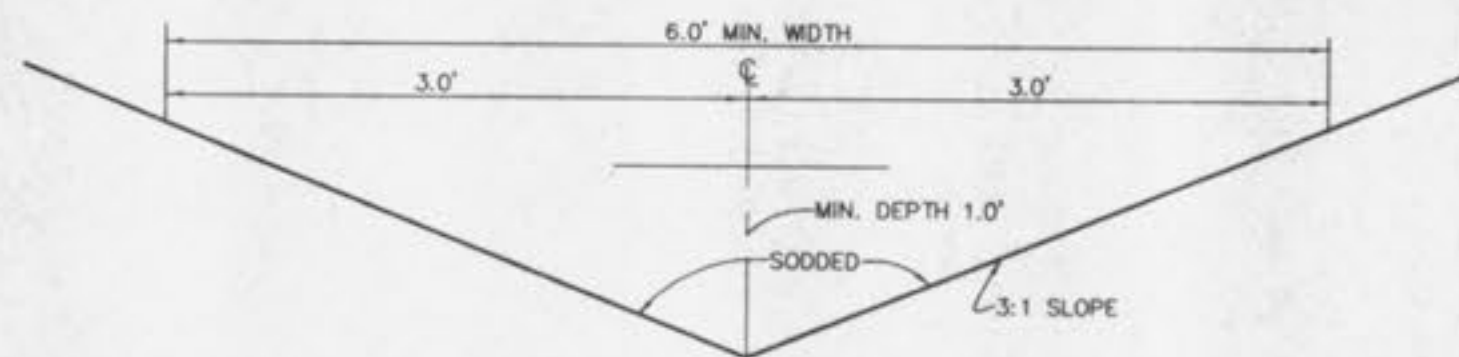


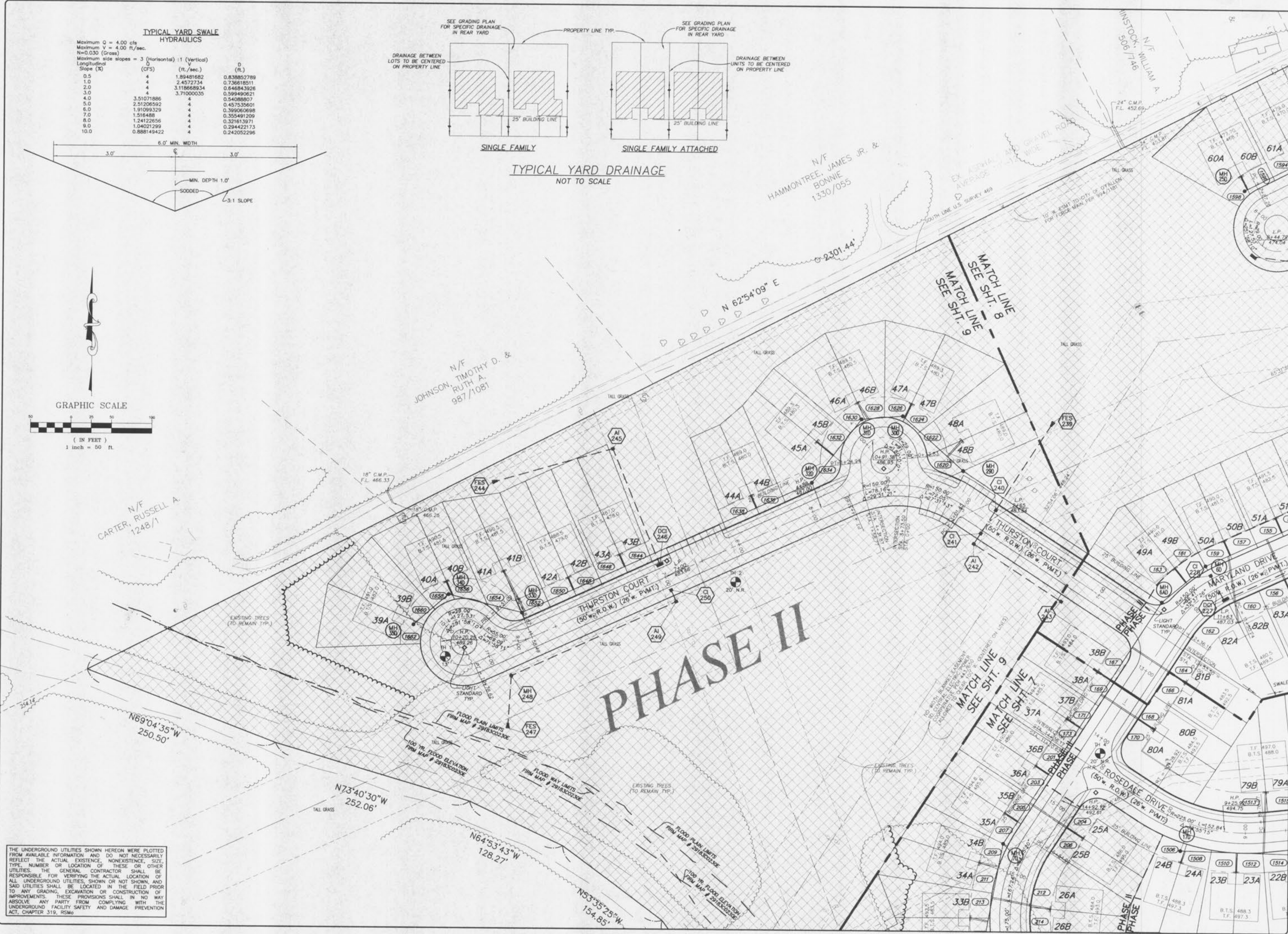
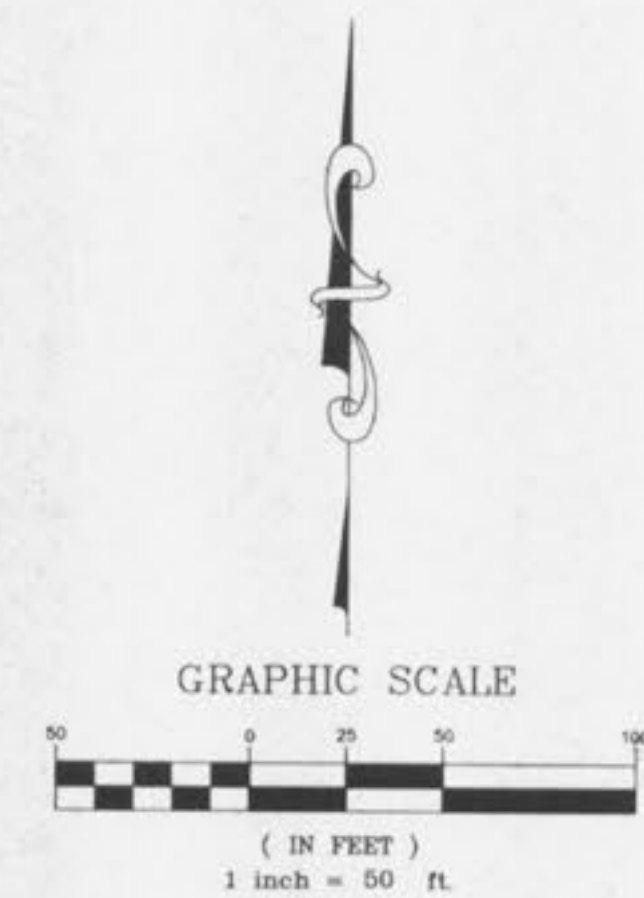
TYPICAL YARD SWALE HYDRAULICS

Maximum Q = 4.00 cfs
Maximum V = 4.00 ft/sec
N=0.030 (Grass)
Maximum side slopes = 3 (Horizontal) : 1 (Vertical)
Longitudinal Slope (%)

Slope (%)	Q (CFS)	V (ft./sec.)	D (ft.)
0.5	1.89481682	0.838852789	0
1.0	2.4572734	0.736618511	0
2.0	3.118668934	0.646843926	0
3.0	3.71000035	0.589490621	0
4.0	3.51071886	0.54088807	0
5.0	2.51206592	0.457535601	0
6.0	1.91093329	0.399060698	0
7.0	1.516488	0.355491299	0
8.0	1.24122656	0.321613971	0
9.0	1.04021299	0.294422173	0
10.0	0.886149422	0.242052296	0



TYPICAL YARD DRAINAGE
NOT TO SCALE



THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMo

ISSUE REMARKS/DATE

- 10/21/98 GRADING PLAN SUBMITTAL
- 12/30/98 SUBMITTAL TO CITY OF OFFALON
- 01/21/99 DEVELOPER REV.
- 02/10/99 ADDED STREET LIGHTS
- 03/01/99 PER CITY OF OFFALON COMMENTS
- 03/26/99 PER CITY OF OFFALON COMMENTS IN FULL
- 03/30/99
- 04/16/99 NEW LOT RECONFIG

PREPARED FOR:
J.M.B. MILL CREEK L.L.C.
5091 NEW BAUMGARTNER ROAD
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PHONE: (314) 487-6717

PREPARED BY:
the **STERLING** ENGINEERS, SURVEYORS AND PLANNERS CO.
(314)-487-0440; FAX 487-8944

PROJECT: **ESTATES/VILLAS AT HIGHGROVE**
SHEET TITLE: **SITE PLAN**

NO. **98 02 036**
M.S.D. **9** SHEET **33**
P# **9** OF **33**

DRAWN: **kk** DESIGNED: **644** CHECKED: **DR**

DIGITAL FILE LOCATION: **STERLING-1**
PROJECT: **9802036**
DRAWING: **9802036**

BASE MAP