



JAMES MICHAEL MILLIGAN  
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March 20, 2007

TO: Butler County Engineers Office, 1921 Fairgrove Avenue, Hamilton, Ohio 45011  
Attention: Teresa Barnes

PROJECT: Chesterwood Village Phase 2: Light Care Assisted Living and Main Street  
8073 Tylersville Rd.  
West Chester, Ohio 45069

OWNER: CHAP Properties III, LTD., 8073 Tylersville Rd., West Chester, Ohio 45069

ARCHITECT: JMM Architects, Inc., 4685 Larwell Drive, Columbus, Ohio 43220

**Correction Letter Response #1: Engineer Plan Review 3-16-07, Question Responses.  
Application # BLD-CT07-00729**

Per the Engineer Review Correction Letter issued on 3-16-07, please see the partial responses below for items #3 and #4 as requested.

Please note that response to **Item #1**, for site storm calculations will need to be supplied by the Owner's Civil consultant, Bayer Becker Inc. (513) 829-2149. We are trying to work with Bayer Becker to get this information, and will respond accordingly under a separate response letter.

Please note that the response to **Item #2**, for the required "field verification" of Catch Basin at Tylersville Road, indicated as Invert 888.47, and Catch Basin to the south of the previous basin, with invert indicated as 887.45, will need to be investigated by the Owner's Civil consultant, Bayer Becker Inc. (513) 829-2149. These are existing invert locations that have not been altered by the Phase 2 project, and this information was supplied to our firm in the form of electronic file survey by Bayer Becker Inc. We are trying to work with Bayer Becker to verify this information, and will respond accordingly under a separate response letter.

**Review Response #3:**

Please see the attached Sheets P-8 and Architectural Sheet 3-20 indicating the required roof drainage information. The roof areas are drained with gutters and down-spouts tied into storm lines. Roof Wells use interior roof drains and overflows routed to exterior locations as indicated.

**Review Response #4:**

Please see the attached Sheets P-0 and Architectural Sheet 1-3 indicating the required plumbing at the Basement area. Plan 'B' on sheet 1-3 indicates perimeter footing tile at basement area, that is collected in (2) sump pumps in the basement area and ejected up to normal foundation height and taken to yard drains as indicated. **This is all storm only.** See Sheet P-0 shows the complete plumbing plan in the basement area, storm lines and sanitary lines. **Note elevator pit sump has a separate sanitary line, pump, and ejector (not tied to storm line).**



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March 30, 2007

TO: Butler County Engineers Office, 1921 Fairgrove Avenue, Hamilton, Ohio 45011  
Attention: Teresa Barnes

PROJECT: Chesterwood Village Phase 2: Light Care Assisted Living and Main Street  
8073 Tylersville Rd.  
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**Correction Letter Response #1: Engineer Plan Review 3-16-07, Question Responses.  
Application # BLD-CT07-00729**

Per the Engineer Review Correction Letter issued on 3-16-07, please see the partial responses below for item #1 as requested.

Please see the attached documents for **Item #1**; site storm calculations as provided for the development of this project site. The Owner's Civil consultant, Bayer Becker Inc. (513) 829-2149, provided this information to our firm, and to the Owner. If there are further needs, please notify our firm as required, and we will help facilitate the information.

Please note that we are still working on the response to **Item #2**, for the required "field verification" of Catch Basin at Tylersville Road, indicated as Invert 888.47, and Catch Basin to the south of the previous basin, with invert indicated as 887.45, will need to be investigated by the Owner's Civil consultant, Bayer Becker Inc. (513) 829-2149. These are existing invert locations that have not been altered by the Phase 2 project, and this information was supplied to our firm in the form of electronic file survey by Bayer Becker Inc. We are trying to work with Bayer Becker to verify this information, and will respond accordingly under a separate response letter.

Thanking you in advance for your prompt review of this submission.  
If you have any questions, please feel free to call us to discuss.

**STEVE GAGLIARDI**

Project Manager  
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(614) 326-5566 fax



BAYER-BECKER ENGINEERS  
 1230 BELLEVIEW DRIVE  
 LAWRENCEBURG, INDIANA 47025

# STORM SEWER CALCULATIONS

Designed By: CAR  
 Reviewed By:  
 Date: 5-5-79  
 Sheet:  
 Job # 95-79

**FORMULAE USED**  
 $Q_c = AC * I$  (required)  
 $V_p = (1.486 / n) * R^{2/3} * S^{1/2}$   
 $Q_c = A_p * V_p$   
 $R = (\text{Pipe Dia.} / 4)$

LOCATION	TOPOGRAPHY			TIME			DESIGN			TIME			PIPE		REMARKS					
	Area Number	Area	C Value	AC for Area	AC Accumulate	Depth (ft)	Velocity (ft/s)	Time (min)	Concentration (%)	Time (min)	Q (cfs)	Q (required) (cfs)	Pipe size (inches)	R Value		Slope	Length (ft)	Time (min)	Inlet Invert	Outlet Invert
From																				
	0.60	0.95	0.51	0.51	0.51	10	5.15	2.63	2	0.015	0.80	2.76	2.76	0.6	0.6	125	0.6			
	0.08	0.50	0.02	0.53	0.53	0	5.06	2.68	2	0.015	0.80	2.76	2.76	0.7	0.7	14	0.7			
	0.28	0.85	0.14	0.64	0.64	10	5.15	2.24	2	0.015	0.53	2.86	2.86	0.7	0.7	114	0.7			
	0.20	0.85	0.11	0.71	0.71	0	5.04	2.07	2	0.015	0.53	2.86	2.86	0.7	0.7	70	0.7			
	0.43	0.85	0.37	0.76	0.76	0.7	5.03	3.92	5	0.015	0.53	4.01	4.01	0.3	0.3	52	0.3			
	0.25	0.85	0.21	0.91	0.91	10	5.15	1.08	12	0.015	0.50	2.78	2.78	0.7	0.7	95.7	0.7			
	0.79	0.85	0.67	0.88	0.88	10	5.04	4.43	15	0.015	0.85	4.75	4.75	0.6	0.6	44.0	0.6			
	0.86	0.50	0.40	0.48	0.48	15	4.47	2.15	12	0.015	0.50	2.78	2.78	0.6	0.6	109	0.6			
	0.19	0.85	0.17	1.57	1.57	15	4.40	6.91	18	0.015	1.05	5.78	5.78	0.6	0.6	16.5	0.6			
	1.47	0.85	1.25	2.78	2.78	15.6	4.34	12.07	24	0.015	0.50	4.41	4.41	0.3	0.3	77.7	0.3			
	0.37	0.85	0.31	0.31	0.31	10	5.15	1.60	12	0.015	0.50	2.78	2.78	0.3	0.3	50	0.3			