

## Evaluation of feasible alignments

Nine days after B&N personnel prioritized and weighted the four criteria for alignment evaluation, that same group, along with representatives of the Delaware County Engineer's Office, met to evaluate and score the four feasible alternatives. The prioritization and weighting of the criteria was first reviewed and agreed upon by participants in this meeting.

Scoring of the alternatives using these criteria was based on a scale of 1 to 4. A narrative discussion of how the alternatives were ranked for each of the criteria is as follows:

**Minimize Impacts on Existing Homes and Businesses** – Structures within the 200-foot right-of-way limits assumed for each alignment, structures outside this width, but still within 150 feet of the alignment limits, and uneconomic remnants (currently undeveloped but less than 1.9 acres after acquisition) were summarized. Alternative 3, with the fewest number using this method of measurement, received the highest ranking (4). Alternatives 1, 2, and 4 received rankings of 2, 1, and 3, respectively.

**Minimize Environmental Impacts** – Wetland impacts and number of stream crossings were determined for each alternative. Alternatives 1, 3, and 4 have essentially the same environmental impacts and, as a result, received rankings of 4. Alternative 2, with nearly 3 times the wetland impact of the other alternatives, received a ranking of 2.

**Minimize Public Cost** – Estimated construction and right-of-way acquisition costs were computed and summarized for each alternative. Although Alternative 4 had the lowest cost, the difference between the highest and lowest cost varied by only 5 percent. As a result, all the alternatives were given a ranking of 4.

**Open House #4 Survey** – The alignment preferences expressed as a result of the March Open House survey (Figure 7) were considered, along with comments received by the Delaware County Engineer's Office after the surveys were completed. Since those completing surveys expressed such a clear preference for Alternative 4, it was given a ranking of 4. Preferences expressed in the surveys, plus positive comments made in letters received by the Delaware County Engineer's Office, resulted in a ranking of 2 for Alternative 2. Alternatives 1 and 3 were both given rankings of 1.

The initial evaluation of the four feasible alignments resulted in the highest score for Alternative 4 (66), followed by Alternative 3 (61), Alternative 1 (41), and Alternative 2 (34). Figure 9 is the evaluation matrix compiled at the May 18 meeting.



Figure 9 - Feasible alignment evaluation matrix

<b>Project: SPE Alignment Evaluation</b> <b>Location: Delaware Ohio</b> <b>Client: Delaware County Engineer</b> <b>Date: May 18, 2005</b> Page 1 of 1					<b>EVALUATION OF ALIGNMENT ALTERNATIVES</b>								
	CRITERIA									TOTAL	RANK		
	Minimize Impacts on Existing Homes & Businesses	Remaining Environmental Impacts	Minimize Public Cost	Public Input / Survey									
CRITERIA IDENTIFICATION	A	B	C	D	E	F	G	H	I				
CRITERIA WEIGHT	10	1	3	5									
Alternative 1	2	4	4	1									
	20	4	12	5	0	0	0	0	0	41	3		
Alternative 2	1	2	4	2									
	10	2	12	10	0	0	0	0	0	34	4		
Alternative 3	4	4	4	1									
	40	4	12	5	0	0	0	0	0	61	2		
Alternative 4	3	4	4	4									
	30	4	12	20	0	0	0	0	0	66	1		
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0			

**BURGESS & NIPLE**  
 Excellent = 4    Fair = 2  
 Good = 3        Poor = 1