COMMONWEALTH OF PENNSYLVANIA

INTERCOUNTY PAVING ASSOCIATES, LLC	:	BEFORE THE BOARD OF CLAIMS
	:	
VS.	:	
	:	
COMMONWEALTH OF PENNSYLVANIA,	:	
DEPARTMENT OF TRANSPORTATION	:	DOCKET NO. 3720

FINDINGS OF FACT

1. Plaintiff, Intercounty Paving Associates, LLC. ("Intercounty"), is a New Jersey limited liability company with its principal place of business in Hackettstown, New Jersey. (Complaint, ¶1; Answer, ¶1).

2. Defendant, Department of Transportation ("PennDOT") is an executive department of the Commonwealth of Pennsylvania with its principal offices located in Harrisburg, Pennsylvania. (Answer, ¶1).

3. Intercounty filed its claim in this action with the Board July 26, 2004. (Complaint).

4. On June 5, 2001, PennDOT and Intercounty executed Contract No. 044077 ("Contract") for a contract bid of $4,523,385.82. Contract No. 044077 was for a road construction project, known as Project SR 2001-403, ("Project") located in Pike County, Pennsylvania, PennDOT District 4-0. The Contract included, inter alia, the Special Provisions, the Project plans and drawings and the Project specifications. (Notes of Trial Transcript ["N.T."], page 550; Exhibits ['Exs."] P-8, P-10, P-11, P-17, P-24, P-59, P-60, P-1G).

5. The specifications applicable to the Project and made part of the Contract are found in Publication 408/2000 as modified by Change No. 4, effective April 2, 2001, published by the Department of Transportation ("408 Specifications").[1] (Exs. P-8 at p. 23, P-60; Ex. D-19; Board Finding).

6. The scope of work on the Project was to make improvements and widen 3.625 miles of State Route 2001 from stations 721+00 through 917+00. The existing road was one lane in each direction with many twists and turns and with no shoulders. The work included widening, straightening, and aligning that existing roadway which had an original width of seventeen to nineteen feet and creation of two eleven foot travel lanes with nine foot wide shoulders in each direction. The work also included performing some curve realignments, sight

[1] Although the Contract references Change No. 4 effective April 2, 2000 to the 408/2000 Specifications, there is no Change No. 4 of that date. Our review of Pub. 408/2000 and the changes thereto lead us to conclude the reference is to Change No. 4 on April 2, 2001.

distance improvements and side road/driveway adjustments, as well as installing guide rail, signing, drainage, and pavement markings. Overall, the width of the roadway was being increased to forty feet.[2] Traffic flow had to be maintained during construction. (N.T. 10, 129, 133-137; Exs. P-8 at p. 2 at Item 0901-0001 and p. 4, P-1G, P-11).

7. Joseph Pilosi ("Pilosi") was employed by PennDOT from 1998 through the period of this Project in its Utility Relocation Unit as Utility Relocation Administrator for District 4-0, the district in which the Project was located. (N.T. 37-38; Exs. P-10, P-17, P-24).

8. Charles Nansteel ("Nansteel") was employed by Intercounty as the Project superintendent in charge of Intercounty's day-to-day operations at the job site. (N.T. 126-128).

9. Carl Lizza ("Lizza") was the owner and manager of Intercounty. (N.T. 546-547).

10. Joseph Chilek ("Chilek"), a PennDOT employee for 32 years and a registered professional engineer, was employed by PennDOT as a construction services engineer from 2001 to 2003, a period during which he administered several highway construction projects, including this Project. (N.T. 1043-1045).

11. Sam Sebastianelli ("Sebastianelli") was employed by PennDOT and was its inspector in charge of this Project, overseeing all daily operations. Mr. Sebastianelli reported to Mr. Chilek. Mr. Sebastianelli did not testify at the hearing. (N.T. 1046).

12. To accomplish the Project, PennDOT included an unusually specific construction activities plan in the bid and Contract documents that was called the "Construction Sequence." The Construction Sequence was to be used by the successful bidding contractor to price and perform the work. (N.T. 444-445; Exs. P-2A, P-2B).

13. Because the Project was located in Pike County, PennDOT needed the approval of its original construction plans and any subsequent changes to those plans from the Pike County Conservation District ("Conservation District"). (N.T. 1071)

14. The Conservation District was apparently concerned about soil erosion of the road embankments if PennDOT excavated along the full three and five-eights miles of roadway all at once. To minimize erosion, the Conservation District required PennDOT to submit for approval an Erosion and Sediment Pollution Control Plan ("E and S Plan"). This plan required a detailed sequence of how the Project would be built with the contractor working in only one section, or one-third of the Project, at a time. (N.T. 12, 133, 225, 1071-1072; Exs. P-8, P- 59).

15. The Conservation District approved PennDOT's E and S Plan and PennDOT then incorporated it into the Contract's plans and drawings and also put it in the Special Provisions

[2] The Contract narrative describes the roadway as being widened to 30 feet (two 11 foot travel lanes with four foot shoulders on each side). However, the plans and drawings show the roadway as being widened to 40 feet (two 11 foot travel lanes with nine foot shoulders on each side). This discrepancy was not addressed by either party, and it is the Board's understanding that the roadway was improved as per the plans and drawings (i.e. to a 40 foot width). (Exs. P-8, P-59).

where PennDOT renamed it the "Construction Sequence." Thus, PennDOT made the E and S Plan into the roadway Construction Sequence that the contractor had to follow. (N.T. 1071-1072; Exs. P-59, P-2A, P-8).

16. Mr. Chilek stated that PennDOT District 4-0 did not usually include such a detailed Construction Sequence to tell contractors how to build a project because "they know how to build it." Pike County was the only county that required this type of detail to be specified in the Contract. (N.T. 1071-1072).

17. In most roadway construction contracts, contractors are allowed greater leeway in sequencing and scheduling their work to construct a project in accordance with the specifications; however, in this Contract, Intercounty's ability to sequence and schedule its work was restricted to the extent that it had to widen and straighten the roadway according to the unusually specific Construction Sequence drafted by PennDOT. (N.T. 444-445, 1071-1072; Ex. P-2A; Board Finding).

18. Under the Construction Sequence, PennDOT required that the Contract work be performed in specified sections and phases while the roadway remained open to traffic. The roadway was divided into three roughly equal sections (Sections One, Two and Three) and within each section there were three phases of work to be accomplished. (N.T. 153; Exs. P-2A, P-8).

19. Pursuant to the Construction Sequence the contractor was to begin roadway work in Section One where the phases and steps to be followed were:

> A. Phase 1 – Widen right side of the existing roadway and divert traffic temporarily onto the right side temporary pavement. Phase 1 of the work was also called "right-side widening" and included steps 1 through 5, as follows:
>
> 1) Begin Phase 1 by clearing and grubbing the area for the "right side widening."
> 2) Install silt barrier fence concurrent with the clearing and grubbing, but only in areas where embankment material is used as fill. (Silt barrier fence is not required in areas of rock and/or coarse aggregate.)
> 3) Install inlets, inlet sediment control devices (see sheet 7 of E/S Plan for detail of outlet protection.) Note: Inlets outside of the paved area may be installed to their respective proposed grate elevations. However, any inlet installed within a paved area should only be installed with a grate elevation equal to the top of the B.C.B.C. level. The tops of these inlets will be rebuilt before the bituminous binder and wearing courses are constructed.
> 4) Construct "right side widening," including excavation, R-3 rock, No. 1 coarse aggregate, sub-base, B.C.B.C., seeding, pavement markings, tubular markers and/or guide rail. (Note: R-3 rock is to be placed immediately after excavation.)
> 5) End Phase 1 and begin Phase 2 by diverting traffic onto the "right side widening."

B. Phase 2 – Once traffic is diverted onto the "right-side-widening," construct new facilities for the left side of the roadway. Upon completion of the left side, all traffic will be shifted onto this area. Phase 2 of the work was also called "left-side widening" and included steps 6 through 11, as follows:

6) Clear and grub the area on the left side of the roadway.
7) Concurrent with Step 6, install silt barrier fence.
8) Construct the left side of the roadway including excavation, sub-base and B.C.B.C.
9) Permanently seed the left side cut and fill slopes on the left side of the roadway.
10) Install temporary pavement markings and tubular markers on the left side of the roadway.
11) End Phase 2 and begin Phase 3 by diverting traffic to the left side of the roadway.

C. Phase 3 – Remove the temporary "right-side-widening" facilities and construct the permanent right-side of the roadway. Phase 3 of the work was also called "right side permanent' and included steps 12 through 16, as follows:

12) Remove B.C.B.C. from the "right side widening."
13) Construct the right side of the roadway, including excavation, sub-base and B.C.B.C.
14) Permanently seed the right side cut and fill slopes on the right side of the roadway.
15) Remove the temporary pavement markings and tubular markers from the left side of the roadway, and install temporary pavement markings for the full width of Section 1.
16) End Phase 3 by diverting traffic onto the full width of Section 1.

(Exs. P-2A, P-8 at pp. 30-31).

20. When the contractor finished the three phases (and sixteen steps) in Section One (sta. 721+00 to sta. 788+00), then it was to move to Section Two (sta. 788+00 to sta. 857+00) and complete the same phases and steps. Then the contractor was to move to Section Three (sta. 857+00 to sta. 917+00) and complete the same phases and steps. (Exs. P-2A, P-8 at pp. 30-31, P-59).

21. When all three phases in all three sections had been completed, the contractor was to pave and complete the entire 3.625 miles of reconstructed roadway at one time in a linear and continuous manner using the 11 steps in the Final Phase, as follows:

1) Rebuild tops of inlets in paved areas.
2) Install bituminous binder course.
3) Install bituminous wearing course.
4) Install final pavement markings.

5) Grade areas behind shoulders.
6) After grading of any swale area is complete, immediately permanently seed, mulch and install the erosion control mat.
7) Install guide rail.
8) Remove bituminous material from "abandoned portions of roadway."
9) Backfill "abandoned" areas with embankment material and grade to original contours.
10) After grading is complete, immediately permanently seed and mulch the area.
11) Remove silt fence when areas stabilize.

(Exs. P-2A, P-8 at pp. 30-31).

22. Intercounty's bid was based on the detailed work sequencing contained in the Construction Sequence. (N.T. 585-586; Exs. P-2B, P-5; Board Finding).

23. Because of the detailed Construction Sequence provided by PennDOT, the Contract time frames in which the Contract work was to be performed and the need to keep the road open to traffic while the contractor was working, it was critical that the utility poles and wires lining both sides of the roadway be relocated within the PennDOT right-of-way in a manner that did not interfere with the contractor's work. (N.T. 142-143, 509; Ex. P-8; Board Finding).

PRE-CONTRACT ACTIVITY

24. Pursuant to statute, regulation and practice (all of which were in effect at the times relevant to this Project), PennDOT provided utility companies with the ability to use PennDOT's right-of-way to place their utility poles along state roads, and PennDOT had the accompanying right to have the utility companies relocate these poles as PennDOT directed at the utilities' expense when required by PennDOT's construction projects. (N.T. 57-58, 86; 36 P.S. Sec. 670-411; 67 Pa. Code Sec. 459.1).

25. PennDOT designed and planned this Project and prepared the construction plans and drawings in-house. (Ex. P-59).

26. For several years before this Project was put out for bid and a contract awarded (the "pre-Contract" period of the Project), PennDOT performed planning and design work for the Project, and made efforts to coordinate arrangements with the relevant utility companies with respect to the relocation of the utility poles affecting the Project, including plan approvals and permitting. (N.T. 41-42, 57-59, 67-69, 499, 502-505, 509, 512; Exs. P-2B, P-3, P-4, P-59).

27. PennDOT used its Utility Relocation Unit in District 4-0 to make arrangements during the pre-Contract design phase of the Project with the affected utility companies about moving their facilities on this Project. (N.T. 38, 79-80, 500-505; Exs. P-1M, P-2B; Board Finding).

28. The Utility Relocation Unit was a unit of PennDOT's Bureau of Design's Right-of-Way and Utilities Section. The Unit had its central office in Harrisburg. (Ex. P-1M).

29. According to PennDOT documentation, Exhibit P-1M, the Utility Relocation Unit, under the chief Utility Relocation Administrator, has overall responsibility for all utility relocations. The Unit works through the District Utility Relocation Administrators in each PennDOT district who coordinates and effectuates PennDOT's policies and procedures regarding utility relocations on the local level. These District Administrators provide the Districts under their responsibility with technical assistance and operational guidance and are described as being responsible for the "clearance" of utility facilities on all construction projects. (Ex. P-1M; Board Finding).

30. Joseph Pilosi, the District 4-0 Utilities Relocation Administrator assigned to this Project, testified that his general responsibilities were those stated in Exhibit P-1M. (N.T. 78-79; Ex. P-1M).

31. Mr. Pilosi stated his specific responsibility during the pre-contract phase of a project was to coordinate the relocation of the utilities for projects in his district. (N.T. 38).

32. Mr. Pilosi stated his specific responsibilities on any project included contacting the utility companies on upcoming projects, identifying for the utility companies which of their facilities would have to be relocated, asking the utility companies whether any additional facilities beyond those identified would be involved, and then receiving information back from the utility companies so that PennDOT could issue permits for the utility companies to perform these relocations. (N.T. 37-44).

33. Mr. Pilosi sent project plans and information to the utility companies so they could determine what the impact of a PennDOT project was going to be on their facilities. (N.T. 42).

34. Mr. Pilosi also stated that he was the person who passed information from the utility companies to the PennDOT designers so that any needed provisions about the relocations could be put into the contract for the bidders' information. (N.T. 41-42).

35. Mr. Pilosi stated that on every project it was also his specific responsibility during the pre-Contract design phase to coordinate the new PennDOT design with the utility companies so that their relocation work could and would be considered in that design. (N.T. 38).

36. On this Project, Mr. Pilosi stated that his first job as the Utilities Relocation Administrator was to contact the three affected utility companies with conflicting facilities early in the process. (N.T. 41-42).

37. On this Project, three utilities ("Utilities") had facilities along the roadway. They were G.T.E. of Pennsylvania/Verizon ("G.T.E."), the telephone company; Metropolitan Edison/GPU Energy ("GPU"), the power company; and Blue Ridge Communications, the TV cable company. (Ex. P-2B).

38. In late 1999, two years before construction work on the Project began, Mr. Pilosi sent each of the Utilities a Utility Relocation Questionnaire and Permit Application ("Questionnaire") along with PennDOT's preliminary design plans and drawings for the Project on which he had identified the poles that were in conflict with the new road plan. (N.T. 41-42, 45, 58-59; Exs. P-3, P-4).

39. After the Utilities reviewed the preliminary plans and information that Mr. Pilosi had sent them, each utility company identified what new facilities it needed to install in the PennDOT right-of-way and the time estimate each company would need for doing its work. (N.T. 44-45, 59; Exs. P-3, P-4).

40. Each utility company then sent its response to the Questionnaire to Mr. Pilosi, and GTE and GPU applied for permits that specified each new pole location. (N.T. 42-55; Exs. P-3, P-4).

41. Based upon the plans and information provided by Mr. Pilosi, GTE and GPU identified in their permit applications each new pole to be installed by pole number. (N.T. 41-42, 44, 58-60; Exs. P-3, P-4).

42. In November 1999, G.T.E.'s application to PennDOT for a relocation permit stated that G.T.E. would need 60 days to relocate 15 of its poles at the specified locations along the roadway and relocate its wires. (N.T. 45-54, 87; Ex. P-3).

43. In December 1999, PennDOT's Bureau of Design's Right-of Way and Utilities Section approved G.T.E.'s application and issued G.T.E. a permit to relocate its 15 identified poles at the designated locations and to complete its work within 60 days. (N.T. 45, 57; Ex. P-3).

44. In December 1999, GPU's application to PennDOT for a relocation permit stated GPU would need 81 days to relocate 41 of its poles at the specified locations along the roadway and relocate its wires. (N.T. 51, 70-71, 87; Ex. P-4).

45. In January 2000, PennDOT's Bureau of Design's Right-of Way and Utilities Section approved GPU's application and issued GPU a permit to relocate its 41 identified poles at the designated locations and to complete its work within 81 days. (N.T. 57, 69-71; Ex. P-4).

46. Blue Ridge Communications had its cables strung on the G.T.E. and GPU poles along the roadway, and it informed PennDOT it needed 60 days to relocate its cables in all sections. (N.T. 50, 55; Ex. P-2B).

47. Also as part of his duties as District 4-0 Utilities Relocation Administrator, Mr. Pilosi drafted a special provision entitled "Utilities" which was included in the bid and Contract documents. This provision described to the bidding contractors the time period each utility would occupy the Project site while it relocated its poles and/or wires. (N.T. 34, 47; Exs. P-2B, P-8, P-34).

48. The "Utilities" special provision of the bid and Contract documents designated the work of G.T.E. and GPU as "coordinated." This meant that these pole and wire relocations would not begin until the Project's contractor performed some initial work on the Project, and would then proceed in the timeframe(s) indicated in the provision while roadway work was also being done. (N.T. 148-149, 517-518; Ex. P-8 at pp. 34-35).

49. Specifically, the "Utilities" special provision in the bid and Contract documents indicated that G.T.E. had 16 poles to be moved in Sections Two and Three and that they would be moved within 60 calendar days after the contractor surveyed the Project site and established (marked) the right-of-way line and the final grade. This Contract provision differed from the permit PennDOT issued to G.T.E. which listed 15 poles. (N.T. 148-149, 517-518; Exs. P-8 at p. 34, P-59).

50. Specifically, the "Utilities" special provision in the bid and Contract documents indicated that GPU had 37 poles to be moved in Sections One, Two and Three and that they would be moved within 81 calendar days after the contractor surveyed the Project site and established (marked) the right-of-way line and the final grade. This Contract provision differed from the permit that PennDOT issued to GPU which listed 41 poles. (N.T. 148-149, 517-518; Exs. P-8 at pp. 34-35, P-59).

51. The "Utilities" special provision of the bid and Contract documents designated the work of Blue Ridge Communications as "concurrent." This meant that Blue Ridge Communications would work concurrently with the work of the roadway contractor to detach its cable from the old poles and reattach its cable to the relocated GPU and G.T.E. poles. (Ex. P-8 at pp. 34-35).

52. The "Utilities" special provision of the bid and Contract documents indicated that Blue Ridge would complete its work within 60 calendar days. (Ex. P-8 at p. 35).

53. Both the "coordinated" and the "concurrent" approach to relocation of the utility poles and wires on the Project, particularly the "coordinated" method, called for careful and effective planning and design by PennDOT prior to the Contract being awarded. (N.T. 50-51, 502-506; Ex. P-8 at pp. 30-35; Findings of Fact ("F.O.F.") ¶¶ 24-52; Board Finding).

54. During the Project's pre-Contract design phase, the Utilities needed to know the amount of work to be done and the estimated starting date for the Contract so they could schedule these tasks in their work queue. (N.T. 502-505; Exs. P-3, P-4).

55. Plaintiff's expert, Mr. Berner, stated that utility relocation crews are usually busy and must be booked early. He estimated that utilities need at least six months notice before actual construction starts in order to set up the schedule for their relocation crews. (N.T. 502-505).

56. In the pre-Contract period, Mr. Pilosi was to be the primary contact with the Utilities to make all arrangements for timely relocations. This work included the transmission of the plans and designs and the approximate starting date for the Project to the Utilities so they

could properly schedule their crews. (N.T. 38-41, 78-80, 142, 231, 464-465, 501-506, 509; Exs. P-1M, P-25; Board Finding).

57. There is no evidence in the record that Mr. Pilosi or PennDOT ever notified the Utilities of the estimated starting date for this Project prior to the Contract being awarded to Intercounty in May 2001. (Board Finding).

58. In the hearing record, the first notification to the Utilities that the Project was about to start is a letter dated May 23, 2001 from PennDOT to Intercounty awarding the Contract that shows copies of this letter were sent to the Utilities. Other than this letter, the hearing record is devoid of what other communication, if any, occurred between PennDOT and the Utilities from January 2000 until the pre-construction meeting on June 4, 2001 regarding the Project. (Ex. P-7; Board Finding).

59. There is no evidence as to whether or not Mr. Pilosi communicated to the Utilities between January 2000 and May 23, 2001 regarding the Project being funded, an anticipated bidding or letting date for the Project's Contract, or any other information regarding the Project status in advance of the May 23, 2001 letter that would have assisted the utility companies to properly queue the pole relocation work needed for the Project in their work schedules and promote timely relocation of their facilities. (F.O.F. ¶¶ 57-58; Board Finding).

60. The lack of evidence regarding any communications between Mr. Pilosi/PennDOT and the Utilities does not establish, as a matter of fact, that PennDOT failed to communicate with the Utilities during this time. (F.O.F. ¶¶ 57-59; Board Finding).

61. Mr. Pilosi did state that during the pre-Contract design period, he never informed the Utilities that this Contract contained a detailed Construction Sequence which PennDOT developed and which the contractor was required to follow. (N.T. 44-45, 59-60, 464-465; P-2A).

62. Mr. Pilosi did not provide the Construction Sequence to the Utilities until the June 11, 2001 pre-job meeting. (N.T. 44, 45, 59-60, 446, 464-465, 500-505; Ex. P-2A; Board Finding).

63. The Construction Sequence would have told the Utilities where on the Project they would be expected to start their work (in the south end, in Section One); when to start (after the contractor completed surveying and staking) and how to plan their work on the Project to match Intercounty's work as required by the Contract. (Exs. P-2A, P-2B, P-8 at pp. 30-31, 34-35).

64. Until the Utilities had the Construction Sequence and the final plans and drawings for the Project, they were unable to plan and design their work and/or to make time estimates for their relocation work based on the Construction Sequence or the final plans and drawings that the contractor had to follow. (N.T. 464-466; F.O.F. ¶¶ 18-63; Board Finding).

65. By failing to provide the Utilities with the detailed Construction Sequence prior to June 11, 2001, PennDOT prevented the Utilities from developing a cogent plan and schedule

prior to the pre-job conference of that same date for relocating the poles that would coincide with Intercounty's scheduled work. (N.T. 464-466; F.O.F. ¶¶ 18-64; Board Finding).

66. Since Mr. Pilosi failed to convey the Construction Sequence to the Utilities and since the Construction Sequence appears on the Project's final plans and drawings, it follows that Mr. Pilosi also failed to send the PennDOT final plans and drawings to any of the Utilities during the design phase or prior to the pre-job meeting on June 11, 2001. (N.T. 48, 59-60, 502; Ex. P-59; F.O.F. ¶¶ 18-65; Board Finding).

67. On the final plans and drawings, PennDOT's design team showed the original poles, but failed to identify which of these poles were to be removed or the new locations where the new poles were to be installed. (Ex. P-59; Board Finding).

68. PennDOT, pursuant to its authority to approve each new utility pole location, issued permits for this Project which stated where the new poles would be located in the PennDOT right-of-way. (N.T. 57, 118, 230; Exs. P-3, P-4).

69. Some utility poles require guy wires for support and these guy wires give the supported utility pole a larger footprint in the design. (N.T. 93, 119, 230).

70. Section 107.18 of the 408 Specifications, entitled "Furnishing Right of Way," states, "The Department will be responsible for securing all necessary rights-of-way in advance of construction. Any exceptions will be indicated in the proposal and contract." (Ex. P-60, p. 107-4).

71. PennDOT issued new utility pole permits to relocate poles for this Project that did not reflect any required guy wires and did not provide any space for guy wires as needed at certain new pole locations within its right-of-way. (N.T. 60-63, 230; Exs. P-3, P-4, P-25).

72. Mr. Pilosi testified that, prior to the bidding of this Project, he did not ask the Utilities whether any of their relocated poles would be supported by guy wires and they did not tell him that any poles required guy wires. (N.T. 67-69).

73. In order to build the Project without interruption, PennDOT's plans and design needed to provide for adequate space in its rights-of-way for any needed guy wires at each new pole location. (N.T. 230-231, 464-465; Board Finding).

74. In order to build the Project without interruption, PennDOT's designers needed to coordinate with the Utilities to provide sufficient space for the relocation of new poles with guy wires (as needed) within the PennDOT rights-of-way. (N.T. 150-151, 230; Exs. P-3, P-4; Board Finding).

75. In August 2001, after the Contract was signed and Intercounty had been on the job for more than a month, the Utilities and PennDOT discovered that certain new poles needed guy wires and no space had been provided for those wires on PennDOT's plans, in PennDOT's permits, or in the PennDOT right-of-way. Mr. Sebastianelli consulted Mr. Pilosi and Mr. Chilek

regarding what PennDOT could do to make room for the guy wires. Possible solutions discussed included redesign of the area or acquisition of additional rights-of-way from the adjacent landowner. However, PennDOT quickly determined it would not pay for additional rights-of-way. (N.T. 93-94, 119-120, 289, 598; Exs. P-3, P-4, P-14, P-59).

76. PennDOT's original design did not allow sufficient room for guy wires in the right-of-way at several new pole locations along the Project, although PennDOT itself had authorized and approved these new pole locations by permit. (Exs. P-3, P-4, P-59; F.O.F. ¶ 75; Board Finding).

77. Prior to PennDOT's soliciting bids for this Project, the Utility Relocation Unit failed to determine what, if any, special right-of–way requirements there might be for the new pole locations, and PennDOT's designers failed to allow sufficient space in the right-of-way for the guy wires that supported some of the new, relocated utility poles. (N.T. 61-64, 69, 1121-1123; F.O.F. ¶¶ 67-76; Board Finding).

78. Although guy wires may have affected and prevented placement of only a few poles, the inability to place all of the new poles in the right-of-way prevented transfer or restringing of the utility wires in the affected section. This, in turn, precluded removal of old poles (and thereby impeded building the new roadway) until a final resolution of all guy wire pole placement problems. (N. T. 81, 93, 230-231; Exs. P-25, P-59; F.O.F. ¶¶ 68-77, 134-135, 170-196; Board Finding).

79. PennDOT provided design specifications for the Project by prescribing the character, dimensions, location and other design details for reconstruction and paving of the Project roadway in the Project's plans, drawings, specifications, permits and Contract. (F.O.F. ¶¶ 4-5, 24-78; Board Finding).

80. By prescribing the location of new utility poles through its permitting process for this Project and then prescribing the character, dimensions, location and other design specifications for reconstruction and paving of the Project roadway, but failing to provide sufficient room within its rights-of-way for guy wires (as needed) on these new poles in its plans and design; PennDOT failed to provide Project plans adequate to construct the Project. (F.O.F. ¶¶ 24-79, 134-135, 170-196; Board Finding).

81. Because PennDOT failed to provide plans adequate to construct the Project, PennDOT failed to act in a matter necessary for prosecution of the work on the Project and actively and materially interfered with Intercounty's work on the Project. (F.O.F. ¶¶ 24-80, 134-135, 170-196; Board Finding).

82. The documents and evidence in this case, including Mr. Pilosi's own testimony describing his job and his actions with regard to the Project, establish that PennDOT attempted to coordinate the utility pole and wire relocations needed for the Project in the pre-Contract period pursuant to its own internal policies and procedures. (F.O.F. ¶¶ 24-80; Board Finding).

83. By failing to provide the Utilities with the Construction Sequence and the final plans and drawings until immediately before the start of work; failing to indicate the poles to be moved and the position of the new, relocated poles on its final plans and drawings; and failing to provide adequate space for guy wires on certain poles in its roadway design; PennDOT failed to adequately coordinate utility pole relocation for the Project in the pre-Contract period. (F.O.F. ¶¶ 61-82; Board Finding).

84. PennDOT did not do careful and effective planning on this Project as demonstrated by PennDOT's failure to produce plans and drawings sufficient for Intercounty to build the Project and its failure to properly coordinate the utility pole and wire relocation on the Project in the pre-Contract period. (F.O.F. ¶¶ 79-83; Board Finding).

85. By prescribing the location of the new utility poles through the permitting process for this Project and then prescribing the character, dimensions, location and other design specifications for reconstruction and paving of the Project roadway, but failing to provide sufficient room within its rights-of-way for guy wires (as needed) on these new poles in its plans and design; failing to provide the Utilities with the Construction Sequence and the final plans for the Project sufficiently in advance of the start of the actual work on the Project site so the Utilities could effectively plan ahead for the timing and sequencing of the pole relocation work prescribed by the Contract; and failing to indicate the old utility poles to be moved and the locations of the new poles on these final plans and drawings; PennDOT failed to adequately coordinate the utility pole and wire relocation for the Project during the pre-Contract period and thereby failed to act in a matter necessary for prosecution of the work on the Project. (F.O.F. ¶¶ 61-84; Board Finding).

86. Because PennDOT failed to adequately coordinate the utility pole and wire relocation for the Project during the pre-Contract period and thereby failed to act in a matter necessary for prosecution of the work on the Project, PennDOT actively and materially interfered with Intercounty's work. (F.O.F. ¶¶ 61-85; Board Finding).

87. Proper coordination of the relocation of the utility poles and wires was reasonably within the capability of PennDOT and critical to providing Intercounty with reasonably unobstructed access to its work on the Project. (F.O.F. ¶¶ 24-86; Board Finding).

88. By prescribing the location of the new utility poles through its permitting process for this Project and then prescribing the character, dimensions, location and other design specifications for reconstruction and paving of the Project roadway, but failing to provide sufficient room within its rights-of-way for guy wires (as needed) on these poles on its plans and design; by failing to provide the utility companies affected by the Project with the Construction sequence and the final plans for the Project sufficiently in advance of the start of actual work on the Project site so these utility companies could plan ahead of the start of actual work on the Project site so these utility companies could plan ahead for the timing and sequencing of the pole relocation work prescribed by the Contract; and by failing to indicate the old utility poles to be moved and the location of the new utility poles to be installed on these final plans and drawings; PennDOT failed to adequately coordinate the utility pole and wire relocation for the Project

during the pre-Contract period, and thereby failed to take actions reasonably within its capability to provide Intercounty with access to work on the Project. (F.O.F. ¶¶ 24-87; Board Finding).

89. Because PennDOT failed to adequately coordinate the utility pole and wire relocation for the Project during the pre-Contract period, and thereby failed to take actions reasonably within its capability to provide Intercounty with reasonably unobstructed access to work on the Project, PennDOT actively and materially interfered with Intercounty's work. (F.O.F. ¶¶ 24-88; Board Finding).

90. Because PennDOT provided Intercounty with final plans and drawings that did not allow sufficient space for pole relocations with guy wires, PennDOT failed to adequately coordinate the utility pole relocations in the pre-Contract design phase. (F.O.F. ¶¶ 24-46, 67-82; Board Finding).

POST-CONTRACT ACTIVITY

91. In April 2001, the Contract drafted by PennDOT was circulated to various qualified contractors, including Intercounty, for public bidding. Bids were received and opened on April 19, 2001. (Exs. P-6, P-8, P-87).

92. Intercounty was the lowest responsible bidder and was awarded the Contract on May 18, 2001. (Ex. P-11).

93. On May 23, 2001, PennDOT sent Intercounty a notice that it had been awarded the Contract and requested Intercounty's representatives attend a pre-construction conference on June 4, 2001. Mr. Pilosi sent a copy of this letter to the Utilities. (Ex. P-7).

94. On June 4, 2001, PennDOT held a pre-construction conference with representatives of Intercounty and the Utilities. The minutes of that meeting state that, "Mr. Pilosi reviewed the public utility involvement in the project." (N.T. 589; Exs. P-7, P-9, P-11, P-27).

95. There is no further evidence in the record regarding the substance of any conversations at the June 4, 2001 meeting respecting utility relocations. (N.T. 589; Exs. P-7, P-9, P-11, P-27; Board Finding).

96. On June 5, 2001, PennDOT completed execution of the Contract. (Exs. P-8, P-10).

97. On June 11, 2001, PennDOT held a pre-job meeting at the Project site with representatives from Intercounty, PennDOT, the Utilities and the Pike County Conservation District. Mr. Pilosi had notified the Utilities to attend and he chaired the meeting. (N.T. 87-88, 138-141, 149; Ex. P-7).

98. At the June 11 pre-job meeting, Mr. Pilosi told the Utilities for the first time that the Contract contained a Construction Sequence and provided it to them. (N.T. 70, 139-141, 446).

99. According to the GPU relocation permits, GPU had 19 poles to move in Section One, but it had only 6 poles to move in Section Three. (Exs. P-3, P-8).

100. Because the Utilities did not have the Construction Sequence or the final plans and drawings prior to June 11, 2001 for planning their work schedules for the Project, they had come to the pre-job meeting unaware of the need to start in Section One (where the most pole relocations were) and to perform their work in discrete sections and phases at different periods of time as the Project work progressed and they were unprepared to commence work. (N.T. 90-91, 138, 139-141, 298; Exs. P-3, P-4, P-8, P-59; F.O.F. ¶¶ 62-66; Board Finding).

101. After some consultation at the pre-job meeting, the Utilities requested that the Construction Sequence be reversed and asked that Intercounty start the surveying work in Section Three instead of Section One. The Utilities stated they wanted to start in Section Three because they had fewer poles to move than in Section One. They then planned to proceed to move poles in Section Two, then Section One. They said this sequence change would give them a better chance of staying ahead of Intercounty's work. (N.T. 90-91, 138-139, 298).

102. PennDOT, the Utilities and Intercounty agreed to reverse the Construction Sequence and start in Section Three. (N.T. 139).

103. The Utilities indicated they would begin work on pole relocation immediately after Intercounty completed surveying and marking the right-of-way lines and final grades on the Project. (N.T. 138-139).

104. On June 18, 2001, PennDOT issued the Notice to Proceed to Intercounty. (N.T. 590, 1051; Exs. P-1G, P-10).

105. The Contract completion date was scheduled for November 6, 2002. (N.T. 5, 590; Exs. P-8, P-1G, P-10).

106. Prior to beginning its work, Intercounty planned its operations using scheduling software and applying PennDOT's Construction Sequence for the manner, method, and order of operations for performing its scope of work under the Contract. (N.T. 133, 248, 340-342; Exs. P-5, P-6).

107. Intercounty's original plan of operations, made in conformance with the Construction Sequence, was given to PennDOT. That plan hung in Mr. Sebastianelli's office during the Project. That original plan was lost prior to the litigation. (N.T. 248, 340-342, 467-471; Board Finding).

108. When Intercounty attended the pre-construction and pre-job meetings on June 4, 2001 and June 11, 2001 (respectively) with the Utilities and PennDOT, Intercounty discussed the

timetable and order of operations with the three utility companies. (N.T. 53-54, 419-420; Exs. P-2B, P-11).

109. At the pre-job meeting on June 11, 2001, Mr. Nansteel from Intercounty inquired about how utility pole and wire relocation arrangements and coordination for the Project would be handled going forward, and PennDOT responded that coordination with the Utilities would be handled by "Joe Pilosi and the state." (N.T. 140-142, 231).

110. Mr. Pilosi testified that he stated at the pre-job meeting, "I would be the contact person" for the utility relocations. (N.T. 91-92).

111. Mr. Pilosi further confirmed that Mr. Nansteel asked him at the June 11, 2001 pre-job meeting if he (Pilosi) "was willing to be the contact person for the utilities" and "if [Nansteel] had a problem, could [Pilosi] contact the utilities and make any suggestions or get any information that they [the Utilities] needed and relay that back to [Sam Sebastianelli]." Mr. Pilosi stated that he agreed to this and that he told Mr. Nansteel that he would ". . . help out to make the utilities respond quicker and do anything I could to move this project along." (N.T. 121).

112. In response to questioning by PennDOT's counsel, Mr. Pilosi testified he did not recall telling Mr. Nansteel that all further coordination and contact with the Utilities during the Project would be through him, but he also did not deny saying it. (N.T. 121).

113. The Board does not find a direct conflict between the testimony of Mr. Nansteel and Mr. Pilosi, but to the extent their recollections about Mr. Pilosi's statements at the June 11, 2001 pre-job meeting differ, the Board finds Mr. Nansteel's version of the conversation more credible. (F.O.F. ¶¶ 109-112, 117-118, 152-157; Board Finding).

114. Mr. Nansteel reasonably understood from the Pilosi/PennDOT statements at the June 11, 2001 pre-job meeting that PennDOT and Mr. Pilosi would act as Intercounty's intermediary to contact the Utilities and that communications about pole relocation problems on the Project should thereafter be made through PennDOT and Pilosi. (N.T. 91-92, 139-142, 231; F.O.F. ¶¶ 109-113, 117-118, 152-157; Board Finding).

115. After the June 11, 2001 meeting, Intercounty did not call or contact the Utilities directly because PennDOT represented that it was passing on Intercounty's concerns/requests to the Utilities through Mr. Pilosi. (N.T. 159, 231-232, 237-238, 1102; Board Finding).

116. Intercounty cooperated fully with the Utilities in the relocation of the utility poles and wires throughout the duration of the Project. Examples of its cooperation include Intercounty's willingness to reverse the Construction Sequence at the June 11 pre-job meeting and begin in Section Three, Intercounty's prompt completion of the surveying and staking work needed by the Utilities to begin pole relocation and Intercounty's timely response to any clearing and grubbing request to facilitate utility pole work. (N.T. 137, 139, 148-149, 159, 231-232, 237-238, 470, 475, 1102; Board Finding).

117. Throughout the Project, PennDOT personnel referred to Mr. Pilosi as the coordinator for the utilities' relocations. On January 11, 2002, Mr. Sebastianelli referred to "our utility coord. Joe Pilosi." (Ex. D-5) On June 7, 2002, Mr. Sebastianelli referred to "Dist. 4-0 Utilities Coordinator Joe Pilosi." (Ex. P-39) On June 14, 2002, Mr. Sebastianelli wrote that according to "Joe Pilosi, Utility Coordinator" the cable TV company was scheduled to come to transfer its lines the following week. (Ex. P-40). On June 14, 2002 in other meeting minutes, Mr. Sebastianelli wrote that "District 4-0 Utility Coordinator Joe Pilosi" readjusted the time schedule for the telephone utility again. (Exs. P-39, P-40, P-41; Ex. D-5; Board Finding).

118. PennDOT consistently represented to Intercounty that it was PennDOT and Mr. Pilosi who would handle all communications and address all utility pole relocation issues with the Utilities subsequent to the June 11, 2001 pre-job meeting and for the duration of the Project. (N.T. 619; F.O.F. ¶¶ 109-114, 117, 152-157; Board Finding).

119. After the pre-job meeting on June 11, 2001, Intercounty immediately began surveying and staking in Section Three to establish and mark the right-of-way lines and final grades so the Utilities could also begin pole relocations promptly. (N.T. 138-139, 149, 470, 475, 521).

120. Intercounty completed all surveying work and staking to mark the right-of-way lines and final grades in Section Three by July 1, 2001. (N.T. 148-149, 470, 475; Ex. P- 61).

121. Mr. Nansteel kept Mr. Sebastianelli informed daily about the progress of the surveying and the staking. (N.T. 148, 150, 415, 705).

122. Intercounty then immediately proceeded to do the same surveying work and staking to mark the right-of-way lines and final grades in Section Two and Section One, completing both of those sections by August 1, 2001. (N.T. 148-150).

123. The utility relocation work was to proceed after surveying and staking and ahead of the commencement of the Construction Sequence, so that Intercounty's roadway work could be performed section by section and phase by phase in accordance with the Contract. (N.T. 138-139, 148-149; Exs. P-2A, P-2B).

124. From July 1, 2001 when Intercounty completed surveying and staking in Section Three, until August 21, 2001, no utility poles were relocated and no Utilities came to the site. (N.T. 233; Exs. P-29, P-61).

125. This seven week delay in starting the utility pole relocations should have alerted PennDOT that Intercounty's work could be hindered and the Project put off track if steps were not taken promptly to expedite the pole relocation. (N.T. 148-149, 245, 475; Ex. P-61; Board Finding).

126. Mr. Nansteel spoke with Mr. Sebastianelli, PennDOT's inspector, on a daily basis during the Project, and Mr. Sebastianelli was aware from the beginning of the Project that utility

pole relocation delays were hindering Intercounty's performance. (N.T. 142, 152, 350-351, 465; Ex. P-18).

127. Under the terms of the Contract, the pole relocations in all three sections were to be completed on or about October 4, 2001 (eighty-one days after August 1, 2001 when Intercounty completed all right-of-way surveying and staking). (N.T. 288, 521-522; Exs. P-2B, P-61; Board Finding).

128. After the seven week delay in starting the pole relocations, the Utilities then took more than seven additional weeks to complete the pole relocation work in Section Three that was originally expected to take only four weeks. (N.T. 149-150, 522, 1100; Exs. P-29, P-61; Board Finding).

129. Because of the delay in moving the utility poles in Section Three, Intercounty had to perform the Construction Sequence with poles in the roadway, moving its trucks and equipment in and around the existing poles, wires and utility equipment in order to perform all its subsequent tasks, including silt fence installations, cut and fill excavation, grading, trenching, piping and subbase operations during the road widening phases. (N.T. 150, 233-234, 439-440; Ex. P-61).

130. Because of the late relocation of the utility poles in Section Three, Intercounty had to actually pave around several old utility poles in order to keep working as required by PennDOT and then go back to each location later, after the poles were moved, and fill in the holes by hand. (N.T. 233-236; Exs. P-27, P-29).

131. Because the utility poles had not been moved before Intercounty had to proceed with road construction activities in Section Three, Intercounty had to take steps to avoid interfering with the Utilities' work crews when they did appear on the job. (N.T. 233-234; Ex. P-27).

132. Also as a result of the pole relocation delay in Section Three, Intercounty would run out of planned work coinciding with the Construction Sequence on certain days as it waited for the pole relocation. When these circumstances occurred and PennDOT insisted that Intercounty continue to work where it could, Intercounty tried to keep its crews busy by going to all three sections of the Project to perform clearing and grubbing work along the roadside. (N.T. 150-153, 536; Ex. P-61).

133. The late arrival and slow progress of the utility pole relocations in Section Three hindered and disrupted Intercounty's planned work on the Project in the Fall of 2001. (N.T. 454; Ex. P-18; F.O.F. ¶¶ 47-53, 97-104, 119-132; Board Finding).

134. Another reason Intercounty was experiencing disruption to its work on the Project in Fall 2001 was that the guy wire/roadway design problem created by PennDOT's failure to properly coordinate its design with the Utilities in the pre-Contract period was still unresolved and was preventing further pole relocations in the other sections. (N.T. 64-65, 118-120, 150-153, 227-231; Exs. P-14, P-26; Board Finding).

135. In October 2001, the Utilities completed the pole relocation work in Section Three and left the site without starting work in Sections One or Two. (N.T. 225; Exs. P-22, P-23).

136. Intercounty finished the drainage placements and ran out of fully productive work in Section Three around the end of October as well. However, Intercounty could not move from Section Three to the other sections in October/November 2001 to do any excavation or earthwork because that required approval of revisions to the E and S Plan by the Conservation District, and PennDOT needed additional time to prepare and present its revised plan. Mr. Sebastianelli applied to the Conservation District for approval of revisions to the E and S Plan/Construction Sequence, citing the continuing relocation delays, but PennDOT did not get the new approval until sometime in January 2002. (N.T. 225-228, 1070-1071; Exs. P-21, P-22, P-23, P-24, P-49, P-61; Board Finding).

137. As Intercounty ran out of places to work in early November 2001, Mr. Nansteel inquired whether Intercounty could demobilize until the poles were moved in Sections One and Two. Mr. Sebastianelli told him that PennDOT would not consider demobilization of this Project and that Intercounty had to keep working to the completion date. (N.T. 152, 312, 536, 618).

138. PennDOT failed to suspend work when the utility pole relocation delays meant the Construction Sequence could not be followed and fully productive work could not be done by Intercounty on the Project. (F.O.F. ¶¶ 132-137; Board Finding).

139. Starting on November 9, 2001, Mr. Sebastianelli scheduled weekly "partnering meetings" with Intercounty personnel to plan the work because the Construction Sequence had now become unworkable. (N.T. 224-225; Exs. P-20, P-21, P-25, P-26, P-31, P-33, P-36, P-40, P-41, P-42, P-44, P-46, P-50).

140. Mr. Sebastianelli held these weekly partnering meetings to change the work plan in order to keep Intercounty working around the obstructing utility facilities. (N.T. 224-225).

141. At these meetings, which continued throughout the remainder of the Project, Mr. Sebastianelli cast aside the Construction Schedule and each week created a list of tasks for Intercounty to follow for that week. (N.T. 224-225; Exs. P-20, P-21, P-25, P-26, P-31, P-33, P-36, P-40, P-41, P-42, P-44, P-46, P-50).

142. These new work lists were called either "Schedule of Operations" or "Weekly Schedule," and from November 2001 through the end of the Project they replaced the original Construction Sequence and dictated where and how Intercounty had to perform its Contract work. (N.T. 224-225; Exs. P-20, P-21, P-25, P-26, P-31, P-33, P-36, P-40, P-41, P-42, P-44, P-46, P-50).

143. At the partnering meeting held on November 21, 2001, Intercounty again informed PennDOT that it had run out of work in Section Three but could not complete it because the existing poles and wires had not yet been removed. PennDOT wanted Intercounty to

perform more clearing and grubbing in Sections Two and One to keep working as best it could even though the revised E and S Plan had not yet been approved. (N.T. 225-228, 1071-1072; Exs. P-21, P-22, P-61; Board Finding).

144. Starting in November 2001, and continuing thereafter, PennDOT directed Intercounty to work the Project in a substantially different order of work than set forth in the Construction Sequence that had been incorporated into the bid documents and the Contract, causing further disruption and inefficiencies to Intercounty's work. (N.T. 225-228, 1071-1072; Exs. P-2A, P-8, P-59; F.O.F. ¶¶ 132-143; Board Finding).

145. By December 7, 2001, the pole relocation delays and unresolved right–of–way problems for the guy wires had caused Intercounty out-of-sequence and non-productive work. The revised E and S Plan had still not been approved, so Intercounty could not proceed to do any type of excavation or earthwork in Sections Two or One. In the minutes of the December 7, 2001 meeting between Intercounty and PennDOT, PennDOT acknowledged that Intercounty was delayed and was performing its work "out of sequence due to utility relocation and right-of-way claim settlements." (N.T. 227-229; Exs. P-23, P-61; Board Finding).

146. As early as September 27, 2001, Intercounty had written PennDOT a letter stating that the failure to remove poles from the roadway was impacting Intercounty's performance and making it impossible for Intercounty to construct the road in the specified, as-planned Construction Sequence. (N.T. 1102-1105; Ex. P-18).

147. PennDOT sent no response to Intercounty's letter. Instead, Mr. Sebastianelli wrote on the bottom of the letter, "per Joe Chilek, no response necessary…Contractor [Intercounty] can file a claim if warranted." Mr. Chilek later testified that this note accurately reflected his comment to Mr. Sebastianelli to take no action and ignore Intercounty's complaints about the pole relocation delays. (N.T. 84-85, 1103-1104; Ex. P-18).

148. Mr. Nansteel testified, "When the utilities were not showing up to move the poles, my understanding was, and the way the entire project went, is I went to Sam Sebastianelli, which was my resident engineer for PennDOT on the project. I would talk to him, which (sic) he was on the project every day and he knew they weren't there. He would call his office and speak to either Joe Pilosi or Joe Chilek, and he would get back to me and say that, you know, they've contacted the utilities, they're coming out there next week or in two weeks. And every time he would make the phone calls, but they just…the utilities never showed up." (N.T. 142).

149. As instructed at the pre-job meeting of June 11, 2001 Intercounty used and relied upon PennDOT personnel on the Project (i.e. Sam Sebastianelli, PennDOT's inspector in charge and primary contact person on the Project day-to-day) and through him, Mr. Pilosi, for its attempted communications to the utility companies and its efforts to bring the utility companies to the Project. (N.T. 122, 142, 231; Board Finding).

150. Mr. Sebastianelli was on site daily and was well aware of the problems created for Intercounty by the initial seven week starting delay and the slower than expected pace of the pole relocations. (N.T. 142, 152, 350-351, 420, 465; Ex. P-18; F.O.F. ¶¶ 11, 106-107, 124-149).

151. Although Mr. Sebastianelli was the PennDOT employee with the most first-hand knowledge about the Project's daily progress and delays, he was not called by PennDOT to testify at trial. As a result, the testimony of Mr. Nansteel regarding the Project's progress; his discussions with, and the actions of, Mr. Sebastianelli; and the utility pole relocation delay problems stands largely uncontradicted. (N.T. 1158-1159; Board Finding).

152. Mr. Sebastianelli was aware (or should have been aware) early on in the Project that the delayed relocation of the utility poles and wires would so disrupt Intercounty's work schedule in Section Three that unless prompt action was taken, this work could not be completed as planned by November 2001, before the onset of Winter. (N.T. 152, 420; Exs. P-18, P-45; F.O.F. ¶¶ 11, 106-107, 124-150; Board Finding).

153. During the July through December 2001 period, Intercounty repeatedly sought help at least weekly, if not more frequently, from Mr. Sebastianelli and PennDOT to expedite the pole relocations, and Mr. Sebastianelli repeatedly contacted Mr. Pilosi for help with the Utilities. (N.T. 142, 150, 152, 350-351, 420, 465; Exs. P-18, P-45).

154. Mr. Pilosi testified that Mr. Sebastianelli frequently called him about the pole relocation delays. (N.T. 84)

155. Mr. Pilosi was well aware of the delay in pole relocation from July 2001 through December 2001 and of Intercounty's repeated requests to PennDOT for assistance. (N.T. 84, 149-150).

156. Intercounty also complained to Mr. Chilek of PennDOT on a frequent basis about the pole relocation delays. Mr. Pilosi confirmed that Mr. Chilek called him about these delays in 2001 and 2002. (N.T. 85, 142, 1118).

157. The Board finds that Mr. Sebastianelli consistently told Intercounty that Mr. Pilosi was aware of the delays and led Intercounty to believe from June 2001 through December 2001 that Mr. Pilosi was taking actions to expedite the relocation of the utility poles and deal with the delay issues. (N.T. 142, 150, 350-351, 420; F.O.F. ¶¶ 149-156; Board Finding).

158. Intercounty continued to work continuously and as Mr. Sebastianelli directed throughout the last half of 2001, believing that the continuing utility pole relocation problems were being addressed by PennDOT/Pilosi and that their impact would be minimized. (N.T. 142, 150, 351; F.O.F. ¶¶ 109-114, 117-118, 148-157; Board Finding).

159. Despite repeated calls from Mr. Sebastianelli regarding the relocation delays, Mr. Pilosi testified that he took no action on this job for the first six months. He testified that on earlier jobs he felt that contractors would frequently "cry wolf" when they experienced utility delays and, when he heard Intercounty's complaints, that he acted on this job in accord with his prior practice and did nothing. (N.T. 84-85).

160. Mr. Pilosi also testified he did not take any action to contact Utilities during the first six months of the Project because he felt it was not his job to call the Utilities after the Project began. (N.T. 38-41).

161. From July 2001 through December 2001, Mr. Pilosi failed to urge the Utilities to come to the site on time, failed to make any attempt to expedite the Utilities response when they proceeded slower than scheduled, and failed to urge them to remain on the site until finished with their relocations. Instead, he ignored the relocation delays. (N.T. 48, 85-86, 465- 466; F.O.F. ¶¶ 153-160; Board Finding).

162. Despite Intercounty's requests for assistance with the pole relocations during the last half of 2001 and the justifiable belief by Intercounty that Mr. Sebastianelli and Mr. Pilosi were working at this time to expedite the utility pole relocation and minimize the delays (resulting from Mr. Pilosi's representations at the June 11 pre-job meeting and Mr. Sebastianelli's actions affirming these representations), Mr. Pilosi purposely did nothing to bring the Utilities to the Project. (N.T. 38-41, 84-85, 465-466; F.O.F. ¶¶ 109-113, 117-118, 148-161; Board Finding).

163. Because PennDOT consistently represented to Intercounty that it was PennDOT and Mr. Pilosi who would handle all communications and address all utility pole relocation issues with the Utilities subsequent to the June 11, 2001 meeting; because Mr. Sebastianelli consistently told Intercounty that Mr. Pilosi was aware of the delays and led Intercounty to believe from June 2001 through December 2001 that Mr. Pilosi was taking actions to expedite the Utilities' performance and deal with delay issues; Intercounty continued to work in a disrupted and out of sequence manner as directed by Mr. Sebastianelli during 2001 believing that the utility pole relocation problems were being addressed by PennDOT/Pilosi and that these problems would soon be resolved. (F.O.F. ¶¶ 109-113, 117-118, 148-162; Board Finding).

164. Mr. Pilosi's position that it was the contractor's responsibility under the Contract to handle the Utilities was contradicted by his own statements at the June 11, 2001 pre-job meeting and by his acts after January 2002 when the Project was already significantly disrupted and delayed. (N.T. 38-41, 78-80; F.O.F. ¶¶ 167-169; Board Finding).

165. On December 7, 2001 in the minutes of PennDOT's partnering meeting with Intercounty, Mr. Sebastiantelli noted that the Project was "…out of sequence due to the utility relocation and R-O-W [right-of-way] claim settlements." (N.T. 227-229; Ex. P-23).

166. In early 2002, PennDOT was able to persuade Pike County Conservation District to approve a revised E and S Plan that would allow Intercounty to work in more than one section at a time. (Exs. P-23, P-24, P-25, P-61).

167. In January 2002, after repeated requests from Mr. Sebastianelli, Mr. Pilosi finally set up meetings with the Utilities. He stated that at this time he "started to put a little pressure on the utilities to get their facilities relocated." (N.T. 95, 231; Ex. P-25).

168. Starting in January 2002, Mr. Pilosi reversed his earlier behavior and became active in calling the Utilities to meetings, urging the Utilities to come to the site, requesting their work schedules and seeking resolution of the right-of-way/guy wire design problem. (N.T. 40-41, 82-83, 151, 1059-1064; F.O.F. ¶¶ 161-167; Board Finding).

169. At a meeting on January 11, 2002, arranged by Mr. Pilosi and attended by personnel from PennDOT, Intercounty and the Utilities, Intercounty was told that the removal and relocation of the remaining poles would be completed during January and February, 2002. (N.T. 228-232; Ex. P-25).

170. Despite the representations at the January 11, 2002 meeting that the relocation work would be completed by the end of February 2002, the Utilities did not show up on the Project in January or in February 2002, and Intercounty was forced to continue to work around unmoved poles. (Ex. P-29).

171. In the minutes of the January 11, 2002 meeting, Mr. Sebastianelli noted that the Utilities were still unable to reach any right-of-way agreement with the landowner who wanted $300/ acre for 16 acres to allow GPU to encroach on his property with its poles with guy wires. The minutes also say, "Mr. Chilek said to contact Joe Pilosi to determine if we [PennDOT] could finance GPU in some way. He will have Mr. Pilosi contact the utilities." (N.T. 229-231; Exs. P-25, P-26; Ex. D-5).

172. After consultation, PennDOT personnel, including Mr. Pilosi, decided it could not or would not pay the property owner the $4800 he was demanding for the encroachment due to the right-of-way/guy wire design problem. (N.T. 95-96, 230-231, 1059-1064: Exs. P-14, P-26, P-57).

173. In February 2002, GPU was bought by First Energy of Ohio, and GPU notified Mr. Pilosi by letter of this event. GPU also expressed concern about the additional delay this change in its ownership would create on this specific Project as well as others and recommended that PennDOT direct its contractor to demobilize until alternative arrangements could be made to perform all remaining utility pole and wire relocations. (N.T. 97, 411; Ex. P-28)

174. Despite the recommendation from GPU to demobilize, PennDOT failed to allow Intercounty that option and continued to require Intercounty to work on the Project where and when it could as PennDOT directed. (N.T. 411; Ex. P-28; Board Finding).

175. PennDOT, through Mr. Sebastianelli, had already rejected Mr. Nansteel's inquiry in October 2001 regarding the possibility of demobilizing and continued to make it clear that PennDOT would not consider suspending work on the Project despite the obvious and continuing problems with utility pole relocations. (N.T. 153, 312, 411, 536).

176. On March 6, 2002, one utility company (GPU) returned to the Project, but even then no substantial work on pole relocation was done. (N.T. 239-240, 530; Ex. P-29).

177. On March 11, 2002, Intercounty wrote another letter notifying PennDOT of the ongoing issues regarding utility poles, right-of-way disputes, out of sequence work and additional/extra work, among other things, on the Project. Intercounty told PennDOT that if the poles were not moved it would have to stop all work by April 1, 2002, and it would submit a claim for its extra costs and losses. (Ex. P- 29).

178. Also in its March 11, 2001 letter, Intercounty included its litany of pole relocation problems that were impacting Intercounty's work and reaffirmed, that those problems included the "ROW agreements that PennDOT did not have secure, which were needed before GPU could start work " in January 2002. (Emphasis added.) (Ex. P-29).

179. From January 2002 to March 2002, PennDOT and GPU discussed several different solutions to resolve the right-of-way/guy wire design problem, but there was no resolution and the new poles could not be placed. (N.T. 1061-1063).

180. Because all the new utility poles had to be placed in a section before the wires could be transferred from old poles to new poles, and only then could the old poles be removed from the roadway, the guy wire/right-of-way issue affecting the four or so poles in Section Two had a major adverse impact on the Project because it prevented the removal of the old poles throughout as substantial portion of the remaining two sections and impeded Intercounty's work until this issue was finally resolved. (N.T. 151, 229-230, 535, 1059-1064, 1126; Board Finding).

181. In late March 2002, PennDOT finally resolved the right-of-way issue by redesigning the roadway. It shifted the centerline two feet around the problem poles in Section Two, and this created room for the necessary guy wires within the right-of-way. (N.T. 150-152, 1059-1064, 1126; Exs. P-14, P-26).

182. On March 22, 2002, Mr. Chilek wrote to Intercounty, assuring it that "pole relocation work would start in the latter part of March" and instructing Intercounty to keep working. (Emphasis added.) Mr. Chilek stated that PennDOT would grant Intercounty an extension of the contract duration for the "utility conflicts," but PennDOT would not pay any damages for utility delays because it was PennDOT's position that such delays were not compensable under Section 105.6(b) of the Specifications. (Ex. P-30).

183. By April 2002, Intercounty had completed clearing and grubbing in all sections of the Project. The rock embankment work was extended in Section Two. All drainage work was complete and the whole right side rock embankment was up to grade. There was no place for Intercounty to effectively and efficiently perform any further work because approximately 60 utility poles still remained on the roadway and needed to be removed and relocated. Each of them, along with their overhead wires, adversely impacted Intercounty's ability to perform its work in Sections One and Two. (N.T. 167-168, 178-179, 187, 190-191, 1073; Exs. P-61, P-71).

184. On April 5, 2002, the Utilities finally started to relocate the remaining 60 poles. At the weekly partnering meeting, PennDOT told Intercounty that these utility relocations would be completed by June 1, 2002. (Ex. P-31).

185. On April 17, 2002, Secretary James McNulty, of the Public Utility Commission, wrote to all gas and electric utility companies citing PennDOT's difficulty in obtaining cooperation from the utility companies on many projects and expressing his concern with the untimely relocation of utility facilities in state highway rights-of-way. He demanded the timely cooperation of these utility companies in general. (Ex. P-32).

186. At the May 17, 2002 partnering meeting, PennDOT represented to Intercounty that by June 1, 2002, "all utility work" would be completed. PennDOT stated: "[h]opefully this will resolve the loss of productivity, costs and time issues previously discussed" between PennDOT and Intercounty caused by the untimely pole relocation. (Ex. P-35).

187. On May 30, 2002, the Secretary of Transportation, Bradley L. Mallory, sent a letter to all utility companies criticizing them for failing to remove and relocate their facilities in a timely manner on some PennDOT construction projects and saying that this failure was causing PennDOT to have to pay construction damages to some contractors. (Ex. P-38).

188. Even though PennDOT represented to Intercounty that the utility poles would be relocated by June 1, 2002, the weekly partnering meeting minutes on June 7, 2002, show that PennDOT was now representing to Intercounty that the relocations would not be completed until June 14, 2002. Intercounty's response in the minutes was, "Good news, but seeing is believing." (Ex. P-39).

189. The minutes of the June 14, 2002 partnering meeting state that some poles and wires still remained to be removed and relocated in Section One; that cable TV lines had to be transferred; and, that some old poles had still not been removed from their original locations in Section Two. The cable company had notified PennDOT that it would not be on the site until the following week. Intercounty's response in the minutes was, "Game plan is the same, pave around poles as necessary." (Ex. P-40).

190. On July 22, 2002, four utility poles still remained to be relocated and the overhead wires needed to be transferred to the new poles. These remaining poles impacted Intercounty's work, because the wires were a dangerous hindrance that limited the ability of Intercounty to use trucks and equipment in close proximity due to concerns with accidental electrocution and the necessity to comply with applicable OSHA regulations. (Ex. P-43).

191. By the beginning of August 2002, the removal and the relocation of all the utility poles and wires were finally finished approximately 10 months later than planned. (N.T. 22, 149, 287-289, 474, 522, 608-609, 1100; Exs. P-43, P-44, P-45, P-61, P-68).

192. The Board finds PennDOT's response time to the right-of-way/guy wire design problem brought to its attention in August 2001, until its resolution of this problem in late March 2002, a period of approximately seven months, to be excessively slow and inadequate under the circumstances. (F.O.F. ¶¶ 71-75, 76-78, 80, 83, 134-135, 165, 171-191; Board Finding).

193. Because PennDOT did not resolve the right-of-way/guy wire design mistake for almost seven months, Intercounty had to work around the many unrelocated old poles and wires

when doing its excavations subgrade and paving work. This caused Intercounty delay and disruption to its work on the Project in Sections One and Two. (N.T. 150-152, 229-230, 535, 1059-1064, 1126; Ex. D-5; F.O.F. ¶¶ 71-75, 76-78, 80, 83, 134-135, 165, 171-192; Board Finding).

194. From August to October 2002, PennDOT ordered Intercounty to accelerate to try to finish the Project. While Intercounty and PennDOT were anxious to complete paving in 2002, the Contract contained restrictions against paving after October 31, 2002 because cold weather could adversely affect the bituminous mixture that was used. PennDOT refused to waive the specifications dictating the quality of the paving, so Intercounty could not proceed with the paving in the cold weather. (Ex. P-51; Board Finding).

195. Due to winter weather, PennDOT suspended road construction paving activities from December 24, 2002 to April 10, 2003 for a total of 109 days. (N.T. 522-523, 953-954; Ex. P-61).

196. The pole relocation problems had already pushed the SR 2001 Project into 2003 and an additional design problem occurred at the intersection of Weber Road and SR 2001. (N.T. 541; Board Finding).

197. The township objected to the width and steepness of the SR 2001 roadway at the Weber Road intersection. PennDOT eventually agreed to redesign it to lower the grade and improve the sight distances. (Exs. P-15, P-47, P-54, P-61).

198. Intercounty constructed this section of SR 2001 at the Weber Road intersection and was paid for the extra work, but Intercounty was not compensated for any delay during this time. (N.T. 1153-1154; Ex. P-61).

199. The Project was accepted, and the official completion date was June 17, 2003. (Ex. P-53).

200. In its original construction schedule, Intercounty planned to complete the Project by August 6, 2002. The contract completion date was November 6, 2002. (N.T. 486; Ex. P-53)

201. From the contract completion date of November 6, 2002 to the actual completion date of June 17, 2003 was a period of 223 days or about seven months. (Ex. P-53; Board Finding).

202. On January 1, 2004, PennDOT authorized a 223 day extension of the Project's completion date from November 6, 2002 to June 17, 2003. In PennDOT's written authorization for certain additional expenses for this extended period, PennDOT wrote that the extra cost was caused by the "failure of the utility companies to relocate poles as planned and by overruns in earthwork quantities." (Exs. P-53, P-2C, P-2E; Ex. D-31).

203. The Contract for this Project contains numerous provisions designed to exculpate PennDOT from any liability for delay or disruption emanating from delay or problems with utility pole relocation. Some provisions of the Contract also require the contractor to notify the Utilities regarding the relocation of their facilities and to cooperate with the Utilities to accomplish such relocation. (408 Specifications at §§ 102.05, 105.06(a), 105.06(b); Exs. P-2B, P-8 at ¶ 6, P-60).

204. Section 105.06(b) of the 408 Specifications states:

> Expect delay in the performance of the work under contract in order to permit public and private facilities and structures to be placed, replaced, relocated, adjusted, or reconstructed. In the event of such delays, the work under the contract may be required to proceed for the convenience, facility and safety of the public. Do not hold the department liable for charges or claims for additional compensation for any delays, hindrances, or interferences regardless of the duration or extent, resulting from the failure of owners to place, replace, relocate, adjust, or reconstruct their facilities within the time estimated by the Department.
>
> Resolve all disputes or disagreements concerning the placement, replacement, relocation, adjustment, or reconstruction of facilities and structures directly with owners. Upon written request, the Department may, at its discretion, render assistance in resolving disputes or disagreements. However, under no circumstances will such assistance be construed to relieve the Contractor of his responsibility to resolve conflicts with owners. Do not hold the department liable for charges or claims for additional compensation for any delays, hindrances, or interferences that arise from the dispute and its resolution. However, upon written request, the department may grant an extension of time.

(Ex. P-60 at p. 105-6).

205. Section 105.06(a) of the 408 Specifications provides in part:

> Upon execution of the contract, inform all public service companies, individuals, and others owning or controlling any facilities or structures within the limits of the project which may have to be relocated, adjusted, or reconstructed, of the plan of construction operations. Give due notice to the responsible party in sufficient time for that party to organize and perform such work in conjunction with or in advance of construction operations.
>
> Make all necessary arrangements with the owners of facilities and structures on, under, or over the project site and all waste and borrow areas not on the project site for any placement, replacement, relocation, adjustment, or reconstruction of such facilities and structures that might be needed to perform work on this contract. Cooperate with the owners of facilities and structures in order to assist the owners in their placement, replacement, relocation, adjustment, or reconstruction operations. Arrange and perform the work in accordance with the recognized and accepted engineering and construction practices. As provided in Section 105.06(b), the Engineer may assist in resolving any

construction problems that arise. However, the Department does not assume responsibility for the work as a consequence of such cooperation.
(Ex. P-60 at p. 102-2).

206. Section 102.05 of the 408 Specifications states:

Time estimates for the placement, replacement, relocation, adjustment and reconstruction of public and private facilities and structures on, under, or over the project and waste and borrow areas not on the project before and during the performance of the work have been provided only for informational purposes. The Department does not warrant the accuracy of the time estimates. Bidders should verify this information by contacting the owners of the facilities and structures. These time estimates are not to be considered part of the bid proposal.

(Ex. P-60 at p. 102-5).

207. Paragraph 6 of the Contract states:

The contractor further covenants that he has not relied upon any information provided by the Department, including information contained in the Special Provisions, concerning the time within which publicly or privately-owned facilities below, at or above the ground are expected to be installed, removed, repaired, replaced, and/or relocated; that he has not relied upon any information provided by the Department concerning the location or existence of all such facilities that might be below, at or above ground; that he has contacted or will contact all owners of such facilities to verify the location and position of all such facilities and the time within which work on such facilities will be performed; and that he is aware delays might be incurred in the performance of work on this project as a result of work being performed or that will be performed on such facilities by their owners.

It is further understood that, notwithstanding assistance of any kind and extent that might be provided by the department, the contractor, in every instance, bears the ultimate responsibility in resolving all disputes of every kind with the owners of such facilities. The contractor agrees to save and hold the Department harmless from liability for all delays, interference and interruptions that might arise during the performance of the work on this project as a result of work being or that will be performed on such publicly or privately-owned facilities.

(Ex. P-8 at p. 5).

208. The "Utilities" provision of the Contract also provided that the contractor had the following duties regarding the relocation:

Cooperate with the public utility companies and local authorities in the placement, replacement, relocation, adjustment or reconstruction of their structures and facilities during construction.

> Contact all utility representatives at least fifteen calendar days prior to starting operations.

(Exs. P-2B, P-8 at p. 34).

209. Intercounty fully cooperated with the Utilities to relocate the utility poles and wires on the Project in all material respects as specified by the terms of the Contract and the 408 Specifications incorporated therein, including the requirements in Paragraph 6 and the "Utilities" section of the Special Provisions of the Contract, as well as the 408 Specifications §§ 102.05, 105.06(a) and 105.06(b). (F.O.F. ¶¶ 97-103, 108, 116, 119-123; Board Finding).

210. Intercounty's participation in the pre-construction meeting of June 5, 2001 (immediately prior to PennDOT's execution of the Contract) and the subsequent pre-job meeting on June 11, 2001 with the Utilities, and the discussions regarding relocation of said utility poles and wires on the Project at those meetings accomplished, in all material respects, the initial requirements of contacting all affected utility companies on the Project specified in Paragraph 6 and the "Utilities" section of the Special provisions of the Contract, as well as the 408 Specifications §§ 102.05, 105.06(a) and 105.06(b). (F.O.F. ¶¶ 94-97, 101-103, 108, 114-122; Board Finding).

211. Because Intercounty was instructed by Joseph Pilosi at the June 11, 2001 meeting that subsequent communication with the affected utility companies regarding issues, problems or concerns with utility relocation would be handled by "the state" (i.e. PennDOT) and/or Mr. Pilosi himself; and because these instructions and representations were consistently affirmed throughout the Project by Mr. Sebastianelli; we find that PennDOT, by its own representations and actions, led Intercounty to reasonably believe that PennDOT and/or Mr. Pilosi would, and in fact was, handling all communication with the Utilities regarding pole and wire relocation on the Project from the June 11, 2001 meeting onward. (F.O.F. ¶¶ 94-97, 101-115, 117-118, 152-157, 162, 167-168; Board Finding).

212. PennDOT knew, or should have known, that, subsequent to the June 11, 2001 meeting, Intercounty would rely on Mr. Pilosi's representations and instructions to Intercounty that PennDOT and Mr. Pilosi would handle all subsequent communications to the Utilities regarding problems, issues or concerns with utility pole relocation on the Project and would also rely on Mr. Sebastianelli's actions thereafter confirming these instructions. PennDOT further knew and was aware of Intercounty's obvious reliance on same exemplified by Intercounty's on-going communications and requests for help to Mr. Sebastianelli and PennDOT regarding utility pole relocation problems throughout the remainder of the Project. (F.O.F. ¶¶ 94-97, 101-115, 117-118, 152-157, 162, 167-168, 211; Board Finding).

213. The Board found no persuasive evidence that anyone from PennDOT told Intercounty after the June 11, 2001 pre-job meeting that it should not rely on PennDOT and Mr. Pilosi to communicate its concerns and requests regarding pole relocation to the Utilities but should instead ignore Mr. Pilosi's instructions and contact the Utilities directly. (N.T. 140-141, 231, 619; F.O.F. ¶¶ 109-114, 117-118, 152-157, 210-212**;** Board Finding).

214. PennDOT clearly misled Intercounty into believing PennDOT was making efforts to expedite pole and wire relocations (when in fact, it was not) by reason of: Mr. Pilosi's representations made at the June 11, 2001 meeting that all further coordination with the Utilities would be handled by Mr. Pilosi and/or PennDOT; Mr. Sebastianelli's actions thereafter confirming same throughout the remainder of the Project; the failure of anyone from PennDOT to advise Intercounty that it should be dealing directly with the Utilities regarding pole relocation issues during the Project; and Mr. Pilosi's complete failure to do anything to facilitate utility pole and wire relocation during the first six months of the Project. The Board finds the foregoing combination of representations and continued inaction by PennDOT particularly troublesome after the Utilities left the Project in mid-October 2001 after completing only Section Three and it was obvious that utility pole relocation was severely delayed at that point. (N.T. 140-141, 231, 619; F.O.F. ¶¶ 109-114, 117-118, 134-135, 152-157, 210-213**;** Board Finding).

215. By misleading Intercounty into believing PennDOT was making efforts to expedite utility pole and wire relocation when it was not, PennDOT actively and materially interfered with Intercounty's work on the Project. (N.T. 140-141, 231, 619; F.O.F. ¶¶ 109-114, 117-118, 134-135, 152-157, 210-214**;** Board Finding).

216. PennDOT actively interfered with Intercounty's work by making affirmative representations which misled Intercounty into thinking that PennDOT was communicating its concerns with pole and wire relocations to the Utilities and was taking action to expedite the Utilities' performance, when, in fact, PennDOT was not doing so for the first six months of the Project. (F.O.F. ¶¶ 109-114, 117-118, 134-135, 152-157, 210-215; Board Finding).

217. PennDOT's refusal to consider a work suspension after the Utilities left the Project in mid-October 2001 (with only a small portion of the pole relocations accomplished) and its direction to Intercounty to work in an unplanned, out of sequence and piecemeal way under the ad hoc weekly work schedules created by PennDOT (instead of pursuant to the Construction Sequence) materially altered the Contract's prescribed work sequences and hindered Intercounty's work for the remainder of the Project. (Exs. P-8, P-59; F.O.F. ¶¶ 133-145, 173-202; Board Finding).

218. PennDOT actively interfered with Intercounty's work on the Project by materially altering the Contract's prescribed work sequences from mid-October 2001 onward. (F.O.F. ¶¶ 133-145, 173-202; Board Finding).

219. PennDOT actively interfered with Intercounty's performance by its acts of abandoning the Construction Sequence, refusing to suspend work and insisting that Intercounty work in an unplanned, piecemeal fashion instead of the planned, linear sequence of construction steps. (F.O.F. ¶¶ 133-145, 173-202; Board Finding).

220. PennDOT actively interfered with Intercounty's work on the Project and failed to act in a manner necessary to the prosecution of the work by its initial failure to plan enough room for guy wires as needed for several new poles on the Project and then by PennDOT's excessively long delay in resolving the right-of-way/guy wire design problem (from August 2001 to March 2002). (F.O.F. ¶¶ 24-81, 134-135, 145, 165, 168, 170-196; Board Finding).

221. The following acts and omissions by PennDOT caused the Project to be delayed for the full 223 days of overrun on the Project claimed by Intercounty, and disrupted Intercounty's work throughout the Project:

A. PennDOT's initial failure to provide plans and drawings adequate to construct the Project;
B. PennDOT's failure to act in a matter necessary to the prosecution of the work on the Project by its failure to adequately coordinate utility pole and wire relocation on the Project in the pre-Contract period;
C. PennDOT's affirmative misrepresentations to Intercounty which misled Intercounty into relying on PennDOT to communicate its requests and concerns with pole and wire relocations to the Utilities and believing that PennDOT was taking action to expedite the Utilities performance, when, in fact, PennDOT was not doing so for the first six months of the Project;
D. PennDOT's direction to Intercounty to work in an unplanned, out of sequence and piecemeal way under the ad hoc weekly work schedules created by PennDOT (instead of pursuant to the Construction Sequence) after the Utilities left the Project in mid-October 2001 with only a small portion of the pole relocation accomplished;
E. PennDOT's excessively long delay in resolving the right-of-way/guy wire design problem (from August 2001 to March 2002) created by PennDOT's initial failure to provide plans and drawings adequate to construct the Project.

(N.T. 32, 54, 150-153, 190, 250-254, 438-440, 541, 596-598, 608-609, 1157-1158; Exs. P-41, P-45, P-59, P-71; Ex. D-31; F.O.F. ¶¶ 80-90, 133-147, 160-163, 168, 171-172, 174-181, 186, 192-193, 199-202, 211-220; Board Finding).

INTERCOUNTY'S DAMAGES

222. Intercounty presented detailed damage calculations through Exhibits P-1J and P-85 and supported these figures by testimony at the hearing from Mr. Nansteel, Mr. Parrinello, (Intercounty's financial officer) and Mr. Callahan (Intercounty's accounting expert). Mr. Rubino (PennDOT's accounting expert) presented testimony rebutting some of Intercounty's computations. (N.T. 695- 708, 748-824, 869-874, 1172-1198; Exs. P-1J, P-85).

223. Intercounty submitted business records and evidence that are sufficient for the Board to make a fair and reasonable calculation of damages resulting from PennDOT's active interference which caused delay and disruption to Intercounty's completion of the Contract work. (N.T. 500-505, 696-697, 709-713; Exs. P-1J, P-61, P-68, P-69, P-70, P-73, P-77, P-78, P-79, P-80, P-82, P-85, P-86).

224. Intercounty's estimate and bid costs for the Project were fair and reasonable. (N.T. 532-533; Board Finding).

Delay Damages

225. Intercounty claims it incurred delay damages for the entire Project overrun of 223 days (from November 6, 2002, the contract completion date, to June 17, 2003, the actual completion date) caused by PennDOT's active interference with its work. (N.T. 5, 29, 31-32; Ex. P-1J).

226. Intercounty claimed a total of $239,547.10 in additional delay costs that include: $11,530.27 for Extended Field Conditions; $89,731.00 for Extended Project Supervision; $22,329.83 for Additional Maintenance and Protection of Traffic; and $115,956.00 for Material Cost Escalation. (Plaintiff's Response to PennDOT's Post-Hearing Brief, App. 2, p. 3; N.T. 747-756, 823-824, 835-841, 869; Exs. P-1J, P-85).

227. To these additional delay costs, Intercounty requests the Board apply appropriate markups for overhead and profit per Section 110.03(d)(4) of the 408 Specifications. (Ex. P-1J, Schedule B, P-60 at pp. 110-5 and 110-6).

228. Section 110.03(d)(4) and (7) prescribe markups for "Extra Work" and are frequently used to determine appropriate markup for additional cost claims in PennDOT contract actions. These markups are 40% for labor; 25% for materials; 5% for equipment; and an additional 8% for subcontract work. (Exs. P-60 at pp.110-5 and 110-6, P-1J, Schedule B; Board Finding).

229. These markups to cost compensate the contractor, inter alia, for administration, general and project superintendence, bond costs, overhead and profit. (Ex. P-60 at pp. 110-5, 110-6.)

230. Intercounty claims that it incurred costs totaling $ 11,530.27 for Extended Field Conditions during the 223 delay period (also referred to herein as the "Extended Period") needed to complete the Project. These additional costs for Extended Field Conditions include: $4,000 for lot rental; $1,677.40 for trailer rental; $127.79 for inspector's office supplies; $1,923.76 for telephones; $1,690.27 for electricity; $466.40 for job container rental; $1,004.65 for dumpsters and $640.00 for sanitary facilities. (N.T. 747-756, 823-824, 835-839, 869; Exs. P-1J; P-85).

231. Intercounty established that it incurred $11,530.27 in additional costs for Extended Field Conditions in the Extended Period. (F.O.F. ¶¶ 222-230; Board Finding).

232. With markups pursuant to Section 110.03(d)(4) and (7) of the 408 Specifications on the additional costs for Extended Field Conditions, Intercounty incurred total damages for Extended Field conditions in the Extended Period of $12,470.02. (Exs. P-60 at pp. 110-5 and 110-6; F.O.F. 231; Board Finding).

233. Intercounty initially claimed $22,329.83 for additional Maintenance and Protection of Traffic ("MPT") due to delay through the Extended Period from November 6, 2002 to the end of the Project. (N.T. 796-797, 855-856; Exs. P-1J, P-85(10); Ex. D-16).

234. PennDOT has already paid Intercounty $523.50 for MPT pursuant to Work Order No. 20 for the 15 flagger hours it claimed for May 2, 2003. This amount included a 40% markup. (Defendant's Post-Hearing Brief at p. 32; Ex. P-85(10); Ex. D-46 at pp. 9-11; Board Finding).

235. PennDOT has already paid Intercounty $5,228.17 for MPT pursuant to Work Order No. 11 for the 132.5 straight-time flagger hours and 19 overtime flagger hours Intercounty claimed in connection with the redesign and rebuilding of Weber Road during the extended period (not the $3,070.56 suggested by Mr. Dibiasi). This amount included a 40% markup. It also included a credit of $305.08 to PennDOT because 6 of the straight-time hours and 2 of the overtime hours occurred on November 6, 2002, which was not in the delay period which began on November 7, 2002. (Defendant's Post-Hearing Brief at p. 33; N.T. 796-797, 855-856; Ex. P-85; Exs. D-16 at pp. 9, 26-28, 29-33; Board Finding).

236. PennDOT already paid Intercounty $6,000 for MPT pursuant to Work Order No. 24 because a Contract time extension was "granted for utility conflicts and extra additional work." (N.T. 1161; Exs. P-85(10), P-2C at p. 4; Board Finding).

237. The amount already paid by PennDOT for MPT during the Extended Period was $11,751.67. (F.O.F. ¶¶ 233-236; Board Finding).

238. The Board reduces Intercounty's $22,329.83 damage amount for MPT by the $11,751.67 PennDOT already paid, so the unreimbursed MPT costs incurred by Intercounty for the extended period of delay is $10,578.16. (F.O.F. ¶¶ 233-237; Board Finding).

239. With appropriate markup under Section 110.01(d)(4) and (7), the MPT damage amount is $14,225.79. (Ex. P-60 at pp. 110-5, 110-6; F.O.F. ¶ 238; Board Finding).

240. Intercounty claims it has incurred an additional $115,956 for material cost escalation for asphalt used on the Project due to delay. (N.T. 806, 858-859; Ex. P-58, P-85, Tab 12).

241. The Project was scheduled to last for 18 months from June 2001 to November 2002, but was delayed due to no fault of Intercounty. Intercounty planned to complete the Project and its asphalt paving operations by August 6, 2002. (N.T. 486).

242. Under Section 110.04 of the 408 Specifications, the contractor may recover for material cost increases for bituminous materials. (Ex. P-60 at pp. 110-7 to 110-9).

243. Mr. Lizza testified that on June 15, 2002, Tilcon New York, Inc. ("Tilcon"), Intercounty's asphalt supplier, sent Intercounty a letter, notifying it that because the Project was extending past Intercounty's originally planned August 2002 completion date, Tilcon would have to increase the price of asphalt by $4.00 per ton starting on August 2, 2002. (N.T. 599-602; Ex. P-58).

244. The Tilcon letter, Exhibit P-58, was admitted into evidence without objection from PennDOT. (N.T. 664).

245. The parties do not dispute that the amount of asphalt used on the Project from August 2, 2002 to June 17, 2003, the delayed, actual completion date of the Project, was 28,989 tons. (N.T. 806, 858-859; Ex. P-85 (12)).

246. On August 8, 2002, Mr. Lizza notified PennDOT that Intercounty had incurred financial injury due to the construction delays including material escalations and that "asphalt prices are now increasing $4 a ton, when the work should have been long ago performed." He requested additional payment for the asphalt under the Contract. (N.T. 602; Exs. P-44, P-58).

247. In August 2002, PennDOT refused Intercounty's request to pay for the material escalation cost of the asphalt. (N.T. 602-603).

248. Mr. Lizza testified that after he received the Exhibit P-58 letter, he contacted Tilcon and reached a verbal agreement with Tilcon regarding payment. (N.T. 603-607).

249. Mr. Lizza testified that, because Intercounty was experiencing losses in mid-2002 due to the utility obstructions on the Project, Tilcon agreed it would supply the asphalt but would not invoice Intercounty for the material escalation at that time. They further agreed that Intercounty would pursue its legal remedies against PennDOT to recover its damages on the Project (including the subject amount for material escalation) and, when recovered, whether by judgment or settlement, Intercounty would then pay Tilcon the additional $4.00 per ton owed for the asphalt material. If there was any deficit between the amount recovered and the amount owed to Tilcon, that amount would remain a liability of Intercounty to Tilcon. (N.T. 603-607).

250. At the hearing, the Board asked Mr. Lizza whether or not there was any written evidence of this oral agreement between Intercounty and Tilcon. (N.T. 652-653).

251. At the next day's hearing, Intercounty produced a Liquidating Agreement, marked as Exhibit P-86, that had been executed the previous evening by Tilcon and Intercounty. (N.T. 665-666; Ex. P-86).

252. Mr. Lizza identified Exhibit P-86, explained that it was intended to document the original verbal agreement between Intercounty and Tilcon and testified that Exhibit P-86 accurately reflected the terms of that agreement. (N.T. 665-666, 675-679).

253. PennDOT objected to the admission of Exhibit P-86 into evidence on the grounds that the document did not previously exist, that PennDOT had not been told of the alleged verbal agreement between Tilcon until Mr. Lizza's testimony the day before, that PennDOT had been told by Intercounty that the escalation amount had been paid, and that, as a result of the foregoing, PennDOT had been deprived of adequate discovery on this issue prior to the hearing. (N.T. 667-670, 673).

254. Intercounty denied that it had represented to PennDOT that it had already paid the material escalation amount to Tilcon. (N.T. 675).

255. PennDOT did not identify any particular discovery request by it or discovery response by Intercounty to establish that Intercounty had misled PennDOT to believe that Intercounty had already paid Tilcon for the material cost escalation. (Defendant's Post-Hearing Brief; Board Finding).

256. PennDOT questioned the weight and sufficiency of evidence supporting the admissibility of Exhibit P-86 because it had been prepared during the hearing and because there were no Tilcon invoices or Intercounty cost reports to support this claim. (N.T. 667-677).

257. PennDOT questioned Mr. Lizza extensively at hearing about the circumstances surrounding the preparation of Exhibit P-86. (N.T. 667-677).

258. PennDOT intimated that the document, Exhibit P-86, could not be trusted because it could have been the product of collusion between Intercounty and Tilcon and not the result of an arms length transaction. (Defendant's Post-Hearing Brief at pp. 43-44; N.T. 670).

259. PennDOT presented no evidence of an inappropriate "collusion" between Intercounty and Tilcon. (Defendant's Post-Hearing Brief; Board Finding).

260. The Board finds the testimony of Mr. Lizza regarding the oral agreement with Tilcon to be credible and reliable. We conclude that Intercounty entered into an oral agreement to pay Tilcon the asphalt material escalation cost as described by Mr. Lizza. (N.T. 603-607, 665-666, 675-679; Board Finding).

261. Under the specifics of this case and the weight of the evidence presented, we find that the oral agreement between Tilcon and Intercounty, coupled with Exhibit P-58, are sufficient to support Intercounty's claim that it is indebted to Tilcon for the asphalt material cost escalation of $115,956. (F.O.F. ¶¶ 240-260; Board Finding).

262. The Board finds the testimony of Mr. Lizza with respect to the identification and circumstances surrounding the creation of Exhibit P-86, and his assertion that Exhibit P-86 accurately reflects the parties' earlier agreement, to be credible and reliable. (F.O.F. ¶¶ 240-261; Board Finding).

263. The Board admitted Exhibit P-86 into evidence because we found that adequate foundation had been provided; because the document is relevant and material to the issues in this case; and because PennDOT failed to state and factually support an adequate basis to preclude admission of this document. (F.O.F. ¶¶ 249-262; Board Finding).

264. The Board finds that Intercounty has incurred material escalation costs of $115,956 for the increase in the cost for asphalt material purchased after August 2002 due to the delay in the Project caused by PennDOT's active interference with Intercounty's work. (F.O.F.¶¶ 240-263; Board Finding).

265. With appropriate markup per Section 110.03(d)(4) and (7), this results in damages of $144,945 due to Intercounty for material cost escalation. (Ex. P-60; F.O.F. ¶ 264; Board Finding).

266. Intercounty claims damages for Extended Project Supervision of $89,731.00 for seven months (from November 2002 to June 2003) for additional project supervision by Chad Nansteel (Project Superintendent) and Geinek Puc (Project Manager) due to delay. (N.T. 838-841; Ex. P-1J).

267. The Board finds that because it has already applied the markups prescribed by Section 110.03(d)(4) and (7) to Intercounty's other costs and because these markups are intended to compensate Intercounty for the cost of general and project superintendence, the Board will not compensate Intercounty twice for this activity and declines to make a separate award for Extended Project Supervision. (Ex. P-60; F.O.F. ¶¶ 227-229, 232, 239, 265; Board Finding).

268. The Board finds that Intercounty incurred a total of $171,640.81 in damages due to the delay caused by PennDOT's active interference with work on the Project. This amount is comprised of $12,470.02 for Extended Field Conditions, $14,225.79 for Extended MPT; and $144,945.00 for Material Cost Escalation. Compensation for Extended Project Supervision is included in the markups to these three categories. (F.O.F. ¶¶ 232, 239, 265; Board Finding).

Disruption Damages

269. Intercounty claims $364,480 for additional costs for loss of productivity on the Project caused by PennDOT's active interference. It claims this active interference caused it to work in an out-of-sequence, non-linear manner vastly different and less efficient than outlined in the Construction Sequence in the bid documents and the Contract. (Plaintiff's Response to PennDOT's Post-Hearing Brief at p. 45 and App. 2 at p. 3; N.T. 472-473; Exs. P-1J, P-61, P-69, P-70).

270. Intercounty was forced to work out-of-sequence by PennDOT's representations that Mr. Pilosi would facilitate pole relocation at the beginning of the Project when, in fact, he did not; the design errors leading to inadequate right-of-way spacing for guy wire placement; and PennDOT's decision to abandon the Construction Sequence originally mandated by it in favor of Mr. Sebastianelli's ad hoc weekly work plans rather than allowing Intercounty to demobilize until the utility poles were relocated. (N.T. 438-439, 817-820).

271. These factors forced Intercounty to work out-of-sequence and in multiple areas spread out across the Project simultaneously rather than in the more compact, linear fashion it reasonably anticipated. (N.T. 472-473; Exs. P-61, P-69, P-70; Board Finding).

272. PennDOT's actions forced Intercounty to work around the poles and wires for nearly all of its excavation and earth moving work on the Project as well as drainage installation, all of which caused Intercounty to experience a significant loss in its productivity. (N.T. 16, 575-576, 817-822; Board Finding).

273. The Board finds that PennDOT's active interference with Intercounty's work caused substantial disruption and loss of productivity to Intercounty. (N.T. 32, 54, 150-153, 190, 250-254, 438-440, 541, 596-598, 608-609, 1157-1158; Exs. P-41, P-45, P-71; Ex. D-31; F.O.F. ¶¶ 80-90, 133-147, 160-163, 168, 171-172, 174-181, 186, 192-193, 199-202, 211-220, 269-272; Board Finding).

274. Two usual methods for calculating lost productivity damages were not utilized by Intercounty in this case: the "measured mile" approach was unavailable because the work disruption was immediate and pervasive and the "modified total cost" method was not use as it could be criticized as less accurate since it may include the effect of factors other than the wrong sought to be remedied. (N.T. 495, 533, 1192-1193, 1205; Board Finding).

275. Intercounty used a different method to quantify its loss of productivity and disruption damages by looking at the extra time it spent on "original excavation" of the roadway because the utility pole relocation problems and abandonment of the Construction Sequence adversely affected this work most directly. (N.T. 817-822).

276. For the purposes of the methodology employed by Intercounty to measure its disruption damages, the term "original excavation" is defined as the original amount of cut and fill and subgrade excavation work to be performed on the Project, excluding the undercut and the stockpile rehandling work which work was recorded separately and addressed in separate disruption damage claims. (N.T. 242-246, 575-576, 817-822, 893-895; Exs. P-1J, P-5, P-61, P-69, P-77, P-85; Ex. D-24; Board Finding).

277. In Intercounty's bid, it estimated that it would need 67 workdays for original roadway excavation. This "original excavation" was the original cut and fill and subgrade excavation work excluding undercut and stockpile rehandling work. (N.T. 575-576, 817-822; Ex. P-5 at p. 2).

278. The "original excavation," did not include the 60 plus days Intercounty claims it spent on undercutting work and the 28 days Intercounty claims was attributable to the rehandling of stockpiled materials. (Ex. P-5 at p. 2; Board Finding).

279. PennDOT's Class 1 Excavation records indicate that Intercounty actually spent 135 calendar days to do the original excavation. (N.T. 575-576, 817-822; Ex. P-77; Ex. D-24).

280. The Board finds Intercounty's methodology to determine its lost productivity on this Project reasonable and appropriate because, inter alia: (1) the disruption to Intercounty's work was both immediate and pervasive so that an itemized accounting of extra individual costs and/or a "measured mile" comparison of lost productivity is impractical; (2) once appropriate reductions in total actual excavation days reflected on PennDOT's records are made to eliminate re-handling and undercut work, we find the remaining 135 days to be attributable to original excavation (i.e. the initial cut and fill and subgrade excavation work impacted most directly by the pole relocation issues); and (3) the Board finds Intercounty's bid estimate of 67 days for original excavation (absent re-handling and undercut work) to be reasonable. (F.O.F. ¶¶ 269-279; Board Findings).

281. The Board finds that the difference between the 67 planned days of original excavation and the 135 days of actual original excavation is 68 days of actual original excavation. We further find that these 68 days are a reasonable measure of the disruption caused to Intercounty by the utility pole relocation issues and PennDOT's active interference with Intercounty's work. (N.T. 242-246, 893-895; Exs. P-1J, P-5, P-61, P-69, P-77, P-85; Ex. D-24; F.O.F. ¶¶ 269-280; Board Finding).

282. Intercounty experienced 68 extra days of original excavation that were caused by PennDOT's active interference. (F.O.F. ¶¶ 269-282; Board Finding).

283. The Project's excavation records that show the areas of roadway worked upon during the 68 extra days along with the Project's plans, drawings and elevations, as well as the testimony and pictures in evidence all support Intercounty's assumption that it used a full crew to work a full day for these 68 extra days (N.T. 984; Ex. P-77; Ex. D-24; Board Finding).

284. Intercounty initially claimed that it incurred lost productivity costs on the Project due to 68 additional days of original excavation caused by PennDOT's active interference in the amount of $430,100, but, responding to PennDOT challenge of its crew make-up costs, revised and reduced its lost productivity cost claim by eliminating the following laborers: 1 foreman, 1 operator and two flaggers. (PennDOT's Post-Hearing Brief; Intercounty's Reply to PennDOT's Post-Hearing Brief at p. 45 and App. 2 at p. 3; Ex. P-85 (15)).

285. Intercounty's revised lost productivity claim is as follows:

> Labor costs: 1 Foreman at $217/day and 2 Laborers at $215/day each and 1 Operator at $318/day = 965/day. $965 times 68 additional days of Class 1 excavation = $65,620 in additional labor costs.
>
> Equipment costs: 1 excavator at $500/day and 7 trucks at $500/ day each and 1 Dozer at $250/day and 1 Pickup truck at $65/day and 1 Rack body truck at $80/day = $4,395/day in equipment costs. $4,395 times 68 additional days = $298,860.

Thus, Intercounty now claims that its total labor and equipment costs due to lost productivity are $364,480 ($65,620 labor + $298,860 equipment). (Intercounty's Reply to PennDOT's Post-Hearing Brief at p. 45 and App. 2 at p. 3; Ex. P-77; Ex. D-24; Board Finding).

286. On the evidence provided, Intercounty's estimate of 68 days of its lost productivity is justified, adequately supported and reasonably certain. (F.O.F. ¶¶ 269-285; Board Finding).

287. The Board finds that Intercounty incurred lost productivity costs on the Project due to PennDOT's active interference and reflected by the 68 additional days of original excavation, in the sum of $364,480. (F.O.F. ¶¶ 269-286; Board Finding).

288. With appropriate markup pursuant to Section 110.03(d)(4) and (7) of the 408 Specifications, the total disruption damages incurred by Intercounty are $405,671 ($65,620 x 1.40 + $298,860 x 1.05). (Ex. P-60; F.O.F. ¶¶ 227-228, 287; Board Finding).

Claim for Rehandling Stockpiled Material

289. Intercounty claims $56,800.00 as an additional cost for the rehandling of stockpiled material allegedly caused by the changes to the original Construction Sequence. (N.T. 624, 807-822; Exs. P-1J , P-5, P-8, P-16, P-85, Tab 14).

290. The Contract called for 50,059 cubic yards of Class 1 Excavation. Mr. Lizza testified that in Intercounty's bid he assumed that about half, or 25,000 cubic yards, would be placed in embankments and the other half would be wasted. (N.T. 625; Ex. P-8 at p. 8).

291. The bulk of the excess material to be removed or "cut" in the "cut and fill" excavation portion of the Project was in Section Three. The majority of areas to be built up or "filled" on the Project were in Sections One and Two. (N.T. 357-360; Ex. P-59; Board Finding).

292. After Intercounty consented on June 11, 2001 to the request of the Utilities to flip the Construction Sequence, Intercounty began to work in Section Three where it excavated the hillside at various places to widen and straighten the roadway. Since Intercounty was confined to working only in Section Three, it had nowhere to immediately utilize the fill material it excavated and so it was placed in a stockpile. (N.T. 214-215, 221-222, 322-323).

293. Mr. Sebastianelli instructed Intercounty not to waste the material and ordered Intercounty to stockpile it until such time as the fill areas in the other two sections were available for the material. Other PennDOT personnel told Intercounty where to locate the stockpile. (N.T. 214-215, 217, 219, 221-222, 322-323; Ex. P-71, Photos 140, 160, 162).

294. From July through October 2002, Intercounty used the stockpiled material excavated from Section Three to build the embankments in Sections One and Two, transporting the material from the stockpile to those two sections and incurring some labor and equipment expenses for this rehandling. (N.T. 357-360, 391-397, 967; Ex. P-59; Board Finding).

295. The Contract states that the roadway work of excavating the hillside and building embankments was Class 1 Excavation. (N.T. 1064-1066; Exs. P-8 at p. 8, P-16, P-17, P-60 at p. 203-1).

296. The 408 Specifications state that the payment allotted in the Contract for Class 1 Excavation includes the building of embankments and that no extra payment will be made for hauling material, wasting material, or purchasing borrow material for replacement. (N.T. 624; Ex. P-60 at pp. 203-3, 205-1, 206-2).

297. The Contract's original Construction Sequence included in the bid documents provided that the contractor could only work in one section at a time. Wherever Intercounty

started to work, it had to finish that section before moving to excavate or build in other sections. (Ex. P-2A).

298. The construction methods to be used for the embankments were otherwise left to the contractor. (N.T. 1068, 1160; Ex. P-17).

299. When Intercounty bid the Project, it planned to start construction in Section One where it needed to construct embankments. To do this, Intercounty's original excavation plan was to immediately go to Section Three where it would excavate the material it needed from the cut areas in the hillside, load the material into dump trucks, and then transport, dump, spread and compact the material where it was needed in Section One directly and without stockpiling this material. Later, it planned to build the embankments in Section Two by also going into the hillside along the Section Three roadway for the material as it was needed and without rehandling. (N.T. 357-360; 624-626).

300. Intercounty never discussed this original excavation plan for building the embankments with PennDOT, and never had PennDOT's approval for this plan. (N.T. 359).

301. Under the original Construction Sequence, Intercounty would not have been able to use its original excavation plan, but instead would have had to start in Section One by building the embankments there and would not have been able to excavate any material from Section Three until much later. (N.T. 357-359; Ex. P-2A; Board Finding).

302. Pursuant to the 408 Specifications, Intercounty would have had to purchase fill material offsite, truck it to the site and off-load it to create the Section One embankments. The same would have been true for Section Two. (N.T. 357-360; Exs. P-2A, P-59, P-60; F.O.F. ¶¶ 291-301; Board Finding).

303. When it got to Section Three, Intercounty would have had to excavate the hillside and pay substantial costs for hauling and disposing of that material offsite. (N.T. 357-360; Exs. P-2A, P-59, P-60; F.O.F. ¶¶ 291-301; Board Finding).

304. The Board finds that Intercounty's claim that the re-handling costs were "extra costs" caused by the "flip" in the Construction Sequence is a flawed theory of recovery because it was premised on its plan for doing the work that would not have been permitted under the original Construction Sequence. (N.T. 357-359; F.O.F. ¶¶ 289-303; Board Finding).

305. When the Construction Sequence was flipped at the beginning of work on the Project, Intercounty started with the hillside excavation in Section Three and, as per the original Construction Sequence, was restricted to completing that section before creating any embankments in other sections. (N.T. 357-359; Ex. P-2A).

306. Because Intercounty stockpiled the Section Three material as directed by PennDOT, Intercounty did not have to purchase fill offsite and truck it in to construct the Section One and Two embankments. By using the stockpiled material, it saved the costs of significant "borrow" material. (F.O.F. ¶¶ 289-305; Board Finding).

307. Intercounty did incur some costs for re-handling stockpiled materials but was, in turn, spared the cost of importing borrowed fill for Sections One and Two and wasting excess material from Section Three. (F.O.F. ¶¶ 289-306; Board Finding).

308. Some stockpiling and rehandling is to be expected on any three mile long road construction project. Intercounty did not establish that by stockpiling and rehandling it did anything out of the norm. (F.O.F. ¶¶ 289-307; Board Finding).

309. Intercounty has not established that flipping the Construction Sequence caused it to incur extra costs beyond those it would have incurred anyway had the original Construction Sequence been followed or that it did anything out of the norm for Class 1 Excavation. (F.O.F. ¶¶ 289-308; Board Finding).

Certain Undercutting Claims

310. The Project's design plan was to widen the roadway by cutting into the shoulder and also making some cuts into the existing roadway. (N.T. 254-255; Exs. P-8, P-59, P-70; Board Finding).

311. In order to construct a stable roadway, Intercounty was initially to excavate beneath the roadway down to the subgrade level. Next this area was to be tested to determine if it was unstable by rolling heavy trucks over the area to see if it sagged before beginning the sub-base and pavement buildup. If the subgrade was not stable, Intercounty was required to dig up this portion of the subgrade and do an additional undercut of 18 inches or 36 inches, depending on the severity of the problem and instructions from the PennDOT inspectors. This same testing and, if needed, corrective procedure was repeated after placement of the 2A stone subbase as well. In some areas, this process had to be repeated several times before sufficient stability was obtained. (N.T. 256-264, 269-270).

312. Intercounty claims additional compensation because of undisclosed site conditions on the basis that it had to do more undercutting excavation than planned; because it was not paid at the proper rate for this excavation; and because it incurred inefficiencies due to the out-of-sequence, spread-out nature of the undercut work caused by PennDOT's abandonment of the planned Construction Sequence. (Plaintiff's Proposed Findings of Fact, Conclusions of Law and Legal Brief ¶¶ 132-146; Plaintiff's Response to Defendant's Post-Hearing Brief, Appendix 1 at pp. 4, 10-11, 14-15; N.T. 1211; Exs. P-1J, P-45).

313. PennDOT responds, inter alia, that it correctly disclosed all site conditions known to it; that undercutting was to be expected; that it made no representations as to the quantity of undercut; and that it paid Intercounty for the undercut work at the rate designated in the Contract. (Defendant's Post-Hearing Brief at pp. 36-42).

314. Section 210 of the 408 Specifications indicates that a contractor performing subgrade excavation is required to excavate and replace (i.e. "undercut") unstable material encountered in the subgrade to achieve subgrade stability. (Exs. P-8, P-60 at p. 210-1).

315. Removal of the unsuitable material, as directed, was within the definition of Class 1 Excavation set forth in Section 203 of the 408 Specifications if performed at a minimum bottom width of 8 feet or more. (Ex. P-60 at pp. 203-1 to 203-3).

316. The evidence supports PennDOT's contention that both Intercounty and PennDOT understood (or should have understood) that once the excavation to widen the roadway began that some undercutting would be necessary in order to stabilize the road base. (Exs. P-8, P-60, P-70; F.O.F. ¶¶ 311, 314-315; Board Finding).

317. Intercounty claims an additional $278,965 for the undercutting work it did on the Project because it asserts that the quantity of the undercutting was excessive and constituted an undisclosed site condition. (Plaintiff's Proposed Findings of Fact, Conclusions of Law and Legal Brief ¶¶ 132-146; Plaintiff's Response to Defendant's Post-Hearing Brief, Appendix 1 at pp. 4, 10-11, 14-15; N.T. 1211; Ex. P-1J).

318. The Contract (including 408 Specifications) contained no warranty that unsuitable material would not be encountered in the subgrade but, in fact, contemplated that some amount of unsuitable material would be encountered and provided a payment rate mechanism for same. (Ex. P-8, P-60, P-70; F.O.F. ¶¶ 311, 314-316; Board Finding).

319. The Contract (including 408 Specifications) contained no representations regarding the quantity of undercut that would be required. (Ex. P-8, P-60, P-70; Board Finding).

320. According to PennDOT's records, the total quantity of undercutting excavation amounted to 11,115 cubic yards. Both parties agree on this quantity. (N.T. 334-337, 789, 1211; Ex. D-24).

321. The need for undercutting to stabilize roadway subgrade on the Project appeared to generate from the presence of clayey material encountered at the subgrade level along the roadway that had absorbed some moisture and caused an unacceptable degree of softness to the subgrade. (N.T. 1073-1074).

322. Intercounty failed to identify any representations made by PennDOT in the Contract or bid documents provided as to the type or nature of the soils or subsurface conditions to be encountered on the Project. (Ex. P-8; Board Finding).

323. The bulk of the undercut work performed on the Project involved the removal of unsuitable material by cuts into the roadway of 8 feet in width or greater to an average depth of 2 feet or so. (N.T. 336-337, 1073-1079).

324. Section 203.1(a) of the 408 Specifications defines Class 1 Excavation to include: "[e]xcavation, as indicated or directed, for the removal of unsuitable material having a bottom width of 2.5m (8 feet) or more." (Ex. P-60 at p. 203-1).

325. Intercounty has failed to establish by a preponderance of evidence that the "undercutting" it did to rectify the unstable roadway subgrade encountered on this Project, the

bulk of which was 8 feet wide or more and an average of 2 feet deep or so, was inherently any more difficult than performing original cut and fill work of like width on the Project. (N.T. 1073-1083; Board Finding).

326. PennDOT paid Intercounty $100,035.00 extra for excavating 11,115 cubic yards of material from the subgrade in performing the requisite "undercut" at the Class 1 Excavation price of $9.00 per cubic yard. (N.T. 1075-1084, 1211; Ex. P-8; Exs. D-24, D-30).

327. Even though the quantity of undercut work on the Project was relatively large, because the vast bulk of this work was substantially similar in nature to Intercounty's original cut and fill work on the Project; and because undercutting was anticipated by the Contract; and because there were no representations of any sort in the Contract or bid documents as to the type of subsurface materials to be encountered or the quantity of undercut to be performed; the Board does not find the quality of the undercut work or the volume of undercut encountered on this Project to be an undisclosed site condition. (F.O.F. ¶¶ 310-327; Board Finding).

Claim for $34 Rate for Undercutting

328. Intercounty also claims it was not paid at the proper rate for the undercutting and should be reimbursed for its undercutting at a higher rate than the $9 per cubic yard that it quoted for Class 1 Excavation. (Plaintiff's Proposed Findings of Fact, Conclusions of Law and Legal Brief, ¶¶ 132-146; Plaintiff's Response to Defendant's Post-Hearing Brief, Appendix 1 at pp. 4, 10-11, 14-15; Exs. P-1J, P-5).

329. Section 203.1(a) of the 408 Specifications provided that the undercutting to a width of eight feet or more was Class 1 Excavation. Intercounty's bid price for Class #1 Excavation was $9.00 per cubic yard. (N.T. 335-337; Exs. P-8, P-60).

330. Intercounty was paid for all of its undercutting work at the Class 1 Excavation rate of $9 per cubic yard for all of the undercutting it performed. (N.T. 336, 1075-1076, 1079-1080, 1084; Exs. D-24, D-30).

331. Intercounty claims it should be paid for all the undercutting as non-Class 1 Excavation at its actual cost, which Intercounty calculated to be $34 per cubic yard. (Plaintiff's Proposed Findings of Fact, Conclusions of Law and Legal Brief, ¶¶ 132-146; Plaintiff's Response to Defendant's Post-Hearing Brief, Appendix 1 at pp. 4, 10-11, 14-15; N.T. 789).

332. Intercounty was directed to perform a total of 470 cubic yards of undercutting that had a bottom width of less than eight feet. (N.T. 336-337, 1073-1074, 1078-1080; Board Finding).

333. The 470 cubic yards of excavation are most appropriately defined as Class 1A Excavation under Section 203.1 of the 408 Specifications and constitute "extra work" that is defined by Section 110.03(c) of the 408 Specifications as "work, having no quantity and/or price included in the contract, which is determined by the District Engineer to be necessary or

desirable to complete the project." (N.T. 1073-1074, 1078-1080; Ex. P-60 at pp. 203-1, 110-2 to 110-4; Board Finding).

334. Because all but 470 cubic yards of the total 11,115 cubic yards of undercut on this Project entailed excavation of an 8 foot bottom width or more, the Board finds that the bulk of the undercutting performed on the Project was Class 1 Excavation and that Intercounty was paid for that work at its bid rate of $9 per cubic yard. (F.O.F. ¶¶ 320, 324, 326, 332-333; Board Finding).

335. Intercounty incurred costs of $34 per cubic yard or a total of $15,980 for the 470 cubic yards of undercutting it did that was Class 1A excavation. (N.T. 337, 789, 1079; Board Finding).

336. Intercounty was already paid $9 per cubic yard for these 470 cubic yards or $4,230 which must be deducted from the $15,980 total costs to calculate its unreimbursed additional cost for this work. (F.O.F. ¶¶ 329-335; Board Finding).

337. Intercounty incurred additional costs of $11,750 ($15,980 minus $4,230) for the undercutting performed at a width of less than 8 feet on the Project. With appropriate markup pursuant to Section 110.03(d)(4) and (7) of the 408 Specifications, this amounts to $13,571.25 in damages incurred by Intercounty for this work. (Ex. P-85 (9), P-60 at p. 110-5, 110-6; F.O.F. ¶¶ 329-336; Board Finding).

Undercutting Inefficiency Claim

338. Intercounty claims it incurred inefficiencies in doing the undercutting work since that work had to be done out of sequence and in a non-linear fashion due to the multiple instances of PennDOT's active interference noted above. (Plaintiff's Proposed Findings of Fact, Conclusions of Law and Legal Brief, ¶¶ 132-146; Plaintiff's Response to Defendant's Post-Hearing Brief, Appendix 1 at pp. 4, 10-11, 14-15; Exs. P-33, P-61, P-68).

339. Original excavation and backfilling of the subgrade must occur before the area is tested and determined to be unstable. As a result, undercutting is typically done in spots along the roadway construction following behind original excavation. (F.O.F. 311; Board Finding).

340. Intercounty had to move its equipment and men up and down the roadway to do the undercutting on the Project in a non-linear sequence. (N.T. 256-271; Exs. P-33, P-60, P-61, P-68).

341. Undercutting is not as lineal or sequential an operation as original excavation and paving because only unstable problem areas must be undercut, if and as they are discovered. (F.O. F. ¶¶ 311, 339-340; Board Finding).

342. Intercounty did not keep any records of equipment idled by undercutting delays nor provide us with a comparison of its initial cost or time estimate to perform undercutting

which we consider reasonable to compare to the actual amount of time or cost needed to perform the undercut on the Project. (N.T. 333-339; Board Finding).

343. Although Intercounty's undercutting operation was likely made less efficient to some degree by the same problems that affected its original excavation work, Intercounty failed to provide the Board with a calculation, a methodology, or evidence from which the Board can quantify this particular loss of productivity in its undercutting operation on the Project. (N.T. 337; F.O.F. 338-342; Board Finding).

344. Although Intercounty did its undercutting work in a spread-out and random fashion this is due in part to the nature of the undercut process itself, and the Board cannot ascertain from the evidence presented how much of the problem complained of by Intercounty with regard to its undercut operation was actually caused by disruption to the Construction Sequence. (F.O.F. ¶¶ 338-343; Board Finding).

345. The Board cannot estimate the additional cost of the undercutting work caused by the disruption to the Project's Construction Sequence with any degree of reasonable certainty and declines to make a damage award for this component of Intercounty's claim. (F.O.F. ¶¶ 338-344; Board Finding).

Claim For Ride Quality Incentive

346. Intercounty claims $16,200.00 for a Ride Quality Incentive Bonus. (N.T. 807, 861; Exs. P-1J, P-85 at Tab 13).

347. The Contract contained Item 0404-0001, the Bituminous Pavement Ride Quality Incentive ("Ride Quality Incentive") and identifies an amount of $16,200.00 to be paid to Intercounty if it achieved a superior paving job. (N.T. 563-564; Ex. P-8 at p. 9).

348. A condition for qualifying for the Ride Quality Incentive was that the road surface would first be tested for smoothness. This testing was to be done by a machine that would be rolled over the road to give an index number for road smoothness. (N.T. 254, 328-333; Ex. D-19; 408 Specifications, Change No. 2, § 404 incorporated into Change No. 4).

349. This road surface test was never performed on this Project. (N.T. 254, 328-329).

350. Under the Contract's provisions, if PennDOT had tested the road and it had not passed the ride quality specification in the Contract, Intercounty could have faced a penalty. (N.T. 412, 647-648; Ex. D-19; 408 Specifications, Change No. 2, § 404 incorporated into Change No. 4).

351. Intercounty requested that the road surface test for smoothness be removed from the Contract because of the piecemeal manner in which the paving was done. The road was never tested for the Ride Quality Incentive because neither Intercounty nor PennDOT chose to go forward with any testing or measurements of the road's smoothness. (N.T. 412-413, 647, 649).

352. Since no required road testing for smoothness was done by agreement of both parties, the Board finds that Intercounty has not established that it met the Ride Quality Incentive criteria for the bonus and PennDOT has not established that Intercounty failed the Ride Quality Incentive criteria for imposition of a penalty. (F.O.F. ¶¶ 346-351; Board Finding).

Claim for Pre-judgment Interest and Attorney Fees

353. The record does not reflect the date on which this claim was filed with the contracting officer. (Board Finding).

354. On July 12, 2004, PennDOT denied this claim. (N.T. 872).

355. The Board finds that the July 12, 2004 date is the closest date in the record to the date the claim was filed with the contracting officer that we can find to commence interest accrual on the claim. (N.T. 872; Board Finding).

356. Pre-judgment interest on the damage amount of $590,883.06 at the statutory rate for judgments (6% per annum) from July 12, 2004 to the date of this judgment is $169,406.17. The total damage award plus pre-judgment interest therefore amounts to $760,289.23. (62 Pa.C.S.A. § 1751; Board Finding).

357. Intercounty requests an award of attorney fees under Section 3935 of the Procurement Code, alleging that PennDOT withheld payment in bad faith and acted arbitrarily and vexatiously with respect to PennDOT's acts and/or omission on the Project. (Complaint at p. 12; 62 Pa.C.S. § 3935(b)).

358. This Contract was one for highway construction with PennDOT as the contracting Commonwealth party. (N.T. 129; Ex. P-8).

359. The Board does not find any misconduct on the part of PennDOT or Intercounty in presentation or argument of this case before the Board or any other factors which would cause us to award costs (other than attorney fees) in this matter. (Board Finding).

CONCLUSIONS OF LAW

1. The Board of Claims has exclusive jurisdiction to hear and determine this matter as a claim asserted against the Commonwealth of Pennsylvania, Department of Transportation ("PennDOT"), an agency and instrumentality of the Commonwealth, arising from a contract entered into with said agency of the Commonwealth. 62 Pa.C.S. Section 1724; DGS. v. Limbach Co., 862 A.2d 713, 718-720 (Pa. Cmwlth. 2004), affirmed per curiam 855 A.2d 527 (Pa. 2007).

2. In asserting a claim for recovery on breach of contract, it is the asserting party's burden to show that the facts exist to support the requested recovery. Paliotta v. Department of Transportation, 750 A.2d 388 (Pa. Cmwlth. 1999).

3. The Board, as the finder of fact in this case, is charged with the duty of determining the credibility of evidence and resolving conflicting testimony. The Board's findings need not be supported by uncontradicted evidence, so long as they are supported by substantial evidence. DGS v. Pittsburgh Building Co., 902 A.2d 973, 989 (Pa. Cmwlth. 2007).

4. On June 5, 2001, PennDOT and Intercounty entered into Contract No. 044077 ("Contract") for a contract bid of $4,523,385.82. Contract No. 044077 was for a road construction project, known as Project SR 2001-403, ("Project") located in Pike County, Pennsylvania. The Contract included, inter alia, the Special Provisions, the Project plans and drawings and the Project specifications. Notes of Trial Transcript ["N.T."], page 550; Exhibits ['Exs."] P-8, P-11, P-59, P-60, P-1G.

5. The specifications applicable to the Project and made part of the Contract are found in Publication 408/2000 and Change No. 4, effective April 2, 2001, published by the Department of Transportation ("408 Specifications"). Exs. P-8, at p. 23, P-60 and D-19.

6. The Contract required Intercounty to make improvements and widen 3.625 miles of State Route 2001 from stations 721+00 through 917+00. The existing road was one lane in each direction with many twists and turns and with no shoulders. The work included widening, straightening, and aligning that existing roadway which had an original width of seventeen to nineteen feet and creation of two eleven foot travel lanes with nine foot wide shoulders in each direction. The work also included performing some curve realignments, sight distance improvements and side road/driveway adjustments, as well as installing guide rail, signing, drainage, and pavement markings. Overall, the width of the roadway as being increased to forty feet.[3] Traffic flow had to be maintained during construction. N.T. 10, 129, 133-137; Exs. P-8, P-1G, P-11.

7. Because the Project was located in Pike County, PennDOT needed the approval of its original construction plans for the Project and any subsequent changes to those plans from the Pike County Conservation District ("Conservation District"). N.T. 1071.

[3] The Contract narrative describes the roadway as being widened to 30 feet (two 11 foot travel lanes with four foot shoulders on each side). However, the plans and drawings show the roadway as being widened to 40 feet (two 11 foot travel lanes with nine foot shoulders on each side). This discrepancy was not addressed by either party, and it is the Board's understanding that the roadway was improved as per the plans and drawings (i.e. to a 40 foot width).

8. To minimize erosion, the Conservation District required PennDOT to submit for approval an Erosion and Sediment Pollution Control Plan ("E and S Plan"). This plan specified a detailed sequence of how the Project would be built with the contractor working in only one section, or one-third of the Project, at a time. N.T. 12, 133, 225, 1071-1072; Exs. P-8, P- 59.

9. The Conservation District approved PennDOT's E and S Plan and PennDOT then incorporated it into the Contract's plans and drawings. PennDOT also put it in the Special Provisions of the Contract and renamed it the "Construction Sequence." Thus, PennDOT made the E and S Plan into the roadway Construction Sequence and incorporated this unusually specific plan of construction activities into the Contract for the Project. N.T. 444-445, 1071-1072; Exs. P-59, P-2A, P-2B, P-8.

10. PennDOT included the Construction Sequence in the bid and Contract documents. Accordingly, the Construction Sequence was to be used by the successful bidding contractor to price and perform the work. Exs. P-2A, P-2B; Philadelphia Warehousing and Cold Storage v. Hallowell, 490 A.2d 955, 956-57 (Pa. Cmwlth. 1985); American Totalisator Co., Inc. v. Seligiman, 384 A.2d 242, 258 (Pa. Cmwlth. 1977); see also, Durkee Lumber Co., Inc. v. Dep't of Conservation and Natural Res., No. 3797, 2008 WL 509459 at *26-27 (Pa. Bd. Claims, Jan. 4, 2008), *citing* Ezy Parks v. Larson, 454 A.2d 928, 933 (Pa. 1982).

11. The Contract required that, pursuant to the Construction Sequence, work on the Project would be performed in specified sections and phases while the roadway remained open to traffic. The roadway was divided into three roughly equal sections (Sections One, Two and Three) and within each section there were three phases of work (comprised of multiple steps) to be accomplished. N.T. 153; Exs. P-2A, P-8.

12. Pennsylvania utility companies have the privilege of free occupancy of PennDOT's public rights-of-way for the installation of their poles, wires and other facilities. In return, when PennDOT alters a state highway, these utility companies owe a corresponding duty to PennDOT to relocate their poles, wires and other facilities at their own cost at the time, and to the location within such rights-of-way, as PennDOT determines. 36 P.S. Sec. 670-411, 67 Pa. Code Sec. 459.1; Exs. P-38, P-35; see Delaware River Port Authority v. P.U.C., 145 A.2d 17 (1958); Department of Transportation v. Pennsylvania Power & Light Co., 383 A.2d 1314, 1317-1318 (Pa. Cmwlth. 1978).

13. The Contract (in Paragraph 6, in the "Utilities" section of the Special Provisions, and in the 408 Specifications Sections 105.06(b), 105.06(a) and 102.05) imposed certain duties on Intercounty to contact and cooperate with the affected utility companies in connection with the utility pole and wire relocation work on the Project. Ex. P-8; Pub. 408 Specifications §§ 102.05, 105.06(a) and 105.06(b).

14. However, Intercounty's duties to contact and cooperate with the affected utility companies in connection with the utility pole and wire relocation on the Project commenced only upon completed execution of the Contract by both Intercounty and PennDOT. Ex. P-8; 408 Specifications §§ 103.03, 103.05(b), 103.07.

15. Every contract contains the implied obligation that neither party will do anything to prevent, hinder or delay performance of the other. See e.g. Able-Hess Associates v. SSHE Slippery Rock University, No. 3369, 2003 WL 22524494 at *13 (Pa. Bd. Claims Oct. 27, 2003); Gasparini Excavating Co. v. Pennsylvania Turnpike Commission, 187 A.2d 157, 161-162 (Pa. 1963); State Highway and Bridge Authority v. General Asphalt Paving Co., 405 A.2d 1138, 1140-1141 (Pa. Cmwlth. 1979).

16. It constitutes a breach of contract and active interference with a contractor's work if: (1) there is affirmative or positive interference by the owner with the contractor's work; or (2) there is a failure on the part of the owner to act in some essential matter necessary to the prosecution of the work. See e.g. Coatesville Contractors & Engineers, Inc. v. Borough of Ridley Park, 506 A.2d 862, 865-867 (Pa. 1986).

17. An owner who is party to a construction contract has a fundamental obligation to take those actions reasonably within its capability to provide its contractor with reasonably unobstructed access to the work site. Id.; A.G. Cullen Construction, Inc. v. State System of Higher Education, 898 A.2d 1145, 1160 (Pa. Cmwlth. 2006); Gasparini, 187 A.2d at 161-162, Com., Department of Highways v. S. J. Groves and Sons Co., 343 A.2d 72, 76 (Pa. Cmwlth. 1975), General Asphalt Paving, 405 A.2d at 1140-1141.

18. PennDOT, through its Utility Relocation Unit and District Utility Relocation Administrator, had a responsibility and duty to properly coordinate the relocation of the utility poles and wires affecting the Project prior to the execution of the Contract pursuant to its own internal policies and procedures; because such coordination was an essential matter necessary to prosecution of the roadway work on the Project; and because such actions were reasonably within its capability and critical to providing Intercounty with reasonably unobstructed access to its work on the Project. N.T. 38; Ex. P-1M; See e.g. Coatesville Contractors, 506 A.2d at 865-867; A.G. Cullen Construction, 898 A.2d at 1160; Gasparini, 187 A.2d at 161-162; S. J. Groves and Sons Co., 343 A.2d at 76; General Asphalt Paving, 405 A.2d at 1140-1141.

19. PennDOT also had a duty to properly plan and design the Project. 408 Specifications § 104.01; United States v. Spearin, 248 U.S. 132, 137, 39 S. Ct. 59, 61 (1918); Canuso v. City of Philadelphia, 192 A. 133, 136 (Pa. 1937); A.G. Cullen Construction, 898 A.2d at 1160; Department of Transportation v. W.P. Dickerson & Son, Inc., 400 A.2d 930, 932 (Pa. Cmwlth. 1979); Allentown Supply Corp. v. Stryer, 195 A.2d 274, 279 (Pa. Super. 1963); Angelo Iafrate Const. Co. v. Pennsylvania Turnpike Commission, No. 3654, 2006 WL 2585020 at *29-30, 41-42 (Pa. Bd. Claims, July 27, 2006).

20. When a contractor builds or otherwise performs according to plans or specifications supplied by a project owner, the contractor cannot be held responsible for insufficiency of the work or for defects in the plans or specifications. United States v. Spearin, 248 U.S. at 137, 39 S. Ct. at 61; Canuso v. City of Philadelphia, 192 A. at 136; A.G. Cullen Construction, 898 A.2d at 1160; W.P. Dickerson & Son, 400 A.2d at 932; Allentown Supply Corp. v. Stryer, 195 A.2d at 279.

21. By prescribing the character, dimensions, location and other design specifications for reconstruction and paving of the Project roadway, PennDOT provided design specifications for these tasks and warranted to Intercounty that these plans and specifications would be adequate to construct the Project. United States v. Spearin, 248 U.S. at 137, 39 S. Ct. at 61; Canuso v. City of Philadelphia, 192 A. at 136; A.G. Cullen Construction, 898 A.2d at 1160; W.P. Dickerson & Son, 400 A.2d at 932; Allentown Supply Corp. v. Stryer, 195 A.2d at 279.

22. Delays and damages incurred in construction occasioned by the necessity of altering plans because of an owner's failure to originally provide adequate design are properly charged to the owner. C.J. Langenfelder & Son, Inc. v. Department of Transportation, 404 A.2d 745 (Pa. Cmwlth. 1979).

23. PennDOT also had the responsibility for securing all necessary rights-of-way for the Project in advance of construction. 408 Specifications, § 107.18; Sheehan v. City of Pittsburgh, 62 A. 642 (Pa. 1905).

24. Intercounty established by substantial evidence that PennDOT did not properly plan for sufficient rights-of-way to accommodate the guy wires at several new pole locations. DGS v. Pittsburgh Building Co., 902 A.2d at 989.

25. Because PennDOT failed to provide Project plans and design adequate to construct the Project (by prescribing the location of the new utility poles through its permitting process for this Project and then prescribing the character, dimensions, location and other design specifications for reconstruction and paving of the Project roadway, but failing to provide sufficient room within its rights-of-way for guy wires (as needed) on these new poles in its plans and design), PennDOT materially breached the Contract and actively interfered with Intercounty's work on the Project. United States v. Spearin, 248 U.S. at 137, 39 S. Ct. at 61; Canuso v. City of Philadelphia, 192 A. at 136; A.G. Cullen Construction, 898 A.2d at 1160; W.P. Dickerson & Son, 400 A.2d at 932; Allentown Supply Corp. v. Stryer, 195 A.2d at 279.

26. Because PennDOT failed to adequately coordinate the utility pole and wire relocation for the Project during the pre-Contract design phase, and thereby failed to act in a matter necessary for prosecution of work on the Project (by, inter alia: prescribing the location of the new utility poles through its permitting process for this Project and then prescribing the character, dimensions, location and other design specifications for reconstruction and paving of the Project roadway, but failing to provide sufficient room within its rights-of-way for guy wires (as needed) on these new poles in its plans and design; failing to provide the utility companies affected by the Project with the Construction Sequence and the final plans for the Project sufficiently in advance of the start of actual work on the Project site so these utility companies could effectively plan ahead for the timing and sequencing of the pole relocation work prescribed by the Contract; and failing to indicate the old utility poles to be removed and/or the location of the new utility poles to be installed on these final plans and drawings), PennDOT materially breached the Contract and actively interfered with Intercounty's work. See e.g., Coatesville Contractors, 506 A.2d at 865-867; General Asphalt Paving, 405 A.2d at 1140-1141; Gasparini, 187 A.2d 161-162; S.J Groves & Sons, Co., 343 A.2d at 76; Sheehan v. Pittsburgh, 62 A. at 642; Pittsburgh Building Co., 920 A.2d at 987.

27. Because PennDOT failed to adequately coordinate the utility pole and wire relocation for the Project during the pre-Contract design phase, and thereby failed to take actions reasonably within its capability to provide Intercounty with reasonably unobstructed access to work on the Project (by, inter alia: prescribing the location of the new utility poles through its permitting process for this Project and then prescribing the character, dimensions, location and other design specifications for reconstruction and paving of the Project roadway, but failing to provide sufficient room within its rights-of-way for guy wires (as needed) on these new poles in its plans and design; failing to provide the utility companies affected by the Project with the Construction Sequence and the final plans for the Project sufficiently in advance of the start of actual work on the Project site so these utility companies could plan ahead for the timing and sequencing of the pole relocation work prescribed by the Contarct; and failing to indicate the old utility poles to be removed and/or the location of the new utility poles to be installed on these final plans and drawings), PennDOT materially breached the Contract and actively interfered with Intercounty's work. See e.g., Coatesville Contractors, 506 A.2d at 865-867; General Asphalt Paving, 405 A.2d at 1140-1141; Gasparini, 187 A.2d 161-162; S.J. Groves & Sons, Co., 343 A.2d at 76; Sheehan v. Pittsburgh, 62 A. at 642; Pittsburgh Building Co., 920 A.2d at 987.

28. In addition to imposing certain obligations on Intercounty to contact and cooperate with the affected utility companies in connection with the utility pole and wire relocation work on the Project, the Contract (in Paragraph 6, in the "Utilities" section of the Special Provisions, and in the 408 Specifications Sections 105.06(b), 105.06(a) and 102.05) also contains provisions that seek to exculpate PennDOT from liability for delay and disruption damages due to utility relocation delays on the Project. See Conclusions of Law ¶¶ 13-14; Ex. P-8; 408 Specifications §§ 105.06(a) and (b), 102.05.

29. Section 105.06(b) of the 408 Specifications provides:

> Expect delay in the performance of the work under contract in order to permit public and private facilities and structures to be placed, replaced, relocated, adjusted, or reconstructed. In the event of such delays, the work under the contract may be required to proceed for the convenience, facility and safety of the public. Do not hold the department liable for charges or claims for additional compensation for any delays, hindrances, or interferences regardless of the duration or extent, resulting from the failure of owners to place, replace, relocate, adjust, or reconstruct their facilities within the time estimated by the Department.
>
> Resolve all disputes or disagreements concerning the placement, replacement, relocation, adjustment, or reconstruction of facilities and structures directly with owners. Upon written request, the Department may, at its discretion, render assistance in resolving disputes or disagreements. However, under no circumstances will such assistance be construed to relieve the Contractor of his responsibility to resolve conflicts with owners. Do not hold the department liable for charges or claims for additional compensation for any delays, hindrances, or interferences that arise from the dispute and its resolution. However, upon written request, the department may grant an extension of time.

Ex. P-60 at p. 105-6.

30. Section 105.06(a) of the 408 Specifications provides, in part:

> Upon execution of the contract, inform all public service companies, individuals, and others owning or controlling any facilities or structures within the limits of the project which may have to be relocated, adjusted, or reconstructed, of the plan of construction operations. Give due notice to the responsible party in sufficient time for that party to organize and perform such work in conjunction with or in advance of construction operations.
>
> Make all necessary arrangements with the owners of facilities and structures on, under, or over the project site and all waste and borrow areas not on the project site for any placement, replacement, relocation, adjustment, or reconstruction of such facilities and structures that might be needed to perform work on this contract. Cooperate with the owners of facilities and structures in order to assist the owners in their placement, replacement, relocation, adjustment, or reconstruction operations. Arrange and perform the work in accordance with the recognized and accepted engineering and construction practices. As provided in Section 105.06(b), the Engineer may assist in resolving any construction problems that arise. However, the Department does not assume responsibility for the work as a consequence of such cooperation.

Ex. P-60 at p. 102-2.

31. Section 102.05 of the 408 Specifications provides, in part:

> Time estimates for the placement, replacement, relocation, adjustment and reconstruction of public and private facilities and structures on, under, or over the project and waste and borrow areas not on the project before and during the performance of the work have been provided only for informational purposes. The Department does not warrant the accuracy of the time estimates. Bidders should verify this information by contacting the owners of the facilities and structures. These time estimates are not to be considered part of the bid proposal.

Ex. P-60 at p. 102-5.

32. Paragraph 6 of the Contract provides:

> The contractor further covenants that he has not relied upon any information provided by the Department, including information contained in the Special Provisions, concerning the time within which publicly or privately-owned facilities below, at or above the ground are expected to be installed, removed, repaired, replaced, and/or relocated; that he has not relied upon any information provided by the Department concerning the location or existence of all such facilities that might be below, at or above ground; that he has contacted or will contact all owners of such facilities to verify the location and position of all such facilities and the time within which work on such facilities will be performed; and

> that he is aware delays might be incurred in the performance of work on this project as a result of work being performed or that will be performed on such facilities by their owners.
>
> It is further understood that, notwithstanding assistance of any kind and extent that might be provided by the department, the contractor, in every instance, bears the ultimate responsibility in resolving all disputes of every kind with the owners of such facilities. The contractor agrees to save and hold the Department harmless from liability for all delays, interference and interruptions that might arise during the performance of the work on this project as a result of work being or that will be performed on such publicly or privately-owned facilities.

Ex. P-8 at p. 5.

33. The "Utilities" section of the Special Provisions of the Contract also provided that the contractor had the following duties regarding the relocation:

> Cooperate with the public utility companies and local authorities in the placement, replacement, relocation, adjustment or reconstruction of their structures and facilities during construction.
>
> Contact all utility representatives at least fifteen calendar days prior to starting operations.

Exs. P-2B, P-8 at p. 34.

34. Because we have found, as a matter of fact, that Intercounty fully cooperated with the utility companies to relocate the utility poles and wires on the Project in all material respects, we hold that Intercounty met its duty to cooperate with the utility companies to the extent required under the terms of the Contract and the 408 Specifications incorporated therein, including the requirements in Paragraph 6 and in the "Utilities" section of the Special Provisions of the Contract and in Sections 102.05, 105.06(a) and 105.06(b). Ex. P-8; 408 Specifications §§ 102.05, 105.06(a) and 105.06(b).

35. Because we have found, as a matter of fact, that Intercounty's participation in the pre-construction meeting of June 5, 2001 (immediately prior to PennDOT's execution of the Contract) and the subsequent pre-job meeting on June 11, 2001 with the utility companies affected by the Project, and the discussions regarding the relocation of said utility poles and wires on the Project at those meetings, reasonably complied in all material respects with the initial requirements of contacting the affected utility companies on the Project, as set forth in the Contract and 408 Specifications (including those set forth in Paragraph 6, in the "Utilities" section of the Special Provisions of the Contract, and in the 408 Specifications §§ 102.05, 105.06(a) and 105.06(b)), we hold that Intercounty met its initial duty to contact the utility companies and make arrangements for pole and wire relocations as required by the Contract. Ex. P-8; 408 Specifications §§ 102.05, 105.06(a) and 105.06(b).

36. Because Intercounty was instructed by Joseph Pilosi (the District Utility Relocation Administrator for the Project) at the June 11, 2001 meeting that subsequent communication with the affected utility companies regarding issues, problems or concerns with utility relocation would be handled by "the state" (i.e. PennDOT) and/or Mr. Pilosi himself; and because these instructions and representations were consistently affirmed throughout the Project by Mr. Sebastianelli (PennDOT's inspector-in-charge of the Project); we find that PennDOT, by its own representations and actions, assumed responsibility for communication with the utility companies regarding pole and wire relocation on the Project and relieved Intercounty of the responsibility to communicate directly with these utility companies from the June 11, 2001 meeting onward. General Asphalt Paving, 405 A.2d at 1140-1142.

37. We also hold that PennDOT is equitably estopped from asserting Intercounty's failure to contact the affected utility companies directly with regard to pole relocation on the Project subsequent to the June 11, 2001 meeting because of: Mr. Pilosi's representations and instructions to Intercounty that PennDOT and Mr. Pilosi would handle all subsequent communications to the utility companies regarding problems, issues or concerns with utility pole relocation on the Project; Mr. Sebastianelli's actions thereafter confirming these instructions; and Intercounty's obvious reliance on same exemplified by its ongoing communication to Mr. Sebastianelli and PennDOT regarding utility pole relocation problems throughout the remainder of the Project. Id.; see also Department of Commerce v. Robert J. Casey, 624 A.2d 247, 254 (Pa. Cmwlth. 1993).

38. Mr. Pilosi's representations made at the June 11, 2001 meeting that all further coordination with the utility companies would be handled by Mr. Pilosi and/or PennDOT; Mr. Sebastianelli's actions thereafter confirming same throughout the remainder of the Project; failure of anyone from PennDOT to advise Intercounty that it should be dealing directly with the utility companies regarding pole relocation issues during the Project; and Mr. Pilosi's complete failure to do anything to facilitate utility pole and wire relocation during the first six months of the Project, particularly after the utility companies had left the Project in mid-October of 2001 after completing only Section Three and it was obvious that pole relocation was severely delayed at that point; clearly misled Intercounty into believing PennDOT was making efforts to expedite pole and wire relocations when it was not. This constituted active interference with Intercounty's work on the Project and material breach of contract on the part of PennDOT. See e.g., Pittsburgh Building, 920 A.2d at 991; James Corp. v. North Allegheny School District, 935 A.2d 474, 484 (Pa. Cmwlth. 2007); General Asphalt Paving, 405 A.2d at 1140-1141; Coatesville, 506 A.2d at 865-867; A.G. Cullen, 898 A.2d at 1160; Gasparini, 187 A.2d at 161-162; S.J Groves & Sons, Co., 343 A.2d at 76.

39. PennDOT's affirmative misrepresentations to Intercounty which misled Intercounty into thinking that PennDOT was communicating its concerns with pole and wire relocations to the utility companies and was taking action to expedite the utility companies' performance, when, in fact, PennDOT was not doing so for the first six months of the Project, constitutes active interference with Intercounty's work and ample grounds for refusal to enforce the exculpatory clauses relied upon by PennDOT to relieve it from liability for delay and disruption damages on the Project. Pittsburgh Building, 920 A.2d at 991; Coatesville, 506 A.2d at 865-867; A.G. Cullen,

898 A.2d at 1160; General Asphalt Paving, 405 A.2d at 1141; Gasparini, 187 A.2d at 162-163; S.J. Groves & Sons, Co., 343 A.2d at 74-76; James Corp., 938 A.2d at 484.

40. PennDOT's failure to provide Intercounty with plans and design adequate to construct the Project constitutes active interference with Intercounty's work and additional grounds for refusal to enforce the exculpatory clauses relied upon by PennDOT to relieve it from liability for delay and disruption damages on the Project. Coatesville Contractors, 506 A.2d at 865-67; A.G. Cullen Construction, 898 A.2d at 1160; Pittsburgh Building, 920 A.2d at 991; General Asphalt Paving, 405 A.2d at 1141; Gasparini, 187 A.2d at 162-163; S.J. Groves, 343 A.2d at 74-76; Conclusions of Law ¶¶ 19-25.

41. PennDOT's failure to adequately coordinate the utility pole and wire relocation for the Project during the pre-Contract design phase (as summarized above in Conclusions of Law Paragraph 26) constitutes active interference with Intercounty's work and additional grounds for refusal to enforce the exculpatory clauses relied upon by PennDOT to relieve it from liability for delay and disruption damages on the Project. Coatesville Contractors, 506 A.2d at 865-67; A.G. Cullen Construction, 898 A.2d at 1160; Pittsburgh Building, 920 A.2d at 991; General Asphalt Paving, 405 A.2d at 1141; Gasparini, 187 A.2 at 162-163; S.J. Groves & Sons, Co., 343 A.2d at 74-76; James Corp., 938 A.2d at 484; Conclusions of Law ¶ 26.

42. When a contractor is unable to proceed with a project's planned work sequence that was the basis of its bid because of utility relocation delays, and the contractor is thereby disrupted in its operations, and the owner orders the contractor to continue to perform work, this is also considered active interference with access to the work site S.J. Groves & Sons, Co., 343 A.2d at 76.

43. When a utility's work hinders the contractor and the owner insists that the contractor proceed with its work in an unplanned and inefficient manner, the court looks to all the surrounding circumstances and may find the owner liable for delay and disruption damages despite the existence of exculpatory provisions in the contract. General Asphalt Paving, 405 A.2d at 162-163; Gasparini, 187 A.2d at 162-163, S. J. Groves & Sons, Co., 343 A.2d at 77-78.

44. Because PennDOT's denial of a work suspension after the utility companies left the Project in mid-October 2001 (with only a small portion of the pole relocation accomplished) and its direction to Intercounty to work in an unplanned, piecemeal way under the ad hoc weekly work schedules created by PennDOT (instead of pursuant to the Construction Sequence) constituted material alteration of the Contract's prescribed work sequencing and were acts that hindered Intercounty's work, these acts by PennDOT constituted material breach of Contract and active interference with Intercounty's work on the Project. S.J. Groves & Sons, Co., 343 A.2d at 76-77; Dubrook, Inc. v. Department of Transportation, Docket No. 1001 Pa. Bd. Of Claims at 21, 23 (1992); Commonwealth v. W.P. Dickerson & Son, Inc., 400 A.2d 930 (Pa. Cmwlth. 1979); Coatesville Contractors, 506 A.2d 865-867.

45. Because PennDOT's acts of abandoning the Construction Sequence, refusing to suspend work and insisting that Intercounty work in an unplanned, piecemeal fashion instead of the planned, linear sequence of construction steps actively interfered with Intercounty's

performance, the Contract's exculpatory provisions, relied upon by PennDOT to relieve it from liability for delay and disruption damages on the Project, are not enforceable. Coatesville Contractors, 506 A.2d at 865-866; Gasparini, 187 A.2d at 163; General Asphalt Paving, 408 A.2d at 1141; Sheehan v. Pittsburgh, 62 A. at 624.

46. Delay caused by an owner's failure to obtain the rights-of-way necessary to build a roadway project is not in the class of difficulties generally contemplated by the parties, since the roadway construction agreement is based on the assumption by both parties that all the necessary rights-of-way have been secured and the work can proceed without interruption. Sheehan v. Pittsburgh, 62 A. 642 (Pa. 1905).

47. In addition to its initial failure to plan enough room for guy wires as needed on the new poles on the Project, PennDOT's long delay in resolving the pole relocation right-of-way problem (from August 2001 to March 2002) was another instance of PennDOT's failure to act in an essential matter necessary to the prosecution of the work on this Project and itself constituted a material breach of the Contract and active interference with Intercounty's work on the Project. Coatesville Contractors, 506 A.2d at 865-867; Pittsburgh Building Co., 920 A.2d at 987; A.G. Cullen, 898 A.2d at 1160; C.J. Langenfelder & Son, Inc., 404 A.2d at 750-751.

48. PennDOT's long delay in resolving the pole relocation right-of-way problem (from August 2001 to March 2002) constitutes additional grounds for refusal to enforce the exculpatory clauses relied upon by PennDOT to relieve it from liability for delay and disruption damages on the Project. Sheehan v. Pittsburgh, 62 A. at 642; Pittsburgh Building, 920 A.2d at 991; General Asphalt Paving, 405 A.2d at 1141; Gasparini, 187 A.2d at 162-163; S.J. Groves & Sons, Co., 343 A.2d at 74-76; James Corp., 938 A.2d at 484.

49. Because we have found that PennDOT actively interfered with Intercounty's work on the Project and materially breached the Contract by way of the following acts/omissions on the Project:

A. PennDOT's failure to provide plans and drawings adequate to construct the Project;

B. PennDOT's failure to act in an essential matter necessary to the prosecution of work on the Project by its failure to adequately coordinate utility pole and wire relocation on the Project in the pre-Contract design phase of same;

C. PennDOT's affirmative misrepresentations to Intercounty which misled Intercounty into thinking that PennDOT was communicating its concerns with pole and wire relocations to the utility companies and was taking action to expedite the utility companies' performance, when in fact, PennDOT was not doing so for the first six months of the Project;

D. PennDOT's denial of a work suspension after the utility companies left the Project in mid-October 2001 with only a small portion of the pole relocation accomplished and its direction to Intercounty to work in an unplanned, piecemeal way under the ad hoc weekly

work schedules created by PennDOT instead of pursuant to the Construction Sequence mandated by the Contract;

E. PennDOT's failure to act in an essential matter necessary to prosecution of work on the Project by reason of its long delay in resolving the pole relocation right-of-way problem (from August 2001 to March 2002);

and because we have also found that these same acts/omissions caused the Project to be delayed for the full 223 days claimed, and disrupted Intercounty's work throughout the Project, we find PennDOT liable to Intercounty for delay and disruption damages set forth below. See Conclusion of Law ¶¶ 25-27, 38-48.

50. Although proof of damages cannot be mere guess or speculation, the exact amount of damages need not be calculated with mathematical precision. Where an amount of damages may be fairly estimated from the evidence, a recovery will be sustained even though such amount cannot be determined with entire accuracy. See e.g., Spang & Co. v. U.S. Steel Corp., 545 A.2d 861, 866-67 (Pa. 1988).

51. Evidence of damages may consist of probabilities and inferences as long as the amount is shown with reasonable certainty. A.G. Cullen, 898 A.2d at 1161; C. Ernst, Inc. v. Koppers Co., Inc., 626 F.2d 324 (3rd Cir. 1980).

52. Sections 110.03(d)(4) and (7) of the 408 Specifications prescribe markups for Extra Work that are frequently and fairly used to determine appropriate markup for additional cost claims in PennDOT contract actions. These markups are 40% for labor; 25% for materials; 5% for equipment; and an additional 8% for subcontract work. 408 Specifications § 110.03(d)(4) and (7).

53. The markups in Sec. 110.03 (d)(4) and (7) to cost are intended to compensate the contractor, inter alia, for administration, general and project superintendence, bond costs, overhead and profit. Id.

54. Because we have found that PennDOT caused the 223 days of delay on the Project and that Intercounty incurred additional costs on the Project in that extended period (the 223 days of delay) in the amount of $11,530.27 for Extended Field Conditions, PennDOT is liable to Intercounty for these costs, plus appropriate markup pursuant to Section 110.03(d)(4) and (7) in the total amount of $12,470.02 for Extended Field Conditions. Id.

55. Because we have found that Intercounty also incurred extra costs for the Maintenance and Protection of Traffic in the extended period of the Project (the 223 days of delay) caused by PennDOT in the amount of $10,578.16, PennDOT is liable to Intercounty for these costs plus appropriate markup pursuant to Section 110.03(d)(4) and (7) in the total amount of $14,225.79 for this damage item. Id.

56. Because we have already applied the markups prescribed by Section 110.03(d)(4) and (7) to Intercounty's other costs and because these markups are intended to compensate

Intercounty for the cost of general and project superintendence, we find that Intercounty is not entitled to any further award for Extended Project Supervision. Id.

57. Under Section 110.04 of the 408 Specifications, the contractor may recover for material cost increases for bituminous materials. 408 Specifications § 110.04.

58. The Board, as the finder of fact, may believe all, part or none of the evidence; must make all credibility determinations; and is responsible for resolving all conflicts in the evidence. A.G. Cullen, 898 A.2d at 1155; Com. v. Holtzapfel, 895 A.2d 1284, 1289 (Pa. Cmwlth. 2006); Allegheny Ludlum Corp. v. Municipal Authority of Westmoreland, 659 A.2d 20, 30 (Pa. Cmwlth. 1995).

59. Under the specifics of this case, including Mr. Lizza's testimony regarding the oral agreement between Tilcon and Intercounty and Exhibit P-58, sufficient evidence was presented to support the finding of a binding oral contract between Intercounty and Tilcon (its asphalt supplier) for payment by Intercounty to Tilcon of material escalation costs for asphalt used on the Project due to delay caused by PennDOT in the amount of $115,956. Ex. P-58; see e.g. Edgcomb v. Clough, 118 A. 610, 614-616 (1922); Lombardo v. Gasparini Excavating Co., 123 A.2d 663, 666 (1956).

60. Because we find the testimony of Mr. Lizza with respect to Exhibit P-86 to be credible, because adequate foundation was provided for this document, because the document is relevant and material to the issues in the case, and because PennDOT has failed to supply an adequate basis to preclude the document's admission, we will admit this document into evidence as a document that accurately reflects the earlier oral agreement between Intercounty and Tilcon for material escalation costs. Ex. P-58; see e.g. Edgcomb v. Clough, 118 A. 610, 614-616 (1922); Lombardo v. Gasparini Excavating Co., 123 A.2d 663, 666 (1956).

61. Pursuant to the facts of this case and the weight of evidence presented, we find that Intercounty was and is indebted to Tilcon for asphalt material cost escalation of $115,956 as a result of the delay in completion of the Project caused by PennDOT. Ex. P-58; see e.g. Edgcomb v. Clough, 118 A. 610, 614-616 (1922); Lombardo v. Gasparini Excavating Co., 123 A.2d 663, 666 (1956).

62. After adding appropriate markup pursuant to Section 110.03(d)(4) and (7), PennDOT is liable to Intercounty for $144,945 for material escalation costs incurred by Intercounty for asphalt acquired for the Project because of delay caused by PennDOT's active interference and material breach of the Contract. 408 Specifications § 110.03(d)(4) and (7).

63. Because we have found that PennDOT's multiple breaches of the Contract and active interference with Intercounty's work caused Intercounty to work out-of-sequence, in a non-linear manner much less efficiently than provided for by the Construction Sequence prescribed by PennDOT in the bid documents, we find PennDOT is liable to Intercounty for lost productivity/disruption damages incurred by Intercounty on this Project. N.T. 38; Ex. P-1M; See e.g. Coatesville Contractors, 506 A.2d at 865-867; A.G. Cullen Construction, 898 A.2d at 1160;

Gasparini, 187 A.2d at 161-162; S. J. Groves & Sons, Co., 343 A.2d at 76; C.J. Langenfelder & Son, 404 A.2d at 750-751.

64. Because we have found that Intercounty's estimate of 68 days of lost productivity incurred by it on the Project due to PennDOT's breaches of Contract and active interference with its work is justified, adequately supported and reasonably certain, PennDOT is liable to Intercounty for lost productivity costs of $364,480 plus appropriate markup pursuant to Section 110.03(d)(4) and (7) of $41,191, for total disruption damages due to Intercounty of $405,671.00. 408 Specifications § 110.03(d)(4) and (7). See e.g., Spang & Co. v. U.S. Steel Corp., 545 A.2d 861, 866-67 (Pa. 1988); A.G. Cullen, 898 A.2d at 1161; C. Ernst, Inc. v. Koppers Co., Inc., 626 F.2d 324 (3rd Cir. 1980).

65. Sections 203.1, 203.3(j), 205.3(a), 205.4(a) and 206.4(a) of the 408 Specifications provide that the payment rate allotted in the Contract for Class 1 Excavation includes the building of embankments and no extra payment will be made for hauling material, wasting material, or purchasing borrow material for replacement. 408 Specifications §§ 203.1, 203.3(j), 205.3(a), 206.4(a).

66. Pursuant to the Contract and Project plans, Intercounty was required to build embankments along the roadway in Sections One and Two and then excavate hillside in Section Three in order to straighten and widen the roadway. Exs. P-8, P-59.

67. Under the original Construction Sequence, Intercounty was to start work in Section One, move to Section Two and finish with Section Three. Additionally, it was only permitted to work in one section of the roadway at a time and was required to finish that section before moving to the next section. Ex. P-8, P-59.

68. Because we have found that the reversal of the Construction Sequence did not cause Intercounty to incur extra costs for rehandling stockpiled excavation material but actually allowed it to avoid substantial costs it would have incurred under the original sequencing (for purchasing and importing fill to construct the embankments in Sections One and Two and the further costs for disposal of the extra material excavated from the hillside in Section Three required under the provisions of the Contract and the 408 Specifications), we find Intercounty is not entitled to recover any further payment for its rehandling claim and that PennDOT has no liability to Intercounty for these costs. Exs. P-8, P-2A; 408 Specifications §§ 203.1, 203.3(j), 205.3(a), 206.4(a).

69. Pursuant to Sections 210.3 and 210.4 of the 408 Specifications, Intercounty was required to excavate and replace unstable material encountered in the subgrade as needed to attain required stability of the subgrade. 408 Specifications §§ 210.3 and 210.4.

70. Pursuant to Section 203 of the 408 Specifications, removal and replacement of such unsuitable material causing instability in the subgrade, as directed by PennDOT, was within the definition of Class 1 Excavation in Section 203 of the 408 Specifications. 408 Specifications § 203.

71. Because the Contract (including the 408 Specifications) contained no warranty that unsuitable material would not be encountered in the subgrade, and no representations regarding the quantity of unsuitable material it would be required to excavate and replace due to instability in this subgrade, but, in fact, contemplated the possibility of such work and provided for a unit method of payment for same based on the classification of such excavation; and because Intercounty failed to establish the extent of the unsuitable material encountered on the Project was so excessive in volume or so unusual in nature as to constitute a differing site condition; Intercounty is not entitled to recover additional compensation for this work over and above the specified bid rate on grounds that this work or the amount of undercut constituted an undisclosed or differing site condition pursuant to Section 110.02 of the 408 Specifications. Ex. P-8; 408 Specifications §§ 110.02, 203, 210.3, 210.4; Angelo Iafrate Construction Co., Inc. v. Pennsylvania Tpk. Commission, No. 3654, 2006 WL 2585020 at *50-52 (Pa. Bd. Claims, July 27, 2006).

72. Class 1 Excavation is defined by Section 203.1(a) of the 408 Specifications as, inter alia, "[e}xcavation, as indicated or directed, for the removal of unsuitable material having a bottom width of 2.5 m (8 feet) or more." 408 Specifications § 203.1(a).

73. The bulk of the excavation of unsuitable material in the subgrade on the Project (i.e. the "undercut") was Class 1 Excavation and was properly paid for by PennDOT at the bid rate of $9 per cubic yard. Ex. P-5, P-8; 408 Specifications § 203.

74. However, because 470 cubic yards of the "undercut" had a bottom width of less than 8 feet, it is most appropriately defined as Class 1A Excavation under Section 203.1(b) of the 408 Specifications and constitutes "extra work" that is defined by Section 110.03(c) of the 408 Specifications as "work having no quantity and/or price included in the contract, which is determined by the District Engineer to be necessary and desirable to complete the Project." Ex. P-8; 408 Specifications §§ 110.03(c), 203.1(b).

75. Because Intercounty adequately established that its actual cost for undercuts of less than 8 feet bottom width was fairly estimated at $34 per cubic yard, and because Intercounty has already been paid $4,230 for this work, Intercounty is entitled to be paid an additional $11,750 for the undercutting performed on the Project. 408 Specifications §§ 110.03(c), 203.1(b).

76. With appropriate markup, PennDOT is liable for $13,571.25 as a further payment to Intercounty for undercut work outside the Class 1 Excavation category performed on the Project. Ex. P-5, P-8; 408 Specifications §§ 110.03(c), 203.

77. Although Intercounty makes a claim for additional disruption damages for the undercut due to the extra movement of men and equipment up and down the roadway because the Project had to be worked in a non-linear sequence, we cannot estimate the additional cost of this undercutting work with any reasonable degree of certainty because Intercounty has failed to provide us with a calculation, methodology or evidence from which to calculate this particular loss of productivity. Spang & Co. v. U.S. Steel Corp., 545 A.2d at 866-867; Angelo Iafrate Construction Co., Inc. v. Pennsylvania Tpk. Commission, No. 3654, 2006 WL 2585020 at *59-63 (Pa. Bd. Claims, July 27, 2006).

78. Intercounty is not awarded any separate amount for its claim for disruption damages caused by its performance of the undercut. Spang & Co. v. U.S. Steel Corp., 545 A.2d at 866-867; Angelo Iafrate Construction Co., Inc. v. Pennsylvania Tpk. Commission, No. 3654, 2006 WL 2585020 at *59-63 (Pa. Bd. Claims, July 27, 2006).

79. The Contract provided for a Bituminous Pavement Ride Quality Incentive payment in Item 0404-001 of $16,200 that Intercounty would be paid if the final road surface met certain conditions of smoothness. Ex. P-8; Ex. D-19.

80. The conditions of smoothness that Intercounty had to meet to receive the Item 0404-001 payment are contained in Section 404, Change No. 2 of the 408 Specifications. 408 Specifications, Change No. 2 § 404 incorporated into Change No. 4.

81. Under Section 404, Change No. 2 of the 408 Specifications, if the conditions of road smoothness are measured by a prescribed method and the prescribed standards for smoothness are met, Intercounty qualifies for a bonus; but if they are not met, Intercounty is subject to a penalty. Id.

82. The 408 Specifications provide that the roadway must be tested for smoothness using a prescribed method in order to qualify for the Bituminous Pavement Ride Quality Incentive provided in the Contract. Id.

83. Because neither party requested testing but instead agreed to waive same, and no testing of the roadway was performed as required by Section 404, Change No. 2 of the 408 Specifications, the conditions for payment of the Bituminous Pavement Ride Quality Incentive were not met. Intercounty is not entitled to any payment and is also not liable for any penalty pursuant to the Project's ride quality incentive provision. Id.

84. PennDOT is liable to Intercounty for $171,640.81 in total delay-related damages for the Project. Conclusions of Law ¶¶ 50-62.

85. PennDOT is liable to Intercounty for $405,671.00 in disruption-related damages for the Project. Conclusions of Law ¶¶ 50-53, 63-64.

86. PennDOT is liable to Intercounty for $13,571.25 for the additional cost of undercutting done as Class 1A Excavation. Conclusions of Law ¶¶ 50-53, 74-76.

87. PennDOT is liable to Intercounty for total damages in the amount of $590,883.06.

88. The Board's authority to award penalty and/or attorney fees in a contract claim derives from the Procurement Code, Part I, Chapter 39, Subchapter D (§§ 3931-3939). These provisions provide that a party may recover penalty and/or attorney fees in any action "to recover any payment under this subchapter" if it shows that PennDOT "acted in bad faith" in withholding such payment. 62 Pa.C.S. §§ 3931-3939.

89. Although these provisions apply to any payment, be it progress or final payment, sought to be recovered under Subchapter D of Chapter 39, the right to such payment must generate from a contract covered by Subchapter D of Chapter 39 of the Procurement Code in order for Section 3935 (the provision authorizing penalty and attorney fees) to apply. 62 Pa.C.S. §§ 3901(a), 3931(a), 3932, 3935; Pittsburgh Building Co., 920 A.2d at 991 fn. 14.

90. However, Section 3902 of the Procurement Code provides that the definition of "contract" as used in Chapter 39 (including Subchapter D thereof) is defined to include a "contract exceeding $50,000 for construction as defined in Section 103 [of the Procurement Code] . . . but excluding Department of Transportation contracts under Section 301(c)(1) [of the Procurement Code]." It further defines the term "contractor" as used in Chapter 39 (including Subchapter D) to be a person who enters into a "contract" with a government agency. 62 Pa.C.S. § 3902.

91. The Procurement Code at § 301(c)(1) identifies the PennDOT contracts referred to in 3902 as contracts for "bridge, highway, dam, airport (except vertical construction), railroad or other heavy or specialized construction. . . ." 62 Pa.C.S. § 301(c)(1).

92. Accordingly, by virtue of the definition of "contract" and "contractor" utilized in Chapter 39 (including Subchapter D) we find that Subchapter D, including Section 3935, which authorizes the Board to award attorney fees and penalty for certain contract claims, does not apply to the instant case which is a claim made against PennDOT regarding highway construction. Accordingly, Intercounty's claim for an award of attorney fees and/or penalties in the instant case must be denied. 62 Pa.C.S. §§ 301(c)(1), 3902, 3935.

93. Because the Board does not find either party's conduct in presenting their respective cases to the Board rises to a level of misconduct nor other factors which would cause us to award costs (other than attorney fees) pursuant to our statutory authority, we decline to do so. 62 Pa.C.S. § 1725(e)(1).

94. Pre-judgment interest is awarded as a matter of right to the prevailing party in an action to recover upon a contract. See e.g. Widmer Engineering Inc. v. Dafalia, 837 A.2d 459, 469 (Pa. Super. 2003); Pittsburgh Construction Co. v. Griffith, 834 A.2d 572, 590 (Pa. Super. 2003).

95. Pre-judgment interest is payable at the statutory rate for judgments (6% per annum) beginning on the date that Intercounty presented its claim to PennDOT and running through the date of this Opinion and Order. 41 P.S. Sec. 202 (legal rate of interest); 62 Pa.C.S. Sec. 1751.

96. No evidence of the date of Intercounty's filing of its claim with the contracting officer was presented at the hearing. Accordingly, we find it most appropriate to use July 12, 2004, the date of claim denial as the date in evidence most closely establishing a filing date with the contracting officer to compute pre-judgment interest. See Bryan Mechanical, Inc. v. DGS, Docket No. 3699 at p. 38 (Pa. Bd. Claims, July 27, 2006) aff'd in unreported opinion, Nos. 2155 and 2159 C.D. 2007, slip. op. p. 17 (Pa. Cmwlth. May 22, 2008).

97. The 6% per annum statutory rate of interest is appropriately applied from July 12, 2004, to the date of this Order, April 23, 2009, as pre-judgment interest to the total damages of $590,883.06. This totals $169,406.17.

98. PennDOT is liable to Intercounty for a total judgment, including pre-judgment interest of $760,289.23.

99. PennDOT is liable for post-judgment interest on the total outstanding judgment at the statutory rate for judgments (6% per annum), calculated in the manner described for pre-judgment interest, beginning on the date of the attached Opinion and Order and continuing until the date the judgment is paid in full. 62 Pa.C.S. Sec. 1751; 41 P.S. Sec. 202.

OPINION

Plaintiff, Intercounty Paving Associates, LLC ("Intercounty"), a highway construction contractor, brings this claim against defendant, Department of Transportation ("PennDOT") for delay, loss-of-productivity and other damages it claims to have sustained during the reconstruction of approximately three and one-half miles of Route 2001 located in Pike County, Delaware-Dingham Townships, Pennsylvania (the "SR 2001 Project" or "Project"). Intercounty performed this work pursuant to Contract No. 044077 ("Contract"), executed by PennDOT on June 5, 2001, for a bid value of $4,523,385.82. It seeks total damages in the amount of $1,415,507.11 plus interest and attorney's fees for PennDOT's alleged acts and omissions in breach of the Project's Contract. These alleged acts and omissions in breach of contract include PennDOT's failure to properly plan, schedule and coordinate the relocation of the utility poles on the Project; the existence of certain design flaws in the Project plans; and PennDOT's unilateral modification to the prescribed construction sequence and insistence that work proceed despite the failure to timely relocate the utility poles on the Project.

PennDOT, for its part, does not appear to contest the fact that the extensive delay in relocating the utility poles both delayed and interfered with Intercounty's work on the Project. However, PennDOT points to various provisions in the Contract which it asserts relieve it from any responsibility for the lack of adequate planning and coordination of utility pole relocation apparent on this Project. PennDOT also contests the validity of various aspects of Intercounty's damages calculation.

I. PROJECT BACKGROUND

SR 2001 is a two lane road (one lane in each direction) which runs through mildly hilly terrain with several twists and turns in Pike County, Pennsylvania (PennDOT District 4-0). The

Project involved improving 3.625 miles of the SR 2001 roadway between Station 721+00 and Station 917+00. The work included straightening and aligning the existing roadway and widening it from an overall width of approximately 17 feet to a width of approximately 40 feet (two 11 foot travel lanes with 9 foot shoulders outside each lane).[4] To accomplish this, PennDOT included an unusually detailed construction activities plan in the bid and Contract documents that was to be used by the contractor to price and perform the work. This plan, referred to as the Construction Sequence, divided the roadway into three sections and required that the contractor work in only one section at a time. It further specified the work sequence in each section by phases and steps. (Ex. P-2A).

The Construction Sequence was included in the Contract as a result of concerns regarding soil erosion by the Pike County Conservation District ("Conservation District").[5] The Conservation District required PennDOT to submit an Erosion and Sediment Pollution Control Plan ("E and S Plan")(Ex. P-59) which minimized the risk of erosion by dividing the SR 2001 roadway work into three sections and allowing the contractor to excavate in only one section at a time. The Conservation District approved the E and S Plan on this basis, which thereafter could not be materially altered without Conservation District approval. PennDOT's planners included the E and S Plan in the Project's final plans and drawings and also incorporated its detailed construction progression verbatim into the Contract documents, renaming it the Construction Sequence.

[4] The Contract described the widening as 30 feet. The plans and drawings actually called for a total road construction of 40 feet in width including 9 foot shoulders on each side. We believe the roadway was reconstructed as per the plans and drawings.

[5] In 1999 and 2000, in the early stages of the Project's planning, PennDOT was required to present and get approval of its road construction plan from the local Conservation District. The Conservation District was apparently concerned about soil erosion along the embankments if PennDOT dug up the full three and five-eighths miles of roadway all at once so required segmentation and strict sequencing of the roadway work.

In addition to dividing work on the Project into three "sections" and limiting work to one section at a time (proceeding in order from Section 1 through Section 3), the Construction Sequence also expressly prescribed the phases in which each section would be built and the steps to be performed in each phase. Specifically, Phase 1 in each section was to widen the right (east) side of the roadway, expanding the right side and shoulder into a temporary two-lane road. This Phase 1 work was comprised of Steps 1 through 5 on the Construction Sequence, which included: clearing and grubbing the right side of the section; installing silt barrier fencing as needed; installing inlets, piping and sediment control devices; constructing the temporary travel lanes by excavating, placing rock, course aggregate, sub-base and bituminous concrete base course ("B.C.B.C."); and ending Phase 1 by diverting traffic onto this "right side widening." [6]

Once traffic was diverted onto this new right side widening, Phase 2, permanent reconstruction of the left (west) side of the section began. In Phase 2, the contractor was to follow Steps 6 through 11 which (except for being permanent and on the left side) repeated the same work as in Steps 1 through 5 (i.e. clearing and grubbing; installing silt barrier fencing; installing inlets, piping and sediment control devices; constructing the new roadway up to the B.C.B.C. course; and ending Phase 2 by diverting traffic back on to this left side).

Once the contractor redirected the traffic back onto the left side, Phase 3 began. This involved making the right side's improvements permanent by removing the B.C.B.C. from the temporary right side widening, reconstructing the right side (including more excavation, sub-base and new B.C.B.C.), permanently seeding the right side cut and fill slopes, adjusting temporary traffic markings and ending Phase 3 by moving traffic onto the full width of the roadway in the section.

[6] Initial construction of the right side and right shoulder of the roadway was a critical first step because, once that was finished, the two lanes of traffic could flow freely while the contractor worked on permanent renovation of the left (west) side of the roadway.

After completing construction Phases 1-3 in Section One (Sta. 721 + 00 to Sta. 787 + 97.75), the contractor could then move its personnel and equipment to Section Two (Sta. 787 + 97.75 to Sta. 856 + 64.00) and complete the same three phases. Thereafter it would move to Section Three (Sta. 856 +64.00 to Sta. 917 +00) and repeat the same three phases of work. Once the contractor had widened and rebuilt Sections One, Two and Three, it was to complete a final Phase 4 of work, which was to continuously pave the entire roadway within the Project limits by applying the bituminous binder and wearing courses to complete the roadway surface; rebuilding inlet tops, installing permanent traffic markings; installing guide rail; and completing final grading work of shoulders and other finish work.

Because of this detailed Construction Sequence provided by PennDOT, the Contract time frames in which this work was to be accomplished, and the need to keep the road open to traffic while Intercounty performed the work, it was critical that the telephone and electric utility poles lining both sides of the roadway be relocated within the PennDOT rights-of-way either before Intercounty commenced the Construction Sequence or, at very least, that these utility poles be relocated in a time and manner so as not to interfere with Intercounty's work as mandated by PennDOT's Construction Sequence. Since the Contract here required the successful bidder to do the initial survey and elevation work to establish the limits of the new PennDOT rights-of-way before relocation of the poles, this precluded relocation before the contractor started work on site, and thus required precise and careful planning to coordinate efforts with the utility companies on this Project. Unfortunately, this did not occur. It is this problem, along with PennDOT's acts and omissions with regard thereto, as alleged by Intercounty, that becomes the primary issue in this case.

II. UTILITY POLE RELOCATION ISSUES

Pre-Contract Activity

As with all significant construction projects, PennDOT road rehabilitation and widening projects are typically preceded by extensive design work and planning well before any actual construction work begins. In fact, much of the necessary design and planning, including plan approvals and permitting, occurs before the project is put out for bid or any contracts are awarded. One of these critical pre-construction activities on a roadway reconstruction/widening project, such as the one here at issue, is to plan for utility pole relocation, as needed, to build the project on time and as designed. To accomplish this, PennDOT has created within its Bureau of Design a Utility Relocation Unit. This Unit operates on a more local level through district Utilities Relocation Administrators. The district utility relocation units are comprised of one or more PennDOT employees whose job is to plan ahead and make appropriate arrangements with utility companies about moving their poles and facilities so that road construction projects can be completed on time.

In the present case, three utility companies (also referred to herein as the "Utilities") had poles and wires in the construction area of the SR 2001 Project. During the approximate two year period before actual work on the Project site began, the Utility Relocation Administrator for District 4-0 sent each local utility company a preliminary set of PennDOT's plans and drawings for the Project identifying which utility facilities would have to be relocated. In return, PennDOT received from each utility company a list of new poles to replace those needed to be moved, along with work time estimates to relocate these poles. In approximately November/December 1999, the telephone utility, G.T.E. of Pennsylvania ("G.T.E."), notified PennDOT it would need sixty days to relocate its wires and poles for the Project. The electric

utility, GPU Energy ("GPU") informed PennDOT it would need eighty-one days to relocate its poles and wires along the roadway. A third utility, Blue Ridge Communications (the TV cable company), had its cables strung on the G.T.E. and GPU poles along the roadway. Blue Ridge told PennDOT it required sixty days to reattach its cable lines on the relocated G.T.E. and GPU poles.

As a result of this initial communication with the Utilities early in the Project's planning and design phase, Joseph Pilosi, PennDOT's District 4-0 Utilities Relocation Administrator in charge of utilities coordination on the Project, caused PennDOT to issue permits to the Utilities to relocate their poles. These permits specifically named each new pole and indicated future location.[7] Mr. Pilosi also drafted a special provision for the Contract, entitled, "Utilities" which described to the bidding contractors the time period each utility would occupy the Project site to relocate the utility poles. (Exs. P-2B, P-3, P-4). As noted above, this section indicated the pole relocation was to be performed in a "coordinated" manner, commencing after the successful bidding contractor did initial survey and elevation markings; proceeding thereafter with the roadway contractor's early stages of work; and taking approximately 81 days for the utility company requiring the longest time frame to complete its pole relocation (GPU).

However, from these early communications between PennDOT and the Utilities in late December 1999/early January 2000, until PennDOT notified the Utilities by letter of May 23, 2001 that Intercounty had been awarded the Contract, the evidentiary record is devoid of any interim communication between PennDOT and the Utilities respecting this Project. It is this period prior to the award of the Contract to which Intercounty first points in asserting PennDOT's initial failure to properly plan, schedule and coordinate the utility pole relocation for

[7] See Exs. P-2B, P-3 and P-4. As was the case here, PennDOT provides utilities with the ability to use PennDOT's right-of-way to place utility poles and has the accompanying right to require the utilities to relocate these poles as it directs. N.T. 57-58, 86; 36 P.S. § 670-411, 67 Pa. Code § 459.1 et seq.

the Project. Specifically, Intercounty asserts that during this one and a half year interim period, PennDOT did not convey to the Utilities the Construction Sequence which had subsequently been developed by PennDOT (and which Intercounty and the Utilities were required to follow in constructing the Project). Intercounty also asserts that PennDOT failed to properly coordinate with the Utilities in this pre-Contract design phase by failing to provide adequate space in its right-of-way for guy wires associated with certain of the relocated utility poles. Additionally, Intercounty questions whether Mr. Pilosi ever communicated to the Utilities an anticipated start date for the Project sufficiently in advance of the June 4, 2001 pre-construction meeting and June 11, 2001 pre-job meeting so that the pole relocation work needed for the Project could be properly queued in each utility company's work schedule to help assure timely relocation.[8]

Although PennDOT itself, or at least Mr. Pilosi, as District 4-0 Utility Relocation Administrator, acknowledges that PennDOT had some utility coordination responsibilities prior to the awarding of the Project Contract to Intercounty, PennDOT maintains that it adequately performed these responsibilities. Specifically, Mr. Pilosi recites his role in providing the preliminary plans and drawings for the Project to the Utilities; receiving their input identifying the new poles to replace those to be moved; the issuance of the permits required to do so; and his drafting of the "Utilities" section of the Contract identifying the time frame and manner in which poles were to be relocated. He then asserts these activities as sufficient to satisfy PennDOT's pre-Contract coordination responsibilities. PennDOT also attempts to defend the guy wire/design problem by asserting that it knew nothing of this issue until it was advised in a

[8] There were two meetings held before commencement of construction on the Project site. The first, referred to in testimony as a "pre-construction meeting" was held at the PennDOT District Office. Other than the notes from this meeting, which indicate that "Mr. Pilosi reviewed the public utility involvements on the project," there was no further evidence introduced as to the substance of any conversations at this June 4 meeting respecting utility pole relocation. According to the evidence presented, it was at the second meeting on June 11, 2001, typically referred to in testimony as the "pre-job meeting" held near the work site, that utility pole relocation arrangements were discussed at length in a substantive way. (N.T. 86-89, 295-296; Ex. P-11).

January 2002 meeting that GPU was having trouble with a local landowner acquiring permission to anchor its guy wires on this individual's property.

Based on the evidence as a whole, the Board finds that PennDOT failed to adequately perform its pre-Contract utilities coordination responsibilities. To begin with, we note our agreement with Intercounty's general proposition that the "coordinated" approach to relocating the utility poles on this Project called for careful and effective planning and design on PennDOT's part prior to the Contract being awarded. We further agree that PennDOT's failure to convey to the Utilities the detailed Construction Sequence by which the Project was to be built prevented the Utilities from developing a cogent work plan and schedule for relocating the utility poles to coincide with Intercounty's scheduled work prior to the pre-job conference held immediately before the commencement of work.[9] Additionally, we find that the failure of PennDOT's design team to identify on the Project's final plans and drawings which poles were to be relocated and the locations of the new poles to be installed further hindered the Utilities' planning; exemplified the lack of sufficient coordination in this early phase; and contributed to the pole relocation problems experienced on site during the construction phase. Most significantly, however, we find that PennDOT's failure to provide final plans and drawings affording adequate space for guy wires within PennDOT's right-of-way for all the new poles was a material defect in its design, responsible for substantial delay in utility pole relocation.[10]

[9] Mr. Pilosi admits he did not send the Construction Sequence to the Utilities to provide them advance notice of the upcoming Project work plan. Since the Construction Sequence was set forth in the final plans and drawings for the Project, it is apparent that he also failed to provide to the Utilities with the Project's final plans and drawings in advance of the job meetings. The evidence presented (including Mr. Pilosi's testimony) is less clear on whether he ever told the Utilities when the Project was expected to start prior to the May 23, 2001 contract award letter so the relocation work would be put in the Utilities' work queue in a reasonably timely manner.

[10] Even though the guy wire problem pertains to only a few poles, we note that the inability to properly place even a few new poles among those to be relocated (while not preventing installation of all new poles) would nonetheless preclude moving/restringing the utility lines themselves and, therefore, would delay removal of the old poles (which were the actual physical impediment to Intercounty's excavation and paving work) until the guy wire problems and new pole placements were finally resolved.

Moreover, we find PennDOT's defense to this aspect of the complaint (i.e. that it was unaware of this problem until January 2002 and/or that it was the Utilities' fault for not identifying the need for guy wires in its initial response to Mr. Pilosi) to be without merit. PennDOT had the ultimate authority to approve the pole relocations submitted by the Utilities. It did so and then provided Intercounty with plans that did not allow sufficient space for such pole relocations, and construction of the road as designed. By doing so, PennDOT failed to adequately coordinate the utility pole relocations into its design for the roadway in this pre-Contract phase and failed to provide Intercounty with plans and drawings adequate to complete the Project.

Finally, we note our agreement with Intercounty that PennDOT was also required to give each affected utility company advance notice of the Project's estimated start date as soon as reasonably possible so each utility company could (at least tentatively) place the Project in its work queue sufficiently in advance so as not to delay pole relocation. However, we are unable to find that Intercounty has carried its burden of proof to establish that PennDOT failed to do so. Specifically, the lack of evidence that Mr. Pilosi gave the Utilities sufficient advance notice of the Project prior to the pre-construction job conference does not establish by a preponderance that he failed to do so. Similarly, the failure to provide the specific Construction Sequence and final plans/drawings in advance of these meetings does not establish that PennDOT failed to at least advise the Utilities reasonably in advance of the anticipated Project start date. Accordingly, while we have some doubt that PennDOT provided sufficient advance notice to the Utilities, we are unable to find this as a matter of fact based on the evidence provided and this does not enter into our decision.

Despite Intercounty's failure to carry its burden of proof on this last issue, Intercounty has established that PennDOT failed to adequately coordinate utility pole relocation for the Project in

the pre-Contract period. Specifically, PennDOT's failure to provide the Utilities with the Construction Sequence and the final plans and drawings for the Project until immediately before the start of work; PennDOT's failure to indicate poles to be moved and the position of the new poles on its plans and drawings; and, most importantly, its failure to provide adequate space for guy wires on certain relocated poles in its roadway design, together, constituted a failure to properly coordinate utility pole relocation for the Project in the pre-Contract period and failure to provide Intercounty with plans and drawings adequate to build the Project. These acts and omissions actively interfered with Intercounty's work and exhibit a failure on PennDOT's part to act in an essential matter necessary to the prosecution of the Project.[11]

Post-Contract Activity

In April 2001, PennDOT issued its invitation to bid on the Project. Bids were received and opened on April 19, 2001. On June 5, 2001 PennDOT became the last party to execute the Contract with Intercounty to perform the work on the Project. On June 11, 2001, PennDOT held a pre-job meeting near the site attended by representatives from GPU, G.T.E, Blue Ridge (collectively, the "Utilities") PennDOT, Intercounty, and the Pike County Conservation District. Mr. Pilosi had arranged for the Utilities to be present.

During the June 11 pre-job meeting, the Utilities indicated that PennDOT had never given them the Contract's Construction Sequence. As a result, the Utilities had not had any opportunity to see or consider the Construction Sequence prior to June 11, 2001 for planning their work schedules for the Project. In fact, the Utilities had come to this pre-job meeting unaware of the necessity of starting in Section One and performing their work in discrete sections and phases and at different periods of time as the Project progressed, and stated they

[11] As will become evident later, the Utilities, albeit late, did eventually relocate their poles in Section Three by late October 2001, but then left the Project and did not return until late March 2002, only after resolution of the guy wire design problem and relocation of the roadway in March 2002.

were unprepared to do so. The Utilities told PennDOT at this June 11, 2001 meeting that they could not start moving poles as required by the Contract's Construction Sequence.

After some further discussion at this pre-job meeting, the Utilities requested that the order of the Construction Sequence be reversed and that Intercounty start its work in Section Three, then proceed to Section Two, then Section One. The reason given for this sequence flip was that there were fewer poles to be moved in Section Three and the change would allow the Utilities a "better chance" of staying ahead of Intercounty on the Project. With this change the Utilities then agreed to begin work on pole relocation in Section Three upon completion of the necessary surveying and staking work by Intercounty. Prior to this meeting, Intercounty did not know about PennDOT's failure to give the Utilities the Construction Sequence.

It was also at this meeting that Intercounty inquired about how utility relocation arrangements and coordination issues would be handled going forward. PennDOT responded that coordination with the Utilities would all be handled by "Joe Pilosi and the state." (N.T. 141). Mr. Nansteel, Intercounty's construction superintendent, understood from this response that following the pre-job meeting he was to address any future issues or concerns with utility pole relocation to Sam Sebastianelli (PennDOT's lead inspector and primary PennDOT contact person on the Project day-to-day) and/or Mr. Pilosi. [12] Thereafter, as work proceeded on the Project and problems with the utility pole relocation escalated, Mr. Nansteel and Intercounty did as they were instructed and sought PennDOT's assistance through Mr. Sebastianelli and

[12] Mr. Pilosi testified he did not recall telling Mr. Nansteel that all further coordination and contact with the Utilities would be through him, but he also did not deny saying it. (N.T. 121). Mr. Pilosi's version of the conversation is that Mr. Nansteel asked him if he "was willing to be the contact person for the utilities" and "if [Nansteel] had a problem, could [Pilosi] contact the utilities and make any suggestions or get any information that they needed and relay that back to [Sam Sebastianelli, the PennDOT project inspector on the job]" and that he [Pilosi] agreed to this. Mr. Pilosi also stated that he told Mr. Nansteel that he would "... help out to make the utilities respond quicker and do anything I could to move this project along." (N.T. 121). The Board does not find a direct conflict between the testimony of Mr. Nansteel and Mr. Pilosi, but to the extent their recollections differ, the Board found Mr. Nansteel's version of the conversation more credible.

Mr. Pilosi to address these problems. Neither Mr. Sebastianelli, Mr. Pilosi nor anyone else from PennDOT ever responded to these requests for assistance by telling Intercounty personnel that they should be contacting the Utilities directly about pole relocation arrangements or problems during the Project.

On June 18, 2001 (one week after the pre-job meeting), PennDOT issued its Notice to Proceed. The contract completion date was therefore scheduled to be November 6, 2002.

True to its word, Intercounty adapted its work plan to the flipped sequence and started work in Section Three promptly by doing the surveying and staking work necessary for the pole relocations to commence. Intercounty completed the right-of-way stakeout work in Section Three by July 1, 2001 (slightly more than two weeks from the pre-job meeting). Intercounty then immediately proceeded to do the same surveying and staking work in Section Two and in Section One, completing both of those sections by August 1, 2001. This provided the opportunity to relocate poles through all three sections of the Project without stopping from August 1, 2001 onward.

Intercounty reasonably expected pole relocation to begin on or about July 2, 2001 after surveying and staking were completed in Section Three, and to continue relatively uninterrupted through Section Two and Section One, taking approximately one month in each section and concluding in early October 2001 based on the bid documents (including Construction Sequence and "Utilities" section of the Contract). However, the actual pole relocation was vastly different. Specifically, actual pole relocation did not begin on site until August 21, 2001 (seven weeks late) and did not complete in Section Three until October 14, 2001 (several days after <u>all</u> pole relocations for the Project were expected to be complete). At this point, the Utilities left the site and did not return to proceed with utility pole relocation until late March of 2002, a hiatus of

approximately five months. Actual pole relocation in Section Two and Section One eventually occurred from on or about March 25, 2002 to July 25, 2002. Complete utility pole relocation, in addition to progressing in fits and starts not at all close to the coordinated work set forth in the Construction Sequence and "Utilities" section of the Contract, did not conclude until nearly 300 days later than reasonably anticipated by Intercounty.

This exceedingly long delay in pole relocation, together with the start and stop progress of same, in turn, clearly delayed and disrupted Intercounty's work throughout the length of the Project and was the cause of the Project ultimately being completed 223 days late. Specifically, the late start and slow progress of the utility pole relocation initially hindered Intercounty's progress on the Project by causing it to run out of planned work while it performed less productive tasks and waited for poles to be moved. This was particularly evident in the Fall of 2001, as Intercounty's work was then confined to Section Three by the Construction Sequence and the E & S Plan. This initial problem then became worse in November 2001. Following the Utilities' departure from the job site and an oral request by Intercounty to demobilize in late October 2001 due to the pole relocation delay, which request was flatly rejected, Mr. Sebastianelli, in early November 2001, notified Intercounty that he would hold weekly "partnering meetings." At these "partnering meetings" Mr. Sebastianelli changed the scheduled work plan in order to insure that Intercounty could keep working around the obstructing poles. At these meetings, which continued throughout the remainder of the Project, Mr. Sebastianelli cast aside the Construction Sequence and each week created an ad hoc list of tasks for Intercounty to perform. These new work lists were called either "Schedule of Operations" or "Weekly Schedule", and from November 2001 through the end of the Project they replaced the original Construction Sequence and dictated where and in what order Intercounty had to perform

its Contract work. (Exs. P-20, P-21, P-25, P-31, P-36, P-40, P-41, P-42, P-44, P-46, P-50). PennDOT's wholesale abandonment of the linear Construction Sequence originally anticipated by Intercounty was further expanded in early 2002 when PennDOT was able to persuade the Pike County Conservation District to approve a revised E & S Plan that would allow Intercounty to work in more than one section at a time.

PennDOT's decision to abandon the Construction Schedule and jockey Intercounty's work locations around the Project site on a weekly basis, in lieu of demobilizing until the utility poles could be moved, forced Intercounty to work in an inefficient and disrupted manner throughout the end of 2001 and all of 2002 to try to meet the November 2002 Contract completion date. This disruption to its work became pervasive: causing Intercounty to move trucks and equipment in and around the existing poles, wires and utility equipment in prosecuting its work (including its cut and fill, grading, trenching, piping and sub-base operations) during all phases of road widening and reconstruction; requiring Intercounty to take steps to avoid interfering with the utility's work crews when they did appear on the job; and requiring Intercounty to work and pave around utility poles when it was able to prosecute its work. Moreover, it had to do this work, as dictated by PennDOT, in multiple sections and on multiple phases simultaneously throughout 2002 in a more spread out manner then reasonably anticipated. From March 2002 to October 2002, Intercounty regularly had its crews working in either two or three sections at once, instead of in the more compact and linear progression dictated by the bid documents. For instance, in June 2002, Intercounty was strung out along the entire roadway, working in all three sections and using extra flagmen to divert traffic back and forth across the road while its crews and equipment excavated and paved around existing poles

even though the as-planned sequence showed Intercounty working only in Section One doing Phase 2 work (permanent left-side reconstruction).[13]

As a result of this ongoing delay and disruption, and PennDOT's insistence that Intercounty continue to work around same in an inefficient manner, Intercounty was prevented from finishing the Project by the November 6, 2002 Contract completion date. In fact, by the end of November 2002, the weather had become too cold for paving, and PennDOT suspended work on the Project from December 2002 to April 2003. The Project was finally completed on June 17, 2003. By this time, Intercounty had been delayed 223 days and had its work disrupted throughout the Project as a result of the utility pole relocation problems.

Although various reasons have been suggested and/or hypothesized as the cause of this long delay in completion of the utility pole relocation and, hence, the source of the delay and disruption on the Project, the totality of evidence presented establishes that the poor initial planning efforts by PennDOT in the Pre-Contract design phase (discussed above), exacerbated by PennDOT's inadequate responses to the problems encountered with pole relocation during construction, were the root causes of this problem. Specifically, we find PennDOT's response to the pole relocation problems during construction (post-Contract) to be inadequate in the following respects: A) PennDOT's exceedingly slow and inadequate response to Intercounty's requests for assistance in expediting utility pole relocation during the first six months of the Project; B) PennDOT's decision to abandon the Construction Sequence it prescribed by Contract in lieu of demobilizing for a period of time in response to the delayed pole relocations; and C)

[13] In June 2002, Intercounty was in Section Three performing Phase 3 work (excavation for permanent right-side reconstruction); in Section Two it was performing Phase 1 work (subbase and BCBC for temporary right-side widening) while the Utilities were there relocating wires and cables; and in Section One it was performing phase 2 work (excavation and subbase for permanent left-side reconstruction).

PennDOT's failure to address the guy wire/design problem from the start of construction (August 2001) until the end of March 2002.

Inadequate Assistance with Pole Relocation

With respect to PennDOT's exceedingly slow and inadequate response to Intercounty's request for help with the pole relocation problems during the first six months of construction, we start with Mr. Pilosi's initial representations at the June 11 pre-job meeting. At this meeting, Mr. Pilosi, as PennDOT's District 4-0 Utilities Administrator, stated that PennDOT and he would coordinate and address utility pole relocation issues going forward. However, his abject failure to do so for the first six months of the Project, despite repeated requests by Intercounty for assistance in expediting this work, was, in our view, a material and contributing cause of the overall delay and disruption to the Project.

To understand the impact of PennDOT's actions/inaction here, we note first that Mr. Sebastianelli, PennDOT's inspector-in-charge for the Project, was on site daily and was well aware of the problems created for Intercounty by the initial seven week starting delay and the slower than expected pace of the pole relocation.[14] He was also aware early on (or should have been aware at least by mid-October 2001 when the Utilities left the job without even starting in Section Two or One) that any further delay in the planned relocation of the poles and wires would so disrupt Intercounty's work schedule (as dictated by PennDOT's Construction Sequence) that unless prompt action to correct this problem was taken, Intercounty's work could not be completed as planned. Mr. Sebastianelli also knew during this early period of the Project, July through December 2001, that <u>all</u> pole relocations for the Project should have been

[14] Mr. Sebastianelli, the PennDOT employee with the most first-hand knowledge about the Project's daily progress and delays, was not called by PennDOT to testify at trial. As a result, the testimony of Mr. Nansteel regarding the Project's progress, the utility pole relocation delay problems and discussions with PennDOT personnel on site stands largely uncontradicted.

completed. Finally, Mr. Sebastianelli was aware that Intercounty repeatedly sought (and was relying upon) help from PennDOT to rectify the delay with utility pole relocation as this was the topic of daily conversations between Mr. Nansteel and Mr. Sebastianelli, and Mr. Sebastianelli repeatedly indicated to Mr. Nansteel that he had contacted Mr. Pilosi for help with the Utilities to expedite the pole relocations. We also note that Intercounty's requests for help eventually took a formal, written form on September 27, 2001, when Mr. Nansteel wrote PennDOT setting forth the construction delay and disruption problems that Intercounty was experiencing because of the delayed pole relocation. (Ex. P-18).

Despite these repeated requests for assistance with expediting the utility pole relocation during the first six months of the Project, and the justifiable belief by Intercounty that Mr. Pilosi was working throughout this time to minimize the relocation delays (resulting from Mr. Pilosi's representations at the June 11 pre-job meeting and Mr. Sebastianelli's ongoing actions perpetuating this belief), the unfortunate fact is that Mr. Pilosi did nothing to expedite the utility pole relocation for the first six months of the Project. By his own testimony, Mr. Pilosi knew that the Utilities had not been given the Construction Sequence before the Project started and that they arrived at the June 11, 2001 pre-job meeting unprepared to agree to the planned work sequence. He was also well aware of the ongoing pole relocation problems from the beginning of July 2001 and of Intercounty's repeated requests to PennDOT for assistance with this problem. Despite this, from the pre-job meeting on June 11, 2001 until January 2002, Mr. Pilosi exerted no effort whatsoever during this time to assert the leverage PennDOT had over the Utilities to gain their cooperation and complete the pole relocations. He did not contact the Utilities to request they expedite their work when they proceeded slower than scheduled nor even to request they

return to the site when they left in mid-October of 2001 without touching Sections Two or One. Instead, he ignored Intercounty's problems for six months.

When questioned at hearing as to why he failed to act during this time, Mr. Pilosi testified, inter alia, that he acted on this job in accord with his general practice. Specifically, he noted that contractors on other jobs would frequently "cry wolf" when they experienced utility delays. Accordingly, when he heard Intercounty's complaints, he deliberately took no action in the early months of the Project.

Mr. Pilosi also testified that he did not take any action to contact the Utilities during the first six months of the Project because he felt it was not his job to call the Utilities after the Project began. He instead insisted, at hearing, that it was Intercounty's responsibility under the Contract to handle the Utilities directly once work began. This position, espoused at hearing by Mr. Pilosi and argued by PennDOT, will be addressed further below. We would note, however, that this position is nonetheless contradicted in fact by Mr. Pilosi's statements at the June 11 pre-job meeting; Mr. Sebastianelli's actions during the Project; and Mr. Pilosi's actions after January 2002 when the pole relocation was already badly delayed. Starting in January 2002, Mr. Pilosi reversed his earlier behavior and became active in calling the Utilities to meetings, urging the Utilities to come to the site, requesting their work schedules and seeking resolution of the ongoing "guy wire problem" on the Project.

Although we can understand why Mr. Pilosi may not have felt the need to act for the first few months of the Project, and would have taken some comfort that the Utilities were at least working on site between late August to mid-October 2001, we find little merit in Mr. Pilosi's rationale that he was justified in ignoring the utility pole relocation problems on this Project for the entire six months because other contractors on other projects often "cry wolf." Moreover, we

can find no excuse for his complete lack of action when the Utilities left the job in mid-October 2001 without moving to Section Two and One as scheduled, particularly in light of the guy wire design problem in Section Two (which was noted to PennDOT in August 2001) and the expectation that all pole relocations for the Project would be done by that time before the Utilities left the site. It is for these reasons that we find Mr. Pilosi's representations at the June 11, 1001 pre-job meeting to the effect that PennDOT and he would handle pole relocation issues going forward; Mr. Sebastianelli's actions during the Project confirming this; and Mr. Pilosi's absolute failure to do so for the entire initial six month period, amounted to a breach of contract by PennDOT and active interference with Intercounty's work, causing both delay and disruption on the Project.

In reaching our conclusion that PennDOT's inaction on pole relocation for the first six months was inadequate and constituted a breach of contract, the Board is mindful that the Contract for this Project contains several provisions designed: A) to require the contractor to notify the utility companies of the need to move pole facilities and to cooperate with the utility companies to accomplish such relocation and B) to exculpate PennDOT from any liability for delay or disruption emanating from problems with utility pole relocation. [15] However, we have found that Intercounty did, as a matter of fact, cooperate with the Utilities to relocate the poles as prescribed by the Contract provisions cited by PennDOT throughout the Project, and contacted the Utilities as required, at least until Intercounty was deterred from further direct communication with the Utilities by PennDOT's affirmative representations. Additionally, while we address the effect of the exculpatory provisions in a subsequent portion of this Opinion in greater detail, we note that because of these representations, as well as the design/coordination

[15] See Contract Paragraph 6 and 408 Specifications Sections 102.05, 105.06(a), 105.06(b), and the "Utilities" section of the Contract's Special Provisions. (Exs. P-8, P-60, P-2B).

errors in the pre-Contract planning stage and PennDOT's further acts of active interference with Intercounty's work (discussed herein) in the post-Contract period, we find the various exculpatory provisions cited by PennDOT to be ineffective.

To the extent that the Contract gave Intercounty duties to "notify" or "contact" the Utilities on pole relocation, the Board finds that Intercounty did so in all material respects until such time as it was deterred from doing so by active misrepresentations on the part of PennDOT. With respect to Intercounty's duty to notify the Utilities of the need to relocate their poles "upon execution of the contract"; its duty to "make all necessary arrangements"; and its obligation to comply with the more specific instruction in the Special Provisions to "contact all utility representatives at least fifteen calendar days prior to starting operations"; Intercounty did just this up to and through the June 11, 2001 pre-job meeting. Even before the Contract was executed by PennDOT on June 5, 2001, Intercounty met with the Utilities and PennDOT, attending the first pre-construction meeting on June 4, 2001. It thereafter met again with the Utilities at the pre-job meeting on June 11, 2001 and accomplished this initial duty to contact and coordinate its work with the Utilities at this June 11 meeting where Intercounty and the Utilities clearly discussed when and where the Utilities would start moving their poles.

To the extent the provisions cited by PennDOT gave Intercounty a duty to "cooperate with" the Utilities on pole relocation, there is no serious dispute that Intercounty cooperated fully with the Utilities in relocating poles throughout the Project. Examples of this commence with Intercounty's willingness to "flip" the Construction Sequence and begin work in Section Three as well as its prompt completion of the surveying and staking work needed by the Utilities to begin pole relocation and its timely response to any clearing and grubbing requests by the Utilities to facilitate their pole work.

To conclude, we find that, in substantial contradiction to the position Mr. Pilosi expressed at the hearing, PennDOT consistently represented to Intercounty that it was PennDOT and Mr. Pilosi who would handle all communications and address all utility pole relocation issues with the Utilities subsequent to the June 11, 2001 pre-job meeting and for the duration of the Project. Mr. Sebastianelli consistently told Intercounty that Mr. Pilosi was aware of the delays and led Intercounty to believe from June 2001 to January 2002 that Mr. Pilosi was taking actions to expedite the Utilities' performance and deal with the delay issues. Thus, during 2001, Intercounty continued to work as Mr. Sebastianelli directed, believing that the utility pole problems were being addressed by PennDOT/Pilosi and that their impact would be minimized. In this way, PennDOT, through a combination of Mr. Pilosi's representations at the June 11 meeting, Mr. Sebastianelli's ongoing assurances, and Mr. Pilosi's inaction, misled Intercounty and actively interfered with Intercounty's work on the Project.

Abandonment of the Construction Sequence

Intercounty bid the Contract based upon the Construction Sequence and planned its work in accordance with its requirements. When Mr. Nansteel approached Mr. Sebastianelli with a request to suspend work in October 2001 because of the utility pole delays, Mr. Sebastianelli responded that PennDOT would not even consider such a suspension. Instead, Mr. Sebastianelli, starting in November 2001 and continuing throughout the length of the Project, decided to abandon the Construction Sequence and substitute weekly work schedules determined by him on an ad hoc basis. PennDOT's insistence that Intercounty alter its work plan and continue to widen the road with utility poles still in the roadway caused Intercounty to work in a less effective and piecemeal fashion, performing multiple phases of work in multiple sections simultaneously instead of in the planned, linear sequence of phases and steps performed in one

section at a time contemplated by the Contract's Construction Sequence. These actions by PennDOT were material changes to the Contract which actively interfered with Intercounty's work and resulted in delay and lost productivity on the Project.

Delayed Response to Design Problem

Although PennDOT's active interference with Intercounty's work by way of: A) its misrepresentation that it would coordinate pole relocation at the start of the Project and its abject failure even to attempt to do so for the first six months of the Project and B) Mr. Sebastianelli's unilateral dictates to Intercounty to abandon the Construction Sequence and work less productively due to the pole relocation problem rather than demobilize, were both material causes of the delay and disruption experienced by Intercounty on the Project, we find that PennDOT's initial design mistake (i.e. its failure to properly coordinate with the Utilities in the pre-Contract design phase and allow enough space in the right-of-way for the guy wires for certain of the utility poles in Section Two) and the nearly seven month delay in resolving this problem were even more significant causes of delay in relocating the utility poles and, in turn, the fundamental cause of delay and disruption to Intercounty's work on the Project. (N.T. 64-68). To begin with, we note that the guy wire problem itself was one of PennDOT's own making. That is to say, even if it was the Utilities' initial failure to identify guy wires for those certain poles at issue, it was PennDOT's ultimate responsibility to authorize and approve the locations of the new poles and to properly situate them within its roadway design to allow the Project to be built as set forth in its plans and damages. (N.T. 58-69). 408 Specifications § 104.01; United States v. Spearin, 248 U.S. 132, 137, 39 S. Ct. 59, 61 (1918); Canuso v. City of Philadelphia, 192 A. 133, 136 (Pa. 1937); A.G. Cullen Construction, 898 A.2d at 1160; Department of Transportation v. W.P. Dickerson & Son, Inc., 400 A.2d 930, 932 (Pa. Cmwlth. 1979); Allentown Supply Corp. v. Stryer, 195 A.2d 274, 279 (Pa.

Super. 1963); Angelo Iafrate Const. Co. v. Pennsylvania Turnpike Commission, No. 3654, 2006 WL 2585020 at *29-30, 41-42 (Pa. Bd. Claims, July 27, 2006); W.P. Dickerson & Son, 400 A.2d at 932; Allentown Supply Corp. v. Stryer, 195 A.2d at 279.

To be specific, the guy wire problem emanated from the fact that these extra supports gave the poles a larger footprint, and PennDOT's design team had not provided sufficient space for relocation of the pole and guy wires within its right-of-way when it issued its relocation permits specifying the location of the new poles and its plans and drawings. When this guy wire problem was discovered in August 2001, at the beginning of work on the Project, the Utilities brought this problem to PennDOT's attention even as they tried to resolve the problem by requesting permission from an adjacent property owner to place the guy wires on his land. When the owner(s) refused unless paid for the encroachment, PennDOT personnel, including Mr. Pilosi, were consulted, and PennDOT decided it could not or would not pay the property owner(s) to place the guy wires on their property. The Utilities could not move their poles because there was no room at the designated location for the supporting guy wires and were delayed while awaiting PennDOT's solution. Ultimately, in March 2002, seven months after initial notice of this problem, PennDOT redesigned the affected areas of the roadway to make room for the guy wires within its right-of-way. This design mistake, and PennDOT's slow resolution of the problem, allowed the obstructing poles to remain in place for over seven months from August 2001 until March 2002.

Although not immediately apparent from initial review of this case, it is this design problem and the slow, drawn out resolution of same during construction which we find to be the most significant factor in delaying the pole relocation and disrupting the Project. That is to say, although the problem with guy wires may have affected and prevented placement of only four or

so poles around Section Two, the inability to place these poles would have prevented the transfer or restringing of the utility wires in the affected section(s). This, in turn, precluded removal of the old poles (the actual physical impediment to the new road work) until final resolution of all the guy wire pole placement problems. Thus, it is no surprise that the Utilities, concerned with minimizing their time on the job and maximizing their pole relocation efforts, left the job site in October 2001 after completion of Section Three, and did not return until March 25, 2002 to resume work in Section Two after the guy wire/design problem in Section Two was finally resolved. Thus, we believe that the seven month delay in resolving the "guy wire issue" had a major, adverse impact on the utility pole relocation efforts on the Project and, was, in turn, the fundamental cause of the 223 day delay and the ongoing disruption to Intercounty's work on the Project.

III. LIABILITY

As set forth above, we have found that Intercounty suffered 223 days of delay and ongoing disruption to its work on the Project because PennDOT hindered its work and actively interfered with its performance of the Contract in the following ways: 1) by failing to act in a manner necessary to prosecution of the work by its failure to adequately coordinate the utility pole relocations into its plan for the roadway in the pre-Contract design phase and its failure to provide Intercounty with plans and drawings adequate to build the Project; (2) by representing to Intercounty that it would coordinate utility pole relocation and address any problems with the Utilities once the work started, when, in fact, it did nothing to address pole relocation problems for the first six months of the Project; (3) by ordering Intercounty to work the Project in a substantially different sequence than set forth in the bid documents causing disruption and inefficiencies rather than suspending work when the utility pole relocation delays meant the

Construction Sequence could not be followed and fully productive work could not be done; and (4) by failing to resolve the guy wire/design problem for seven months, once again failing to act in a matter necessary for the prosecution of work on the Project.

Although PennDOT admits that the relocation of the poles was "a drawn out endeavor" (Ex. P-48), it disagrees that it can be held responsible for the delays and disruptions of Intercounty's work. PennDOT bases much of this defense on exculpatory language in the Contract and Specifications.[16] It asserts that it is not liable for the Utilities' failure to relocate their facilities on time because the Contract provided that it was the contractor's responsibility to arrange for the timely performance of the pole relocations, not PennDOT's. It also asserts that the contractor cannot claim compensation for any delays "regardless of duration or extent" caused by the utility relocations.[17] Intercounty replies that the Contract's exculpatory clauses cannot bar its recovery because PennDOT actively interfered with its work. We agree with Intercounty.

The Pennsylvania Supreme Court first set forth the test for the enforceability of such exculpatory provisions as we see here in Coatesville Contractors & Engineers, Inc. v. Borough of Ridley Park, 506 A.2d 862 (Pa. 1986):

> The rule in Pennsylvania is that exculpatory provisions in a contract cannot be raised as a defense where (1) there is an affirmative or positive interference by the owner with the contractor's work, or (2) there is a failure on the part of the owner to act in some essential matter necessary to the prosecution of the work.

506 A.2d at 865

In Coatesville, the Court found that the contractor was "led to reasonably believe that corrective measures would be taken to have the lake bed drained" and held that the borough/owner actively

[16] Ex. P-8, para. 6 at p. 5; Ex. P-2B; Ex. P-60, Sections 102.05, 105.06(a) and 105.06(b) of the Publication 408 Specification dated 2000 ("408 Specifications") referred to in the Contract for this Project.
[17] Ex. P-60 at p. 105-6.

interfered with the contractor's work when it directed the contractor to commence work even though it had failed to drain the lake. Id. at 867. The Court found that the borough's failure to act interfered with the contractor, and it refused to enforce the contract's exculpatory provisions providing no damages for delay. The borough was held liable for the losses the contractor sustained. Id. at 867

Even before Coatesville, case law had long established the principle that an owner is fundamentally responsible to do that which is reasonably within his ability to provide a contractor with reasonably unobstructed access to the work site. Hence, when a utility's work hinders the contractor and the owner insists that the contractor proceed with its work in an unplanned and inefficient manner, Pennsylvania courts have looked to all the surrounding circumstances and have frequently found the owner liable for delay and disruption damages despite the existence of exculpatory provisions in the contract. See, Gasparini Excavating Co. v. Pennsylvania Turnpike Commission, 187 A.2d 157 (Pa. 1963); Department of Highways v. S.J. Groves & Sons Co., 343 A.2d 72 (Cmwlth. Ct. 1975); Commonwealth v. General Asphalt Paving Co., 405 A.2d 1138 (Cmwlth. Ct. 1979).

In Commonwealth, State Highway & Bridge v. General Asphalt Paving Co., another case involving work site obstruction with significant similarities to the case at hand, the Commonwealth Court, relying on Gasparini and S.J. Groves, found that the project owner failed to act in a matter essential to the prosecution of the work and refused to enforce the exculpatory language in the contract. The contractor had to construct a road in two stages, but a water main below the surface had to be moved before construction could proceed with the second stage. The City of Philadelphia owned the water main. Starting at the pre-construction conference and throughout the project, just as Mr. Pilosi did here, the PennDOT engineer in General Asphalt

Paving undertook to negotiate the movement of the utility (i.e. water main). Even though the contract stated that the contractor had the responsibility to deal with the city to relocate the main, the court found that, by its acts, PennDOT assumed responsibility for the relocation and "relieved" the contractor of any duty to negotiate. The court found PennDOT liable for the three months of delay expense because PennDOT knew of the obstructing water main and did not act more "expeditiously" in negotiating the relocation after "assuming responsibility for the negotiations." As a result, the court found PennDOT "directly interfered" with the contractor "in a way that was not within either party's contemplation at the time the contract was signed." Id. at 141. The exculpatory clauses were found to be no shield to liability or damages. [18]

In fact, the Board finds the circumstances and PennDOT's conduct in the case at hand to be even more egregious than in Coatesville or General Asphalt because, after making his representations at the pre-job meeting regarding utility pole relocation, Mr. Pilosi then did nothing for the next six months to follow through on his promises. Mr. Pilosi's representations that he would handle problems with pole relocation with the Utilities, Mr. Sebastianelli's assurances of same during the many months that Intercounty requested such assistance from PennDOT, and Mr. Pilosi's deliberate decision to do nothing with this problem, particularly from

[18] Other jurisdictions also refuse to enforce exculpatory provisions in similar circumstances. For example, Nello L. Teer Company v. North Carolina Department of Transportation, 2004 WL 5218006 (N.C. Super. 2004) is another case with facts similar to the case at bar. In Teer, the North Carolina Department of Transportation ("Department") drafted a contract for a road widening project that required the contractor to rebuild the road using four set phases of construction. Three utilities needed to relocate their poles before construction could begin in accordance with the construction phases. The Department directed the contractor to begin the project even though the utilities had not relocated any poles and then ordered the contractor to keep working even though it took 18 months for the utilities to complete their work. The Department ignored the contractor's requests for a time extension and insisted the contractor keep working while the Department made continuing revisions to the construction sequence. The court found that the Department had the duty through its own State Utility Agent to make every effort to expedite the pole relocations. It held the Department liable because the contactor was denied access to the work site as contemplated in the contract and had to work pursuant to the changed schedule and not as planned. It found that the contract implied that the site would be accessible to the contractor and the parties did not anticipate that the contractor would have to work with poles in place. The court refused to enforce the contract's exculpatory clauses because the Department denied the contractor unhindered access to the work and found the Department liable for delay and disruption damages.

mid-October 2001 (when the Utilities left the Project without touching Sections Two and One) to January 2002, despite his representations at the June 11 meeting, remains without reasonable explanation.[19]

Applying the case law established by Pennsylvania's courts in Coatesville, General Asphalt and their progeny to the case at bar, the Board finds that the representations of PennDOT personnel that they were working to coordinate and expedite the utility pole relocation from the outset of work on the Project when, in fact, they were not, constituted active interference with Intercounty's work on the Project. See also, Department of General Services v. Pittsburgh Building Co., 920 A.2d 973, 991 (Pa. Cmwlth. 2007) (The Court found that DGS's actions in withholding a memo about adverse soil conditions and directing the contractor to commence work in contradiction of same deceived the contractor and actively interfered with its work). James Corp. v. North Allegheny School District, 938 A.2d 474 (Cmwlth. Ct. 2007) (The Court found active interference and misrepresentation by the school district that first told the contractor that the E & S permit had been issued pre-bid when it had not); See also, S.J. Groves & Sons, Co., 343 A.2d at 72; Gasparini, 187 A.2d at 162.

PennDOT's affirmative misrepresentations with regard to the role it would undertake post-Contract in utility pole relocations in this case are ample grounds for dismissal of the several exculpatory provisions relied upon by PennDOT to relieve it from responsibility for the delay and disruption caused to Intercounty. However, there are several other circumstances here which we also find to constitute active interference with Intercounty's work by PennDOT. The most significant of these additional circumstances are PennDOT's initial failure to include

[19] If, indeed, it was not Mr. Pilosi's job to communicate with the Utilities on pole relocation problems once the Project commenced, why did he represent that he would do so at the June 11, 2001 pre-job meeting and why did Mr. Sebastianelli perpetuate this representation by his conduct for the first six months of the Project?

adequate room for guy wires in its roadway design and its subsequent failure to resolve this problem in a timely manner.

PennDOT had a duty to properly plan and design the Project. U. S. v. Spearin, 248 132, 39 S.Ct. 59 (1918); Canuso v. City of Philadelphia, 192 A. 133, 136 (Pa. 1937); Department of Transportation v. W.P. Dickerson & Son, Inc., 400 A.2d 930, 932 (Pa. Cmwlth. 1979); Allentown Supply Corp. v. Stryer, 195 A.2d 274, 299 (Pa. Super. 1963); Angelo Iafrate Construction Co., Inc. v. Pennsylvania Turnpike Commission, No. 3654, 2006 WL 2585020 at *29-30, 41-42 (Pa. Bd. Claims, July 27, 2006) (affirmed by Commonwealth Court in unreported opinion). However, the evidence establishes that PennDOT's design did not allow sufficient room for guy wires in the right-of-way at several new pole locations (which locations PennDOT itself had authorized). In August 2001, early in the Project, the Utilities notified PennDOT that they could not move certain poles around these locations because the poles were supported by guy wires and there was no room for the wires at the newly designated pole locations. It then took seven months for PennDOT to correct this design and planning mistake by redesigning the roadway in order to get those poles moved in so the guy wires fit in the right-of-way. Section 107.18 of the 408 Specifications, entitled "Furnishing Right of Way," states that '[t]he Department will be responsible for securing all necessary rights-of-way in advance of construction." (Ex. P-60). By not planning enough room for these guy wires, PennDOT failed to fulfill its responsibility to coordinate with the Utilities in the pre-Contract design phase and also failed to provide Intercounty with plans and drawings adequate to build the Project as designed.

Delays in construction occasioned by the necessity of altering plans because of PennDOT's failure to originally provide an adequate design are properly charged to PennDOT. C. J. Langenfelder & Son, Inc. v. Department of Transportation, 404 A.2d 745, 750-751

(Cmwlth. Ct. 1979). This is true even when the contract's exculpatory language provides that there can be no liability for delay damages. In Sheehan v. Pittsburgh, 213 Pa. 133, 62 A. 642 (1905), the court stated:

> Notwithstanding the breadth of the language of the agreement that all loss or damages from unforeseen obstructions and difficulties and from delay, were to be borne by the contractors, it is clear that the delay from the city's failure to obtain complete right of way was not in the class of difficulties and delays which were in the minds of the parties, for the agreement itself was based on the assumption by both parties that the complete right of way had been secured so that the work could be begun at any point and proceed without interruption. Id.

As in Sheehan, the parties in the case at bar reasonably expected that PennDOT had secured the complete right-of-way so the contractor's work could proceed uninterrupted, but that was not the case. Indeed, the long delay in resolving the right-of-way problem was another instance of PennDOT's failure to act in a manner necessary to progress work on the Project. Thus, PennDOT is liable for the all delay and disruption contributed to the Project from August 2001 to March 2002 by these right-of-way design mistakes and its failure to correct same in a timely manner. Id.; Coatesville 506 A.2d at 865-867; Pittsburgh Building, 920 A.2d at 987; C.J. Langenfelder, 404 A.2d at 750-751; James Corp. v. North Allegheny School District, 938 A.2d at 484-485; A.G. Cullen Construction v. State System of Higher Education, 898 A.2d 1145, 1160 (Pa. Cmwlth. 2006).

In the case at bar, the Construction Sequence incorporated into the plans and bid documents by PennDOT set forth a compact linear work plan. However, when utility pole relocation problems arose, PennDOT directed Intercounty to abandon the Construction Sequence set forth in the Contract and do the road widening work before the poles were moved, thereby impeding the contractor's ability to work efficiently. PennDOT's denial of a work suspension and its direction to Intercounty to continue working in an unplanned, piecemeal way under the ad

hoc weekly work schedules were additional acts that actively interfered with Intercounty's work on the Project.

Materially altering a contractor's work sequence has been held to breach the contract and make PennDOT liable for damages. Commonwealth v. S.J. Groves, 343 A.2d at 76-77. In S.J. Groves, PennDOT changed the contractor's work sequence in a contract with special provisions, and the Board held PennDOT liable for the contractor's damages for extra costs. In Dubrook, Inc. v. Commonwealth Department of Transportation, No. 1001 Pa. Bd. Of Claims at 21, 23 (1992), the Board found PennDOT liable for damages for changing a road repair contract when it altered the contractor's methods of construction. See also, W.P. Dickerson, 400 A.2d at 930; Coatesville, 506 A.2d at 865); E.C. Ernst, Inc. v. Koppers Co., Inc., 476 F.Supp. 729, 744 (W.D. 1979).

In summary, the Board finds the Contract's exculpatory provisions, including those stating "no damages for delay" and shifting responsibility for utility problems to the contractor, are not enforceable because PennDOT's acts and omissions enumerated above misled Intercounty and actively interfered with the performance of its work on the Project. See e.g. Coatesville, 506 A.2d at 865-866; Gasparini, 187 A.2d at 162; General Asphalt Paving, 408 A.2d at 1141; Sheehan, 62 A.2d at 642; S.J. Groves 343 A.2d at 76-76; James Corp., 398 A.2d at 484-485. Because PennDOT's actions constituted active interference with Intercounty's work and breached the Contract, PennDOT is liable to Intercounty for the delay and disruption damages caused by same.

IV. INTERCOUNTY'S DAMAGES

As noted above, the Board has concluded that the evidence presented amply supports Intercounty's claim that it was both delayed for the entire Project overrun period of 223 days and

disrupted throughout the Project during its work on SR 2001 by multiple instances of active interference on the part of PennDOT. In addition to its claim for the typical types of damages resulting from construction delays and disruptions, Intercounty also identifies several other discrete elements of damages resulting from this delay and disruption relating to undercutting work, stockpiling and rehandling costs, material cost escalation, payment of a Rideability Incentive under the Contract and claims for the payment of pre-judgment interest and attorney's fees. PennDOT, in turn, has raised legitimate objections to the methods used by Intercounty to quantify these damages and to several of the additional elements of damages claimed. Accordingly, the Board will award Intercounty damages for both delay and disruption, but will adjust certain of these amounts to more accurately reflect the damages actually incurred by Intercounty due to PennDOT's acts/omissions in breach of the Contract, calculated as described below.

Delay Damages

For the 223 days of Project delay, running from the Contract completion date of November 6, 2002 to actual completion on June 17, 2003, Intercounty claimed a total of $239,547.10 in additional delay costs. These additional costs include: $11,530.27 for Extended Field Conditions; $89,731.00 for Extended Project Supervision; $22,329.83 for Additional Maintenance and Protection of Traffic; and $115,956.00 for Materials Cost Escalation. To these costs, Intercounty requests we then apply appropriate markups for overhead and profit per Section 110.03(d)(4) and (7) of the 408 Specifications.[20]

[20] Section 110.03(d)(4) and (7) prescribe markups for Extra Work and are frequently utilized to determine appropriate markup for additional cost claims in PennDOT contract actions. These markups are 40% for labor; 25% for materials; 5% for equipment; and an additional 8% for subcontract work. These markups to cost are intended to compensate the contractor, inter alia, for administration, general and project superintendence, bond costs, overhead and profit. Pub. 408 (2000 ed.) § 110.03(d)(4) and (7).

For the Extended Field Conditions, Intercounty has established that it incurred additional costs of $4,000 for lot rental; $1,677.40 for trailer rental; $127.79 for inspector's office supplies; $1,923.76 for telephones; $1,690.27 for electricity; $466.40 for job container rental; $1,004.65 for dumpsters and $640.00 for sanitary facilities. Intercounty is entitled to recover these expenses incurred during the extended period, totaling $11,530.27, from PennDOT. With markups pursuant to Sections 110.03(d)(4) and (7) of the 408 Specifications, which we find appropriate in this case, we hold that Intercounty sustained damages for Extended Field Conditions in the total amount of $12,470.02.

For the Extended Maintenance and Protection of Traffic ("MPT"), the Board finds that for the delay period from November 6, 2002 to completion of the Project, Intercounty incurred additional labor and equipment costs for the maintenance and protection of traffic comprised of flaggers and accompanying rack truck while work was being performed on the roadway. The evidence establishes that Intercounty is due $10,578.16 in additional MPT costs for this period. With appropriate markup, pursuant to Sections 110.03(d)(4) and (7) of the 408 Specifications, this results in $14,225.79 in total MPT damages for the extended period.

Intercounty also claims it has incurred an additional $115,956 in material cost escalation for asphalt used on the Project due to the delay. In addition to denying liability, PennDOT also objects to paying for this claim because it contends this additional amount is not supported by the evidence.

Under Section 110.04 of the 408 Specifications, the contractor may recover for material cost increases for bituminous materials. At the hearing, Mr. Lizza testified that on June 15, 2002, Tilcon New York, Inc. ("Tilcon"), Intercounty's asphalt supplier, sent Intercounty a letter, notifying it that because the Project was extending past its original August 2002 completion date

(through no fault of Intercounty), Tilcon would have to increase the price of asphalt by $4.00 per ton starting on August 2, 2002. (Ex. P-58).[21] The parties do not dispute that the amount of asphalt used on the project from August 2, 2002 to June 17, 2003, the actual completion of the Project, was 28,989 tons.

Mr. Lizza testified that after he received the Exhibit P-58 letter, he contacted Tilcon and reached a verbal agreement with Tilcon regarding payment. Mr. Lizza testified further that, because Intercounty was experiencing losses in mid-2002 due to the utility obstructions on the Project, Tilcon agreed it would supply the asphalt but would not invoice Intercounty for the material escalation at that time. Instead, Intercounty and Tilcon agreed that Intercounty would pursue its legal remedies against PennDOT to recover its damages on the Project (including the subject amount for material escalation) and, when recovered, whether by judgment or settlement, Intercounty would then pay Tilcon the additional $4.00 per ton owed for asphalt material. If there was any deficit between the amount recovered from PennDOT and the amount owed to Tilcon, that amount would remain a liability of Intercounty to Tilcon. (N.T. 604-605).

At the time of Mr. Lizza's testimony at hearing regarding this alleged arrangement with Tilcon, the Board asked whether or not there was any written evidence of this oral agreement. (N.T. 652-653). At the next day's hearing, Intercounty produced Exhibit P-86, a Liquidating Agreement, that had been executed the previous evening by Tilcon and Intercounty. Mr. Lizza identified the document, explained its last minute creation and testified that Exhibit P-86 accurately reflected the earlier verbal agreement reached between Tilcon and Intercounty. (N.T. 603-607, 675-679). Intercounty contended Exhibit P-86 supported its claim and moved to admit it. PennDOT objected to the admission of the document.

[21] Intercounty had planned to complete the Project by August of 2002 so its initial asphalt supply contract expired in August 2002.

PennDOT objected to admission of Exhibit P-86 at hearing on the basis that the document did not exist until the night before; that PennDOT had not been told of this alleged verbal agreement between Intercounty and Tilcon until Mr. Lizza's testimony the day before; that PennDOT had, instead, been told by Intercounty that this escalation amount had been paid; and that, as a result, PennDOT had been deprived of adequate discovery on this issue prior to hearing. Intercounty denied that it had represented to PennDOT that the amount had been paid. PennDOT, when queried by the Board at hearing, was unable to identify any discovery request by it or discovery response by Intercounty to establish that Intercounty had misled PennDOT on this issue.

PennDOT also questioned the weight and sufficiency of the evidence supporting the document's admissibility. Specifically, after being allowed to question Mr. Lizza on Exhibit P-86 at hearing as extensively as it wished, PennDOT argued that the document could not be trusted because of the circumstances of its preparation during hearing and because no Tilcon invoices or Intercounty cost reports support this claim of an additional $4 per ton being billed or owed to Tilcon for asphalt provided after August 2002. PennDOT also intimated that the document could be the product of collusion between the parties and not the result of an arms-length transaction.

Because of the nature of the objection, most particularly PennDOT's suggestion that it had been misled in discovery by Intercounty on this issue, the Board reserved ruling on admission of Exhibit P-86 and instructed the parties to fully address and argue this issue in their post-hearing briefs. However, in its post-hearing brief, PennDOT added nothing to its arguments against admission of Exhibit P-86; provided no evidence that Intercounty misled PennDOT in discovery on this issue; and produced no evidence of some type of inappropriate "collusion"

between Intercounty and Tilcon. Instead, PennDOT simply reiterated its arguments that the document cannot be trusted because of the timing of its creation and because it is not supported by Tilcon invoices or Intercounty cost reports.

The Board finds the testimony of Mr. Lizza regarding the oral agreement with Tilcon to be credible and reliable. We further find that, under the specifics of this case and the weight of evidence presented, the oral agreement between Tilcon and Intercounty, coupled with Tilcon's letter of June 15, 2002 (Exhibit P-58), are sufficient to support Intercounty's claim that it is indebted to Tilcon for the asphalt material cost escalation of $115,956. The Board also finds the testimony of Mr. Lizza with respect to the identification and circumstances surrounding the creation of Exhibit P-86, and his assertion that Exhibit P-86 accurately reflects the parties' earlier oral agreement, to be credible and reliable. Because we find that adequate foundation has been provided for Exhibit P-86; because the document is relevant and material to the issues of the case; and because PennDOT has failed to state or support an adequate basis to preclude admission of this document, but has, at best, offered reasons to question its persuasiveness, the Board will admit the document into evidence. Allegheny Ludlum Corp. v. Municipal Authority of Westimoreland County, 659 A.2d 20, 30-31 (Pa. Cmwlth. 1995); Com. v. Holtzapfel, 895 A.2d 1284, 1289 (Pa. Cmwlth. 2006). The Board finds that Intercounty has incurred material escalation costs for the increase in asphalt cost of $115,956 for material purchased after August 2002 due to delay in the Project caused by PennDOT's active interference with Intercounty's work. With appropriate markup per Section 110.03(d)(4) and (7) this results in damages of $144,945 due to Intercounty for material cost escalation.

For Extended Project Supervision, Intercounty claims that it incurred expenses of $89,731.00 for 7 months (from November 2002 to June 2003) for additional project supervision

by Chad Nansteel (Project Superintendent) and Geinek Puc (Project Manager) due to delay. Although Intercounty offered testimony that both men worked exclusively on the SR 2001 Project from November 6, 2002 to June 17, 2003, the evidence presented establishes that only the last 2 months (i.e. from mid-April 2003 until mid-June 2003) were actually spent working on the job site, since Project work had been suspended for Winter and not resumed in 2003 until mid-April. Additionally, Intercounty's own job cost records show only $16,284.23 in supervisory costs attributable to the SR 2001 Project in 2003, not the full $89,731.00 claimed. Given the winter work suspension, we find that the job cost report amount of $16,284.23 most accurately reflects the actual supervisory cost incurred by Intercounty during the extended period for the SR 2001 Project. However, because we have applied the markups prescribed by Sections 110.03(d)(4) and (7) to Intercounty's other costs (as per its request); and because these markups are intended to compensate Intercounty for the cost of general and project superintendence, we will not reimburse Intercounty twice for this activity and will decline to make a separate award for Extended Project Supervision.

In summation, the Board finds that Intercounty incurred a total of $171,640.81 in damages due to the delay caused by PennDOT's active interference with work on the Project. This amount is comprised of:

$12,470.02 for Extended Field Conditions;

$14,225.79 for Extended MPT; and

$144,945.00 for Material Cost Escalation.

Compensation for Extended Project Supervision is included in markups to the above three categories and will not be awarded separately.

Disruption Damages and Additional Work

Intercounty claimed $364,480 in added costs for loss of productivity on the Project caused by PennDOT's active interference. It claims this active interference caused it to work in an out-of-sequence, non-linear manner vastly different and less efficient than outlined in the Construction Sequence originally prescribed by PennDOT in the bid documents and Contract. Intercounty also claims that it incurred an additional cost of $56,800 for the re-handling of stockpiled fill material caused by the changes to the original Construction Sequence and an additional $278,965 for the undercutting work it did on the Project. It claims entitlement to this latter amount because it asserts that the quantity of undercutting was excessive and constituted an undisclosed site condition. It also claims it should be reimbursed for this undercutting at a higher rate than the $9 per cubic yard rate it quoted for Class 1 Excavation because it cost Intercounty considerably more to do undercutting than general excavation. Finally, it claims it incurred inefficiencies in doing this undercutting work since it was done out of sequence and in a non-linear fashion due to the utility pole relocation delay and resulting problems described at length in the liability section of this Opinion.

The Board finds substantial merit to Intercounty's loss of productivity claim, no merit to its claim for re-handling stockpiled materials and mixed merit to its undercutting claim. Additionally the Board finds that some adjustment to Intercounty's damage calculations for these categories are needed to more accurately reflect the extra costs actually incurred on the Project due to PennDOT's active interference. We will address these claims together in this section.

To begin with, the Board is fully satisfied that PennDOT's active interference with Intercounty's work on the SR 2001 Project, as enumerated above in this Opinion, caused substantial disruption and loss of productivity to Intercounty. PennDOT's representations

(through Mr. Pilosi and Mr. Sebastianelli) that Mr. Pilosi would act as go-between and facilitate utility pole relocation at the beginning of work on the Project, when, in fact, he did not; the design errors leading to inadequate space in the right-of-way for guy wire placement; PennDOT's decision to abandon the Construction Sequence originally mandated by it in favor of Mr. Sebastianelli's ad hoc weekly work plans rather than allowing Intercounty to demobilize until the utility poles were relocated; and PennDOT's excessive delay in resolving the guy wire/design problem; all served to force Intercounty to work out-of-sequence and in multiple areas spread out across the Project simultaneously rather than in the more compact, linear fashion it reasonably anticipated. PennDOT's actions also forced Intercounty to work around the existing poles and wires, all of which caused Intercounty to experience a significant loss in productivity.

Having determined that Intercounty suffered disruption and loss of productivity on this Project as a result of PennDOT's active interference, the Board must now seek to quantify Intercounty's loss of productivity. In doing so, we first acknowledge PennDOT's criticism that Intercounty's proposed methodology (i.e. its effort to directly measure extra days/costs spent on excavation due to the pole relocation problems) is somewhat unconventional. Intercounty does not present the standard "measured mile" or "modified total cost" methods we usually see proffered to quantify disruption costs. However, both "traditional" methods have their own weaknesses; the "measured mile" being unavailable where, as here, the work disruption was immediate and pervasive; the "modified total cost" method being less accurate, in general, because it may include factors other than the wrong sought to be remedied (depending, inter alia, on how broadly it is applied and how careful the modifications). Moreover, given the facts of this case, we agree with Intercounty that it is reasonable to estimate its lost productivity by

looking to the extra time spent on "original" excavation of the roadway (i.e. original cut and fill/grading work excluding undercut and stockpile re-handling work) because the utility pole relocation problems and abandonment of the Construction Sequence adversely affected this work most directly. We also find it reasonable for Intercounty to compare its bid estimate of 67 workdays for original roadway excavation to the actual workdays spent on original excavation to ascertain the extra days caused by this disruption from the utility pole relocation delays.

To be specific, PennDOT's Class 1 Excavation records (Exhibits D-24 and P-77) indicate that the original excavation work on the roadway actually took 135 calendar days (exclusive of 68 days spent on undercutting work and the 28 days it claims attributable to the re-handling of stockpiled materials). Intercounty anticipated it would take 67 calendar days to perform the original excavation scope of work and therefore claims a total of 68 extra days of original excavation as its lost productivity.[22]

We find Intercounty's methodology to determine its lost productivity on this Project reasonable and appropriate because, inter alia: (1) the disruption to Intercounty's work was both immediate and pervasive so that an itemized accounting of extra individual costs and/or a "measured mile" comparison of lost productivity is impractical; (2) once appropriate reductions in total actual excavation days reflected on PennDOT's records are made to eliminate re-handling and undercut work, we find the remaining 135 days to be attributable to original excavation (i.e. the initial cut and fill/grading work impacted most directly by the delayed pole relocation issues); and (3) we find Intercounty's bid estimate of 67 days for original excavation (absent re-handling and undercut work) to be reasonable. Therefore we find the difference between the 67 planned

[22] It is clear from the testimony that Intercounty's bid included 67 days for its cut and fill/grading operation. We utilize the term "original" excavation to describe this work and to distinguish it from the undercutting work and the material re-handling work also included in Class 1 Excavation on the Project and documented separately in Exhibits P-77 and D-24.

days of original excavation and the 135 days of actual original excavation (i.e. 68 days) to be a reasonable measure of the disruption caused Intercounty by the utility pole relocation issues and PennDOT's active interference with its work.

We also concur with Intercounty that the 68 extra days of original excavation caused by PennDOT's active interference (and shown on Project records) did entail a full crew for a full day as asserted in Intercounty's disruption calculation. In fact, the Board's own review of the Project's excavation records (primarily Exhibits D-24 and P-77); the excavation quantities and/or areas of roadway worked upon during these extra 68 days (as reflected in these records); and the Project plans, drawings and elevations, as well as the testimony and pictures introduced into evidence, all lead us to conclude that Intercounty's assumption of a full crew and a full workday (as reflected in its modification made in Post-Hearing Brief) is fully justified by the excavation quantities and areas addressed during these 68 extra days. (Exs. D-24, P-77). That is to say, although questioned closely by the Board as to its assertion of a full crew for a full day, and challenged by Defendant's expert as unconventional methodology, we ultimately do find, upon the evidence provided, that Intercounty's estimate of its lost productivity is justified, adequately supported and reasonably certain. For the reasons set forth more fully above, we find that Intercounty incurred lost productivity costs on the Project due to PennDOT's active interference, as reflected by additional days of original excavation, in the sum of $364,480. With appropriate markup pursuant to Section 110.03(d)(4) and (7) of the 408 Specifications, this results in total disruption damages due to Intercounty of $405,671.

In contrast, we find no merit to Intercounty's claim for an additional $56,800.00 for the cost of re-handling stockpiled material. Under the Contract, Intercounty had to straighten and widen approximately three and five-eights miles of SR 2001 by excavating hillside and "filling-

in" or creating embankments along the roadway as needed. The Contract bid documents (including plans and drawings) indicated that this activity would entail digging approximately 50,000 cubic yards of material, primarily out of Section Three, with about half of that (25,000 cubic yards) being used to build the embankments in Section One and Section Two, with the rest being wasted. (Ex. P-8 at p. 8; N.T. 625). At the beginning of the Project, when Intercounty started in Section Three, it carved the excess material from the hillside as the plans required, then placed that material in a stockpile. Months later, Intercounty hauled the material to Section One, and then Section Two, and created the required embankments. Intercounty claims that its costs for stockpiling and re-handling the material were not covered by the Contract and/or were caused by the "flipped" Construction Schedule (i.e. the decision at the pre-job meeting of June 11, 2001 to start in Section Three instead of Section One). Intercounty therefore reasons that it should be paid for the extra costs entailed in re-handling the fill material.

To begin with, the Contract provides that the roadway work of excavating hillside and building embankment was Class 1 Excavation. (Exs. P-8 at p. 8, P-60 at p. 203-1). The 408 Specifications provide that the payment allotted in the Contract for the Class 1 Excavation includes the building of the embankments and that no extra payment will be made for hauling material, wasting material or purchasing borrow material for replacement.[23] Additionally, the Contract's original Construction Sequence included in the bid documents provided that the contractor could only work in one section at a time, so wherever Intercounty started to work, it

[23] Under Section 203.3(j) of the 408 Specifications, payment for Class 1 Excavation includes hauling excavated material that is suitable for embankment construction for placement in embankments and in backfills. In Section 206.4 (a), the Specifications also provide that embankment construction is considered incidental to the excavation items from which the embankment material is obtained and will not be paid separately. Id. Sections 205.3(a) and 205.4(a) of the Specifications provide that embankment material is to come from the classes of excavation on the project, that if the contractor wastes material suitable for embankment construction it must replace it with an equivalent volume of suitable material and further that, while the contractor may, for its convenience, waste excavated material that is suitable for embankment construction and replace it with "borrow material" (obtained from sources other than this project's excavations), the contractor will not be paid for the replacement material. (Ex. P-60; Exs. D-7, D-8, D-9).

had to finish that section before moving to excavate or build in the other sections. (Ex. P-2A). The construction methods to be used for the embankments were otherwise left to the contractor. (Ex. P-17; N.T. 1068, 1160).

Intercounty's allegation that it incurred expenses for stockpiling and re-handling that were beyond those it would have incurred under the original Construction Sequence is simply wrong. According to Mr. Nansteel and Mr. Lizza, Intercounty originally planned to obtain embankment material for use on the Project (all sections) by taking it from a large cut area in Section Three and immediately trucking it to create the required embankments in Sections One and Two. (N.T. 357-359, 624-626). However, under the original Construction Sequence, Intercounty was required to start in Section One by building the embankments and would not have been able to excavate any material from Section Three until much later. Pursuant to the 408 Specifications, Intercounty would have then had to purchase fill material offsite at its own expense, truck it to the site and off-load it to create the Section One embankments. The same would have been true for Section Two. When it got to Section Three, Intercounty would have had to excavate the hillside and pay substantial costs for hauling and disposing of the excess material. Thus we find Intercounty's theory of recovery (i.e. that the re-handling costs are "extra costs" caused by the "flip" in the Construction Sequence) to be flawed because it is premised on a plan for doing the work which would not have been permitted under the original Construction Sequence.

When the Construction Sequence was flipped at the beginning of work on the Project, Intercounty saved the costs of significant "borrow" material. Intercounty started with the hillside excavation in Section Three and, as per the original Construction Sequence, was restricted to completing that section before creating any embankments in other sections. PennDOT, without

objection from Intercounty, instructed Intercounty not to waste the Section Three material, but to stockpile it for later use on the Project. As a result, Intercounty did not have to purchase fill offsite later and truck it in for the embankments, but instead it used the Section Three stockpiled material and incurred some costs for re-handling instead of importing borrowed fill at its own cost. In sum, Intercounty has not established that "flipping" the Construction Sequence caused it to incur costs beyond those it would have incurred anyway or that it did anything out of the norm for Class 1 Excavation by stockpiling cut material for subsequent use as fill on the Project.

Under the provisions of the Contract and the 408 Specifications, Intercounty is not entitled to further payment for its stockpiling and re-handling activities under Class 1 Excavation. PennDOT has no liability for these costs.

Intercounty also claims that PennDOT owes it additional compensation relating to its performance of certain undercutting (i.e. the removal of unstable material as determined during roadway subgrade construction and the backfilling of these excavations with "borrow" rock until the ground is stable). Intercounty contends that it is entitled to recover because of undisclosed site conditions, because it had to do more undercutting excavation than planned, because it was not paid at the proper rate for this excavation and because it incurred inefficiencies due the out-of-sequence, spread-out nature of the undercut work caused by disruption to the planned Construction Sequence. PennDOT responds that it correctly disclosed all site conditions known to it, that undercutting was to be expected, that it made no representations as to the quantity of the undercut and that it paid Intercounty for the undercut work at the rate designated in the Contract.

The evidence supports PennDOT's contention that Intercounty knew or should have understood that once the excavation to widen the roadway began that some undercutting would

be necessary in order to stabilize the road base. Pursuant to Section 210 of the 408 Specifications, Intercounty was required to excavate unstable material encountered in the subgrade. Removal of the unsuitable material, as directed, was within the definition of Class 1 Excavation in Section 203 of the 408 Specifications. The Contract contained no warranty that unsuitable material would not be encountered in the subgrade but, in fact, contemplated there could be and provided a payment mechanism to address this possibility. In fact, it contained no representations at all regarding the quantity of undercut that would be required or, to our knowledge, the general type or types of subsurface material to be encountered. Intercounty has failed to establish that there were undisclosed site conditions or that the extent of unsuitable material encountered was so excessive or different from its normal cut and fill work as to constitute a "differing site condition" under Section 110.02 of the Specifications. See, Angelo Iafrate Construction Co., Inc. v. Pennsylvania Turnpike Commission, No. 3654, 2006 WL 2585020 at *59-63 (Pa. Bd. Claims, July 27, 2006).

As to Intercounty's claim that it was not paid at the proper rate for the undercutting, the Board finds PennDOT does owe some additional compensation to Intercounty for a small fraction of this work. There is no dispute that Intercounty has been paid for its undercutting work at the Class 1 Excavation rate of $9 per cubic yard for all the undercutting performed. The parties also appear to agree that there were approximately 11,115 cubic yards of undercut on the Project. Intercounty, however, claims that it should be paid for all this undercutting as non-Class 1 Excavation at the approximate cost to it of $34 per cubic yard.

The evidence presented establishes that the bulk of the undercut work performed on the Project involved the removal of unsuitable material by cuts into the roadway subgrade of 8 feet in width or greater. Pursuant to Section 203.1(a) of the applicable 408 Specifications, Class 1

Excavation is defined to include: "[e]xcavation, as indicated or directed, for the removal of unsuitable material having a bottom width of 2.5 m (8 feet) or more." Moreover, Intercounty has failed to persuade the Board that "undercutting" unstable roadway subgrade that is 8 feet wide or more is inherently any more difficult than performing original cut and fill work of like width. Thus, we find that the bulk of the undercutting performed on the Project was Class 1 Excavation and that Intercounty has been properly paid for this work at its bid rate of $9 per cubic yard.

However, the evidence presented also showed that Intercounty was directed to perform undercutting that had a width of less than eight feet for approximately 470 cubic yards of the total. This 470 cubic yards of excavation work is most appropriately defined as Class 1A Excavation under Section 203.1(b) of the Specifications and constitutes "extra work," is defined by Section 110.03(c) of the Specifications as "work, having no quantity and/or price included in the contract, which is determined by the District Engineer to be necessary or desirable to complete the project."

Intercounty has adequately established that its actual cost for this type of excavation (undercuts of less than 8 feet bottom width) is fairly estimated at $34 per cubic yard. Therefore, Intercounty is entitled to be paid at that rate for the 470 cubic yards of undercut with a bottom width less than 8 feet. At $34 per cubic yard, this totals $15,980. However, the amount Intercounty was already paid for the work by PennDOT must be deducted (470 cubic yards x $9 = $4,230). Accordingly, we find that Intercounty has incurred additional costs of $11,750 for the undercutting performed on the Project. With appropriate markup, this results in $13,571.25 in damages due to Intercounty for this work.

Intercounty also makes a claim for disruption damages in connection with its overall undercutting operations. The Board understands that Intercounty had to move equipment and

men back and forth to do the undercutting on the Project and that there was likely some extra movement of equipment up and down the roadway required here to do the undercut because the Project was so disrupted and had to be worked in a non-linear sequence. Although we believe that Intercounty's undercutting operation was made less efficient, to some degree, by the same problems that affected its original excavation work, Intercounty has failed to provide us with a calculation, methodology or evidence from which the Board can quantify this loss of productivity. Specifically, we note that, by its nature, undercutting is not as lineal or sequential an operation as original excavation and paving. This is due to the fact that original excavation, backfilling and subgrade placement must occur before the area can be tested and determined to be unstable. As a result, undercutting is typically done in spots along roadway construction in something other than a continuous fashion. Therefore, although we recognize that Intercounty did this undercutting work in a spread-out and random fashion, we cannot ascertain from the evidence presented how much this problem was exacerbated by the disruption to the Construction Sequence. Because we cannot estimate the additional cost of the undercutting work caused by the disruption to the Project with any degree of reasonable certainty, we must decline an award for this component of Intercounty's claim.

In summation, the Board finds Intercounty has incurred a total of $405,671 in damages due to the disruption caused by PennDOT's active interference with its work on the Project. In addition, Intercounty is due a further payment of $13,571.25 for undercutting work on the Project outside the Class 1 Excavation category.

Claim for Ride Quality Incentive

The next issue is whether Intercounty is entitled to be paid the Bituminous Pavement Ride Quality Incentive ("Ride Quality Incentive"). The Contract provided in Item 0404-001 that

Intercounty would be paid $16,200.00 if the final road surface met certain conditions of smoothness. (Ex. P-8 at p. 9). In order to qualify for the Ride Quality Incentive, the road surface had to be machine tested for smoothness after final paving and an index number for smoothness assigned thereto. Under the Contract's provisions, if the road was tested and the index number was high enough the bonus would be awarded, but if the index was too low, Intercounty could have faced a penalty. (408 Specifications, Change No. 2, Sec. 404; Ex. D-19).

In this case, neither party wanted to go forward with any measurement of the road's smoothness, so the road was never tested. The Board finds that since the conditions for the Ride Quality Incentive were not met and since Intercounty agreed that no test would be conducted, Intercounty is not entitled to the bonus and is also not liable for any penalty.

Claim for Pre-judgment Interest and Attorney Fees

Pennsylvania law recognizes that pre-judgment interest is to be awarded as a matter of right to the prevailing party in an action to recover upon a contract. See e.g. Widmer Engineering Inc. v. Dafalia, 837 A.2d 459, 469 (Pa. Super. 2003); Pittsburgh Construction Co. v. Griffith, 834 A.2d 572, 590 (Pa. Super. 2003). Interest shall run at the statutory rate from the date this claim was filed with the contracting officer. 62 Pa.C.S.A. sec. 1751. The record does not reflect the date on which Intercounty filed its claim with PennDOT, but the date of denial of that claim was July 12, 2004. (N.T. 872). Insofar as July 12, 2004 is the closest date of record to the claim filing date, the Board awards Intercounty pre-judgment interest from that date.

Intercounty also requests an award of attorney fees under Section 3935 of the Procurement Code. (Complaint at p. 12). It alleges that PennDOT withheld payment in bad faith and acted arbitrarily and vexatiously with respect to the relocation work performed by the

utilities. A prevailing party in an action to recover payment may be awarded reasonable attorney fees if the opposing party "acted in bad faith" pursuant to 62 Pa.C.S. Sec. 3935(b). Bad faith will be found when the withholding of payment was "arbitrary or vexatious." Id. The word "arbitrary," for purposes of Section 3935, is defined as "based on random or convenient selection or choice rather [than] on reason or nature" and the words "vexatious conduct" as "that which is committed without sufficient grounds in either law or in fact with the purpose of causing annoyance." Commonwealth v. Pittsburgh Building Company, 920 A.2d 973, 991 (Pa. Cmwlth. 2007).

Although we find the actions/inactions of PennDOT in this matter to fall far short of exemplary, we do not believe that Section 3935 applies to this case. Specifically we note that Chapter 39 (of which Subchapter D and Section 3935 are part) speaks in terms of "Contract" and "Contractor" which are defined by Section 3902 of the Procurement Code as "excluding Department of Transportation contracts under section 301(c)(1) (relating to procurement)." 62 Pa.C.S. §§ 3901-3941. Section 301(c)(1) of the Procurement Code, in turn, identifies contracts for, "[B]ridge, highway, dam, airport . . . or specialized construction." [Emphasis added]. 62 Pa.C.S. § 301(c)(1). Because we believe the contract here at issue fits within the exclusion defined by Section 3902 and is therefore not subject to Chapter 39 (or Section 3935) of the Procurement Code, we decline to award attorney fees in this matter. Accordingly, we do not find the requisite predicate here for an award of attorney fees. We will also decline to award costs (other than attorney fees) pursuant to our discretionary authority at 62 Pa.C.S. § 1725(e)(1) as we believe the issues in this case were fairly presented and argued by both parties.

V. DAMAGE SUMMARY

For all the foregoing reasons, the Board grants judgment against PennDOT and in favor of Intercounty in the following amounts:

1. Delay Damages		
Extended Field Conditions		$ 12,470.02
Extended Maintenance and Protection of Traffic		$ 14,225.79
Material Cost Escalation		$144,945.00
Total Delay Damages (including markup for supervision, overhead and profit)		$171,640.81
2. Disruption Damages		$405,671.00
3. Additional Cost of Undercutting		$ 13,571.25
4. Rideability Incentive		-0-
5. Rehandling of Stockpiled Materials		-0-
6. Attorney's Fees and Costs		-0-
TOTAL DAMAGES		$590.883.06
Plus Pre-judgment Interest (28.67%)	+	$169,406.17
TOTAL		$760,289.23

ORDER

AND NOW, this 23rd day of April, 2009, **IT IS ORDERED** and **DECREED** that judgment be entered in favor of Plaintiff, Intercounty Paving Associates, LLC, and against Defendant, Commonwealth of Pennsylvania, Department of Transportation, in the total sum of $760,289.23 for damages incurred in the amount of $590,883.06 plus $169,406.17 in pre-judgment interest thereon. In addition, Plaintiff is awarded post-judgment interest on the outstanding judgment at the statutory rate for judgments (6% per annum) beginning on the date of this Order and continuing until the judgment is paid in full. Each party will bear its own costs and attorney fees.

BOARD OF CLAIMS

_____
Jeffrey F. Smith
Chief Administrative Judge

_____
Harry G. Gamble, P.E.
Engineer Member

_____
Andrew Sislo
Citizen Member