BEFORE THE MARYLAND STATE BOARD OF CONTRACT APPEALS

Appeal of INTERCOUNTY CONSTRUCTION CORPORATION)				
)	Docket	No.	MDOT	1036
Under Mass Transit Administration Contract No. NW-01-06	}				

November 6, 1987

Contracts - Rules of Interpretation - All clauses of a contract should be interpreted harmoniously; an interpretation which gives a reasonable meaning to all the contract clauses will be preferred to one which leaves some clauses useless, meaningless or superfluous.

<u>Contracts - Rules of Interpretation</u> - Because parties disagree on the interpretation of a contract does not of itself make the document ambiguous; it is ambiguous only if it is susceptible of two different and reasonable interpretations. Where Appellant's interpretation of a contract is not reasonable, the doctrine of contemporaneous construction by the parties will not apply since there is no ambiguity.

APPEARANCES FOR APPELLANT:

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APPEARANCES FOR RESPONDENT:

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OPINION BY MR. LEVY

This is an appeal from the Maryland Mass Transit Administration (MTA) Administrator's final decision denying Appellant's claim of additional compensation for excavation work performed on the captioned project. The appeal concerns the proper interpretation to be given to the contract provisions which establish the pay limits for cut-and-cover excavation. Appellant contends that the limits for measurement for the excavation quantities should be the outside surface of the support of excavation system while MTA maintains it should be only to the outside surface of the subway structure. Only the issue of entitlement is to be determined by the Board.

Findings of Fact

- 1. MTA awarded contract No. NW-01-06 to Appellant on October 5, 1977 for the construction of the Charles Center subway station structure and line for the Baltimore Region Rapid Transit System. The contract required the construction of approximately 1,200 linear feet of cut-and-cover subway structure and a three level station along Baltimore Street in the approximate area between Hanover Street and Calvert Street. The station was to contain the mezzanine, transfer and platform levels with a 450 foot long center platform as well as appropriate entrances, vent shafts and provision for a future connecting north/south line. The work also required underpinning of adjacent buildings, relocation of utilities, design and construction of a support of excavation system, dewatering and maintenance of traffic along Baltimore Street.
- 2. Under the cut-and-cover method of construction, Appellant first was required to relocate temporarily the utilities along Baltimore Street. Decking was then placed over the street to allow traffic to proceed during the construction period as the construction cavity

was excavated approximately 60 to 70 feet deep and 70 to 100 feet wide in which the subway structure would be built. After the structure was completed, the cavity was to be backfilled, the utilities relocated and the street paved.

3. In order to excavate the construction cavity to the required depth, it was necessary for Appellant first to design and then construct a support of excavation system. The design criteria and construction methods for these systems are found in Section 02410 of the contract Standard Specifications as modified by the Special Provisions.

The function of these support systems is to hold back the soil and the lateral pressure created on either side of where the excavation is taking place. By using vertical support walls, less excavation is required since the width of the construction cavity is diminished when compared to the use of sloped walls which require more space and excavation.

Two types of vertical support systems, the slurry wall or the soldier pile and lagging wall system were used on this project. The slurry wall process generally requires soldier piles to be inserted vertically to a specified depth and placed a designated distance apart. A trench then is dug between the vertically placed piles the desired depth of the support wall. As it is being excavated, the trench is filled temporarily with a bentonite slurry, a thick liquid material, which prevents the sides of the trench from caving in. After the trench is excavated to the desired depth, concrete is pumped in, displacing the slurry, and forming a reinforced concrete vertical wall. The concrete walls are then exposed as the excavation of the construction cavity proceeds down between the support walls.

The second method also requires soldier piles to be inserted along the desired location of the support wall. As excavation of the construction cavity commences and progresses downward, horizontal boards or lagging are installed between the piles creating a support wall.

The slurry wall system provides more strength and support and is usually used adjacent to large buildings. As the excavation proceeds downward, wales and horizontal struts are installed approximately every 12 feet down across the width of the excavation between the opposite walls to help support the two opposing support walls. When the excavation is completed, the subway station structure is then constructed within the construction cavity so that its outside finished walls are inside the support walls by 2 to 6 inches.

- 4. The main subway line was to run east/west along Baltimore Street. Additionally, the subway design made provision for a future north/south line to run under the east/west line at the approximate intersection of St. Paul Street with Baltimore Street. The north/south line would be constructed 26 feet below the main line. The contract specifications required that concrete walls be constructed within the station limits for this future north/south line. Trenches were excavated in a north/south direction (below and perpendicular to the main east/west line) approximately 7 to 12 feet wide on either side of the future north/south line using soldier piles and lagging for support. Concrete walls, approximately 3 to 3 1/2 feet thick, were then constructed inside these trenches. At some future time, if the north/south line is constructed, the material between the two concrete walls will be excavated so the new line can be installed.
- 5. During the early stages of the excavation it became necessary to revise some of the design criteria for the support of excavation system. These revisions affected the use of adjacent building surcharge loads, the minimum thickness, and the maximum length of slurry walls. Change Order No. 29, dated July 11, 1979, accomplished the changes in the support of excavation system and increased bid item 031 by \$7,990,000. The parties have stipulated (Board Exhibit No. 1) that Appellant included in its cost proposal for Change Order No. 29 costs for excavating the slurry wall as changed and that Appellant was paid for the installation of the support of excavation system required by lump sum bid item 031, as revised by Change Order No. 29.
- 6. The work provided for in the contract was to be performed in accordance with the Maryland Department of Transportation (MDOT) General Provisions dated 1976, the MTA's Supplementary General Provisions, and the MTA's Standard Specifications dated June 1976 as modified or amended by the Special Provisions in the project specification book.
- 7. The measurement and payment for earthwork under the contract is found in Section 02200 Part 4 of the Standard Specifications and provides, in pertinent part, as follows:

4.01 MEASUREMENT:

- A. The following classifications of work will be <u>measured by the cubic yard</u> unless otherwise indicated:
 - 1. Trackway and Pavement Excavation Common.
 - . Trackway and Pavement Excavation Rock.
 - 3. Structure Excavation Common.
 - 4. Structure Excavation Rock.
 - 5. Structure Backfill.
 - 6. Cut-and-Cover Excavation Common.
 - 7. Cut-and-Cover Excavation Rock.
 - 8. Cut-and-Cover Backfill.
 - 9. Pervious Backfill.
 - 10. Embankment.
- B. Subsurface extraction will be measured by the lump sum, cubic yard, linear feet for pipelines of a given diameter, or per each as indicated in the Proposal Form.
- G. Quantities of structure excavation and backfill and cut-and-cover excavation and backfill will be determined from limits shown on the Contract Drawings or specified herein or in the Special Provisions, plus any additional excavation and backfill authorized or required by the Engineer not due to the Contractor's negligence. In the absence of Contract Drawings showing limits for excavation and backfill, the quantities will be computed within the following limits:
 - 1. The horizontal limits for computing pay quantities shall be vertical planes one foot outside the neat lines of footings, structures without footings, culverts, and the outside surfaces of subway structures.
 - 2. The upper limit for payment for excavation shall be the ground surface as it existed prior to the start of construction operations, except, where excavation is performed within trackway or pavement excavation areas, the upper limit shall be the planes of the bottom and side slopes of said excavated areas. Where it is required that the excavation be made in new embankment, the upper limit shall be the planes of the new embankment at the elevation indicated or directed for construction in advance of performing the required excavation, but in no case shall the upper limit be above the planes of the new embankment.
 - 3. The upper limit for payment of backfill, when not indicated, shall be the ground line at the time the excavation is made; exept [sic], when backfill is ordered to a higher limit by the Engineer, limit for payment shall be the higher limit ordered.
 - 4. The lower limits for computing pay quantities of excavation and backfill shall be a plane at the bottom of the completed footings, or structures or the lower outside surface of pipes, rods, or deadmen.
- 4.02 PAYMENT: Payment for earthwork, will be made at the Contract unit prices for the quantities as determined above. (Underscoring added).
- 8. Section 02200, Part 4 of the Standard Specifications was amended by the Special Provisions 1 in pertinent part as follows:

Precedence of Contract Documents: The Contract Drawings shall govern over the Standard Specifications. The Special Provisions shall govern over the Standard

¹The Contract Supplementary General Provisions, Section 5.03B provides in pertinent part as follows:

4.01 MEASUREMENT:

- B. In lieu of the requirements specified, Subsurface extraction will be included with and measured as Cut-and-Cover Excavation, Common. Subsurface structures for which no special bid item is listed in the unit price schedule include walls and foundations.
- G. 1. In lieu of the requirements specified, The horizontal limits for computing pay quantities shall be vertical planes along the outside surfaces of subway structure including bulkheads.
 - In lieu of the requirements specified, The upper limit for payment of backfill shall be the bottom of the aggregate sub-base of sidewalk as dimensioned on the drawings.
 - In lieu of the requirements specified, The lower limits for computing
 pay quantities of excavation shall be planes at the bottom of the
 concrete slab.
 - The lower limits for computing pay quantities of backfill shall be planes at the top of the concrete structure. (Underscoring added).
- 9. The measurement and payment for support of excavation is found in Section 02410, Part A of the Standard Specifications, as follows:

4.01 MEASUREMENT:

- A. Support of excavation for subway line and station structures will be measured as a lump sum, including designing, furnishing, installing, maintaining, and removing excavation support regardless of type.
- B. Except as specified in paragraph 4.01.A herein, support of excavation will not be separately measured for payment, but will be considered incidental to the applicable item of earthwork.
- 4.02 PAYMENT: Payment for support of excavation for subway line and station structures will be made at the lump sum price as specified above. (Underscoring added).

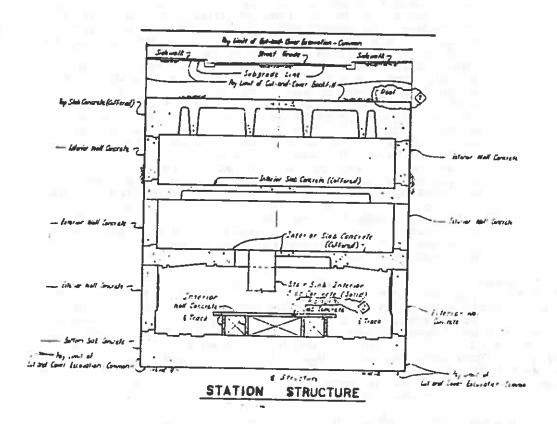
These sections were not amended by the Special Provisions.

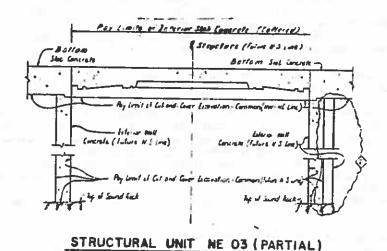
10. Appellant bid the cut-and-cover excavation and the support of excavation items as follows:

item	Spec. Sec.	Description	Est. Qty.	Unit	Unit Price	Total
	1011	ATTOMIC IE A THE				
028	02200	CUT-AND-COVER EXCAVATION COMMON (NORTHWEST NORTHEAST LINE)	181930	CY	9.17	1,668,298
29	02200	CUT-AND-COVER EXCAVATION COMMON (FUTURE NORTH SOUTH LINE)	630	CY	120.00	75,600

Specifications, the Insurance Specifications and the Contract Drawings. . . .

11. Contract Drawing No. S168-2, sheet no. 277, entitled "Pay Limits For Excavation, Backfill and Concrete," depicts the pay limits for cut-and-cover excavation-common for the station structure and the future north/south line as a vertical plane along the outside surface of the station structure, as follows:





Note No. 1 on this drawing provides "All Bulkheads (Temporary Walls) and Knock-out Panels will be paid under Exterior Wall Concrete."

12. Section GP-9.03A of the contract General Provisions, provides for the Appellant to be paid based on monthly estimates as follows:

(2) Monthly Estimates

Each month the Administration will pay the Contractor for the Contract value of the work satisfactorily performed during the preceding calendar month, less 10%. When such 10% retainage amounts to 5% of the total Contract value including authorized extras and additions, no further retainage will be deducted from monthly payments due the Contractor. The 5% of the total Contract value retained by the Administration will not be released until Final Payment (unless partially released in a semi-final payment). Current estimates will be based upon Engineer's estimate of quantity (including materials and/or equipment complete in place) satisfactorily performed. In the instance of lump sum items, Engineer's estimate shall be the proper fraction of the lump sum items satisfactorily performed during preceding month. All quantities, estimates and fractions will be reasonably accurate approximations and as such are subject to correction (a) in subsequent current estimates, (b) in any semi-final estimate and, (c) in final payment. Any and/or all partial payments may be withheld in event current requirements of the Specifications have not been complied with by the Contractor. Should either the Engineer or the Contractor be of the opinion that any estimates, quantities and/or fractions (either as to an individual current estimate or accumulations thereof) do not represent a reasonably accurate approximation of actual work, then details questioned shall be reviewed and then any corrections adjusted for in the next current estimate.

- 13. Pursuant to \$GP-9.03A, Appellant prepared its monthly estimates which included its estimate for cut-and-cover excavation common for the east/west main line (bid item 028), utilizing as horizontal limits for the pay quantities the vertical planes along the outside surfaces of the support of excavation walls. This was used because of Appellant's reliance on, and interpretation of, Special Provision, Section 02200, 4.01.G.1. (Tr. 24). Based on the same Special Provision Section, Appellant prepared its monthly estimates for the excavation common for the future north/south line (bid item 029) utilizing as pay limits the full width of the two trenches including the volume of the lagged walls. (Tr. 33-34). Appellant started incorporating requests for payment for cut-and-cover excavation-common using the outer limits of the support of excavation system as the pay limit in estimate No. 21.
- 14. Appellant's monthly estimates of quantities were submitted to the Resident Engineer for review and verification. The Office Engineer on his staff usually collected data from inspector's reports and verified the quantities supplied by Appellant on the estimates. The MTA Construction Engineer also reviewed the estimates with the Office Engineer. When the Resident Engineer finally approved the monthly estimates of quantities, they were sent to the MTA as the basis of the monthly payment due Appellant.
- 15. The initial seed for the problem before us appears to have been planted in October 1980. Apparently, in response to an inquiry, the Resident Engineer, T. C. Hidinger, prepared a memorandum to the file on this contract dated October 6, 1980, in which he dealt with payment for excavation. He concluded that "the contractor should be paid for the excavation of the slurry wall and soldier pile/lagging area under Unit price Item 028, 'cut and cover excavation common." This was based on his interpretation of Special Provision \$02200 \$14.01.G\$ (he really meant \$4.01.G.1) which provides ". . . the horizontal limits for computing pay quantities shall be vertical planes along the outside surface of the subway structure including bulkheads." (Underscoring added). He defines bulkhead to include the support of excavation system. He also holds that \$14.01.G.1 controls over the contract drawing \$-168-2\$ (Sheet No. 277) which depicts the pay limits for excavation as the neat line of the subway structure.
- 16. There was no immediate reaction to Hidinger's memorandum. However, in December 1980 the MTA Construction Engineer, Robert Chow, in his review of pay estimate No. 37, advised the Director of Construction, Mr. Frank Hoppe, and the Resident Engineer that he disagreed with Hidinger's October 6, 1980 memorandum. Chow testified that it was his practice as the MTA Construction Engineer to pick 3 or 4 items at random from the approximately 480 pay items each month to review on the Appellant's pay estimates. He did not review items 028 and 029 until the December 1980 estimate. (Tr. 232-234). As a result

of his meeting with Mr. Hidinger, Mr. Chow prepared a memorandum on December 16, 1980 to Mr. Hidinger outlining why he disagreed with Hidinger's conclusion. Chow was of the opinion that pay limits for common excavation are clearly defined in the contract documents and there is no conflict between the Special Provisions and the contract drawings. Both, he concludes, define the horizontal pay limit as the vertical plane along the outside surface of the subway structure and the words "including bulkhead" applies where a bulkhead is used in lieu of the subway structure. Bulkhead does not include the support of excavation system, excavation for which was paid under the lump sum item 031.

- 17. Appellant was first informed that it might no longer be paid for the excavation associated with the support of excavation system under pay items 028 and 029 at a meeting on December 15, 1980 attended by representatives from Appellant and the Raiph M. Parsons Company, the construction managers. MTA was not represented at this meeting. At the conclusion of the meeting, however, those in attendance agreed that Appellant should continue to be paid by pay items 028 and 029 for the support of excavation volume of excavation material. However, on December 17, 1980 the Resident Engineer sent a letter to Appellant advising that Mr. Hoppe, Director of Construction, had directed him to pay for excavation only within the neat line of the subway structure as shown on the contract drawings. The MTA position was reiterated in a January 13, 1981 letter from the Resident Engineer to Appellant's Project Manager which provided, "... the horizontal limits for final pay quantity for excavation will be measured along the vertical plane of the outside wall of the subway structure. This will not include slurry wall or lagging area."
- 18. Appellant outlined its position to MTA in its letter of January 30, 1981 in which it requested a final decision be issued under the contract disputes clause. The request was made again in Appellant's letter of April 16, 1981.
- 19. The MTA Administrator, Mr. L. A. Kimball, issued his final decision on May 22, 1981 denying Appellant's claim.
 - 20. A timely appeal was noted to this Board by Appellant on June 5, 1981.

Decision

This dispute concerns the correct interpretation to be given to those contract documents that provide for the pay limits for cut and cover excavation common for both the east/west line and the future north/south line. Appellant maintains that the pay limits are along the outside surface of the subway structure "including bulkheads" which encompasses by its definition the support of excavation walls. Therefore, the volume of space occupied by the support of excavation system should be paid for under the appropriate bid item for cut and cover excavation common. MTA, on the other hand, argues that Appellant has misinterpreted the contract documents and that upon a proper reading they indicate that only the bulkheads built into the subway structure itself are included. Therefore, the cost of the excavation associated with the support of excavation system should be included under the lump sum bid item for the construction of these systems.

The linchpin of Appellant's argument is its reliance on Special Provision 02200, Article 4.01.G.1 which provides:

"In lieu of the requirements specified, The horizontal limits for computing pay quantities shall be vertical planes along the outside surfaces of subway structure including bulkheads."

It then argues that the support of excavation systems are bulkheads within the usual construction industry meaning of 4.01.G.1. Appellant's reliance on Special Provision 02200, Article 4.01.G.1 as being the controlling section is based on Supplementary General Provision S5.03 "Coordination and Interpretation of Contract Documents," which provides, in pertinent part:

B. Precedence of Contract Documents: The Contract Drawings shall govern over the Standard Specifications. The Special Provisions shall govern over the Standard Specifications, the Insurance Specifications and the Contract Drawings. . . .

Based on this language, Appellant argues that the contract special provisions govern over the contract drawings and standard provisions, and, hence, Special Provision 02200, Article 4.01.G.1 establishes the horizontal pay limits. Therefore, under Appellant's interpretation,

Standard Specification 02200, Article 4.01.G has no application since there is an amendment to 4.01.G.1 found in the Special Provisions.

But Appellant has overlooked the first page of the Special Provisions of the Contract Specifications Book which provides at page SP-1.

The work embraced herein shall be performed in accordance with the Maryland Department of Transportation General Provisions dated 1976, the Mass Transit Administrations Supplementary General Provisions, and those sections of the Mass Transit Administrations Standard Specifications Dated June, 1976 cited herein except as modified, amended, or supplemented by these Special Provisions. (Underscoring added).

The clear language of this section of the Special Provisions makes it obvious that all parts of the Standard Specifications are to be used except as modified, amended, or supplemented by the Special Provisions. In other words, the Standard Specification and the Special Provisions are to be read in harmony. It is an established rule of contract construction that all clauses should be interpreted harmoniously and that an interpretation which gives a reasonable meaning to all the contract clauses will be preferred to one which leaves some clauses useless, meaningless or superfluous. James Mason, Individually, et al. v. The United States, 222 Ct.Cl. 436 at 445, 615 F.2d 1343, (1980); B.D. Click Company, Inc. v. The United States, 222 Ct.Cl. 290 at 299, 614 F.2d 748, (1980); Orkin Et Ux v. Jacobson, 274 MD 124, 332 A.2d 901 (1975). Applying this rule of construction to the relationship between the several sections under review, the following result is achieved. Standard Specification 02200 Part 4: Measurement and Payment, \$G provides:

Quantities of structure excavation and backfill and cut-and-cover excavation and backfill will be determined from limits shown on the Contract Drawings or specified herein or in the Special Provisions, plus any additional excavation and backfill authorized or required by the Engineer not due to the Contractor's negligence. In the absence of Contract Drawings showing limits for excavation and backfill, the quantities will be computed within the following limits:

- The horizontal limits for computing pay quantities shall be vertical planes one foot outside the neat lines of footings, structures without footings, culverts, and the outside surfaces of subway structures.
- 2. The upper limit for payment for excavation shall be the ground surface as it existed prior to the start of construction operations, except, where excavation is performed within trackway or pavement excavation areas, the upper limit shall be the planes of the bottom and side slopes of said excavated areas. Where it is required that the excavation be made in new embankment, the upper limit shall be the planes of the new embankment at the elevation indicated or directed for construction in advance of performing the required excavation, but in no case shall the upper limit be above the planes of the new embankment.
- 3. The upper limit for payment of backfill, when not indicated, shall be the ground line at the time the excavation is made; exept, [sid when backfill is ordered to a higher limit by the Engineer, limit for payment shall be the higher limit ordered.
- 4. The lower limits for computing pay quantities of excavation and backfill shall be a plane at the bottom of the completed footings or structures or the lower outside surface of pipes, rods, or deadmen.

(Underscoring added).

- 4.01.G is amended by the Special Provisions as follows:
 - In lieu of the requirements specified, The horizontal limits for computing pay quantities shall be vertical planes along the outside surface of subway structure including bulkheads.
 - In lieu of the requirements specified, The upper limit for payment of backfill shall be the bottom of the aggregate sub-base of sidewalk as dimensioned on the drawings.

- In lieu of the requirements specified, The lower limits for computing pay quantities of excavation shall be planes at the bottom of the concrete slab.
- The lower limits for computing pay quantities of backfill shall be planes at the top of the concrete structure. (Underscoring added).

The net result is that the main paragraph of 4.01.G is not amended and remains operative while subsections 1, 3 and 4 are amended. Subsection 2 is not amended and a new subsection 5 is added. Therefore, the only reasonable interpretation is that subsection 4.01.G.1 as amended, which becomes operative if there is an absence of Contract Drawings showing limits for excavation and backfill, now conforms with Drawing S168-2 (Sheet 277) which depicts such limits. (Finding of Fact No. 11). Appellant's premise that Article 4.01.G.1 controls is without merit and is an unreasonable interpretation of the contract.

In other words, the contract standard provisions, special provisions and drawings when read together in harmony clearly indicate that the limits for computing quantities for excavation are the vertical planes along the outside surface of the subway structure, including that part of the subway structure wall that serves as a bulkhead. Appellant's interpretation would have us look only at Special Provision 4.01.G.1, without looking at the contract drawings, and interpret "bulkhead" to include the support of excavation system. This would be contrary to what drawing \$168-2 (Sheet 277) indicates. Additionally, the term bulkhead is used on many of the contract drawings to depict temporary walls in the subway structure. See, for example, contract drawings \$-19 (Sheet 139), \$-20 (Sheet 140), \$-21-1 (Sheet 141), \$-90 (Sheet 215), \$-91-1 (Sheet 216), \$-100 (Sheet 226), and \$-101 (Sheet 227). These all show concrete bulkheads in the station structure for the future North/South line. Only one time on all of the contract drawings, \$215 (Sheet 297), is the support of excavation system referred to as a bulkhead. There is no other reference to the support system as a bulkhead in the drawings that we have been made aware of.

We also note that Standard Specification 02410, Part A which deals with the measurement and payment for the support of excavation provides for a lump sum payment which is to include the furnishing and installing of the support of excavation structure. (Finding of Fact No. 9). A reasonable interpretation of \$02410 necessarily includes the excavation for these systems and it can be read in harmony with the sections discussed above. Therefore, looking at all of the contract documents as a whole, there is only one conclusion that is reasonable; "bulkhead" as used in Special Provision 4.01.G.1 does not include the support of excavation systems. To adopt Appellant's interpretation is inconsistent with Standard Specification 02410 and would render contract drawing S-168-2 (Sheet No. 277) meaningless.

To support its interpretation of the contract, Appellant places emphasis on the contemporaneous action of the parties particularly the MTA making monthly payments for a long period of time utilizing Appellant's suggested method of measurement and payment for cut-and-cover excavation, bid items 028 and 029, (Findings of Fact No. 13-16). The problem with this argument is that the doctrine of contemporaneous construction is a rule of contract interpretation which is used where there is an ambiguity in the contract. Levin V. Stratford Plaza, Inc. et al., 196 MD 293, 76 A.2d 558 (1950); Walker v. Associated Dry Goods Corp., 231 MD 168, 189 A.2d 91, (1963). And just because the parties disagree on the interpretation of the contract does not of itself make the document ambiguous. Papajo Tribal Utility Authority v. Federal Energy Regulatory Commission, 723 F.2d 950 (1983); General Motors Acceptance Corp. v. Daniels, 303 MD 254, 492 A.2d 1306 (1985). A contract is ambiguous only if it is susceptible of two different and reasonable interpretations. Ensor Wehland, Executor, 243 MD 485, 221 A.2d 699 (1965); Allison & Haney, Inc., 69-2 BCA 17807. Since we have found above that Appellant's interpretation is not a reasonable one since it does not give affect to all parts of the contract, we now hold that Appellant's argument of contemporaneous action by the parties is not applicable here since there is no ambiguity which needs clarification.

For all of the above reasons, the appeal is denied.