IN THE HIGH COURT OF SOUTH AFRICA

(GAUTENG DIVISION, PRETORIA DIVISION,)

DELETE WHICHEVER IS NOT APPLICABLE

(1) REPORTABLE: YES / NO.

(2) OF INTEREST TO OTHER JUDGES: YES / NO.

(3) REVISED.

25/1/2019

DATE

[redacted]

SIGNATURE

Case No.

CASE NO: 30627 / 2014

In the matter between:

BIG EYE INVESTMENT 210 (PTY) LTD Plaintiff

and

GERT TACK STAAL KONSTRUKSIE CC Defendant

JUDGMENT

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[1] There are Practice Manuals issued by the Judge Presidents in every division of the High Court in the country. The purpose of these practice

directives is to regulate how the Rules of Court are applied in the daily functioning of the courts in each division. Although not elevated to Rules, it informs practitioners how matters are dealt with in a specific division.

[2] The purpose of the practice manual is to enhance the proper functioning of the courts on a daily basis and to improve service delivery to the public at large.

[3] It is a fact that the work load, for different reasons, differ in each division and this is one of the underlying reasons why the Judge President in each division, after consideration, issues various directives from time to time to provide for changing circumstances in the specific division.

[4] With specific reference to civil trials in this division, the practice manual in this division provides for trials "of long duration" and "special trials" other than ordinary trials. This distinction has regard to the estimated duration of the trials.

[7] In view of the above and what follow below, there are aspects I have to deal with before I deal with the merits/evidence of the matter. At the pre-trial held on 4 September 2016 the parties minuted the duration of the trial to be 4 to 5 days. In accordance with the Practice Directive of this

division, the parties must hold a pre-trial setting out the normal aspects with regard to the dispute(s) between the parties, but also indicate the estimated duration of the trial. This is of importance to enable the Deputy Judge President to plan the optimal functioning of the Civil Trial Roll. Paragraph 6.8 of the Practice Directive sets out what is referred to as a "special trial" and a "trial of long duration".

[8] A trial of long duration is where a party is of the view that the trial will last less than 10 days but longer than five days while a special trial is estimated to be more than 10 days. When estimated to be a trial of long duration, the Practice Directive imposes an obligation on a party to deliver, at least 10 days before the trial date, a letter to the office of the Deputy Judge President setting out:

2.1 the names of the parties to the trial and the case number;

2.2 the nature of the dispute;

2.3 the estimate of the probable duration of the trial; and

2.4 that a pre-trial conference has been held, a copy of the relevant minute ***must*** be annexed to the letter (my emphasis).

[9] No such letter was delivered and at the roll call on 4 September 2017 it

was not brought to the attention of Pretorius J (calling the roll) that the duration would exceed the normal 5 days for an ordinary allocation. The note made on the court file by the clerk after allocation indicates that the parties informed Pretorius J that the estimated duration is 4 to 5 days. The clerk at roll call marked the matter as "4-5 days" on the file and it was then allocated for trial in this court.

[10] When counsel for both the plaintiff and defendant attended my chambers after allocation before going to court, I asked counsel about the probable duration and the number of witnesses each party intends calling. The only reason for this was that my term of acting was to end on Friday 8 September 2017 and that a part heard matter would be rather inconvenient for all. I informed counsel that in the event of a part heard matter, the matter will only proceed during a future recess most probable during the December 2017 - January 2018 recess.

[11] Mr Alli, counsel for the plaintiff, when requested on the number of witnesses he intends calling, indicated that he intends calling four (4) witnesses and Mr Shepherd on behalf of the defendant indicated that he intended calling two (2) witnesses. On this postulation all were satisfied that the matter could be finalized in 4 to 5 days.

[12] The matter proceeded and already on Wednesday the 6th of September it was clear that the matter will not be finalized in five days. When inquiring from Mr Alli how many witnesses he still intends calling he then indicated that he intends to call another 4-5 witnesses, in total nine witnesses on behalf of the plaintiff. This was clearly not what was said to Pretorius J at roll call on Monday or to me in chambers. I am hesitant to conclude that Mr Alli knew all along that he intended calling nine witnesses. Although I have no direct evidence it is clear that this was probably done to circumvent the Practice Directive in respect of trials of long duration.

[13] The matter ended up part heard on Friday 8 September 2017 and only continued during the last week of recess from 22 to 25 January 2018. I am reluctant to find but this conduct borders on unbecoming conduct.

[14] When the trial resumed on 22 January 2018, Mr Alli informed the court that he intends handing up the Plaintiff's Notice in terms of Rule 36(9)(a) and (b) for the expert witness, Mr J Weinmann, a structural engineer the plaintiff intended to call. Although Mr Shepherd did not object thereto, it is further indicative that the matter, from day one, was not trial ready in the normal course and that it was a trial of long duration. In view of the time already engaged on the matter, I decided to continue but I have to

voice my dissatisfaction on the manner in which the Practice Directive was circumvented and that the trial was not trial ready when called on 4 September 2017.

[15] After evidence was finalized, I requested counsel to have the record transcribed to assist me when finalizing judgment, the last portion of the record filed on 15 May 2018. I also requested written heads of arguments and due to inter alia illness of Mr Shepherd, the defendant's heads were only filed on 4 June 2018. The typed transcript exceeded 740 pages.

[16] The parties agreed to argue the matter on 29 June 2018 after the filing of the plaintiff's written reply to the defendant's heads of argument.

WITNESSES CALLED:

[17] The plaintiff called the following witnesses:

Barend Jacobus Van Niekerk;

Arnold Tshingano;

Pieter Andries Du Preez;

Prahdeep Dahmee;

Petrus Jacobus Myburgh;

Thsabelo Gladwin Mahlangu;

Bernard Louis Conradie;

Juan-Louis Venter; and

Johan Weinmann.

[18] The defendant called the following witnesses:

Jaques Henry Smith; and

André Fullard.

[19] I do not intend repeating each witness's evidence in full but will refer to the relevant aspects thereof as I progress with the judgment below. I will also when dealing with a specific witnesses's evidence, compare it with the equivalent expert's evidence on behalf of the defendant.

CLAIM: THE AGREEMENT:

[20] The plaintiff's claim is based on a partly written, partly oral agreement between the parties whereby the plaintiff purchased ready-mix concrete from the defendant. The agreement was entered into on 13 February 2013.

[21] The plaintiff was engaged in the construction of a river bridge and reached an agreement with the defendant to supply a certain concrete mix as per specification.

21.1 The plaintiff alleged placing certain orders for ready-mix concrete for the period of March 2013 to 15 May 2013 as set out in par 7.1 to 7.5 of the particulars of claim.

21.2 Three orders, as in par 7.2; 7.3 and 7.5, for concrete of 25 *mpa* and in par 7.1 & 7.4 for concrete of 15 *mpa*, were placed by the plaintiff at the defendant. *Mpa* refers to the concrete mix to withstand pressures of 25 and 15 ***megapascals per cubic metre*** respectively. The different required strength of the concrete was because of the specific use thereof in the construction of the bridge. The required strength for the base of the bridge was 25 mpa.

21.3 It was alleged in the plaintiff's particulars of claim that one Zodwa Ntuli placed the orders on behalf of the plaintiff. Tshingano however testified that he placed the orders with Ernest Grater of the defendant who accepted the orders on behalf of the defendant. Zodwa Ntuli was not called to testify.

PLAINTIFF'S WITNESSES:

BAREND VAN NIEKERK:

[22] Mr van Niekerk's evidence in brief was that he is the laboratory manager

for the Civil Engineering Materials Laboratory (referred to as"Matrolab). Mr Shepherd indicated that the witnesses's curriculum vitae, experience and qualifications was not in dispute.

[23] The essence of his evidence was that he was requested by the plaintiff to have certain concrete samples (known as "cores") tested. He was not present when the cores were sampled at the construction site (drilled and delivered to the laboratory) by Douglas, a technician from the laboratory. Although hearsay, he testified that Douglas went to drill the cores on the information supplied by another person. None of these two testified.

[24] Van Niekerk conceded that no one from Matrolab was present when the concrete was casted. He conceded that he could not confirm that the casting was done properly. He also conceded during cross examination that if the defendant's expert, Mr Smith's version was that if certain deviations in the density of the concrete was present, it would indicate that there was a problem in the way the concrete was compacted during the casting thereof. This would result in to much air left in the concrete (air bubbles or voids) resulting in a lower compressive strength of the concrete.

[25] Van Niekerk also testified that the laboratory was only mandated to per-

form a compressor test on the cores and not to fully analise the concrete. He testified that the actual testing in the laboratory is done by a technician who compiles a report on the data received from the testing. Van Niekerk only analises the report. Annetjie Verwey entered all the data and completed the report. After an objection as to hearsay was raised, Mr Alli indicated that Verwey will come and testify, but this did not happen.

[26] No density testing was done. In view of these concessions, there has to be doubt as to the result of the testing done by Martolab.

[27] Van Niekerk agreed with calculations done by Smith (expert on behalf of the defendant) that certain variations/voids of up to 11,2 % was found in the density of the concrete mixture indicating that there was a problem with the compacting after the casting thereof. This was later put to Dhanee that such variance was indicative of large quantities of air locked in the concrete negatively affecting the required strength of the concrete. Dhanee elected not to comment thereon. The effect of the presence of these voids on the quality/strength and test results of concrete are not dealt with at all. These voids were also visible on the photo copies handed in. See below when the voids are further discussed.

ARNOLD TSINGANO:

[28] Mr Tsingano is a qualified Quantity Surveyor employed by the plaintiff. His expertise and CV is not disputed by the defendant.

[29] He testified that he acted on behalf of the plaintiff to conclude the agreement with the defendant. The agreement as such is not in dispute although certain issues were canvassed. His evidence was predominantly about the calculation of the damages suffered and that he was on site for most of the time of the project. He is however not an engineer.

[30] His evidence differed from the particulars of claim where it was stated that one Zodwa Ntuli placed the orders with the defendant. Tsingano testified he placed the orders and Zodwa Ntuli was never called to testify.

[31] Tsingano said much about the rejection of the mixed concrete designs but in my view that does not have much to do with the dispute between the parties. That rejection did not effect the orders made by the plaintiff as to the concrete mix delivered. The five (5) orders as in annexures "C-G" were for 15 mpa and 25 mpa mixes. The rejected mix design did not alter the agreement between the parties.

[32] Mr Alli conceded that Tsingano was not an expert to give technical evi-

dence on the strengths of the concrete. Tsingano was called to give evidence on the calculation of the damages resulting from the alleged breach by the defendant. Tshingano can not take it further as to the dispute regarding the concrete. If necessary, I will deal with that aspect below if the court finds that the defendant indeed breached the agreement. In my view the question about alleged damages will only become relevant once it is clear that the defendant was indeed in breach of its obligations to supply a specific strength of concrete.

PIETER ANDRIES DU PREEZ:

[33] He was the resident engineer on the site of the construction. Like the other witnesses, his expertise is not disputed.

[34] He explained the duties of a resident engineer to ensure that the quality of the work done at the construction site is done according to the specifications and drawings of the project and to keep in mind the budget of the project.

[35] It is the duty of the contractor to provide the resident engineer proof that the work is done accordingly. He will conduct certain tests on the steel reinforcement but the actual testing of the concrete is done by a labora-

tory. The results of the testing is forwarded to him by the contractor. Although he alleged that he was present most of the time when the ready-mix concrete was delivered, he later contradicted himself on this.

[36] Du Preez testified that he was present 80% of the time when the concrete was delivered but conceded during cross-examination that the majority of concrete was delivered during the night and he left the site normally at 17:00. It is thus clear that he was incorrect in this regard. He also conceded that because the deliveries were mostly at night, he cannot comment whether the required vibration/compacting of the concrete, when delivered and poured was done proper. His evidence in chief was that the compacting of the poured concrete was of utmost importance, but that he was absent when the bulk was poured and compacted.

[37] Du Preez agreed with the opinion of Jacques Smith (expert to be called on behalf of the defendant) that the compacting of poured concrete is very important to ensure that as least as possible air remains in the concrete during the curing/compacting thereof because if the air is not removed, the air weakens the strength of the concrete. These are the voids referred to in the various laboratory test results. Du Preez was adamant that the vibrating/compacting was the duty of the contractor.

[38] Du Preez referred to ***slump testing*** done by the contractor and himself of the concrete when delivered to ensure that the concrete was workable on arrival. This is done because concrete can ***sag*** during transportation thereof and this test is to determine the suitability/ work ability and the consistency of the concrete before it is poured. All the delivered concrete (15 mpa and 25 mpa) passed this slump test. He differs from Mahlangu on this aspect as Mahlangu testified that water was added to the 15 *mpa.*

[38] Du Preez stated that as engineer his duty is to oversee and not to manage the contractor's work for him. He also did not prepare the samples of concrete to be tested by the laboratories. He, on receiving the test results, only compare it. He also stated that he is not a concrete specialist.

[39] Du Preez rated the plaintiff as low as four (4) out of ten (10) on skill and knowledge. See joint minute dd 18 November 2016 (**Exhibit "A"**). This was the opinion of both the experts Du Preez and Smith. He based this on inter alia that he did not receive any technical assistance from the plaintiff how to resolve the issue.

[40] Du Preez also said that the plaintiff is not the type of contractor he would put on a big project because they make mistakes and gave the plaintiff an

initial rating of four out of ten. He only increased this rating because the plaintiff later completed the project. This new rating seems not to be done on any technical skills improvement or other related knowledge. This is rather significant when the plaintiff's own expert questions the skill and knowledge of the plaintiff. This obvious raises concerns as to the performance of the plaintiff during construction.

[41] Du Preez together with the other engineers decided to demolish the base without any consideration of a full load performance test or strengthening the existing base despite a request from the contractor. This is evident from the site meeting on the 25th of June 2013. No proper costing was done to compare such steps as envisaged in **SANS 878-2004 (Exhibit - F1)** page 16. There is no indication that the way suggested in **SANS** could not be explored before demolishing the structure. This should be kept in mind when deciding whether demolishing was the best route under the prevailing circumstances. Tsingano's version was that no costing was done to consider the alternatives to correct the problem. This in my view casts doubt whether the decision to demolish was the best possible decision under the prevailing circumstances. See below where the **SANS** and **COLTA** requirements/prescripts with regard to testing, are compared.

[42] Du Preez testified that he was not always on site and in particular when the bulk of the concrete was delivered at night, keeping in mind that no expert evidence was tendered on behalf of the plaintiff regarding the curing and compacting of the concrete, the question arises whether the workmanship by the plaintiff was of such to exclude to possibility that this contributed to the problem with the concrete.

[43] Du Preez also testified with regard to the costing done and had certain reservations with regard to the Bill of Quantity (BOQ). This impacts on the damages portion of the claim and will be dealt with below if necessary. He also found certain costs in the BOQ to be extravagant. This questions the issue of the quantum of the plaintiff's claim to damages.

PRADHEEP DHANEE:

[44] Mr Dhanee was the project/consulting engineer in relation to the bridge during 2013. He was involved in the project administration and represented the plaintiff in terms of budget expenditure, programming and cash flow.

[45] Dhanee testified that after consultation with Du Preez and considering the tests results form the laboratories with regard to the cubes and cores, they

took the decision to demolish the structure. Although he testified that demolishing the structure would cost extra money, he like Du Preeez gave no comparison between the costs resulting from demolition compared with alternatives as in the SANS of the National Standards 878 regarding ready-mix products; in particular as to the costing doing a full-scale performance test or possibly strengthening the structure.

[46] He testified that consideration was given as to a possible negative effect upon the river flow, the hydrology of the river, erosion and increase in the road level should any alternative be done. He however did not give any specific direct evidence in this regard. His version amounted to mere speculation with no factual basis at all. No costing was done, no environmental impact study was done to determine any negative impact should alternative measures be taken other the demolition.

[47] In view of the remarks made by Du Preez about the BOQ, the mitigation of damages aspect and the calculation of the alleged damages suffered by the plaintiff is in doubt. This aspect in rather cloudy in view of the evidence tendered. I will comment below in this regard with reference to the onus of proof.

[48] The failure to conduct a full-scale pressure test or consider the possible strengthening of the structure when deciding to demolish raises the question whether they properly applied their minds in deciding to demolish. The quantity for concrete in the BOQ (240 cubic meter vs 90 cubic meter used) is far more than what was used. Du Preez and Dhanee differ in this regard. They have different views as to certain costs of the engineer as well.This raises doubt as to the correctness of the BOQ.

EVIDENCE ON THE INVOICE FOR STEELWORKS:

[49] There was a concession by Mr Shepherd with regard to the invoice rendered for the amount of R 142 118,31 with regard to certain steel supplied and payed for, on condition that the merits of the plaintiff's claim remained in dispute. The concession pertained to the reasonableness of this portion of a possible claim.

PETRUS FRANCIOS MYBURGH:

[50] Mr Myburgh is an expert in drilling, blasting and demolition of constructions above and below surface. He has almost 30 years of experience and his expertise was not placed into dispute by Mr Shepherd.

[51] He testified that he was employed to perform the demolition (blasting off) of the structure by the plaintiff. He gave a version of the demolition under-took and confirmed the invoice delivered to the plaintiff therefore in the amount of R 31 920,00 (as quoted for by himself prior to the demolition).

[52] Although he only performed the blasting and not the rubble removal there-after, he was requested to comment on the items in the BOQ with regard to the reasonableness therefore. He did not perform the rubble removal but it transpired that it was done by the plaintiff itself using its own machinery and labour. Myburgh was not present when the rubble removal took place, has no knowledge of the size of the excavator used or the number of trucks used. His comments were that the itemized costs in the BOQ is more or less in range. Again, the value of this evidence with regard to possible cal-culation of damages seems rather vague and general.

SEABELO GLADWIN MAHLANGU:

[53] Mr Mahlangu is a civil engineer by profession and was employed as the foreman for the project. His duty was to oversee the construction of the bridge.

[54] As foreman on site persons coming onto site has to report to him, he was

aware that two (2) ready-mix concrete suppliers delivered concrete for the blindings of the bridge (Pierdal and Gert Tack-the defendant). The required mix design for the blindings were 15 mpa and for the base 25mpa was required. The defendant supplied the concrete for the base.

[55] Mahlangu's evidence was largely factual that he as the site foreman was present when the concrete deliveries were made and that he signed for all deliveries. During cross-examination he changed this aspect and it is clear that one Sonnyboy signed most of the delivery notes. He however stated that he was present on site busy with the pouring of concrete when the other deliveries took place.

[56] He conducted the slump tests on the deliveries and that water was added to the 15 mpa concrete to pass the slump test. No explanation was tendered why the 15 mpa concrete needed water added to pass the slump test. Du Preez did not mention this during his evidence.

[57] He prepared the cores for the laboratory testing and described how he compacted it to take out ***"some of the voids".*** He then tried to amplify this by stating it should have no voids in between. It is not clear whether there were any voids left after compacting it with a rod. No further evidence was

led as to how the cast concrete was compacted to ensure no voids of significance or air were present after compacting was done. In view of the evidence above by Van Niekerk and what Smith was to testify, there is doubt as to whether the compacting was indeed done correctly. The concession by Van Niekerk as to the skill and knowledge of the plaintiff cannot be overlooked.

[58] Mahlangu prepared all the cubes for testing and although his version of how it was done was not destroyed during cross-examination, no evidence of the process of the compacting of the concrete was tendered. Nothing was said about how the process works to ensure that no voids (air) are left behind in the compacted concrete. The version of Van Niekerk and Smith as to the voids (air) in the samples should be taken into account when deciding whether the version of Mahlangu on the compacting of the poured concrete is sufficient to find that it was done properly.

[59] No evidence was presented by Sonnyboy who received the bulk of the concrete, in particular water added to the 15 mpa concrete and the workability of the concrete (slumpness thereof) at delivery.

BERNARD CONRADIE:

[60] Conradie is the owner of Civils Engineering Materials Laboratory (LTG). He has approximately 14 years experience in the testing of concrete. He testified that both the cube and core tests on the samples from the construction site were tested at the facility. He conducted the tests according to the **SANS test method 5863.** He was requested by the plaintiff to conduct the necessary test. See exhibit **"H"** extract form **SANS.**

[61] He received the cubes as prepared by the plaintiff's personnel whilst one of his technicians did the on site drilling to retrieve the cores for testing. Although hearsay evidence, the specific drilling position was indicated to the technician by the on site personnel of the plaintiff. He could not testify on the correct position where the cores were extracted form.

[62] The technician, Juan Louis Venter, retrieved the cores. See his evidence below. Conradie relied on the information he received from Venter when drawing the plan as to the position of the extracted cores.

[63] Conradie testified how he performed the test. He was only requested to conduct a compression test and not to analyze the sample of to perform a density test. He also only tested the cubes delivered to his facility. He did not request a specific minimum number of cubes for the testing.

[64] The results of the tests conducted on the cubes indicated that the material was of inadequate strength below the 25 mpa requirement as per the design of the bridge. The core tests's results were similar.

[65] Various aspects in Conradie's evidence are however questionable for rather obvious reasons. Although he professes to have 14 years of experience in concrete testing, the following aspects are mentioned:

- his facility is not accredited. This only came to light during cross-examination. He then said to gain accreditation you, probably the facility/laboratory, undergo a thorough process to become accredited. No explanation for non-accreditation was given.

- to become accredited, the facility has to be assessed via a SANAS assessor to determine whether the facility has the technical skills to do testing, that all machinery is properly calibrated, and that the facility is in order to be accredited. Nothing was placed before the court to assure that the facility and personnel all complied with the required standards.

- although Conradie said all testing was done according to **SANS test method 5863** it was clear from his evidence during cross-examination he did not comply with the required test prescribed in the following:

- the number of cubes tested were insufficient; SANS prescribes that at least three (3) cubes be tested and results compares- Conradie only tested one (1) cube at 7 days and only two (2) cubes at 28 days;

- SANS prescribes that if a variance of more than 15% results from the specific testing, an investigation must be done. No investigation was done by Conradie and no reason was given by him why it was not done as prescribed.

- SANS 5863 (par 14.3.1.4) is clear that at least three (3) cubes shall be tested at 28 days to obtain a valid result. Testing of cubes at other ages *may* be tested for information. It is clear that when comparing results to determine whether a variance of 15% exists, cubes of different ages cannot be compared with one another. No acceptable explanation was given for this deviation from the prescribed test in SANS.

- SANS further prescribes that if test results fail to meet the accepted criteria, an assessment of the stress level in the structure ***shall*** be carried out. This was never done.

- the variance of 12.9 mpa at 14 days to 21.1 & 21.6 mpa at 28 days may well be indicative as to why the results on different days are incomparable

and why SANS prescribes 28 days for testing. No acceptable explanation was given why such a huge variance can occur. Although not explained, it is rather interesting that the strength increased significantly in 14 days.

- Conradie never did a calculation to determine whether the variance was more than 15% and did not follow SANS thereafter.

- Conradie could not explain why and how test results unrelated to this matter got mixed up in the papers.

- of significant importance in Conradie's evidence during cross-examination was his concession that, as testified by Mahlangu, that the curing process was not proper if the cube moulds are removed from the water within two to three hours after preparing the moulds. This may confirm Du Preez's poor rating of the plaintiff as to skill and knowledge in general. Mahlangu did not refer to a curing tank as expected by Conradie for proper curing.

- according to Smith the making of the cubes were not according to the accepted standard with regard to the insufficient quantity of samples and the technique and lack of accepted equipment (moulds and curing tank) when making the cubes.

[66] In my view the version of Conradie is not helpful for the plaintiff's case.

The reliability of the test results in view of above in questionable. See below where the aspect of the onus is dealt with as to the reliability of the insufficient number of cubes and the overall onus with regard to the proving of its claim by the plaintiff.

INTERPOSE:

[67] The matter then became part heard and a date was to be arranged for the continuation of the trail later.

[68] Indicative of the overall situation that the matter was not trial ready on the first day, Mr Alli proceeded to hand up further expert notices when the trial resumed on 22 January 2018. No reasonable explanation was given for this the very late filing of expert notices and joint minutes. I accepted it because of the time already in court and in the interest of the clients who have little control of the compliance with Rules and the Practice Directive. It however remains unacceptable that the Practice Directive is circumvented by the parties in this way. This caused a further delay to allow the defendant to consult with its expert about the late report.

JUAN LOUIS VENTER:

[69] Venter was employed by the plaintiff during 2013 as a civil technician. His expertise as set out in the Rule 36(9) notice like all the other experts, was not disputed by the defendant.

[70] Venter's evidence with regard to the matter was that he was tasked to drill certain cores at the site of the construction of the bridge. His evidence as to the precise location to drill and extract the cores was that the pointing is done on site by the plaintiff's manager on site.

[71] He drilled five cores and he marked the location of extracting of the cores on the plan as reflected on p 214 of the bundle. He numbered and marked the exact locations from 1 to 5. Although Mr Alli earlier objected to the use of the plan whilst Mahlangu testified, the plan originated from the plaintiff's employees and was provisionally allowed as evidence.

[72] Mr Alli's objection was that the receiving of the plan earlier amounted to hearsay evidence, but now that Venter confirmed that he was the author thereof, that objection falls away. In any event, the admitting of the plan earlier was provisional and within the ambit of section 3(1)(c) of the Law of Evidence Amendment Act 45 of 1988. See **Ramavhale 1996(1) SA 639 (A) at 664-652.** There can be no prejudice in allowing the plan in particu-

lar after the evidence of the author thereof. As earlier indicated, the plan was part of the plaintiff's discovered documents and was part of the plaintiff's trial bundle from the beginning.

[73] Venter was very clear as to the markings of the places where the cores were extracted and that it was from the base of the construction. When he was confronted during cross-examination that Mahlangu earlier testified that some of the marked places are on the apron and not the base of the construction, he reluctantly conceded that the portion not in dark on the plan may well have been the apron, resulting that some of the cores may well have been extracted from the apron and not the base.

[74] Mahlangu's evidence was that cores 2, 3, 4 and 5 were actually extracted on the apron of the bridge, if the markings made on the plan on p 214 were correctly indicated.. This seems to be correct if the plan on p 214 in taken into account. Keeping in mind the overall onus, this may be detrimental to the plaintiff's case.

[75] Venter further testified that, at the time of the extracting of the cores, in view of the extraction position as marked by him on the plan, he would not have known the difference between the "base" and the "apron", particu-

larly in relation to the view from the top of the bridge as reflected on the drawings on p 215.

[76] It is thus most probable that the majority of the cores were extracted from the apron where the required strength of the concrete mix was 15 mpa. The subsequent test results are therefore questionable to be relied upon for the following reasons:

- Van Niekerk only interpreted the data received from the laboratory personnel, he never "oversaw" the actual process when the cores were extracted or tested in the laboratory. Although Mr Alli indicated that Me Verwey would testify on the testing of the cores, she was not called to testify on this aspect. The opinion of Van Niekerk is therefore of very little value because he cannot confirm the correctness thereof;

- The extraction of the cores are most probable from the apron and not the base of the construction;

- Van Niekerk conceded that Smith's calculation of the density on the cores is an acceptable manner and an agreed procedure to calculate same;

- Van Niekerk further conceded that excess voids (up to 11,2%) depicted in his report indicated something probably wrong with the compaction of the

concrete and that this should have been raised by the engineer on site. Van Niekerk conceded that to much air (as in the voids) in the concrete would influence the strength of the concrete.

[77] The results of the core tests in my view are of very little value at all for reason that the results do not prove that the concrete delivered to site did not comply with the product ordered.

JOHAN WEINMANN.

[78] Mr Weinmann is a structural engineer with 23 years of experience. His expertise was conceded on behalf of the defendant. There is therefore no need to repeat his full curriculum vitae.

[79] Weinmann's evidence in broad was that he received the Bill of Quantities (BOQ) and that he established that the numbering in the BOQ correspond with the numbers used in the COLTA (The Standard Specifications for Road and Bridge Works for State Road Authorities). He also testified that he is familiar with the SANS specifications (The SANS specification for concrete construction also referred to as SABS 1 200 G). The latter is generally used in the construction of concrete buildings structures but not

necessarily in bridges.

[80] He accepted that the COLTO specifications were applicable on the project. On bridge designs he stated that there are two (2) parts to the design, the first deals with the loads to be used to design the structure and the second the actual design of the concrete elements of the bridge.

[81] He never visited the building site and based his opinion on the documentation (the BOQ and the core test results) to from his opinion. He had a discussion with Mr Fullard, the expert on behalf of the defendant but differs from the opinion of Fullard.

[82] His conclusion in chief was that the concrete supplied did not meet the specified requirement of 25 MPA and therefore did not meet the acceptance criteria for cores as specified in the code. He at first concluded that the engineer was correct to take the decision to demolish the concrete. He also conceded that he based his opinion on the core test results supplied by LTD Civil Services and of Matrolab.

[83] He did state that although the COLTA specs normally applied in the construction of bridges, that the design engineer would have the choice whether to use COLTA or SANS 10100 specs. He stated that it is a 50/50 in the

industry what specs are normally used. He also stated that the different materials such as the stone (dolomite, granite), cement, sand and water used to prepare ready-mix concrete could also determine the strength of the final product. Other factors that could have a bearing on the end result of the ready-mix could be poor control over the different material quantities, any contaminations etc that goes into the mix during preparation. He did not mention the effect of poor workmanship whilst the casting of the concrete on the final outcome of the concrete during his evidence in chief.

[84] During cross-examination he made several concessions with regard to the following:

(a) The fact that although he at first stated that, due to COLTA, the engineer was not obliged to consider various options to consider in the instance of non-compliance with specifications regarding the concrete;

(b) That SABS standard 878 takes preference over COLTA when dealing with ready-mix. This was very clear from SABS 878 that "*where ready-mix concrete is delivered at the site the requirement of SABS 878* ***shall*** *apply priority over the requirements specified should inconsistencies occur*".

(c) He also conceded that, contrary his evidence in chief, a reasonable

engineer should follow certain procedures in the event of non-compliance with the criteria, allow certain tests to be conducted in order to decide whether concrete may be left in position or to demolish it. See COLTA par 6.4.1.4.

(d) This provided inter alia for a further curing of the concrete for an additional 56 days, and for full scale load tests to be conducted in accordance with SABS 10100 Part 2 to determine whether the particular structure can be left in position.

(e) He also conceded that SANS 10100 places an obligation on the engineer in instances where non-compliance of specs of the concrete is tested, to revisit the design, to perform a full scale load test and to consider strengthening the deficient part of the structure or to widening the base of the bridge before a final decision is taken to demolish the structure. Wienmann conceded that a reasonable experienced engineer would consider these options and other options known to the engineer before as a last option to demolish the structure. Although the options in SABS 10100 are not on descending order, reason dictates that to demolish would be the last resort if all other options fail. He stated that if he was the structural engineer, demolishing would be the last option.

[85] Weinmann was not aware of the low rating of the plaintiff's workmanship and skill by its own resident engineer (Du Preez) - 4 out of 10- and conceded that poor workmanship on site could affect the results of the cube and core tests. If taken into account the high voids in the cubes (even visible on the photographs), this factor cannot be excluded at all. I will discuss this aspect below when evaluating the evidence as a whole taking into account the burden of proof and other legal aspects.

[86] I need to mention that the very late filing of the expert notice with regard to Weinmann resulted in Mr Shepherd to request a further stand down to canvass it and Weinmann's evidence with Fullard (the defendant's expert in this regard) resulting in the further loss of time.

[87] The defendant applied for absolution of the instance after the plaintiff closed it's case. The application was dismissed and the costs ruled to be costs in the main action. Mr Alli argued that he is entitled to costs for preparing his heads of argument because according to him a day stops at 16:00. This was unconvincing and I held that it is part of the day fee for the specific day.

DEFENDANT'S WITNESSES:

JACQUES HENDRY SMITH:

[88] Mr Smith as a practicing civil with 10 years experience specializing as a consultant in concrete. His practice has a laboratory that is internationally accredited through SANAS (South African National Accreditation Systems). He is also accredited with the Engineering Counsel for CPD points for professional engineers on concrete technology lecturing for the past 27 years on concrete technology. Like with the other experts, Mr Alli did not dispute his expertise and it was not necessary to read out his CV.

[89] The essence of his evidence related to the following three aspects:

(a) The joints minutes between himself and Van Niekerk, the plaintiff's opposing expert (Ex "A", "B" & "G");

(b) The concrete cubes- sampling and testing thereof; and

(c) The concrete cores-sampling and testing thereof.

[90] He, like Van Niekerk, and the majority of the other experts, were not present or involved in the making/sampling and testing of the cores and cubes. They all rely on the various laboratory reports and results, and he based his opinion on the documentation presented to him. Although his evidence in cross-examination on the method/taking of the samples is not

beyond criticism, there is no reason to reject is outright. From a careful reading of what he said on the sampling it seems that he explained that the different cubes made should be from the same truck to ensure when comparing these results cubes from the same source is compared with the same and not with different concrete from other trucks. I am of the view that the criticism is somewhat unfair. Similar is the criticism on the aspect of the first and last 10% of the running stream of the concrete not convincing.

[91] What stands uncontested between these two experts and others is that poor workmanship would weaken and influence the strength of the concrete. The plaintiff's own resident engineer rated the workmanship of the plaintiff at 4 out of 10. This lack of workmanship casts a shadow of doubt over the skill of the employees of the plaintiff in particular to the pouring and subsequent compacting thereof, particularly in view of the excessive voids in the concrete, even visible on the photocopies handed in. The plaintiff did not produce any evidence on the excessive voids in the concrete (also visible on the photographs). Van Niekerk in his evidence conceded that the presence of the excess voids is indicative of a problem with the compacting of the concrete after the pouring thereof. He was confronted with what Smith will testify and he agreed with what was put to him. It has to

be remembered that Dhanee could also not confirm that the compacting of the concrete was properly done by the employees of the plaintiff.

[92] From the joint minutes between Smith and Van Niekerk (Ex "B"& "G"), LTG Civil Services Laboratory was not accredited for testing of the cube testing but Martolab (for the core testing) was accredited. These joint minutes were compiled between the two experts on 4 September 2017 and 8 September 2017 after discussion of the issues.

[93] From Exhibit "B" (joint report by Smith and Van Niekerk dd 4 September 2017), it is clear that the experts agreed that there was a problem with the compacting of the concrete and that the photo's indicate large quantities of air in the concrete. All the experts agreed that such air would impact on the strength of the concrete, and is indicative of the poor skill and work-manship of the plaintiff as rated by it's own resident engineer.

[94] Exhibit "G" is critical on the testing by LTG laboratory. This is a joint minute by the concrete experts of both parties. I will refer to this below, in particular with reference to the onus to proof and when commenting on the value of the evidence by each witness.

ANDRÉ FULLARD:

[95] Mr Fullard was the last witness called on behalf of the defendant. His expertise was, like all the other experts, not disputed by Mr Alli on behalf of the plaintiff. He is a qualified consulting structural engineer with 42 years of relevant experience and it currently self employed.

[96] His evidence was mainly about the various test results and what he perceives to what a reasonable experienced engineer ought to have done after receiving the results. He prepared a comprehensive report (exhibit "K") setting out his opinion on the results of the testing and suggested remedial action that should have been taken. It has to be remembered that he could not visit the sight of the bridge because it was rebuilt before he was mandated.

[97] As testified by Smith with regard to the cube testing and subsequent results from LTG, Fullard had reservations as to the value of the results for reason that the procedure was in want of compliance with the necessary specification because inadequate quantities of cubes were tested as sampled and also that the initial testing were performed 14 days and not 7 days from making of the cube samples and that the cubes were not representa-

tive of the entire batches of delivered concrete. This casts a shadow over the value of the results and may also be due to the very low score on skill and performance given to the contractors by it's own resident engineer (Du Preez).

[98] Mr Alli cross-examined Fullard extensively but in my view this does not detract on the value of his evidence. The fact that he was not in possession of the BOQ or other drawings has no bearing on the opinion he casts on the doubtful testing procedure and results.

[99] Fullard also explained the various options he set out that an experienced engineer ought to have considered after receiving the results in question. Although COLTA places no obligation on an engineer in situations like this, if read in conjunction with SANS 1 200 G, and conceded by Weinmann, a contractor and also the project engineer, should consider various options to remedy the defect before deciding in the last instance to demolish the structure. It is however clear that COLTO instructs the engineer to do additional curing of the concrete in instances like this. The additional curing should be over a period of 56 days. It is therefore clear that where problems with regard to the concrete occur, additional curing must be done. This was not done at all.

[100] Fullard comprehensively dealt with these options in his report and his evidence. I am satisfied that Fullard's remedial recommendations are reasonable and within the ambit of COLTA and SANS. The criticism now leveled against him by Mr Alli in his heads of arguments is in my view without substance.

[101] Fullard had the results from LTG, Geo-Africa and Matrolab to his disposal. He commentted on the variance between the upper and lower values of the cores and opines that these extremely high variances calls for an explanation. According to his opinion concrete from the same mix design, if well compacted and well-cured, cannot result in such great variance of strength. Factors such as workmanship, ia curing and compacting, are at play. He continues that the poor results may be for the following:

* poorly manufactured ready-mix concrete by the supplier - (no evidence in this regard is before the court);
* poor workmanship, ia compacting, curing on site - (the poor skill rating of the contractor by it's own resident engineer raises eyebrows);
* inadequate samples made for testing;

See **Exhibit "K".**

* There is also no evidence of inherent defects in the concrete mix-design.

[102] The above summarizes the evidence on which the Court has to decide. In total eleven expert witnesses testified, all qualified in a specialist field in the engineering and construction field.

LEGAL PRINCIPLES AND EVALUATION OF THE EVIDENCE:

[103] The departure in any civil matter is that he who alleges has to prove. See **Pillay v Krishna 1946 AD 946, 951** and **Mobil Oil Southern Africa (Pty) Ltd v Mechin 1965 (2) SA 706 A 711.** *"Semper necessitas probandi incumbit illi, qui agit"* from D 22 3 21, meaning the plaintiff who alleges has the need to prove the probandi -facts in order to be successful. The burden to prove is on a balance of probabilities.

[104] The Supreme Court of Appeal (SCA), then the Appellate Division of the High Court, in **Stellenbosch Farmers' Winery Group v Martell and Others 2003 (1) SA 11 SCA** dealt with the legal position where conflicting versions between the various parties exist. Various aspects such as credibility, reliability, and the probabilities must be considered. The possibility of bias of witnesses towards the outer side must be examined. The court also has to consider contradictions in a witnesses's evidence and contradictions between the various witnesses of a particular party's

witnesses. There are other factors to consider when evaluation the evidence as a whole such as set out in the **Stellenbosch case** which I considered before coming to a finding.

[105] The overall onus on a plaintiff normally does not shift unless the defendant raises a defence calling for prove beyond the initial onus. See **Mabaso v Felix 1981 (3) SA 865 A.** In **Woerman and Schutte v Masongo 2002 (1) SA 811 SCA** on **819 A-C** the SCA held that "*In any event onus, in the sense of the duty that is cast on a particular litigant, in order to mbe successful, of finally satisfying the court that he is entitled to succeed on his claim or defence is a matter of substantive law and not procedure*".

[106] The plaintiff's claim is premised upon a partly written, party oral agreement between the parties in terms of which the defendant had to deliver various consignments of ready-mix concrete as and when ordered by the plaintiff from the defendant. In order to succeed, the plaintiff had to prove:

* that there was an agreement;

* the terms of the agreement;

* the alleged breach of the agreement by the defendant;

* that the plaintiff suffered damages as a result of the defendant's breach of the agreement;

* a casual link between the breach and the damages; and

* that the loss was not to remote.

[107] The existence of the agreement and the type of concrete to be delivered is not in dispute. The dispute between the parties is whether the ready-mix concrete delivered was what was ordered and whether the concrete developed to the required strength as per the design requirement of the project.

[108] There is no dispute as to the consignments delivered as per the pleadings. This is however not the end of the road for the plaintiff. In order to acquire the design strength the concrete is poured and compacted. It is then, after the cores and cubes were prepared, subjected to the various tests. Various aspects then come into play that will ultimately effect the strength of the final product. This is influenced by the following:

* the design (formula) of the ready-mix;

* the process of curing the concrete after the pouring thereafter;

* the preparation and further handling of the cubes made on sight by the contractor;

* the correct testing procedure- including the number of samples taken/made;

[109] If the ready-mix design was incorrect as prepared and supplied to the plaintiff by the defendant, the further curing of the concrete will not enhance the developing of the concrete to the required strength. If however the design of the ready-mix is correct, it is not a forgone conclusion that the concrete will develop to the required strength. The experts were all in agreement that there are some main factors that play a role in this regard namely:

* the concrete design,

* the compacting and further curing of the concrete; and

* the correct procedure, making of and collecting and testing the cubes and cores.

[110] There is nothing to suggest that the ready-mix design was incorrect. The defendant's witnesses were never cross-examined on this aspect nor was it put to Fullard during cross-examination that poor workmanship can be excluded as a potential contributor to the deficiency in the strength of the

concrete after delivery. See **President of the Republic of South Africa v South African Rugby Football Union 2000 SA 1 CC at par 61 and on (The Sarfu-case).** *A point in dispute left unchallenged in cross-examination is accepted as correct.* This maxim was applied in **Dexion Europe Ltd v Universal Storage Systems (Pty) Ltd 2003 (1) SA 31 at par 15 (39B-D).**

[111] A similar approach was previously adopted in **Pezutto v Dreyer 1992 (3) SA 379 AD.** No evidence was further presented by the plaintiff to exclude poor workmanship on its part as a contributing factor to the deficiency in the development of the strength of the concrete.

[112] Fullard also testified that according to his analysis of the ready-mix design, it should be able to reach the required 25 MPA strength. It can safely in my view be accepted that it excludes that the ready-mix as delivered contributed to the deficiency in the final product.

[113] The poor skill and workmanship rating of the plaintiff by it's own resident engineer now becomes more relevant. The evidence further of Venter as to the exact locations, as clearly marked by him on the plan (p 240), becomes more relevant in that where he collected the drilled

samples could be on the apron and the base of the bridge. It is clear that two different strengths of concrete was used on the aprons and the base. This questions the workmanship and the skills of the people utilized by the plaintiff. The inadequate number of samples and then what Fullard remarked that concrete from the same batch when tested will unlikely differ so large as was here see in the variances. The excessive visible voids is a further indication of poor compaction of the concrete.

[114] On the above the likelihood of poor workmanship and not incorrect concrete design was the main contributor to the plaintiff's dilemma. In view of the overall onus the plaintiff has failed to prove beyond reasonable doubt that the defendant materially breached the agreement.

[115] The question of damages need not be addressed in view of the plaintiff's failure to prove any breach of the agreement. I however am of the view that there are certain unsatisfactory aspects in the approach by Tsingano in particular when calculating the alleged damages that his approach is not above criticism. To mention but some is the charging of VAT on VAT and other aspects. Tsingano was not a satisfactory witness, being evasive, aspects contrary the pleadings and receiving payments on top of salary from the plaintiff. The court with respect cannot rely on his

evidence.

[116] Under the circumstances I am of the view that the plaintiff has failed to prove its case.

COSTS:

[117] Costs are in the discretion of the court. The normal rule is that costs follow success, unless there are other factors why the court should deviate from the normal rule. I am not persuaded that there is any such in this matter. The only aspect to decide is whether the defendant is entitled to costs of two counsel.

[118] Mr Shepherd explained why the defendant employed two counsel. The previous senior counsel became unavailable and thereafter Mr Shepherd was briefed. The matter was not an ordinary matter but intricate and in my view justifies the appointment of two counsel.

[119] Mr Alli in his heads argue that the matter could have been finalized earlier but that the conduct of the defendant on various instances during the course of the trial led to unnecessary postponements, in particular when the defendant requested to have the matter stand down to prepare with

Fullard. The conduct on behalf of the plaintiff to evade the practice directive was addressed above.

[120] Mr Alli however forget why this was necessary- the plaintiff's expert notice was well out of time and only after the matter was part heard. The aspect of non-compliance with the practice directive. The plaintiff now wants to blame the defendant for what was caused by the plaintiff. His argument in this regard does not persuade me.

ORDER:

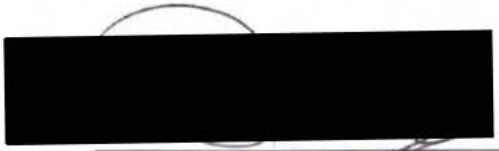
BY ORDER OF COURT:

[121] I make the following order:

1. The plaintiff's action is dismissed with costs.

2. The costs is to include the costs of two counsel.

Signed at Pretoria on this 8th day of January 2019.



HOLLAND-MÜTER J
Acting Judge of the Gauteng
Division of the High Court, Pretoria

TO:

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