

HAVE I REACHED SUBSTANTIAL COMPLETION?

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ABSTRACT: This paper reviews the important issues related to determining if substantial completion of a construction project has been reached. This milestone is important because it means that the contractor is entitled to the release of retainage, less deductions for uncompleted work. Because the owner has the right to occupy and use the facility, there can be no breach of contract beyond this point in time because of late completion. Liquidated damages cannot be assessed beyond substantial completion. Equipment warranties also take effect. Four questions are addressed: Was the purpose of the project defeated? Did the owner benefit from using the project? How extensive are the defects? And, how easy are the defects to correct? Of these questions, the principle one is whether the purpose of the project was defeated. If no, or if the owner benefitted from the work, substantial completion has likely been achieved. Several examples are given.

INTRODUCTION

Timely completion of a construction project is one goal of the owner and contractor. When completion is delayed, each party will likely incur additional costs and lose potential revenues. Owners often attempt to discourage delay-related disputes by incorporating a liquidated-damages clause in the construction contract. The liquidated-damage assessment usually continues until substantial completion of the project. Thus, it becomes important to know when substantial completion has been reached.

The objective of this paper is to explain the significance of the substantial-completion doctrine and how it has evolved through judicial interpretations. Rules that are valuable to contractors, owners, and contract administrators for determining substantial completion are presented.

CONTRACT LANGUAGE

The American Institute of Architects (AIA) defines substantial completion as follows:

Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use. (American 1987)

The basic premise—when the project is complete in accordance with the contract documents and can be used for its intended purpose—is not always well defined, and may require the evaluation and certification by a professional.

Many contracts contain two completion milestones: substantial completion and final acceptance. Final acceptance may occur 30–60 days after substantial completion. During this time, punchlist items are finished. The damage assessment for the second period is much less than the full liquidated-damage amount, but sufficient to encourage completion of the punchlist items. Clearly, one must carefully read the contract language because the contract may contain specific definitions or unique provisions.

BACKGROUND

Owners typically specify a completion date or the number of calendar or working days allowed for performance of work. Failure to complete a project on time can become the source of a major dispute between the parties.

Usually, the contract will specify the procedures to be used to determine substantial completion. Normally, the contractor notifies the design professional or the designated owner representative that, in the contractor's opinion, the project is substantially complete. If an inspection by the design professional or designated representative confirms the declared project status, the

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design professional prepares a certificate of substantial completion and delineates the punchlist items to be performed prior to final completion. The contractor is entitled to the release of retainage except for an amount sufficient to cover the cost of the punchlist items.

Determining substantial completion can be a point of contention. As defined by Ricchini (Ricchini and O'Brien 1990), substantial completion is reached when the project is sufficiently complete so that the owner may occupy it or use it for its intended purpose, whether the owner does so or not. The owner may express discontent towards the final product, its outcome, or nonconformity to specifications, and a certificate may not be issued by the designer. The problem will be further compounded if the contract does not identify procedures for determining substantial completion.

SUBSTANTIAL PERFORMANCE AND SUBSTANTIAL COMPLETION

Substantial performance has two distinct legal meanings. On the one hand, substantial performance refers to the date and significance of that date in the contract. This contract milestone is usually called substantial completion. On the other hand, substantial performance refers to a court finding that a party, although not in full compliance with the terms of the contract, is entitled to recover the contract amount less the value of incomplete work. The significance is that the contractor does not have, in all cases, to do exactly what was contracted to be done.

There are a number of cases concerning substantial performance in which the item, although minor, is given major status because of the risk to health and safety. Examples may include marginal design, concrete cover, pressure testing just shy of a target value, and so forth. A discussion of this topic is beyond the scope of this paper.

SIGNIFICANCE OF SUBSTANTIAL COMPLETION

Substantial completion is an important project milestone because of a number of reasons. These are detailed as follows:

Entitlement to Retainage

Upon reaching substantial completion, the contractor is entitled to the retainage minus deductions for work not yet completed. Deductions are generally limited to punchlist items or remedying defects in the work.

In the landmark case, *State of Louisiana v. Laconco*, 430 So.2d 1376 (1983), the contractor, Laconco, constructed a 60-man National Guard armory for the State. The architect certified that the building was substantially complete with the exception of punchlist items valued at 3% of the contract price. The building was occupied, but the State withheld 10% of the contract price until the punchlist items were complete. Laconco sued and the court subsequently ruled that the State could withhold only a reasonable amount of money necessary to cover the completion of the punchlist items. The State was ordered to release 7% of the contract price.

Conversely, the retainage need not be paid if the contractor fails to substantially complete the project. In *Keating v. Miller*, 292 So.2d 759 (1974), the contractor, Keating, constructed 75% of a home for Miller before his contract was terminated. The electrical, plumbing, heating/air conditioning, and carpentry work had not been finished. In addition, the floors, kitchen appliances, and cabinets had not been installed. During construction of the home, a portion of a brick wall fell down. Miller wanted the entire wall replaced; Keating refused, opting only to fix the damaged portion of the wall. Miller terminated the contract and Keating sued for the balance of the contract amount. Keating believed he was due these payments since the home was nearly complete. The court ruled that since Miller could not comfortably live in the unfinished structure, the work was not substantially complete and Keating was not entitled to the total contract amount less allowances for the uncompleted work.

Owner's Right to Use Facility

Once substantial completion has been achieved, the owner has the right to occupy or operate the facility or structure for its intended purpose, whether the owner does so or not. Ricchini and O'Brien (1990) state the following: "Substantial completion is a critical date, and it comes into existence whether the owner needs the building or not."

Occupying or operating the facility by the owner is not a requirement for substantial completion; however, the owner must have the option. Many landmark cases have considered this consequence as a criterion in determining if substantial completion was achieved.

In *American Druggists Insurance Company v. Henry Contracting*, 505 So.2d 734 (1987), a dispute arose over the exact date of substantial completion. American had contracted with Henry for construction of a 20.3-cm (8 in.) water line for an existing pharmaceutical plant. Henry finished the project one day prior to the completion date, but failed to have the line sanitized and tested until 42 days later. The court ruled that the later date was the earliest time

the owner could have used the new water line, and substantial completion was based on this date.

In another case, *Rudy Brown Builders v. St. Bernard Linen Service*, 428 So.2d 534 (1983), the dispute was similarly based on disagreements over the "use for its intended purpose." St. Bernard contracted with Brown for the construction of a new building to house laundry and dry cleaning equipment. Upon completion of the project, St. Bernard withheld the final payments due Brown since the floor slab was not uniformly 15.2 cm (6 in.) thick, as required by the contract documents. St. Bernard hired expert witnesses who testified that the slab varied in thickness from 15.6–9.9 cm (6.15 to 3.90 in.), with an average thickness of 13.0 cm (5.13 in.). However, these witnesses also agreed that the slab could support the equipment loads even though it was not quite to specifications. The court ruled that Brown had substantially completed the project because it could be used for its intended purpose. Brown's final payment was reduced because the slab was not constructed in accordance with the contract documents.

These two cases highlight the importance of "use for its intended purpose" as a measure of substantial completion. In the absence of the owner's opportunity of use, courts have frequently denied the existence of substantial completion.

Liquidated Damages

Liquidated damages are intended to compensate an owner for lost use or revenue if the contractor is late in completing the project. Liquidated damages must be assessed in accordance with the provisions of the contract. A careful reading of the contract is important.

Default Termination

Once substantial completion has been reached, the contractor cannot be considered in breach of contract for failing to complete the project, and the owner may not terminate the contract for default. By achieving substantial completion, the contractor has honored its contractual commitment and cannot be assessed damages due to default.

Responsibility for Facility

There are owner responsibilities associated with the right to occupy or operate the facility. For example, operation and maintenance of the equipment (heating, venting, and air-conditioning, etc.) shifts to the owner. The owner is also responsible for security of the facility, utilities, and any necessary insurance costs. Warranty and guarantee periods for equipment in the facility (required by the contract documents) also begin upon substantial completion, and the responsibility for their compliance falls on the owner.

Statute of Limitations

In many states, the statute of limitations period for defective construction commences upon substantial completion, not the completion date of component parts, subcontracts, or individual systems (Bramble 1987).

EVOLUTION OF SUBSTANTIAL COMPLETION

In the mid-1800s, a contractor completing 99% of a project could not recover any withheld payments (and in some instances, the entire payment) because he or she breached the contract by not completing the remaining 1%. Gradually, a common law principle known as substantial performance evolved (Black 1979). This principle ensures that contractors are compensated even though they have not performed the work covered by the contract to exact perfection. This principle also prevents owners from being unjustly enriched by receiving the benefits of a nearly complete project without paying the full price (Black 1979).

In the 1890 decision of *Leeds v. Little*, the court discussed the following principle:

Substantial Performance of a contract to construct a building does not mean exact performance in every slight or unimportant detail. In many cases, such as building contracts, notwithstanding the most honest, diligent and intelligent effort to fully perform in every particular, yet owing to oversight, inadvertence, or some slight omissions or defects may be discovered. To hold that a builder could not in any such case recover on his contract would be too rigid a rule to apply to the practical affairs of life. [*Leeds v. Little*, 44 N.W. 309 (1890)]

In the more recent decision of *Bruner v. Hines*, 324 So.2d 265 (1975), the court reinforced the application of this principle. The dispute involved the sale of approximately 15 acres of land with 111.5 m (366 ft) of roadway frontage from Hines to Bruner. The actual land survey, which was done after the written contract was executed, revealed 15.1 acres and 114.5 m (376 ft) of

frontage. Bruner offered Hines \$500 for the additional 0.1 acre, but Hines asserted that he did not have to complete the sale to Bruner because the property was not exactly 15 acres. The court disagreed and stated the following:

The doctrine of substantial performance is especially useful in building contracts because of the difficulty of reproducing on the construction site the precise specifications of blueprint drawings. Often comparable materials of different brands will have to be substituted for specified but unobtainable brands, and foundation specifications on drawings will bend somewhat to the realities of pouring concrete. The doctrine of substantial performance is a necessary inroad on the pure concept of freedom of contracts. The doctrine recognizes countervailing interests of private individuals and society; and to some extent, it sacrifices the preciseness of the individual's contractual expectations to society's need for facilitating economic exchange. This is not to say that the rule of substantial performance constitutes a moral or ethical compromise; rather, the wisdom of its application adds legal efficacy to promises by enforcing the essential purpose of contracts and by eliminating trivial excuses for non performance.

PRIMARY RULES OF INQUIRY

Courts on numerous occasions have intervened to resolve disputes over substantial completion. Based on a review of over 80 appellate decisions, the following are the primary inquiries that are made:

- How extensive is the claimed defect or incomplete work?
- To what degree was the purpose of the contract defeated?
- How easy is the defect to correct?
- Has the owner benefitted from the work performed?

The issue is not one simply of occupancy. All questions need to be addressed, and a harmonious outcome should be sought. Nevertheless, good judgement is required because the answers to these questions may be contradictory.

How Extensive is the Claimed Defect or Incomplete Work?

Contractors and administrators need to consider the overall completeness of the facility by considering the extent of the defects or nonperformance of work and whether the building has met its essential purpose [*Hadden v. Consolidated Edison Company of N.Y., Inc.*, 34 N.Y.2d 88 (1974)]. But, in one decision, substantial completion was achieved despite a cost of correction to the total contract price of 31% [*Jardin Estates, Inc. v. Donna Brook Corp.*, 126 A.2d 372 (1956)]. In *Stevens Construction Corp. v. Carolina Corp.*, 217 N.W.2d 291 (1974), a subcontractor to the contractor designing prestressed concrete beams for an apartment complex made a mathematical mistake, thus reducing the floor capacity by 505 kg/m² (103 lb/sq ft) than was called for in the contract. The owner initially agreed to allow Stevens to correct the defect, but later ordered them to cease work. In the interim, the owner made alterations that increased the floor loads by 194 kg/m² (39.7 lb/sq ft). The court applied the concept of substantial completion, noting that the defect was readily repairable, the apartments were being occupied (the essential purpose of the project was met), and the repair costs were less than 1% of the total contract price.

The cost of correction versus the diminished value of the project may also be important [*Plante v. Jacobs*, 103 N.W.2d 296 (1960)]. The Plante dispute arose over the location of a living-room wall in a home owned by Jacobs. The wall was misplaced by 0.6 m (2 ft). The court found the work to be substantially complete. In assessing damages, the court choose to use the diminished value of the project in lieu of the cost of repair. A theme in their rationale was the avoidance of economic waste.

Obviously, there is no steadfast rule that specifies a ratio or percentage in determining substantial completion. To amplify, *Corbin on Contracts* (Corbin 1963) states:

In the case of a building contract, it is not easy to find the arithmetical ratio between the unperformed part and the full promised performance. The difference may be in quality of materials and workmanship, rather than in board feet or bags of cement. It is obvious that any rule stated in terms of extent of non-performance cannot be a rule of thumb. . . . The higher the ratio of this cost of curing defects to the total contract price, the less likely it is that the performance rendered will be held to be substantial performance.

Several cases illustrate how the extent of defects may be considered.

In 1983, Minn-Dak Seeds contracted with Merrill Iron and Steel for the construction of mustard

seed storage bins. Shortly after the project was completed, water leaked into the bins from gaps caused by defective welds and other holes in the storage pipes. In addition, a seed-level monitoring system did not operate properly. The numerous defects, including the leveling system, were the result of the contractor's substandard construction methods. The court denied Merrill's claim of substantial completion. The cost of correction was substantial, and the essence of the project had not been met [*Merrill Iron and Steel v. Minn-Dak Seeds*, 334 N.W.2d 652 (1983)].

In 1961, David Fink contracted with Airco Refrigeration Service to move a 10-ton water-cooled air-conditioning unit from Fink's restaurant to an equipment room outside the building. Upon completion, the system did not adequately cool the restaurant. This failure occurred because the contractor did not install insulation on the metal ductwork. The court ruled in favor of the Airco, citing the oversight in failing to insulate the ductwork as a minor defect that could be corrected at minimum cost to Airco. Airco had substantially completed the project, but the final payment was reduced by the cost of installing the insulation [*Airco Refrigeration Service v. Fink*, 134 So.2d 880 (1961)].

To What Degree Was the Purpose of the Contract Defeated?

One must consider how the completed project meets the intended purpose of the contract. Is the completed project or facility what the owner bargained for? How much of a deviation exists? Has the essence of the contract been fulfilled? Answering these questions will require studying the contract documents, plans and specifications. It may also involve reviewing oral conversations, written correspondence, and the individual actions of the parties during construction.

In 1972, Gregory contracted with Wilson to construct a 9.1×19.3 m (30×60 ft) swimming pool with a depth varying from 0.9–1.8 m (3–6 ft). Before the pool was finished, the parties orally agreed that Wilson would add a diving board and increase the depth of the pool to safely accommodate persons using the board. Upon completion of the pool, Gregory withheld the final payment claiming the pool size was 9.0×18.1 m (29.5×59.5 ft) and the pool depth was not exactly 3.1 m (10 ft) in accordance with the specifications. The court ruled in favor of the contractor, stating the following:

We find the deviations in dimensions, which could be discovered only by measuring the pool, in no way defeat the purpose of the contract . . . the method of constructing the pool made it impossible to achieve perfect compliance with the exact measurements called for by the contract. Therefore, . . . we find the slight deviation was not a defect in construction and did not constitute a breach of contract. [In addition] the pool is deep enough to accommodate a diving board, and therefore, there is no defect in regard to depth of the pool. [*Wilson v. Gregory*, 322 So.2d 369 (1975)]

B & B Cut Stone Company v. Resneck, 465 So.2d 851 (1985), is an example of how a project was not substantially complete because of the major degree to which the contract purpose was defeated. The Resnecks took exceptional pride in their home and were involved in an extensive remodeling effort. In 1982, they turned their attention to the master bedroom and bath. The Resnecks hired B & B to construct a marble fireplace with a hearth and large firewall, which would become the focal point for this phase of the redecoration. This desire was known to the contractor. Almost from the beginning of the project, problems arose. The Resnecks cited numerous defects, to include misaligned marble panels and uneven seams. The finished product ultimately was unacceptable. The Resnecks withheld the final payment and sued for damages. B & B argued that the fireplace was entirely useable as a structure for burning wood and providing warmth and met all code requirements. The Resnecks claimed the fireplace failed to serve its intended artistic purpose and did not provide "intellectual enjoyment and aesthetic appeasement." The court recognized that the Resnecks wanted a marble fireplace for its "impressive presence and beauty and elegance," not for its thermal value. The massive marble facing was to be used as a backdrop to hang their many modern paintings and "could not possibly serve any pertinent function to burning wood." The fact that the Resnecks matched their new furniture to the color of the marble reinforced this finding. The court ruled in favor of the Resnecks.

How Easy is the Defect to Correct?

It is also important to consider the effort necessary to correct the defects of the facility. Can the defects be remedied with minimal effort or is a significant rework of the entire project required?

As demonstrated in Airco, the minor defects (lack of insulation on the ductwork) could be repaired with relative ease without removing the entire air-conditioning unit or adjusting the existing pipework. In *Jerrie Ice Company v. Col-Flake Corporation*, a similar situation occurred.

In 1956, Jerrie Ice Company contracted with Col-Flake Corporation to construct an ice plant

with a 200-ton ice storage capacity. The plant was the first one built by Col-Flake, which previously specialized in manufacturing ice machines. Once the project was completed, several deficiencies existed, including a shortage of ice storage capacity well below the 200 tons specified. Jerrie claimed the reduced storage capacity would affect his ability to supply ice to a variety of customers, primarily to fishermen and shrimp boats. He subsequently withheld the final payment and sued for damages. For two years before trial, Jerrie used the plant and successfully met customer demands on all but a few isolated occasions. The court considered various options to correct the storage-bin deficiency. Evidence produced suggested that one way to increase the capacity would be to tear it down and rebuild the bin. The court could not, however, "in good conscience" have Col-Flake remove the bin and reconstruct it given the usage record by Jerrie [*Jerrie Ice Company v. Col-Flake Corporation*, 174 F. Supp. 21 (1959)]. The court found that even though the storage capacity was not in accordance with the specifications, it could be remedied by moving the compressors to another location in the plant thus freeing some additional storage space near the bin. Therefore substantial completion was achieved. Col-Flake's final payment was reduced by the cost of moving the compressors.

Conversely, *Merrydale Glass Works v. Merriam* is an illustration of a major effort or undertaking necessary to correct defects. In 1975, Merriam hired Merrydale Glass Works to install certain glass products in his home. This work entailed placing cathedral glass in the front of the house and installing mirrors on walls, ceilings, and doors throughout the remainder of the house. The cathedral glass was installed without any problems, but difficulties were encountered with the mirrors. The problems included uneven edges and the use of numerous smaller panels instead of the large panels requested. Merriam claimed these problems were caused by Merrydale performing all cuts on the mirrors at the factory, and not on site. He concluded that Merrydale was not performing satisfactorily and told them to discontinue the job. He contracted with another glass specialist to correct the problems and finish the project. Merriam withheld the remaining payments and sued for the cost of repairing and completing the work.

The court ruled that Merrydale had substantially completed the installation of the cathedral glass and was entitled to that portion of the withheld payment, but that the mirror installation was not substantially complete due to the numerous defects present and the major rework required: "Correction of the defects could only be accomplished by replacing most of the panels" [*Merrydale Glass Works v. Merriam*, 349 So.2d 1315 (1977)].

Has the Owner Benefitted from the Work Performed?

Administrators should evaluate if the owner has benefitted from the work performed by the contractor. The judicial attitude is that it is unfair for the owner to be unjustly enriched from the use of the facility without just compensation to the contractor.

In the landmark case of *Neel v. O'Quinn*, this rule was applied in determining if substantial completion was achieved. In July 1972, Neel contracted with O'Quinn to construct a home, based on a rough, one-sheet floor plan and sketch. Work began immediately, and two months later Neel moved into the home even though he had identified to O'Quinn numerous defects in construction. There were a total of 31 defects in the home to include a leaking roof and exterior substandard bricklaying. O'Quinn did correct some of the defects, but Neel retained the final payment and sued for damages.

The court ruled in favor of the contractor, O'Quinn, saying the following:

Substantial performance (completion) is readily found, despite the existence of a large number of defects both in material and workmanship, unless the structure is totally unfit for the purpose for which it was originally intended. The evident purpose intended for construction was to provide living quarters for plaintiff and his family. The residence has been used as such since August 1972 (1 + years to date of trial), and under the facts of this case, we cannot say the contractor did not substantially comply with the contract. [*Neel v. O'Quinn*, 313 So.2d 286 (1975)]

Ballou v. Basic Construction Company is a case example in which the owner did not benefit from the incomplete or defective work of the project. In 1964, Basic, a general contractor, had subcontracted with Virginia Prestressed Concrete Corporation (VPCC) for the fabrication and delivery of precast concrete columns to be used in the construction of a hospital. The subcontract required that 200 concrete columns be made in strict compliance with the contract specifications which called for a 2-in. cover of concrete over the reinforcing steel. During construction, the architects accepted only 45 of 139 columns made by VPCC, due to improperly positioned steel reinforcement and failure to meet minimum cover specifications. Basic paid VPCC for the acceptable columns but withheld payments for the defective ones; subsequently, VPCC went bankrupt. Ballou was appointed the bankruptcy trustee. Ballou claimed that VPCC substantially completed the columns, was unfairly penalized, and was entitled to payment by Basic. The court ruled in favor of the general contractor, Basic, citing the following:

Substantial performance (completion) is an equitable doctrine, intended to prevent unjust enrichment, which allows a contractor who has not complied with a contract in every detail to recover for work done which enriches the other contracting party. . . . in this case, the non-complying columns were neither accepted nor used by the owner, there is no question of unjust enrichment. [*Ballou v. Basic Construction Company*, 407 F.2d 1137 (1969)]

The court concluded that the doctrine of substantial completion was not available as a defense.

CERTIFICATE OF SUBSTANTIAL COMPLETION

The certificate of substantial completion is written confirmation that a contractor has substantially completed the project. It is recognized as the contractual document verifying release of the retainage to the contractor and confirming the owner's prerogative to use the facility.

The case review indicates that the courts place limited weight on the presence of this certificate as the sole factor in determining substantial completion. Not one of the 80 cases studied was based solely on the presence of a certificate. Overall, it is considered as just another piece of evidence.

Courts may review the certificate to insure it was not issued in collusion, as a result of a mutual mistake, or under fraudulent circumstances. The presence of a certificate may aid the contractor in proving he achieved substantial completion. It may also be a formidable task to prove that the purpose of the contract was defeated if a certificate was issued by the design professional.

ILLUSTRATIVE EXAMPLES

To demonstrate the rules presented previously, the disputes in *Pioneer Enterprises v. Edens*, 345 N.W.2d 16 (1984), and *Daspit Brothers Marine Divers v. Lionel Favret Construction*, 436 So.2d 1223 (1983), will be analyzed.

Pioneer Enterprises v. Edens: Statement of Facts

In 1981, Lee Edens contracted with Pioneer Enterprises to construct a grain-storage facility. No certificate was required by the contract. Following completion, water leaked into the facility and caused extensive damage. After careful inspection, it was discovered that the facility had over 57 leaks caused by unacceptable welds, missing washers, elongation of bolt holes, and improper caulking. In addition, the grain aeration system, an integral part of the storage facility, had not been installed properly and did not function. Edens abandoned the facility and withheld the final payment because the facility could not be used for the long-term storage of grain. Pioneer sought to recover the balance due on the contract. Experts stated that the facility was never fit for its intended purpose of storing grain and recommended that the facility be torn down and reconstructed.

Analysis

How extensive is the claimed defect or incomplete work? There were over 57 separate major deficiencies which crippled the use of the facility for storing grain. Thus, the defects were extensive.

To what degree was the purpose of the contract defeated? The owner contracted for a grain-storage facility and received a facility that was unfit for its intended purpose.

How easy is the defect to correct? The facility would have to be entirely dismantled in order to correct the numerous problems.

Has the owner used or benefitted from the work performed? Edens did not operate the facility for grain storage or any other reason after the problems were noticed, and subsequently did not benefit from its use.

Synopsis

There are no responses favorable to Pioneer Enterprises. Substantial completion was not achieved even though Edens occupied the facility for a short time. This evaluation is consistent with the determination of the court.

Daspit Brothers Marine Divers v. Favret Construction: Statement of Facts

In 1977, Daspit contracted with Favret, a franchise dealer, for the construction of a prefabricated steel building to store equipment incidental to marine diving. No certificate of substantial completion was required by the contract. Once completed there were numerous defects noticed in the construction of the building. The steel had not been primed prior to erection; large cracks were prominent throughout the uneven floor slab; the roof leaked; and the sliding door and

exterior lights were the wrong size. Daspit withheld the final payment and claimed the building was unfit for its intended purpose. Daspit did however, store equipment in the building. During trial, testimony was introduced that cracks in the slab were the normal result of expansion, contraction, and temperature. In addition, experts determined that the slab was capable of sustaining the load of the equipment Daspit intended to store in the building. The problems with the roof could only be evaluated by removing a portion of the roof for closer examination. The sliding door and exterior lights could be replaced.

Analysis

How extensive is the claimed defect or incomplete work? The deficiencies noted were minor compared to the completed work. The building was structurally sound, and constructed according to the plans with some minor exceptions.

To what degree was the purpose of the contract defeated? Daspit contracted for a prefabricated steel storage facility and received one with minor defects. The facility could still be used as a storage facility for his equipment. The purpose of the contract was not defeated.

How easy was the defect to correct? The steel could be primed; the slab was strong enough to support the load of the equipment and could be leveled with a topping mix; the roof could be repaired following closer examination; and the sliding door and exterior lights could be replaced. It would appear that the defects were not that difficult to correct.

Has the owner used or benefitted from the work performed? Daspit used the building to store equipment and thus benefitted from the work.

Synopsis

There are no responses favorable to Daspit. Favret substantially completed the project and is entitled to the balance of the contract minus appropriate deductions to correct the deficiencies.

VALIDATION OF RULES

To verify the rules, Table 1 was prepared to summarize the decisions described in this paper. As can be seen, the most consistency pertains to the issue of whether the purpose of the contract was defeated. In each instance, if the answer was yes, then substantial completion was not achieved. The issue of benefits to the owner is also very consistent, although in the decisions studied, it is not always possible to determine the full extent to which the owner benefitted. If the owner did benefit from using the facility, then substantial completion was reached. The use must be for an extended period for normal business-type operations. The ease of correction issue also shows some consistency. Courts seem reluctant to not declare substantial completion if an easy correction is possible. The extent of defects shows the least consistency.

Therefore, it would appear that the primary question is if the purpose of the project was defeated. The other questions are supportive in that they are useful as an aid in addressing the purpose issue.

To further test the aforementioned rules, 10 appellate court cases decided since 1972 were also examined. In all 10 cases, the trends observed in Table 1 and the outcomes of the judicial decision were consistent.

TABLE 1. Summary of Rules

Plaintiff (1)	How extensive are the defects? (2)	Was the purpose of the project defeated? (3)	How easy are the defects to correct? (4)	Did the owner benefit? (5)	Was substantial completion achieved? (6)
American Druggist Insurance Company	minor	yes	easy	no	no
Rudy Brown Builders	minor	no	uncertain	yes	yes
Minn-Dak Seeds	major	yes	difficult	no	no
Airco Refrigeration Service	minor	no	easy	uncertain	yes
Wilson	minor	no	difficult	uncertain	yes
B&B Cut Stone Company	uncertain	yes	uncertain	no	no
Jerrie Ice Company	uncertain	no	easy	yes	yes
Merrydale Glass Works	extensive	uncertain	difficult	uncertain	no
Neel	extensive	no	uncertain	yes	yes
Ballou	extensive	yes	uncertain	no	no
Pioneer Enterprises	extensive	yes	difficult	no	no
Daspit Brothers Marine Divers	extensive	no	somewhat	yes	yes

CONCLUSIONS

Four rules for establishing substantial completion of a project have been reviewed. The primary issue is whether the purpose of the project was defeated. If yes, substantial completion will not have been reached. This issue goes beyond mere discontent with the contractor's performance. The defect must be substantial. Next, if the owner benefitted from the project, substantial completion is likely. It is irrelevant if the owner chose not to use the facility so long as there was the opportunity. Use must be for an extended period of time. The extent of the defects and the ease of correction are helpful in answering the defeated-purpose question.

No hierarchical arrangement could be determined from the decisions reviewed. It would appear, however, that two rules are more heavily weighted than others. It would benefit all parties to the contract to review these rules prior to requesting or issuing a certificate of substantial completion.

APPENDIX. REFERENCES

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