EXPLORING THE 15TH EDITION OF
THE APPRAISAL OF REAL ESTATE

The Application of Highest and Best Use Analysis

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Developing the 15th Edition of The Appraisal of Real Estate in Challenging Times

by Michael McKinley

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The Appraisal Institute hopes that 2021 will be a year of renewed opportunities, and in that spirit, invites you to save the date for its Annual Conference at the JW Marriott in Orlando! This terrific event will offer a chance to connect and reconnect, to learn and grow, to share solutions to common challenges and celebrate our collective success in a safe and fun environment. Stay tuned for more details!

Online registration opening soon. More information at: appraisalinstitute.org/annualconference

*should the COVID pandemic restrict an in-person gathering, a virtual conference or cancellation may be considered.
From the Editor-in-Chief

Stephen T. Crosson, MAI, SRA

Special Coverage

Dear Readers:

Welcome to the final 2020 issue of The Appraisal Journal. Despite the formidable challenges that this year brought, important work has continued. This issue of the Journal offers special coverage of one example of such important work by the Appraisal Institute: publication of the fifteenth edition of The Appraisal of Real Estate.

The Appraisal of Real Estate, fifteenth edition, is the premier presentation of the Appraisal Institute’s valuation body of knowledge. It is respected internationally for its comprehensive and in-depth treatment of valuation theory and methodology in real property valuation. This text, peer-reviewed by Appraisal Institute members, is at the time of its publication an authoritative source of recognized methods and techniques for valuation practitioners. In this issue of The Appraisal Journal we offer a reprint of a key chapter of the fifteenth edition, “The Application of Highest and Best Use Analysis.” This chapter was significantly reworked in the latest edition of The Appraisal of Real Estate, and it provides additional clarity on important aspects of highest and best use analysis. This issue of The Appraisal Journal also features the technical editor/writer’s commentary on development of The Appraisal of Real Estate, fifteenth edition; this piece offers insights into the development process and the thinking behind updates to the text.

In this issue, we also present two columns that focus on legal matters. The popular “Cases in Brief” column again imparts information on the latest state court decisions on interesting issues appraisers may encounter in their practices. The “Law and the Appraiser” column delves into the latest federal tax regulations on Internal Revenue Code Section 1031 like-kind exchanges. These new regulations bring important clarifications to key aspects of this law.

As always, we encourage you to consider becoming a contributor to The Appraisal Journal.

Stephen T. Crosson, MAI, SRA
Editorial Board Chair and Editor-in-Chief
The Appraisal Journal
Sale did not trigger transfer tax because of long-term lease

In 2009, 731 Market Street Owner LLC (731 Market) leased the ground floor of its commercial building in San Francisco to CVS for a term of 45 years. When a memorandum of the lease was recorded in 2011, a real property transfer tax was paid pursuant to a city of San Francisco (City) ordinance. The transfer tax was based on the value of the stream of rental payments due over the lease term.

In 2015, 731 Market sold the building, but CVS maintained the existing lease with a remaining term of more than 35 years and continued to possess the ground floor of the building. Thus, other than substituting the new building owner as lessor, there was no transfer of CVS's interests under the original lease. In connection with the sale, 731 Market paid a transfer tax of more than $1.6 million, part of which was attributed to the then-present value of the CVS lease. Believing this to be in error, 731 Market filed a refund claim for the amount attributable to the leasehold interest, which the City denied. 731 Market filed a complaint.

At trial, 731 Market argued that the transfer tax it paid in 2015 should not have included an amount attributable to the CVS lease payments. This was because, under the ordinance, the determination of what constitutes “realty” is determined by the scope of that term under state law. Using the state law definition, 731 Market asserted that the 2015 transaction did not result in a transfer of the lease in question, because CVS should be treated as the primary owner of the leasehold interest for tax purposes since its interest was “substantially equivalent to” holding an estate in fee simple.

In response, the City argued that it could tax both the 2015 sale of 731 Market’s ownership of the underlying property and the transfer of 731 Market’s interests in CVS’s lease to a new landlord, because both of the property interests constituted “realty sold” and were separately taxable under the ordinance. To the City, the definition of “realty” under state law was inapplicable.

The trial court agreed with 731 Market’s interpretation of the ordinance and awarded 731 Market a refund of $286,922. The court concluded that nothing was sold as to the existing lease, no taxable event occurred in 2015, and the City was not entitled to impose tax on the then-current value of the income stream from the long-term lease. The City appealed.

The court of appeal agreed with the trial court and 731 Market that state law should guide the interpretation of the ordinance’s terms. Citing two earlier cases, the court noted that the term “realty sold” is sufficiently similar to the phrase “change in ownership,” which governs the analogous subject of reassessing property for property tax purposes.

Earlier cases concluded that leases long enough to approximate an ownership right, rather than a mere temporary right of possession, were taxable. That period has been found to be 35 years; if a lease is longer than 35 years, then it is considered a transfer of property. When a property encumbered by a lease with more than 35 years remaining is sold, the leased premises are not deemed to have transferred. A long-term tenant is deemed to hold the equivalent of the fee interest, so a transfer by a landlord of its reversionary interest does not constitute a reassessable change in ownership, since it is not considered equivalent to a fee interest.

Applying that law to 731 Market’s facts, the initial lease to CVS for 45 years was a change in
ownership and therefore constituted “realty sold” that triggered transfer tax. But unlike the creation of a lease of more than 35 years, a transfer of a property subject to a lease with a remaining term of more than 35 years is not a “change in ownership.” The 2015 sale of the underlying property subject to CVS’s lease did not result in a change in ownership, since CVS maintained all the same rights under the original lease, with a remaining term of more than 35 years. Under the City’s logic, a building sale could be taxed on one day based on a valuation that included the present value of a leasable space, and then taxed the same amount the next day when the owner actually leased the space; the city would thus tax the same income stream twice in two days. The court refused to accept this “elevation of form over substance,” which would produce “an absurd result.” Therefore, 731 Market was entitled to a refund of $286,922 of the transfer tax paid on the value of the CVS lease in 2015.

731 Market Street Owner LLC v. City and County of San Francisco
California Court of Appeal, First District
June 18, 2020
50 Cal. App. 5th 937

County ordinance constituted encumbrance covered by title insurance policy

In 2006, Peachtree Properties (Peachtree) purchased 131.40 acres along the intracoastal waterway in Horry County, South Carolina. Peachtree planned to develop a residential subdivision along the intracoastal waterway. The purchase was financed with two mortgage loans, including a mortgage to Jericho State Capital Corporation (Jericho). Jericho received title insurance from Chicago Title Insurance Company (Chicago Title). The title insurance policies contained a provision stating that Chicago Title insured against loss or damage sustained by any defect in lien or encumbrance on the title, and unmarketability of the title.

South Carolina law allows counties to establish official maps to reserve future locations of streets and highways for future public acquisition. In 1999, Horry County established an official map through an ordinance that also provided that no building, structure, or other improvement shall be constructed or placed within the reserved area. The map included the proposed locations for future segments of the Carolina Bays Parkway (Parkway). As amended in 2002, the map showed the Parkway bisecting the property Peachtree later purchased. The ordinance was properly recorded.

In 2007, Peachtree defaulted on its loans. Jericho foreclosed, successfully bid on the property at sale, and received a master’s deed. In 2009, the South Carolina Department of Transportation filed an eminent domain action to take 10.18 acres of the property for the Parkway. After five years of litigation, a jury awarded Jericho $2.1 million as just compensation for the taking. During the litigation, Jericho submitted title insurance claims to Chicago Title, which Chicago Title denied.

In response to the denial of coverage, Jericho sued Chicago Title in part for breach of contract and bad faith refusal to pay insurance benefits. The special referee assigned by the court found for Chicago Title, concluding that the ordinance did not create a defect or encumbrance on the property, and that the ordinance did not make title to the property unmarketable. Jericho appealed.

The court of appeals began by noting that title insurance is designed to protect a real estate purchaser or mortgagee against defects in or encumbrances on the title. Since the average purchaser has neither the skill nor the means to discover and protect itself against the myriad defects, it must rely on a title insurer. But whether coverage exists under a policy is a matter of law, and
the insured bears the burden of proving its claim falls within the coverage.

Jericho argued that the ordinance caused a defect in or encumbrance on the title because it created a third-party interest in the property in favor of the county, which burdened the land and depreciated its value. Because an encumbrance is an interest in land that may subsist in third persons to the diminution in value of the estate, an encumbrance is adverse to the owner's interest but does not defeat the owner's title.

Here, the ordinance declared its intention to reserve future locations of highways and prescribed any use that would interfere with future acquisition of the highway parcel. Ordinances can regulate land use without encumbering title, but the court concluded that this ordinance went beyond regulating use and created a third-party interest in the property. That constituted an encumbrance within the meaning of the policy coverage. Thus, while Chicago Title was correct that the ordinance did not create a right-of-way, the coverage turned on whether it created a defect or encumbrance, not a legal right-of-way.

Chicago Title also argued that the policy provided no coverage because a title search would not have revealed the ordinance or map. But the court found no support for that position in the policy. The coverage the policy promises is not limited to what a title search reveals. The policy did not define a covered defect, lien, or encumbrance as something that can only exist if it resides in the chain of title.

The court also agreed with Jericho that the ordinance made the property unmarketable within the definition of the policy. Delivery of marketable title requires that title be free from not only defects and encumbrances but also the reasonable probability of litigation. Here, the ordinance created a reasonable probability of litigation concerning the title because the right-of-way was reserved for acquisition, making future condemnation probable.

Chicago Title argued that the ordinance did not affect marketability of title because it only regulated use of the property. The court disagreed, though, because the ordinance limits the rights and incidents of ownership. While it is true that matters that affect only the use of land are not title matters, it does not follow that a matter that affects use cannot also affect title. So, while the court agreed with Chicago Title that in general all landowners are at risk of eminent domain proceedings, the county's intent and preliminary steps in the ordinance foreshadowed a reasonable probability of condemnation.

Therefore, the court reversed the referee's findings for Chicago Title, and remanded for further proceedings consistent with the court's analysis.

Jericho State Capital Corp. v. Chicago Title Insurance Co. South Carolina Court of Appeals June 10, 2020 Withdrawn, Substituted, and Refiled October 7, 2020 2020 WL 6018786

Conveyance of mineral interest in warranty deed includes royalty interest

Between 1970 and 2018, several conveyances of mineral and royalty interests in a 314.56 acre property located in Campbell County, Wyoming, occurred. The conveyances began with a royalty deed signed in 1970 conveying a 3 1/8% royalty of all oil and gas produced from the property to Charles Smith, who then obtained further mineral and royalty deeds in the property over the next decade.

In 1989, Smith conveyed to Roy Barton Jr. an undivided one-eighth interest in all oil, gas, and other minerals in and under the property. The deed stated it was the intent of Smith to convey 40.085 net mineral acres, along with the right of ingress and egress for mining activities and
related rights. The deed also contained language in which Smith warranted title to Barton and his heirs, successors, and assigns forever.

In 2017, following Smith’s death, his interest in the property transferred to his sons. The sons filed an action seeking declaratory judgment and to quiet title to a royalty interest conveyed by Smith in 1976 to a third party. The action named Barton and his successor grantees (B&G) as defendants. B&G filed a counterclaim to quiet title. After a hearing, the trial court granted summary judgment in favor of B&G and quieting title in B&G to a \( \frac{1}{8} \) mineral interest including all royalty interests in the \( \frac{1}{8} \) mineral interest. To reach that decision, the trial court determined that the 1989 deed was unambiguous, and Smith conveyed a \( \frac{1}{8} \) mineral interest in the property to B&G, reserving nothing.

On appeal, Smith’s sons argued that the mineral interest conveyed by the 1989 deed did not include the royalty interest, which they asserted Smith retained and distributed out of his estate. B&G, on the other hand, argued that the 1989 deed unambiguously included the royalty interest. The Wyoming Supreme Court observed that Smith first obtained a \( 3\frac{1}{8} \) royalty in all the minerals in the tract, and later obtained an undivided \( \frac{1}{4} \) fee interest in all the minerals in the same tract. Smith’s conveyances appeared to always consider his royalty interest as unbundled from his fee interest, eventually transferring an undivided \( \frac{1}{8} \) interest in the minerals to B&G using a warranty mineral deed.

Under Wyoming law, a mineral fee is an estate in fee simple in and to minerals, and a conveyance of a mineral fee gives title to the minerals. The ownership of an unrestricted mineral interest includes all incidents of ownership, including the right to receive royalties. Mineral fee owners can create and convey one or all of the separately identifiable interests in minerals, including royalty interests.

Here, Smith did not reserve any separately identifiable interests. The 1989 deed conveyed an undivided \( \frac{1}{8} \) interest to all minerals “in and under and that may be produced from” the land. The court noted that those terms, absent any qualifying or limiting language, created a mineral fee interest. Furthermore, a conveyance purporting to transfer to a grantee the right of ingress and egress for mining is a mineral interest rather than a royalty interest.

The 1989 deed contained no language reserving any interest to Smith. When an undivided mineral interest is conveyed, it is presumed that all attributes remain with the mineral interest unless a contrary intent is expressed. So, absent limiting language, that interest necessarily includes the right to receive royalties.

Smith’s sons also argued that, notwithstanding the 1989 deed’s plain language, Smith had always kept his royalty interests separate from his mineral interests and those interests never merged. But the court concluded that it did not need to decide the question of merger, because Smith’s sons are estopped from asserting that Smith conveyed anything less than an unrestricted \( \frac{1}{8} \) mineral interest.

If a grant is made with a warranty deed, the grantor is warranting that he owns what the deed purports to convey and, if he does not, he is liable for a breach of warranty. Estoppel by deed precludes a party to a deed from asserting against the other party any right or title in derogation of the deed or from denying the truth of any material fact asserted in it. Here, Smith granted an unrestricted mineral interest without reserving what Smith’s sons argued was an unbundled royalty interest. The warranty language in the deed thus estops them from claiming anything less than an unrestricted \( \frac{1}{8} \) mineral interest was transferred.

Accordingly, the court affirmed the judgments recognizing B&G’s title to an unrestricted \( \frac{1}{8} \) mineral interest, including the royalties therefrom.

Smith v. B&G Royalties
Wyoming Supreme Court
August 18, 2020
469 P.3d 1206
Cases in Brief

Solar farm built on university land is taxable

Cornell University (University) entered into an agreement with Argos Solar LLC (Argos) to construct a solar photovoltaic electrical system on certain agricultural research land owned by the University in Seneca, New York. The agreement provided that Argos would have an exclusive license to use the land for the sole purpose of constructing, installing, owning, operating, and maintaining the system, while obligating the University to purchase the energy output generated by the system. The initial lease term was 20 years, with two optional 5-year extensions. Argos was obligated to remove the system following termination of the agreement unless the University exercised its option to purchase the system.

The University applied to renew its real property tax exemption for its property. But while the land itself indisputably remained exempt, the assessor of the Town of Seneca created a separate tax parcel to assess taxes on the newly constructed system located on the exempt land.

The University challenged the assessments, and the trial court determined that the tax assessments were not lawful, because the system did not constitute real property and, even if it did, it would be exempt on the basis of the University's beneficial ownership thereof. Therefore, the court ordered that the tax parcel be removed from the tax rolls and the assessed taxes be canceled. The Seneca Board of Assessment Review (Board) appealed the judgment.

On appeal, the Board argued first that the system constitutes taxable real property. By state statute, taxable real property is defined as “buildings and other articles and structures, substructures, and superstructures erected upon, under, or above land, or affixed thereto.” The common law definition of fixtures provides guidance whether particular items fall within the definition. To meet the common law definition, the personality in question must (1) be actually annexed to real property, (2) be applied to the use or purpose to which the realty is appropriated, and (3) be intended by the parties as a permanent accession to the freehold.

On the question of annexation, the court found that the evidence showed that the system consists of nearly 1,600 piles driven directly into the ground and 400 piles set on concrete footings, as well as an inverter and associated equipment installed on a poured concrete slab. Thus, the court concluded that the system was annexed to the real property.

Next, the court turned to the question of whether the system applied to the purpose of the land to which it is connected. Here, the University devoted the land to generating solar energy as part of its sustainability efforts and in furtherance of its educational mission. Thus, the second part of the test was met.

Then the court turned to the question of permanency. The lower court determined that the ease of physical removal was determinative in evaluating the permanency of the system. The appellate court disagreed with that characterization, noting that the permanency of an attachment depends less on the degree of physical force with which the item is attached than on the motive and intention of the party in attaching it. Here, the purpose and duration of the agreement and the terms permitting removal of the system on termination demonstrated to the court that the University and Argos intended the system to be permanent over the life of the agreement.

Because all three parts of the test were met, the court concluded that the system constitutes taxable real property. The court then turned to the question of whether the University was the beneficial owner of the system, and thus whether the system was entitled to an exemption.

The court observed that no party disputed that the system is used for a qualifying purpose and that the University is the type of owner that qualifies for exemption, but Argos is not. Thus, whether the system is tax exempt turns on its
purchase. The agreement, though, separates ownership of the system from the land and designates Argos as the owner of the system. Further, the incidents of ownership fall on Argos: Argos has the obligation to remove the system at its sole cost and expense, and in the agreement, Argos is responsible for all taxes on the system, as well as bearing the risk of any damage to the system. So, while the agreement provides the University with some minor incidents of ownership, it does not confer such dominion and control over the system that the University should be deemed the beneficial owner for tax purposes.

Accordingly, the appellate court reversed the decision of the trial court, finding that the Board correctly determined that the system is real property that is not tax exempt.

**Cornell University v. Seneca Board of Assessment Review**
New York Supreme Court, Appellate Division
August 20, 2020
130 N.Y.S.3d 142

**Lease provisions govern whether property is leasehold interest for tax purposes**

In 2015, Grady Hotel Investments (Grady) purchased hotel improvements for $8.5 million from Host Hotels (Host). The improvements were located on land owned by Kansas City (City) at the Kansas City International Airport (KCI). Because the City is a political subdivision of the state of Missouri, its land is exempt from property taxation.

Grady purchased the improvements via a “quit-claim deed to improvements” conveying Host’s entire interest in the improvements to Grady. The interest was defined in the deed as the buildings, structures, fixtures, and improvements located on the tract of land. Host’s ownership of the improvements arose from a 2007 lease and concession agreement with the City, for the express purpose of continuing to operate a hotel at KCI. The 2007 lease was assigned to Grady as part of the transaction. Following the sale, Grady and the City executed an amendment modifying certain provisions in the 2007 lease.

For the 2016 tax year, the Platte County Assessor valued Grady’s interest in the property at $11,222,000. Grady appealed, and the county Board of Equalization increased the value of Grady’s interest in the property to $13,447,000.

The State Tax Commission (Commission) hearing officer who heard Grady’s subsequent appeal set aside the county’s valuation. The hearing officer concluded that the characterization of Grady’s interest as a leasehold or fee simple was irrelevant because Grady had a possessory interest in the property, and therefore the value of Grady’s interest was its purchase price less costs paid toward new construction. This value was $7,300,000. But the Commission set aside the hearing officer’s decision, concluding that Grady had a leasehold interest in the land and improvements, and thus that Grady’s interest should be valued using the bonus value method, which is defined as the difference between economic rent and the contract rent for use and occupancy of the premises. Based on the testimony of Grady’s appraiser, the Commission assigned a bonus value of zero for 2016.

The county assessor sought review of the Commission’s decision, and the circuit court again reversed the prior decision. The circuit court concluded that the Commission’s finding of zero value was arbitrary and unsupported by law, since the improvements located on the property are owned by Grady, and thus a bonus value appraisal is not applicable to its valuation.

On appeal, Grady argued that the Commission properly held that Grady had a leasehold interest in the property because Grady does not own the improvements, and the 2007 lease does not
permit Grady to remove any of the improvements at the conclusion of the lease. Grady asserted that prior case law made clear that the determining factor as to whether a lessee owns the improvements in fee simple or has a leasehold interest is who owns the improvements at the end of the lease.

The court of appeals concluded that the Commission erred in finding that the City owned the fee simple interest in the land and improvements and that Grady's interest was merely a leasehold in the land and improvements. The contract language was unambiguous; the 2015 lease amendment specifically noted that Host owned the leasehold improvements and declared that all leasehold improvements “shall become and remain the property of Lessee” until the expiration of the agreement, at which time all improvements would become the property of the City. The express language also reflected an intent to treat title to the site and title to the improvements separately, with the City retaining title to the land and Grady retaining title to the improvements. Other indicia of ownership of the improvements included the right of Grady to mortgage its interest without the City's consent.

As a matter of law, then, the court concluded that the plain language of the 2007 lease and 2015 amendment is clear evidence that the City and Grady intended that Grady have title to the improvements for the duration of the lease, so the Commission's conclusion that Grady had a leasehold interest was not reasonable. Because the bonus value method only applies to leasehold interests and not ownership interests, the bonus value method employed by the Commission was inappropriate. The court remanded the case to the Commission for reconsideration.

Cox v. Grady Hotel Investments LLC
Missouri Court of Appeals, Western District
July 28, 2020
605 S.W.3d 575

Quitclaim deed conveys all rights and interests in property including driveway easement and access rights

The Lorenzen Revocable Trust (Lorenzen) and David and Cynthia Pearson (the Pearsons) own neighboring properties near Hayden Lake in Idaho. The properties, which share a common driveway, were originally part of a large estate. Over the years, parcels were carved off the estate and replatted. Two of those parcels include a cabin owned by Lorenzen and the “red barn” property owned by the Pearsons. The shared driveway connects to the main road, crossing along the Pearsons' residential property to an oval driveway located primarily on Lorenzen's property.

The tracts were previously owned by Roy Williams, who in 1976 conveyed a tract of land to Lewey and Phyllis Lorenzen via a quitclaim deed that reserved to Williams and his successors the right to use the oval roadway, and which granted the Lorenzens the right to use “for ingress and egress the existing roadway running from the Southwesterly corner of the... property Southrly to the existing highway.” Shortly thereafter, Williams sold the red barn property via a warranty deed that expressly included the right to use the oval driveway on and over the Lorenzen property, and which was subject to the right granted the Lorenzens and their successors to use the roadway for ingress and egress.

The red barn tract was ultimately sold to the Pearsons in 2013 via a warranty deed. Although the easement language was not in that deed, the easements granted and reserved in 1976 were recorded. After the Pearsons bought the property, disputes over the shared driveway began, culminating in the Pearsons installing an electronic gate to control access to the shared driveway. Lorenzen filed a complaint to define the rights concerning the easement and access rights and seeking to enjoin the Pearsons from blocking the driveway.
After a trial, the district court held that the easement language in the quitclaim deeds was ambiguous, but that both parties had express easements granted to them and their successors: Lorenzen had an easement for ingress and egress over the shared driveway, and the Pearsons had an appurtenant easement to use the oval driveway in a way that allows Lorenzen to also use the driveway without restriction. The Pearsons appealed.

On appeal to the Idaho Supreme Court, the Pearsons argued that the district court incorrectly determined that the quitclaim deed was ambiguous, and that its plain language did not extend an easement to the Lorenzens’ heirs, successors, and assigns, including the revocable trust. The court disagreed.

The court began by noting the type of deed used by Williams to create the easement: a quitclaim deed. A quitclaim deed conveys whatever interest the grantors possess at the time of the conveyance, including legal title. Thus, the deed here meant that Williams agreed to convey, release, and forever quitclaim the granted interest in the property at issue, and to forever quitclaim and grant to the Lorenzens the right to use the existing driveway. The grantor cannot claim a reversionary interest in the property after forever conveying his full interest to the grantee via a quitclaim deed. Thus, the Pearsons cannot claim a reversionary interest where their predecessor, Williams, forever conveyed his full interest in the property.

Beyond the form of the deed, the additional language in the deed renders it susceptible to conflicting interpretations. The court observed that it would be “very strange, in the least,” to grant someone a parcel of property in perpetuity, but only provide access to it for the duration of the original grantee’s life or ownership.

Equally odd is the easement’s placement from the Southwesterly corner, without any provision for egress through the northwest section of the oval driveway. The Pearsons interpreted this as limiting the easement to the southwest corner of the oval, with Lorenzen only able to go into the oval driveway, not out of it, without reversing. “The common-sense purpose of an oval driveway is to drive through and around it without the necessity of backing up or turning around,” which would obviously then include the right to ingress and egress through the northwest section. A strict interpretation of the easement would be inconsistent with the purposes of the easement.

Because the court concluded that the deed was ambiguous, the parties’ intent must be determined considering the surrounding facts and circumstances. Here, the record showed that the entire oval driveway was used prior to and following the creation of the easement in 1976. Furthermore, common use and common sense indicate that a driver should be able to travel completely around the oval, which would require either ingress or egress through the northwest section. Altogether, the court concluded that these facts were substantial and competent evidence that Williams intended for the easement to grant the Lorenzens access to the entire oval driveway.

The Idaho Supreme Court affirmed the judgment of the district court in favor of Lorenzen.

Lorenzen v. Pearson
Idaho Supreme Court
July 2, 2020
470 P.3d 1194

Partition in kind not feasible where prejudice results to either or both parties

FTR Farms (FTR) and Rist Farm (Rist) each own an undivided one-half interest in a 311-acre tract of farmland in Richardson County, Nebraska. A winding river creates a natural divide in the property, with approximately 135 acres in the north tract and 176 acres in the south tract. A bridge connects the tracts of the property. FTR and Rist purchased the property
in June 2011 for $1.750 million, executing a promissory note to the sellers for $1.3 million secured by a deed of trust.

In 2017, FTR filed a complaint for partition of the property, seeking partition by sale. FTR alleged that the property could not be portioned in-kind without prejudice to the parties' respective rights. In its answer, Rist alleged that the property could be physically partitioned, and that partition by sale would be harmful to the parties' farming operations.

The purpose of a partition action is to divide a jointly owned interest in real property so each owner may enjoy and possess in severalty. One of several tenants in common has an absolute right to partition. Here, FTR and Rist agreed on the necessity of partition, but they disputed between partition in kind and partition by sale.

The district court concluded that FTR and Rist were joint owners as tenants in common, and ordered that partition be made. The court appointed a referee to recommend whether the property could be partitioned in kind without prejudice. After inspection, the referee opined that physical division of the property into two separate, equal tracts would not be possible and would be detrimental to the value of the property. Based on appraisals produced by the parties, the referee noted that the south tract was worth $200,000 more than the north tract. Instead, the property should be sold, so that the sale price may then be evenly divided between the parties.

At a hearing to confirm the referee's report, Rist argued that the property should be partitioned in kind, with Rist receiving the south tract and FTR receiving the north tract. Rist indicated it would be willing to make up the difference to equalize the valuation of the properties. Rist's appraiser explained that if the property were sold as a whole, it would have a negative impact because fewer bidders seek larger parcels, whereas smaller parcels bring more bidders. She recommended the land be sold as two parcels to get the best price.

In confirming the referee's report, the district court explained that an in-kind partition would cause the north tract to receive materially less than the price that could be obtained for FTR's share of the whole, to the prejudice of FTR. Rist's proposal to award owelty was denied for lack of Nebraska authority to do so. (Owelty addresses a disparity in the value of partitioned parcels and is the payment of money required when property is not susceptible to division into exactly equal shares.) The court ordered the sale of the property.

At a public auction, the referee solicited bids for the tracts separately, with the highest bids totaling $1.6 million. The referee then offered the whole property, which was bid in for $1.62 million. Both FTR and Rist objected to the confirmation of the sale on the basis that the sale price was grossly inadequate, but the district court confirmed the sale. Rist appealed.

On appeal, Rist argued that the district court erred by determining that it did not have authority to award owelty to make in-kind partition equitable and by ordering partition by sale without finding that partition in kind would prejudice both owners.

The court began by observing that as between partition in kind or sale of land for division, the courts will favor a partition in kind, since this does not compel a person to sell his property against his will. Further, a sale in partition cannot be decreed merely to advance the interests of one of the owners; before ordering a sale, the court must ascertain that the interests of all will be promoted.

The court agreed with Rist that owelty is permitted in Nebraska. While it is true that prior cases in Nebraska have not used the term owelty, the courts have nevertheless implemented equalization payments in cases involving partition of real estate. But the fact that owelty is permitted in Nebraska does not answer the question of whether it was appropriate in this case.

While it is generally true that there is a presumption in favor of partition in kind, it is like-
wise true that the character and location of the property or the amount of the interest sought to be assigned may be such that it will be presumed that partition in kind cannot be made. Whether partition in kind will result in prejudice to the parties requires comparing two amounts: the amount an owner would receive if the property were divided in kind and the owner then sold his portion of the property, and the amount each owner would receive if the entire property were sold with the proceeds divided among the owners. If the first amount is materially less than the second amount, prejudice has been shown.

Here, the record supports the conclusion that the sale of the whole would bring a greater price than the sum of the sales of the separate tracts. This difference was borne out by the high bids at the public auction; the court could not characterize that difference as immaterial.

Further, owelty cannot solve the problem resulting from the whole property selling for a greater price than the high bids for the individual tracts. Using the amounts from the public auction, Rist would receive $130,000 more by selling the south tract than its share of the sale of the total; FTR would receive $150,000 less from the sale of the north tract than its share of the sale of the total. Thus, owelty of $130,000 would prejudice FTR by $20,000; owelty of $150,000 would prejudice Rist by $20,000; and owelty of $140,000 would prejudice both parties equally, by $10,000. No matter what owelty payment is used, great prejudice results to either one or both of the parties.

The court therefore concluded that FTR sustained its burden to establish that partition in kind was not feasible, and the district court did not err by accepting the referee’s report and ordering partition by sale.

FTR Farms Inc. v. Rist Farm, Inc.  Nebraska Supreme Court  May 1, 2020  942 N.W.2d 204

Mark and Valeria Tomasino own property on Sebago Lake in Casco, Maine. Lake Shore Realty Trust (Trust) owns the abutting property. Both parcels are on a private road created by deeds granting each owner a right of way over a 6-foot-wide strip of the other’s land along a portion of their common boundary.

In 2017, the Tomasinos obtained a building permit from the Town of Casco (Town) to remove an existing home and construct a new home in its place. The Tomasinos then applied for and obtained a shoreland permit to remove three trees from the Trust’s land that is subject to their access easement in order to establish a gravel road to their new home as required to obtain a certificate of occupancy.

The Trust appealed to the zoning board of appeals, which vacated the grant of the permit. The board later made findings about the sizes and locations of the three trees, as well as that the easement is unclear as to the rights of the parties to cut trees without the other party’s permission. Thus, the board concluded that the permit was not properly issued because two of the trees were located partially outside the easement area and it was unclear whether the Tomasinos had the right to remove the third tree without the agreement of the Trust. The Tomasinos appealed.

On appeal, the Tomasinos argued that the board erred by concluding that they failed to demonstrate that they had the minimum right, title, or interest in the property on which the trees are located. They further argued that the only facts necessary to establish sufficient right, title, or interest to remove the trees are that the trees are located on property on which they claimed easement rights.

The state Supreme Judicial Court disagreed. First, as a matter of evidence, the scope of the Tomasinos’ deeded easement over the Trust’s prop-
Property was not established, and the language of the deeds does not disclose whether and to what extent the easement includes the right to remove trees. In the absence of any legally cognizable ownership interest in the property, a plaintiff lacks any right to seek such municipal approval. An applicant for a license or permit to use a property in certain ways must have the power to use the site in the ways that would be authorized by the permit.

Thus, the court held that an applicant must demonstrate not just any right, title, or interest in the property, but a right, title, or interest in the property that allows the property to be used in the manner for which the permit is sought. Unlike title owners, easement owners are subject to a second layer of necessary authority: what the easement itself allows, in addition to what the applicable ordinances and statutes allow.

Moreover, a municipal zoning case is not the proper forum for a private property dispute between neighbors, and that is exactly what was before the board here. The court found no explanation of why the Tomasinos had not filed a declaratory judgment action against the Trust, rather than going through a zoning case. But because the Tomasinos failed to demonstrate that they had the kind of interest that would allow them to cut the trees if they were granted a permit to do so, the judgment of the lower court and board were affirmed.

**Tomasino v. Town of Casco**
Maine Supreme Judicial Court
July 7, 2020
237 A.3d 175

**For-profit restaurant on university campus not tax exempt**

In 2010, the Kean University (University) Board of Trustees adopted a resolution granting the University’s Foundation (Foundation) the right to launch a restaurant in a portion of the newly constructed science, technology, and mathematics (STM) building and to engage a restaurateur for the project. That resolution required that a minimum of 10% of the restaurant’s gross revenues annually be allocated for scholarship purposes within the Foundation. The restaurant space occupies about 6.4% of the building’s space.

A year later, the University and the Foundation entered into a management agreement granting the Foundation the exclusive right to operate, manage, and control the property. The agreement allowed the Foundation to subcontract its management rights to an experienced restaurant and catering business with the University’s consent.

The Foundation entered into a management subcontract agreement with Gourmet Dining LLC to operate Ursino, a high-end restaurant to be located in the STM building. Gourmet Dining became the exclusive manager for the restaurant, responsible for all management and operational services. Gourmet Dining agreed to pay an annual management fee of $250,000, plus 12.5% of Ursino’s gross revenue. The restaurant began operation in October 2011.

In August 2012, Union Township, where the University is located, issued a letter notifying Gourmet Dining that it would receive a tax bill for the restaurant space based on the Township’s view that Gourmet Dining was a lessee, and that the leasehold was a taxable interest. After challenging later assessments, Gourmet Dining appealed to the tax court.

In a detailed opinion, the tax court found for the Township. While the STM building constitutes governmental property, Gourmet Dining is a for-profit corporation and its operation of Ursino is conducted for profit. The tax court observed that, while the resolution between the University and the Foundation required 10% of the restaurant’s gross revenues to be allocated for scholarships, the management agreement contains no such provision, and imposes no such obligation or requirement. So, while the University may have initially expressed an intent to
fund scholarships, the tax court did not find that intent manifested in any contractual provision.

More fundamentally, the tax court was not persuaded that tax exemptions were envisioned for private, for-profit entities simply because part of the gross revenue stream is remitted to a public entity and then allegedly allocated to further the public entity’s purpose. Also, the tax court found that notwithstanding the fact the contract was delineated as a management subcontract agreement, the rights, powers, and obligations conferred on the parties demonstrate that the agreement is a lease for legal purposes. Public buildings leased to for-profit entities are not entitled to an exemption.

On appeal, the appellate court reversed the tax court’s judgment. In the appellate court’s opinion, when all the relationships between the restaurant and the University are considered, they warrant the conclusion that the property was being used for a public purpose. While conceding that no single factor standing alone would demonstrate a public purpose, the appellate court took a “holistic view.” The restaurant was located on campus and served the University’s goal of having a critically acclaimed, upscale restaurant on campus that enhanced the University’s reputation, and served as an important recruiting tool, and Gourmet Dining’s management fees are used for scholarships. The appellate court also rejected the conclusion that Gourmet Dining is the functional equivalent of a lessee, reasoning that the subcontract provides for management fees rather than rent.

The Township appealed to the state supreme court. The Township argued that the University’s belief that having an upscale restaurant on campus does not transform a for-profit restaurant into a public use. The New Jersey Supreme Court reversed the appellate court and reinstated the tax court’s decision.

The supreme court explained that property tax exemptions are based on the property’s use, not the identity of its owner. The accomplishment of a public purpose must be the paramount factor in an arrangement with a private entity’s use of public property. For a tax exemption to apply, any private advantage must be incidental or subsidiary. Here, the commercial success of the restaurant is the paramount factor. The court noted that the University “is not running a culinary institute” and the restaurant is not a student food hall. The restaurant’s generation of revenue for scholarships does not make an otherwise nonexempt purpose a public purpose.

The court said the question was not whether the University exceeded its authority in deciding to house a commercial restaurant on campus. The question was whether a public purpose was served, and whether the functional equivalent of a lease of public property for nonexempt purposes should be taxed. The state supreme court concluded that Gourmet Dining’s interest was not exempt and therefore was subject to taxation.

Gourmet Dining LLC v. Union Township
New Jersey Supreme Court
June 30, 2020
233 A.3d 410

Damages in inverse condemnation can include overpayment of ad valorem taxes

Ted and Sarah Chappell moved into a property in Fayetteville, North Carolina, in 1962, first as tenants, then as owners of the two-story single-family home on 2.92 acres of land. In 1992 and 2006, portions of the Chappells’ property were designated as within a roadway corridor pursuant to the state’s Map Act, which generally prevented development or subdivision of land within designated corridors reserved for highway construction. Under the Map Act, landowners continue to have the right to use their property in any way that does not require a building permit or subdivision plat and can sell or otherwise transfer rights to the property.
In 1992, the state Department of Transportation (NCDOT) recorded an official map to build the Fayetteville Outer Loop Highway, which covered 0.58 acres of the Chappells' property, and showed the right-of-way line going through the middle of their house. In 2006, a second map was filed by NCDOT expanding the area covered by the corridor by an additional 1.67 acres of the Chappells' property.

The Chappells continued to live on the property until 2016, but in December 2014, the Chappells filed an inverse condemnation complaint against NCDOT seeking compensation for the taking of their property caused by the recording of the official maps that encompassed their property. At trial, the Chappells' appraiser testified that the value of their property in 1992, immediately before the Map Act taking, was $144,888, while the value after the taking was $7,641. In 2006, the value declined from $11,268 pre-taking to $5,129 post-taking. Another expert testified that there was no market for any properties in the 1992 or 2006 corridor maps because there were ample alternatives for sale in the county that were not encumbered.

NCDOT did not present evidence to the jury. The trial court excluded any opinion of value based on an assumption that there was a market for property in the corridor at fair market prices, as well as evidence assuming a limited duration of the Map Act restrictions. Since NCDOT's appraisers failed to comply with the definition of damages set out in prior case law, the trial court excluded their testimony.

The jury returned a verdict awarding the Chappells $137,247 for the 1992 taking and $13,139 for the 2006 taking. In the trial court's final judgment, the court also required NCDOT to pay all of the ad valorem taxes actually paid by the Chappells from 2002 to 2016. NCDOT appealed.

On appeal, NCDOT alleged that the trial court erred by erroneously characterizing the nature of the taking. The trial court found that the nature of the taking was a negative easement that never expired, and specified that the only permissible proof of damages was a calculation of the difference in value of the Chappells' property before the corridor maps were recorded and the value after recordation. NCDOT sought to introduce evidence that the negative easement would only restrict the Chappells' rights for three years, and its appraisers had no opinion as to the fair market value before and after the recordation.

The state supreme court agreed with the trial court's evidentiary rulings concerning the expert testimony because they were based on a correct understanding of the proper measure of just compensation. The state legislature specified how damages were to be measured in inverse condemnation proceedings: the measure of damages is the difference between the fair market value of the entire tract pre-taking, and the value of the remainder immediate after the taking. This is true whether the taking is an indefinite negative easement or some other taking. Because Map Act recordations are in effect an indefinite restraint on fundamental property rights, which restricts the owner's right to improve, develop, and subdivide their property indefinitely, the decline in value is the proper measure of damages.

Moreover, the court concluded that an opinion concerning a property's market value is inadmissible if it materially relies on factors that legally cannot be considered. Admission of evidence that does not help the jury calculate fair market value of land or diminution in value should be excluded. Here, NCDOT's witnesses based their opinions on a three-year temporary negative easement, rather than an indefinite restraint on the Chappells' property rights, and therefore they were not admissible.

NCDOT also argued that the trial court erred in adding the Chappells' discounted property taxes to the jury's award of just compensation. The court disagreed. The Map Act initially reduced tax rates for impacted unimproved properties, and in 2011 the legislature further
provided that designated properties in protected corridors would be assessed lower property taxes: taxes at 20% of appraised value for unimproved property, and 50% of appraised value for improved property.

In prior cases, the supreme court directed that trial courts should determine the value of the property after the corridor map was recorded “taking into account any effect of the reduced ad valorem taxes.” The trial court interpreted this to mean that the Chappells should be compensated for the actual taxes they paid following the taking, while NCDOT contended that the amount of just compensation should be offset by the reduced property taxes because the reduction in taxes was intended to be partial compensation for the taking.

The court concluded that in this case, where the evidence was that the property essentially had no fair market value once the 1992 corridor map was recorded, the Chappells were effectively paying taxes on property that had no value. Thus, it was appropriate for the trial court to account for the property taxes in the way that it did and compensate the Chappells for the actual taxes they paid at a time when their property had virtually no value. The trial court’s judgments on these points was affirmed.

Chappell v. North Carolina Department of Transportation
North Carolina Supreme Court
May 1, 2020
841 S.E.2d 513

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What Qualifies as “Real Property” for Tax-Deferred Section 1031 Like-Kind Exchanges

Abstract

Internal Revenue Code Section 1031 provides for tax-deferred exchange of like-kind property in certain circumstances. The tax code places a number of requirements on transactions in order to be considered a qualified Section 1031 exchange. The 2017 Tax Cuts and Jobs Act (TCJA) eliminated the application of the like-kind exchange treatment to property that is non–real estate, providing that such treatment is limited to “real property.” In 2020, the US Treasury Department and Internal Revenue Service issued final regulations relating to the provisions of Section 1031 under TCJA. This article examines what qualifies as “real property” that is eligible for tax deferral for purposes of Section 1031 under the final regulations.

What Is IRC Section 1031?

Many appraisers are familiar with the basic rules under Internal Revenue Code (IRC) Section 1031,1 “Exchange of Real Property Held for Productive Use or Investment.” This federal income tax law2 regulates when an exchange of property will be allowed to be undertaken without generating recognized, taxable income for federal income tax purposes.3 IRC Section 1031(a)(1) provides as follows:

(a) Nonrecognition of Gain or Loss from Exchanges Solely in Kind

(1) In General
No gain or loss shall be recognized on the exchange of real property held for productive use in a trade or business or for investment if such real property is exchanged solely for real property of like kind which is to be held either for productive use in a trade or business or for investment.

Nothing contained in this article is to be considered the rendering of legal or tax advice; readers are responsible for obtaining such advice from their own legal counsel or tax advisor.

1. See 26 USCA § 1031 of the Internal Revenue Code.
2. This article addresses federal income tax law and not state tax laws. This distinction is important because there is no assurance that the rules will be the same on the federal and state levels. Although a federal statute, IRC Section 1031, provides for deferring the federal income tax on qualified like-kind exchanges, such a rule will not necessarily apply on the state level. Every state must be examined separately to determine if the given transaction will allow for a deferral under the state law. See Mark Lee Levine, Handbook on Exchanging Real Estate (Denver, CO: Professional Publications and Education, 2020) for additional discussion.
Section 1031 Like-Kind Exchange Criteria
Since 1921, this code section has allowed taxpayers to defer paying tax on realized gain when the requirements of the section are met. While such exchanges have been commonplace for years, there are specific legal requirements as to what constitutes a qualified like-kind exchange, and these have been changed over time. Congress amended the tax code to allow for more control and more limitations on such exchanges. For example, modifications to Section 1031 added significant parameters related to the timing of exchanges in response to significant uncertainty as to timing and qualifications for nonsimultaneous exchanges. To limit nonsimultaneous exchanges, time limits were placed on qualified exchanges; Section 1031(a)(3) provides as follows:

(3) Requirement that Property Be Identified and that Exchange Be Completed Not More Than 180 Days after Transfer of Exchanged Property
For purposes of this subsection, any property received by the taxpayer shall be treated as property which is not like-kind property if—
(A) such property is not identified as property to be received in the exchange on or before the day which is 45 days after the date on which the taxpayer transfers the property relinquished in the exchange, or
(B) such property is received after the earlier of—
(i) the day which is 180 days after the date on which the taxpayer transfers the property relinquished in the exchange, or
(ii) the due date (determined with regard to extension) for the transferor’s return of the tax imposed by this chapter for the taxable year in which the transfer of the relinquished property occurs.

Transactions that fail to meet these time requirements generally will be outside the parameters of the tax code for the deferral of taxable income.

The tax code includes a number of other limitations on the use of the Section 1031 deferral of recognition of capital gains. However, the discussion here will focus on recent changes in the tax code and regulations that limit tax deferral to exchanges of real property.

Section 1031 Recent Modifications
In 2017, the Tax Cuts and Jobs Act (TCJA) eliminated property that is non–real estate from like-kind exchange treatment. Instead, Section 1031, as revised, provides that such favorable tax-deferral treatment is limited to “real property.” Therefore, when a Section 1031 transaction is considered, it became crucial to determine whether the property being exchanged is real property or not.

Although on its face the issue of “what is real property” might not appear to be enigmatic, the distinction between real property, which is like-kind exchange eligible, and non–like-kind exchange property generated many tax audits and disputed cases following the TCJA changes.

4. For example, Section 1031(a)(2) specifically excludes “any exchange of real property held primarily for sale.” Section 1031(a)(3) excludes real property located outside the United States from like-kind favorable tax treatment. Section 1031(f) provides limitations on nonrecognition of gains where the exchange involves “related parties.”
5. For a detailed examination of the timing issue, see chapter 10 in Levine, Handbook on Exchanging Real Estate. That text discusses the most-frequently cited case on this issue, Starker v. United States, 602 F.2d 1341 (9th Cir. 1979), which recognized delayed exchanges. The timing issues created after the Starker ruling led to statutory changes on nonsimultaneous exchanges. Section 1031(a)(3) pulled back from the broad statements made by the court in Starker. Like-kind exchanges have sometimes been referred to as “Starker exchanges.”
The definitional uncertainty was exacerbated because, up to this point, consideration of what constitutes real estate on the state level had been important in federal tax cases but it was not necessarily a controlling consideration given the 2017 TCJA change. Also at issue was the effect, if any, of the receipt of personal property that is incidental to the exchange of replacement real property.

In June 2020, the Treasury Department and the Internal Revenue Service issued proposed regulations to address these concerns. Final regulations, issued on November 23, 2020, were formally published and became effective as of December 2, 2020.7

Proposed Regulations. The proposed like-kind exchange regulations originally stated, “The term ‘real property’ for purposes of Code Sec. 1031 and its Regs means land and improvements to land, unsevered natural products of land, and water and air space superjacent to land.”8 The proposed regulations also included a noteworthy statement that personal property that is incidental to the exchange of replacement real property is disregarded in determining whether the taxpayer qualifies to receive the tax benefits of a like-kind exchange.9 As to this issue of whether the personal property is “incidental” to the realty being exchanged, the proposed regulations looked to the nature of the personal property involved and its contribution to the aggregate fair market value of the real property.

Final Regulations—Real Property Defined. The final regulations provide a definition of real property to distinguish it from personal property, as the TCJA limited the nonrecognition of gain or loss in like-kind exchanges to exchanges of real property. The final regulations state as follows: “The term real property under section 1031 ... means land and improvements to land, unsevered natural products of land, and water and air space superjacent to land.”10 The regulations then go on to provide definitions and clarifications as to what constitutes “improvements to land,” which can be key considerations in determining what qualifies as real property for purposes of Section 1031.

The proposed regulations had suggested that the function of property be considered in deter-
mining whether the property qualifies as real property—referred to as the “purpose or use test.” The commentators on this proposed regulation “uniformly disagreed with the ‘purpose or use test’” as improperly narrowing the scope of the definition of real property. As a result, the final regulations eliminate the proposed purpose or use test. The final regulations recognize that the definition’s reference to “improvements to land” means inherently permanent structures that are “permanently affixed to real property and that will remain affixed for an indefinite period.”

Thus, an inherently permanent structure is real property for Section 1031 purposes, irrespective of the purpose or use of the improvement or whether it contributes to the production of income.

The final regulations also clarify that “property that is real property under State or local law ...is real property for purposes of section 1031.” The commentary to the regulations states,

In summary, under the final regulations, property is classified as real property for purposes of section 1031 if the property is (i) so classified under the State and local law test, subject to certain exceptions, (ii) specifically listed as real property in the final regulations, or (iii) considered real property based on all the facts and circumstances under the various factors provided in the final regulations.

The final regulations exclude from real property the intangible assets that had been listed in Section 1031(a)(2) prior to its amendment by TCJA. The final regulations state that intangible assets that are real property for the purposes of Section 1031 include “fee ownership, co-ownership, a leasehold, an option to acquire real property, an easement, stock in a cooperative housing corporation, shares in a mutual ditch, reservoir, or irrigation company [to the extent recognized by state law] and land development rights.”

Final Regulations—Effect of Incidental Personal Property. The news release for the final regulations highlights that the regulations “also provide a rule addressing the receipt of personal property that is incidental to real property received in a like-kind exchange.” (Emphasis added.) The regulations make clear that incidental non–real property may be part of a like-kind exchange of real property. However, that does not mean that the incidental personal property is eligible for tax deferral. The legislative history to the TCJA amendments to section 1031 provides,

Congress “intended that real property eligible for like-kind exchange treatment under present law will continue to be eligible for like-kind exchange treatment under the [amended] provision.” H.R. Conf. Rept. 115-466, at 396, fn. 726 (2017) (Conference Report). However, left unchanged by the TCJA, section 1031(b) provides that a taxpayer must recognize gain to the extent of money and non–like-kind property the taxpayer receives in an exchange.

11. Section 1.1031(a)-3(a)(2).
12. Section 1.1031(a)-3(a)(1).
13. The State and local law test applies to both tangible and intangible property classifications. The regulations’ comments point out, however, “a determination that property is personal property under State or local law does not preclude the conclusion that property is real property as specifically listed in [the federal regulations].”
14. Section 1.1031(a)-3(a)(5).
15. Non–real property can be tangible or intangible.
This statement means the taxpayer will be taxed on the gain from the transfer of the personal property, even if it is incidental to the Section 1031 exchange of the realty.\footnote{\textit{\textsuperscript{17}} The final regulations do provide that if the property is incidental to the larger property, it is not treated as a separate property. The regulations state, “Property is disregarded in evaluating the identification rules if it is incidental to a larger item of property and therefore, is not treated as property separate from the larger item. Property is incidental to a larger property if, in standard commercial transactions, the property is typically transferred with the larger item of property, and the aggregate fair market value of all of the incidental property does not exceed 15 percent of the aggregate fair market value of the larger item of property.” See Section 1031(b).}

Section 1.1031(k)-1 of the final regulations provides examples of items that are to be disregarded when considering whether an exchange is within one of the enumerated safe harbors. It states as follows:

\textbf{§1.1031(k)-1 Treatment of deferred exchanges.} In determining whether a safe harbor under [this section] ceases to apply and whether the taxpayer’s rights to receive, pledge, borrow, or otherwise obtain the benefits of money or other property are expressly limited as provided in ...this section, the taxpayer’s receipt of or right to receive any of the following items will be disregarded [emphasis added]—

\textit{\textbf{*(g)(7) (iii)*}} Personal property generally resulting in gain recognition under section 1031(b) that is incidental to real property acquired in an exchange. [emphasis added.]

For purposes of this paragraph (g)(7), personal property is incidental to real property acquired in an exchange if—

\textbf{(A)} in standard commercial transactions, the personal property is typically transferred together with the real property [emphasis added]; and

\textbf{(B)} the aggregate fair market value of the property described in ... this section [that is] transferred with the real property does not exceed 15 percent of the aggregate fair market value of the replacement real property or properties received in the exchange. [emphasis added.]

The final regulations then go on in Section 1.1031(k)-1(g)(8) to offer the following example related to personal property:

\textbf{Example 6.} (A) In 2020, B transfers to C real property with a fair market value of $1,100,000 and an adjusted basis of $400,000. B’s replacement property is an office building and, as a part of the exchange, B also will acquire certain office furniture in the building that is not real property, which is industry practice in a transaction of this type. The fair market value of the real property B will acquire is $1,000,000 and the fair market value of the personal property is $100,000. (B) In a standard commercial transaction, the buyer of an office building typically also acquires some or all of the office furniture in the building. The fair market value of the personal property B will acquire does not exceed 15 percent of the fair market value of the office building B will acquire. Accordingly, under paragraph (g)(7)(iii) of this section, the personal property is incidental to the real property in the exchange and is disregarded in determining whether the taxpayer’s rights to receive, pledge, borrow or otherwise obtain the benefits of money or non-like-kind property are expressly limited as provided in paragraph (g)(6) of this section. Upon the receipt of the personal property, B recognizes gain of $100,000 under section 1031(b), the lesser of the realized gain on the disposition of the relinquished property, $700,000, and the fair market value of the non-like-kind property B acquired in the exchange, $100,000.

\textbf{Conclusion}

The latest regulations on Section 1031 like-kind exchange transactions are not as generous as one might have first thought. That is, while the regulations provide that incidental personal property may be included in a real property like-kind exchange, the personal property involved in the like-kind exchange is not subject to the tax ben-
benefits under Section 1031. Rather, what this analysis illustrates is that such personal property incidental to the exchange is subject to tax. It is a form of boot or non–like-kind real property. As such, it is subject to taxation where there is a realized gain. It will be recognized (taxed). The final regulations also did not identify the incidental property rule as a separate safe harbor.

Appraisers, among others, need to know that although there might be a tax-deferred exchange involved in the realty, the personal property involved with the exchange may not exceed fifteen percent of the aggregate fair market value of the real property and it can generate taxable income, even if it is incidental to the like-kind exchange.

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Additional Resources

Internal Revenue Service
• Statutory Limitations on Like-Kind Exchanges
  https://www.federalregister.gov/documents/2020/12/02/2020-26313/statutory-limitations-on-like-kind-exchanges

• Tax Cuts and Jobs Act: A Comparison for Businesses

• The Treasury Department and IRS Issue Final Regulations Regarding Like-Kind Exchanges of Real Property

US Congress—Tax Cuts and Jobs Act of 2017
Traditionally, highest and best use analysis has been described in terms of four “tests.” And those tests are theoretically applied to the subject property considered from two perspectives: (a) the land as though vacant and (b) the property as improved. In practice, however, the process of highest and best use analysis is more effectively organized into eight steps that echo and amplify the process of market and marketability analysis. Figure 1 lays out the eight steps in highest and best use analysis as its own sequential process and illustrates how those steps map onto the four fundamental criteria for the analysis of highest and best use.

The essential components of highest and best use analysis are

1. A specific property’s physical, legal, and locational attributes that determine use
2. The economic demand for the potential alternative uses of that property
3. Estimates of the financial rewards for each alternative use

Those first two components are generated through market and marketability analysis. The conclusion of that process provides the basis for the financial analysis of alternative uses—the third component. That screening process then leads to reconciliation and the final conclusion of highest and best use—i.e., the maximally productive use.

At its core, highest and best use analysis is an examination of alternative uses of a property, each use having its own characteristics related to the value-influencing factors of utility, demand, effective purchasing power, and scarcity. The goal of highest and best use analysis is to determine which use produces the highest present value of the future benefits. To accomplish that, the eight steps in highest and best use analysis are used as a screening process, and alternatives are run through this screening process until the highest and best use is determined.

Each alternative use of the property should be studied in sufficient detail to allow an appraiser to make a logical, supportable decision about the alternatives in terms of use, timing (of the demand for each use), and identification of market participants. The same criteria for levels of study in market and marketability analysis apply to the eight-step process of highest and best use analysis. If the property is a small, simple property in a stable market and it is obvious that there is current demand, then the highest and best use analysis would usually be simple (i.e.,
analogous to a Level A [inferred demand] market analysis). For example, for a single-family house in good condition in a stable market with a consistent sales history in a neighborhood with a good long-term outlook, the eight steps of the highest and best use analysis process can usually be completed in a short time, with inspection of the subject property and neighborhood and review of the zoning and MLS records of sales trends. At the other end of the scale, if a property is large, complex, or in a volatile market and if the timing of demand is an issue, then the application of the eight-step process might be detailed and extensive (i.e., like a Level C [fundamental demand] market analysis) with quantifiable support for each step.

**Figure 1 Eight Steps of the Highest and Best Use Analysis Process**

| Step 1. Property productivity analysis | Analyze property productivity attributes (site, legal, and location) to eliminate uses and determine most probable uses |  
| Step 2. Delineate the market | Perform market studies to determine the economic demand and timing for probable alternative uses |  
| Step 3. Demand analysis |  
| Step 4. Supply analysis |  
| Step 5. Residual demand analysis | Perform marketability analysis |  
| Step 6. Subject capture analysis | Complete a financial analysis of alternative land uses to determine which use has the highest residual land value |  
| Step 7. Financial analysis of alternative uses | Perform highest and best use reconciliation and draw conclusions:  
- Use  
- Timing  
- Market participants  
  - Users of space  
  - Most probable buyer type |  
| Step 8. Highest and best use conclusions |  
|  
| Step 1. Property Productivity Analysis | The first step of the application of highest and best use analysis determines what market segment the property features are designed to serve. Appraisers usually limit the number of potential property uses to a few choices through the initial analysis of the market and of the subject proper-
the site, improvements, land use regulations, and location—i.e., property productivity analysis.

Often a ranking analysis of the features of the subject property places the property in a competitive position in relation to the market standard for a particular use. As an example, the location of an office property being appraised may be ranked against competitive nodes for its quality of:

- Linkages
- Ease of access
- Reputation
- Visibility
- Availability of support facilities

The success of a retail center depends on different characteristics of the subject property such as:

- Location
- Tenant mix
- Amenities
- The number of households in the trade area
- Proximity to new retail development
- Proximity to the path of growth (e.g., new or projected residential development)
- Household income
- Proximity to major roads

Also, the ranking of a retail center considers the characteristics of the retail node such as:

- Traffic counts by each shopping center
- Complementary land uses
- The size and drawing power of the anchors
- Tenant mix and compatibility in the retail node
- The effective age and reputation of the centers in the retail node

Each of the factors relevant to a particular property type is ranked as part of the analysis of location in the property productivity analysis.

Factors relevant to the property analysis of an apartment building include:

- Proximity to existing development
- Public planning/development support for apartments
- Location in path of new residential growth
- Proximity to major roads (existing or approved ease of access and visibility)
- The reputation or prestige of the area (e.g., social reputation)
- Proximity and ease of access to shopping centers (convenience and shopper goods)
- Proximity and ease of access to employment centers

- Aesthetics of natural features in the area
- Proximity to entertainment and cultural areas (theaters, parks, golf, restaurants)
- Proximity and reputation of schools in the area

The property productivity analysis delineates the alternative uses of the property that are analyzed in the next steps of highest and best use analysis. The demand for each probable use is studied through market analysis to determine the market demand and market conditions for each alternative use. The marketability analysis component of the process determines the timing of the use of the subject property such as the future start date for construction or a forecast of occupancy.

**Steps 2 to 6. Market Analysis and Marketability Analysis**

The central portion of highest and best use analysis is an iterative process that provides support for the forecast of economic demand for the subject property. The processes of market analysis and marketability analysis are repeated for all the reasonably probable alternative uses being considered. Specifically, the second through sixth steps are applied to each alternative use, as shown in Figure 2. In Step 1, highest and best use analysis examines the subject property’s competitive position based on the property characteristics and legal and location factors. The iterative process of Steps 2–6 extends the analysis to address the amount of supply and demand for the land uses that are most probable at the site of the subject property.

In market analysis, the task of delineating the market for a particular land use involves identifying the typical users of a property that is put to a particular use. The various alternative uses often have different market areas relevant to the particular use, which the second step of highest and best use analysis addresses.

Demand analysis measures the need for a specific land use. In the context of highest and best use analysis, the study of demand for an alternative use answers the question of whether a specific alternative use is needed. The supply analysis step of highest and best use analysis determines what the competition for each alternative use is and how much competition exists.
**Figure 2** The Iterative Analysis of Alternative Uses

**Problem Definition of Highest and Best Use Analysis**
The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

**Economic Overview and Alternative Use Scoping**
Site, improvement, legal, and locational determinants of most probable uses

---

**Alternative Use 1**

**Market Analysis and Marketability Analysis**
*Step 2.* Delineate the market
*Step 3.* Demand analysis
*Step 4.* Supply analysis
*Step 5.* Residual demand analysis
*Step 6.* Subject capture analysis

**Financial Analysis of Alternative Use 1**

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**Alternative Use 2**

**Market Analysis and Marketability Analysis**
*Step 2.* Delineate the market
*Step 3.* Demand analysis
*Step 4.* Supply analysis
*Step 5.* Residual demand analysis
*Step 6.* Subject capture analysis

**Financial Analysis of Alternative Use 2**

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...**Alternative Use n**

**Market Analysis and Marketability Analysis**
*Step 2.* Delineate the market
*Step 3.* Demand analysis
*Step 4.* Supply analysis
*Step 5.* Residual demand analysis
*Step 6.* Subject capture analysis

**Financial Analysis of Alternative Uses**

---

**Highest and Best Use Conclusions**
Specified in terms of:
- **Use**
- **Timing**
- **Market participants**
  - Users of space
  - Most probable buyer type
The fifth step of highest and best use analysis is critical in determining the timing of new construction for each alternative use. That is, the comparison of supply and demand leads to an estimate of when the market would support new construction of a particular use or the future outlook of occupancy of existing properties.

The marketability analysis conclusion for each alternative use completes the iterative process at the heart of highest and best use analysis. The subject capture analysis determines the competitive position of the property’s location and physical attributes, ultimately providing support for an estimate of the timing of new construction on the subject site or of the future occupancy outlook of existing improvements on the subject property over the typical market cycles in the user market. This study of economic demand sets the stage by providing data input for the next step—the financial testing of alternatives.

The subject capture potential that is estimated in highest and best use analysis must consider competitive properties, whether they are vacant sites or improved properties. There may be significant demand for a use in the subject property’s market area and the subject property may indeed be suited for this particular use, but a number of other sites may be equally well suited or more appropriate.

Appraisers should also consider the competition among various uses for a specific site. For example, competition for available sites along a commercial strip development may be intense. Developers of community retail facilities, garden office space, and fast food restaurants may bid against one another, and the prices they pay for these sites will reflect the competition between buyers. However, market demand is not infinite. Even though the subject property may be physically and locationally suited for a particular use, better-located sites may satisfy the market demand for that use completely before the subject property can realize its development potential.

**Step 7. Financial Testing of Highest and Best Use Alternatives**

The financial testing of each alternative use provides the framework for analyzing which alternative use has the highest value. The desire for a particular use in a particular location is essential. Clues that supply and demand may not support a particular use include vacancy throughout the market area or no new construction when land is available. The results of market analysis can lead to the potential consideration of the presence of obsolescence.

For income-producing properties, the income analysis should be supported with market and marketability analysis. The financial analysis of alternatives will often focus on which potential uses are likely to produce an income (or return) equal to or greater than the amount needed to satisfy operating expenses, financial obligations, and capital amortization of each investment. However, supply and demand are still essential considerations even if cash flow is positive, i.e., the financial analysis of alternative uses does not necessarily end with cash flow analysis.

Some economic uses of land, such as housing, may not be income-producing in the sense of a commercial property, and economic feasibility is weighed by considering prices and price trends. If the uses are not income-producing, the financial analysis will determine which uses are likely to create a value or result in a profit equal to or greater than the amount needed to develop and market the property under those uses—and of those uses, the use that produces the highest value.

The timing of alternative uses is a key consideration in highest and best use analysis because highest and best use is subject to change. In particular, the financial analysis of alternative uses is sensitive to the market acceptance of that use at the present time or at a future time. As an example, consider a ten-year-old, single-unit residence located next to a street that was just widened and where traffic increased 300% from the previous year. After the road widening, the area was rezoned from residential use to commercial use. The value of the improved residential property is $500,000, and the land value as though vacant with commercial zoning is $475,000. The contributory value of this ten-year-old residential structure is $25,000. If land prices increase slightly, the building will be removed. In the application of the cost approach to value, the building would be considered almost worthless, although it is only ten years old. The residential structure is the wrong improvement for this commercial site and would pay the penalty in the form of obsolescence for misuse of the site.

Uses that are not currently financially feasible for new construction can be analyzed to forecast when they would be financially feasible at some
point in the future, i.e., when market rent rises above feasibility rent. The residual demand analysis that is part of the market analysis process provides the information needed to help forecast when a use will become financially feasible. Holding a property for future use may produce a higher present value than current development of a different use on the property.

Alternative uses that are currently financially feasible and those that are forecast to be financially feasible can be compared with discounted cash flow analysis, which is discussed in detail in Chapter 27 of *The Appraisal of Real Estate*, fifteenth edition, or with other methods such as the analysis of the present value of end-user sales to owner-developers, which is discussed later in this chapter.

The financial feasibility of a potential alternative use may not be the reason it is not currently the highest and best use. Sometimes the problem is revealed earlier in the testing process, e.g., property productivity analysis. A piece of land can be stripped of any viable economic use as a stand-alone entity by legal and physical constraints such as

- An inability to obtain a building permit
- Restrictive covenants that preclude any economic use or structure
- The presence of easements
- An inability to comply with lot area, lot dimension, or setback requirements
- No legal means of access
- Lack of accessibility (isolated location or abutting an unopened road allowance)
- Unfavorable topographical features
- Unfavorable soil conditions, including environmental contamination
- An irregular configuration
- An inability to secure essential services (water supply and sewage disposal either on site or off site)
- Development rights that were previously sold

Also, the immediate development of a financially feasible use may not be the current highest and best use because of delays in the development process such as a protracted permitting period. That sort of delay becomes part of the timing element of the highest and best use conclusion.

The demand for a location may suggest that a parcel is a prime retail corner at some point in time, but if the retail potential is some years in the future, another use—for example, apartments—that can be developed immediately could make the land more valuable today. For an existing property subject to a lease that is near expiration, the demand for the continued use of the property or conversion to another use may be a timing issue. Timing is a central issue in the analysis because the highest and best use is the use with the highest present value.

Prices and price trends can be important indicators of economic performance. Recent sales to owner-users could indicate that the economic performance of certain uses of real estate has recently reached the level of financial feasibility, or it could indicate that the market is becoming overdeveloped. If market conditions have changed since the last sales occurred, economic performance in the current market might be affected. Sales to speculative investors are more likely to indicate a market in transition, in which case current or proposed uses are not likely to be financially feasible. Other possible market indicators of economic performance include current and historical vacancy rates, current and historical rental rates, recent construction activity, and recent space absorption.

**Financial Analysis of Alternative Uses**

Many different techniques can be used to help guide the final highest and best use conclusion of which alternative use produces the highest present value. All the techniques commonly used by appraisers have certain factors in common.

First, the analysis should consider the amount and timing of all cash flows until the property reaches its peak income performance. In most properties, the peak performance is not typically sustained over the long term. Rather, economic performance usually rises and falls with market cycles.

Second, the model used should take into account the appropriate risk attributed to each of the cash flow forecasts for each use considered. In general, more support for the cash flow forecast from market analysis means less risk than a forecasted cash flow based only on general data. If different alternatives have different forecast expectations, then (a) the discount rate could be adjusted for this risk, (b) the forecast could be adjusted to match the alternative use's forecast expectation, or (c) the different risk could be explicitly addressed in the reconciliation of the highest and best use.
Finally, the analytical technique applied should be able to consistently select the alternative use that will produce the highest financial reward, assuming that all alternatives have the same probability for realizing the forecasted cash flows. The five techniques used most commonly in financial analysis are

- Land residual analysis
- Discounted cash flow analysis
- Feasibility rent analysis
- Analysis of profitability index
- Analysis of the present value of end-user sales to owner-developers

Multiple methods may be needed to analyze alternatives depending on the reliability of the techniques used.

**Land Residual Analysis**

For any alternative use of vacant land, the cost of construction (including an estimate of entrepreneurial coordination), the forecasted timing for the use, and the expected value of the specific property use should be known. The difference between the present value of the benefits of developing the property and the cost to develop it is the land residual, which is a primary indicator of financial feasibility. The land residual analysis provides the land value required for new construction to be economically justified. If the land residual is positive, the use is considered financially feasible, assuming that the land can be acquired for the residual amount or less.

The land residual model should be repeated for each alternative being considered. The development cost of each alternative use will probably be different and should be reflected in the financial model. The different timing expectations (e.g., start date, construction time, and lease-up time) should also be reflected in the model, which is usually a discounted cash flow analysis.

As an example, suppose that a 25,000-sq.-ft. office building is deemed a reasonably probable use of the site as though vacant. If construction costs (including leasing commissions and rent loss during lease-up) for office buildings of a similar class in the market area are $125 per square foot and entrepreneurial incentive in the market has consistently equaled 10% of building costs, the total cost to construct the improvements would be $3,437,500. Similar improved properties would be expected to sell for $150 per square foot in the current market, so the expected value of the completed and leased-up property would be $3,750,000. The residual site value of the leased-up building would then be $312,500:

<table>
<thead>
<tr>
<th>Cost to Construct Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,000 sq. ft. × $125 per sq. ft. × 1.1 = $3,437,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sale Price of Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,000 sq. ft. × $150 per sq. ft. = $3,750,000</td>
</tr>
</tbody>
</table>

Residual Site Value

= Sale Price of Property – Cost to Construct Improvements

= $3,750,000 – $3,437,500

= $312,500

The office building would be considered financially feasible if the contributory value of the land was competitive in the market.

**Discounted Cash Flow (DCF) Analysis**

When improvements need to be considered (such as new construction, remodeling existing buildings, or continued operation of existing buildings) in highest and best use analysis, a discounted cash flow analysis is usually required to estimate the contributory value of the real estate. DCF analysis is also an appropriate tool when rezoning costs or anticipated changes in market conditions have to be accounted for in the analysis of the present value of alternate uses. The application of discounted cash flow analysis is illustrated in detail in Chapter 27 of *The Appraisal of Real Estate*, fifteenth edition.

**Feasibility Rent Analysis**

Feasibility rent is the rent necessary to justify new construction. In a balanced market, feasibility rents are equal to market rents. The concept of feasibility rent helps appraisers determine the timing of development, i.e., when current rent levels in the market are expected to rise to the feasibility rent level.\(^1\)

A carefully developed comparison of market rent with feasibility rent also serves as a quantitative indicator of financial feasibility. Market

\(^1\) In addition to its use in the financial analysis of alternative uses, the analysis of feasibility rent is a powerful tool in the estimation of depreciation because the capitalized difference between feasibility rent and market rent represents total depreciation (if market rent is less than feasibility rent).
rent can be seen as an estimate of market demand (and affordability) for the current use, and feasibility rent is the rent necessary to justify new construction. Market rent is often estimated in the property productivity step of market analysis to compare locations. Feasibility rent is calculated by reversing the cash flow format used in the income capitalization approach—starting with net operating income, adding expenses, and adding the vacancy allowance to arrive at gross income.

As an example, suppose that the ideal improvement for a site is a small industrial facility that would cost $1,750,000 to construct, including entrepreneurial incentive and all other indirect costs based on an estimate of the sale prices of comparable sites, the cost of preparing the site, and the estimated cost of building the 50,000-sq.-ft. facility. Market research supports an overall capitalization rate of 6.75%. The required net operating income could be calculated using this information, i.e., $1,750,000 × 6.75% = $118,125. Feasibility rent is then calculated by (1) adding operating expenses, (2) adjusting for vacancy and collection loss, and (3) converting the potential gross income to the standard unit of comparison, in this case, feasibility rent per square foot:

<table>
<thead>
<tr>
<th>Net Operating Income</th>
<th>$118,125</th>
</tr>
</thead>
<tbody>
<tr>
<td>($1,750,000 × 6.75%)</td>
<td>$118,125</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>$100,000</td>
</tr>
<tr>
<td>($2 per square foot × 50,000 square feet)</td>
<td>$218,125</td>
</tr>
<tr>
<td>Effective Gross Income</td>
<td>$229,605</td>
</tr>
<tr>
<td>Plus Stabilized Vacancy and Collection Loss (5%)</td>
<td>$4.59</td>
</tr>
<tr>
<td>Potential Gross Income</td>
<td>$229,605</td>
</tr>
<tr>
<td>Feasibility Rent per Square Foot</td>
<td>$4.59</td>
</tr>
<tr>
<td>($229,605/50,000)</td>
<td>$4.59</td>
</tr>
</tbody>
</table>

The calculated feasibility rent can be compared directly to market rent to determine financial feasibility. In this case, if a marketability study indicated that industrial facilities of the same type would be expected to have a market rent of $5 per square foot, the proposed development would be financially feasible. If the market rent were lower than the feasibility rent of $4.59, the proposed development would not be financially feasible.

Analysis of Profitability Index
Analysis of the profitability index, which is similar in concept to the net present value of an investment, directly compares the value contribution of some action such as developing a proposed property on a particular site with the cost of that action. Analysis of the profitability index of a land use is most useful in the analysis of the financial feasibility of conversion, renovation, or alteration of an improved property, although it can be used to measure the feasibility of establishing alternative uses on vacant land. (Further explanation and examples of the use of the profitability index are covered in Chapter 27 of The Appraisal of Real Estate, fifteenth edition.)

Analysis of the Present Value of End-User Sales
The defining characteristic of sales of property made to “end users” is that the buyer will make the property available to the user of the space for immediate occupancy. The values of alternative uses can be discounted to compare differences in market timing and ultimately to determine which alternative provides the highest present value.

The discount rate can be adjusted for holding costs and any appreciation expected in sale prices, or the actual cost and appreciation can be accounted for in a discounted cash flow analysis. Note that any appreciation in the prices of end-user sales is not necessarily an inflation adjustment in a fundamental analysis. That is, the price appreciation could include some expected change in future buying power such as disposable income after inflation. Some appraisers use an inflation-adjusted discount rate.

Consider a two-acre commercial site on a major thoroughfare. Four uses were forecasted through marketability analysis to be in demand for the site:

- branch bank
- pharmacy
- service station
- fast food restaurant

However, the timing of the demand for each use varied, as illustrated in Table 1. All of the forecasts of timing were judged to have equivalent reliability, and a constant discount rate of 20% was considered reasonable. The

2. If the sales market is at a critical inflection point in the market cycle, a more sustainable overall rate adjusted for the sales market cycle or a rate based on the fundamental user market for alternative investments should be used.
land value is estimated to be stable for the next few years in the market of end users. Ultimately, the alternative that produces the highest present value is use of the site for the development of a fast food restaurant, as indicated in Table 2.

### Step 8. Reconciliation and Conclusions

In the reconciliation of highest and best use analysis, the various inputs in the data analyses from earlier steps in the process are reviewed. The resulting financial analyses by various methods are also analyzed and the methods considered most reliable form the basis of the highest and best use conclusion. In addition, the results of the analysis of inferred demand are reconciled with the calculated financial analyses.

The resulting reconciliation conclusions of highest and best use for both the land as though vacant and the property as improved (or as if improved as proposed) should be presented in terms of

- Use
- Timing
- Market participants

Traditionally, appraisers have emphasized the physical use in the conclusion of highest and best use, but all three considerations are important in identifying the highest and best use fully.

The development of those conclusions in the market analysis process is integral to highest and best use analysis, which in turn is integral to the valuation of the property. The most probable buyer is a critical conclusion used in choosing comparable sales in the sales comparison approach. The probable space user is critical in choosing comparable leases in the income capitalization approach.

In any report of a highest and best use conclusion, an appraiser should provide market evidence that leads the reader of the appraisal report to an understanding of the use and the timing (or future occupancy) for the use. The property type, size, and market conditions provide an indication of how detailed the fundamental data needed will be, which will dictate to a large extent how specific the conclusion of the highest and best use of a property should be. However, all three parts of the highest and best use conclusion are needed at some level to reliably apply the approaches to value. For example, the selection of comparable sales is based on properties with a similar highest and best use as the subject property, so that requires some basis to determine if the comparable prop-

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### Table 1 Timing of Demand

<table>
<thead>
<tr>
<th>Use</th>
<th>User Price per Sq. Ft</th>
<th>Date of Most Recent Sale to End User</th>
<th>Estimated Mid-Range Forecast of Timing for Demand for End User</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch bank</td>
<td>$23</td>
<td>2 years ago</td>
<td>3 years from now</td>
</tr>
<tr>
<td>Fast food restaurant</td>
<td>$19</td>
<td>3 years ago</td>
<td>1 year from now</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>$25</td>
<td>current</td>
<td>4 years from now</td>
</tr>
<tr>
<td>Convenience store</td>
<td>$16</td>
<td>1 year ago</td>
<td>1 year from now</td>
</tr>
</tbody>
</table>

### Table 2 Discounted Value

<table>
<thead>
<tr>
<th>User price per square foot</th>
<th>Bank</th>
<th>Fast Food Restaurant</th>
<th>Pharmacy</th>
<th>Convenience Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future timing for use (years)</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>$23</td>
<td>$19</td>
<td>$25</td>
<td>$16</td>
<td></td>
</tr>
<tr>
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<td>$12.06</td>
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properties have a similar use, timing for use, and market participants as the subject property.

**Reporting Highest and Best Use Conclusions**

In an appraisal report that includes an opinion of market value, a discussion of, or reference to, a separate marketability study (of either inferred demand or fundamental demand) may need to precede the discussion of the highest and best use determination to provide context for the highest and best use conclusions. A marketability study is particularly important in the appraisal of vacant land, of new or proposed construction, and in transitional or complex markets.

In addition, highest and best use analysis often incorporates techniques and data from the application of all three approaches to value. In many appraisal assignments, the financial analysis of alternatives and the test of maximum productivity require information that is obtained from the application and development of the approaches to value. Therefore, even though the discussion of highest and best use traditionally precedes the approaches to value in an appraisal report, the conclusion of highest and best use often can be finalized only after a preliminary analysis of alternative land uses has been performed. The conclusions of use, timing, and market participants reported in the highest and best use section of a report should be consistent with conclusions and applications in the other parts of the report.

**Special Situations in Highest and Best Use Analysis**

In the identification and testing of highest and best use, special considerations are required to address the following situations:

- Excess land and surplus land
- Proposed construction
- Legally nonconforming uses
- Illegal uses
- A use that is not currently the highest and best use
- Mixed uses
- Special-purpose properties

**Excess Land and Surplus Land**

The related but distinct concepts of surplus land and excess land were introduced in Chapter 12 of *The Appraisal of Real Estate*, fifteenth edition. The proper treatment of unused land on an improved site can be an important consideration in highest and best use analysis. Both excess land and surplus land have a common characteristic in that they are not needed to serve or support the existing improvement. However, only excess land has the potential to be separated from the rest of the improved property and to be used at its own highest and best use. Also, the highest and best use of the excess land may or may not be the same as the highest and best use of the main parcel. In contrast, surplus land cannot be separated from the improved property and sold with an independent highest and best use.

A site with excess land may be able to support two separate highest and best uses: (1) the highest and best use of the land used to support the existing improvements and (2) the highest and best use of the excess land. Surplus land, meanwhile, is currently unused land that might at best be used for the expansion of the existing improvements, i.e., a modification of the current use, if legally permissible and financially feasible. Surplus land is sometimes used in improvement density calculations for zoning requirements, which may be a factor in deciding if that area is needed to support the existing improvements.

A variety of physical, legal, and other factors can affect whether unused land can be classified as excess land. For example, a lease that covers all of the land of an underimproved property can postpone or delay development or separate use of excess land until the lease expires.

When the appraised property includes excess land, the excess portion and the improved portion are valued separately, each based on its own highest and best use. If an appraisal assignment includes valuing an improved parcel and an accompanying parcel of excess land together as though the two were sold in one transaction, the appraiser must consider the cost of splitting the entire parcel (including entrepreneurial incentive), which may be so significant that the separation of the excess land may not be economically feasible. The sum of the values of the improved parcel and the excess land may equal the value of the whole, or an adjustment may be needed to that sum to reflect a combined sale. If two separate value conclusions are provided—one for the improved parcel and one for the excess parcel—but the parcels are not legally separated, the values are based on the hypothetical condition that the parcels are legally separated.
Proposed Construction
Analysis of the highest and best use of the land as though vacant can often involve an analysis of proposed construction. For example, consider an assignment in which the land is vacant at the time the appraisal is prepared, and the assignment calls for the appraiser to develop an opinion of market value that is either

- A current value, subject to the hypothetical condition that the proposed improvements are built as of the current date, or
- A prospective value, subject to the special or extraordinary assumption that the proposed improvements will be built as of the future date of value

In either case, an appraiser analyzes the highest and best use of the property as if improved as proposed. These sorts of extraordinary assumptions and hypothetical conditions are based on a conclusion developed from the appraiser’s research and data, i.e., that the improvements will be completed at a certain time in the future when the market would accept that use.

The specific improvements that are proposed may or may not represent the highest and best use of the real estate if improved as proposed. The highest and best use analysis process is applied just as it is for any improved property to support an appraiser’s conclusion as to which use is most desired in the market. Proposed construction may involve all completely new construction or a modification of the existing improvements, but in either case the eight-step process is applied to the proposed improvements and reported with a clear presentation of an appraiser’s projection of the timing of the proposed use. Even though the improvements are not yet constructed, they may suffer value loss by obsolescence if they are not similar to the ideal improvement.

Legally Nonconforming Uses
A legally nonconforming use is a use that was lawfully established and maintained but no longer conforms to the current land use regulations of the zone in which it is located. Some legal nonconformities can be created by governmental action such as a partial taking in an eminent domain proceeding. Consider a gas station property with 20,000 square feet of land, which is the minimum amount of land area required by local zoning for gas station use. If the city acquired 1,000 square feet of the land for an intersection improvement, the site would then contain 19,000 square feet and would no longer conform to the zoning requirements for site size. Other legally nonconforming use situations can be created when codes and ordinances are changed. For example, suppose a one-unit residence on a 7,500-sq.-ft. site in the core residential district of a community zoned R-1 requires at least 7,500 square feet of land area. If the city adopts a new zoning ordinance in which the minimum site size for a lot zoned R-1 is increased to 10,000 square feet, the existing property will no longer conform. In both instances, the property uses are considered legally nonconforming uses because they were caused by an action of a governmental body. Changes in building codes, which happen regularly in cities, can also make a property legally nonconforming.

For properties with legally nonconforming uses or properties with improvements that differ significantly from the ideal improvement, an appraiser should determine whether the property can continue to operate as its current use and alternatively whether applicable codes, ordinances, or private restrictions allow modification of the improvements that would bring them into conformity. This may involve analyzing the reasonable probability of a change in zoning as conducted in testing the highest and best use of the land as though vacant. Again, an appraiser should report any evidence supporting a reasonable probability that a change could be made to bring the improvements into conformity with a particular code, ordinance, or restriction. Such evidence could include trends in the market area, historical changes to codes or ordinances in the area, or a community’s master plan.

Some communities also differentiate between (1) legally nonconforming uses and (2) properties that are legal land uses but do not conform to current development norms. In the former case, the use is nonconforming. In the latter, the property is still being used in accordance with the

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3. The traditional term legally nonconforming use has many synonyms constructed with similar words, e.g., legal nonconforming use and legal but nonconforming use. However, neither the words legal or legally are necessary modifiers. In plainest terms, a use that can continue is nonconforming, and a use that cannot continue is illegal.
A zoning variance can create a legally nonconforming use. An area variance (less commonly known as a use variance) may be allowed due to special circumstances applicable to a specific property, when strict application of the provisions of a development code deprives the property of privileges commonly held by other property in the vicinity that is under the same zoning. When a variance is granted, the legally nonconforming use usually can be rebuilt without taking any unusual steps, in contrast to an existing use that is legally nonconforming. Appraisers should be careful to research if a variance is only for the current owner and the current use. If the variance is issued to the current owner for that specific use and it expires when the property is transferred to a new owner, the use allowed by the variance will not be permitted for the new owner.

When valuing land with a legally nonconforming use, an appraiser should recognize that the current use may be producing more income, and thus have more value, than the property could produce with a conforming use. The legally nonconforming use may also produce more income and have a higher value than comparable properties that conform to the zoning. Therefore, when an opinion of the value of a property with a legally nonconforming use is developed in the sales comparison approach, an appraiser should consider the demand for the higher intensity of use allowed for the subject property and also consider the risks and limitations associated with the nonconformity. If the improvements could not be replaced if destroyed (for example, by fire or flood), there is the risk that the income produced by the property will cease, and this risk must be reflected in the valuation to the degree that it is acknowledged by market participants.

In the case of the eight-unit apartment building in an area downzoned to six-unit developments, for example, the capitalization or discount rates in the income capitalization approach may need to reflect any increased risk associated with the nonconforming use, specifically the risk that the improvements could not be rebuilt if destroyed. In the sales comparison approach, the subject property would be treated as an eight-unit apartment, but to reflect this risk, adjustments would need to be made to comparable properties unless they too are similarly legally nonconforming uses. An appraiser will have to determine whether sales of properties with six
units are appropriate comparable transactions in applying the sales comparison and income capitalization approaches or whether the sales should be of properties with eight units. In the cost approach, any increment in value due to the legally nonconforming use is attributed to the improvements, not to the land, if the improvements could not be rebuilt.4

A zoning ordinance does not control the economic demand for a property, but rather the market does. For example, a property rezoned from residential use to commercial use does not necessarily increase in value. There may still be demand for residential improvements in the market area but not for commercial improvements at this location. In this example, the zoning change would not increase the value of the land. In addition, if high economic demand is found for the current use, then the current, legally nonconforming use may be producing more income than the rezoned, conforming use would.

In some cases, a legally nonconforming use designation may affect the value of a property negatively. Appraisers must understand enough about the legal requirements affecting properties in the area to be able to identify when there are further issues to consider. For example, in many municipalities a nonconforming use cannot be rebuilt if it is completely or partially destroyed. Some lenders consider the restriction on rebuilding a risk, and lending practices or parameters for conforming and nonconforming properties may differ. As a result, some lenders require insurance against loss due to the nonconforming use, thus reducing net income to the property and therefore value.

It is often easy to recognize a legally nonconforming use that corresponds to the highest and best of the property as improved. Sometimes, however, it is not clear whether a legally nonconforming use is the highest and best use of the site as though vacant. Answering that question usually requires careful analysis of (a) the selling price or income produced by the legally nonconforming use and (b) the selling prices or income levels that would be produced by alternative uses of the land if the property were brought into conformity with existing regulations. In most cases when a legally nonconforming use is allowed to continue for the remaining economic life of the improvements, the market will probably not distinguish between a legal use and a legally nonconforming use. But a legally nonconforming use can create a problem in the application of the cost approach, where the value of the land and the value of the improvements are summed to develop an indication of value of the property as a whole. When the land is valued as though vacant, that estimate of value can be severely diminished by the existence of zoning or land use regulations, but the market for the improved property may view the property as if the improved use were legal, i.e., without an impairment to the land value.

**Illegal Uses**

Sometimes a property being appraised includes improvements that were constructed without permits. Often in these cases the client will instruct the appraiser to “just ignore” the illegal portions, but this is inappropriate. If the appraiser does “ignore” the illegal improvements, the appraisal is premised on the hypothetical condition that the illegal improvements do not exist when in fact they do exist, and the hypothetical condition must be clearly disclosed in the appraisal report.

To value a property with illegal improvements in its “as is” state, the appraisal must reflect the cost to remedy the illegality—i.e., to either remove the illegal improvements or obtain legal permissibility. Obtaining legal permissibility might include upgrading the improvements so they conform to building codes and the payment of fees or fines.

**Use That Is Not Currently the Highest and Best Use**

The timing of alternative uses is a consideration in the conclusion of highest and best use because highest and best use is subject to change. In particular, the financial feasibility of an alternative use can be sensitive to the market acceptance of that alternative use now or at a future time. When no alternative uses are currently financially feasible, an appraiser should analyze when an alternative use will, if ever in the foreseeable future, become financially feasible and therefore become a candidate for the maximally produc-

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4. If legally nonconforming uses could be rebuilt, any incremental value due to those uses would be attributed to the land. This is because legally permissible uses of the land as though vacant would include the legally nonconforming use in this case.
tive use. If the maximally productive use of a property is delayed for legal or financial reasons, then the highest and best use of the property would be to leave the property as is until that prospective use can be achieved, e.g., when land value rises to the level that modification of the current use is legally permissible, financially feasible, and maximally productive.

The current use that the property is put to until it is ready for a more valuable use has traditionally been known as an interim use. When it is not financially feasible on the date of value to put the property to a more valuable use, the appropriate highest and best use to be analyzed includes both the future use and the interim use. In other words, when developing a market value opinion for such a property, an appraiser must take into account the anticipated change in use in the future. The interim use may contribute to the value of the property up to the point at which it becomes feasible to change the use.

Interim use improvements may or may not contribute much, if anything, to the value of the land as though vacant. If they cannot produce gross revenues that exceed reasonable operating expenses, the improvements do not contribute to property value. Indeed, the value of the property as improved may be less than the value of the land as though vacant when demolition costs and real estate taxes are considered. However, many outmoded improvements that clearly do not resemble the ideal improvement do create an increment of value over the value of the land as though vacant. Also, the interim use may have value to the property user to the extent that the income generated by the improvements defrays the costs of carrying the property, the cost of demolishing the improvements, or both.

Uses that are not currently financially feasible must be analyzed to forecast when they would be financially feasible at some point in the future, such as when market rent reaches feasibility rent (i.e., the rent level necessary to justify new construction). The residual demand analysis that is part of the market analysis process provides the information needed to forecast when a use will become financially feasible. (This is another example of the importance of market analysis throughout the valuation process.) Alternative uses that are currently financially feasible and those that are forecast to be financially feasible can be compared through discounted cash flow analysis.

**Mixed Uses**

Highest and best use often comprises more than one use for a parcel of land or an improved property. A large tract of land might be suitable for a planned unit development with a shopping center in front, condominium units around a golf course, and one-unit residential sites on the remainder of the land. Business parks often have sites for retail stores in front and warehouse or light manufacturing structures in the rear. In these cases, different portions of the tract will have different highest and best uses.

One parcel of land may serve many functions. Timberland or pastureland may also be used for hunting, recreation, and mineral exploration. Land that serves as a right of way for power lines can double as open space or a park or may be used for agricultural purposes. Public streets with railroad sidings can also be considered mixed-use land.

A single building can have a mix of uses as well. A hotel may include a restaurant, a bar, and retail shops in addition to its guest rooms. A multistory building may contain offices, apartments, and retail stores. A “single-family,” owner-occupied home may, where permitted, have an upstairs or basement apartment.

If the highest and best use of a property is for more than one use on the same parcel or in the same building, the appraiser must analyze the contributory value of each use. This testing can be accomplished by repeating the steps of marketability analysis for each use to determine the timing and economic contribution of each use and thereby be reconciled into a conclusion of the best economic mix of uses for the property.5

**Special-purpose Properties**

All properties are built for a specific use, but some properties are labeled special-purpose properties when the features of the improved property are appropriate for only a specific use or a lim-

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5. For an example of the process of highest and best use analysis for a mixed-use property, see Stephen Fanning, Market Analysis for Real Estate, 2nd ed. (Chicago: Appraisal Institute, 2014), 547–552. The example illustrates a mixed-use site, but the analysis of a mixed-use building would follow similar procedures.
imited number of uses, which may be costly to modify to another use. The highest and best use of a special-purpose property as improved is probably the continuation of its current use if that use remains viable and there is sufficient market demand for that use. The highest and best use analysis would likely include some forecast of continued economic demand.

If the current use of a special-purpose property is physically, functionally, or economically obsolete and no alternative uses are feasible, the highest and best use of the land might be realized by demolishing the structure and selling the remains for their scrap or salvage value, if possible. This may be true even if the improvements are relatively new and they were costly to build. For example, a ten-year-old fire station would have been designed for one use, and the owner of the property is the only user of the real estate put to that use.
Notes and Issues

Developing the 15th Edition of The Appraisal of Real Estate in Challenging Times

by Michael McKinley

Abstract

On September 1, 2020, the Appraisal Institute released the fifteenth edition of The Appraisal of Real Estate. This text is the premier presentation of the Appraisal Institute’s valuation body of knowledge. It is respected internationally for its comprehensive and in-depth treatment of valuation theory and methodology in real property valuation. This article provides a glimpse into the changes in the text and the rigorous process for its development. The Appraisal of Real Estate, fifteenth edition, peer-reviewed by Appraisal Institute members, is at the time of its publication, an authoritative source of recognized methods and techniques for valuation practitioners. Appraisers should consult the text to ensure they are following the body of knowledge.

Introduction

Even in calmer times, developing a new edition of The Appraisal of Real Estate is a long, drawn-out process. In the midst of a pandemic, social upheaval, and a fractious election cycle, the day-to-day task of engaging with the words on paper served as a respite from the uncertainties and confusion of the world outside our home-office windows. In fact, it has been reassuring to read (and reread and reread) The Appraisal of Real Estate and find that, whatever else might be happening in the world, the complicated task of valuing real property still makes sense within the pages of the book.

That is not to say that some readers will not find anything new to argue about. Accepting change is hard, particularly change in a professional resource that has been in print for almost seventy years. Summarizing the multitude of large and small changes throughout an 800-page book is even harder. Readers of the text should keep in mind that it does not change the Appraisal Institute body of knowledge—it clarifies it.

Taking the broadest view, this edition of the textbook retains the organization of the previous edition, with one notable exception, as indicated in the highlighted section of the table of contents in Exhibit 1. There was a complete rewrite of the chapters covering market analysis and highest and best use analysis. The chapters in the previous edition have been split into two separate chapters for each topic in this edition. More precisely, Chapter 15 of the previous edition became Chapters 15 and 16 of the fifteenth edition, and Chapter 16 of the previous edition became Chapters 17 and 18 of the fifteenth edition. The new structure of Chapters 15 through 18 separates the complex topics into more manageable and digestible discussions of (1) theory and (2) application with examples, mirroring the structure of the groups of chapters covering each of the approaches to value. This presentation should improve understanding and application of the market analysis and highest and best use analysis components of valuation.

Many readers will want to know specifically what changes have occurred between editions of the textbook at a more granular level. However, the myriad smaller, spot-weld changes within the textbook are too numerous and diverse to summarize in any meaningful way. Be assured that the small, sometimes seemingly minor changes to wording throughout the book have been parsed...
with as much intensity as the major structural changes in the textbook development process.

**Development Process**
The development process for *The Appraisal of Real Estate* boils down to a simple algorithm:

1. Review
2. Revise
3. Repeat (as needed)

Forty-eight Designated Members of the Appraisal Institute were involved in the development process. There was a complete, detailed review of the text. Inconsistencies and deficiencies in wording were corrected. The body of knowledge has continued to evolve through courses and seminars, and the updated text was harmonized with the current body of knowledge.

Some sections of the textbook (such as the chapters on data collection, land description, and building description) needed only a single pass through the review and revision stages, while others (such as the heavily reorganized discussions of market analysis and highest and best use analysis) underwent a series of iterations that sometimes felt endless.

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**Exhibit 1** Table of Contents, *The Appraisal of Real Estate*, Fifteenth Edition

<table>
<thead>
<tr>
<th>Table of Contents</th>
<th>Part VII Application of the Approaches to Value</th>
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<tbody>
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<td>Chapter 20 The Sales Comparison Approach</td>
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<tr>
<td>Chapter 1 Introduction to Appraisal</td>
<td>Chapter 21 Comparative Analysis</td>
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<tr>
<td>Chapter 2 Land, Real Estate, and Ownership of Real Property</td>
<td>Chapter 22 Applications of the Sales Comparison Approach</td>
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<tr>
<td>Chapter 3 The Nature of Value</td>
<td>Chapter 23 The Income Capitalization Approach</td>
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<td>Chapter 4 The Valuation Process</td>
<td>Chapter 24 Income and Expense Analysis</td>
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<tr>
<td><strong>PART II</strong> Identification of the Problem</td>
<td>Chapter 25 Direct Capitalization</td>
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<tr>
<td>Chapter 5 Elements of the Assignment</td>
<td>Chapter 26 Yield Capitalization</td>
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<tr>
<td>Chapter 6 Identifying the Type of Value and Its Definition</td>
<td>Chapter 27 Discounted Cash Flow Analysis and Investment Analysis</td>
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<tr>
<td>Chapter 7 Identifying the Rights to Be Appraised</td>
<td>Chapter 28 Applications of the Income Capitalization Approach</td>
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<td><strong>PART III</strong> Scope of Work Determination</td>
<td>Chapter 29 The Cost Approach</td>
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<tr>
<td>Chapter 8 Scope of Work</td>
<td>Chapter 30 Building Cost Estimates</td>
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<td><strong>PART IV</strong> Data Collection and Property Description</td>
<td>Chapter 31 Depreciation Estimates</td>
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<td>Chapter 9 Data Collection</td>
<td><strong>PART VIII</strong> Reconciliation of the Value Indications and Final Opinion of Value</td>
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<td>Chapter 10 Economic Trends in Real Estate Markets and Capital Markets</td>
<td>Chapter 32 Reconciling Value Indications</td>
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<tr>
<td>Chapter 11 Neighborhoods, Districts, and Market Areas</td>
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<td>Chapter 12 Land and Site Description</td>
<td>Chapter 33 The Appraisal Report</td>
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<td>Chapter 13 Building Description</td>
<td><strong>PART X</strong> Appraisal Practice Specialties</td>
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<td><strong>PART V</strong> Data Analysis</td>
<td>Chapter 34 Review</td>
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<td>Chapter 14 Statistical Analysis in Appraisal</td>
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<td><strong>Chapter 15</strong> Market Analysis</td>
<td>Chapter 36 Valuation for Financial Reporting</td>
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<td><strong>Chapter 16</strong> Applications of Market Analysis</td>
<td>Chapter 37 Valuation of Real Property with Related Non-realty Items</td>
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<tr>
<td><strong>Chapter 17</strong> Highest and Best Use Analysis</td>
<td><strong>PART VI</strong> Reconciliation of the Value Indications and Final Opinion of Value</td>
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<td><strong>Chapter 18</strong> The Application of Highest and Best Use Analysis</td>
<td><strong>PART VII</strong> Application of the Approaches to Value</td>
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<tr>
<td><strong>PART VI</strong> Land Value Opinion</td>
<td>Chapter 20 The Sales Comparison Approach</td>
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<tr>
<td>Chapter 19 Land and Site Valuation</td>
<td>Chapter 21 Comparative Analysis</td>
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<tr>
<td><strong>PART VIII</strong> Application of the Approaches to Value</td>
<td>Chapter 22 Applications of the Sales Comparison Approach</td>
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www.appraisalinstitute.org Fall 2020 • The Appraisal Journal 265
Since the publication of the fourteenth edition of The Appraisal of Real Estate, the Board of Directors of the Appraisal Institute reinstituted the Body of Knowledge Committee as part of the organization’s governance structure. This group was charged with oversight of the textbook as well as other publications and educational material that make up the Appraisal Institute’s body of knowledge. Its members had an active role in the fifteenth edition’s development process. Never before had a standing committee like the Body of Knowledge Committee been available to arbitrate issues of contention during the development of a new edition of The Appraisal of Real Estate.

The development process began in earnest in late 2018, a year after the Appraisal Institute’s Property Rights Symposium, which was organized by the Body of Knowledge Committee to examine certain hot topics in the profession. In that symposium, valuation professionals discussed the nascent (and controversial) “dark store theory,” what we mean when we say “leased fee,” and what other people assume when they refer to “market value.” These discussions influenced the development of The Appraisal of Real Estate, fifteenth edition, in a variety of ways.

Results

Unsurprisingly, a major focus of the review activity over the past two years was the core task of clearly identifying the property rights being appraised. Long-held definitions of terms like fee simple estate were examined but ultimately not changed in the textbook. In the interest of clarity, new discussion of the labels applied to property rights by various participants in real property markets has been added (Chapter 7) to help explain certain semantic stumbling blocks and to help appraisers ensure that they are properly communicating what property rights are involved in the assignment at hand to parties that may have different assumptions about what certain terms mean. Throughout development of the new edition of The Appraisal of Real Estate, any potential ambiguity about what property rights are being discussed was scrutinized and addressed in the review and revision processes.

Like references to ever-evolving professional standards, certain topics that are covered in the textbook are moving targets. Some of the content areas that are sensitive to changes in the marketplace and the advance of information technology include the following:

- Data standards (e.g., OSCRE, MISMO)
- The use of GIS in valuation
- The programs of Fannie Mae and Freddie Mac (e.g., the new UMBS program)
- Sources of capital, such as opportunity zones and hard money lenders
- The ongoing evolution (and market acceptance) of green building features
- New building measurement standards published by BOMA
- Accounting standards on types of leases and business combinations

Developments in these areas have been covered in the textbook to bring the book up to date.

On the other side of the coin, certain topics have outlived their usefulness in the textbook and needed to be weeded out (or deemphasized), such as

- The idea of “scope creep”
- Asbestos as a detrimental building material
- The J factor
- The reviewer’s checklist

Note, however, that the appendices covering professional practice and law, regression analysis and statistical applications, and financial formulas—which have been relatively unchanged over many editions of the textbook—have not been eliminated. Although they no longer appear in the printed book, they are readily available online at www.appraisalinstitute.org/15th-edition-appendices/.

Two areas of focus in recent years, both in Appraisal Institute publications and education, have been market analysis and highest and best use analysis. The most noticeable change in the organization of the textbook, as mentioned previously, is the splitting of the discussions of each topic into an introductory chapter on fundamental concepts and a follow-up chapter on the application of those concepts in valuation practice. In the case of highest and best use, the discussion of the application of that crucial step in the valuation process has been revised significantly to show more explicitly how the six steps of market analysis can be extended to eight steps to derive a credibly supported conclusion of highest and best use, including all three essential components of that conclusion: (1) use,
Exhibit 2  Eight Steps of the Highest and Best Use Analysis Process

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Financial Implications</th>
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<tbody>
<tr>
<td>1.</td>
<td>Property productivity analysis</td>
<td>Physical possibility</td>
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<td></td>
<td>Analyze property productivity attributes (site, legal, and location) to eliminate uses and determine most probable uses</td>
<td>Legal permissibility</td>
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<td>2.</td>
<td>Delineate the market</td>
<td>Data required for analysis of financial feasibility</td>
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<td>3.</td>
<td>Demand analysis</td>
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<td>4.</td>
<td>Supply analysis</td>
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<tr>
<td>5.</td>
<td>Residual demand analysis</td>
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<tr>
<td>6.</td>
<td>Subject capture analysis</td>
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<tr>
<td>7.</td>
<td>Financial analysis of alternative uses</td>
<td>Financial feasibility</td>
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<tr>
<td></td>
<td>Complete a financial analysis of alternative land uses to determine which use has the highest residual land value</td>
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<tr>
<td>8.</td>
<td>Highest and best use conclusions</td>
<td>Maximum productivity</td>
</tr>
<tr>
<td></td>
<td>Perform highest and best use reconciliation and draw conclusions:</td>
<td></td>
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<tr>
<td></td>
<td>• Use</td>
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<tr>
<td></td>
<td>• Timing</td>
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<tr>
<td></td>
<td>• Market participants</td>
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<td></td>
<td>• Users of space</td>
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<td></td>
<td>• Most probable buyer type</td>
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</tbody>
</table>

Source: Figure 18.1 in The Appraisal of Real Estate, 15th ed.

(2) timing, and (3) market participants. The revised discussion brings home the point that appraisers are real estate economists who look at supply and demand in the market in which properties operate. Two easy-to-follow graphics in the text illustrate the analytic process (shown in Exhibit 2, above, and Exhibit 3, on page 268). In Exhibit 2, the left column displays each of the eight steps in the highest and best use analysis, the middle column describes the step, and the right column links the eight steps to previous, familiar terminology.

The distinction between the fundamental market of space users and the investment buyer market has been made more explicit in the textbook’s discussion of market analysis and use of data derived from market analysis. That is, estimates of supply and demand need to be made with conscious consideration of which market is being served by the use of the real property. Consistent treatment of market data throughout the valuation process ensures that apples are compared to apples and oranges to oranges.

After publication of the previous edition of The Appraisal of Real Estate, the Appraisal Institute established two professional review designations, developed related educational curriculum, and published a handbook on the subject. The discussion of appraisal review, found in Chapter 34 of the new textbook, has been updated significantly to account for changes in this professional discipline such as the evolution of professional standards relating to review, current thinking on precisely what can be reviewed and who can perform reviews, a new more systematic format for structuring review assignments, and a more nuanced discussion of common appraisal issues seen in review assignments.

The valuation of non-realty interests—such as personal property and financial assets involved in the valuation of a business that includes real property—has never been the focus of The Appraisal of Real Estate. But increased interest among valuation professionals in this specialized area of practice spurred the development of new material on the subject in the previous edition of the text.

Exhibit 3  The Iterative Analysis of Alternative Uses

Problem Definition of Highest and Best Use Analysis
The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

Economic Overview and Alternative Use Scoping
Site, improvement, legal, and locational determinants of most probable uses

Alternative Use 1  Alternative Use 2  ...  Alternative Use n

Market Analysis and Marketability Analysis
Step 2. Delineate the market
Step 3. Demand analysis
Step 4. Supply analysis
Step 5. Residual demand analysis
Step 6. Subject capture analysis

Market Analysis and Marketability Analysis
Step 2. Delineate the market
Step 3. Demand analysis
Step 4. Supply analysis
Step 5. Residual demand analysis
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Market Analysis and Marketability Analysis
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Market Analysis and Marketability Analysis
Step 2. Delineate the market
Step 3. Demand analysis
Step 4. Supply analysis
Step 5. Residual demand analysis
Step 6. Subject capture analysis

Financial Analysis of Alternative Use 1

Financial Analysis of Alternative Use 2

Financial Analysis of Alternative Uses

Financial Analysis of Alternative Use n

Highest and Best Use Conclusions
Specified in terms of
• Use
• Timing
• Market participants
  • Users of space
  • Most probable buyer type

Source: Figure 18.2 in The Appraisal of Real Estate, 15th ed.
Developing the 15th Edition of *The Appraisal of Real Estate* in Challenging Times

The fifteenth edition moves forward the discussion of techniques for the valuation of non-realty interests. Chapter 37 provides clarification of the application of the management fee approach and the parsing income method, a description of the overall capitalization without allocation to asset classes technique, and concrete examples of the various techniques covered.

**Looking Ahead**

The care and feeding of *The Appraisal of Real Estate* is an ongoing effort, like looking after the sourdough starter that we’ve all acquired in the recent stay-at-home months. This maintenance process involves more than just the individuals listed in the Acknowledgments section of the new edition of the textbook. Work on the next edition starts on the day that the current edition is published. User feedback is collected continuously over the lifespan of each edition of *The Appraisal of Real Estate* and serves as the jumping off point for the development of the next edition. With uncertainty about how real estate markets—and, really, all markets—will behave once the coronavirus pandemic has passed, ongoing vigilance will be essential to the continuing improvement of the textbook as a tool for valuation professionals at all points in their careers.

The publication of the fifteenth edition of *The Appraisal of Real Estate* is a step forward worthy of celebration. For obvious reasons, we are not able to convene all the contributors to the development of the new edition for a book launch party. We’ll have to make do with the more modest comfort of a slice of sourdough bread and the reassuring heft of the completed book in our hands.

**About the Author**

**Michael McKinley** is a senior book editor and technical writer with the Appraisal Institute. He has worked in the Publications area of the Appraisal Institute since 1998. He has been the developmental editor for four editions of *The Appraisal of Real Estate*, and he has worked on development of the fourth, fifth, and sixth editions of *The Dictionary of Real Estate Appraisal* as well as numerous other Appraisal Institute texts, monographs, and handbooks. **Contact:** mmckinley@appraisalinstitute.org
Real Estate Valuation and Strategy: A Guide for Family Offices and Their Advisors

By John A. Kilpatrick, PhD, MAI

Published by McGraw-Hill Education, New York, 2020, 480 pages; $100 hardcover; $71.99 Kindle

Reducing Real Estate Portfolio Risk

John A. Kilpatrick, PhD, MAI, presents a comprehensive guide for real estate investors on wealth maximization through interesting stories and an easy-to-understand narrative in Real Estate Valuation and Strategy: A Guide for Family Offices and Their Advisors. While the text is aimed at those who are investing in real estate and their advisors, practicing real estate appraisers, brokers, and lending professionals also should find the material interesting and enlightening. Readers will benefit from the diverse real estate knowledge distributed throughout this text.

Dr. Kilpatrick, chairman and managing director of Greenfield Advisors, accomplishes his stated goal of preparing investors/advisors in understanding real estate appraisals. He reminds readers the book was not written for those who wish to become appraisers. While the purpose is not to produce appraisers, the many examples and short stories included in the book should be a beneficial learning experience for appraisal professionals. Dr. Kilpatrick describes how to use real estate appraisal methodology to find, oversee, and enhance wealth. He cautions readers to avoid overpaying when purchasing real estate, and he maintains as a core premise that one makes money when buying real estate, not when selling it.

Chapter 1 discusses the real estate cycle, net present value, and differences between book value and market value. Chapter 2 includes a case study example involving a proposed office building and valuation in which the cost of construction is used to extract land value where inadequate land sales are available. In Chapter 3, the author addresses why buyers invest in real estate. The after-tax cost of debt is demonstrated through an equation suggesting the cost of money is less than one might think. Appraisers are typically dealing with rates of return, net present values, capitalization rates, internal rates of return, and economic considerations with proposed purchases. They seldom confront non-return-generating reasons in nonresidential real estate.

The discussion next moves on to noninvestor purchases. Chapter 4, “Valuing the Personal Residence,” is more about how to maintain value rather than how to value the residence. The importance of maintaining the roof, inspecting heating and air systems, appliances, floors, and

Book Review

by Warren Klutz, MAI, SRA, AI-GRS
the property’s curb appeal is stressed. The author cautions that most appraisers and brokers are not skilled at dealing with the complexity of trophy real estate. Tips on buying and selling trophy properties are included, and the necessity of obtaining valuations from appraisers familiar with such properties is advised.

Chapter 5, “Valuing Rental Property,” deals with buying rental real estate. Gross rent multipliers and capitalization rates are discussed along with capital rate extraction and the mortgage equity analysis method of capitalization (band of investment method). Emphasis is placed on using comparable sales that are truly competing rental properties when valuing a specific property.

Chapter 6, “Approaches to Value,” introduces the principle of substitution and how appraisers are guided by this in determining value. The definition of market value establishes conditions that should be present in the comparable sales in order to be included in the sales analyzed. For this reason, foreclosure sales, assemblage sales, and other non-arm’s length sales do not meet the definition of market value and should be excluded from consideration when selecting comparable sales. The author asserts the importance of using property sales with similar highest and best uses for analysis in the sales comparison approach. Different value conclusions are addressed with examples of market value, liquidation value, and investment value.

In Chapter 8, “Various Other Tools and Techniques,” the author delves into specialized valuations, including timberland valuation and valuation of trophy properties. An interesting example of valuing timberland is offered where future values are discounted to present value and netted against the present value of cost incurred in growing the timber. Chapter 9 has a related topical discussion on valuation quirks.

Chapter 10, “A Deep Dive into Sales Comparison Approach: Residential,” takes the reader through the process of how a residential appraisal is processed, and several methods of extracting market conditions (time) adjustments are discussed. Chapter 11, “A Deep Dive into the Sales Comparison Approach: Income Properties,” explores several types of adjustments including size, market conditions, quantitative, and qualitative adjustments. Several sales adjustment grids are used to demonstrate appraisal concepts for agricultural land, shopping malls, simple retail, apartments, warehouses, and hotels. Key in most appraisals is an understanding of what constitutes a comparable sale and the proper selection of comparable sales. The author provides a good framework for comparable sales selection by digging deeper into sales data, beyond the broad information provided earlier in the text.

The discussion then moves from the sales comparison approach to “Income Approaches to Value” in Chapter 12. Here the focus is on the income approach from the perspective of investors. The author advises, “Higher levels of gross rent multipliers (GRMs) indicate markets with significant capital gain and rental growth expectations, and lower GRMs are observed in slow growth markets.” Common ways of deriving capitalization rates, including market extraction, market surveys, and band of investment (mortgage equity analysis) are explained. The reasoning behind the author’s positing the superiority of rank ordering of potential investments using net present values rather than internal rate of return (IRR) is made through alternative investments that are compared based on resulting IRR and net present value. He reminds us that when comparing projects, internal rates of return ignore proj-
ect size and an IRR assumes that cash flows can be continuously reinvested at the same rate of return. Reinvesting all cash flows at the same rate may not be possible or a reasonable alternative.

The importance of highest and best use for vacant land is stressed with examples of alternative highest and best use calculations provided for different potential uses.

Reproduction cost and reconciling approaches to value are treated in Chapters 13 and 14, respectively. Valuing raw land for income or development is considered in Chapter 15. The importance of highest and best use for vacant land is stressed with examples of alternative highest and best use calculations provided for different potential uses. Value upon completed development less development costs provides net profit for various proposed uses, which are then compared to determine highest and best use for a vacant property. Feasibility tests, net ground leases, and subdivision analysis are also explored in Chapter 15. A table displaying the percentage of federally owned land in twelve western states is eye opening. Did you know that 84.9% and 64.95% of Nevada and Utah, respectively, are owned by the federal government? Would you believe the federal government owns 61.6% of Idaho and 61.6% of Alaska? The significant level of the federal government’s ownership leads into a discussion of the Uniform Appraisal Standards for Federal Land Acquisitions and its appraisal compliance nuances.

One matter that is not made clear and may lead to misunderstanding relates to the differences between the “federal rule” and “state rule” that apply to appraisals made for condemnation or acquisition purposes. The author when comparing state rule to federal rule mistakenly states, “The state rule should end up in the same place, dollarwise, but gets there in a different fashion.” (Page 326) Some additional clarification is required here. As the rules apply to appraisals, the federal rule requires an appraisal of a property as it exists before the acquisition and an appraisal of the remainder property after the project, as though the project is completed on the date of the acquisition. The difference between the two appraisals is the amount due the owner under the federal rule. The state rule requires an appraisal of the property, before acquisition, as it exists on the date of acquisition (Step 1). Further, an appraisal of the acquisition is made (Step 2) and subtracted from Step 1 to arrive at a new number typically referred to as “value of the remainder before the take” (Step 3). The remainder property is also appraised as it is at project completion; this value is typically referred to as “value of the remainder, after the take” (Step 4). Subtracting the value of the remainder after the take (Step 4) from the value of the remainder before the take (Step 3) allows one to conclude whether there are damages or enhancement to the remainder property. If the result is negative, damages are present; if the result is positive, value enhancement is the result of the taking. Under the state rule, the value of the property acquired plus any net damages establishes the amount due owner but in no event is the amount of the take reduced by enhancement value after the project. Benefits or enhancement value can partly or wholly offset damages under the state rule but it cannot reduce the value of the take reduced by enhancement value after the project. Benefits or enhancement value can partly or wholly offset damages under the state rule but it cannot reduce the value of the take reduced by enhancement value after the project. Benefits or enhancement value can partly or wholly offset damages under the state rule but it cannot reduce the value of the take reduced by enhancement value after the project. Benefits or enhancement value can partly or wholly offset damages under the state rule but it cannot reduce the value of the take reduced by enhancement value after the project. Benefits or enhancement value can partly or wholly offset damages under the state rule but it cannot reduce the value of the take reduced by enhancement value after the project.
could potentially be zero. That is not the case under the state rule. Under the state rule, the property owner is entitled to the amount equal to the value of the property taken, regardless of any increase in value to the remainder after the take. Often an example of a farm is used to illustrate this situation, where an interstate highway crosses the farm and leaves it with four parcels at the four corners of the interchange. Under the federal rule, assuming the four corner sites at the interstate interchange exceed the value of the property acquired, the property owner is owed zero even though an acquisition has occurred. Therefore, the state rule will not end up in the same place, dollarwise, as the federal rule.

The author then takes up a number of real estate situations with special considerations. Chapter 17, “Real Estate and the Family Business,” concentrates on situations where the real estate owned by a family is secondary to its primary business. The Walton family is cited as an example since they own numerous stores, warehouses, and distribution centers. Other examples are families involved in manufacturing and automobile dealerships where the family owns the business and the real estate that houses the business. The author cautions family investors that when no rent is allocated to the real estate it may conceal a situation where the value of the real estate is greater than the business. Other matters discussed include circumstances where the different generations have other interests and do not care to continue the family business.

Chapter 18, “Brownfields,” discusses apparent brownfields, such as old factories, warehouses, dry cleaners, paint stores, and liquor warehouses. The loss in value is ideally ascertainable based on a comparison of the value of the property as though no brownfield exists and the value of the property as if impaired due to contamination or nearby contamination. The difference is presumed to be the amount of loss in value due to the brownfield’s impairment. Net operating income can be reduced due to lower rents, vacancy and collection loss, and increases in operating expenses, which might include legal and other costs associated with monitoring the problem. Other proximity contamination issues are explored with appraisal solutions described that lead to estimates of value loss. The author presents an interesting viewpoint on investment in brownfields, which may involve deep price discounts, tax credits, public brownfield funds, and other local, state, and federal inducements. For knowledgeable investors, the author proposes that investing or speculating on brownfield properties could be profitable.

Chapter 19, “REITs, 1031s, Limited Partnership Interests, and Tenancy in Common,” covers a number of subjects. Public and private real estate investment trusts (REITs) are compared. The author favors investing in public REITs over private REITs as private REITs lack the important advantage of liquidity available to public REIT investors and lack the transparency of NASDAQ-traded funds. Additionally, 1031 tax-deferred exchanges and pitfalls are briefly discussed. Minority, noncontrolling interests, and lack of marketability discounts relating to limited partnership interests along with tenancy-in-common investments are also examined here. Several court cases are cited, and minority interest and marketability discounts determined by the courts may provide some guidance as to percentage discounts used in valuing limited partnerships.

The author presents an interesting viewpoint on investment in brownfields, which may involve deep price discounts, tax credits, public brownfield funds, and other local, state, and federal inducements.
Chapter 20, “Special Topics Frequently Encountered by Family Offices,” delves into condominiums and cooperatives and cautions the investor about purchasing such properties without appraisals that consider comparable sales within and outside the same complex. The author notes that developers may set artificially high prices and stimulate sales with marketing gimmicks for initial sales that are not offered in marketing the condominiums later. Eminent domain issues and automated valuation models round out the balance of Chapter 20, along with a look at what happened in the real estate market during 2007 and 2008, with some comparison to the savings and loan crisis in the 1980s.

Lastly, Chapter 21, “Some Final Points to Ponder,” addresses the history of the appraisal profession over the past 85 years. The Uniform Standards of Professional Appraisal Practice (USPAP), real estate appraiser licensing, certification, and professional designations are described in some detail. A brief history of the Appraisal Institute and its predecessor organizations, the American Institute of Real Estate Appraisers and the Society of Real Estate Appraisers, is provided. MAI and SRA designations are described and promoted as top tier and highly regarded. The author points out that there is divergence among states regarding who must be licensed or certified to appraise property, but every state requires an appraiser to be licensed or certified to appraise properties for loans dispensed by a federally regulated lender when the loan amount is above a de minimis level.

Dr. Kilpatrick explores a wide-ranging assortment of appraisal topics in Real Estate Valuation and Strategy: A Guide for Family Offices and Their Advisors. While the stated target audience for this text is investors and their advisors, other real estate professionals will find small gems of wisdom and experience sprinkled throughout.

Interesting real estate trivia—such as the percentage of property owned by the federal government—may be stored away for use at the right moment in time. For example, the author attributes a quote to economist John Kenneth Galbraith: “There are two kinds of forecasters: those who don’t know, and those who don’t know they don’t know.” That quote may be applicable in response to questions about the opposing side’s expert witness opinions in a court case. On the other hand, appraisers who fail to read this book could fall into both categories of forecasters referred to by Galbraith.

About the Reviewer
Warren Klutz, MAI, SRA, AI-GRS, MS, MBA, CCIM, is the principal in the firm Warren Klutz & Co., based in Bristol, Tennessee.
“Principles for Calculating AVM Performance Metrics”

To the Editor

“Principles for Calculating AVM Performance Metrics” (Winter 2020), by Hans R. Isakson, PhD, Mark D. Ecker, PhD, and Lee Kennedy, illustrates factors that impact the performance of automated valuation models (AVMs). I am somewhat concerned, however, that the assumptions presented in the article seem to obscure the point that selling price is not always equal to market value. This point is made in the Appraisal Institute textbooks, which talk about adjustments to price, but we may need a reminder.

The fact that selling price is not always market value is the primary assumption in the testing and validation of appraisal valuation models. Experienced appraisers know that sometimes you must adjust a selling price and not take price as a given. My point here is that sale price is not always representative of market value or most probable price. Assuming it is the best representation of market value automatically induces appraisal error, according to Isakson, Ecker, and Kennedy, which then is overstated. Reality suggests that some people pay more than average and some pay less. An appraisal that does not match selling price is not necessarily an error.

Why do we observe such a range of possible selling prices? The derivation of market value is via the most probable price. The Appraisal of Real Estate, fifteenth edition, describes conditions required to derive a normative market value. These conditions include

- buyers and sellers that are typically motivated;
- parties that are well informed or well advised;
- a reasonable time allowed for exposure in the open market;
- payment made in cash or comparable financing; and
- price representing the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.¹

These conditions are sometimes not known or not met. Buyers and sellers may not be typically motivated or equally informed. Sometimes sellers are motivated for a quicker sale and intentionally underprice the property to attract more buyers. This can result in a bidding war on occasion or a below-market sale price on other occasions.

Buyers and sellers possess different levels of information, have different tastes and preferences, and have different search costs and motivations. For example, there are several academic papers that show out-of-town buyers, with their higher search costs, tend to pay higher prices than local patient and more-informed buyers.² This informational advantage of local buyers has

held true even after various websites became the dominant method of home-buying research. In addition, the research indicates that sellers in financial distress or facing essential moves have lower reservation prices, and they list homes at lower prices to reduce time on the market. From an economist’s point of view, unique tastes and preferences, high search costs, and high opportunity costs for either buyers or sellers are all rational factors that explain why we see a range of selling prices for very similar homes or properties. Such factors can, especially in thinner markets, result in a large range of potential selling prices that may be several percent above or below the most probable price. Sale prices even ten percent above or below the most probable price can be rational transaction prices. How should an appraiser treat such a selling price or price dispersion in general?

The first point is to recognize that price dispersion exists, and this will always result in some appraisal error based on unknown noise and unknown factors within the system that drives prices. Second, only a few of the observed transaction prices will be at a most probable price; most sales will be above or below. This brings us back to how to judge an automated valuation model when the contract sale price is unknown.

Isakson, Ecker, and Kennedy suggest using sale prices as the appropriate metric for judging the performance of a value estimate. Compare 10,000 appraisals to 10,000 selling prices, and the closer you are to the sale price the better, or so they presume. In aggregate, this is true, and all appraisal models are geared towards explaining selling price. On average, if you group together many appraisals, they will be close (within a few percentage points) to the market aggregate average selling price over the entire market. But at the individual level, it is wrong to presume that sale price is the best measure of the most probable price. Sale prices will deviate from most probable price. If a home sells for more or less because the seller is in no hurry or the buyer is desperate, that does not mean the appraisal is wrong. Some people pay more than market value and some less. Yet, according to Isakson, Ecker, and Kennedy, it is an error and the valuer or model will be faulted for under appraising the property using the kinds of statistics suggested. They are wrong. The best appraisers and appraisal models will often conclude market value is above or below the sale price.

Isakson, Ecker, and Kennedy state, “Due to the proprietary intellectual property contained within an AVM, assessing AVM credibility, i.e., its validity, accuracy, and precision, is accomplished through an examination of the AVM’s performance metrics.” They go on to describe several metrics, including the forecast standard deviation (FSD) of the error, again based on sale price not based on most probable price, which they do not know. They suggest that the FSD of appraisal error is likely underreported and that is why we all need someone like a third-party vendor to calculate them for us. They also suggest buckets of “error” to look for extreme errors or compare buckets to price tiers or geography, but none of this is relevant unless you assume that sale price is the only possible correct value conclusion. It ignores inherent price dispersion within the market and the real purpose behind most home appraisals, which is to support financing risk analysis.

With respect to collateral risk evaluation as a primary purpose for most residential appraisals,

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3. Unfortunately, for financing purposes there may be strong lender pressure to hit the mark by concluding a value at or above the sale price; those who instead choose to protect lenders and mortgage investors may find themselves with fewer appraisal assignments.

4. Other appraisal purposes can be for investors or corporate resellers, but in such cases, there is no sales contract and no known sale price.
Letters to the Editor

the metrics suggested by Isakson, Ecker, and Kennedy are mostly aimed at deriving work for third-party vendors. A better metric is how well do the appraised values serve the needs of the clients. For example, how much is the typical loss in foreclosure relative to the appraised value or model used? Do the sale prices or the appraised values predict selling prices better in the event of a foreclosure? These would be metrics worthy of consideration.

The appraisal industry has been under great pressure to speed up efficiency, lower costs, and improve accuracy. Many appraisal firms use automated data sorting and filtering and hybrid automated models that now allow their appraisal experience to be brought into the process. But, we should not fall back on using evaluation tools that assume the selling price is always the best estimate of market value. In fact, often it is higher or lower than the most probable price, and buyers may pay more or less than average. Not everyone pays the average price and to assume whatever they pay is market value oversimplifies reality and is a false premise. Instead of discussing trials and errors, confidence levels, and FSD by price range, all measured from this invented index of market value (sale price), the best measure of accuracy is how well does the value estimate perform in explaining losses after foreclosures. That would tell us much more about how good a value estimate is, rather than how well it conforms to selling prices.

Norman G. Miller, PhD
San Diego, California

Authors’ Response


Our article describes the state-of-the-art performance metrics that automated valuation model (AVM) vendors and others currently use to assess the accuracy, precision, and reliability of the AVM valuations. These metrics are ubiquitous within the AVM industry.5 The purpose of our article is to (1) illustrate that the calculations of AVM performance metrics are not standardized among AVM vendors, and (2) present a set of calculation principles that, if followed by AVM vendors, would result in directly comparable, standardized, AVM performance metrics. The four calculation principles that we present are in concordance with established appraisal principles. We argue that AVM vendors would benefit by following standard appraisal principles. Given the increasing use of AVM valuations as potential substitutes for in-person appraisals, we believe appraisers would also benefit by having a working knowledge of the AVM industry and, in particular, how AVM providers assess the credibility of their estimates of value.

In his letter, Dr. Miller argues that the proposed index of market value (sale price) should not be used to evaluate valuation models, because selling prices are tainted by price dispersion. He explains that, sometimes, buyers might pay more, and sellers might accept less, than market value for a property—thus creating a transaction in which selling price deviates from market value.

Due to this price dispersion, Dr. Miller suggests that a better benchmark for measuring valuation accuracy, supplanting selling price, is how well a valuation explains losses after foreclosures. Unfortunately, Dr. Miller does not provide any details or supporting references describing the practical implementation of his suggested measure for assessing valuation accuracy.

In economics, price dispersion refers to the situation in which two identical commodities sell for different prices at the same point in time and at the same location, a concept related to the law of one price and arbitrage pricing. In housing markets, price dispersion is more difficult to measure because two houses are never identical. Moreover, a statistical model that identifies and measures price dispersion also produces an estimate of market value. Then, according to Dr. Miller, this price dispersion invalidates the selling price determined by the parties with intimate knowledge of the transaction—the buyer and the seller. That is, the output from Dr. Miller’s statistical model is used to suggest that selling prices from arm’s-length transactions are not estimates of market value. In contrast, AVM valuations are compared to selling prices; they do not invalidate selling prices.

In his letter, Dr. Miller does not mention that buyers and sellers have incentives to reduce price dispersion. The out-of-town buyer who hires a local buyer’s agent can avoid overpaying for a house. Likewise, the desperate seller can hire a seller’s agent to avoid accepting a below-market-value price for his or her house. Sellers’ and buyers’ agents in housing markets work to minimize price dispersion effects.

In the AVM industry, it is widely recognized that the price of a property negotiated under the conditions requisite to an arm’s-length transaction represents the best indicator of the market value for a property. CoreLogic, a leading provider of AVM products to financial and other institutions, recognizes the importance of an arm’s-length selling price when it states, “a purchase price is really the best (and only) benchmark for a property’s true value.” Consequently, AVMs are routinely tested and calibrated using selling prices. That is, an AVM valuation of a subject property is compared to the selling price of the property, as of the same date. In a 2019 report, the Mortgage Bankers Association states, “AVMs are designed and calibrated based on data from millions of purchase transactions across various geographic markets and over time.” Further evidence of the importance of selling prices has been expressed by the International Association of Assessing Officers (IAAO), which takes the position that “all sales are candidates as valid sales [representing market values] for the ratio study unless sufficient and

8. We undertook and reported the usual measures to “scrub” the sales data used to ensure that it included only arm’s-length transactions representative of market values; see footnotes 45 and 49 of our article.
compelling information can be documented to show otherwise.” Despite Dr. Miller’s comments regarding price dispersion, these authorities (and others) accept that selling price in an arm’s-length transaction represents the best indicator of market value of a property.

In his letter, Dr. Miller offers a substitute for selling price to use as a benchmark in measuring valuation accuracy. He argues that “the best measure of accuracy is how well does the value estimate perform in explaining losses after foreclosures. That would tell us much more about how good a value estimate is, rather than how well it conforms to selling prices.” Here, Dr. Miller proposes a novel measure of AVM valuation (or appraised value) accuracy—one that would require the practitioner to wait months, if not years, for a mortgage to default before assessing the foreclosure losses associated with any valuation obtained at the time of the origination of the loan. Only then could one potentially assess how well or poorly the valuation explained any losses.

A fundamental question that Dr. Miller does not address is why any value estimate would be related to a mortgage subsequently going into default. That is, just because the lender suffered a foreclosure loss does not mean that the original selling price (or appraised value or AVM valuation) months or years beforehand was inaccurate. Attributing foreclosure losses to valuation errors is muddled with the true cause(s) of loan defaults, very few of which are valuation related. A review of the academic literature and industry press regarding the root causes of residential mortgage defaults can be found in the Report to Congress on the Root Causes of the Foreclosure Crisis. None of the studies examined in that report advocates using foreclosure losses to supplant selling prices to measure valuation accuracy.

The use of selling prices to calculate sales errors, from which nearly all AVM performance metrics are derived, is ubiquitous in the AVM industry, in spite of Dr. Miller’s concern that these metrics ignore price dispersion within the market. The discussion of price dispersion is an academic exercise that has not been established to provide any real-world usefulness to today’s valuation practitioner. In addition, the proposed foreclosure-based metric for measuring the accuracy of valuations lacks a coherent definition and is unproven in practical application. We know of no mortgage originators, appraisers, AVM providers, or third-party AVM evaluators who make use of the foreclosure-based metric proposed by Dr. Miller, and it offers little to advance the readers’ understanding of currently used AVM performance metrics.

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Cedar Falls, Iowa

Mark D. Ecker, PhD
Cedar Falls, Iowa

Lee Kennedy
Simi Valley, California


“Revisiting Market Value and Market Rent”

To the Editor
I read with interest the comments by Neil F. McDonald, MAI, AI-GRS, in his Summer 2020 letter to the editor related to The Appraisal Journal article “Revisiting Market Value and Market Rent” (Winter 2020). In his letter, Mr. McDonald states that an appraisal can be only “retrospective” or “prospective,” defined as before or after the “moment of the report.” How to properly apply the label “retrospective” to an appraisal is something that I have been wrestling with for quite some time.

The term retrospective appraisal is not found in the definitions section of the Uniform Standards of Professional Appraisal Practice (USPAP). However, USPAP Advisory Opinion 34 (AO-34) describes a retrospective appraisal as an appraisal where the “effective date of the appraisal [is] prior to the date of the report.” (Line 18) In the next paragraph, prospective appraisal is defined as an appraisal where the “effective date of the appraisal [is] subsequent to the date of the report.” (Line 21) This leaves the final category of current appraisals, which “occur when the effective date of the appraisal is contemporaneous with the date of the report.” (Line 15) This definitional framework, however, results in the label “retrospective” being applied to almost all appraisals, as the percentage of appraisals where the effective date is the same as, or after, the report date would be very small.

In the USPAP Frequently Asked Questions, FAQ 155, “Effective Date and Date of Report,” loosens the definitions considerably. It states that in a current appraisal “contemporaneous means arising, existing or occurring during the same time period,” and “contemporaneous is not intended to mean simultaneous.” The vagueness is defended by the assertion that the time period could differ from assignment to assignment. FAQ 155 does mention one strict rule however; that rule is that there cannot have been any significant change in property characteristics or market conditions between the effective date of the appraisal and the report date. This still leaves uncertainty in the characterizations of reports.

For example, say I appraise a barn, with an effective date on Friday, and a report date the following Monday. Is this a “current appraisal”? Do I need to know if something happened to the barn over the weekend. If the barn burned down on Saturday, the report suddenly becomes retrospective. Is the appraiser required to check on the property on the report date? Is this definition reasonable? Could we do better?

In my discussions, I have found little agreement about proper interpretation. One common response seems to be that no further precision is needed. While this may possibly be adequate in general, it is surely inadequate in other settings, such as for students being tested on the definitions in appraisal exams, litigation, etc. Therefore, in the interests of rigor, I offer the following definitions for consideration:

- **Retrospective appraisal**—the effective date is prior to the date of agreement to perform the assignment.
- **Current appraisal**—the effective date is between the date of agreement to perform the assignment and the report date (inclusive).
- **Prospective appraisal**—effective date is after the report date.

Stephen P. Reynolds, MAI, AI-GRS
Lexington, Massachusetts
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