

More Semi-Deep Easements: An Appraisal Case Study

by Richard C. Floyd, SR/WA

In his article, "The Appraisal of Underground Easements," published in the October 1992 issue of *Right of Way*, Max J. Derbes, Jr., SR/WA, shared the results of his extensive effort, and his insights into some unique valuation problems. Coincidentally, however, his article was providential; it was as timely as it was informative. At about the time his article was going to press, Realco Consultants had just begun to grapple with a project involving both the appraisal and acquisition of 12 "semi-deep" subterranean easements to accommodate the installation and use of an underground waste water transmission pipeline.

A discussion of the approach to value, and rationale which has consequently emerged will follow, but first it is necessary to characterize the subject properties and the proposed public pipeline project.

The highest and best use of each of the larger parcels involved was concluded to be single-family residential. The sites of 10 of the properties are medium-density, single-family residential lots, containing approximately one-third to one acre of land area, and, of these 10, only two are vacant, and the rest are improved with owner-occupied single family dwellings, plus an assortment of smaller, accessory outbuildings. The other two larger parcels consist of raw, developable acreage, and one of them is currently being subdivided and developed as a tract of new, single-family dwellings. All of the larger parcels are located in the unincorporated community of Rubidoux, a suburb of Riverside, California, which can still be considered relatively rural, since vacant parcels are still numerous and many of the owner-occupants of the subject properties keep some livestock at the

sites—still legally permissible under the existing zoning. All of the subject parcels occupy both sides and the top of a hill having relatively moderate slopes.

The subterranean easements to be acquired will all be located at varying depths, of course (from a minimum depth of approximately 20 feet to a maximum depth of approximately 120 feet, depending upon the elevation occupied by each of the larger parcels on the existing hill), and will include no surface entry or surface use rights for either construction activities or pipeline operation and maintenance. This means that, in order to achieve a gravity flow through the pipeline, a tunnel will have to be bored through granite bedrock between two off-site portals, and the planned high-density polymer pipe will then have to be jacked through the tunnel. Planning and engineering for the project were completed following extensive geophysical testing at the site, and completion of the installation will also include filling the remaining tunnel cavity with solid concrete grout—leaving no void space between the pipeline and the bedrock. Since the local public agency involved was created as a type of environmental protection agency, for the specific purposes of promoting and assuring the improvement and maintenance of ground water quality and continuing water reclamation in the upper Santa Ana River basin, the planned pipeline (commonly and unofficially referred to as the "brine line") will transport and convey non-reclaimable (but non-hazardous and non-toxic) waste water to the Pacific Ocean to mingle with sea water. Obviously, the current project comprises only one reach of a very extensive, cross-country pipeline project, when one considers

the inland location of the current project.

Having characterized the subject properties, the easements sought to be acquired, and the public improvements to be constructed, attention can be focused on the specific rationale, methodology, and approach developed to arrive at adequately supported conclusions of the just compensation applicable to each of the subterranean easements sought. Such compensation (in California) consists of the fair market value of each of the easements sought, plus the (severance) damages, if any, which will accrue to the unacquired remainder properties (the servient tenements) to be "burdened" with the proposed easements.

In connection with all public agency acquisitions in California, § 1263.320 of the California Code of Civil Procedure prescribes the definition of fair market value as:

- (a) The fair market value of the property taken is the highest price on the date of valuation that would be agreed to by a seller, being willing to sell, but under no particular or urgent necessity for so doing, nor obliged to sell, and a buyer, being ready, willing and able to buy, but under no particular necessity for so doing, each dealing with the other with full knowledge of all the uses and purposes for which the property is adaptable and available.
- (b) The fair market value of property taken for which there is no relevant, comparable market is its value on the date of valuation as determined by any method of valuation that is just and equitable.

The definition of "fair market value" contained in preceding sub-

section (a) of the Code states that, in part, fair market value is the highest price that would be agreed to by a buyer and a seller on the open market and under certain conditions. Utilizing this definition and applying the "direct sales comparison approach" to reach a value conclusion for a larger parcel is, of course, appropriate. To utilize the direct sales comparison approach in the valuation of an easement of the type proposed to be acquired is, however, virtually impossible, since such easements are not offered on the open market, and acquisition (purchase) of such easements is almost exclusively limited to public and quasi-public agencies (i.e., public utility companies). Since direct comparison is neither practicable nor reasonably possible, some alternate "just and equitable" method of arriving at conclusions of the fair market values of the subject easements must be devised through acceptable and reasonable rationale as provided for in preceding subsection (b) of the Code section, which states that: "The fair market value of property taken for which there is no relevant, comparable market is its value on the date of valuation as determined by any method of valuation that is just and equitable."

It appears widely acknowledged in the professional appraisal community and by most professional appraisal associations and societies that the most certain method of appraising the fair market value of easements, generally, is to make a comparison of the fair market value of the larger parcel, as it exists before an easement is acquired within a portion of it, to the fair market value of the remainder parcel, as it will exist after the easement has been acquired. The resulting difference in value, if any, between the larger parcel and the

remainder parcel (the larger parcel encumbered by the easement sought) through such a comparison would be the reasonable amount of just compensation to be paid for the easement to be acquired.

In theory, this method seems relatively straightforward and simple, but, in actual practice, the task of using it is likely to be enormous, if not impossible. In order to satisfactorily implement such a "before and after" method, the appraiser would first have to identify a similar project area, comprised of properties closely similar to the subject properties, where similar easements had been recently acquired. Then, in order to

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validate this method, he or she would find it necessary to track the subsequent sales activity of a suitable number of remainder properties and thus isolate (through the use of "paired sales") from a significant number of variable and interacting market influences, a market price difference that was solely and conclusively an increment correlated to the effect of the easement acquisition alone. When attempting to use this method, it is necessary to make more or less subjective adjustments for certain "interacting market influences" (e.g., location, time, conditions of sale), and the resulting conclusions may not be expected to be at all reliable. Obviously, such a "before and after" method, while reasonable and procedurally sound in theory, is

rarely practicable.

Consequently, some viable, alternate rationale had to be developed and used in order to arrive at reasonable conclusions of the fair market values of the subject easements.

In some cases it might be considered a "just and equitable" approach to analyze the effect of each proposed easement taking on the fee simple interest of the servient tenement and to make a reasonable estimate of what fraction (percentage) of the "bundle of rights" are taken from the fee-simple ownership by such easement acquisition. In this regard, it is a widely accepted and long-established economic principle that the determi-

nants of value are utility, scarcity, demand and marketability. A direct sales comparison approach would, of course, take into consideration the elements of scarcity and demand; however, scarcity and demand are elements to be considered when property interests are exposed and transacted on an open and relevant market—a condition that does not exist for the subject easements, as previously discussed.

In performing an appraisal investigation of this type—to arrive at conclusions of the amounts of just compensation appropriate for the acquisition of purely underground easements—it was appropriate to at least address the question of the effect, if any, of such easements on the mar-

Continued on Page 14

More Semi-Deep Easements: An Appraisal Case Study

Continued from Page 13

ketability of the remainder properties, marketability being one of the remaining, recognized determinants of value. In the conduct of research incidental to this type of appraisal investigation, it was discovered that there exists an older, underground water transmission tunnel/aqueduct beneath a number of adjacent residential properties located in the same neighborhood as the subject larger parcels. Contact with the West Riverside Canal Company revealed that this aqueduct, known as the North Riverside and Jurupa Canal, was built with hand labor before the turn of the century, was taken over by West Riverside Canal Company in 1916, and continues in use to the present day. When queried, the superintendent of the Company stated that he had no evidence or experience of any structural, operational, or physical problems ever being associated with the aqueduct.

The horizontal location of the existing tunnel is illustrated on the following plat marked "Exhibit A." The residential properties located directly above the existing tunnel are listed in Part I of the table marked "Exhibit B" following the map, and the residential properties immediately adjoining those listed in Part I of the table appear in Part II of the table. The analysis of the data contained in the table, however, resulted in no conclusive finding that might have indicated a difference in the marketability of those properties located directly above the aqueduct from the marketability of those adjoining properties not located directly above the aqueduct.

If such an analysis had indicated a significant difference in, perhaps, the typical time required to market each of the two categories of properties, it might have been possible to translate such a difference into a discount factor, hence a cost, resulting from, per-

haps, a longer marketing time period for those properties located directly above the aqueduct. As previously stated, however, the analysis resulted in no such finding.

In similar fashion, an analysis of the data contained in the table was made for the purpose of discovering if the data listed gave any indication that there might be a difference in the sales prices of properties located in Part I of the table from the contemporaneous sales prices of comparable properties listed in Part II. This second analysis, however, resulted in no

the old aqueduct was constructed without the benefit of the advanced engineering and construction techniques, codes and standards that are required today; most of the existing residences located directly above the existing aqueduct were built in 1949 and 1950; and the development and sale of these residences did not appear to have ever been either inhibited or depressed because of the pre-existence of the aqueduct.

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conclusive finding of any significant difference. Accordingly, no conclusion could be drawn to indicate that any difference exists in the market prices to be paid for the remainder parcels to be located directly over the proposed underground easements and pipeline from the market prices that will be paid for those comparable adjacent properties not located directly over the proposed easement and pipeline.

The most significant findings that resulted from research conducted into the history and operation of the existing aqueduct, combined with the analysis of the data contained in the preceding table, were: an operational water aqueduct currently exists beneath 10 residential properties (nine of which are occupied by single-family residential improvements) in the same neighborhood as the subject properties; the aqueduct has existed without neighborhood awareness, visibility, maintenance problems, or structural failure for over 90 years;

analyzed in relation to the larger and remainder parcels toward a determination of any reduction in the "bundle of rights" that could be caused by acquisition of each one of the subject easements. A reduction in utility (the usability of the existing fee-simple interests) of the larger parcels could, conceivably, result from the acquisition of the subject easements and could, perhaps equitably, be expressed in a percentage reduction in the utility of the land areas to be burdened by the proposed easements. Accordingly, it could be considered, perhaps, "just and equitable" to apply such a percentage of reduction (in the utility of the two-dimensional land area of each larger parcel falling within the easement to be acquired) to the fee-simple value of that land area, in order to arrive at a reasonable estimate of the fair market value of that proposed easement.

The subject easements sought to be acquired, however, provide for the utilization of only a subterranean


portion of each of the larger parcels—below a vertical depth ranging from no less than 20 feet to no less than 120 feet, and the provisions of the easements prohibit any entry upon or use of the surface whatsoever by the easement holder and user. It appears widely acknowledged that properties used for single-family residential purposes derive their utility, hence their value, essentially, from the surface utilization of the site, surface utilization being generally conceded to be use of the actual ground surface of the site and to a subterranean depth of rarely more than 10 feet—the maximum depth of basements (which are rarely seen in Southern California) and the maximum depth of typical backyard swimming pools (which are frequently seen in Southern California).

If the highest and best uses of the subject properties have been determined to be single-family residential uses, and the easements sought to be acquired provide only for subterranean use of each larger parcel (not in any locations upon or within the larger parcels that could be defined as surface-use locations), then it could be concluded that the proposed easement use will only affect invisible parts of the subject properties never to be used by the residential occupants. Consequently, the existing

there will be no change in the values of the larger parcels as a result of the acquisition and use of the subject easements. Consequently, any analysis of comparable sales through application of the direct sales comparison approach, in order to arrive at conclusions of the fee-simple land values—thus allowing application of a percentage reduction in utility as the method to determine the fair market value of the easement—would be a pointless expenditure of time and effort. This approach, however, might be the most viable approach for the appraisal of easements needed to accommodate “surface or near-surface” underground uses. Where such surface or near-surface uses are involved, surface entry for excavation and installation (primarily of pipelines) is typically required. Therefore, appraisal of the rights for the temporary use and occupancy of the surface during such activities would be required in addition to the appraisal required to determine the fair market value to be compensated due to a (percentage) reduction in the utility of the remainder parcel as a direct result of the easement acquisition, facilities installation, and possible future entry for repair and maintenance.

The last discussion above suggests that the amount of just compensation

appropriate for each of the easements to be acquired was “a reasonable sum (of money) that was commensurate with the imposition on the time and energy of each owner to discuss and administer the details of the proposed easement conveyance.” In the case of the subject easements to be acquired, that sum was concluded to be a nominal sum and was the same amount for the easement sought from each larger parcel. Because some of these acquisitions remain unsettled and pending at the date of this writing, necessary adherence to confidentiality dictates that publication of the actual amount be withheld.

In conclusion, the appraisal investigation, analyses and adopted rationale involved a much smaller scope in terms of underground easement categories and geographical area than that of Mr. Derbes, since it was limited to a project in just one, specific location. Nevertheless, it paralleled the focus and concentration of Mr. Derbes’ macro-research in connection with the question of valuation of semi-deep easements. In performing an appraisal where more conventional approaches to value seem to offer scant help, and where very little local empirical data exist in most venues, one must remain as objective as possible and refrain from giving much ear to, as Mr. Derbes puts it, “... irrational hysteria ...” and “... fears and prejudices against the project.” To echo a premise advanced in his article, a prime assumption must be that all purchasers and sellers are presumed to be prudent—that, in their dealings, they do not and will not react irrationally to abstract, imagined or conjectural influences which have not been manifested and identified in the market. 

It was concluded, therefore, that there will be no change in the values of the larger parcels as a result of the acquisition and use of the subject easements.

utility of each of the larger parcels will not be impacted or reduced by the proposed easement acquisitions and, therefore, there can be no identifiable percentage reductions in the fee-simple values of the land areas of the larger parcels lying within the easements sought to be acquired.

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appropriate for acquisition of each of the subject easements would be nil. It is widely accepted, however, that all interests in real property, no matter how minuscule and slight, have some value. In the case of the subject easements, it was concluded that the only “just and equitable” measure of the amount of just compensation appro-