

# RAILROAD RIGHT OF WAY

## Appraising Public Utility Easements

### Part I

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Over the past decade, corridor users (public utility companies, wireless technology companies, pipeline and fiber optic companies, etc.) and corridor owners (primarily the railroads), have found themselves in disagreement over the validity of the rents charged for use of easements and/or the value of the easements themselves. Railroads now demand significantly higher annual payments for utility easements located in their rights of way (ROW) than they did in the past. Utility companies (the most common corridor users) counter that the size of the increase is unwarranted. Appraisers are drawn into the contest because the appraised value of the land is the basis for determining the annual rents, and the two sides rely on values determined by significantly different appraisal methods.

In contrast, the Market Analysis Model is a practical application of a valuation method that is consistent with USPAP requirements and meets the required Appraisal Institute standards. This model, which relies on comparable sales and the Highest and Best Use (HBU) of the land, provides corridor owners and their secondary users with consistent, objective value conclusions.

### A Historical Perspective

Historically, most easements were negotiated between railroads and public utility companies. The long, uninterrupted rail corridors provided the ideal conduit for utility lines and many of these easements originated in the early to mid-1900s. At that time, it was common for public utility companies to simply ask how much a railroad wanted to be paid for granting an easement in its ROW. Utility companies were invited to occupy railroad ROWs and annual payments were minimal, \$50 or \$100 for example, for an entire segment. Periodically, rents were increased, first from \$50 per annum to \$100 to \$500 to \$1,000 for the entire segment. These rental payments

remained nominal, however, and minor disputes were resolved through negotiation.

Typical easements resembled leases with relatively low annual payments and were either open-ended or term-specific. Regardless of which type of easement or lease was written, a common feature was the periodic payment adjustment (usually every five or 10 years). Adjustments were not based on a consistent formula nor were they consistently applied. Both sides agreed that a reasonable increase in rent was warranted and, for the most part, neither side complained about how the increase was determined. Typical easement agreements did not include a full legal description of the railroad ROW or the area occupied by the easement; each party had only a general understanding of the land involved.

In one case encountered by the authors, a utility pipeline easement left a railroad ROW and traveled through the adjacent parkland for 1,200 feet before returning to the railroad land. The railroad simply collected the annual rent based on the easement's point of origin and its point of conclusion, effectively charging the utility company for a portion of the easement that was not on its property.

For over 75 years, these casual arrangements posed few problems. However, land values increased rapidly in the 1980s, while rail use diminished. The railroad companies began to look for additional sources of revenue and, at roughly the same time, utility companies and other secondary users increased their use of easements. The two sides no longer agreed on the definition of "fair rent" for an easement, or on the value of the land in question. As a result, both corridor owners and corridor users question the validity of the methods used to determine reasonable yearly rents. Current valuation methods didn't exist when easements and rents were originally determined, thus making sense of past fees in light of current valuation techniques is difficult, if not impossible.

## Across the Fence Methodology

For the most part, corridor owners rely on a valuation model that uses corridor enhancement factors and/or corridor assemblage factors along with occupancy factors and rates of return to determine both value and rent.<sup>1</sup> First presented to the appraisal community in 1978, this railroad valuation model became commonly known as the Across the Fence value (ATF) for corridors.

The premise of the ATF concept is that, once a group of parcels is assembled into a corridor, it creates a synergism. The total value of the corridor now exceeds the sum of the value of the individual adjacent parcels in the event that building a new corridor required purchasing the property at ATF values. This premium value is based on the demand (need) to connect two or more end points, and it assumes that no alternative corridor is available. The ATF model considers a railroad ROW as a unique parcel of land that creates its own premium value by virtue of the fact that it is a pre-assembled, ready to use corridor.<sup>2 3 4</sup> Potential secondary users avoid the significant costs required to acquire the land and build a new corridor.

This perception of added value leads to the use of an enhancement factor, defined as the premium over and above the across the fence values. Actual sales of rail lines were compared to the ATF values to determine the relationship of rail line property value to across the fence values.

The resulting enhancement factor was typically a positive number over one and often as high as five or six times (or more) the ATF value. As a result, some transactions involving



the sale of a segment of rail line were based on a designated ATF value multiplied by the selected enhancement factor to arrive at a unit price for the rail line segment. This method of pricing/valuation bears little relationship to the keystones of modern appraisal methodology: market value and functional use.

The ATF valuation model recognizes the concept of equilibrium in the supply and demand for railroad rights of way, but it takes the unusual position that ROW land has the same functional utility (Highest and Best Use) as adjacent land parcels for sale in the across the fence area. Using this technique requires one to accept that "Each segment of the corridor is considered to be either part of, or made up of, one or more such typical parcels, thereby disregarding the size, shape and access characteristics of the segment."<sup>5</sup> Under current appraisal standards, this is a major assumption that must be disclosed at the beginning of the appraisal report but seldom is.

The ATF approach does address the overall value of a right of way, but that is merely the starting point for determining the value of an easement and its impact (if any) on the corridor owner's property. Historically, corridor owners (for discussion purposes, we will use the railroads) also included occupancy factors, or usage factors, to calculate annual rent payments for its secondary users.

Occupancy factors were based on loosely defined agreements as to how much of the ATF value the easement captured. In one example, 50% of the ATF value was considered a reasonable occupancy factor for an electric power line easement. Over time, the use of occupancy factors when determining rent became the generally accepted practice. This method worked well for both sides at a time when the easement/lease rents remained nominal and there was but a single easement in the ROW

One of the problems with ROW land (especially in urban settings), is that the ROW may have multiple current users/uses, or if undeveloped, more than one potential user/use. It is not uncommon to find pipelines, parking lots, buildings, fiber optic cables and/or electric lines all occupying a single section of railroad ROW.

In one section of railroad land in a major West Coast urban market, the authors encountered six users in one location. The maps of the area indicated sufficient right of way land remaining to incorporate additional pipelines, cables and water/sewer lines without interfering with the encroachment into the ROW of a current adjacent land owner's parking lot. Yet, only three blocks away, the same ROW contained only the

rail line and no secondary users. With multiple users now the norm, it is clear that the practice of assigning "easement usage factors or occupancy factors" is no longer a reliable component of determining annual fees.

The final step in determining an annual rent was to apply a rate of return to the value calculated for the easement. The rate of return used in the equation varied from time to time, but in most cases it was a real estate rate of return reflecting a good quality real estate investment rate. To summarize, the railroad companies generally relied on the following formula to determine annual rents:

$$(\text{ATF Value} \times \text{Corridor Enhancement Factor} \times \text{Usage or Occupancy Factor}) \times \text{Rate of Return} = \text{Annual Rent}$$

### Challenges to the ATF Valuation Model

Since the original article by Dolman and Seymour, use of the ATF methodology has been challenged or rejected outright on several occasions. In November 1989, the Public Service Commission of Wisconsin rejected the use of occupancy factors, stating that the damages caused by, and the compensation to be paid for, a natural gas pipeline crossing under a railroad right-of-way was one dollar for each of those crossings not in a public street right of way and nothing for those crossings located within the public street right of way.<sup>6</sup>

Subsequently, in January 1997, in a case involving a pipeline easement on a railroad right of way, the Superior Court of the state of California criticized the ATF methodology, stating that "...a process of appraisal that compares...the sale of subjectively selected prime properties located at some distance from the pipeline and railroad tracks is, at best, pure sophistry or, at worst, immaterial and irrelevant to this proceeding."<sup>7</sup> More recently, the legality of ATF methodology in the context of eminent domain was debated by Amspoker as well as Shaffer & Rahn.<sup>8,9</sup>

In July 2000, in an analysis of subordinate, or relocatable, easements in transmission line ROWs, Lusvardi, Wright and Amspoker challenged current appraisal practices and the impact of these easements on corridor land values.<sup>10</sup> Their analysis addresses several important points. First, they distinguish between the primary use of the corridor and the subordinate secondary uses.

By implication, if a railroad corridor's primary use is assumed to be for railroad purposes, then any other use becomes secondary to that rail use. In the context of eminent domain, the burden of proof to demonstrate a loss in value caused by a taking for a secondary use rests with the corridor owner (primary user). Second, they draw attention to the fact that "Many appraisers erroneously believe that the value of a

relocatable or subordinate subsurface interest in a...corridor should be calculated as some percentage of the underlying land value."<sup>11</sup>

Railroad companies determine their annual rents based on ATF values and the use of a replacement cost model. The total cost, theoretically speaking, to the user to create an alternative "new" corridor is compared to the ATF value. Not all entities seeking to use railroad ROW land must either assemble their own corridors or pay the premiums stipulated by the railroad company; some easement users fall into a different category. Public utility companies often seek ROW easements but, unlike the private user, the public user has the power of eminent domain, which permits condemnation as a means of acquiring ROW land for transmission and distribution systems.

### Public versus Private Users

As Karvel points out, "the distinction between public users versus a private user is significant."<sup>12</sup> Private users have only two choices: pay the premium calculation for an easement in existing corridors or assemble their own corridors. This might be considered a hostage buyer situation, but in reality it is a negotiation based on the benefit the private user will receive from the easement. It is a question of how much the private user (buyer) can earn from the easement and what this private buyer can afford to pay for it.

The private buyer should pay a fair price for that portion of the ROW captured by the proposed easement. In contrast, a public user (buyer) with the power of eminent domain can elect to condemn an easement. By law, a public user is required to pay only for the damage or diminution in value caused to the seller.

Case law and statutes clearly establish that, in condemnation, the price paid is "just compensation" for what the seller has lost or what has been damaged by the taking. In theory, this is also the amount the private user should pay. Regardless of what the public user (buyer) can earn from the easement, the seller is compensated only for the diminution in market value resulting from the condemnation.

The first appraisal challenge is to determine what was lost or taken. The appraiser is not concerned with figuring out what the public buyer can afford to pay or what benefits the public buyer will realize. The second challenge for the appraiser is to determine the value of the land taken.<sup>13</sup>

In his article, Karvel presents the appraiser with a decision tree to use as a guide. First, one must clarify the status of the railroad right of way: Will it continue to be used as a railroad or will it be abandoned for rail use and available for other uses? Having established the status of the rail land, the

appraiser can determine the larger parcel, conduct a Highest and Best Use study, and continue with the process of valuing the land without the easement. The whole exercise is then repeated to arrive at a value for the land encumbered with the easement.

Karvel's model requires the appraiser to consider and test the market for corridor sales. Sale information is used by the appraiser to double-check the ATF values. This objective data, based on current market characteristics, replaces the outdated practice of relying on a "usage factor" to measure damages caused by the easement. Basic appraisal principles are incorporated into this analytical process which focuses the appraiser's attention on three questions:

- 1) **Is there a change in Highest and Best Use?**
- 2) **What could I do with the property (Highest and Best Use) before the utility easement that I cannot do after the utility easement?**
- 3) **What is the loss or diminution of value caused by the easement?**<sup>14</sup>

## Preparing for the Assignment

Any appraisal assignment involving a public utility easement in a railroad ROW will require a significant commitment of time and resources from both the appraiser and the client. For the appraiser, there is the possibility that the job will require extra hours to identify and analyze the larger parcels and the HBU of each. For the client, it may include the hiring of additional engineering and drafting staff and equipment to develop accurate maps, measurements and legal descriptions for the appraiser.

Clear, accurate maps are essential for the determination of larger parcels and the highest and best use of those parcels. At a minimum, preliminary maps must show the railroad ROW exterior boundaries, all crossings such as streets, roads and other railroad tracks, and the minimum safe operating width for active rail lines (unless the subject ROW is to be abandoned). Once the appraiser has an accurate set of working maps the inspection process can begin.

The inspection may seem like a relatively unimportant part of the appraisal process, but it is crucial to the development of the larger parcel section of the report as well as to the Highest and Best Use sections. The appraiser must be able to answer the question, "What can the land be used for and who could use it (demand for land)?" With that in mind, the appraiser should note the topography of the land, any encroachment into the ROW by adjacent property owners, any indications of possible ROW leases for other uses, potential for contamination by adjacent businesses, and most importantly, who are the adjacent users. All adjacent land owners/users on

the side of the ROW where an easement exists (or will be placed), should be identified. These adjacent owners/users may be contacted for information regarding their interest in the ROW and its potential uses.

## The Process

Whether estimating damages for a new utility easement in a railroad right of way or establishing a periodic market rent adjustment for an existing easement in a railroad ROW, the appraiser must follow the approved appraisal process.

The first step in valuing an easement in a railroad ROW is to quantify the property by determining the larger parcel(s). Since railroad ROW fluctuate in width and length, it is important to identify the parcels that are physically contiguous (with unity of ownership and unity of use) that comprise the area, or property, being valued.<sup>15 16</sup> The second step is to conduct a HBU analysis of those larger parcels. As a practical matter, sometimes the Highest and Best Use analysis cannot be completed until after the appraiser has had a chance to study the market for the railroad land. The appraiser uses the larger parcel and HBU information as a guideline for the valuation phase of the assignment: selection and analysis of current market data.

## Larger Parcel

Working from current maps and inspection notes, the appraiser identifies the larger parcel(s). By definition, the larger parcel is governed by continuity of the land, unity of ownership and unity of use.<sup>17</sup>

**Continuity of the Land** — The first and most obvious component of the larger parcel concept is continuity of the land. This is especially important when appraising railroad ROW land because there are many physical interruptions that effectively discontinue the right of way's continuity. One interruption is the railroad track itself.

A continuous track bisects the ROW; active rail lines create a physical surface barrier between the right and left sides that prevent the two sides from being put to a combined use. The same surface user may occupy both sides of the track, but the two sides cannot be physically joined. Subsurface and overhead crossings are also common, but, because they may be located anywhere within the ROW, they do not in any way interfere with the rail lines themselves.

As a result, the larger parcel in this case is limited to the distance from the tracks, less a safety margin, to the outside ROW boundary. In effect, active rail lines create three parcels: the right side, the left side and the active rail line section. If the track is to be abandoned, the larger parcel will include the



entire width of the ROW (see Figure #1) because the right and left sides, along with the area formerly occupied by the railroad tracks, can be physically joined for a common use.

Figure #1 shows a railroad ROW that passes through an urban area. Adjacent land on either side is developed. In this example, the entire ROW itself acts as a physical barrier to overall development patterns in the general market, just as the active tracks present a physical barrier to joining both sides of the ROW.

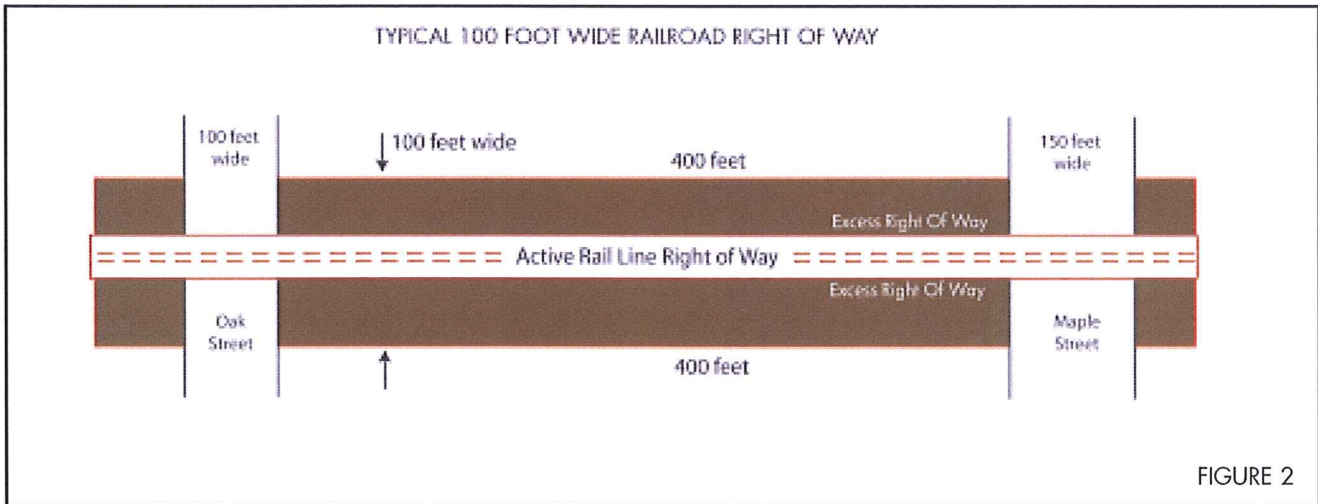
Appraisers always consider physical surface barriers when developing a neighborhood identity to give us a "macro" view of land use. Likewise, in this case, we must consider physical barriers in the railroad ROW to provide us with a "micro" viewpoint of land use.

Consequently, because the active tracks within a railroad ROW divide the ROW, two parcels of land are created. Each is independent of the other: one on either side of the active rail line. Both are potentially available to secondary, non-rail users.

Additional physical barriers or limitations to establishing the larger parcel are public roadways. Streets, highways or other public transportation routes actively disrupt the continuity of the railroad ROW, creating a maximum limit on the length of the larger parcel formed by excess ROW land. Just as the two sides separated by active tracks cannot be joined, the two sides of a street cannot be joined for a common use. As a result, a larger parcel may extend from one street to another (see Figure #2) but not beyond.

The longitudinal determination of the larger parcel is not limited to public streets. All physical barriers should be considered: rivers (as shown in Figure #3), other railroad ROW, lakes, deep ravines, etc.

An analysis of the physical characteristics that determine a larger parcel includes identifying the land area necessary for the continued operation of the rail line. Often established by state law, there is a minimum safety clearance for trains. Minnesota, for example, establishes a "...side clearance of not less than 8 feet 6 inches from the center line of the track ..."18



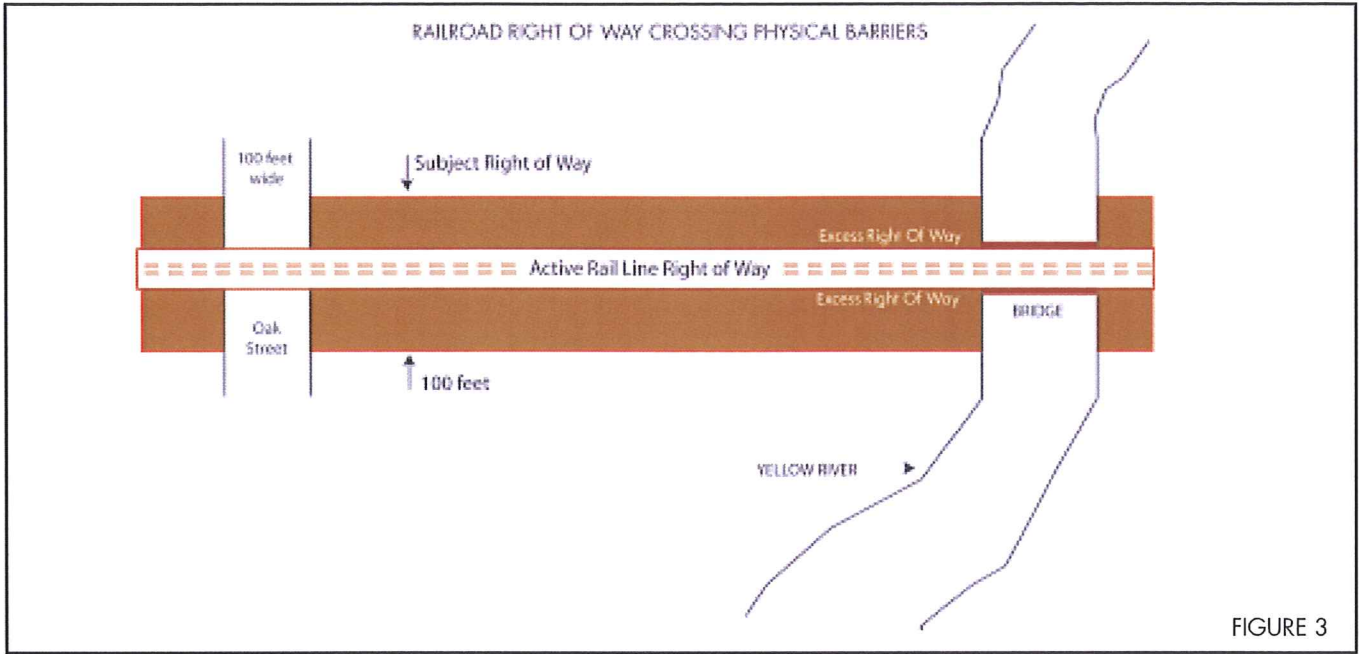


FIGURE 3

Thus, a minimum active rail corridor in Minnesota is 17 feet wide. Any land beyond that width is considered excess ROW; it could be put to its maximum productive use (HBU), which includes being rented, sold or developed. A railroad may have a wider active line, say 20 or 25 feet, or even 100 feet. Anything beyond the stipulated 17-foot minimum, however, may be land that is not at its Highest and Best Use. For appraisal purposes, the appraiser must consider the HBU principle of value maximization.

Dolman and Seymour recognized this issue when they stated: "If it is wide enough to perform its function, additional width, although increasing the area, adds little or nothing to value."<sup>19</sup> The fact that the railroad maintains a corridor with excess width does not affect the appraisal process. If a 25-foot-wide rail corridor generates no more railroad operating revenue than a 17-foot-wide corridor, there is no financial incentive to maintain the extra width. Accordingly, the additional 8 feet will be identified as excess land that can be put to some other use (see Figure #4).

**Unity of Ownership** — A second component of the larger parcel is unity of ownership. It is generally assumed that the railroad owns (fee simple ownership) the ROW. However, the railroad may not own the fee simple interest or it may own something less than a fee simple interest.

Ownership may include, for example, an easement with a reversionary interest if abandoned for railroad use in the future. In some cases, railroads may not have the right to grant an easement for any use to another party. A meticulous title search will reveal who owns the various interests. The property interests of the railroad and others may serve to further segment the longitudinal corridor creating multiple larger parcels.

**Unity of Use** — The last component of a larger parcel is unity of use. Unity of use refers not just to current use, but also to the unity of the HBU, which is in turn affected by local zoning codes.<sup>20</sup> As railroad property extends through multiple municipalities or governmental jurisdictions, it will be subject to various zoning classifications and building codes.

It is not uncommon to find different land uses on either side of the railroad, residential on one side and industrial on the other side, and/or significant variations within similar zoning classes from one municipality to the next.

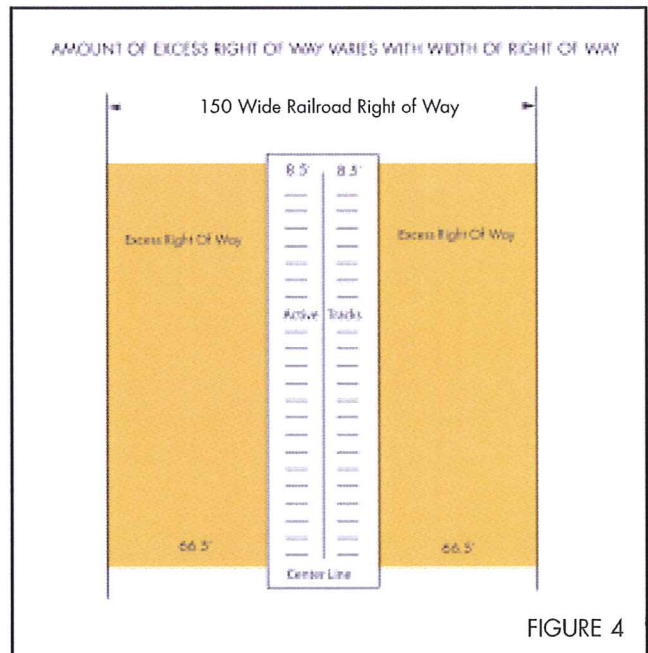
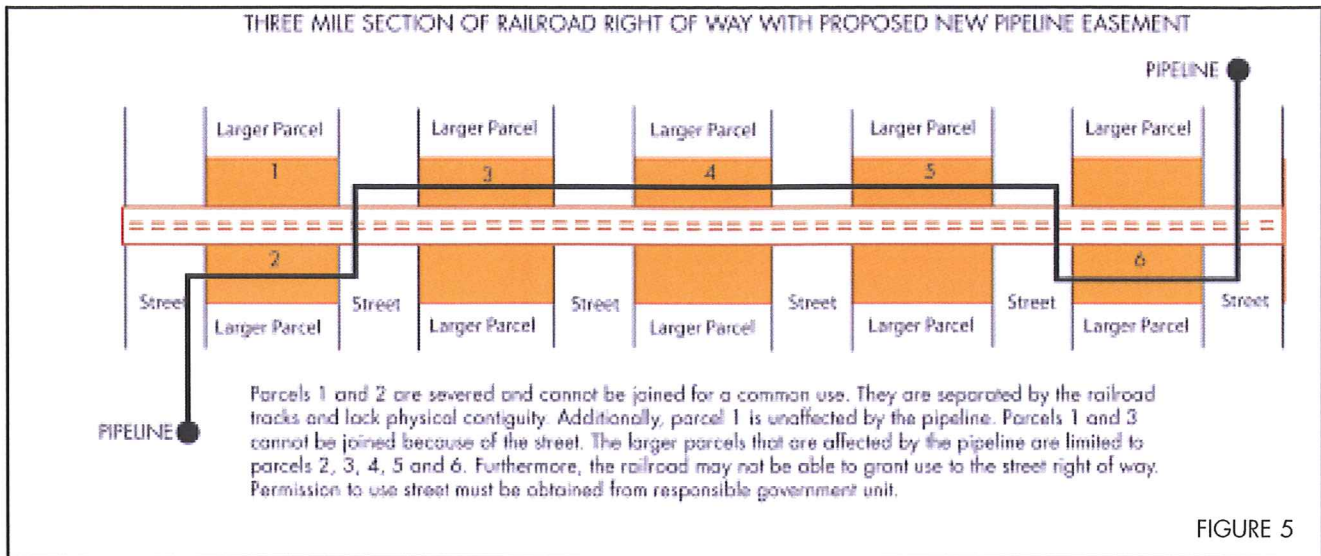


FIGURE 4



For example, light industrial zoning (I-1) in one city may permit commercial, industrial and residential uses requiring 30-foot setbacks and a maximum of 30% site coverage, while the same I-1 zoning in another city may allow only industrial uses requiring no setbacks and a 70% site coverage. As a result, unity of HBU may differ from one side to the other side of an active rail line and/or from one municipality to another with seemingly similar zoning classifications. When the larger parcel analysis is complete, the appraiser marks the ROW map to reflect his/her decision for each parcel, indicating which ones have common ownership, physical continuity and unity of use.

It is not uncommon to have several "larger parcels." In one case, the authors identified more than 20 individual larger parcels along a 4.5-mile stretch of railroad ROW in an urban setting. Each larger parcel must now be analyzed to determine its Highest and Best Use (see Figure #5).

### In Summary

In Part I of this article, we identified an issue that has been ongoing in the market for many years and has been growing in importance as the appraisal community is asked to provide valuation opinions to both corridor owners and (secondary) users of railroad property. Existing methodology has been challenged in various articles and court decisions. We provided basic background information on current railroad valuation techniques, noted the challenges to those methods and introduced the Market Analysis Model: a systematic approach to the valuing a public utility easement in a railroad right of way. As with any valuation problem, it is necessary to understand the use of the larger parcel theory and to identify those parcels before attempting the Highest and Best Use analysis. ■

### References

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- <sup>10</sup> Wayne C. Lusvardi, John G. Wright, MAI, and Todd Ampoker, "Appraising Linear Subordinate Easements in Utility Corridors," *The Appraisal Journal*, (July 2000), pp. 250-259.
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