

# RAILROAD RIGHT OF WAY

## Appraising Public Utility Easements

### Part II

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In Part I of this article, published in the January/February 2006 issue of Right of Way magazine, the authors identified an ongoing issue which has been growing in importance. As the appraisal community is continually asked to provide valuation opinions to both corridor owners and secondary users of railroad property, the existing methodology has been challenged.

In Part II, the focus is on the process of determining the Highest and Best Use of the property. In this case, the physical nature of a railroad line leads to multiple, larger parcels with potential for secondary users. Each of these parcels has a unique value. In a step-by-step process, the subject property is valued in its "Before" condition (with no easement). The same process is then used to value the subject property in its "After" condition (encumbered with an easement). The difference between the two values is equal to the loss of value due to the easement.

### HIGHEST AND BEST USE

The Highest and Best Use (HBU) analysis is a specific process employed by appraisers to further identify the potential uses of the subject land. HBU determinations are based on comparisons of possible uses. The appraiser tests each possible use for its maximum productivity and profitability. A thorough HBU analysis will identify relevant markets for the subject property, the type of comparable sales to be selected, and the potential buyers/users of the property. In short, the HBU (required by USPAP and the Appraisal Institute) is a

systematic, objective method of ascertaining the fair market value of a property. It is during the HBU analysis of the appraisal assignment that the appraiser develops an understanding of the market supply and demand factors that influence value. Any given use must meet four criteria in order to be considered during the HBU analysis:

- 1)Physically possible
- 2)Legally permissible
- 3)Economically feasible and
- 4)Maximally profitable.<sup>1</sup>

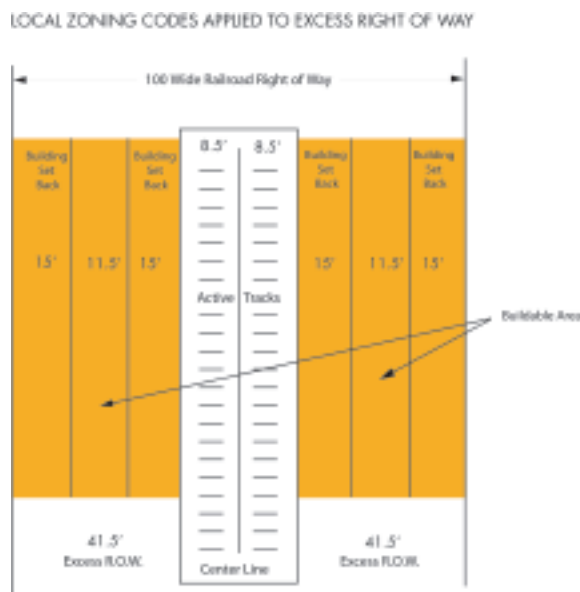


Multiple use of excess land within a 100 foot wide railroad right of way with non-exclusive easements for a pipeline directly under a power line and encroachments for snow storage and parking within both easements. Available space can accommodate other users within the same easement areas.

## Physically Possible

From a physical standpoint, railroad rights of way come in many shapes and sizes. They range in size, from as little as 25 feet wide up to 400 feet wide or more. Placement of the tracks within the right of way (ROW) as well as the corresponding, statutorily required safety margin will determine the width of that portion of the ROW that is required to support any operating railroad tracks and that the portion which can be put to another use. Any land not considered as part of the safety margin is considered excess ROW, with a potentially different HBU. For a typical 100-foot ROW with a single operating track located in the center, the required minimum width is often an 8.5-foot safety clearance on either side of the centerline, or a total of 17 feet minimum width for the operating track. This leaves approximately 41.5 feet on either side of the track as potential excess ROW.

Typical zoning code setbacks may consume a major portion of this excess, with the result that the potential excess land on either side of the tracks is reduced to an unbuildable site. For example, if the setback requirement is 15 feet on each side of the strip, then 30 feet of the 41.5-foot excess ROW described above would be unbuildable. This leaves only 11.5 feet for a potential building pad (see Figure below).



Density requirements, parking requirements, and permitted uses combine to further restrict the functional utility of the excess ROW as far as increased development and additional profit for the railroad.

Additional physical attributes of the land to be considered are: limitations of access due to public streets, topography concerns and additional secondary users (such as pipelines, fiber optic lines, outdoor advertising signs, outdoor storage).

In our example, the excess land in the ROW measured 41.5 feet on either side of the operating tracks, but this was insufficient width for an access road to the interior portions of the parcel. Topography is often an issue as portions of railroad ROW frequently contain low areas for drainage. It is also common to find streets/bridges going over or under an operating railroad track creating steep slopes at the access points to the excess ROW land. The end result is significant physical restriction in terms of size, shape, access and topography that limit the potential Highest and Best Uses of the excess land.

## Legally Permissible

When we look at the zoning codes and land-use regulations governing the possible uses of excess land in a railroad ROW, certain types of restrictions, such as height, are quite common. Typically, the railroad ROW will be zoned for some type of industrial use or similarly to the adjacent land. If there is a height restriction on development, the railroad only controls the use of land up to the limits of that predetermined height. For example, if a zoning code establishes a height limit of 35 feet, then a power line (generally exempt from local zoning codes), passing overhead at a height of 55 feet does not impact or affect use by the railroad or others (at that height), because their use is limited to the space up to 35 feet. In this example, unless the power line towers are placed within the surface area of the railroad ROW itself, there can be no adverse financial impact to the railroad from power lines passing overhead since there is no change in the permitted uses of the ROW.

We must also consider parking and building setback requirements as well as requirements for green space or landscaping. If an operating track is present in the railroad ROW, the potential excess land on either side will be subject to restrictions to keep potential buildings and parking surfaces some distance from the property line. The larger the setback requirement, the less ROW is available for a building pad or parking area. In our example of a 100-foot-wide ROW with a single operating track, the potential excess land on either side is 41.5 feet wide. If local parking design requirements stipulate 20 feet of depth for each stall and another 20 feet for a drive lane between rows of parking stalls, it is very difficult to place parking on the excess land in conjunction with the development of a new building on the same site. If a building were constructed on this spot, it would cut off access to the interior portion of the large parcel. Local zoning codes and land use regulations may severely restrict the potential uses of any excess land in a railroad ROW.

## Financially Feasible

The financial feasibility component of the HBU analysis requires the appraiser to look to the market for potential owners, developers, renters or others whose motivation and perceptions of benefits from ownership or use produces an economic incentive to acquire the property. Basically, the appraiser must determine how the property could be used, who could use the

property and what the market conditions would require them to pay. Here, the appraiser attempts to identify and quantify demand for the railroad ROW, or its excess land, by both longitudinal users and adjacent property owners. This is very important because it implies a competitive market and is consistent with the definition of market value. It is the private buyers and private sellers, in our competitive, open market who determine prices and values. Public entities that possess the right of eminent domain adopt the prices set by willing private buyers and sellers; they do not make the market. Demand from entities with right of eminent domain does not create a free and open market. In fact, transactions involving public utilities and government entities are not acceptable as comparable market data by federal appraisal standards.

Financial feasibility is based on a comparison of sale and rent prices and rates of return in order to determine which potential use provides the highest return to the land. The appraiser must carefully review all transactions to determine whether the parties involved meet the definition of free market participants, or if they are participants in transactions consummated under threat of eminent domain.<sup>2</sup>

### Maximally Profitable

As a result of analyzing the physically possible, legally permissible and financially feasible potential uses, the appraiser identifies that use which is maximally profitable to the railroad. It is common to conclude that the HBU of excess ROW (that which results in maximum value) is for sale and assemblage with adjacent land for some future use.

### VALUATION: BEFORE THE EASEMENT

The following discussion is based on use of the “before and after” rule, or the federal rule, in eminent domain. (The appraiser can easily adapt this model for use with the “part taken” rule, or the state rule, used in some states). In this case, the most appropriate measures of damage resulting from a public utility (an entity with the power of eminent domain) easement are the loss of revenue and/or increased operating expenses for the railroad.<sup>3</sup> Estimating the impact of a public utility easement in a railroad right of way involves a process that includes both a macro and a micro level evaluation of the highest and best use. This process, introduced by Dr. George Karvel in 1989, requires the appraiser to first identify the potential use(s) of the railroad property on a macro level.

Karvel’s decision tree provides an approach to determining and analyzing the HBU for ROW land. Initially, it helps to view the railroad right of way in its entirety. There are four possible scenarios to be considered in the HBU analysis:

- 1) Continued operation of the rail line with exclusive use of the ROW for rail purposes.



Another multiple use of excess land within a 100 foot wide railroad right of way with non-exclusive easements for a pipeline directly under a power line. Encroachments for parking and (winter) snow storage within both easements from adjacent property. Available space can accommodate other users within the same easement areas.

- 2) Liquidation of the ROW if the tracks are abandoned
- 3) Use of excess land for transportation, communication or utility corridor.
- 4) Sale of excess ROW

First, the appraiser must search for data to confirm or deny the existence of demand for the excess land. Clearly, if there is no excess ROW land and the HBU is 100% railroad operation (Outcome #1), by definition, there is no space for an easement. There is no change in the HBU; it remains the same. The appraiser’s challenge, then, is to measure how the easement affects the rail operation and whether the value of the railroad operation is diminished in the “After” scenario versus the “Before” scenario.

Next, the appraiser identifies the excess land area within the ROW based on the larger parcel analysis and then measures the demand for excess ROW (or in the case of abandonment, the full ROW) for each of the remaining outcomes in Karvel’s model. Demand can be from longitudinal users, adjacent property owners or other potential non-contiguous users.

If demand exists, private users (without power of eminent domain) and public users (with the power of eminent domain) must be clearly identified. With few exceptions, a purchase by a public buyer carries the taint of a transaction influenced by the threat of condemnation or one that is “... in the nature of compromise to avoid the expense and uncertainty of litigation and so are not fair indications of market value...”<sup>4</sup> In addition, transactions involving public users are subject to public scrutiny and to the whims of the prevailing political environment. These, in turn, may influence the actual transaction price. Private user transactions are not affected by these conditions. Appraised values are based on estimates obtained through the use of similar market transactions by private users. In theory, the public user should pay the exactly the same amount (to acquire a property interest in an eminent domain action) as a private user pays. In practice, it is

important to keep in mind that an entity with the power of eminent domain is required to pay just compensation for what the seller has lost. By extension, the value captured by the private user is equal to what the seller has lost to the public user. The results of a ROW demand study will differ in each market, but, generally, there is little or no evidence of current market-based longitudinal demand for excess ROW by private users (willing buyer/willing seller) for most sections of a railroad ROW and only limited evidence of non-longitudinal demand by private users. This is not to say that some shorter sections of a longer ROW may not have significant market demand for non-longitudinal use, but generally it is limited to a few highly concentrated urban areas. For example, we found a three-block section within a four-mile long portion of a railroad ROW where a major employer in the area was so short of parking that he willingly paid a premium to use the excess ROW for parking. Yet one mile away, we found no identifiable users for a similar excess ROW which sat empty and unused year after year. A review of the history of the section of the right of way being appraised may uncover sales of small sections of excess land to adjacent property owners indicating the presence of excess land, the historical non-longitudinal demand for that excess land and the potential value of the excess land.

### Longitudinal Demand

The authors applied Karvel's decision tree approach to a major West Coast market as well as to a major Midwest market and found no private or public longitudinal demand for the section of railroad ROW being appraised. Longitudinal demand is determined by contacting both local and national users of corridors to assess their interest in the railroad property in the near term. In general, the time horizon for determining demand is the potential use within the next five years. Some courts have indicated that this timeframe is reasonable and non-speculative.

The few transactions involving an abandoned railroad ROW provided inadequate data from which to draw meaningful conclusions. These sales included changes in use, contingent payments, incentives to discontinue operation and holdovers to wind down operations. In addition, in some transactions alternative locations for private users did exist. For example, a cable television company indicated that it preferred to locate its facilities in the public street ROW because the local railroad ROW was more expensive and required a lengthy period of time to conclude the transaction in that market. As in any dynamic market, however, new technologies and new users periodically enter the market creating a limited longitudinal demand.

### Adjacent Demand

In the absence of any measurable private market longitudinal demand for excess ROW, the next most logical users are the

adjacent property owners. Depending on the type of land use adjacent to the railroad ROW, interest in acquiring the excess ROW will vary greatly. In developed urban areas, many adjacent sites have already been improved with buildings and other facilities based on the existing site size and topography. Each adjacent site will be governed by zoning setbacks and maximum density requirements. In general, excess rights of way are long, narrow strips of land that offer limited functional utility to the developed, adjacent property. We found that some adjacent industrial users wanted to expand their facilities, but for the most part, their interest in extra space was for additional parking, outside storage or turnaround areas. Most will have no interest in the excess ROW; some will express interest only when it is necessary to prevent another party from purchasing the excess ROW or to speculate on future use.

Price offers from adjacent property owners correspond to their levels of interest and range from those willing to pay full across the fence (ATF) value to those willing to pay only five cents on the dollar. In no case have we ever found an adjacent property owner paying any type of enhancement factor. Interviews with adjacent property owners often indicate that enhancement factors are viewed as equivalent to a captive buyer premium.

We found that residential user interest involves substantial discounts off the unit value of buildable residential lots: the ATF. However, the appraiser is wise to view residential interest with caution: use by the adjacent owners may require some type of cross-access agreement to allow access to the subject ROW parcel. Owners of adjacent undeveloped land have a higher interest level because the excess ROW can be incorporated into a future development plan with the potential of increasing the density of development and its corresponding value. Even in developing areas, it is common to find new residential developments next to railroad corridors where the developer had no interest in acquiring excess railroad to expand his development site.

The demand study is an integral part of the HBU analysis, not to be taken lightly. If demand exists for the excess ROW as a unified corridor (longitudinal demand), it is the appraiser's responsibility to discover this. The appraiser must also identify who, among the adjacent owners/users, has any interest in the excess ROW. In either case, a reasonable marketing period for the subject parcels should be estimated for use in the valuation of the property.

Following the HBU analysis "Before" the existence of a utility easement, the appraiser's maps should be marked with any factors affecting the larger parcels based on demand and potential use of the excess ROW. The exhibit will include specific properties adjacent to the ROW, location of known environmental problems in the area, all existing ROW users and easements, significant landmarks and all streets and

highways that come in contact with the ROW Consider also: outdoor advertising signs, landfill sites, drainage ditches, pedestrian bridges, areas used for parking and outdoor storage lots, locations of adjacent buildings, all other utility easements on or next to the ROW, all bodies of water, etc. The appraiser now possesses a useful exhibit indicating multiple users in some sections of the railroad ROW and the lack of users in other sections.

### Value Conclusion: Before the Easement

Once the HBU analysis of the larger parcels is complete, the process of selecting comparable sales and making adjustments follows standard appraisal procedures for valuing land. Sales of similar land in the area of each larger parcel are considered and adjusted to the physical, legal and economic (HBU) characteristics of the subject larger parcels. During this phase, the appraiser evaluates how size, shape, access, location, etc. impact the HBU, the demand and the sale price. There are several additional issues the appraiser must address when valuing the impact of an easement in a ROW. These include, but are not limited to: marketability, title and survey costs, and the sell-off period (time value) of the individual parcels.

### Marketability

Marketability, or lack of it, is a product of the demand study. Adjacent property owners will have varying degrees of interest in the excess ROW and are, therefore, price sensitive. Those who want more land for expansion are willing to pay more than those who do not envision the need for more land. However, the latter may be motivated to buy if there is a reduction in price. Marketability adjustments should not be confused with the discounting process associated with the reasonable marketing (sell-off) period. In cases where the HBU identifies the adjacent owner/user as the most likely buyer, the seller will be at a real disadvantage in negotiating a sale price. With such a thin market for the individual parcels, buyers will naturally want to purchase at a discount from market prices of similar land in the area. The marketability discount is defined as the average minimum discount needed to achieve immediate market sales. In contrast, some parcels will require significantly longer sell-off periods, even after the marketability discount is offered.

For example, one adjacent property owner granted his tenant the option to purchase the improved property at the end of the lease term (three years remaining). The owner had no interest in purchasing adjacent excess ROW However, the tenant was interested, but only after exercising the option with the landlord. In this case, the appraiser must estimate the opportunity costs to the seller as the reasonable expectation of selling the excess ROW in three years. The



Multiple use of excess land within a 100 foot wide railroad right of way with non-exclusive easements for a pipeline directly under a power line and encroachments for parking within both easements. Also suffers encroachment for snow storage in winter. Available space can accommodate other users within the same easement areas.

estimated market value of that particular parcel, as one might expect, was deeply discounted compared to typical values: reflecting both the limited functional utility of the site and its lack of market demand.

### Title and Survey

In order to successfully conclude a sale transaction, the purchaser will require clear title and an accurate legal description for the subject land. A recent example encountered by the authors defined the ROW as 50 feet on either side of the centerline of the tracks. Unfortunately, the exact location of the tracks were not defined and there was some uncertainty in the chain of title (which dated back to the original acquisition in the 1880s). A survey was necessary to establish the ROW and to determine if any of the adjacent lots encroached into the ROW Following that, there was an extensive review of records to certify a clear title. Imagine, for a moment, that the tracks had been abandoned and removed. The primary reference point used to establish the ROW boundaries would be gone, resulting in further confusion as to the exact location of those boundaries.

### Absorption

The sell-off period of the individual parcels is the product of information developed during the analysis of a larger parcel and HBU. As with all real estate, demand varies from parcel to parcel; some will sell more quickly than others, depending on market conditions. Information developed during the survey of adjacent property owners guides the appraiser in estimating a reasonable expectation of sell-off time, even at discounted prices. In today's real estate markets, there may be some ROW parcels that have no market at any price.

After the valuation has been completed for all larger parcels, it is a simple matter to add the various values to arrive at the estimated market value (for the segment of the railroad property being appraised), of the excess railroad ROW unencumbered by the proposed public utility easement. The second part of the appraisal process is to repeat the HBU analysis for each larger parcel as encumbered with the public utility easement and then repeat the valuation process.

### VALUATION: AFTER THE EASEMENT

To fully understand the difference between the “Before” and “After” conditions, the appraisal process is repeated using the parameters which exist after the easement. It may seem redundant to go through the whole exercise a second time, but even subtle differences can add up to significant changes in the HBU conclusions, the demand for the land and the final value determination. The HBU of the individual larger parcels, as encumbered by the public utility easement, may be adversely impacted by that easement. We qualify this statement with “may” because the impact depends on the various attributes of the land, the market demand, and the HBU unencumbered (before taking situation). Additional considerations include: purpose, size, type and placement, as well as limitations or restrictions of the easement itself.

Generally, the greatest damage will be found where there are excess ROW areas that result in larger parcels that are developable as independent lots. Here, the placement and terms of an easement are critical because of the risk of changing the lot into an undevelopable tract. In one case, a parcel large enough for a single-family house lost most of its value because an easement was placed through the middle of the lot. At that point, the HBU changed from independent development to assemblage with adjacent lots and demand changed from many possible buyers to perhaps one or two. Had the easement been placed at the edge of the lot, it may have resulted in an unencumbered lot area large enough for independent development, thereby minimizing the damage or diminution of value caused by the easement.

Upon completion of the second valuation of the excess ROW (as encumbered), it is a simple matter to apply the “Before and

After Rule”<sup>3</sup> typically used in condemnation cases. A comparison of value as unencumbered (Before) and value as encumbered (After) of the larger parcels produces a measurement of the diminution in value due to the easement. Whether the purpose of the appraisal is for an actual taking/condemnation or to establish a periodic rent adjustment for an existing easement agreement, the result is an objective, market-based analysis of maximum productive use of the railroad ROW and any damage to the maximum productive use and value caused by the easement. In the case of estimating a rent adjustment, the diminution if value caused by the easement and measured through the appraisal process reflects the value captured by the easement. It is on the basis of that diminution in value, or that portion of the bundle of rights and value affected, that rent should be paid. In essence, the Market Analysis Model produces the equivalent of an “occupancy factor” by identifying the larger parcels, highest and best use and measuring the market demand.

### IN CONCLUSION

Over the past decade corridor owners have significantly increased the annual rent charged for public utilities (secondary users) to use existing utility easements located on railroad ROW property. In general, prudent ownership and management of real estate leads each side to seek a “market value” transaction or agreement. Now both sides are asking, “How do we determine what is a reasonable rent?”

In this article, we discussed the application of a methodology, which complies with appraisal standards and yields market-based value conclusions. In following Karvel’s decision tree, the appraiser is forced to study the larger parcel issues, Highest and Best Use issues and study the demand for any excess railroad land. In this process, the appraiser has a market-based valuation methodology that measures the impact of a utility easement on the market value of the land. Whether for eminent domain action for a new easement or for measuring the value captured by an existing easement for a periodic rent adjustment, the Market Analysis Model provides us with an objective reasonable approach based on sound appraisal principles. Corridor owners and corridor users can use these market values to determine fair rents. ■

### References

- <sup>1</sup> Dictionary of Real Estate Appraisal, Third Edition, The Appraisal Institute, p. 171.
- <sup>2</sup> Interagency Land Acquisition Conference 2000, Uniform Appraisal Standard For Federal Land Acquisition, pp. 38-39, 60-61.
- <sup>3</sup> George Karvel, “Public Utility Easements in Railroad Right of Ways,” The Appraisal Journal (January 1989), p. 107.
- <sup>4</sup> Interagency Land Acquisition Conference 2000, Uniform Appraisal Standard For Federal Land Acquisition, p. 60.
- <sup>5</sup> George Karvel, “Public Utility Easements in Railroad Right of Ways,” The Appraisal Journal (January 1989), p. 105.