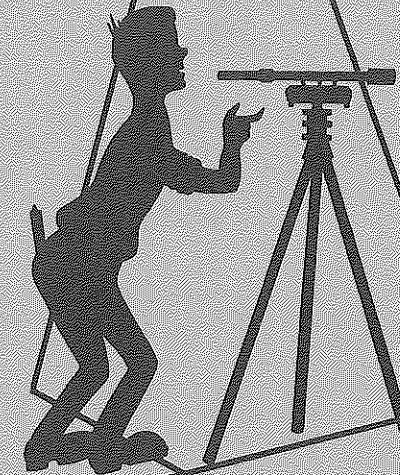


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FOR THE PREPARATION OF

RIGHT OF WAY PLANS

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TRANSPORTATION LANSING, MICH.



MICH. DEPT. OF STATE HIGHWAYS DESIGN DIV.

February 1969

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This Guide has been compiled for the use of Designers in preparing right of way plans. The Guide consists of all Road Design Notes, miscellaneous letters of instruction, and other pertinent data that have been issued to Designers on the subject of right of way plan preparation.



N. C. JONES

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GUIDE FOR RIGHT OF WAY PLAN PREPARATION

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REFERENCES

Design Guide for ROW Acquisition E-20-6-1B
Design Guide for ROW Acquisition E-20-6-2

Note: Information contained in this Guide and presently duplicated in "Road Design Notes" will be deleted from "Road Design Notes." (2-1-69)

RIGHT OF WAY PLAN PREPARATION

INFORMATIONAL BACKGROUND ON PROCEDURES AND SYSTEMS

At the present time two systems for submitting right of way plans are being used:

1. The first one involves submitting right of way for projects where proposed right of way needs are in conjunction with improvements to an existing trunk line route. This means that all resurfacing projects, reconstruction projects, Mtb, Ms, Mer, and even jobs involving minor alignment changes to an existing route may have the proposed right of way needs shown on and submitted via the contract drawing tracings. See sheet 2 for more detailed information.
2. The second system, to be used for all urban and rural freeways and for all projects where relocation is of an appreciable length, involves making separate tracings for right of way purposes. See sheets 3 and 4 for detailed information on assembly, requirements, and miscellaneous data.

After survey notes are received and assigned, the squad leader must determine from the above which system should be used, if it is evident that proposed right of way will be required for the construction of the project. If in doubt, this should be discussed with supervisors, or with Design Right of Way Review Section.

Many projects now involve participation in right of way expenditures by the Federal Bureau of Public Roads. Federal participation in right of way expenditures will be requested from the Bureau of Public Roads for all interstate projects, and for other F, U, and S-financed projects where right of way costs are estimated to exceed \$100,000.

The first authorization approval granted by the Bureau of Public Roads for right of way activity is STEP-1 ROW. This obligates Federal funds and the Right of Way Division may then proceed to order title searches or title commitments. The BPR Step-2 authorization is granted after final right of way is submitted, and this generally permits the Right of Way Division to proceed with all appraisal work and the buying and acquisition of right of way. Recommendations made at the time of the Bureau of Public Roads' plans-in-hand inspection should be made prior to final right of way, if possible, in order to prevent Bureau of Public Roads' citations or exceptions concerning the authorization to buy right of way.

On projects where Federal participation in right of way is involved, four prints of a title sheet or vicinity map should be submitted two months prior to the date preliminary right of way plans are due.

SURVEY PARTY

The survey party has the following responsibility:

1. a. Obtains copies of addressograph lists showing property owner's name and property descriptions.
b. Obtains "tax" or section maps (not with aerials).
2. Makes survey and plots survey centerline on section maps.
3. Transmits survey notes, section maps, plats, and addressograph lists of property owner's name to the Design Office.

DESIGN OFFICE PROCEDURE - SYSTEM 1

1. Design prepares plotted plans showing where proposed right of way will be required.
2. Design transmits plotted plans to the Programming, Scheduling and Right of Way Section of Design for transmittal to Right of Way for Title Searches. Survey Note Books 5 and 6 may be furnished to Right of Way. (They are to be returned to the design squad.)
3. Design expands plotted plans to grade inspection stage and transmits G.I. plans to Right of Way for additional information and reference.
4. Design transmits final right of way plans after grade inspection. List of utilities is also submitted at this time. Tracings are to be submitted to the Programming, Scheduling and Right of Way Section of Design for review, approval, and authorization by the Chief Engineer and distribution to the Right of Way Division. Diazo transparencies will be reproduced for Right of Way; all others will receive sets made from microfilms and tracings will be returned to the design squad after approval by the Chief Engineer.

It is estimated that the above outline procedures will enable the Right of Way Division to expedite Title Searches. The Title Searches must be started on schedule. Normally, the appraisal must be started as soon as the grade inspection plans have been received, although this is dependent upon whether there is Federal participation in the right of way and approval granted for MDSH to proceed therewith.

5. When revisions must be made to the final right of way plans, the tracing and one ozalid print will be submitted by the design squad for processing in the same manner as the final right of way. The ozalid print shall be marked in colored pencil to show what was revised.

DESIGN OFFICE PROCEDURE - SYSTEM 2

PROGRAMMING

Right of way projects may be programmed in Stage 1, as long as 10 to 15 miles or more. Since no plans are submitted while the project is in Stage 1, this has no effect on our plans. However, when the right of way project is advanced to Stage 2, the long original project will be split up into projects whose limits correspond to the limits of the proposed construction project.

VICINITY MAP

A vicinity map and final right of way plans are to be prepared for each project. For rural areas, generally a 1" = 1000' scale is used; for urban areas, a plat map is used and the scale selected is one of convenience. The vicinity map is used by the Right of Way Division for Title Searches and other purposes. This map may be prepared immediately after receipt of the survey notes and may be transmitted to the Right of Way Division at that time. The index of plan sheets and the lines designating the roadways and ramps are to be added to the vicinity map at the time of submitting the final right of way. The alignment must be plotted as accurately as possible on this map, showing section line ties wherever possible in rural areas.

FINAL RIGHT OF WAY PLANS

1. Final right of way plans are to be separate from our contract plans and will not be included in the bidding plans; however, they will be furnished to the district office and project engineer.
2. The right of way lines and all dimensions of these lines are to be shown on the contract plans as well as the right of way plans. The basic right of way sheets are to be prepared by reproduction and not by tracing. This means that it will be necessary to have reproductions made of the plotted plans as soon as all topography, including utilities, has been plotted. Property owner names shown in the survey notes are not to be placed on the plans as this may be different from that shown by the Title Search. Property lines and parcel numbers will be placed on the right of way plans by the Right of Way Division.
3. The plan portion should be centered on the right of way sheets and the profiles are to be shown on separate sheets. Sixty stations of profile can be shown on one sheet by placing thirty stations on the upper half of the sheet and thirty on the lower half. The Reproduction Section can take care of these details.

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4. After receiving the reproductions, it will be necessary for the squad to extend the crossroads, section lines, and property lines as much as possible in order to show more complete details. The proposed right of way is to be drawn in as soon as it can be determined with a fair degree of accuracy but no computations made at this time. Limited access and free access right of way lines are to be shown as given in the legend. This work must be accomplished by G.I. time, or earlier. The right of way tracings will then be transmitted to the Right of Way Division as a preliminary right of way submission.
5. The Right of Way Division will plot the parcel descriptions as given in their Title Searches, show name of owner, prepare the ownership sheet, and do any other work along this line, as outlined on sheet 9. Prints may be drawn by them for more detailed Title Searches, or other use. Following this, they will return the tracings to Design for completion.
6. The right of way tracings, including the vicinity map and plan index, typical sections, plan sheets and profile sheets, are to be completed as soon as possible, or by the assigned completion date, and transmitted to the Programming, Scheduling and Right of Way Section of the Design Division. After reviewing and processing, they will be forwarded to the Chief Engineer for approval and release. Design will then forward the plans to the Right of Way Division, who will then complete their work on the right of way tracings. Design must show the slope stake lines on right of way plans. The Right of Way Division will retain the tracings in their files from this time on, so a set of paper sepias or diazo transparencies will be made for squad files before transmitting to the Right of Way Division.

REVISIONS

When revisions are required, correction is to be made on the sepia or diazo and the revised right of way shown. A print is then made from the transparency and the revision area circled in color. This print will be transmitted to the Right of Way Division through the regular channels. They will then revise their tracing and make the proper distribution of prints. Revisions, after the contract is let, are to be handled in a similar manner. (If the revision is substantial in nature, or if it requires many changes of lines, the squad should contact Right of Way and determine if it is easier to revise the original right of way tracing or issue a new tracing.) Both a transparency and a marked print must be submitted by the design squad for processing of each revision.

FILE AND SHEET NUMBERS

Right of way plans are to be filed by the Right of Way Division. Sheet numbers will start with 501, and the file number will be the control section number followed by a letter; such as A, B, D, etc.-- "C" is reserved for miscellaneous type jobs and is not used for continuing projects.

SPECIFICATIONS FOR RIGHT OF WAY PLANS

1. Right of way plans will be reproduced from construction plan tracings, and any additions will be drawn in India ink on standard 22" x 36" linen tracing sheets.
2. Horizontal scale will be one inch equals one hundred feet. Exceptions on horizontal scale to one inch equals forty feet will be permitted in urban areas where details are so numerous that a smaller scale would create confusion.
3. All lines, lettering, signs, and symbols shall be in accordance with the attached legend sheet and Standard Guides E-20-6-1B and E-20-6-2. (For legend see Sheet 10.)
4. All lettering should be clear, open-hand lettering in India ink with the desirable minimum height of letter of one-twelfth inch. Size of lettering and weight of lines should vary in size in relation to their importance on the map and/or in accordance with the standard right of way signs and symbols.
5. Plans should be drawn with stationing running from left to right.
6. The sheets carrying the right of way alignment and detail should be centered as nearly as possible in the center of the tracing sheets. Profiles and grade lines will be carried on separate sheets. Provision shall be made on each tracing sheet for a right of way revision block.
7. All construction centerlines, ramp centerlines, county road connections, etc., which require right of way, or which will affect the descriptions of right of way to be acquired, should be completely stationing with every fifth and tenth station numbered on 100 scale sheets and each station on 40 scale sheets.
8. All changes in width, angle points, etc., of a right of way line shall be stationing for the purpose of writing descriptions.
9. Curve data for all curves shall be placed on the plan as near as possible to the curve to which the data applies.
10. The right of way lines should be indicated as shown in the legend.
11. The line of access control over which no access will be allowed from abutting properties or between frontage roads, ramps, etc., and the main alignment should be clearly indicated on the plan. This access control line will, in most instances, be the same as the construction fence line. At separation structures, the plan should be augmented by notations showing that travel will be allowed over or under the main facility.

12. All acquired right of way and platted streets, shall be clearly indicated on the plans as shown in the legend. The widths of such right of way shall be indicated by arrows and dotted figures and labeled as: "Acquired or Existing Right of Way," "Platted Street," or "Acquired Limited Access Right of Way." All streets and roads should be labeled with their names as most commonly used in the area.
13. All section corners and quarter section corners should be shown by the standard sign and symbol whenever they fall within the right of way plan. Bearing and distance ties should be made between the nearest section corner, or quarter section corner, and the right of way centerline at all such intersections. Section corners which will fall off the plan sheet, but which are used as a tie, should be shown by a broken line.
14. All section lines and quarter section lines should be shown on the plan as completely as possible, considering the limitations of the sheet size. All legal subdivisions should be identified on the plan. The bearings of all section lines and quarter section lines shown in survey notes should also be indicated on the plan. (No approximate lines are to be shown.)
15. Recorded subdivision plats which are affected by the right of way, or are in reasonable proximity thereto, should clearly indicate the title of the subdivision, the block numbers, lot numbers, and the platted streets and alleys, with their dimensions.
16. Right of way widths will be marked on the plan adjacent to an arrow from the right of way centerline to the exterior right of way line. If the right of way line is parallel to, or describable from, a centerline other than the main alignment centerline, the distance from such centerline to the exterior right of way line shall be indicated. Limited access right of way is to be indicated as shown in the legend.
17. All right of way lines which do not run parallel to a centerline shall give the bearing and length of each segment.
18. Directions of travel on through lanes, frontage roads, ramps, etc., shall be indicated by arrows depicting the directions of travel to be allowed.
19. All man-made topography in the vicinity of the right of way shall be shown accurately and to scale. Any building, structure, improvement, well, etc., lying outside of, but within one hundred feet of any right of way line, should be tied to either the right of way line proper or the centerline by right angle measurements from that line to the closest corner of the building or structure. Any private water lines, sewage lines, septic tanks, etc., affected by the right of way shall be shown on the plan if such location is known.

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20. Existing drainages, creeks, etc., should be shown on the plan, together with an arrow indicating the flow direction of such drainage. In addition, any existing bridges or major drainage culverts, through or across existing roads, should be shown by a dashed line as indicated on the standard signs and symbols.
21. Proposed drainage alterations, channelizations, etc., which will be a part of the construction, should also be shown on the plan. The location of proposed culverts, bridges, or other structures such as grade separations, should also be shown and delineated from existing structures by the use of solid lines as shown on standard signs and symbols.
22. Trees, brush, orchards, etc., should be shown on the plan. Orchard areas, or thick brush, may be indicated by a symbol of trees around the perimeter of such area and appropriately labeled.
23. All existing private driveways and roads should be indicated on the plan by a dashed line drawn free-hand.
24. Ground profile and construction grade will be carried on separate profile sheets. The grade profile sheet should contain as many profiles as can conveniently be shown and, in some cases, a smaller horizontal scale can be used than is used on the right of way plan. In all cases, the vertical scale on the profiles shall be one-tenth of the horizontal scale. The right of way sheets should carry a note cross-referencing the sheet number which shows the grade for that portion of the alignment, and grade sheet should carry a notation cross-referencing it to the right of way alignment plan.
25. When plans for right of way for a project are prepared, uniform order in assembling the sheets is to be observed. The title sheet shall be first, followed by typicals, property ownership sheet, vicinity map and plan index sheet, plan sheets in order of continuous alignment throughout the project, plus any plan detail sheets that may be required. The grade and profile sheets shall follow these detail sheets in the same order as the plan sheets are arranged.
26. It is desirable that right of way interchanges be shown completely on one sheet insofar as possible, even if this necessitates the incomplete use of the previous sheet. If the interchange area required more space than is available on one sheet, it should be broken at a logical match point and cross-referenced to the plan sheet which will show the balance of the interchange.
27. A vicinity map and plan index sheet should be prepared for each right of way project. This sheet will be drawn on a scale of one inch equals one thousand feet. It should show the centerline survey of the project accurately, with

the approximate right of way lines over the length of the construction section. All county roads, cities, etc., should be shown together with notations on how such roads will be affected by the plan. It is not necessary to show topography extensively on this plan, although obvious features such as rivers, streams, lakes, etc., should be shown.

A vicinity map has several purposes: (1) It can be used by the right of way appraiser for gathering comparable sales data in the vicinity of the right of way to be acquired. (2) It will be used as a negotiation aid when right of way agents discuss the acquisition of the property with land owners, and it will show the effect of the proposed highway on the local road system. (3) It will enable lay persons the opportunity to see visually the overall purpose of the highway improvement. (4) It can serve as a plan index sheet to assist persons in locating the detail alignment sheet for a particular portion of the alignment. (5) It is used as a property ownership sheet showing size, shape and contiguous ownership of each parcel as well as the right of way taking and remainders.

WORK TO BE PERFORMED ON TRACINGS BY RIGHT OF WAY ENGINEERING

1. Total contiguous ownerships of all properties affected by the proposed right of way shall be ascertained and plotted on the tracings correctly, using a solid line for the ownership boundary. Property arrows will also be used to clarify boundary lines where necessary. The entire perimeter of the boundary of each individual ownership should be shown on the tracings. When large ownerships make this practice impractical, the perimeter outline of all properties will be shown on the vicinity map. This will, in effect, also make the vicinity map a property map which will indicate the total right of way takes, and remainders of the parcel in miniature. Ownership descriptions containing definite distances shall have the dimensions indicated on the plans. However, due to variances in descriptions and surveys, bearings will not be shown.
2. Each ownership on the project shall be given its own parcel number which shall be shown on the tracing by placing that number in a small, rectangular box. Parcel numbers are assigned numerically from beginning to end of the project. However, sell offs, land contracts, additional right of way, revisions, etc., may cause the use of additional numbers not in sequence. Sell offs on parcels may be given a suffix designation of "A", "B", "D", etc. Additional parcels caused by revisions or changes may be given the same number as the adjacent parcel with the suffix "N", "O", "P" to designate this situation.
3. Since other right of way needs such as rest areas, water storage areas, muck disposal areas, grading areas, etc., affect the appraisal and purchase of the proposed right of way, they should be shown on the same plan and labeled accordingly.
4. Each Control Section shall be provided with an ownership sheet. This sheet will show the parcel number name of the ownership, total area of the property, the amount of right of way being taken in fee, easement, permit, etc., and the areas of the remainders of said ownership. This is a separate sheet and is usually inserted in the plans between the title sheet and the point of beginning of the project.
5. Upon receipt of revisions in plans from Design, the Right of Way Engineering Unit will make the proper changes and/or corrections on these tracings, including the recomputation of any and all areas needed, and supply this information to the district as soon as possible.

CONVENTIONS

STANDARD R.O.W. SIGNS AND SYMBOLS

	SECTION CORNER		SMALL STREAM
	QUARTER CORNER		PROPOSED DRAINAGE OR CHANNEL CHANGE
	STATE LINE		LARGE STREAM
	COUNTY LINE		LAKE OR POND
	SECTION LINE		DECIDUOUS TREES
	1/4 OR 1/16 LINE		EVERGREEN TREES
	EX. FREE ACCESS R.O.W. LINE		TELEPHONE POLES
	PROP. FREE ACCESS R.O.W. LINE		POWER POLES
	EX. LIMITED ACCESS R.O.W. LINE		POWER TOWER
	PROPOSED R.O.W. LINE LIMITED ACCESS		RAILROAD
	*LINE SEPARATING LIMITED FROM FREE ACCESS (R.O.W. FENCE)		FENCE (EXCEPT STONE OR HEDGE) FENCED R.O.W. LINE
	TERMINUS OF LIM. ACCESS R.O.W.		STONE FENCE
	PROPERTY LINE		HEDGE FENCE
	FENCED PROPERTY LINE		NORTH ARROW
	EXISTING BRIDGE OR SEPARATION STRUCTURE		TRAFFIC DIRECTION ARROW
	EXISTING CULVERT		ROADWAY OR LANE
	PROPOSED CULVERT		HOUSE
	PROPOSED BRIDGE OR SEPARATION STRUCTURE		CHURCH
	EXISTING DRIVE		SHED
	ACQUIRED OR EXISTING R.O.W. DIMENSION		BUSINESS BUILDING
	PROPOSED R.O.W. DIMENSION		BARN
			SCHOOL
			TOWN HALL

* This line has no legal status as a line. It simply denotes access to frontage road only and can be anywhere between the frontage road and freeway. This would ordinarily be the fence line.

GUIDE LIST AND CHECK LIST FOR SUBMITTING PROPOSED RIGHT OF WAY

While the preceding information generally is an updated version of current practice (originally issued under RDL 536), the following data was developed and unofficially distributed to Squad Leaders as a Guide List, or check list, prior to releasing final right of way plans for processing and distribution.

PRELIMINARY ROW PLANS

If Interstate, Urban, Primary or Secondary BPR ROW Funds are involved, submit four title sheet prints to C. S. Reed two months prior to when preliminary plans are due (so that Step-1 ROW approval can be requested from BPR).

Send five prints of preliminary vicinity maps for rural area use.

Observe and follow Schedule for Preliminary ROW.

- a) Submit six ozalid sets of preliminary plans for Title Search (show approximate right of way needs) - System 1.
- b) Submit preliminary ROW tracings (show approx. ROW needs) - System 2.

G.I. held? _____ PS&E? _____

FINAL ROW PLANS

Observe and follow Schedule for FINAL ROW plans.

Check:

1. Title sheet: Station limits of project, Control and Suffix number. (Title block must be correct for signatures.)
2. Submit Final Vicinity map (Plan sheet index + General Outline of Project); also, submit Typical sections.
3. List of utility companies included (see Sheet 16 & 16a)
4. At POB; indicate if plotted from aerial or ground survey.
5. Check construction centerline bearing throughout.
6. Clearly identify all intersecting streets and roads; show angles or bearing.
7. Section line and 1/4-corner ties to construction centerline properly dimensioned and identified (show inset sketches where needed).
8. Show section, township and range, or city on each sheet.
9. Indicate all ROW lines not parallel to project centerline or crossroad centerline by, (1) bearing and distance, (2) station and offset distance to construction centerline (not Ramp centerline, or (3) distance along lot lines. All changes in

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width, angle points, etc., to be "tied down."

10. All proposed permanent ROW lines clearly shown with heavy pencil or ink. This is needed because final right of way is reproduced in 1/4-size prints. Designate actual use of areas where permits will suffice: such as for grading, muck storage, temporary road, channel cleanouts, etc. (These lines should be of lighter weight.)
 11. In subdivision areas; identify platted area; show centerline tie to subdivision; show lot lines and numbers.
 12. Show direction of travel through traffic-flow arrows.
 13. Show slope stake lines--especially where extra widths of ROW are required; also at interchanges and crossroads.
 14. Indicate driveway relocations by note: "Permit to Relocate Drive"--no actual ROW limits to be shown.
 15. Show any road closures by note: "Close Road."
 16. Identify County Drain relocations and furnish Drain name.
 17. Show all existing ROW limits -- for trunkline; local roads; and streets.
 18. Show Clear Vision on new work in rural areas (per Policy dated 12-14-67). (See Sheets 37 & 38)
 19. Review Encroachments, per Procedure Policy dated 1-21-64, (Sh. 28)
 20. Have ROW plan notes and symbols been used? (See Sheet 10)
 21. For various drainage outlets, see Sheet 26
- Note: The following items generally apply to System 2, where separate plans for ROW are used.
22. For Limited Access ROW along Crossroad Grade Separations and at Interchanges. (See Sheets 22-25.)
 23. Submit profiles on separate tracings (include main-line, crossroads, interchange ramps, service and temporary roads).
 24. Cross-reference plan to various profile sheets.
 25. Number ROW tracings in order, from 501 on. All main-line sheets in consecutive order, followed by detail sheets in order of appearance on the project; then grade and profile sheets in the same order.
 26. For extra-wide median areas, and where plans may show independent northbound and southbound roadways--show both roadways on one ROW plan sheet, if possible.
 27. Eliminate as many crossroad, grade separation or interchange sheets as possible by showing required ROW for same on the

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on the main-line sheet - (Reproduction will place profiles on separate sheets.)

28. Indicate if grade separations are over or under.
29. As nearly as possible, show all man-made topo (such as buildings, etc.) within 100' of proposed ROW and dimension same from either ROW or centerline.
30. For large, complicated interchange areas, consider showing same on a 1" = 200' scale.
31. All ROW limits dimensioned so that periphery-type legal descriptions may be written or metes and bounds descriptions may be computer-written.
32. Fill out 271 Form.
33. a) **Send original tracings to Design ROW Review Section (System 1).
b) Send Final ROW tracings to the Design ROW Review Section (System 2).

Release of Final ROW will be made by the Chief Engineer's office. A small set of ROW plans will be forwarded to the Design squad, together with sepias and a signed copy of the 271 Form letter.

REVISIONS TO FINAL ROW PLANS

Make ROW revision in pencil or ink on paper sepia of Final ROW (returned to squad at time ROW is released), and forward same to Design ROW Review Section, together with 271A Form, outlining reason for change. If the revision is extensive, consider making the revision on the original ROW tracings. Include pertinent correspondence with revision. (These will be returned.)

Observe deadline of: "no Design revision to be submitted within seven months of proposed advertising date." (However, revisions requested by Right of Way Division to assist in buying may be submitted at any time.)

After release by Chief Engineer's Office, sepia, print and 271A letter will be forwarded to the Design Squad.

NOTE: As of March 13, 1963, all ROW plans have been processed and distributed on 1/4-size (half-scale) prints. The prints returned to the squad enable them to see the quality of the job on reduced-size prints, and furnishes an exact copy, including all revisions, of what has been sent to Right of Way.

** District offices may submit excellent-quality first order sepias. (The final ROW date or ROW revision data should be inked on tracing when ROW prints are returned.)

PROCEDURE IN SHOWING RIGHT OF WAY IN OR OVER ALLEYS

When an alley is vacated it reverts to the adjacent property owner, since the property owner is considered as having a reversionary interest to center of the alley. Alleys are not meant primarily as a substitute for a street, but only as a local accommodation to a limited neighborhood and the public has no general right of way through it.

If an alley or a portion of an alley is required for construction purposes, the proposed right of way for such alley must be shown on the plans together with the exact point where it is to be closed. In this connection, any acquisition of an alley, or part thereof, within a city or village must be with prior approval by Resolution from the city or village. This Resolution will be prepared for the Assistant Chief Engineer by Route Location if an Engineering Report has been issued and the alley closure has been indicated in the Report; if a new or subsequent closure approval is needed by virtue of design requirements on which Route Location is not aware, then the Squad must send prints to Route Location so that the Resolution may be prepared. All such Resolutions are processed through the Assistant Chief Engineer's Office.

In the Right of Way Division's treatise on "Real Property Rights of Abutting Owners in Streets and Alleys," it is stated that, ". . . unless absolutely necessary for actual construction purposes, right of way lines should not encroach upon any part of an alley or street." Copies of this treatise are available from the Right of Way Division.

GRADE CHANGES WITHIN EXISTING RIGHT OF WAY

An excerpt from a memorandum sent by G. J. McCarthy to N. C. Jones, January 13, 1966, is reprinted below for the information and guidance of designers:

"In previous correspondence to you dated December 9 (1965), I have reviewed the Thom vs. State of Michigan, Michigan Supreme Court case in which it has been determined that a change in grade of a highway, even though additional right of way is not required, can in some cases do damage to the adjacent property owner that is compensable.

In each individual case there must be an engineering and right of way determination to determine that we have, in some way, diminished the value of the adjacent property. In most cases similar to the Thom case, we will need to acquire right of way for regrading the driveway. This right of way probably will be no more than a grading permit but will necessitate right of way acquisition and I assume automatically require before-and-after appraisal evaluations.

It should be self-evident to our designers that it is no longer in the best interest of the Department, at locations where there are substantial grade changes, to steepen the

slopes to stay within the existing right of way. We still should attempt to minimize the damages to the adjacent property through our common practices such as tile frontage if necessary but it would be appropriate to require a right of way taking which will require a compensation to the property owner.

This situation should be very critically reviewed especially at the grade inspection stage."

SUBMISSION OF PLANS FOR REVISED RIGHT OF WAY

It has come to the attention of the Chief Engineer's Office that there have been instances where the Design Division has furnished the Right of Way Division revised ROW plans without them passing through the Chief Engineer's Office, and without furnishing copies to District offices. It may be possible that ROW Engineering is requesting Design Squad Leaders to make minor changes and send them prints. This practice could seriously upset the orderly processing of right of way acquisition, as well as promote adverse public relations.

It is our inviolable policy that all revisions in ROW plans, no matter how minor nor by whom requested, be processed through the regular channels so that those receiving original plans also may receive any subsequent revisions, where applicable.

Any other procedure on our part results in confusion and should be discontinued.

PUBLIC UTILITY LISTS SUBMITTED WITH FINAL RIGHT OF WAY

We have for some time now been submitting a list of public utilities and owners that are represented on the project, with final right of way. Subsequently, this list is typed on the Note Sheet of final plans. At the time of Final ROW, a small set of ROW plans will be forwarded to the Utilities Section, Office of Construction, for distribution to each public and private utility company concerned.

On Sheet 16^{or 16a} is the form to be used for listing the utilities involved. This must be submitted with the tracings for final right of way, where such list is not itemized on the tracings.

A copy should be kept by the squad for subsequent transfer to the Note Sheet.

SUBMISSION OF PLATS WITH ROW PLANS

Duplicate copies of plats are being furnished to the ROW Engineering Section by the Survey Chief at the time the survey work is completed.

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TRANSPORTATION LANSING, MICH.**

Control Section No. _____

PUBLIC UTILITIES

The existing utilities listed below and shown on these plans represent the best information available as obtained on our surveys dated _____.

This information does not relieve the contractor of the responsibility to satisfy himself as to their accuracy or of his responsibility in case utilities have been constructed or removed since the above survey date.

NAME AND ADDRESS OF OWNER	KIND OF UTILITY	SIZE OR CAPACITY	LOCATION		
			STA.	TO	STA.

The owners of existing poles and other service structures that are within the limited access right of way will move them to locations designated by the engineer on free access right of way, or will remove them entirely from the highway right of way.

Owners of public utilities will not be required by the Department to move additional poles and structures that are not within grading or structure limits in order to facilitate the operation of construction equipment, unless it is determined by the engineer that such pole line or structures constitute a hazard to the public or are extraordinarily dangerous to the Contractor's operations.

Control Section No. _____

PUBLIC UTILITIES

The existing utilities listed below and shown on these plans represent the best information available as obtained on our surveys dated _____.

This information does not relieve the contractor of the responsibility to satisfy himself as to their accuracy or of his responsibility in case utilities have been constructed or removed since the above survey date.

Type of Utility

Owner

The owners of existing poles and other service structures that are within grading limits and that will interfere with construction operations will move them to locations designated by the engineer or will remove them entirely from the highway right of way.

Owners of public utilities will not be required by the Department to move additional poles and structures that are not within grading or structure limits in order to facilitate the operation of construction equipment, unless it is determined by the engineer that such pole line or structures constitute a hazard to the public or are extraordinarily dangerous to the Contractor's operations.

LIMITED ACCESS RIGHT OF WAY ALONG CROSSROADS ADJACENT TO
GRADE SEPARATIONS

The Highway Department published "A Policy for Limitation of Access on Rural Highways Crossing or Interchanging with Limited Access Trunklines" dated July 1, 1960.

For your convenience, we repeat the entire "Policy" which states as follows:

A POLICY FOR
LIMITATION OF ACCESS ON RURAL HIGHWAYS
CROSSING OR INTERCHANGING WITH LIMITED ACCESS TRUNKLINES

The development of a network of limited access expressways and arterial highways in Michigan, with the consequent elimination of the roadside services usually associated with rural trunkline highways, will result in a clustering of motorist service facilities and other commercial establishments on the cross roads, as close as possible to the interchanges with the limited access highway. One undesirable result of such a development would be the traffic operational restrictions and the potential hazards created by less than adequate vision and by the existence of driveways in close proximity to the interchange ramp terminals.

Even in the case of simple separations without interchange ramps, the grade of the cross road may be such that the existence of driveways in close proximity to the structure or structures would create an operational hazard by reducing the clear sight distance on the cross road below a tolerable minimum.

In order to control and protect these interchange and grade separation areas, and to reduce or eliminate the potential traffic and safety problems, the provisions of this Policy shall be applied, insofar as is consistent with the public interest, in the preparation of right of way plans and the acquisition of right of way on all limited access trunkline highway projects in rural areas.

The provisions of this Policy shall also be made a part of the record at all public hearings conducted by the Department in connection with rural interstate and arterial locations and relocations.

GENERAL

1. Stage construction of freeways (full limited access highways) shall be eliminated insofar as possible, on both the interstate system and the arterial network
2. All limited access right of way, including that on cross road, shall be fenced on the initial construction contract and posted in accordance with "A Policy on

Protecting Expressways Against Adverse Usage," issued by the Department in January, 1960.

3. Limited access right of way shall be acquired in all four quadrants at interchange locations, regardless of number and arrangement of ramps.

SPECIFIC

*1. Diamond Type Interchange (Tee Ramps)

Limited access right of way shall be established and acquired for a vision area as determined by the ramp centerline, the cross road centerline, and a line connecting points on these centerlines 300 feet respectively from their point of intersection. If the cross road is a divided highway, the centerline of the near roadway shall be used in each case.

*2. Interchange with Accelerating or Decelerating Lanes on Cross Road.

Limited access right of way shall be established and acquired for any necessary clear vision area in any quadrant, and for a distance along the cross road sufficient to include the full length of speed change line.

*3. Grade Separation.

Limited access right of way shall be established and acquired in both directions on the cross road for a distance sufficient to provide eight seconds of sight distance at an assumed speed of 50 miles per hour where required by the cross road gradient or alignment.

4. Future Interchange or Grade Separation.

In certain cases it may be necessary to postpone construction of a grade separation or an interchange. In these circumstances, limited access right of way shall be established, acquired, and fenced in the initial stage, according to provisions (1), (2), or (3) above.

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

Washington, D.C. 20235

November 1, 1966

INSTRUCTIONAL MEMORANDUM 40-1-66
32-22

SUBJECT: Interstate Highways - Participation in access
control on crossroads at interchanges on freeways

The American Association of State Highway Officials adopted by letter ballot on October 15, 1966, certain changes in the Geometric Design Standards for the National System of Interstate and Defense Highways originally adopted July 12, 1956, revised April 12 and October 24, 1963, and May 15, 1965. The Federal Highway Administrator has officially concurred in the changes so that the first paragraph under "Control of Access" on page 3 will read as follows:

Control of Access

"On all sections of the Interstate System, access shall be controlled by acquiring access rights outright prior to construction or by the construction of frontage roads, or both. Control of access is required for all sections of the Interstate System, including the full length of ramps and terminals on the crossroad. Control for connections to the crossroad should be effected beyond the ramp terminals by purchasing of access rights, providing frontage roads to control access, controlling added corner right-of-way areas, or denying driveway permits. Such control should extend along the crossroads beyond the ramp terminal about 100 feet or more in urban areas and about 300 feet or more in rural areas."

The Bureau encourages access control in one form or another on crossroads at freeway interchanges because there are several advantages. These include the preservation of capacity of the crossroads and of turning facilities between the ramps and the crossroad; the avoidance of confusion; the simplicity of signing; and increased safety.

The standards recognize the variation in the possibilities of controlling access along the crossroad beyond the ramp terminals and are not mandatory. Crossroad control is generally desirable, whenever practicable, but it is not a Bureau requirement. How access control is to be acquired depends greatly on local conditions and the authority and practices of the State and political subdivisions. Where a State is legally authorized and proposes a form of crossroads control as a part of an interchange project, and the division engineer finds it to be a part of acceptable and feasible design, there may be Federal-aid participation. The

(more)

access control line, or the method of controlling access beyond the ramp terminal if other than by purchase of access rights, is to be shown on the construction plans, the latter by notation such as "access controlled by zoning" or "access controlled by driveway regulations," etc.

The distances suggested in the standards are to be used as general guides rather than specific maximum or minimum values. Site conditions are too varied to suggest State-wide approval of a single set of dimensions for which Federal funds would participate in the cost of acquiring access control on crossroads. Distances somewhat less or greater than those suggested in the standards would technically comply with the standards. However, Bureau and State engineers are charged with the responsibility for the prudent use of public funds and should not blindly accept a situation just because it technically meets the standard. Each case will have to be considered individually. The size of the land holding and cost in relation to benefits are important factors.

Where the crossroad is undivided, and the ramp terminals are not directly opposite each other on the crossroad or where a partial cloverleaf ramp arrangement is provided, the ramp terminal farthest from the freeway should govern to establish the interchange limits. Control of access should be extended beyond this point the same distance along both sides of the undivided crossroad, where feasible. Where the crossroad is divided so as to prohibit left turns, each side may be considered separately.

In the case of a parallel frontage road, a part of which serves as the ramp connection to the crossroad, this frontage road portion normally should be considered as part of the ramp length to be under control of access.

The point of beginning or ending of a ramp terminal on a crossroad is not defined by the standards. It is generally understood in the AASHO committees and is acceptable to the Bureau that this point be defined as follows:

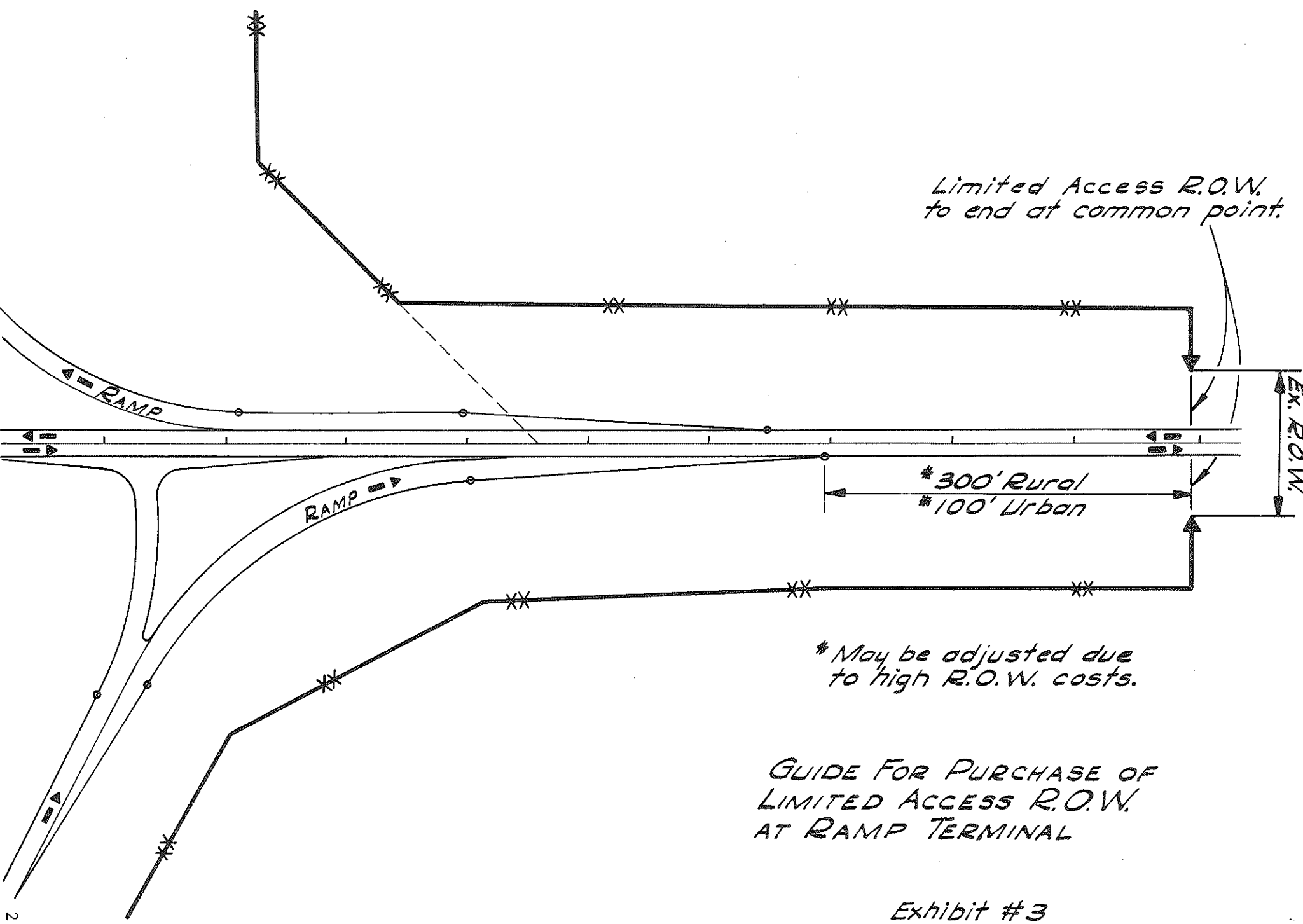
The point of beginning or ending of a ramp terminal on a crossroad is the tangent point of a radius return or flare or the point of beginning or ending of the deceleration or acceleration lane. It is the point at which the normal crossroad pavement width ends or begins at a ramp terminal. In the case of a transition in crossroad pavement number of lanes, the point should be determined on the basis of the ultimate width, even though its construction may be some years hence.

The new standard for acquiring access control on crossroads at freeway interchanges is not to be applied retroactively. However, if a State has acquired right-of-way and access control for a project under the old standard and desires to extend the access control in accordance with the new standards at locations not yet under construction, Public Roads would not object. The new

standards should not be applied for such projects where the added cost is unreasonable or the acquisition of additional access control might delay construction. Acquisition of right-of-way and access control undertaken subsequently to receipt of this memorandum is to be in keeping with the revised AASHO geometric standards.

/s/ G. M. Williams

G. M. Williams
Director of Engineering
and Operations



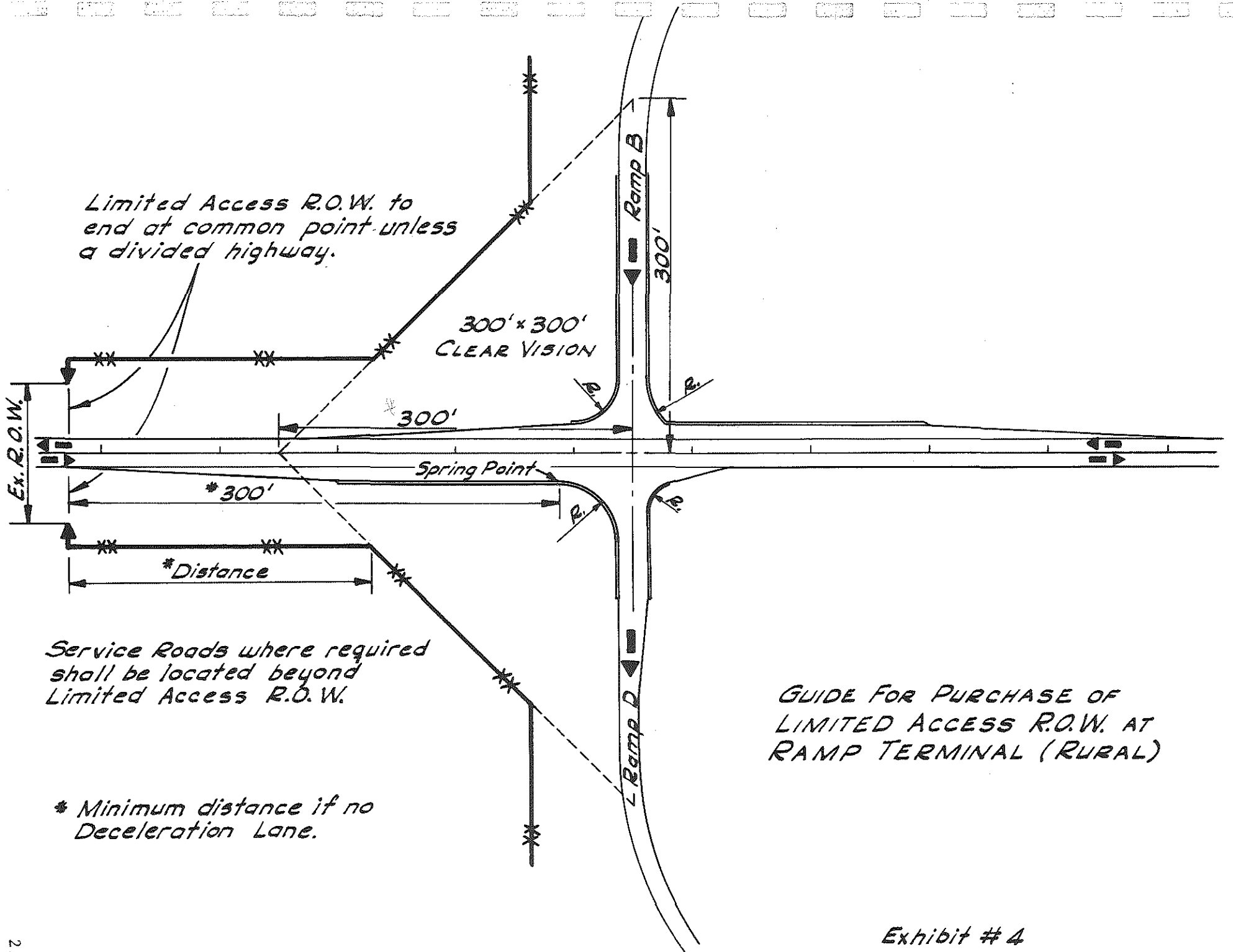
*Limited Access R.O.W.
to end at common point.*

** 300' Rural
* 100' Urban*

** May be adjusted due
to high R.O.W. costs.*

*GUIDE FOR PURCHASE OF
LIMITED ACCESS R.O.W.
AT RAMP TERMINAL*

Exhibit #3



Limited Access R.O.W. to end at common point unless a divided highway.

300' x 300' CLEAR VISION

Ex. R.O.W.

Spring Point

Ramp B

Ramp A

Service Roads where required shall be located beyond Limited Access R.O.W.

GUIDE FOR PURCHASE OF LIMITED ACCESS R.O.W. AT RAMP TERMINAL (RURAL)

* Minimum distance if no Deceleration Lane.

Exhibit # 4

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
Region Four
Lansing, Michigan
48901

4-20.1

April 20, 1967

Mr. Howard E. Hill
State Highway Director
Department of State Highways
Lansing, Michigan

Dear Mr. Hill:

Reference is made to Mr. Meyer's letter of March 7, 1967, submitting sketches indicating the Department's interpretation of IM 40-1-66 dated November 1, 1966 concerning access control along crossroads at freeway interchanges.

The sketches appear generally to conform to the intent of the Instructional Memorandum but should only be used as a general guide depending on site conditions along the crossroad and each case should be considered individually.

Extension of the control of access along the crossroad does not automatically extend the limits of construction along the crossroad inasmuch as limit of participation in costs of construction along the crossroad is governed by Mr. Williams' circular memorandum of September 1962.

Sincerely yours,

/s/ N. E. MacDougall

N. E. MacDougall
Division Engineer

SUMMARY - LIMITED ACCESS RIGHT OF WAY ALONG CROSSROADS

It now appears that the 300-foot or the 100-foot dimension should be measured as shown on the sketches, pages 22 and 23.

The I.M. issued by the Bureau of Public Roads recommends that control of access should be extended the same distance along both sides of an undivided crossroad. When the crossroad is divided so as to prohibit left turns, each side may be considered separately. On crossroads with grade separations, only limited access right of way should be established along the crossroads for a distance sufficient to provide 8 seconds of sight distance at a design speed of 65 miles per hour. See Road Design Note S1-5.

RIGHT OF WAY REQUIREMENTS AT STRUCTURES

In accordance with the Bridge and Road Design Staff minutes, dated October 15, 1962, the following procedure is instituted so that any additional right of way required at structures will be submitted in ample time for action by the Right of Way Division:

Prior to Road Design submitting its Final Right of Way Requirements, the Road Squad Leader will confer with the appropriate Bridge Squad Leaders to ascertain if their Right of Way Requirements have been determined. If they have, these requirements should be included with Final Right of Way.

In addition, at the time Road Design submits its Final Right of Way Requirements to the Right of Way Division, Mr. Reed's office will forward to the Bridge Design Supervisor a copy of Form Letter #271, signed by Mr. Julius Becker, Assistant Chief Engineer. This will alert Bridge Design to the fact that Final Right of Way has been submitted.

After receipt of this #271 Form Letter, Bridge Supervisors will advise Bridge Squad Leaders to submit their Right of Way needs to Road Design as soon as possible, preferably within three months.

RIGHT OF WAY FOR HIGHWAY DRAINAGE

General - For various situations, such as channel relocations, ROW to construct and maintain outlet ditches, ROW for county drains, ROW for swamp ditches, and for permits to clean outlet ditches, etc., that require contact between the ROW Division and the property owner, refer to Standard Guide E-20-6-1B, for typical plan sheet illustrations.

Drainage Rights - Where right of way is being acquired in conjunction with reconstruction or relocation projects and highway drainage is being discharged onto adjacent lands into natural watercourse areas, such as swales, gullies, or swamps, the ROW instrument is to include a right to discharge water. This can be accomplished by adding the following to the conveying instrument: "This conveyance includes the continued right to the use of the existing watercourse for drainage." Wherever it is necessary to obtain this right, the ROW plans will add a note and specify, "Include rights for drainage course."

Note: It is not intended for this to indemnify MDSH against damage claims that may result from flooding, but merely to provide assurance that the use of natural existing watercourses will be continued. Whenever it becomes necessary to alter natural drainage or watershed areas, positive outlets must be designed with ROW obtained where needed.

Special Situations - While the above is a general guide, in a recent meeting with the Bureau of Public Roads, the following special situations and conditions were discussed and generally agreed upon:

1. Where we propose to discharge highway drainage into large undefined swamp-like areas adjacent to a project this same notation, "Include rights for drainage course" shall be used with a lead line pointing to the directional flow arrows. If it is necessary to channel through a muck or peat disposal area to reach this swamp, an easement to "Construct and maintain outlet ditch" with definite ROW limits (30'-minimum width) shall extend through any such disposal area to a point of low elevation. No ROW limits are to be indicated for any natural drainage course.
2. Where "water storage areas" may be needed, definite ROW limits, including any necessary channel area leading thereto, shall be shown on the plans. The instructions in the "Buy Order" (Form 271 and/or 271-A) should also request the Right of Way Division to: "Include the right to remove any trees that will be within the impounded area."
3. When "outlet ditches," "water storage" or "highway drainage" areas may be combined either with muck disposal areas or grading permits, the uses must be separated so that each area may be identified.

Approved /s/ Victor H. Eichhorn 10-14-68
Right of Way Division

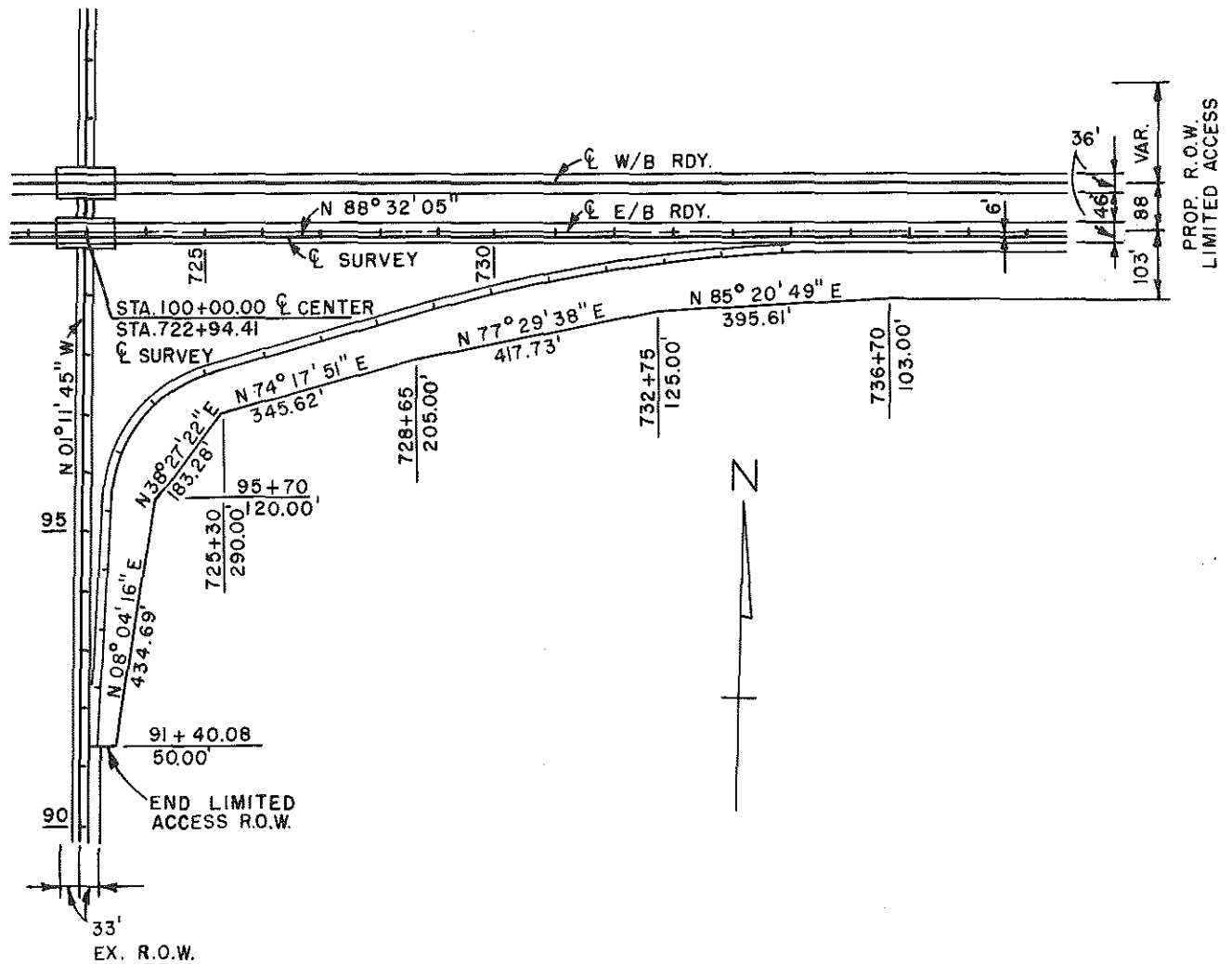
/s/ Louis Caruso 10-10-68
Attorney General

RIGHT OF WAY PLANS - Ties to Chords at Interchange Areas - 3-16-66

Survey crews are frequently required to stake out right of way at interchange areas. Right of way plans in these areas usually show a series of chords with bearings and distances, which seldom are tied into the survey centerline of the freeway or the crossroad.

This "tie-in" information would be of considerable help to the survey crews, if shown on the plans (ROW).

Therefore, Designers are requested on future jobs to tie these chords into either the freeway or crossroad by means of offsets and to show the information on the plans. See sketch below for a method of showing this information.



OFFICE MEMORANDUM



MICHIGAN
DEPARTMENT OF STATE HIGHWAYS

January 23, 1969

To: N. C. Jones
Engineer of Bridge and Road Design

From: John E. Meyer, Chief
Bureau of Engineering

Subject: Encroachments

Attached is a copy of a draft covering clarification of the old Procedural Guide for handling encroachments.

It will be noted that the attached suggested upgrading for the Procedural Guide will supersede my letter dated January 21, 1964.

It is requested, therefore, that you review the Guide and note your Division's responsibility regarding any suggestions you may have in upgrading the Guide of January 21, 1964.

It is requested that your comments be in my office not later than Wednesday, January 29, 1969, so that they can be forwarded to the Bureau of Operations.

/s/ John E. Meyer
Chief, Bureau of Engineering

JEM:JJB:mjh

Att.

Note: It is presumed that this Procedural Guide will be approved as shown on pages 29 thru 32. (1-29-69)
In event of a major revision in this tentative guide, the Design Squads will be informed.

ENCROACHMENTS ON HIGHWAY RIGHTS OF WAY

The following procedural guide covering various required actions to remove or resolve encroachments supersedes Mr. John E. Meyer's letter dated January 21, 1964.

This procedural guide is to be followed on projects current and future.

The individual action to be taken on present and future encroachments by the Divisions are as follows:

TRANSPORTATION PLANNING DIVISION

1. At the planning or programming stage, representatives of the Transportation Planning Division will inform the city or village governmental units that it will be their joint responsibility with the Department of State Highways to remove or resolve all unauthorized encroachments from the public right of way, and such removal will be a condition of the agreement for the construction of the project. In cases involving construction of county secondary projects, the above action will be performed by the Local Government Division.

DESIGN DIVISION

1. Commercial and Residential Buildings on Projects in the Design Stage

The Design Division, in conjunction with the Traffic and Safety Division, will determine whether a building encroaching on a 66-foot right of way is creating a hazard to traffic. If it is so determined to be a hazard, the Design Division will request the Right of Way Division to initiate whatever action is necessary to remove the encroachment.

Buildings encroaching on right of way greater than 66 feet will be treated as individual problems by the Design and Traffic and Safety Divisions. If it is again determined that the building is a traffic hazard, necessary steps shall be taken by the Design Division by revising the right of way plans and inform the Right of Way Division to remove the encroachment.

In cases where the encroachment of a building is determined to not be a traffic hazard, the Design Division will submit four (4) prints, showing the encroachment, to the Utilities-Permits Division requesting them to obtain Bureau of Public Roads' concurrence in the issuance of a revocable permit.

2. Gas Pumps Inside the Right of Way

In no case can gas pumps be located within the right of way. In such cases, the pumps will have to be relocated or removed from the right of way. On projects in the design stage having pumps within the right of way, the Design Division shall request the Right of Way Division to title search the property and determine how the right

of way was acquired and if the pumps are legally or illegally occupying the right of way. If they determine that the pumps are legally occupying the right of way, they will initiate necessary procedures to clear the right of way. If they determine that the pumps are illegally occupying the right of way, they will refer the encroachment to the Maintenance Division for removal proceedings.

3. Servicing on the Right of Way

In cases where gas pumps are located off the right of way but servicing of vehicles is taking place on highway right of way, the Design Division will call for curb islands on the plans to eliminate the servicing. Borderline cases should be carefully reviewed, i.e., if the pumps are six or seven feet from the right of way line, a minor adjustment in the curb island can be considered. In the case of wide right of way, they may propose the use of an "Operational Right of Way Line" with the concurrence of the Bureau of Public Roads.

RIGHT OF WAY DIVISION

1. Commercial, Residential Buildings or Gas Pumps Located on Highway Right of Way

If the Design Division determines that buildings or pumps, on design stage projects, will have to be removed, the Right of Way Division, upon receipt of revised right of way plans, will take the necessary steps to remove the buildings or pumps as indicated in items 1, 2, and 3 of the Design Division action.

CONSTRUCTION DIVISION

1. The Construction Division will be responsible for checking all encroachments on each construction project to insure that some action is under way to resolve each encroachment within the project. If at the time of the final project construction inspection, there are any remaining unresolved encroachments, the District Construction Engineer shall submit a list including all pertinent data regarding the encroachment to the Engineer of Construction in Lansing for action. Information covering the encroachment when submitted to Lansing should include the type of encroachment, location in relation to the right of way line, and the name and address of the owner of the encroachment.

MAINTENANCE DIVISION

1. Signs

All unauthorized signs within the highway right of way will be removed by the owners or resolved by means of a revocable permit as directed by the Maintenance Division. This will include non-construction areas, current construction projects, and future construction projects.

2. Servicing on the Right of Way

In cases where pumps or business buildings are located on private right of way but servicing is taking place on highway right of way, the Maintenance Division will take the appropriate action as the individual case warrants to prevent such servicing on the right of way.

3. Buildings and Gas Pumps

The Maintenance Division, when informed by the Right of Way Division of a building or gas pump that is illegally encroaching on highway right of way, will initiate necessary action to have the encroachment removed.

UTILITIES-PERMITS DIVISION

1. Revocable Permits

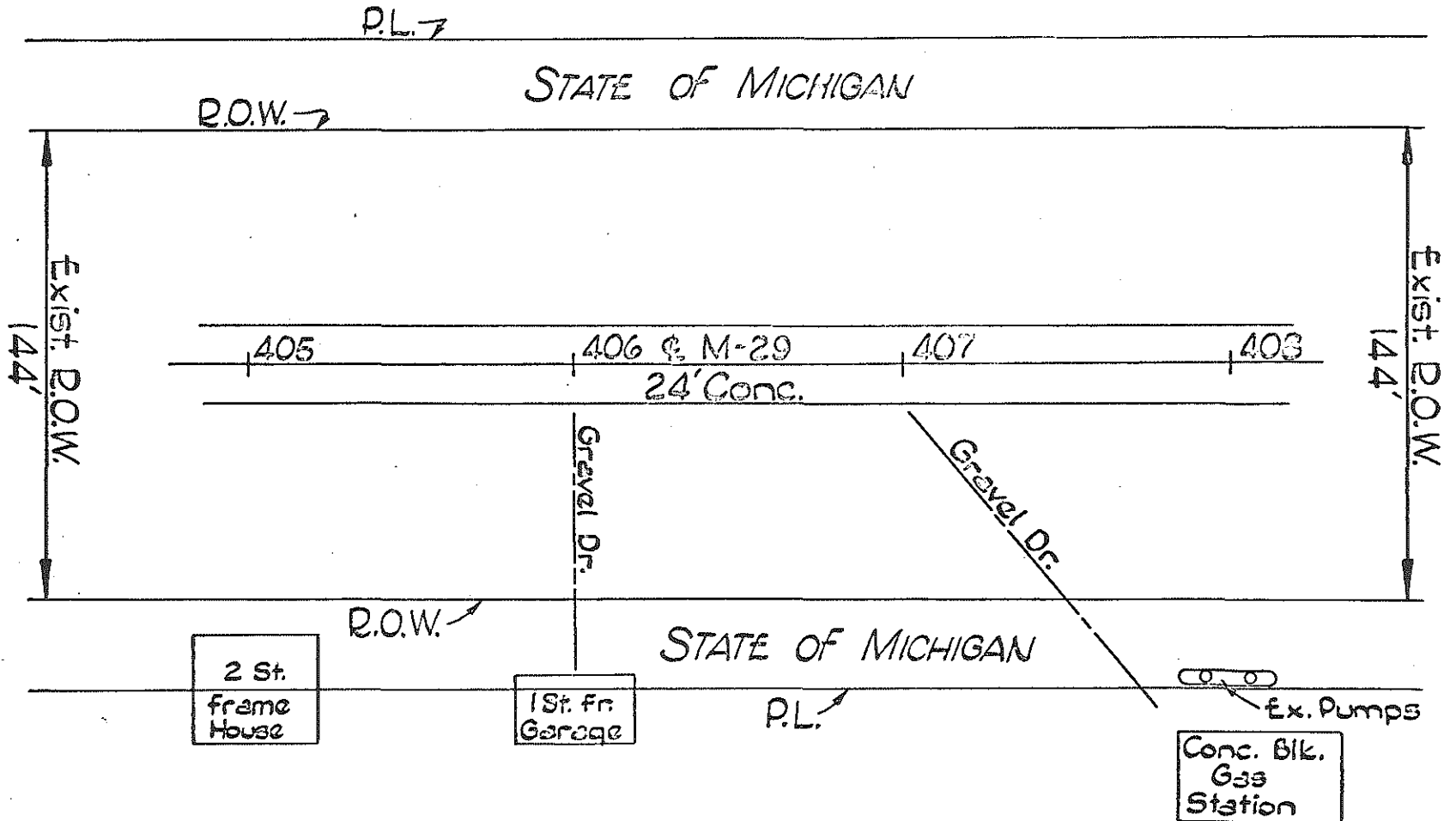
The Utilities-Permits Division will be responsible for the issuance of all revocable permits for both buildings and signs upon receipt of concurrence by the Bureau of Public Roads. However, no revocable permit can be issued unless all other Divisions provide the Utilities-Permits Division with sufficient information regarding the encroachment so that a revocable permit can be written. This information should always include the nature, location, and name and address of the owner of each encroachment.

- - - -

The procedure outlined above is intended to clarify and coordinate the responsibilities of all Divisions involved.

In all cases where Bureau of Public Roads' acceptance of project is being delayed pending encroachment resolvment, it will be the responsibility of each respective Division to notify the Bureau of Operations Office when such encroachments have been resolved. Thus, the Operations Bureau can then notify the Bureau of Public Roads and our Finance Division so final billing details may be completed.

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Sketch showing "Operational ROW Line."

ERRORS FREQUENTLY FOUND ON ROW PLANS (Letter from Right of Way
Division 7-25-63)

1. Reversed bearings or bearings running in the wrong quadrant, or direction, such asN-W, should be NE and reverse.
2. Ties to survey lines and construction lines incorrect. The distance from the Section corner to survey line should be the distance for the quarter corner to the survey line and vice versa.
3. Omitted information from the survey notes such as angles, stationing at important points and fence ties to survey line.
4. Distances figured incorrectly between ties. (Such as between survey and construction centerlines.)
5. Distances placed in such a position that they are blurred and covered by lines and topography information so that they are hard to read and have been assumed as best as possible. . . .without being checked.
6. The information on one plan sheet not the same as on another sheet in the same set of plans.
7. Complements of angles being used instead of the real angle.
8. Information from one Control Section does not tie in with information on the next or continuing Control Section, as to stationing and survey line bearings.
9. Houses and other topography spotted wrong on the plans, or not even plotted.
10. Ties to plat or subdivision lines, or boundaries, and corners are omitted on some plans.

It is suggested that an insert of the ties from survey and construction lines to section lines and quarter-section lines be added to those sheets where such ties are shown, as well as ties between survey and construction lines.

Again, it is suggested that the use of chords with distances and bearings be used, on all interchange right of way lines because of the importance placed upon metes and bounds descriptions necessary for State-Agency condemnation cases. . .where each property to be acquired has to be described correctly by metes and bounds. This would eliminate some errors where ties have to be made on the arcs of curves, with little or no information as to these points of intersection.

PERTINENT INFORMATION TO BE SHOWN ON ROW PLANS
(letter from N. C. Jones to Design Supervisors 10-31-66)

1. The Right of Way Division uses the electronic computer program for traverse computations as an aid in writing land descriptions.
2. Frequently, right of way plans prepared by the Design Division lack pertinent information needed by the Right of Way Division in order for them to use the electronic computer program.
3. A meeting was held recently to discuss right of way plans. A summary of the discussion is given below for the information and guidance of designers engaged in the preparation of right of way plans:

- a. Sufficient information should be shown in right of way plans so that the acreage of each partial take may be computed. In urban areas, this would include partial lots of a subdivision; in rural areas, each piece of property.
- b. Ties between survey centerlines and construction centerlines should be clearly shown.
- c. The Right of Way Division would prefer all description be set up by metes and bounds. However, they were advised that on the main roadway in rural areas we would continue our present policy of having right of way lines parallel to the construction centerline on both curves and tangents.

At the present time, most squads use metes and bounds for describing right of way at ramps and interchanges.

On urban projects, where the right of way line cuts through lots of a subdivision, metes and bounds should be used where feasible.

- d. Right of way plans for adjoining projects should be checked and coordinated by Design Squads. The Right of Way Division apparently receives plans where conflicting information is shown.
- e. Most squads use the electronic computer program for traverse computations in the design of interchanges and other highway features before final right of way plans.

The Right of Way Engineer requests that any additional pertinent information received from this program should be shown on the right of way plans.

He also suggests that these computer computations be sent to Right of Way along with final right of way plans as they would be of immense assistance and might save a lot of duplicate work.

It has been requested that property lines be shown on plans at the time of Grade Inspection. This will help in the adjustment of limited access termini and may prevent the landlocking of large properties. This is especially true at the extremities of the limited access right of way on structure approach fills, speed change lanes and clear vision areas.

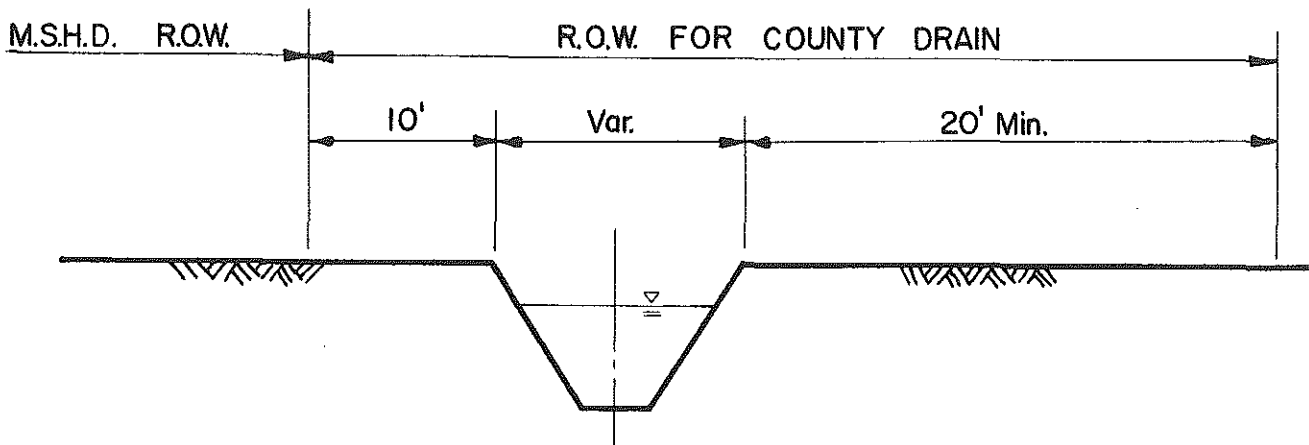
FEDERAL FOREST LANDS

The standard right of way through Federal Forest Lands is 132'. Additional right of way for grading, drainage, etc., to be set up in the usual manner. The above standard width of 132' does not apply to Interstate routes or arterial highways.

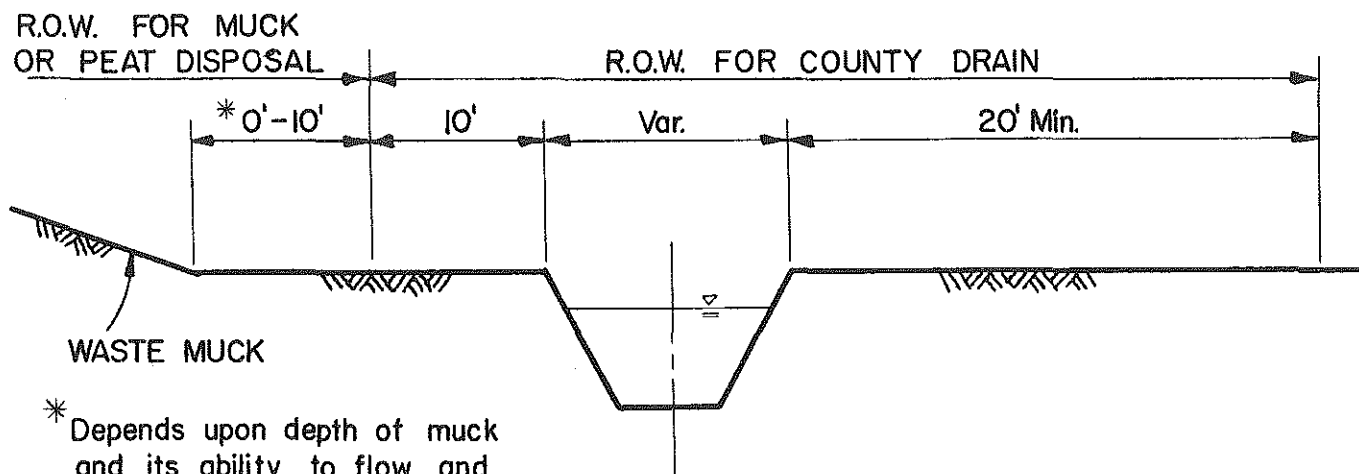
Preliminary plans showing construction limits, proposed borrow pit locations, and proposed maintenance crossovers shall be sent to the United States Forest Service. These plans should be transmitted to the Forest Service at the time of GI - PS&E (this is to be done by the G.I. Engineer). The district will contact the affected office of the Federal Forest Service to determine whether or not the Forest Service wishes to partake in the G.I. and, also, determine if a "Stipulation" is necessary.

STATE-OWNED LANDS

Right of way through State-owned lands will be as recommended in the Engineering Report or as deemed necessary by the Design Supervisor. (Department of Natural Resources approval necessary.)



LOCATION OF COUNTY DRAIN WITHIN
NEWLY ACQUIRED DRAIN R.O.W.



* Depends upon depth of muck and its ability to flow and damage ditch. Each drain to be analyzed individually.

DRAIN LOCATION ADJACENT
TO MUCK DISPOSAL AREA

Note: This sketch shows minimum requirements. County Drain Commission approval must be obtained for all county drain relocations.

OFFICE MEMORANDUM



MICHIGAN
DEPARTMENT OF STATE HIGHWAYS

December 14, 1967

To: Bureau Chiefs, Division Engineers
and District Engineers

From: Henrik E. Stafseth
Acting State Highway Director

Subject: Policy on Rural Clear Vision Areas on All New Work
Authorized for Design or for Right of Way Acquisition.

The following will be given immediate effect:

1. Clear vision areas will be obtained at all at-grade intersections of trunklines with other roads or streets in rural areas. For this policy, the following interpretation is made:
 - (A) Interchange ramps are to be considered trunkline.
 - (B) Service roads are to be considered local roads.

Plans will henceforth designate, in accordance with Standard Guide E-20-6, and with this policy, the outlines of these areas.

2. Clear vision areas will not be obtained within urban areas. For this policy, the following interpretation is made:
 - (A) Urban areas, as determined by the Transportation Planning Division's urban area boundary description and map.
 - (B) Rural areas contiguous to a section of a trunkline in which urban conditions exist to the extent where 50% or more of the trunkline frontage is occupied by residential, business or industrial development.

Administrative adjustment of this policy with regard to actual acquisition of the properties may be required only if the following conditions exist:

- (1) Where a required clear vision area is occupied by a building or buildings, and right of way appraisal is \$5,000 or more.

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Bureau Chiefs, Division Engineers

December 14, 1967

- (2) Where the property, although vacant of buildings, has a right of way appraisal of \$5,000 or more.

In the subject cases, action will be as follows:

1. In appraisal stage, these cases will be given priority and will be referred by the Chief, Bureau of Engineering, to the Chief, Bureau of Operations.
2. The Chief of the Bureau of Operations will request the Traffic and Safety Division to review each case from a traffic operation and safety standpoint and to recommend one of the following courses of action:
 - (A) Acquire adjusted area.
 - (B) Acquire in accordance with Standard Design Guide, as shown on plans.
 - (C) Defer acquisition in particular quadrant to future date.
 - (D) Eliminate all clear vision.
3. Upon his approval or adjustment thereof, the Chief of the Bureau of Operations shall submit such recommendations to the Chief of the Bureau of Engineering for appropriate action.

/s/ Henrik E. Stafseth
Henrik E. Stafseth
Acting State Highway Director

Dec. 14, 1967
(Date)

PLAN ON FILE OF PROPOSED STATE TRUNKLINE ROW WIDTHS

The current edition of PLAN ON FILE ROW widths establishes the minimum ROW necessary to protect the public investment in state trunkline highways. This PLAN ON FILE legally establishes the minimum ROW width required along state highways in plat dedications as defined in the current Plat Act.

The ROW widths shown in the PLAN ON FILE are considered as the operational ROW requirements by the Department of State Highways and are to be used as a guide whenever newly proposed ROW is required for projects being designed. These requirements also are to be applied to the various Mb, MIR, Ms, MER, etc., type projects. However, if these miscellaneous improvement projects can be constructed within the existing ROW limits, then no additional ROW shall be requested, even if the existing ROW does not conform with the PLAN ON FILE widths.

GENERAL COMMENTS ON UNIFORM ROW

When new or additional ROW is being acquired for urban and/or rural projects, the Chief Engineer's office has requested that the ROW widths be made as uniform as possible. Where construction requirements make it necessary to increase our ROW beyond a uniformly established width pattern, these increases should be continued through or across a property ownership (if economically feasible) or use reasonably long segments of increased width. In many cases, grading permits can be utilized for construction where slope stake limits extend beyond standard ROW widths. However, if these areas involve highway drainage or intercepting ditches, downspouts, or horizontal sight distance requirements, permanent ROW should be requested. On limited access ROW, this will avoid short offsets in fencing, and on free access rural or urban trunklines, this will assist the Maintenance Division in administering control over possible encroachments, and will result in treating adjacent owners more equitably in the use of their property bordering the ROW where signs, parking, drives, etc., may be involved.

OFFICE MEMORANDUM



MICHIGAN DEPARTMENT OF STATE HIGHWAYS

Form 271
Rev. 5/68

Date _____

To: Director, Right of Way Division

Proposed
LETTING DATE

From: Chief, Bureau of Engineering

Subject: REQUEST TO ACQUIRE RIGHT OF WAY

Limited Access
Free Access

Final
Revised

Control Section No. _____

T.L. or Route No. _____

* Fed. Project No. _____

* Fed. Item No. _____

**Location:

**POB Sta. _____ to POE Sta. _____

_____ No. Sheets Submitted _____

REMARKS:

Please acquire R.O.W. in accordance with attached plans. This request will remain in force until supplemented or voided by request from this office to revise, hold or cancel. When R.O.W. is secured, please notify this office.

J. E. Meyer, Chief Engineer

By: _____
Assistant

Encl:

*Show R.O.W. project and item number when R.O.W. is programmed for Federal Aid
**This description gives the termini of a proposed contract section or R.O.W. section.

- cc: District # _____ Engineer - 1 set
- Design Division - 1 set
- Public Hearings Section - 1 set
- District R.O.W. - 1 set
- Chief Engineer - 1 set
- Route Location - 1 set
- Traffic Geometrics - 1 set
- Records and Reports 1 set
- () Utility Engineer -
- Finance

OFFICE MEMORANDUM

Form 271 A
Rev. 5/68



MICHIGAN
DEPARTMENT OF STATE HIGHWAYS

Date _____

To: Director, Right of Way Division

Proposed
LETTING DATE

From: Chief, Bureau of Engineering

Subject: REQUEST TO ACQUIRE RIGHT OF WAY

Limited Access
Free Access

Final
Revised

Control Section No. _____

T.L. or Route No. _____

* Fed. Project No. _____

* Fed. Item No. _____

**Location:

**POB Sta. _____ to POE Sta. _____

Final R.O.W. was submitted on _____ Revision No. _____

This revision requested by _____ No. Sheets Submitted _____

REMARKS:

Please acquire R.O.W. in accordance with attached plans. This request will remain in force until supplemented or voided by request from this office to revise, hold or cancel. When R.O.W. is secured, please notify this office.

J. E. Meyer, Chief Engineer

By: _____
Assistant

Encl:

*Show R.O.W. Federal project and item number when R.O.W. is programmed for Federal Aid.
**This description gives the termini of a proposed contract section or R.O.W. section.

cc: District # _____ Engineer - 1 set
Design Division - 1 set

Chief Engineer - 1 set

RIGHT OF WAY DEFINITIONS

ABANDONMENT - Legally, cessation of use of right of way or activity thereon with no intention to reclaim or use again. Sometimes called VACATION. Divisional usage - relinquishment of control to a subordinate governmental unit (county).

ACQUISITION OR TAKING - The process of obtaining right of way.

AIR RIGHTS - The property rights for the control or specific use of a designated airspace involving a highway.

APPRAISAL - An estimate of quantity, quality, or value. The process through which conclusions or property value are obtained; also commonly the report setting forth such estimate and conclusion and the different variables and calculations used to reach such conclusion.

AWARD - The determination rendered by a judge, jury or commission upon a controversy submitted to them, such as value of real property or damage thereto.

CERTIFICATE OF TITLE - A document based on a title search stating that title or interest in property is vested in a designated person and showing outstanding liens, charges, or encumbrances.

CLEAR VISION CORNER - A corner at a grade intersection from which all obstructions have been removed and on which no construction or growth is allowed which shall interfere with a line of sight established according to principles of safety. Generally requires property beyond normal right of way which is triangular with the longer leg along the major highway.

COMPENSATION - Indemnification; payment of damages; an equivalent in money for a loss sustained and given for property taken or for an injury done to another.

CONDEMNATION - The process by which property is acquired for highway purposes through legal proceedings under power of eminent domain.

CONSEQUENTIAL DAMAGES - Loss in value of a parcel, no portion of which is acquired, resulting from a highway improvement.

CONTROL OF ACCESS - The condition where the right of owners or occupants of abutting land or other persons to access, light, air, or view in connection with a highway is fully or partially controlled by public authority.

DAMAGE HEARING - A step in the condemnation procedure, conducted according to law by the Attorney General's Department, where the amount of compensation to be paid to a property owner is determined.

DEED - A duly attested written instrument, under seal, conveying real property or interest therein.

DEED - QUITCLAIM - A deed conveying, without warranty, any title, interest, or claim which the grantor may have in the estate conveyed.

DEED - WARRANTY - Conveyance in which the grantor covenants that he is lawfully seised in fee simple of the property being conveyed, that the same is free from all liens and encumbrances, and that he will warrant and defend the title thereto against the lawful claims and demands of all persons whomsoever.

DRAINAGE EASEMENT - An easement for directing the flow of water, and to allow construction and maintenance of sewers, ditches, etc.

EASEMENT - A grant of an indefinite right of use of land for highway or other purposes, which benefits the public or persons other than the land owner.

EMINENT DOMAIN - The power to take private property for public use. Eminent domain gives the government the right to take possession of private property, in the manner directed by the Constitution and the laws whenever the public interest requires it.

ENCROACHMENT - Any structure illegally erected within or overhanging the right of way and attached to the land, such as a fence, building, or gasoline pump.

FEE SIMPLE - also FEE and FEE SIMPLE ABSOLUTE - Full, complete ownership of land. It is free from liens, judgements, easements, and, in fact, all encumbrances. The ownership is limited only by domain, police power, and escheat.

HIGHEST AND BEST USE - The most profitable use, reasonable but not speculative or conjectural to which property may be put in the future.

JUST COMPENSATION - A full and fair equivalent for the loss sustained by the owner as a result of taking or damaging of private property for highway purposes.

LEGAL DESCRIPTION - A statement containing a designation by which land is identified according to a system set up or approved by law.

MARKET VALUE - The highest price for which property can be sold in the open market by a willing seller to a willing purchaser, neither acting under compulsion and both exercising reasonable judgment.

NECESSITY HEARING - A step in the condemnation procedure, conducted according to law by the Department of State Highways, where the desirability of the project and the need for the particular parcel is determined.

NEGOTIATION - The process by which property is sought to be acquired for highway purposes through discussion, conference, and final agreement upon the terms of a voluntary transfer of such property.

OPTION TO BUY - A written contract whereby the owner of property agrees with another person to sell the owner's property within a certain time and for a certain price and that the seller will sell to that person only and the seller is bound to perform when called upon by the buyer.

PARTIAL TAKING - Acquisition of a portion of a parcel of property.

PERMITS

GRADING PERMIT - The right to enter upon a specific area of land for the purpose of grading, including the right to grade and/or alter the underlying lands, which right shall expire at the completion of the construction of the described project.

TEMPORARY ROAD PERMIT - The right to enter and to construct a temporary road upon a specific area of land, which right shall expire at the completion of the construction of the described project; said temporary road to be removed at the end of said construction and the underlying lands returned as nearly as possible to their former condition.

PLAT - A small area of land, or a map or plan, especially of a site or subdivision.

Assessor's Plats and/or Supervisor's Plats - are established for the convenience of a local authority for tax or assessment purposes. The assessing officer shall certify that the local governmental authority has acquired title to the highways, streets, alleys and public places shown on said assessor's plat by reason of purchase, dedication, condemnation or adverse possession for public use, and if there are any to which the local governmental authority has not acquired title for public use, the extent of their use shall be plainly stated. (The language of the statute pertains to the use of roads, streets, etc. to which title has not been acquired, and not to the character and the rights of lot owners, or others, nor the ownership of the land itself. In other words, such plats cannot dedicate right of way for public use; they can only certify right of way as it actually is, or the use to which it is being put.)

POSSESSION AND USE AGREEMENT (P&U) - A form used when negotiations cannot be completed by the agent and the owner has no objection to the State taking possession of the land and commencing construction.

PRIVATE CLAIM - A piece of land, designated by a number, not being a part of a regular subdivision of a section, which was in existence at the time of the original survey, generally bounded in part by a stream. Also called an Indian grant or an Indian claim.

REMAINDER - The portion of a parcel of land retained by the owner after a part of such parcel has been acquired.

REMNANT - A remainder of land so small or irregular that it usually has little or no economic value to the owner.

RESIDENCE DISTRICT - The territory contiguous to a highway not comprising a business district when the frontage on such a highway for a distance of 300 feet or more is mainly occupied by dwellings and buildings in use for business.

RIGHT OF ENTRY - The right of taking or resuming possession of land by entering on it lawfully.

RIGHT OF WAY (R.O.W.) - The entire area reserved for the construction and maintenance of the roadway and the improvement of the roadsides.

RIGHT OF WAY APPRAISAL - A determination of the market value of property including damages, if any, in advance of acquisition.

RIPARIAN RIGHTS - The right of an owner of water-fronting lands in the bed, banks, accretions, water, access, moorage, and related items.

ROADSIDE CONTROL - The public regulation of the roadside to improve highway safety, expedite the free flow of traffic, safeguard present and future highway investment, conserve abutting property values, or preserve the attractiveness of the landscape.

ROADWAY - That part of the right of way required for construction, limited by the outside edges of slopes and including ditches, channels, and all structures pertaining to the work.

SCENIC EASEMENT - An easement for conservation and development of roadside views and natural features.

SETBACK LINES - A line outside of the right of way, established by public authority, or private restriction, on the highway side of which the erection of buildings or other permanent improvements are controlled.

SIGHT LINE EASEMENT - An easement for maintaining or improving the sight distance.

STEP 1 AUTHORITY - Authority from BPR to secure title information. (Appraisal approval is now being deleted from Step 1)

STEP 2 AUTHORITY - Authority from the BPR to proceed with negotiations and actual acquisition. (Appraisals now being added to Step 2)

STIPULATED SETTLEMENT - Agreement reached out of court on a parcel in condemnation; however, it must be approved by the court and made a matter of record.

STIPULATION - An agreement between attorneys engaged on opposite sides of a cause pertaining to any matters which fall within their jurisdiction.

TITLE SEARCH - An investigation of public records and documents to ascertain the history and present status of title to property, including ownership, liens, charges, encumbrances, and other interests.

WRITTEN PERMISSION OF THE PROPERTY OWNER - A document, signed by the property owner, stating that the land belongs to him and that he has given permission to proceed with the proposed work.