

DESIGN BULLETIN # 104/2019

Engineering Consulting Guidelines for Highway, Bridge, and Water Projects, Volume 1- 2011

Section 3 – Right-of-Way

Summary

This Bulletin is issued to inform all consultants and Department staff of the update to the Engineering Consulting Guidelines (ECG) Volume 1, Design and Tender (2011), Section 3 Right-Of-Way.

The Department has recently reviewed Section 3 of the Engineering Consulting Guidelines and concluded that an update is required. The primary reasons are as follows:

- Change in legislation
- Changes made by other departments (ie. Environment and Parks)
- Streamlining and updating the process

Key Changes

- 1) 3.1.1 GENERAL
Page 3-1 Prior to issuing the right-of-of-way request
Number 4. Added
- 2) 3.1.4 RIGHT-OF-WAY FOR PROJECTS ON NON-PATENT CROWN LAND
Numbers 2., 3., 4. Updated
- 3) 3.2.3 REQUEST DOCUMENTS
Appendix D updated
- 4) 3.3.1 GENERAL
Paragraph 2, clarification of CLA professional qualifications
Number 1. Statute section and paragraphs updated
Number 4. Updated
Number 8. Bullet added
- 5) 3.3.2 TIMING
Paragraph 1 updated
- 6) 3.4.1 GENERAL
Paragraph 1 added

7) 3.5 EXPROPRIATION PROCESS

Paragraph 2. Alberta Transportation business section updated for Assistant Deputy Minister

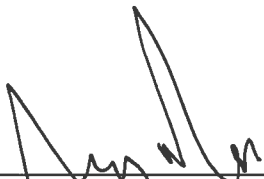
Effective Date

Immediately

Contact

Any questions can be directed to Mark Hand at (780) 624-6504 or email at mark.hand@gov.ab.ca, Property Manager, Peace River, Alberta Transportation.

Recommended:



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Approved:



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SECTION 3 - RIGHT-OF-WAY

3.1 BASIC RIGHT-OF-WAY REQUEST

3.1.1 GENERAL

For projects requiring the acquisition of right-of-way the Consultant shall prepare a "right-of-way" request document detailing “any” or “all” property requirements for the project.

Generally, the Project Sponsor will identify the need for a right-of-way request by specifying this work in the project Terms of Reference. For projects involving a planning study, the Consultant hired to do the study may be asked to prepare the basic right-of-way request under the Terms of Reference for that project.

Right-of-way requests (see [Appendix D](#)) must include all right-of-way requirements shown relative to existing land parcels as follows:

1. Basic highway right-of-way width
2. Proposed service road right-of-way (if required)
3. Proposed intersection improvement right-of-way (if required)
4. Optional purchase of isolated cut-off-areas
5. Area calculations from each certificate of title
6. Safety Rest Area (SRA) sites (if required)
7. Storm Water Management Facilities (if required)

Prior to issuing the right-of-way request, the Consultant shall review the following items:

1. Land titles and registered survey plans are checked to ensure that the existing property boundaries are shown correctly on the mosaics.
2. The planning report is reviewed for access requirements, intersection improvements, cut-off areas, creek diversions, existing developments, replacement of service road dedications, etc.
3. Land ownership as shown on the mosaics is updated as per current Land Titles registration. The date of the title search will be shown on the mosaics under the title block.
4. Special care must be taken with any property where there is a riparian boundary to ensure the land currently under title is properly depicted. If appropriate, a riparian boundary survey should be completed to identify changes to the land under title. On projects where works will be constructed within the bed and shore, ensure that the bed and shore areas have been clearly identified.

3.1.2 REQUEST DOCUMENTS

The right-of-way request document must address access closures, access consolidations, new access construction requirements, and any special measures for interim access. All right-of-way requests must be color coded (as to the type of request) in accordance with the Department's established format. See [Appendix D](#).

3.1.3 LEAD-TIME

A lead-time of 18 months is desirable (12 months minimum) for all right-of-way requests to allow sufficient time, should expropriation be necessary. Longer lead-time may be required for projects through Federal jurisdiction (e.g. Indian Reserves, Military Installations) and urban centers.

3.1.4 RIGHT-OF-WAY FOR PROJECTS ON NON-PATENT CROWN LAND

Upon approval by the Department, the Consultant shall;

1. Complete a crown land search to identify prior right holders
2. Prepare the Provisional/Registered Roadway Application (RDS) affecting Crown Land.
3. Prepare a plan that meets Alberta Environment and Parks plan requirements.
4. Submit the completed application package, which includes the plan and any other relevant information that may assist in the application review to the appropriate authority with a copy to the Project Sponsor and the Property Manager.
5. Obtain the necessary consent(s) to withdraw from third party interests and submit to the appropriate authority with a copy to the Project Sponsor and the Property Manager.

The RDS will be issued listing all conditions the Department is obligated to meet.

Negotiations shall be based on the land acquisition Terms of Reference noted in Section 3.3.1.

This work shall be done as early in the process as possible.

3.2 SUPPLEMENTARY AND FINAL RIGHT-OF-WAY REQUESTS

3.2.1 GENERAL

The Consultant shall prepare the supplementary (if required) and final right-of-way requests during the detailed design to address unforeseen factors such as:

1. Change in project limits
2. Additional scope of work
3. Expropriation proceedings which necessitate an increase or decrease from basic right-of-way (and which require finalization of right-of-way needs)
4. Excessive cuts and fills along the main alignment and for roads that require grade-line improvement
5. Sight distance or grade-line restrictions that might necessitate changes in intersection location
6. Intersection modification requirements
7. Proposed borrow locations
8. Projects located near major urban centers (land parcels are smaller, higher in price, and contain numerous owners to deal with)

3.2.2 RIGHT-OF-WAY FOR PROJECTS ON NON-PATENT CROWN LAND

When amendments to the right-of-way request affects crown land the Consultant will be required to either amend the existing RDS by submitting a Provisional/Registered Roadway Amendment application, or if a RDS is not in place apply for the reservation as noted in [Section 3.1.4](#).

3.2.3 REQUEST DOCUMENTS

The right-of-way request document must also address earth borrow requirements, easements, and back-slope agreements. All right-of-way requests must be color coded in accordance with the Department's established format. See [Appendix D](#).

3.3 ACQUISITION OF RIGHT-OF-WAY

3.3.1 GENERAL

Land required for the project may be acquired by either the Department or the Consultant on a project specific basis as described in the project Terms of Reference. When being handled by the Consultant Land Agent (CLA), the Department may assist in negotiations with landowners.

SECTION 3 – RIGHT-OF-WAY

A CLA must have a valid Alberta Land Agent's license, is a Commissioner for Oaths, and must have a valid Alberta Driver's License. CLAs must be, or be under the supervision of, a member of the International Right-of-Way Association (IRWA), the Appraisal Institute of Canada (AIC), or another appraisal organization recognized by the Department.

As part of the duties of the Consulting Land Agent, the CLA shall:

1. Meet with the landowners (and those who hold a third party interest) or their agents to assess their concerns, and to negotiate the terms of land agreements. The "Principles of Compensation" as set forth under the Expropriations Act, Revised Statutes for Alberta 2000, Part 2, Section Paragraphs 41 to 58 inclusive (as applicable to each specific property), shall form the basis of compensation packages.
2. Establish priorities and set up schedules to ensure the landowners most affected are addressed first.
3. Start negotiations in a timely manner to ensure possession dates for land do not delay or compromise established Departmental construction schedules.
4. Perform a review of all affected titles, including all encumbrances effecting land acquisition, crown land dispositions, legal survey, and other plans.
5. Review the sketches and/or preliminary plans showing the land to be acquired or the interests affected; and advise the Department of additional information which may be required for negotiations.
6. Review any appraisal requirements with the Department. The Department will arrange for the reports required. These plans or reports shall be available for negotiation purposes; however, they remain the property of the Department.
7. Prepare recommendations for compensation for each landowner affected. The Department will provide comments, and/or review and approve the CLA's recommendation prior to presenting the proposal to the landowner or the landowner's agent.
8. Prepare all draft agreements with associated documentation necessary for negotiations and a final agreement. The associated documentation may include, but is not limited to:
 - Offer to Sell Agreements
 - Section 30 Agreements
 - Moving Agreements
 - Agreements for Survey
 - General Release of all Demands
 - Fencing Agreements
 - Preliminary Agreements For Temporary Rental of Haul Roads, Camp, Plant, or Stockpile
 - Agreements of Easement for Construction and Maintenance of a Public Work
 - Provisional/Registered Roadway Application
 - Consent to Withdrawals

SECTION 3 –RIGHT-OF-WAY

- Permission to Enter, Test, and Survey
 - Preliminary Agreement for Use in the Taking of Earth Borrow
 - Approach/Access Relocation
 - Cattle pass removal
9. For all grading projects, the issue of earth borrow shall be discussed during negotiations with the landowner. In cases where the landowner is receptive to providing a borrow source, the CLA shall complete a “Preliminary Agreement for Use in the Taking of Earth Borrow agreement with the landowner.
 10. Provide a summary of the services performed pertaining to the project upon completion of the land acquisition process.
 11. Maintain frequent communication with the Department’s representative during negotiations with landowners and provide:
 - Photographs of all land and improvements affected by the project
 - Detailed notes documenting all conversations, meetings, and discussions pertaining to the project
 - Monthly status reports to track progress of the right-of-way acquisition process as defined in [Appendix D](#) in the Right-of-way Progress Acquisition Summary
 12. Submit monthly invoices and Contract Summary Reports in a timely fashion.
 13. Prepare briefing notes and draft letters for ministerial responses and reports when required by the Department.
 14. Sign an agreement addressing confidentiality requirements and conflict of interest disclaimer if required.
 15. Attend monthly team meetings in the Regional Office when invited to do so.
 16. Provide a history of negotiations upon completion of the negotiations or as requested by the Department.
 17. Direct all contact from the media to the Department’s contact person listed in the agreement.

To improve the line of communication, a process has been designed to encourage the landowners to contact the regional property managers rather than the MLA’s. At an open house, the Department may distribute a pamphlet outlining the land acquisition process and answer questions about property related issues. In advance of the CLA’s first visit, a letter of introduction from the Regional Property Manager as well as the pamphlet will be distributed to the landowner. The landowner is encouraged to contact the land consultant, and then the Regional Property Manager, should a dispute arise. The land consultant also needs to be aware of what flexibility he has in the engineering plans when negotiating with landowners.

Private land is acquired by one of the following methods:

1. Offer to Sell
2. Section 30 Agreement
3. Full Expropriation

SECTION 3 – RIGHT-OF-WAY

The most desirable method is the Offer to Sell. This is where the landowner voluntarily agrees to sell the required land at the price offered by the Property Agent. Prior to or after construction, the right-of-way boundary is surveyed and if the area is greater than what is in the Offer to Sell, an adjustment payment is forwarded to the landowner.

If unable to obtain an Offer to Sell, and if compensation is the only outstanding issue, the Property Agent may request the landowner to sign a Section 30 Agreement. By executing such an agreement under the Expropriation Act, the landowner gives up possession of the required right-of-way at a mutually agreed date, but reserves the right to have final compensation determined by the Land Compensation Board.

The last resort in acquiring right-of-way is Full Expropriation. In this situation the landowner refuses to sell the required land (i.e. objection to the proposed alignment). The issue may go before an inquiry, at which time the Department must present sufficient evidence to justify the expropriation (financial compensation is dealt with at a later stage). In some cases, it can take up to a year from the date of the notice of intention to expropriate to the date when possession of the land is obtained.

For both Section 30 Agreements and Full Expropriation, the Consultant is responsible for supplying plans showing the final right-of-way requirements from the subject properties. Special care must be taken in confirming the final right-of-way requirements since it can be difficult and sometimes impossible to obtain additional right-of-way at a later date. This is especially true in the case of Full Expropriation.

The Consultant shall refer to the Expropriation Act and the Department's "The Expropriation Process" documentation (available from the Manager, Acquisitions and Expropriations, Land Acquisition and Services, Alberta Infrastructure) for details of the process to be followed for expropriation.

3.3.2 TIMING

Consulting Services Contracts may include land acquisition services for all outstanding right-of-way for all projects to be delivered within a three year window from activation of the contract. For projects beyond the three year window, land acquisition will be considered in those cases where the landowner approaches the Department and expresses an interest in negotiating on a willing seller/willing buyer basis and funding has been allotted, the negotiations are based on fair market value, and the purchase has been pre-approved by the appropriate Manager/Minister based on the Department's Authority Matrix. These acquisitions will be negotiated by in-house Land Agents in most cases. The procedures are defined in the Land Agents Handbook and Property Services Manual.

SECTION 3 – RIGHT-OF-WAY

Any change to the functional plan or design considered during right-of-way negotiations (such as changing the median spacing to minimize the required right-of-way to appease a landowner so that construction can proceed) shall be referred to the Project Sponsor and the Property Manager.

3.3.3 SPECIAL CONSIDERATIONS FOR FEDERAL LANDS

Additional time may be required for right-of-way acquisition on Federal Lands because of the greater complexity of the process. Each project should be assessed on its own merit and dealt with accordingly.

3.3.4 BORROW REQUIREMENTS

To facilitate land negotiations with property owners, an early indication of earth borrow requirements is desirable. Coordination between the Consultant, Project Sponsor, and Property Agent can expedite this procedure. The Consultant is generally required to arrange for borrow agreements.

For conditions and application requirements for obtaining borrow on crown land, please refer to Section 4.7.

3.3.5 APPROVALS REQUIRED

All land purchases and borrow agreements shall be referred to the Property Manager for approval, prior to presenting a proposal to the landowner and after the agreements are signed by the landowners. All right-of-way shall be acquired prior to proceeding with tender, unless otherwise approved by the Project Sponsor.

3.4 LEGAL SURVEY

3.4.1 GENERAL

The Legal Survey may be deleted from the contract under the recommendation of the Project Sponsor and the Property Manager.

Except for expropriation surveys and subject to any special instructions issued by Alberta Transportation, the Consultant may be responsible for the Legal Survey of the right-of-way acquired as related to the project and shall supply and install associated materials to complete the work. The Legal Survey shall be done by a registered Alberta Land Surveyor.

The Consultant shall ensure that the Legal Survey is carried out in accordance with the provisions of the Surveys Act, the Land Titles Act, the Public Works Act, the “Land Surveyor’s Manual of Standard Practice”, and any other applicable legislation.

The Consultant shall also be responsible for:

- Preparing the Public Works affidavit, the discharge of caveat documents and any other documents that maybe required to protect the Department’s interest in the land acquired.
- Registration of the plan of survey at the appropriate Alberta Land Titles Office.
- Discharge of the caveats protecting the acquired right-of-way.
- Preparing all necessary documents that may be required to facilitate the closure of a road.
- Submitting the plan of survey to the appropriate authority along with a Registered Road Application. If the plan of survey covers the RDS in its entirety, the RDS must be cancelled. If the survey plan covers only a portion of the RDS then the RDS must be amended.
- Providing one (1) copy of the registered legal survey to the appropriate Regional Property Manager

3.4.2 PERMISSION TO SURVEY

When doing any surveys for the Department, the Consultant shall consider the following:

Permission is normally obtained from the owner/lessee as a courtesy prior to entering or passing over private lands or public lands that are leased in order to undertake a survey.

SECTION 3 –RIGHT-OF-WAY

If cutting or clearing of trees or other vegetation is required for survey purposes, permission to do this work must be obtained from the landowner/lessee.

When surveying on Crown lands in the green zones, the Consultant must adhere to the requirements of the local forestry officials. When surveying on crown lands in the white zones, the surveyor shall obtain approval in writing from the department responsible for administration for public lands in Alberta (Alberta Environment and Parks).

3.4.3 REFERENCING EXISTING SURVEY MONUMENTS

Key statutory monuments are to be identified and referenced prior to construction where there is a chance of monuments being destroyed during construction.

3.4.4 ALIGNMENT

In determining the final alignment and extent of the project, the Land Surveyor shall take into account the following:

1. Area purchased
2. Designed alignment and boundaries, including curve and deflection information
3. Area used for construction
4. Centre-line of the final grade
5. Area fenced

The Consultant shall advise the Project Sponsor of any significant deviations before completing the survey.

3.4.5 POSTING BOUNDARIES (ADDITIONAL IRON POSTS)

The consultant shall insure that:

1. All service roads within a primary highway survey will be posted and labelled as “service roads”.
2. Existing road plans are consolidated into the new survey, as per Alberta Land Titles Procedure Manual SUR-5 No.4.

3.4.6 PLAN PREPARATION

A Legal Survey plan, if required, shall be in a registerable format and comply with all of the requirements as stated in the Land Titles “Policy and Procedures Manual for the Submission of Digital Plans of Survey for Registration”. A copy of this manual is located on the following website:

www.servicealberta.ca/1075.cfm

Headings for plans prepared for the Department are to include:

- The nature of the plan, e.g. “Plan showing Survey of Public Work” (Road), “Stockpile Site” etc., as delivered by the Public Works Act
The file number of the Department, preferably at the bottom right-hand corner of the plan (e.g. “AT File No. _____”)
- Affidavit for the plan prepared for the Department along with a copy of the plan of the unregistered plan of survey shall be submitted to the Department for review, approval, and execution.

3.4.7 AT AFFIDAVIT FOR ACQUIRING LANDS

One of the following affidavits will apply, depending on whether the lands were acquired by agreement or expropriation.

3.4.7.1 Normal Affidavit

I hereby certify that this plan represents a survey of land required for public work pursuant to the Public Works Act and the lands covered by this plan were acquired by agreement with the owner(s) thereof.

Dated _____ 20__

(seal)
Property Manager

3.4.7.2 Affidavit When Lands Are Being Expropriated

I hereby certify that this plan represents a survey of land required for public work pursuant to the Public Works Act and the lands covered by this plan were acquired by expropriation pursuant to the Expropriation Act.

Dated _____ 20__

(seal)
Property Manager

3.4.8 EXPROPRIATION SURVEYS

The Consultant shall contact the landowner to explain the purpose of the survey and obtain permission to proceed with the survey. If permission is not obtained, please advise the Project Sponsor for further direction.

Marker posts and lathe shall not be used unless permission to place has been obtained. If statutory iron posts are placed without marker posts, the iron posts should be countersunk and the excavation should be filled to its original state.

Any damage done such as line clearing, disturbing crops, etc., shall be recorded showing the date and extent of the damage. This will be a part of the Survey Report.

3.5 EXPROPRIATION PROCESS

When negotiations are not progressing, a review under the “Pre-Expropriation Process” will be led by the Property Manager and will include the Project Sponsor; Infrastructure Manager; Property Agent; Director, Highway Planning & Design, Technical Standards Branch; Manager, Expropriation and Regional Services, Properties Division; Consulting Design Engineer; Consulting Planning Engineer; and Alberta Justice Solicitor. The review will document Landowner issues, compensation proposed, and a comparison of positions including:

- Appraisal reports and alternatives considered;
- The history of negotiations and file chronology; and
- The design and planning alternatives including technical standards.

The decision to proceed with expropriation shall be supported by the Assistant Deputy Minister, Delivery Services, and the recommendation will be forwarded to the Properties Division of Alberta Infrastructure to manage the formal Section 8 process.

SECTION 3 – RIGHT-OF-WAY

Following the Notice of Intention to Expropriate, the landowner may exercise their right to object to the expropriations. At this point, an Inquiry Officer will be appointed, and the Consulting Engineer, on behalf of the Department, will be responsible for defending the alignment at the hearing.

3.6 REPORTING REQUIREMENTS

Upon completion of the project, a copy of the plan of survey will be submitted to the Department along with appropriate affidavits.

Any information that might affect the cost of the survey or incur liability to the Department shall also be included.

Current References for Section 3:

These references were identified in this Section. Please see Alberta Transportation's website for a complete list of available documents.

Expropriation Act, E-13 RSA 2000, Province of Alberta

Historical Resources Act, H-9 RSA 2000, Province of Alberta

Land Agents Handbook and Property Services Manual, 2010, Alberta Transportation

Land Surveyor's Manual of Standard Practice, Alberta Land Surveyor Association

Land Titles Act, L-4 RSA 2000, Province of Alberta

Land Titles Procedures Manual, Province of Alberta

Policy and Procedures Manual for the Submission of Digital Plans of Survey for Registration, Province of Alberta

Pre-Expropriation Process, 2006, Alberta Transportation

Public Lands Act, P-40 RSA 2000, Province of Alberta

Public Works Act, P-46 RSA 2000, Province of Alberta

Surveys Act, S-26 RSA 2000, Province of Alberta

Summary of Expropriation Process, 2000, Alberta Transportation

Survey/Sketch Plan Content Requirements, August 30, 2018, Alberta Environment and Parks

SECTION 3 – RIGHT-OF-WAY

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APPENDIX D

PLANNING REQUIREMENTS

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PLANNING STUDY TYPES

1. CORRIDOR STUDY

A corridor is defined as a strip of land approximately 1 to 3 kilometres wide. This type of study is used to identify and analyze general routings for new alignments over a wide area usually through undeveloped lands. It is generally completed with the use of large scale mapping, air photo interpretation, and a field reconnaissance.

A corridor study can be considered as rough work or approximations where one would consider the constructability of a roadway corridor in general terms such as acceptable grades; construction material constraints (e.g. muskeg crossings); general location of bridge crossings; and general cultural impacts such as communities, utilities, other roads, or any other man made things.

A corridor study leads to a more detailed location study along the selected corridor.

2. LOCATION STUDY

A Location Study is a detailed study that:

- Determines the precise location for a roadway in a rural setting
- Defines the future roadway standards and considers improvements to the horizontal and vertical alignment
- Defines approximate earthwork quantities based on a tentative grade line
- Reviews environmental concerns
- Reviews historical resources
- Reviews wildlife issues
- Involves a detailed bridge planning component
- Looks at geotechnical concerns
- Looks at avoiding or mitigating utility conflicts
- Looks at access control/considerations
- Defines right-of-way requirements and property impacts
- Considers First Nations issues
- Provides an approximate cost estimate for construction
- Defines future traffic projections and identifies possible future traffic generators, as well as existing and future traffic patterns
- May identify possible construction staging/timing
- Considers local community development plans and needs

3. INTERCHANGE STUDY

An Interchange Study reviews alternate configurations of interchanges, recommends the most appropriate and cost effective configuration, and looks at staging the construction of the interchanges.

4. ACCESS MANAGEMENT STUDIES

Access Management Studies are conducted to:

- Review existing access locations along a roadway
- Review need for interchanges
- Reviews need to upgrade intersections to higher standards
- Review need for service roads
- Looks at access consolidation
- Looks at access spacing consistent with the highway service classification

There are many factors involved for choosing an intersection type, including:

- Highway traffic volumes
- Intersecting road traffic volumes
- Intersection road classification
- Traffic type
- Turning movements
- Sight distance
- Gradient on highway and intersecting road
- Vehicle turning radii (large trucks)
- Acceleration rates for large trucks

5. TRAFFIC IMPACT ASSESSMENTS

A Traffic Impact Assessment defines the standards that an intersection should be designed and constructed to base upon developments occurring on lands outside the highway right-of-way. It takes into consideration existing, background, and/or projected traffic based upon specific development types or ITE traffic generation numbers for specific land uses. In addition, it determines proposed development traffic, intersection needs, and a future (15 to 20 years) projection of intersection improvements required.

Traffic Impact Assessments may include items such as signals, illumination and pedestrian crossing warrants, and will typically review the geometric requirements for the intersection based upon traffic type and volumes (note that the traffic type and volumes will depend on the type of development being proposed).

6. BRIDGE PLANNING STUDY

Bridge Planning Studies focus mainly on the bridge crossing site: the objective is to find the most cost effective method for bridge replacement either at the existing location or at a new location. These studies also deal with investigating the need for upgrading the bridge approaches, and in some instances, an alignment study may dictate that a particular crossing be made to work.

7. FUNCTIONAL PLANNING STUDY

A Functional Planning Study is similar to a location study as far as data collection and considerations are concerned. They differ only in complexity and usually deal with multi-lane highways, upgrading (twinning) highways, intersections and interchanges. These studies are usually in and near urban areas and can involve traffic modeling and complex traffic movements.

MOSAIC PRODUCTION

The Department has moved towards the use of ortho-rectified mosaics. This is the Departments preference unless otherwise indicated that scale-corrected mosaics are acceptable.

Mosaics are to be produced digitally using the appropriate software. For ortho-mosaics, the raster is to be corrected to a base map consisting of parcel mapping and the Provincial Digital Elevation Model (DEM). For improved accuracy, particularly projects that have a lot of terrain relief, contour mapping may also be supplied or requested to aid in scale correction of the raster.

If only scale-corrected mosaics are requested, then the raster is corrected to a base map consisting of parcel mapping. In either case the base map is to be based on the 3-TM, NAD 83 coordinate system and the appropriate base longitude. Phone Highway Geomatics to confirm the base longitude for the project. The scale and date of the aerial photography used is to be determined by the Department.

The aerial photography that is used for scanning can be in either print or diapositive format. The photography is to be scanned at a minimum resolution of 600 dpi. Tone matching between aerial photographs is required when more than one aerial photograph is needed for a mosaic sheet. The flight line number, aerial print number, and the date of the aerial photography is to be recorded on each mosaic sheet.

The typical standard mosaic sheet format to be used will be supplied by the Department. The mosaic sheets are to be positioned on the base map so that the highway alignment is approximately centred within the sheet. Additionally, the mosaic sheets are to be positioned to allow for approximately 300 metres of overlap on each side of each sheet for adjacent sheets. Extra overlap between sheets may be required to compensate for additional length in the profile as the result of horizontal curves.

The design files are to be rotated about the origin point to an angle of 0 degrees. The design files supplied to the Department are to be compatible to MicroStation.

The scale corrected rasters are to be rotated to an angle of 0 degrees and clipped to fit within the reference points on the mosaic sheet. The raster files supplied to the Department are to be in a format that is compatible with 'Intergraph I/RAS C'.

The design files and clipped rasters are to be plotted at an angle of 0 degrees and at a minimum resolution of 400 dpi. Plotting is to be done on a dimensionally stable Mylar that is between 0.03mm and 0.04mm in thickness. The plotting device is to be able to produce a permanent non-smearable plot. The maximum allowable scale error of the plotted mosaic sheet measuring between the corner origin points is 2mm.

The maximum allowable error in the accuracy of the raster to base map within the clipped area is 1mm. The maximum allowable error between adjacent mosaic sheets in the overlapping areas is 1mm.

The mosaic/raster files are to be supplied to the Department at the completion of the project. The Departments preference is to receive this information on CD-ROM.

Following is a list of file extension naming conventions that are to be used:

- .OS1, .OS2 for mosaic sheets from number one to nine
- .010, .011 for mosaic sheets from number ten and greater
- i.e. HWY2.OS1, HWY2.010

- .EXT for raster files (i.e. H2SHTO1.EXT)
- .DET for mapping detail design files
- .LGL for base map design files
- .PRO for profile design files
- .CON for contour design files
- .ALI for alignment design files

BASIC RIGHT-OF-WAY REQUEST

For the purpose of purchasing the basic highway right-of-way, the Engineering Consultant will provide right-of-way information on 1:5000 scale digital photo mosaics. These mosaics are in addition to the mosaics prepared for the functional planning study and are to be constructed to the standards as outlined in Mosaic Production on the previous pages. The mosaics should show clearly and concisely all right-of-way requirements. Prior to submission of the final Right-of-Way Request package, two (2) coloured copies marked "DRAFT" are to be provided to the Property Manager for review and approval.

Once the Right-of-Way Request has been approved by the Property Manager and the Project Sponsor, the Consultant is to provide:

- Seven (7) sets of colour paper mosaic prints
- One (1) transparent version with no colour
- Three (3) coloured mosaics schematic plan showing an overview of the entire project on one sheet. It may be necessary to use two sheets for larger projects. The size of these project overview plans shall not exceed 11"x 17" in size.
- Individual Ownership Plan's (IOP's) showing the proposed right-of-way information for each titled property affected by the project (except land titled to the Minister of Transportation). The IOP shall not exceed 8.5"x14" in size. The contents of the IOP's shall be consistent with the requirements for the mosaic information required except that only the required right- of-way is to be shaded in red.
- Plans required by Alberta Environment and Parks (AEP) for the submission of the Provisional Roadway Application on untitled crown lands
- One (1) electronic copy in .PDF format of all required plans listed above

A thorough and current title search is required on all lands affected by the project. All encumbrances must be reviewed. All encumbrances in the name of Her Majesty the Queen (Minister of Transportation) must be reviewed through the Regional Property Manager for clarification of the nature and extent of the encumbrances/caveats. The date of the title search should be clearly labelled on the mosaics under the title block. In addition, the following information is to be shown clearly on the mosaics:

- Land ownership, which is to include the landowner's name and current address, the amount of right-of-way required from each parcel or land affected in both acres and hectares (right-of-way area calculations to be indicated to the nearest 0.1 acres / 0.01 hectares), land title certificate number, legal description, and/or plan number all labelled within the owner's property. In the case where the parcel of land is too small to record the information within the property boundaries, the information may be shown outside the property with an indicator arrow.
- Show all Certificate of Title boundaries, surveyed rights-of-way, easements, service road dedications, etc.

- Any changes or relocation of existing accesses must be shown including alternate means of access (e.g. service road, local road, private drive).
- Indicate the area of all cut-off parcels or severed land that should be considered for optional purchase by the Department or consolidation with adjacent properties.
- Show all dimensions of the proposed and existing right-of-way as well as the additional right-of-way requirements, showing the difference between the two.
- In areas such as subdivisions, towns, etc. where there are properties too numerous to show the required information clearly at the 1:5000 scale, a more detailed plan at a suitable scale may be required. Details on these plans will follow the same requirements as stated in Mosaic Production on the previous pages and this document.
- In areas through crown lands, the Consultant is to conduct a Geographic Land Information Management and Planning System (GLIMPS) search of for all existing land use interests (i.e. leases, license of occupation, pipelines) affected by the required right-of-way. The consultant is to obtain any and all plans or sketches that are within the proposed highway right-of-way including ownership of the interests (if available) and record this information on the mosaics to the aforementioned standards.
- In areas through Special Areas lands, a Special Areas Board search must be conducted to identify occupants.
- Identify potential contaminated sites.
- All mosaic updates and revisions must be consecutively numbered, beginning with Right-of-Way request #1.
- It is required that all right-of-way requirements are to be shown on the mosaic prints highlighted with shading in the appropriate colour to the following format. A colour legend indicating the following must be shown adjacent to the title block, on each mosaic sheet.
 - Right-of-way required.....RED
 - Previously requested right-of-wayGREEN
 - Cancellation of previously requested right-of-way YELLOW
 - Requested easements ORANGE
 - Optional purchasesCROSSHATCHED (RED)
 - Possible borrow locations.....10cm diam. RED CIRCLE
- Each mosaic sheet title block must indicate “Preliminary Design”, the date of mosaic preparation, and “Right-of-Way Request Number”.

Required information	Sample of preferred format
<p>Legal Description C. of T. number Landowner name/s Landowners address</p> <p>R/W required (Provide separate areas for highway r/w and Service road r/w) (Red) Previously requested r/w (Green) Cancellation of previously requested r/w (Yellow) Requested Easement (Orange) Optional purchase (Cross Hatched Red)</p> <p>Possible borrow locations (Red Circle 10 cm dia.)</p> <ul style="list-style-type: none"> - Information to be indicated in the upper right corner (Title Block) - A Right-of-Way request form is required for each revision to the r/w requirements 	<p>NE 27-73-4-W6M or Plan /Block/Lot 962 305 963 Bob Smith and Cathy Smith Box 1234, Worsley, AB T0H 3P0</p> <p>Required Highway R/W - 5.9 ac (2.38 ha) Required Service Road R/W - ac (ha) Previously requested R/W – 5.2 ac (2.10 ha) Cancelled R/W – 2.5 ac (1.01 ha) Easement – 1.3 ac (0.5 ha) Optional purchase / cut-off –29.6ac (11.98 ha) Total R/W required - ac (ha)</p> <p>Possible borrow location – 10 cm diam. Red circle</p> <p>Note: Use only the headings that are applicable.</p> <p>Right-of-way Request # 3 - June 21, 2019 Preliminary Design, For Discussion Purposes Only</p>

Sample format

Insert Consultants Logo

RIGHT-OF-WAYREQUEST

To: Insert name of Property Manager	Project Description: Insert description of project and bridge file number if applicable	FILE:
		DATE:
		R/W REQUEST NO.:

INDICATE (X) IF APPLICABLE	TYPE OF REQUEST	COLOUR ON PLAN
	RIGHT-OF-WAY REQUESTED	RED
	PREVIOUSLY REQUESTED RIGHT-OF-WAY	GREEN
	CANCELLATION OF PREVIOUSLY REQUESTED RIGHT-OF-WAY	YELLOW
	EASEMENT BEING REQUESTED	ORANGE
	OPTIONAL PURCHASED	CROSS-HATCHED (RED)
	POSSIBLE BORROW LOCATIONS	10 CM DIAM. RED CIRCLE

JUSTIFICATION:			
ADDITIONAL REMARKS:			
	NAME	DATE	SIGNATURE
REQUESTED BY:			
APPROVED AS TO FORM & CONTENT BY PROPERTY MANAGER:			
APPROVED FOR ACQUISITION BY PROJECT SPONSOR:			

Hwy & Control No.	Project Name/ Description	Land Acquisition Consultant		Legal Land Description										Landowner/ Contractor Name and Address								R/W Request Number	Hectares	Acres	Contract					
		Firm	Agent	Meridian	Range	Township	Section	Quadrant	LSD	Plan	Block	Lot	Certificate of Title Number	Last Name	First Name	Address	Town/ City	Province/ State	Postal Code/ Zip Code	Vendor Number	Type of Land Agreement				Date Contract Fully Executed gear-month-day	Number	Amount	Date Contract Completed/ Payment issued gear-month-day		

HISTORICAL RESOURCES OVERVIEW SCOPE OF WORK

The Historical Resources Overview shall be designed to review current historical resources location data, topography, disturbances, and sedimentary regimes to develop a model of historical resources potential of the proposed development area. The objective of this study is to identify those areas, if any, for which a Historical Resources Impact Assessment is needed. The Overview shall include:

- Examination of site data files maintained by Alberta Community Development for archaeological and historic sites and sensitivity maps for paleontological concerns;
- Summary description and evaluation of known sites within the development zone with a particular focus on site location and function variables;
- Making full use of ancillary data such as ethno graphic, ethno historic, environmental and paleo-environmental studies;
- Developing a model of historical resources potential for the impact area based on known data, topographical potential, models of land use and site distribution;
- Ground truthing to evaluate the terrain potential for historical resources, assessing the degree of previous disturbance and evaluating sedimentation and its effect on field methods, such as the need for deep testing. The discovery of historical resources per se is not the objective of the ground truthing stage; and
- Formulating detailed recommendations regarding the need for a Historical Resources Impact Assessment, and the locations, scope, and methods necessary.

ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Information on the following Valued Ecosystem Components (VEC) must be collected in order to ensure that the effect(s) of the proposed roadway alignment or improvements on the environment can be determined. The significance of the impact of the roadway on the environment shall be determined and the mitigation measures recommended to decrease the roadway impact on the VEC.

I. **Surface/Groundwater**

A review of surface water patterns throughout the study area shall be conducted. Areas suspected to have groundwater concerns should be identified. Any unusual areas where surface/groundwater problems may occur should also be identified. Proximity to water wells, dugouts?

II. **Vegetation**

An inventory of vegetation communities in the study area or along the alignment(s) shall be conducted. Rare, threatened, or endangered species and communities should be identified.

III. **Wildlife**

The study area or alignment(s) shall be reviewed for the presence of any wildlife. Rare, threatened, or endangered species should be identified along with any habitat utilized for any portion of their life stage.

IV. **Fisheries**

The study area or alignment(s) shall be reviewed for the presence of fish and fish habitat in all watercourses. Where no information is available, then a fisheries inventory and a fish habitat assessment shall be undertaken. Rare, threatened, or endangered fish species or habitat should be identified.

V. **Historical Resources**

Refer to Historical Resources Overview Scope of Work on previous page.

VI. **Soil/Landforms**

Soils shall be classified according to the Canadian System of Soil Classification or other common systems recognized in Alberta. Representative topsoil depths should be identified and any special concerns with soil handling procedures should also be identified. Landforms within the study area or along the alignment(s) should be identified and any special properties regarding the landforms should also be identified.

LOCATION SURVEY REQUIREMENTS

Location surveys may be required on zone planning project, in which case this need will be identified in the project. Terms of Reference: The purpose of the Location Survey is to accurately establish the recommended alignment on the ground to ensure that it fits to the surrounding terrain and to confirm that there are no additional impacts that will affect the highway location. The alignment as established on the ground will be used to establish the alignment for a preliminary survey at a later date. Note: A "Locations Survey" is not a preliminary survey and may require that the horizontal alignment be revised and resurveyed a number of times to achieve optimum placement.

RequiredTasks

- The recommended alignment is to be tied to the Alberta Survey Network (3TM, NAD 83 coordinate system) and based on the appropriate base longitude so the alignment can be plotted graphically and accuracy of the survey can be confirmed.
- Obtain written permission of landowners/leaseholders for access to land where applicable.
- Establish tangents and points of intersection (PI's), points on tangent (POT's), and ends of curves along the recommended alignment. The POT's and ends of curve's are to be referenced with offsets at 90 degrees to the centre line tangents a distance that is outside the proposed right-of-way width so that the alignment can be easily re-established at a later date for a preliminary survey. A metal rod approximately 30 centimetres in length should be used, where appropriate, and countersunk a minimum of 30 centimetres below the ground especially in cultivated areas.
- All centre-line points, offset points and ends of curves are to be clearly marked with 1"x2" marker stakes and a marker lathe bearing the appropriate centre-line chainage. For offsets the offset distance and direction from centre-line should be clearly marked on the reverse side of the marker stakes.
- Where applicable the recommended alignment is to be tied to all legal survey pins in the immediate vicinity.
- All curves and tangents are to be staked at 20 metre intervals.
- A centre-line profile is required using geodetic datum. All natural breaks in the terrain that do not fall within the 20 metre staking are to be recorded.
- Spot cross-sections in critical areas along the alignment are required to ensure the alignment fits to the surrounding terrain.
- Additional profiling to geodetic datum is required along all public access roads to a minimum distance of 300 metres. Some access roads may require longer profiles depending on the terrain.

- Chainages are to increase from south to north and from west to east.
- Transit notes are required detailing all existing features in the vicinity of the recommended alignment. In forested areas the type and general size of the trees are to be recorded.
- All original curve/transit notes, centre-line profile notes and bench mark level notes are to be recorded in appropriate note books and supplied to the Department upon completion of the survey.
- The recommended alignment is to be plotted on the mosaics using the field co-ordinates and chainages obtained from the survey. All PI coordinates are to be recorded on the mosaics in table form on their respective sheets.
- At the request of the Technical Standards Branch, a standard bridge survey may be required for selected water course crossings. If required this issue will be covered in a separate Schedule included with the Terms of Reference.
- Safety procedures for survey crews are to be adhered to at all times (adequate warning signs and flag people if necessary, etc.).

TYPICAL PLANNING STUDY PROCESS FOR MAJOR FUNCTIONAL PLANNING STUDIES

PUBLIC PARTICIPATION AND PROJECT APPROVAL

(Under the direction of the Project Review Committee (external) and the Technical Standards Committee (internal))

(NOTE: This process may vary depending on the type of project)

Send letter from Minister to MLA informing of upcoming study.

Send letter from Consultant to Local Authority informing of study initiation.

Notify, by letter, all adjacent landowners of project initiation (Consultant) **

Meet with Local Authorities and/or major stakeholders to identify issues.
(Consultant and the Department if meeting with council members)

Develop conceptual plans for presentation at first public open house meeting.

Meet with MLA's (if required), Consultant and the Department.

First open house (complete the following tasks as part of "open house procedure")

- Review the Consultant's advertisement, coverage, and strategy (Department)
- Notify by letter, the MLA's local authorities, adjacent landowners and stakeholders of public meeting data (Consultant) **
- Advertise in local media of upcoming open house (Consultant)**
- Hold first open house to present broad concepts for discussion purposes (Consultant, right-of-way agent, and the Department)

Hold individual discussion with concerned landowners (Consultant and right-of-way agent, or other Department representative)

Develop more detailed plans based on input from first open house and discussion with landowners and stakeholders (Consultant).

Hold second open house and repeat all tasks in "open house procedure" to present findings from first open house and revised plans (Consultant, right-of-way agent, and the Department).

Prepare draft report for review by technical review committee (consultant).

Prepare necessary documentation for briefing outlining recommendations and public feedback for the Deputy Minister and the Minister (Consultant).

Send letter from the Minister to the MLA's advising the results of the study and the date of the third open house (Consultant to prepare draft letter).

Hold third (final) open house to present final recommended plan and repeat all tasks required in "open house procedure" (Consultant right-of-way agent, and the Department).

Send letter to MLA's informing of completion of study and future actions.

Prepare a letter for the signature of the Regional Director (Consultant). Send this letter and plan to landowners indicating:

- Status of recommended plan
- General data of construction
- Right-of-way requirements
- Timing of right-of-way purchase (Department right-of-way Contact Person)
- Department's contact person and telephone number (Regional Director)

** A statement is provided in all letters to the public, newspaper advertisements, and an open house questionnaire's indicating a specific contact person and collect telephone number for the consultant.

Indicates enhancements to the public participation process

Note: There could still be some stakeholders who may not be satisfied with the recommended plan. Every effort will be made to mitigate the individual's concerns/issues through on going discussions.

COMMUNICATIONS PROCEDURES FOR OPEN HOUSES

Advertising

It is the Consultant's responsibility to ensure that all stakeholders are aware of any open house or public meeting(s). The Consultant will work within newspaper(s) deadlines to ensure advertisements are placed in the appropriate newspaper(s).

The Consultant will:

- Develop ad copy using the template provided by the Department (Consultant's and Department's logos to appear on the bottom of the advertisement – Department logo to appear on the right hand side)
- Provide a list of newspapers where the advertisement will be inserted and list insertion dates, and book space in newspaper(s) for insertion at least one week before the event
- Submit draft copy for approval to Communications **at least two weeks in advance**
- Provide Transportation's approved ad copy to newspaper(s)
- Provide Communications with a tear sheet (or photocopy of ad) from newspaper(s)

Correspondence to Landowners

Using the template provided, the Consultant will draft correspondence to the land-owner(s) and stakeholders in plain language.

Correspondence is to include:

- an explanation that the consultant was hired by the Department to manage the project
- a plain language description of the project
- mention that the open house(s) will take place and list the location, date, and time
- mention that their participation is important and valued
- a request to landowners to advise anyone else who has an interest in this project about the open house
- a contact name and telephone number

Approval: Draft correspondence must be submitted to Communications (Alberta Transportation) for approval at least two weeks prior to the date required.

Fact Sheet

The Consultant will develop a fact sheet for distribution at the open house.

Information should:

- be in plain language
- provide background details
- provide current status
- state proposed plans
- provide a contact name for further information
- have both the Consultant's and the Department's logo on bottom right hand side of fact sheet

Approval: Submit draft fact sheet to Communications for approval at least two weeks in advance of open house

Display

The Consultant will develop a display with maps and alternate plans or proposals if applicable.

Information should:

- be in plain language
- be point form
- be in large type
- use lots of white space
- include maps if applicable
- include charts if applicable
- have the Consultant's and the Department's (bottom right hand side) logos on display panel

Approval: Submit **draft display copy** to Communications for approval at least two weeks in advance.

Survey

If the Consultant and the Department decide that a survey should be developed for an open house or public meeting, the Consultant will:

- develop one using plain language
- encourage participation by having a statement of how important stakeholders' comments are
- at a table near the exit, provide a cardboard box or other container so that participants can return completed surveys anonymously
- give a fax number and mailing addresses where questionnaires can be returned
- state a deadline for receipt of the questionnaires
- follow up with Communications on survey results/analysis

If the stakeholder can be identified by any information on the completed questionnaire, the following statement must be added to the survey:

Personal information that you provide on this form is protected under the Freedom of Information and Protection of Privacy Act of Alberta. The personal information that is collected on this form relates directly to programs being undertaken by Alberta Transportation and will be used to reply to your questions and concerns supplied on this form. No other use will be made of this information and it will not be released without your written consent.

Approval: Submit draft survey to Communications for approval at least two weeks in advance.

Communications for those with Special Needs

Consultants should be aware of any special needs of their stakeholders and anticipate the need for alternative formats for communications such as larger print handouts and interpreters. Where practical, meeting venues should be accessible to persons with disabilities. This would include wheelchair access, washroom access, and adequate lighting.

Issues Management

The Consultant is to identify any potential issues and must advise the Department Project Manager and Communications of these. The Consultant and (Alberta Transportation) Communications will work together to manage all issues.

Media Relations

The Consultant will deal with the media on general project questions.

The Consultant will:

- always respond in a timely manner
- stick to the facts
- not give their own opinion
- not comment on policy decisions
- speak only on behalf of the Department
- not speculate if they do not know the answer to a question (advise the reporter you will get the information and call them back)
- telephone Communications and discuss media questions and responses if known ahead of time
- complete a media request form and fax immediately to Communications

OPEN HOUSE

HIGHWAY XXX
Planning Study

Alberta Transportation has retained ZZZ
Engineering Ltd. to complete a --- etc.

**You are invited to view
plans and provide input
on the planning study at
an open house on:**

**September 23, 2011
6 p.m.**

XXX Community Centre

ZZZ Engineering Ltd. representatives will
be in attendance to outline the project
and answer questions.

For more information on the planning
study, please contact _____ collect at
(xxx) xxx-xxxx or e-mail _____.

ZZZ Engineering Ltd.

Sample Correspondence to Stakeholder

Date

Dear Property Owner:

Alberta Transportation has retained the XYZ Company, an engineering firm, to determine (description of what company XYZ is doing).

Please plan to attend the scheduled open house/public information session as your participation in this process is important.

Location:

Date:

Time:

We have attempted to contact all landowners who may be affected by this project. Should you be aware of other individuals or groups, who may have an interest in this subject, please advise them of the open house/public information session, or contact us directly.

If you have any questions, or would like more information, please call my office at (area code) xxx-xxxx. (Please include a toll-free number if you have one.) We look forward to seeing you at the open house/public information session.

Sincerely,

John Smith
Consultant

Sample Survey

Topic: Highway 14X Access Relocation

In order to understand your transportation requirements, concerns, and community-related issues, your assistance, by completing this survey, is appreciated.

Please take this time to review and discuss the plans with staff before completing the survey.

1. How did you hear about this session?

2. Were the information displays helpful? Yes No

3. Were the hosts helpful in explaining the xx? Yes No

4. Did the open house help you to better understand the requirements for xxxxxxxxxxxx?
 Yes No

5. Do you have any comments or suggestions that you feel may be useful in the xxxxx?

Thank-you for your participation.

Please deposit your questionnaire in the box at the door when leaving. You may also fax or mail the completed survey to: consultant's name, address, etc., fax number.

DEADLINE date (one week from time of open house)

Note: If you ask for the following information as part of the survey you must include the statement pertaining to Freedom of Information and Protection of Privacy Act.

Contact Information:

Name

Street/Avenue/RR#/Box #

Town/City

Province

Postal Code

Personal information that you provide on this form is protected under the Freedom of Information and Protection of Privacy Act of Alberta. The personal information that is collected on this form relates directly to programs being undertaken by Alberta Transportation and will be used to reply to your questions and concerns supplied on this form. No other use will be made of this information and it will not be released without your written consent.

Consultant Logo

Transportation Logo