54.4 CHEMICAL VEGETATION CONTROL

54.4.1 GENERAL

The Work consists of controlling weeds, grass, brush and small trees less than 2 m in height through the use of chemicals. The Work involves spraying with mobile equipment over relatively large areas and spot or hand spraying of small areas or areas which would normally be inaccessible to mobile equipment.

54.4.2 EQUIPMENT

The Contractor shall supply all equipment necessary to complete the Work.

54.4.3 MATERIALS

The Contractor shall select and supply the appropriate chemical for vegetation control. Only chemicals approved by the Federal Department of Health for general industrial spraying shall be used. The Contractor shall supply any signs required to identify treated areas in public use areas.

54.4.4 OPERATING STANDARDS, APPROVALS AND PERMITS

The Contractor shall comply with the operating standards and practices of the Industrial Vegetation Management Association of Alberta and shall have a service approval agreement from Alberta Environmental Protection. All personnel applying chemicals shall have a valid applicators licence issued by Alberta Environmental Protection.

Special Use Approvals issued by Alberta Environmental Protection will be required in instances where chemicals are to be sprayed within 30 m of an open body of water. In such instances, the Contractor shall advertise the proposed work in newspapers local to the area, 30 days prior to the scheduled starting date of the Work. The Contractor shall provide the Engineer with a copy of the newspapers containing the advertisement. All public concerns shall be referred, by the Contractor, to Alberta Environmental Protection who will identify any work conditions in the approval. The Contractor shall be responsible for obtaining the Special Use Approval and shall comply with the conditions specified therein.

54.4.5 PROCEDURE

Traffic Control and signing shall be performed in accordance with Specification 55.1, Traffic Accommodation and Temporary Signing.

The Contractor's use of chemicals, application rates and methods shall comply with the policies, rules and regulations of Alberta Environmental Protection, Pesticide Management Branch.

The Contractor shall maintain accurate records of all applications including the type and amounts of chemicals used and the locations treated. The Contractor shall supply this information to the Engineer along with copies of the bills of lading and the manufacturer's recommended application rates for the chemicals used.

The Contractor shall apply chemicals to specified areas only and shall dispose of empty chemical containers at approved disposal sites.

54.4.6 ACCEPTANCE CRITERIA

The Work will be considered acceptable under the following conditions:

- All specified areas have been treated and at least 75% of the vegetation shows growth retardation 10 days after spraying.
- At least 90% of the vegetation shows growth retardation 40 days after spraying.
- No areas outside the specified areas show chemical damage.
- The Contractor has provided the Engineer with accurate records of the locations treated and the types and amounts of chemicals used.

54.4.7 TIME TO COMPLETE

In urgent situations, the Contractor shall complete the Work within 5 calendar days of the issuance of the Work Order. In all other cases, the Work shall be completed within 15 calendar days of the issuance of the Work Order.

54.4.8 MEASUREMENT AND PAYMENT

54.4.8.1 General

Measurement of chemical vegetation control will be in hectares or square metres depending on the method of application. Areas will be measured and paid for only once per Work Order regardless of the number of times the area is treated. The minimum width used for calculating the area for Vegetation Control - Mobile Spray will be 1.5 metres.

Payment for chemical vegetation control using mobile equipment will be made at the unit price bid per hectare for "Vegetation Control - Mobile Spray". This payment will be full compensation for obtaining all necessary approvals and permits, spraying the vegetation using mobile equipment, supplying and installing any required signing, and all labour, equipment, tools and incidentals necessary to complete the Work.

Payment for spot chemical vegetation control using mobile equipment will be made at the unit price bid per hectare for "Vegetation Control - Mobile Spot Spray." This payment will be full compensation for obtaining all necessary approvals and permits, spraying the vegetation using mobile equipment, supplying and installing any required signing, and all labour, equipment, tools and incidentals necessary to complete the Work.

Payment for spot vegetation control using hand equipment will be made at the unit price bid per square metre for "Vegetation Control - Hand Spray." This payment will be full compensation for obtaining all necessary approvals and permits, hand spraying the vegetation, supplying and installing any required signing, and all labour, equipment, tools and incidentals necessary to complete the Work.

In urgent situations where the Contractor is required to complete the Work within 5 days of the issuance of the Work Order, an additional payment will be made at the applicable unit price bid per occurrence for "Mobile Spray - Premium" or "Hand Spray - Premium". This payment will be full compensation for complying with the accelerated scheduling required to complete of the Work.

54.4.8.2 Chemicals

Payment for the supply of chemicals will be made as "Extra Work" in accordance with Specification 51.2, General for Maintenance Work. The Engineer will review the bills of lading, transportation of dangerous goods information, the manufacturer's recommended application rates, information, and production reports supplied by the Contractor to determine quantities.

No payment will be made for materials used for any additional applications required to achieve compliance with the Acceptance Criteria.

54.4.8.3 Methods of Application

54.4.8.3.1 <u>Mobile Spray</u>

Areas greater than or equal to a minimum width of 1.5 m over 20 km of continuous travel (excepting areas that cannot be sprayed due to landowner objections, environmental concerns, et cetera) or not more than two areas within 20 km which add up to more than 3.0 ha. Mobile spray must be adjacent to the shoulder of the road and must be of a constant width. (full right-of-way is considered a constant width even thought the right-of-way may vary)

54.4.8.3.2 <u>Mobile Spot Spray</u>

All areas not defined as "Mobile Spray" or "Hand Spray".

54.4.8.3.3 <u>Hand Spray</u>

All small select areas not accessible to any type of mobile equipment.

54.4.9 WARRANTY

There is no warranty period for this Work.