ROADBUILDING AND HEAVY CONSTRUCTION

INTRODUCTION

This policy describes the trade jurisdictions in the roadbuilding and heavy construction sector. Currently, three trades operate in this sector: the operating engineers, labourers and teamsters. This sector is not, however, restricted to only these trades. Each of the three trades currently listed in Information Bulletin #11 is an appropriate bargaining unit in the roadbuilding and heavy construction sector. The operating engineers are currently the only trade subject to a construction registration certificate. The registered employers' organization is the Alberta Roadbuilders Association. See: [*Registration Certificate No. 5*].

The policy outlines:

- an overview of roadbuilding and heavy construction;
- the impact of the *Labour Relations Code*;
- the roadbuilding and heavy construction sector;
- roadbuilding;
- heavy construction;
- relationship in the general construction sector;
- the primary function of the trades; and
- employee classifications and equipment types.

OVERVIEW OF ROADBUILDING AND HEAVY CONSTRUCTION

The are four sectors for construction: roadbuilding and heavy construction; general construction; speciality construction; and pipeline construction. The regulation establishing these four sectors did not define roadbuilding and heavy construction. An historical review helps understand the sector.

The historical development of the roadbuilding and heavy construction is closely tied to the general construction sector. In 1970, the Board granted Certificate 1-71 for the general construction sector. The scope of the certificate covered:

All operating engineers work undertaken by contractors ... excluding railroad maintenance, highway construction and pipeline construction.

In 1970, the Board issued registration Certificate 1-70 to the Operating Engineers. It covered heavy construction and roadbuilding work. On October 10, 1972 the Board amended the scope of this certificate. This scope clause is the historical definition of the sector. It reads:

(a) Heavy construction including the construction and maintenance of irrigation projects, grading and/or surfacing of air fields, hydro-electric and water diversion tunnels, building and industrial site preparation and excavation, minor bridges, dams, water and sewer lines, stationary or field shops primarily carrying out equipment maintenance and repair, the manufacture, production and delivery of rock, gravel and sand aggregates and ready mix concrete excluding those employers who stock and sell components and material only.

(b) Roadbuilding including the construction and maintenance of highways, roads, railroads, sidewalks, curbs, gutters and parking lots including clearing, grubbing, crushing, blasting, grading, paving as well as bridges, bridge approaches and paving, culverts and tunnels which are part of such contracts; stationary or field shops primarily carrying out equipment maintenance and repair, the manufacture, production and delivery of rock, gravel and sand aggregates and ready mix concrete excluding those employers who stock and sell components and material only.

In 1979, the Board switched from the use of long descriptive scope provisions in registration certificates to shorter, generic ones. On November 20, 1979 the Board re-issued Certificate 1-70. The scope of the certificate reads:

All operating engineer work performed by employers in the roadbuilding and heavy construction industry.

The scope of the general construction registration Certificate 1-71 remained unchanged until 1981. It was then amended to read:

All operating engineers work performed by employers engaged in the general construction industry.

In *CLRa and Foundation Company of Canada Limited* [1990] Alta L.R.B.R. 40, the Board determined that the historical scope of the roadbuilding and heavy construction remained unchanged despite the change in the bargaining unit description. The Board stated that the new certificate only streamlined the wording of the certificate.

IMPACT OF THE LABOUR RELATIONS CODE

The historical definition of the sector changed somewhat with the <u>Labour Relations Code</u>. Before 1988, Alberta's labour legislation did not include a definition of "construction." The <u>Code</u> now defines "construction" in Section 1(g). It states:

1 In this Act,

(g) "construction" includes construction, alteration, decoration, restoration or demolition of buildings, structures, roads, sewers, water or gas mains, pipelines, dams, tunnels, bridges, railways, canals or other works, but does not include

(i) supplying, shipping or otherwise transporting supplies and materials or other products to or delivery at a construction project, or(ii) maintenance work;

in the construction of the spur-line in reaching a determination of the sector.

The <u>Code</u> changed the historical definition of the sector in the following areas:

- **Maintenance is no longer included:** Historically, construction included some forms of maintenance work. As a result, maintenance was included in the scope clause of the sector. Maintenance work is now specifically exempted from the definition of construction. It is important to note that maintenance **does not** include the alteration, decoration, restoration and demolition of the projects outlined in Section 1(g). Maintenance may include things like painting lines on roads.
- **Transportation and supply is not included:** Supplying, shipping or otherwise transporting supplies and materials or other products to or delivery at a construction project is no longer included. The scope of the roadbuilding and heavy construction sector historically included portable and fixed asphalt and aggregate plants. Portable plants are usually found near road construction sites. They produce a variety of material from asphalt to crushed rock. The finished product is hauled to the construction site. Fixed plants produce aggregate, cement, crushed rock etc. Section 1(g)(i) of the Code states that supplying materials for a road, heavy or general construction site is not construction. These plants only supply material for the construction of roads and construction sites. As these plants fall within the exception noted in Section 1(g)(i), they do not fall under this sector. See: [*OE 955 v. Lafarge Canada Inc.* [1992] Alta L.R.B.R. 569]. However, moveable batch plants that supply materials solely or principally for road construction projects, may still fall with the roadbuilding and heavy construction sector.

The scope of the sector has also changed. The general construction sector has become the tag-end sector. The Board has ruled that work performed in construction can only fall under one of these sectors. See: [*CLRa and Foundation Company*, [1990] Alta. L.R.B.R. 40]. As a result, if the construction is not within the roadbuilding and heavy construction sector, the pipeline sector or the speciality construction sector, it must fall under the general construction sector. See: [*Relationship to General Construction, below*].

THE ROAD BUILDING AND HEAVY CONSTRUCTION SECTOR

Although not defined in the Construction Industry Transitional Regulation, the historical review of the roadbuilding and heavy construction sector indicates that the following work falls within the scope of the sector:

- highways and roads;
- railroads (see *Impact of the Labour Relations Code*, above);
- parking lots;
- site preparation and excavation for commercial and institutional sites;
- sidewalks, curbs and gutters (see *Roadbuilding*, below);
- irrigation structures;

- dams (see *Heavy Construction*, below);
- airfields;
- hydro-electric and water diversion tunnels;
- water and sewer lines;
- water drainage and irrigation ditches; and
- minor bridges (see *Heavy Construction*, below).

ROADBUILDING

The historical definition of roadbuilding is set out in registration Certificate 1-70. It has changed as the result of the definition of construction in the <u>Code</u>. Roadbuilding mainly involves the construction of roads, approaches, railroads and curbs and gutters. This includes resurfacing and repairing of roadways. It does not include the maintenance of the roadways.

There are five main types of roads built:

- Soil Cement (Cement Road): This road is constructed of crushed aggregate and dry cement. It is packed with a paver. It is constructed on industrial sites and back roads. It is also the base for an asphalt overlay such as a highway.
- **Corduroy:** This road is usually built on a muskeg or bog. The roadbed is constructed over a support made of nylon mesh or tied logs. The road floats on this support.
- Chip or Chip on Oil: This road is constructed from crushed rock with, or without, an oil mix. It is packed down.
- Oiled: This road is constructed like a chip road but has an oil capping on it.
- Asphalt: This is the most commonly constructed road. It has a crushed rock base and an asphalt top. Construction techniques are the same for rural and urban areas. Asphalt roads for highways and residential areas take the most time to construct.

An asphalt road is constructed as follows:

- Surveying: Prior to a road being constructed, the land is surveyed. This work is in the jurisdiction of the operating engineers. See: [*OE 955 v. Dilcon Constructors Ltd.* [1991] Alta L.R.B.R. 619].
- **Clearing:** Following the surveying, the land is cleared. Labourers clear the trees. The operating engineers use heavy equipment to prepare the land. Teamsters fuel equipment and bus the workforce to the site.
- Sewer, Water and Utilities: The installation of the sewer, water and utilities falls within the operating engineers' jurisdiction. Municipal sewer and water projects are covered under this construction sector. Most of the larger municipal projects are contracted out. If this contractor is certified, the work is part of the roadbuilding and heavy construction sector. Smaller, repair jobs, may be done by municipal employees. While technically performing

the same functions, these employees are certified under different unions and are typically paid under their municipal contract and not sector rates. These projects are usually not construction work but maintenance.

- **Road Construction:** The construction of the road is operating engineers work. Culverts are usually put in by labourers. The teamsters fuel equipment on the construction site.
- **Curb and Gutter work:** This involves forming the sidewalks and curbs. The steel reinforcing rods are laid out and concrete is poured into the forms. Tampers and automatic curb formers are used in this process.

Historically, curb and gutter work falls under the roadbuilding sector. The Labourers 1111 in Calgary have, however, agreements with companies doing curb and gutter work. To date, neither union jurisdiction over curb and gutter work, nor the question of whether it is construction or maintenance work, has had to be decided by the Board.

HEAVY CONSTRUCTION

Heavy construction mainly involves the preparation and excavation of commercial and institutional sites. It involves the clearing of land with heavy equipment to prepare the site for roads, industrial plants, gravel pits, etc. It also involves the construction of dams and minor bridges. Heavy construction is done by operating engineers, labourers and teamsters.

The construction of dams is a common type of work in heavy construction. The majority of dams in Alberta are earthen dams. The machinery used is similar to roadbuilding. Certain types of dam construction might also fall within the general construction sector, although the Board has not yet had to decide this point. If the dam is a type that requires multiple trades, the work might arguably fall outside the roadbuilding and heavy construction sector. This may have a profound effect on the cost of the project as the wage rates are not the same in the heavy construction and general construction sectors.

The Board's approach has been that any individual dam or bridge project must come under one sector or the other. See: [*CLRa v. Foundation Company of Canada Limited* [1990] Alta.L.R.B.R. 40]. For an arbitration decision that takes a different approach (i.e., that the project may straddle two sectors), see: [*OE 955 v. Foundation Company of Canada Limited*, Alta.G.A.A. 91-127 (Lucas)]. This approach would suggest that the earth work for a major dam might be heavy construction, but the buildings and internal equipment construction might be general construction.

Minor bridge construction is usually included in the definition of roadbuilding and heavy construction because it can be completed without involving other trades. "Major" bridge construction is not so clear. In *CLRa v. Foundation Company Of Canada Limited* [1990] Alta L.R.B.R. 631, the Board set out several general propositions as to the dividing line between major and minor bridge construction. Starting at page 640, the Board states:

The Roadbuilding and Heavy Construction Sector covered bridges contracted for and built as part of highway and similar contracts. It also covered other minor bridges, contracted for separately, of the type built without the substantial use of other trades such as Carpenters and Cement Masons. The point at which a separate bridge building contract became major, not minor, was when its construction involved a multi-trade crew. This dividing line, while imprecise, is a question of fact in each case.

The General Construction Sector covers the construction of all other bridges including steel and precast concrete bridges.

Steel and precast concrete bridges fall within the definition of Industrial Construction. The agreements, and thus the definition adopted by the Board, provide that building and industrial site preparation fall under the Heavy Construction portion of the Roadbuilding sector. What constitutes site preparation as opposed to the construction of the structure itself is a question of fact. However, how contracts of this nature are usually let would be a significant, but not the only, factor in establishing that fact. This is because the allocation of work between sectors was done partly to coincide with the way owners used the different types of contractors to perform those various types of contracts.

More recently, the Board addressed this issue in <u>Labourers' Local 92 v. Coram</u> <u>Construction Ltd.</u> [2003] Alta. L.R.B.R. 175. In determining whether the bridge in question fell under roadbuilding or general construction, the Board focussed on whether the work was part of a larger contract to build the roadway (roadbuilding) or was tendered under a separate contract independent of the roadway (general construction). While the Board did not focus on the number of trades used in the construction of the bridge, this factor arguably remains a relevant consideration where the bridge is not part of a larger contract to build the roadway.

RELATIONSHIP TO THE GENERAL CONSTRUCTION SECTOR

General construction covers all construction except heavy construction, roadbuilding, speciality construction and pipeline construction. See: [Construction Industry Transitional Regulation, definitions Section 1(c)]. There are many situations where the sectors overlap.

Dam and bridge construction is discussed above. Building and industrial site preparation is included in the historical definition of roadbuilding. Residential site preparation is not included in the definition. A major residential site preparation project varies little from building site preparation. The Board has not yet had to deal with the issue of whether residential site preparation falls under the roadbuilding and heavy construction sector, or the general construction sector.

PRIMARY FUNCTIONS OF THE TRADES

Three trades operate in road building and heavy construction:

- **Operating Engineers:** Employees classified as operating engineers include: surveyors, heavy duty mechanics who repair and service equipment, electrical mechanics, servicepersons who fuel, oil, lube and add fluids and change filters on equipment, spotters, tire mechanics, tire servicepersons, repair welders and concrete pump operators. Also included are apprentices to any of classifications listed above. Teamsters and labourers are rarely found on roadbuilding or heavy construction crews. In the roadbuilding and heavy construction sector, contractors hire employees who know how to operate a variety of equipment. As a result, most projects just employ operating engineers and not teamsters. This is because many operating engineers have the credentials to do teamster as well as operating engineer work. If the project is large enough, the contractor will hire a full-time teamster to drive the buses or fuel trucks.
- **Teamsters:** Teamsters, if employed in this sector, are limited to driving licensed machinery. Licensed machinery is machinery allowed on public highways. This includes buses and fuel trucks. Teamsters service the operating engineer's equipment on roadbuilding and heavy construction sites. Teamsters drive buses from a work camp to the work site and back to camp. They also drive fuel trucks and fuel the heavy equipment at the work site.
- Labourers: Labourers, if employed in heavy construction, assist surveyors, prepare explosives and use power saws for cutting and clearing trees. When building roads they direct traffic, assist surveyors, prepare and set the forms for curbs, gutters and concrete work. A typical example of a labourer is a person assisting oiling the machinery or providing directions for the operators. During a slow period on the job site these employees may be trained on packing machines or other types of equipment. During a certification application the officer should use the prime function test when determining in which unit the employees belong. See: [*Brauns Construction Ltd.* [1992] Alta L.R.B.R. 10].

EMPLOYEE CLASSIFICATIONS AND EQUIPMENT TYPE

Employee Classifications

The following list contains the employee classification encountered in the roadbuilding and heavy construction sector. The abbreviations used are:

- Operating Engineer = (O/E);
- Labourer = (Lab); and
- Teamster = (Team).

- Apprentices: Mechanic, Welder, Bodyperson, Electrical Mechanics, Machinists, and Crane Operators. Person employed in accordance with provincial governmental regulations and indentured under applicable apprenticeship and tradesperson's qualification legislation. O/E.
- Assistant Plant Operator: Assists plant operators in operation of plants. O/E.
- Bit Grinder: Sharpens bits by grinding. Lab.
- **Bodyperson:** Certified or qualified to repair body of all equipment and vehicles. O/E
- Bus Driver: Operates a bus. Team.
- Certified Tradesperson: Tradesperson possessing a recognized trade ticket.
- **Concrete Pump Operator:** Operates and maintains mobile or truck-mounted concrete pump. O/E.
- **Crane Operator:** On cranes of 15 tons capacity and over, the operator must have a hoisting ticket. O/E.
- Electrical Mechanics: Person certified or qualified to repair electrical components of equipment. O/E.
- Elevator Operator: Operates elevator or skip hoist. O/E.
- Finish Rakerperson: Rakes seams to make final grade on road construction. Lab.
- Flagperson: Directs and controls traffic on a jobsite. Lab.
- Former: Lays forms for curbs, sidewalks and gutters on roadways. Lab.
- Greaser: Greases rack to service vehicles. Lab.
- **Helpers:** Mechanic, welder, bodyperson, electrical mechanics and machinists. Person employer to assist tradeperson but is not an indentured apprentice. Lab.
- Learner Operator: Operates equipment for probationary period. O/E, Team.
- Low Boy Operator: Operates Low Boy truck and can load and unload equipment. O/E.
- **Machinists:** Certified or qualified to manufacture precision machine parts for equipment using lathes and drill presses, etc. O/E.
- **Mechanic:** Certified or qualified tradesperson employer to repair all equipment and vehicles. O/E.
- **Oiler:** Oils, greases, cleans and assists operator. O/E.
- **Operator (Principal):** Qualified person employed to operate heavy and light equipment, trucks, farm tractors, all-terrain vehicles, buses, and stationary equipment such as compressors, pumps, heaters, mixers and generators. O/E, Team.
- **Partsperson:** Purchases, receives and does inventory control of all parts for equipment. O/E.
- Partsperson's Helper: Assists partsperson. Lab.
- **Piledriver:** In charge of hammers and leads and assists piledriver operator and ensures piles are straight. O/E.
- Piledriver Operator: Operates piledriver. O/E.
- **Plant Operator:** Operates an asphalt (batch), concrete, gravel, crushing, screening and washing or soil-cement plant. O/E.

- **Plant Helper:** Assists plant operator and assistant plant operator in the operation of plant. Lab.
- **Pump Operator:** Operates and maintains pumps and attachments to pump all fluids and materials.
- Screed Operator: Operates screed machine that controls the width and depth of asphalt. O/E.
- Service Technician or Employee: Fuel and services equipment and operate the unit provided for that purpose.
- Service Helper: Assists service technician or employee. Lab.
- **Spotter:** Assists operator (principal) in the spotting, placing, maintenance or cleaning of equipment. Lab.
- Steam Engineer (1st, 2nd, 3rd and 4th Class): Qualified tradesperson for operation and maintenance of boilers. O/E.
- **Survey Instrument Technician:** Qualified person employed in all aspects of surveying. O/E.
- **Tire Service Technician:** Repairs tires. O/E.
- Tire Mechanic: Qualified person employed to repair, balance and align tires. O/E.
- Welder: Certified or qualified tradesperson employed to weld on equipment or fabrication. O/E.

EQUIPMENT

The following is the type of equipment used in this sector:

- Asphalt Planers: Machine used to strip or plane asphalt from existing road during road repairs. O/E.
- **Asphalt or Concrete Paver:** Also known as lay-down machine, used to lay down concrete or asphalt. O/E.
- **Backfillers:** Equipment such as dozer, hoes and cranes which have special attachments for backfilling trenches or excavations. O/E.
- **Base Spreader/Jersey Spreader:** Machine used to spread soil cement or lime on a road surface. Used in operation of hardening base portion of road or parking lot. O/E.
- **Boring Machine (Horizontal):** Auger-type machine used to bore under roads and other surface obstructions. O/E.
- **Boring Machine (Vertical):** Auger-type machine used for drilling small and large diameter holes for piling for building foundations and bridges, etc. Stabilizes ground. O/E.
- Cat D-2 to D-10: Commonly known as bulldozer. Prime function to move materials such as dirt, sand, gravel, etc. O/E.

- **Clam/Dragline:** Conventional crane with clam bucket used to move material from hard to reach locations. O/E.
- **Compressors:** Operation and maintenance of all types and capacities of compressors and operation of pneumatic attachments. Lab., O/E.
- **Concrete Pump:** Truck-mounted or mobile pump used to pump and place concrete. Team., O/E.
- **Cranes:** All types and sizes of rubber-tired and tracked conventional and hydraulic cranes used to lift, move and lower equipment and materials.O/E.
- **Directional Drilling Machine:** Drills that can drill on an angle, used to drill under rivers, etc. O/E.
- Ditch-Witch: Small trencher used to dig trench for smaller cables. O/E.
- **Double-Drum Hoist:** Hoist with double drums used to hoisting and lowering of materials. Both single- and double-drum hoists are usually stationary and air- or motor-driven. O/E.
- **Excavators:** All sizes of rubber tire and track shovels (old cable) and backhoes (new, hydraulic) used to excavate and move various materials (sand, dirt, etc.). O/E.
- **Farm Tractors:** Two- or four-wheel rubber-tired farm tractors, all types and sizes with attachments such as buckets, forks, ploughs, used for towing any equipment such as rone plough, trailers, discs and compaction equipment. O/E.
- Feller Buncher: Also known as tree farmer, used to cut, delimb and pile timber. O/E.
- Forklift: Machine with forks used to raise, lower and transport materials. Used to load and unload trucks. O/E.
- **Front Ender:** All size of track (crawler) or rubber-tired machine used to load trucks, transport materials and backfill. O/E.
- **Generators:** Operation and maintenance of all types and capacities of generators and generator-light-plant combinations. O/E.
- Gradall: Rubber-tired or tracked machine used to dig, grade and slope trenches, etc. O/E.
- Gravel and Chip Spreader: Machine used to spread gravel chips on road surface. O/E.
- Hydro Axes: Machine used to cut bush and shrub along right of ways. O/E.
- **Motor Scraper (Buggy):** Motorized earth mover used to move dirt. Picks up and releases dirt though opening in the bottom of body. O/E.
- Motor Grader: Machine used to cut, slope, level roads, ditches and building sites. O/E.
- Off Highway Vehicles: All types and sizes of nodwells and bombardiers and all 4 x 4, 6 x 6 and 8 x 8 trucks and vehicles. O/E.
- **Piledriver:** Machine used to drive steel or wooden piles into the ground to stabilize soil. O/E.
- Power Mounter Drill: Drilling unit where prime mover is an integral part of the drill. O/E.
- **Power Dozer:** Dozer with rotating blade used to backfill ditches. O/E.
- **Push cat:** Dozer used to push other equipment, usually scraper. O/E.

- **Ripper Cat:** Dozer with ripper used to rip hardpan or frozen soil. O/E.
- Rock Drills: Air track drills which run off compressor used to drill holes for blasting. O/E.
- Rubber-Tired Rollers: Packs gravel, sand, asphalt or soil for hardening of road, etc. O/E.
- Scraper Cat: Dozer with scraper attached. Used to remove soil or material from areas motor scraper cannot travel. O/E.
- Screed (Asphalt or Concert): Attachment or part of paver that controls the width and depth of material being placed.
- Self-Propelled Compaction Equipment: Mobile rubber-tired or steel rollers with or without attachments used to compact materials on road, etc. O/E.
- Side Loader: Same as front-ender loader, but loads from side. O/E.
- Sideboom: Used for hoisting and lowering pipe and materials into ditch. O/E.
- Single-Drum Hoist: Hoist with single drum for hoisting and lowering of materials. O/E.
- Skid-Steer Loader (Bobcat): Small loader on rubber tires. Can have several attachments. O/E, Lab.
- Skidder: Machine which may have blade and/or grapple used to move (skid) logs. O/E.
- Slip Form Paver or Extruder: Machine that lays down proper width and depth of asphalt or soil cement on roadway or parking lot. O/E.
- Soil Cement & Lime Travel Mixers: Machine used to mix and spread soil cement and lime to harden surfaces. O/E.
- Steel Roller (Breakdown): Packs down asphalt behind paving machine. O/E.
- Steel Roller (Base): Steel compaction roller used to pack base material. O/E.
- Steel Roller (Finish): Packs down and smoothes asphalt behind paving machine. O/E.
- Sweeper: All types and sizes of self-propelled sweepers used to clean surface of foreign objects. O/E.
- Tow Cat: Dozer with winch used to tow other equipment and vehicles. O/E.
- **Towed-Compaction Equipment:** Compactors that are not self-propelled but must be towed by farm tractors or other equipment.
- **Tower and Hammerhead Cranes:** Stationary cranes used to hoist, move and lower material. O/E.
- Trencher: Ditching machine used to dig trenches for pipe and cable. O/E.
- **Zoom Boom/Material handler:** Similar to forklift, but has a telescopic boom to reach distances. O/E.

TRUCKS

The following are the types of trucks found in this sector:

- **"A" Frame:** Truck also known as winch or bed truck used to hoist and transport equipment or material. (Being replaced by picker truck). O/E., Team.
- **Distributor:** Truck with tank, pump and spray bar for application of bitumen or other fluids to road surfaces (black top, maintenance, or asphalt distributors). O/E.
- **Dump/Belly Dump:** Truck used to transport materials such as sand, gravel and asphalt. Team., O/E.
- Flat Deck/Stake: Truck without lifting device used to transport small equipment and material. team. O/E.
- Fuel: Trucks used to supply all equipment with gas or diesel fuels. Team, O/E.
- Hi-Boy: Truck used to move parts, equipment and materials. O/E.
- **Hy-Ab:** Flat-deck truck with knuckle-type lifting device used to transport small equipment (pumps) and materials. O/E.
- Hydro-Vac: Truck used to locate buried cables and oil, gas and water lines. O/E.
- Low Boy: Truck used to move equipment.
- **Picker Truck:** Truck also known as boom, stinger, or pitman has crane mounted on truck and is used to hoist and transport materials and equipment. O/E.
- **Pressure:** truck also known as steam or wash truck used to steam or wash equipment. O/E.
- **Pump Truck:** Truck used to pump concrete. Team., O/E.
- Service: Truck operated by service technicians in the maintenance of all equipment, changing oil and lubricating. Team. O/E.
- Trans-Mix: Truck used to transport concrete or other material. Team. O/E.