

RE: REPORT OF THE RAILWAY TRANSPORT COMMITTEE ON:

- a) RAILROAD TRANSPORT OF DANGEROUS GOODS IN THE GREATER VANCOUVER AREA; AND
- b) OPERATIONS AT TRANS MOUNTAIN OIL PIPELINE COMPANY LTD'S WESTRIDGE TERMINAL
(ITEM 9, REPORT NO. 48, 1982 AUGUST 23)
(ITEM 12, REPORT NO. 49, 1982 SEPTEMBER 07)

MUNICIPAL MANAGER'S RECOMMENDATIONS:

1. THAT Item 12, Report No. 49, dated 1982 September 07 be lifted from the table; and
2. THAT with respect to Trans Mountain Pipeline Company Ltd.'s Westridge Terminal, the following be adopted as the Municipality's official position for referral to the Canadian Transport Commission's Railway Transport Committee:
 - a) THAT Council endorse the two recommendations as noted in the attachment to this report which, in essence, allows the firm to make presentation to the Railway Transport Committee, and for the CTC to make the final decision on proposed improvements which fall within its jurisdictional authority; and
 - b) THAT Council strongly support three additional improvements of a local nature which, in the opinion of the Burnaby Fire Department, Provincial Fire Commissioner's Office and Burnaby Major Emergency Planning Committee are needed at Westridge, namely: improved access, improved security and a new monitoring system as explained in greater detail in this report, with the understanding that these recommended improvements will be the subject of a further report to Council following meetings with the Trans Mountain Pipeline Company Ltd;
- * 3. THAT Council endorse the preparation of a Transportation Plan by the CTC relative to the movement of hazardous materials subject to the understanding that potential funding assistance be pursued in accordance with terms as contained in the Rail Relocation and Crossing Act; and
4. THAT a copy of this report be sent to Trans Mountain Pipeline Company Ltd., G.V.R.D. and the B.C. Fire Commissioner.

* This recommendation also appears on page 68 of the report entitled "Railroad Transport of Dangerous Goods in the Greater Vancouver Region".

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REPORT

ITEM 3
MANAGER'S REPORT NO. 53
COUNCIL MEETING 1982 10 04

I BACKGROUND INFORMATION

The Regional Manager for the Canadian Transport Commission (CTC) forwarded to this municipality a copy of a report entitled "Railroad Transport of Dangerous Goods in the Greater Vancouver Region". This was accompanied with a request that the Municipality refer any comments it may have on the content to the Railway Transport Committee which was struck by the CTC to review, among other things, the implications of railway transportation in our area.

It will be recalled that the Transport of Dangerous Goods report states that the Trans Mountain Pipeline Company Ltd. should take certain actions to enhance the safety of its liquified petroleum gas operation at West Terminal. The major concern more specifically involves the question of protection for pipelines that pass directly over railroad tracks, and how to minimize hazards associated with the possible rupture of these lines as a result of a train derailment or some other incident.

The Burnaby Major Emergency Planning Committee reviewed the matter and submitted its report to Council on 1982 August 23 (Item 9, Report No. 48). Council raised several inquiries on this occasion that resulted in the submission of a second report on 1982 September 07 (Item 12, Report No. 49). Council tabled this report upon being informed by Mr. D. Trevor Durrant, a spokesman for Trans Mountain Pipeline Company Ltd., that a report from a consultant engaged by his firm to study the overhead pipelines would be completed in the very near future.

The purpose of this report is to apprise Council of the further developments that have taken place since this matter was last dealt with on September 07.

For convenience, hereafter in this report the Burnaby Major Emergency Planning Committee will be referred to as the "Committee", and where appropriate, Trans Mountain Pipeline Company Ltd. will be referred to as the "Firm".

II REPORT ON CURRENT STATUS

A. General Comments on Meeting Between Parties

The Committee met with Mr. Durrant on Thursday, September 23. Mr. George Lane, Hazardous Materials Consultant for the Provincial Fire Commissioner's Office, also attended. Everyone in attendance felt that this meeting was extremely productive in that it led to an understanding of respective positions and resulted in some positive agreements which when pursued in the near future are expected to bring about an improvement in the standard of safety at Westridge Terminal.

B. Firm's Position

Mr. Durrant advised at the meeting that while it is possible to put the overhead piperack underground, it would not be practical from his firm's point of view because of the cost involved ("ballpark estimate in the amount of \$500,000) and because certain technical problems would be encountered (e.g. a culvert or other type of housing for enclosure of the pipes underground would fall below the water table). He alternatively recommended the following methods of protecting the pipelines in their existing overhead location:

- At no cost to the Municipality of Burnaby, and within 60 to 90 days following approval of the CTC, install:
- An appropriate number of steel-reinforced concrete columns that will extend about eight feet above the ground level between the two vertical span supports and adjacent tracks as shown in the attachment;
- Approximately 1,200 feet of Jordan Guard Rail on each of the main tracks at locations that are deemed appropriate by the CP Railway and the Burnaby Fire Department.

Mr. Durrant's stated position is that these measures, together with the maintenance of a 20 mph speed limit for all trains that pass through the Westridge property, will provide the necessary standard of safety at a reasonable cost.

III. COMMITTEE'S POSITION

Attached is an excerpt from the report entitled "Railroad Transport of Dangerous Goods in the Greater Vancouver Region" which the Railway Transport Committee will consider during its deliberations in October. This information, consisting of a preamble and two recommendations, are found on pages 71 and 72 of the report. The Major Emergency Planning Committee endorses the recommendations including the process as noted in Recommendation 9 which calls upon the firm to indicate to the Railway Transport Committee why certain works can or cannot be done.

This position diverges from the position that the Committee advanced in its first two reports to Council in that it is not now expressly recommending that the pipelines be placed underground. Instead, the Committee now suggests to Council that undergrounding and/or any other highly technical alternative should be evaluated by the CTC who has jurisdictional authority for the final decision, and who can, during its deliberations, call upon whatever types of expertise may be required for a thorough understanding of each alternative's design, operational effectiveness, etc. This approach is also fair in that it recognizes the firm's opportunity to make a written and oral submission to the CTC on its alternative proposal involving the construction of columns.

Arising from discussions with Mr. Durrant on this matter, the Major Emergency Planning Committee and the Fire Commissioner's Office asked Mr. Durrant for a commitment to implement the following three safety improvements at the Westridge site:

- Improved access to the area

At this time the only access and egress is by way of one winding narrow single lane roadway off a paved lane north of Malibu Drive. The limitations of this roadway make a Fire Department response to an incident on the site more dangerous and time consuming than necessary. Moreover, the existence of only this one roadway does not allow an alternate escape route for plant or Fire Department personnel who may have to quickly evacuate the premises during an emergency situation.

There is a preliminary consensus that one possible route could be east to the plant from the foot of Cliff Avenue, but that whatever the route, access from it would have a locked gate and would be for emergency vehicles only.

- Security

Repair of the existing fence where required, and also, erection of a fence along the water side of the property to prevent the public from entering onto the property from this direction.

- Monitors

At this time the manually controlled water monitors are not suitably located, and in the event of a fire or rupture, would constitute an extreme life hazard to firefighters trying to operate them.

A water deluge (sprinkler type) fixed pipe extinguishing system over the entire length of the rack where tank cars are unloaded is recommended by the Burnaby Fire Department because such an apparatus will allow for the cooling down of remaining tank cars in the event of a fire or rupture.

These are local issues and can be dealt with entirely by the firm and the Municipality. Mr. Durrant has mentioned that while he personally feels that these additional improvements appear to be reasonable, final approval for their implementation would have to be obtained from his management.

The second roadway, fencing and water monitors have been of concern to fire prevention personnel for some time, but attempts to discuss them with the firm have not been successful. Mr. Durrant convinced the Committee that his firm is prepared to follow-up and review the proposed improvements with the Municipality, and the Committee is satisfied with his commitment that this will be done.

In summary, Mr. Durrant's proposal to protect the existing overhead pipelines with specially constructed columns and his agreement on a course of action whereby representatives from his firm will meet with staff in a sincere effort to resolve longstanding concerns has caused the Committee to re-examine its position. It is felt that the most appropriate and equitable approach is for the CTC to now make a decision based on all the information that will be presented for its consideration including the firm's alternative proposal. In the meantime, Municipal staff and representatives from the firm will proceed to meet for the purpose of discussing how safety operational conditions at the Westridge work site can be improved.

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EXCERPT FROM A REPORT ENTITLED "RAILROAD TRANSPORT OF DANGEROUS GOODS IN THE GREATER VANCOUVER REGION"

"4.3 Trans Mountain Oil Pipeline Company
Westridge Terminal - Mile 121 Cascade Subdivision, CP Rail

Located on Burrard Inlet, this facility is bisected by CP Rail's double-track Cascade Subdivision. Liquefied Petroleum Gas is unloaded from tank cars on the water side of the track and pumped over the railway to storage facilities built on the hillside above. Once each month LPG is pumped back over the tracks to a large ocean-going vessel for export to Japan.

The hazards which are perceived to exist at this location are not so much related to population density, although it is estimated some 1,000 to 2,000 people reside within a 2000 ft. radius of the facility, rather the concerns relate to:

- (a) the magnitude of the quantities involved. The ocean tanker loads 8 million gallons in a 24 hour period. The overhead pipeline on such occasions is accommodating 350,000 gallons per hour;
- (b) the kinds of exposure involved - 16 hours per day LPG is being pumped in lines which are in an exposed position;
- (c) Proximity to rail operations. Overhead lines are supported on trusswork located immediately adjacent to the main track. Tank cars unloading is also being undertaken on a more or less continuous basis adjacent to the same main tracks.

The following recommendations are therefore suggested with respect to the Westridge Terminal:

Recommendation 9 Trans Mountain Oil Pipeline Company be requested to indicate why the supporting structures for the overhead LPG pipelines at Westridge cannot be eliminated within 50 feet of the centre line of the two existing main tracks. (If, after such modification the lines remain overhead, existing vertical clearances to be maintained). It is suggested that if such changes cannot be completed by December 31, 1983, the Committee consider ordering the discontinuance or rail service to the plant.

Recommendation 10 That CP Rail be ordered to impose a further reduction in train speed at the above noted location. Speed to be restricted to 10 miles-per-hour until such time as the modifications noted in recommendation (9) above are completed, at which time an application for review will be entertained."

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NOTE:

The above-mentioned report was prepared by the Pacific Regional Office of the Canadian Transport Commission.

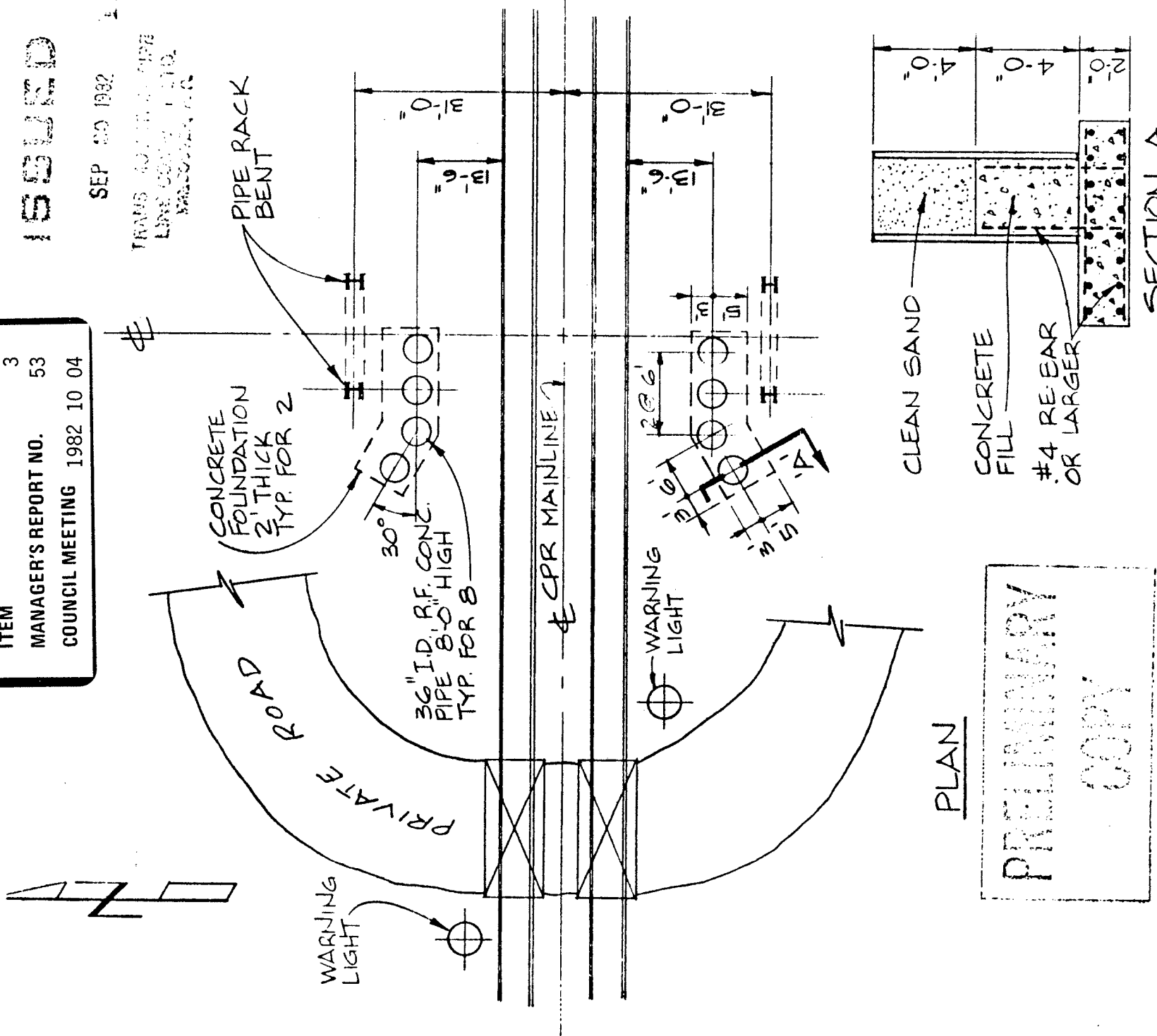
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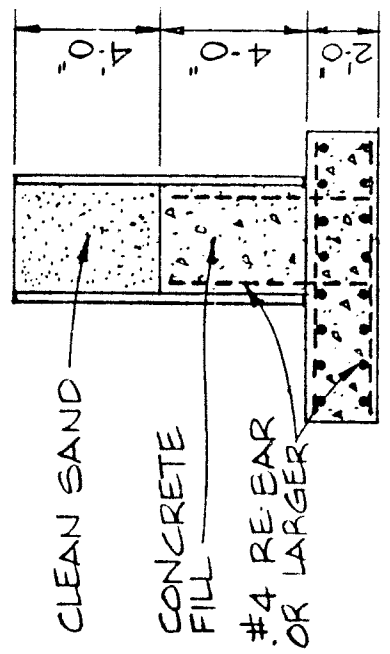
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TRANS MOUNTAIN PIPE
 LINE COMPANY LTD.
 VANCOUVER, B.C.



PLAN
 PRELIMINARY
 COPY



SECTION A

TRANS MOUNTAIN PIPE LINE COMPANY LTD. VANCOUVER, B.C.		JOB NO.	GROUP
DRAWN	E.A.	PROPOSED PROTECTIVE STRUCTURE FOR OVERHEAD PIPE RACK WESTRIDGE TERMINAL BURNABY, B.C.	
DATE	1982-9-30	DRAWING NO.	REV
SCALE	N.T.S.		
CHECKED			
BY			