

4. Print 4, Plan B with Contours

Print 4 provides the tie-in between the Highway drawings and Plan B including the identification of borings made for the ultimate mill plant site and the contour lines. Only the area immediately adjacent to the mill site is shown in this print.

Exhibit 1, on the opposite page, summarizes the principal costs of preparing a site for the alternative sizes and locations of the proposed board mill. It should be emphasized that these cost comparisons are limited to the site preparation. They do not include any consideration for the efficiency of the comparable sites or any attempt at capitalizing the difference in operating costs which could be foreseen.

Actually, the efficiency comparison is most difficult. Although the Plan C site is much less efficient than the proposed Plan B site, a reasonably good case could be made in court for its comparability with the company's proposed Plan A site. However, the stucco delivery conveyor represents a small continuing cost which can definitely be projected for operating and maintenance expense over and above the Plan A location.

As all discussions and negotiations with the company were carried on against the background of the certiorari action, every attempt was made to present the actual advantages to the company in accepting the Plan B, most efficient mill proposal with a minimum of actual cash damages. This mill location would not be available if the Highway Department pressed its property requirements to the ultimate conclusion and if property already acquired by the Highway Department (subject only to damage determinations) were not released to the company.

Exhibit 1 provides comparison of seven (7) alternative combinations of plant size and locations. All costs are stated in terms of the anticipated expense to the company to acquire the property, fill the land, reimburse the railroad, and build the indicated structures. The displacement of existing buildings is based on our appraisal of the value of those buildings plus the detach and reattach expense for the machinery and

utility relocation. The State contribution costs are based on the commercial costs of fill plus an arbitrary \$1,000 per acre estimate of the cost to the Highway Department to give up the availability of the specific muck disposal areas required by the plan.

The alternative site locations identified by the letters A-1, etc. are directly comparable with alternative Plans B and C for the same suffix. B-1 introduces the further breakdown of alternatives.

It is obvious that the Plan B costs which involve the relocation of the New York Central main switch line right of way exceed the company's proposed Plan A by between \$21,000 and \$78,000. The Plan A location permits the filling of the land required for the eventual expansion at a later date, whereas the Plan B location costs entail relatively little fill and the railroad must be relocated before even the minimum plant can be built. The second differential stems from the potential avoidance of the displacement of the company's present offices, laboratory, and machine shop by constructing the original, small plant starting at the shipping end of the plant.

The B1-2 Plan providing for an 840' plant starting at the southeast, shipping end, on a 1,140' site is the most probable, actual plant that will be initially built. This plan is not directly comparable with Plan A1 or A2. On a plant size basis it indicates a \$21,000 additional cost for the proposed plan. On a plant site basis, the cost is within \$7,000. However, this tabulation provides for the eventual site but it does not provide for the clearance or removal of the buildings necessary for the extension, whereas the A2 site would have been completely prepared. Thus, the differential remains close to the \$21,000 figure, and the \$7,000 favorable differential cannot be legitimately employed.

The Plan C locations are all less expensive in original cost than either the Plan A or Plan B location. As these locations are less desirable from an efficiency standpoint, this lower initial cost would not be attractive in the long run and the plan provides only a basis for a reduction in the cash damages established in negotiations. The Plan C location

requires the acquisition of New York Central Railroad property but does not require the relocation of the switch line right of way. It also requires the relatively narrow plant which was developed as part of the Plan B solution. It is thus a by-product of the Plan B engineering analysis depending both on the company acceptance of this plant dimension and the Railroad cooperation in giving up its property. These facts would add to the burden of proof in a damage trial but would not destroy the effectiveness of the alternative.

(3) Simplified comparison of site costs

Exhibit 2, on the opposite page, summarizes the direct comparison between Plan A2 and Plan B2. This comparison recognizes the ultimate necessity for a 1,180' plant site.

The Plan A2 and Plan B2 are directly comparable for this ultimate plant. Both in Exhibit 1 and in Exhibit 2 all foundation work which would be automatically provided by the removal of muck and the fill in Plan A have been compared with a similar land preparation for the Plan B location. No muck exists at this Plan B location, but the building footings will require trenching and backfilling with sand to be equivalent to the fully filled Plan A location and this trenching and backfilling was required by the consultant employed by the company.

All figures in these comparisons were checked by an additional construction firm, Owen, Ames, Kimball Company, employed by the Grand Rapids Gypsum Company as a final confirmation of our costs.

Whereas the Exhibit 2 comparison provided the simple basis for negotiations, these same negotiations recognize that this central comparison is surrounded by alternatives to the company Plan A which will realize no additional expense.

**(4) Office, lab and shop building appraisal and fixture detach-reattach costs**

The Plan B site will ultimately require displacement of the present mill offices, machine shop, and laboratory as discussed in Section 1 above. A preliminary appraisal was made of these properties to establish the relative cost of this land clearance.

Exhibit 3, on the opposite page, summarizes the breakdown of principal values in this analysis. It should be noted that the appraisal is based on limited observations and does not include contractor confirmation of all relocation costs. However, the significant direct current electrical installation relocation cost was confirmed. The main switchboard for the mines is located in the machine shop. The relocation costs for this switchboard and the lines involved proved to be relatively small.

Demolition was indicated as a major expense as the buildings are of solid, stone construction and would provide practically no salvage. This value may be slightly overstated but will provide a necessary cushion in the total appraisal.

The machinery relocation costs recognize the following equipment:

1. One Milwaukee mill
2. Four machine lathes
3. Two shapers
4. Two double arbor grinders
5. One Canedy radial drill
6. Two vertical drill presses
7. One Niagara shear
8. One roll and brake
9. Two bandsaws
10. One surface plate
11. One forge
12. One hoist and monorail
13. Line shafting
14. Portable air compressor
15. Bench & miscellaneous attached racks and small tools

The laboratory is a relatively recent addition to the machine shop building and completely equipped with movable tables, benches and specialized equipment. The costs of this addition were not detailed. Some understatement might develop in this area.

On the basis of this preliminary appraisal, we have employed a \$60,000 figure as the cost of this land clearance. The expense can be avoided until the ultimate, full length mill is constructed by placing the first mill to the north of the layout and expanding to the south as discussed above. However, this cost will necessitate an estimated \$20,000 additional expense when the expansion is made.

(5) New York Central right of way relocation

Both Plans B and C require acquisition of land owned by the New York Central Railway for the proposed board mill location. Plan B required the relocation of the switch line right of way as the total, 50' right of way became the locus for the proposed mill.

Cooperation with the Railroad was secured on the basis of the Grand Rapids Gypsum Company's longstanding, heavy use of rail freight transportation. Rather extensive negotiations were carried on with the Railroad involving the manager of industrial development in the Detroit office, the superintendent and trainmaster in the Jackson office, the engineering department in the Detroit office, and the Grand Rapids freight agent.

Obviously, no firm contract or final costs could be obtained from the Railroad. However, all responsible departments reviewed the plan, established the railroad limitations, reviewed the established costs, and agreed that there were no barriers in the Railroad policy or administrative procedure which could be foreseen.

Exhibit 4, following, reviews the proposed agreement in principle which was carried through the Railroad offices by Mr. G. R. Peterson, Manager of Industrial Development for the Division. Exhibit 5 completes this correspondence.

*File under*  
*44-1-196 41029E*  
*Grand River to Sibley*

L. Cook  
Asst. to the Engineer of Testing & Research

D. D. Dolph  
District Soils & Materials Engineer

Subsidence of road over Mine Shafts.

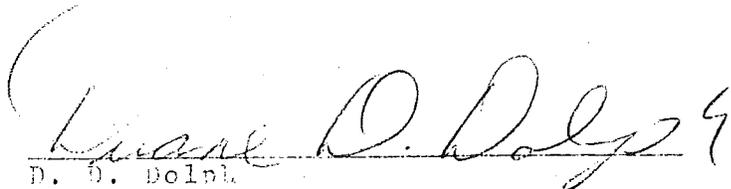
Attached is some old correspondence related to the Gypsum mines located near or under I-196 between the Grand River and Lake Michigan Drive. From this correspondence it appears that the old mines run under I-196 from Sta. 442+00 to Sta. 463+00, Project 41029 D, I-196 from Grand River to Sibley Street. The District has observed no subsidence in this area within the R.O.W.

I contacted Chet Feringa of the Kent County Road Commission to see if they had experienced any subsidence problems on any of their roads. Mr. Feringa said the county had experienced no subsidence problems.

I discussed the subsidence question with Mr. Fry of the Grand Rapids City Engineers Office. He stated that the city had experienced some subsidence of Butterworth Road between Veterans Memorial Drive and O'Brien Street. They took care of the problem by closing the road, filling the hole with fill material, resurfacing the road and hoping the road did not continue to settle. Mr. Fry said they had experienced subsidence in several areas on Butterworth Road.

It appears from the attached letters that the mined out layer of gypsum varied from 7 to 12 feet in thickness. The collapse of the old mined area was caused by the removing of the supporting pillars.

It may be of interest to note in Mr. Stokstad's letter to McCarthy that the Department assumed the responsibility for damage within the R.O.W. caused by the collapse of rock formations in the mined out area.

  
D. D. Dolph  
District Soils & Materials Engineer

DDD:mab

Enc.

cc: K. Allemeier

COMMUNITY DEVELOPMENT COMMITTEE  
September 25, 1973

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✓ For Information Purposes:

Mr. Hornbach reported a street cave-in in the vicinity of Butterworth Street near O'Brien Road, stating it possibly is a result from the underground mining. As in many other mining areas, the street was deeded to the City (about 100 years ago) without liability to the mining companies. However, it was the staff's recommendation that the street should be repaired. Asst. City Attorney Balkema said there is a question of the City conceding to this type of liability but would not disapprove the fact that the street should be repaired because of the safety factor. Com. Sypniewski added that the road is quite travelled and funds should be appropriated for the repairs and the problem of liability be looked into later.

Committee concurred and City Engineer Hornbach will make arrangements for an emergency bid.

26230 ✓ 11. Resolution authorizing contract to establish a computerized sign inventory system for the City.

It was noted by Mr. Zainea that expenditures for the above contract has been approved. Traffic Engineer Simmons explained that in 1946 there were several thousand signs (street and traffic) installed in the City which were not catalogued as to cost, location or condition. Consequently, it was necessary to go through town and mark their information as much as was possible. Through the years these signs are removed, stolen, rusted, etc. and as the complaints are received, it is difficult to determine exact locations or conditions. About three years ago a Traffic Engineer started the idea of movies and photo logging each street which information is then put on computer cards. In addition to Traffic Engineer's information, these records can be utilized by other departments determining the condition of curbs, hydrants, number of homes, street lighting conditions, number of lighting poles, crosswalks, etc. Mr. Simmons added that this program is now being done on a statewide basis and in his opinion is a great advance plus dollar savings for the City.

The question was raised whether in ten years the problem of missing signs would still remain, as citizens still must call,

*Letter  
Mining*

# CITY OF GRAND RAPIDS

## INTER - DEPARTMENTAL LETTER

Date February 6, 1973

To: City Engineer Attention: John L. Hornbach

From: Field Engineer

Subject:

- 1. Department of Natural Resources  
Lansing, Michigan  
Geological Survey Division

Mr. Thomas Segall, Geologist, Mining and Economic Geology  
*1-517-373-1256*

This department deals with the appraisal of mines and is in charge of land use and reclamation of land.

- 2. Department of Labor  
Lansing, Michigan  
Bureau of Safety and Regulation

Mr. Allan Harvie, Deputy Director, Occupational  
Safety Services

This department deals with the safety aspect with rules and regulations governing employees safety.

- 3. United States Department of the Interior  
Bureau of Mines, Health and Safety Division  
Duluth, Minnesota  
1-218-727-6451

Mr. Robert Moore

This department deals with the health and safety aspect of the mining industry.

AKH:ldm

*G.R. GYPSUM Co. 459-6183 DOWNTOWN  
453 2413 PLANT*

# CIT. OF GRAND RAPIDS

## INTER - DEPARTMENTAL LETTER

Date February 13, 1973

To: City Manager

Attention: Joseph R. Grassie

From: City Engineer

Subject: Road Subsidence on Butterworth Road

At your request, this office investigated the road subsidence caused by Georgia Pacific mining activities on Butterworth Road and responsibilities for the repair.

There does not appear to be any clear cut rule that can be applied to various cases. To the best of our information, there are three agencies that have jurisdiction over mines in Michigan, none of which takes responsibilities for surface repairs. Attached is a list and a brief statement concerning their activity.

Mr. Donald Goulais of the Highway Department, Attorney General Division in charge of the Upper Penninsula Office, has had some experience with road subsidence in that part of the State. It was his opinion that the mining company causing the damage would be responsible for lateral and subjacent support or repairs of damages due to the lack thereof if:

1. The road was established by user prior to mining under the roadway.
2. The deed for the road was acquired by the public agency prior to acquisition of mining rights or a deed was received from the mining company without an exclusion for mineral rights.

The public agency having jurisdiction over the road would be responsible for the cost, if the deed to the roadway was acquired without mineral or mining rights.

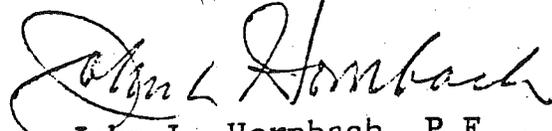
Regardless of who is responsible for the cost of repairs, Mr. Goulais stated that the public agency would be the party responsible to see that the road was in proper repair or else properly barricaded to prevent its use. The public agency could be held responsible for property damages or injuries due to the lack of repair or proper barricades.

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Joseph R. Grassie  
February 13, 1973

The Kent County Road Commission was contacted, and they stated that the roadway was acquired by user except for one section that was acquired from Bestwall Gypsum Co. (now Georgia Pacific Co.) with a deed that did not retain mineral rights. If this is so, it would appear that the Georgia Pacific Company would be responsible for making the necessary repairs.

To avoid problems of fixing the responsibility for roadway subsidence problems in the future, it might be well to request a state law to require the party doing the damage to provide proper lateral and subjacent support and be responsible for repairs due to the lack thereof.



John L. Hornbach, P.E.  
City Engineer

JLH:rg  
Attach.