



MORRISON KNUDSEN PLAZA
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new

December 3, 1991

Mr. David South, Project Manager
Washington Dept. of Ecology
3190 - 160th Avenue S.E.
Bellevue, Washington 98008-5452

Reference: Maralco Aluminum Project
Work Assignment Number MRLC2, PIC JIK25
MKES Work Order Number 3987
Task 4 - Interim Remedial Action - "Construction
As-Built" Reports and Photo Records

Dear David:

In accordance with the requirements of the work plan for Task 4 as outlined in the "Work Plan for Ongoing R/F Activities" dated June 5, 1991, we hereby submit the following "Construction As-Built" reports for the record and to meet our obligation:

<u>Report No.</u>	<u>Description</u>	<u>Subtask* No.(s)</u>	<u>Pages</u>
1	Fencing Activities	4.1	3
2	Excavation of Storm water Collection Pond	4.2.1 4.2.3	2
3	Re-Routing of Roof Drains	4.2.2	4
4	Grading of Plant Area	4.2.4	1
5	Tarping of Black Dross Piles	4.2.5	1

*WDOE Subtask Numbers

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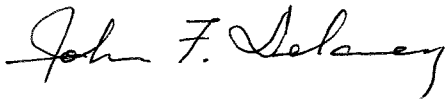
Letter to D. South
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On November 13, 1991, Ching-Pi Wang of WDOE, Michael Kangas of Wilder Construction Co. and Lynn Higgins and John Delaney of MKES inspected the site for completeness of Task 4 work. It was found to be acceptable and keys to the site were transferred from MKES to WDOE. Wilder Construction will maintain an extra lock on the main gate to inspect the tarp integrity in case of exceptionally bad weather.

Also, as requested, are a set of photos recording the excavation of the storm water collection pond. In addition, there is one set of photos showing all site activities. The views are described on the back sides of the photos. We will maintain the negatives in our files where they will be available for producing additional copies, if requested.

We sincerely hope the above enclosures meet your expectations regarding the phase of the task. If not, kindly advise.

Very truly yours,



John Delaney
Project Manager

Attachments

cc: w/o photos
J. Sivertson

w/o photos or attach.
J. Hilton
R. Vance

W.O. #3987

TASK 4 - INTERIM REMEDIAL ACTIONS

FENCING ACTIVITIES

On September 20, 1991, Lynn Higgins of MK-Environmental (MK) met with Bergsma Fence Company personnel to review the work plan for fencing the Maralco site property. Ms. Higgins and the fencing supervisor walked the fenceline and agreed to the location and specifications of the new fence as outlined in MK's May 13, 1991 revised fencing scope of work. It was also agreed that all fencing activities would be conducted outside the site exclusion zone and that the crew would access the southern portions of the site via the Maralco property only, rather than through adjoining properties or businesses.

The area along the fenceline was graded, and the fenceline was strung based on rebar and cap survey marker locations at the corners of the site. Postholes were then dug along South 202nd St. and 80th Ave. South. A power box previously unidentified by the topographic site survey, MK personnel, or the fence crew, was located in the thick brush along South 202nd St. Fencing activities in this area were suspended until a utility location check was conducted. The fenceline was re-routed around and behind the power box to allow utility service personnel to access it.

A ditch running halfway along the east side of the Maralco property parallel to 80th Ave. South collects runoff from the eastern portion of the Maralco site and nearby properties. Because the Department of Ecology (WDOE) was considering maintaining the ditch, the fenceline was positioned to include the ditch within the Maralco property. However, an inspection by Harry Shutts of the City of Kent engineering department indicated that the City would maintain the ditch, and it should therefore be outside of the fenceline. Mr. Shutts also indicated that a number of the postholes were too close to the roadways and perhaps the wrong survey markers were used as references. The City of Kent requires all fencelines to be 30 feet from the center of each roadway.

The fenceline was re-adjusted along South 202nd St. and 80th Ave. South and the postholes re-dug. Postholes were then dug along the remainder of the fenceline and the posts set in concrete. Tension wire was strung along the fenceline, and seven foot high chainlink fabric was attached to the tension wire and the posts. Razor ribbon was then attached to the top of the entire fence and to the wood fence between the Colonial Cedar Mill and the southern boundary of the Maralco site.

Three 20-foot wide, double swinging gates were installed: one at the northeast corner of the property on South 202nd St., one at the main entrance to the site, and one at the northwest corner of the site near the stormwater collection pond. The gates were secured with a heavy-duty chain and lock on each. All three sets of keys

were given to Ching-Pi Wang of WDOE during a final site inspection on 11/13/91. Finally, eight "DANGER" signs provided by WDOE were hung around the perimeter of the site on the inside of the fence.

The locations of the new fence, the gates and the signs are shown on the attached figure.

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TASK 4 - INTERIM REMEDIAL ACTIONS

EXCAVATION OF STORMWATER COLLECTION POND

Excavation activities for the stormwater collection pond (pond) commenced October 15, 1991. Lynn Higgins of MK-Environmental (MK) and Dave Amos, site supervisor for Wilder Construction, met to review MK's work plan (March 14, 1991) for the pond excavation.

It was decided to first excavate around and under the culvert pipe which discharges into the pond. In the event that it rained before pond excavation was complete, the exposed pipe could be plugged to prevent runoff from the parking lot from entering the pond, minimizing the amount of water in the pond. In addition to excavating around the pipe, a five foot section of bent and cracked pipe was removed.

Using a Komatsu PC 120, the excavation started at the north end of the pond and proceeded south toward the culvert pipe. Lynn Higgins was in the pond, inspecting each soil cut for visual contamination. Based upon soil samples previously collected from the pond by MK during the Phase I Remedial Investigation and upon comparison with soils from uncontaminated areas of the site, visually contaminated material was defined by MK to be very fine-grained to clayey material ranging in color from very light to dark grey in relatively well-defined layers.

It was observed during the excavation that the soil from 0 to 6 inches was generally light grey, dry, and very fine-grained, with dense vegetation at the surface. The soil from 6 to 24 inches was a fine-grained to clayey material, dark grey in color with pockets of rust-colored material throughout and ranged from damp to very moist. Material below 24 inches was also fine-grained to clayey, and generally dark brown and very moist. In several areas at this depth, the material was completely saturated and had standing water on it.

As the excavation proceeded south, pockets of white, gooey, odorless material were encountered at varying depths. The material appeared to be distributed randomly throughout the middle of the pond, and it was excavated until visual inspection indicated it had been removed. This material was not found at the north or south ends of the pond.

The toe of the parking lot bed was at approximately a 2 to 1 slope, and it extended out into the pond area 3 or 4'. The bed material consisted of large cobbles and appeared to have little or no visual contamination. Therefore, this material was not excavated.

The excavated material was placed in lined 55-gallon drums and staged on pallets in the parking lot. The 200 drums originally ordered were filled, and an additional 46 were required to complete

the excavation. All 246 drums were then staged inside the building along the north wall. They were dated and labeled "C.P." for Collection Pond. It was also noted whether the contents were sediments only or sediments and water.

When the excavation was complete, an area approximately 80' x 20' x 2' had been excavated within the pond. A final inspection of the excavation was not possible due to standing water in the pond from the heavy rains. However, photographs were taken throughout the excavation process which document removal of visual contamination.

At the completion of all site activities, the parking lot was swept clean and the four catch basins were cleaned out by hand with a shovel. The drainlines running to and from each basin were clogged and had to be pressure-cleaned using a fire hose. A 55-gallon drum was placed under the culvert pipe which discharges to the pond to catch any material from the parking lot. The parking lot was then completely washed down.

All water and sediments from the parking lot and catch basins were placed in lined drums and staged inside the building along the north wall. The drums were dated and labeled "C.B." for Catch Basin or "P.L." for Parking Lot. Again, it was noted whether the contents were sediments only or sediments and water.

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RE-ROUTING OF ROOF DRAINS

Roof drainline re-routing activities began October 23, 1991 on the east wall of the building. Wilder Construction selected 6" PVC 1120 ASTM pipe to replace the existing drainline. A Snorkelift A50 was used to access the top of the building.

The new drainline was tied into the existing drainline at the first downspout near the south end of the east wall with a 90-degree elbow. The new pipe was hung in 20' lengths at a slope of approximately 1 percent along the length of the wall. Where existing downspouts were encountered, they were cut off and tied into the new drainline with tees. The new drainline was secured by wrapping lengths of chain around the pipe and bolting the ends of the chain to the wall.

At the north end of the east wall, the new pipe was tied into the existing downspout with a tee and run down the corner of the building to the ground. A 10' section of pipe was then attached to the new downspout and the runoff directed to the parking lot.

The drainline on the west side of the building was re-routed the same way as the east side until the north corner of the building was reached. Here, the new drainline was wrapped around the corner to the north wall of the building and hung at a slope of approximately 1-2 percent until the middle of the wall. A downspout was then added to allow drainage to the parking lot.

When Wilder personnel were satisfied that the new drainlines were working properly, they blocked off the two drains on the roof at the south end of the building. An inspection by Lynn Higgins of MK indicated that runoff was re-routed sufficiently to prevent runoff from the building roof to the area south of the building.

The new roof drainlines are shown in the attached figures.



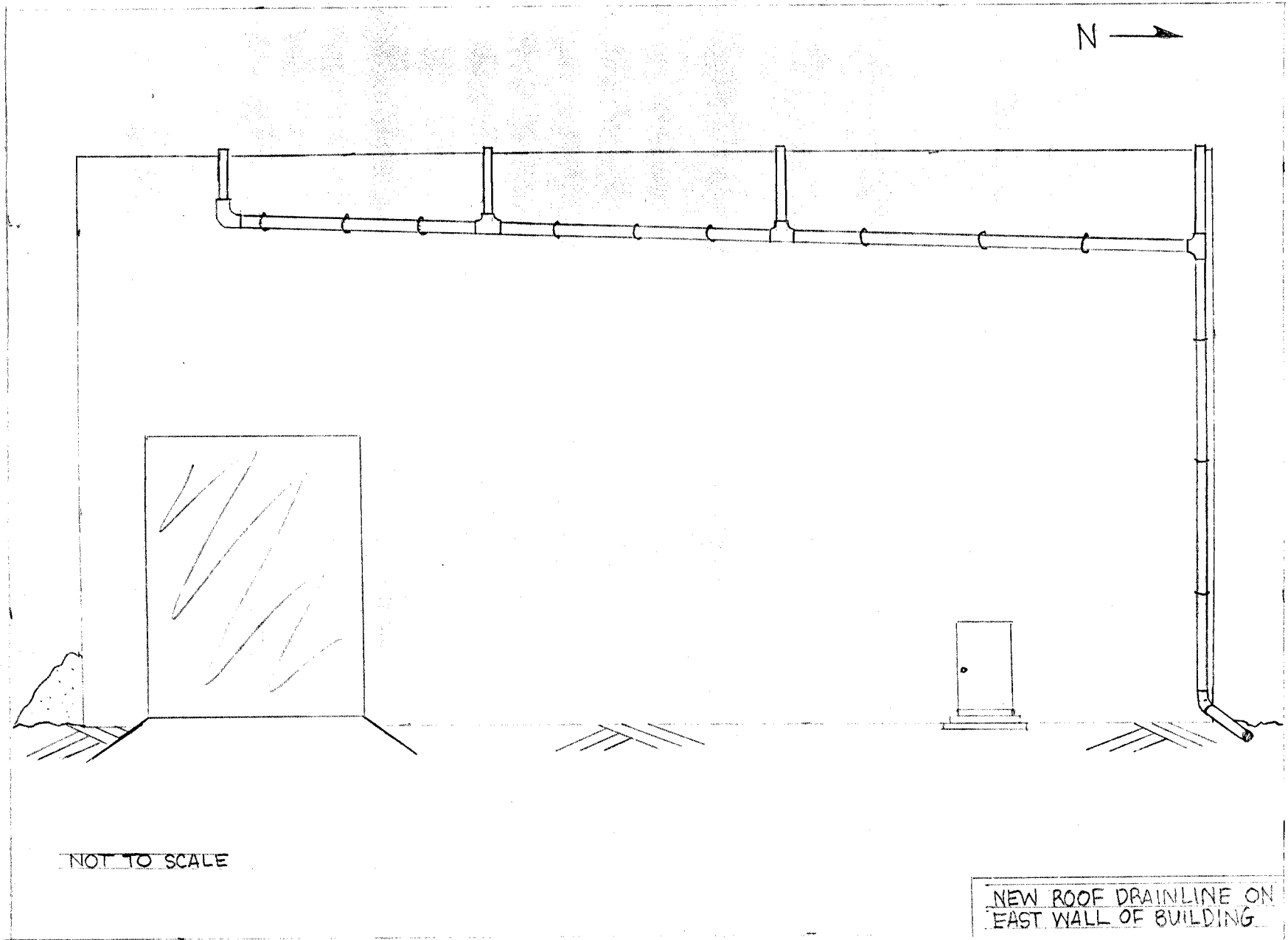
DATUM:
 HORIZONTAL - CITY OF KENT SECTION BREAKDOWN
 VERTICAL - M.G.V.D. FROM U.S.C. & G.S. 9M C-407 RESET
 TIE B.M.: ELEV. 26.84
 DISSELD SQUARE 80' N.W. CORNER OF CONCRETE TRANSFORMER
 1/4" NEAR N.E. CORNER OF LARGE BUILDING.

KEY

MK - ENVIRONMENTAL

LOCATION OF NEW SITE FENCE

FILE NO. 90-538
 SHEET 1



2

NOT TO SCALE

NEW ROOF DRAINLINE ON
EAST WALL OF BUILDING

FIGURE 1

3

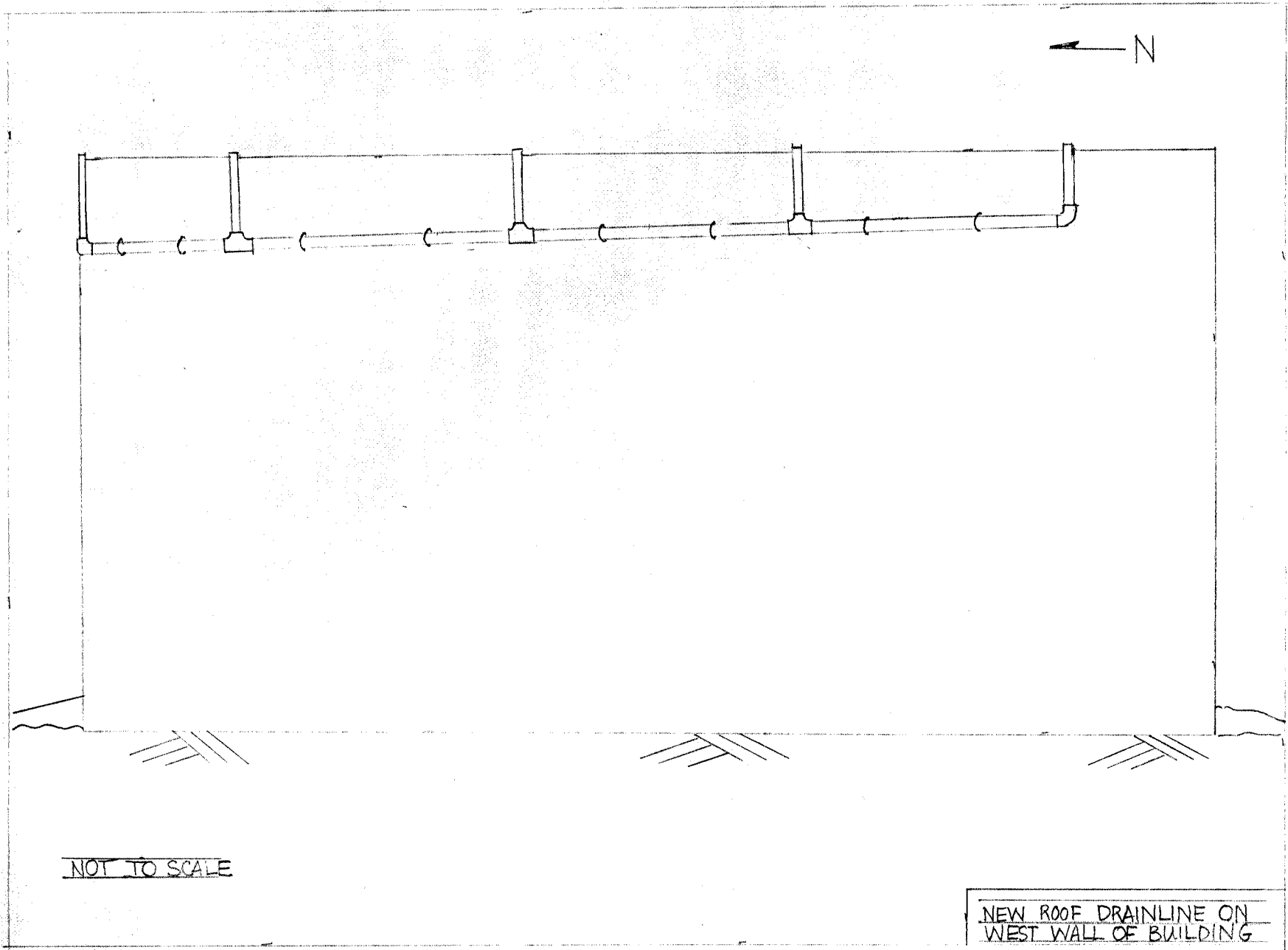


FIGURE 2

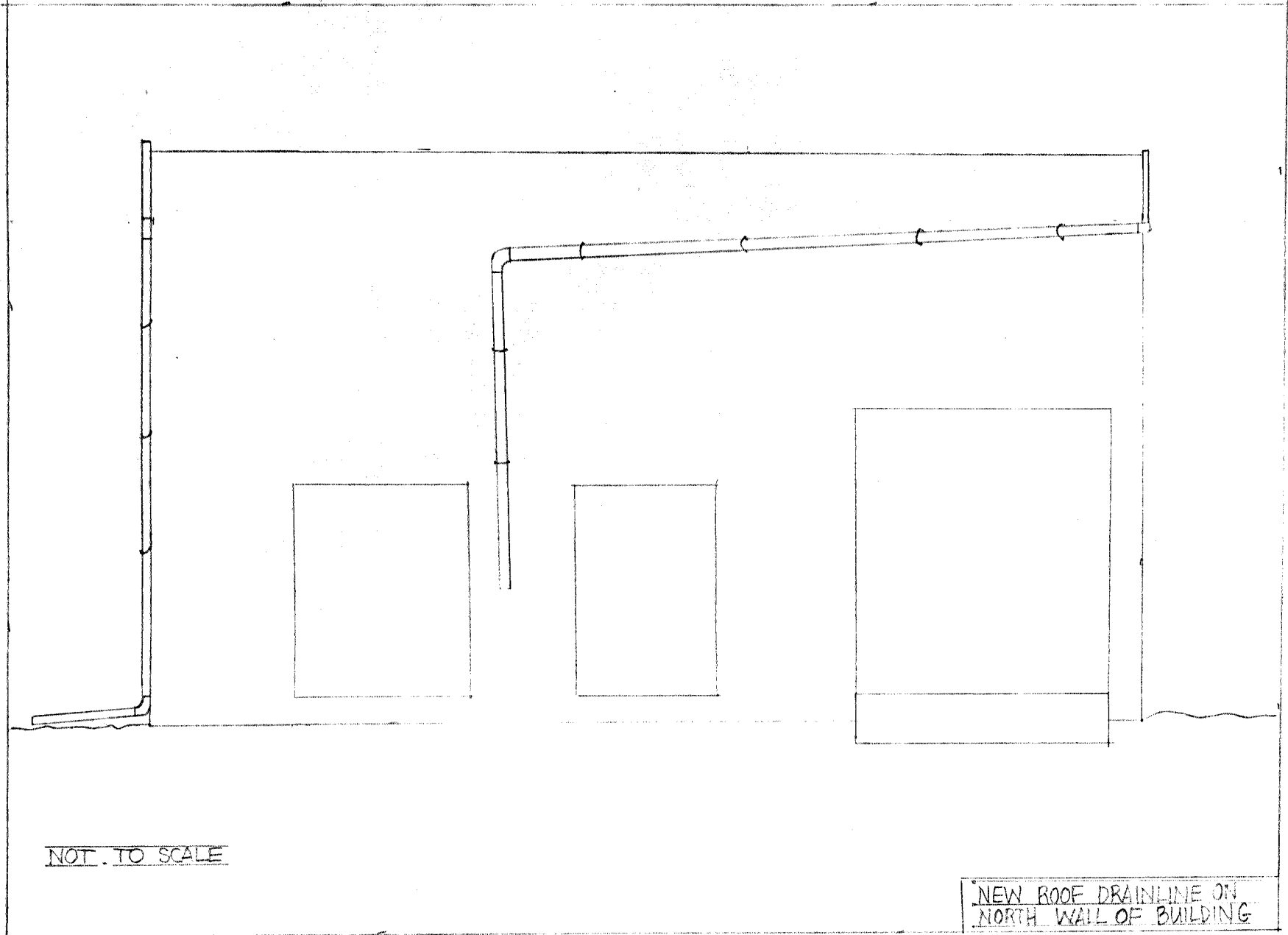


FIGURE 3

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TASK 4 - INTERIM REMEDIAL ACTIONS

GRADING OF THE PLANT AREA

Grading activities commenced on October 10, 1991 with a meeting between Lynn Higgins of MK-Environmental (MK) and Dave Amos, site supervisor for Wilder Construction to discuss the grading strategy for the plant area. The objective was to grade the plant area so that all runoff would be directed toward Christopher Ditch and eliminate ponding in the plant area. It was agreed that grading would begin on the main dross pile, located east of the building, and then proceed to the pile directly south of the building and progress eastward to Christopher Ditch.

A D6H Cat, a track-mounted dozer, was used to grade the plant area. Grading of the main dross pile reduced its overall height by 10-20'. Its north, west and south sides were smoothed and shaped for easy placement of the tarp. The east side of this pile was too steep and the dross material too soft, however, for the dozer to grade without damaging or removing the silt fence which runs along the base of the east side of the pile. This fence prevents dross material from the pile from entering Christopher Ditch. Instead, Wilder personnel smoothed it out by hand with shovels. Large pieces of dross material, aluminum or debris were buried, readjusted or moved to prevent them from tearing the tarp.

The dozer operator wore a respirator at all times as a precaution against blowing dust from the pile. However, the dross was damp just under the surface of the pile and dust was not a factor during grading activities. It should be noted, also, that a strong ammonia smell was evident during grading activities on the main dross pile.

Next, the area south of and adjacent to the building was sloped at a 1-2 percent grade toward Christopher Ditch. The large pile directly south of the building was too steep, almost vertical in spots, for the dozer to operate on. However, the top was relatively level, and Wilder personnel were able to shape and smooth the sides with shovels. The area behind this pile and along the wood fence dividing the Maralco site from the Colonial Cedar Mill was also sloped at a 1-2 percent grade toward Christopher Ditch.

At the head (or southernmost end) of the ditch, a portion of the silt fence was removed and the area graded to drain into the ditch. Additionally, vegetation, debris and some soil were removed from the head of the ditch to facilitate drainage.

A final inspection by Ms. Higgins indicated that the plant area appeared to be sufficiently graded to promote proper drainage.

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TASK 4 - INTERIM REMEDIAL ACTIONS

TARPING OF THE BLACK DROSS PILES

Tarping activities commenced October 29, 1991. Lynn Higgins of MK-Environmental (MK) and Dave Amos, site supervisor for Wilder Construction, met to review the areas to be tarped as outlined in MK's work plan of March 14, 1991 and revised work plan of May 14, 1991.

Tarping began on the south dross pile nearest the railroad tracks. The tarp, Griffolyn TX-1200, a 5 mil, 3-ply material guaranteed to have a 2 year life, was rolled out in sections and adjusted over the pile so that a minimum overlap of 2 feet for each section was attained. Short dikes along the fence and along the south side of the building had been built up to prevent water from flowing off-site over the tracks or ponding against the building, respectively. The tarp was placed up and over these dikes, as well as up to the wood fence dividing the Maralco and Colonial Cedar Mill properties.

Tarping continued eastward to Christopher Ditch. When each section had been adjusted for proper overlap, heavy-duty netting was stretched over all and secured with sandbags tied every 10' or so to the netting. The spacing of the sandbags varied with the steepness of the pile.

The main dross pile was tarped next using the same procedure described above. However, because of its steepness and the proximity of the silt fence to the pile, the east side of this pile was unable to be graded. Thus, in order to promote drainage, the tarp was placed up against the silt fence, and holes were cut in the fence approximately every 10' for placement of PVC tees. These tees allow water to drain off the tarp and through the silt fence via the tees without ponding up against the fence. Netting was placed over the entire pile and secured with sandbags.

After the entire plant area was tarped, there were several days of heavy rains and strong winds. The tarp settled and slipped in spots, particularly on steep slopes, exposing dross material. To prevent this from recurring, the tarp was readjusted and the open seams taped with waterproof, double-backed tape. Subsequent inspection of these areas showed the tarp was secure. Wilder personnel will tape the remaining seams upon approval from the Department of Ecology.

A final inspection of the tarped areas by Ms. Higgins showed the runoff to be draining satisfactorily to Christopher Ditch. The tarp may require inspection and adjustment periodically during the next two years to ensure continued drainage.