

**CITY COUNCIL  
COMMUNICATION:**

**ITEM \_\_\_\_\_**

**OFFICE OF THE CITY MANAGER  
CITY OF DES MOINES, IOWA**

**99-219**

**SYNOPSIS -**

**AGENDA:**

MAY 17, 1999

**SUBJECT:**

SW 30TH STREET  
SANITARY RELIEF  
SEWER, CHANGE  
ORDER NO. 3

A change order in the amount of \$119,581.60 has been negotiated with Layne Christensen Company (A.B. Schmitt, President, 1900 Shawnee Mission Parkway, Mission Woods, Kansas) for additional work in conjunction with the SW 30th Street Sanitary Relief Sewer project. This change order will provide compensation to the contractor for additional costs associated with a changed condition and special backfill and storm sewer repair. In addition, an extension of time is recommended to February 4, 1999.

**FISCAL IMPACT -**

**TYPE:**

Funds are available in the 1998-99 Capital Improvements Program, City-Wide Sanitary Sewers.

**RESOLUTION**  
ORDINANCE  
RECEIVE/FILE

**RECOMMENDATION -**

**SUBMITTED BY:**

**Approval of Change Order No. 3 with Layne Christensen Company.**

FLOYD BENTZ, P. E.  
ACTING CITY  
ENGINEER

**BACKGROUND -**

A final change order in the amount of \$119,581.60 has been negotiated with Layne Christensen Company on the SW 30th Street Sanitary Relief Sewer project to resolve multiple issues necessary for completion of this project. The main item on this change order has been a long-standing dispute with Longfellow Drilling Company working as a subconsultant for Layne Christensen Company to construct the 17' diameter vertical shaft at manhole #2. In the process of drilling for this shaft, Longfellow Drilling encountered a seam of coal near the bottom of this excavation. This coal seam did not show up on any of the soil borings that were made prior to bidding the

project (one of which was only 10 feet away), and this coal seam caused the drilling head to shift from vertical. After much investigation of this problem, the only way to construct the shaft at this location was to backfill with sand and re-excavate utilizing conventional steel sheeting and conventional excavation equipment. The final cost negotiated with the contractor for this item was \$134,515.

The second major item on this project was the final backfill necessary at two locations, manhole numbers 2 and 4. After many complaints from property owners and Council, it was determined that backfill at these two locations should not wait until normal spring weather would allow, but to proceed with backfill of these two manholes utilizing manufactured sand and other materials trucked into the site. The cost for this was \$10,400.

The third major item on this change order was to correct a storm drainage problem adjacent to this site. An existing culvert across SW 30th Street was found to be much too small to service the drainage area feeding this culvert. Therefore, the contractor was asked to excavate this pipe and to place a proper sized concrete pipe at this location. This culvert was also causing some settlement within the traveled portion of the roadway, and the contractor was asked to correct this problem as well. The cost for this work was \$8,920.

The request for extension of time on this project has been a difficult matter for the Engineering Department to assess. The original contract was awarded on August 18, 1997, to Hydro Group, Inc. Construction of the access shafts at the proposed manhole locations were to be completed first in order that the microtunneling process could begin. However, construction of an access shaft was delayed as addressed above as the main item in Change Order No. 3. The extra measures needed to construct this access shaft required 47 calendar days.

Hydro Group, Inc. informed the City on February 20, 1998, that that would be their last day of business and the company would be unable to perform microtunneling. Fortunately, another contractor, Layne Christensen Company, expressed interest in the contract. On April 16, 1998, the Mayor signed the Assignment of Contract document. Following that assignment, Layne Christensen Company began the process of releasing both equipment and materials necessary to commence the work from the various suppliers with outstanding legal and financial

issues connected with this project and the original contractor, Hydro Group, Inc. This process was completed enough to begin mobilization and the site preparation of equipment starting May 13, 1998. The assembly, servicing, and preparation of the equipment was completed on June 16, 1998, in order to commence the microtunneling process. The factors associated with the assignment, as outlined above, required an additional 117 calendar days.

A review of the Weekly Statement of Working Days indicates there were 18 days, after the June 2, 1998 completion date, that were unworkable due to conditions beyond the control of Layne Christensen Company. Also due to winter conditions, work was not able to be done from January 16 through March 2, 1999, for a total of 46 days.

Extra work was performed as addressed above in the second and third major items of Change Order No. 3. This extra work was completed within the timeframe from March 3, 1999 to April 7, 1999, when the sewer was activated. The time to complete this extra work totaled 14 days.

The total number of additional days that could be recommended as an extension is 242 days. Using the completion date of June 2, 1998, this provides for a new completion date of February 4, 1999. As a result, there would be 62 days that liquidated damages would be charged (February 5 through April 7, 1999); this translates into \$31,000 of liquidated damages.