

ENGINEERING REVIEW

TO: Modern Molding Expansion

FROM: Vince Vander Top, P.E., City Engineer and Heather Libby, P.E..

DATE: February 3, 2009

SUBJECT: Modern Molding Site Plan Review

The City of Delano received an application for Site and Building Plan Review and Conditional Use Permit from Modern Molding Expansion (Case #09-02) on January 7, 2009. The applicant's design team has responded to staff review comments over the past few weeks to modify the application. Revised plans and drainage calculations were most recently submitted on February 3, 2009. The following comments are based on the most recent submittal.

We reviewed the plan set for the following engineering items:

- Utilities
- Transportation System
- Drainage and Stormwater
- Overall Site Plan

Utilities

1. No modifications are proposed to the existing sewer and water services. The new facility will be served from existing services.
2. The applicant is coordinating modifications to the electrical service with Delano Municipal Utilities (DMU). All modifications shall meet the requirements of the DMU.
3. Fire hydrants currently exist in the NW and NE corners of the property along 7th Street. No new fire hydrants are shown. Fire protection including the installation of any new hydrants shall be coordinated with the fire chief.

Transportation System

4. The access to 7th Street will remain unchanged which is acceptable.

5. The current driveway to County Road 17 will be closed and the new driveway constructed near the south property line. The applicant has coordinated with Wright County concerning the access change. It is our understanding that the modifications will be acceptable to the County. Any required permits shall be obtained by the applicant.
6. The trail along County Road 17 will remain in place. The applicant will coordinate replacement of the trail with the construction of the new driveway accesses.
7. No additional ROW is required for County Road 17. The county recently improved County Road 17 south of the City of Delano. As part of the improvement, some additional ROW was obtained from adjacent properties including Modern Molding. The additional permanent easement acquired is reflected on the Certificate of Survey which was submitted.

Drainage and Stormwater

8. The submitted drawings include stabilization of steep slopes during and after construction. The applicant is required to stabilize all slopes and prevent erosion. This includes temporary and permanent erosion control measures.
9. The project will include a significant amount of fill import. Vehicles moving to and from the site cannot track materials onto adjacent streets. Provide a vehicle tracking pad or other method to reduce and remove sediment tracked from the site. Clean up tracked material daily or more frequently as directed by the City.
10. Identify the quantity of fill required. Identify the type of fill material and source. Haul routes and dates are subject to the approval of the City Engineer.
11. Satisfy NPDES permit requirements. Submit a copy of the NPDES permit application and a copy of the SWPPP.
12. The quantity of runoff from the site will increase given the increased impervious area. Runoff will be detained on the site with the use of a vegetated swale as well as an over-sized underground storage pipe.
 - a. The maximum runoff rate for a 2, 10, and 100-year event under proposed conditions does not exceed the runoff rate from current conditions. This is shown in the Stormwater Management Summary. The rate control shown is acceptable.
 - b. Runoff from the existing parking and proposed parking lot is routed to the vegetative swale between County Road 17 and the new parking lot. The swale discharges to the underground storage pipe. The parking lot will be lined with a ribbon curb allowing sheet flow into the vegetative swale.

Sediments from the parking lot can be trapped in the swale prior to leaving the site.

- c. All roof drainage from the proposed addition will be routed directly to the underground storage pipe.
- d. The underground storage pipe will release water such that the discharge rate to the existing ditch along the south property line will not be increased. The amount of area shedding water directly to the ditch will be decreased. Most of the site including the existing parking area and building will be routed through the underground pipe.
- e. If additional parking area is required in the future, the length/capacity of the underground pipe could be increased to accommodate the additional runoff. This is depicted on the drawings and in the calculations.
- f. The existing parking previously drained to the driveway to County Road 17. This driveway will be closed and modified to drain to the vegetative swale. Part of the driveway will remain to maintain a turn-around area for trucks utilizing the adjacent building loading dock.

13. The swale along the south property line is an important part of the industrial park drainage system. It serves as the drainage outlet for Modern Molding as well as the adjacent two industrial properties to the east. It serves as the outlet for the storm water pond which serves the Cal Brandt and Sil Pro properties. This drainage swale must be maintained.

- a. A 36-inch RCP culvert serves as the outlet to this ditch under County Road 17. The invert elevation of this culvert is 924.91. This culvert will not be modified.
- b. A small berm exists in places along the south side of the swale. The top of this berm is approximately 929. This implies that approximately 4 feet of water can be stored in the swale before the berm is overtopped.

The adjacent building site south of the swale includes several structures. The lowest building is at an elevation of 930 or higher. If the swale fills with water, the berm could overtop; however, the building site would not be impacted. It is not known if the berm has overtopped in the past.

The proposed improvements cannot place fill outside of the Modern Molding property or in the swale below an elevation 929.0. The capacity of the ditch must be maintained. The plans indicate that fill will only be placed to the 930/931 contour. This is acceptable. The capacity of the swale will not be altered by the fill placed on the property.

- c. The outlet from the underground storage pipe will be directed to the County Road 17 culvert. The outlet will be immediately upstream of the culvert.
14. A maintenance agreement is recommended for the underground storage pipe. Access to the pipe must be demonstrated along with a management plan for inspection and routine maintenance. If the pipe is not maintained, the agreement shall allow the City to perform the maintenance and assess the associated costs to the property.

Other Comments

15. No wetlands are evident on the site. No wetlands have been identified.
16. The retaining wall on south side of the site is greater than 4'. A design by a State of MN registered engineer will be required. Detail will be required to accommodate the culvert crossing below the wall.
17. Identify pavement section for the parking lot. A 9-ton section will be required to accommodate anticipated truck traffic.
18. Curb and Gutter shall be B612 or ribbon curb adjacent to the vegetative swale.
19. Grades not to exceed 3H:1V on the site. 4H:1V is the maximum slope for all maintained (mowed) areas. The proposed restoration for many of the steep slopes includes prairie grass which requires low maintenance. This is acceptable.

End of Comments