County Engineer

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Februrary 2004

Today's county judges and commissioners in Texas are routinely faced with difficult decisions involving contracts, bond issues, personnel disputes, lawsuits, land development, regulations, and many other complex matters. To deal with these issues, a commissioners court typically relies on several professional advisors to provide guidance, such as attorneys, auditors, financial advisors and engineers.

More specifically, it seems like the majority of today's urgent priorities deal with land development pressures, traffic congestion, water shortages, water rights, flooding, landfills, air pollution, wastewater, road improvements, mapping, building construction, surveying, land acquisition, and on and on. These are all areas where an engineer can help and, of all your trusty professionals, you may find yourself assigning and referring matters to the engineer more than the others.

Engineers are trained for this type of work. They can design, estimate, construct, organize and communicate in today's world of complex regulations and technical policies. Engineers usually also have good communication and administration skills.

County engineers, as appointed officials, have been around for a long time. Traditionally, there have been two functions for an engineer in the administration of county government. The first function is the operation and administration of a county's road department system. The second, a more recent trend, is to head the administration of a county's development regulations, such as, on-site sewage facility permitting, subdivision regulations, flood plain regulations and addressing. Some counties even place greater responsibilities on their county engineer.

In most counties, however, the primary function of a county engineer is to administer the county road department system. The county road department system is a method of county road maintenance that has been available to Texas counties for many years. This system differs from the customary precinct road commissioner system where each commissioner is responsible for the maintenance of the roads within their own precinct.

The county road department system, which is established through a countywide election, creates a single, centralized county road maintenance department. The control of this department is placed under a county engineer, a Texas registered professional engineer, who is appointed by the commissioners court.

In the beginning, the county engineer merges the separate precinct maintenance operations together and, over time, the entire county road system functions as a single unit. It can initially be difficult for commissioners to transfer the management of their individual precinct road departments to an appointed official; however, most counties that have made the transition experience cost savings and increased efficiency through centralized equipment and manpower.

Additionally, the county's road maintenance activities are focused on actual need, instead of trying to equally spread the resources evenly in each precinct. With all of the road department resources under one administrator, the department also functions better during emergencies and disasters. Another benefit is that personnel issues are also consistently managed throughout the county.

For counties that are not interested in the county road department system, there are still many important reasons to consider a county engineer. These days, it seems like counties have to get permits and special permission from numerous state and federal regulatory agencies every time they turn around.

These agencies regulate things like stormwater runoff, fuel storage tanks, wastewater permits, employee drug testing, endangered species, drinking waterY you name it! Counties, like everyone else, are required to comply with these regulations. Failure to comply can lead to expensive and embarrassing penalties. A county engineer can be given the task of coordinating and processing these tedious matters.

Most counties in Texas regulate subdivision activity. Put your county engineer in charge of that operation. Your engineer can review the plats, examine the engineering plans for roads, drainage, and utilities, and inspect road construction.

Developers and contractors are constantly trying to reduce their cost, and unfortunately it's usually at the expense of the county and their taxpayers. Closely monitoring subdivision developers, consulting engineers, and contractors is well worth the effort to ensure proper road design and construction.

Today's construction techniques and testing methods can be technically challenging. Your engineer will be able to comprehend these matters. By forcing the developer to adequately design and properly construct roads, the county places the cost burden on the new development instead of the existing county taxpayers.

Almost every county in Texas regulates on-site sewage facilities. Go ahead and let the engineer handle that, as well. Many of today's septic systems are designed by engineers and can be quite complicated. In addition, the state regulations controlling these systems place a considerable responsibility on Texas counties. Counties are required to certify all of the on-site sewage facility employees and must keep careful records of the permitting approval and inspection processes. Additionally, the relatively new aerobic systems require ongoing reporting, and counties are required to maintain these reports and enforce delinquent permit holders.

The administration of the county's flood plain regulations is a natural fit for the county engineer. As counties continue to develop, more and more pressure is placed on the regulatory flood plains. Developers prepare complex plans to reclaim flood plain land and then submit these plans to the county for review and approval.

Without a knowledgeable person reviewing these plans, counties are left at the mercy of the developer. Flood plain mapping and FEMA map revising often involve voluminous engineering calculations and studies. Counties need a competent person to review and approve these studies in order to protect the existing county residents for unexpected adverse impacts.

Every Texas county commissioners court should periodically review their need to employ a full-time county engineer. Although these professionals can require considerable compensation, most counties will find that the benefit of having an engineering professional on their staff greatly exceeds the cost.

Ask a few county judges or commissioners who have a county engineer. They will probably tell you that their county has a well-run road department, an organized administration for enforcement of county regulations, and is in compliance with all state and federal regulations. They'll also probably tell you that they could not imagine running a county government without their trusty engineer.