

# Allerton Bywater, West Yorkshire

## box culverts case study

*“The box culvert team at FP McCann have successfully engineered a precast concrete solution to manage the storm water events as part of the controlled drainage system on this site. The use of precast concrete box culvert sections to form the tank, was the obvious choice.”*



### Overview

As part of the drainage network on a Taylor Wimpey Homes development, consulting engineers Eastwood and Partners have specified provision for storm water attenuation to cater for a 1 in 100 year storm event. Above ground storage in the form of a detention basin combined with below ground storage tanks will form part of a SuDS system. Construction and civil engineering group ESH/Lumsden and Carroll, has been awarded the civils and drainage infrastructure contract by Taylor Wimpey and FP McCann is supplying some 60 box culvert sections to form the below ground attenuation tank.

### Scheme Details

The unique 'T' configuration of the attenuation tank comprises 13 units 3000mm wide x 1800mm deep complete with a dry weather flow channel, the standard unit being approx 13.5 tonnes in weight. These are in-turn connected to 6 separate smaller culvert runs containing 48 slightly smaller (12.5 tonne) units measuring 3000mm wide x 1500mm deep again with a dry weather flow channel. The structure also contains multiple end walls, interconnecting pipe access units and manhole openings for easy access. Each of the sections has been cast at the Company's Telford manufacturing facility.

**Site:** Allerton Bywater, West Yorkshire  
**Contractor:** ESH/Lumsden and Carroll  
**Client:** Taylor Wimpey Homes  
**Installation Date:** May 2013



FP McCann offers a bespoke box culvert design service from its Alfreton Office and Telford Precast factory.

Contact Steve Walker: [swalker@fpmccann.co.uk](mailto:swalker@fpmccann.co.uk) / 01773 520273