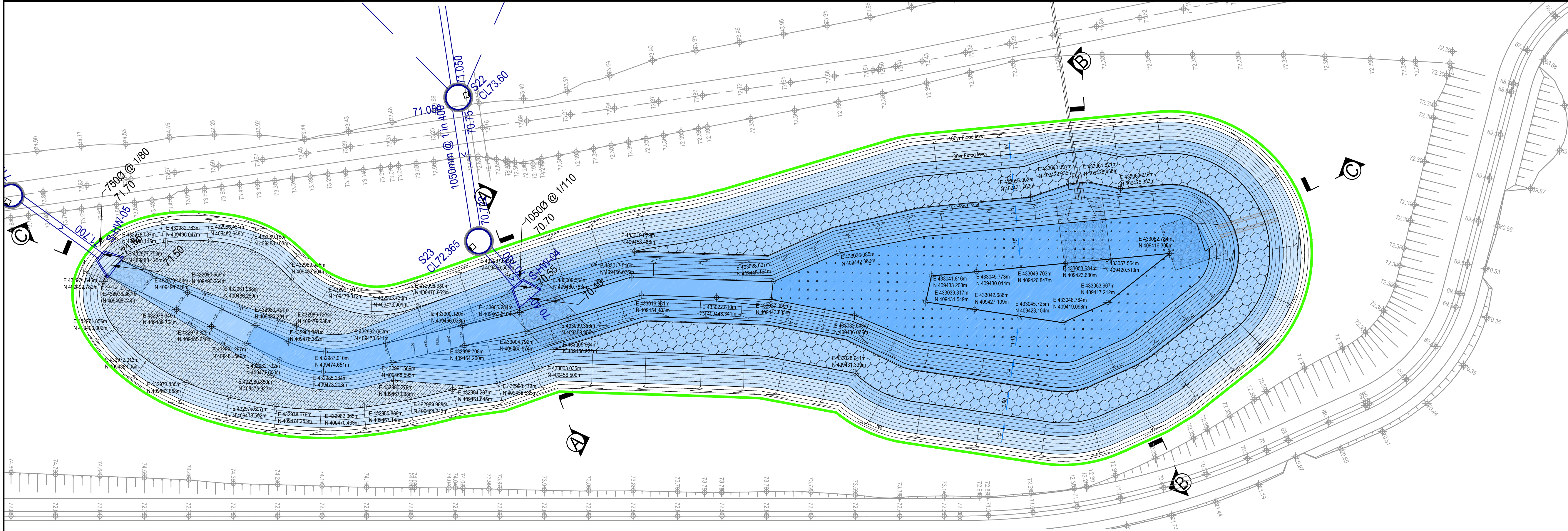
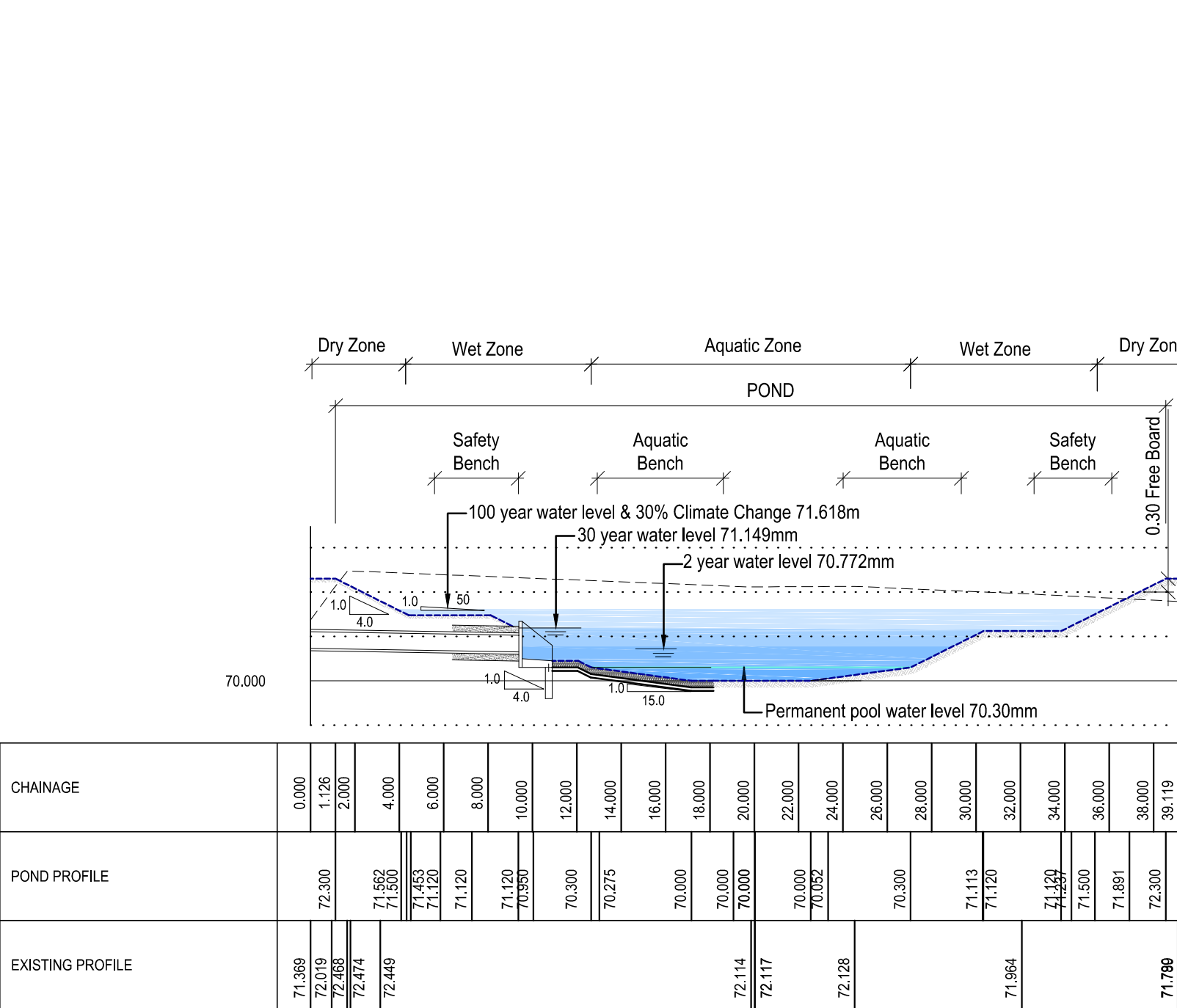
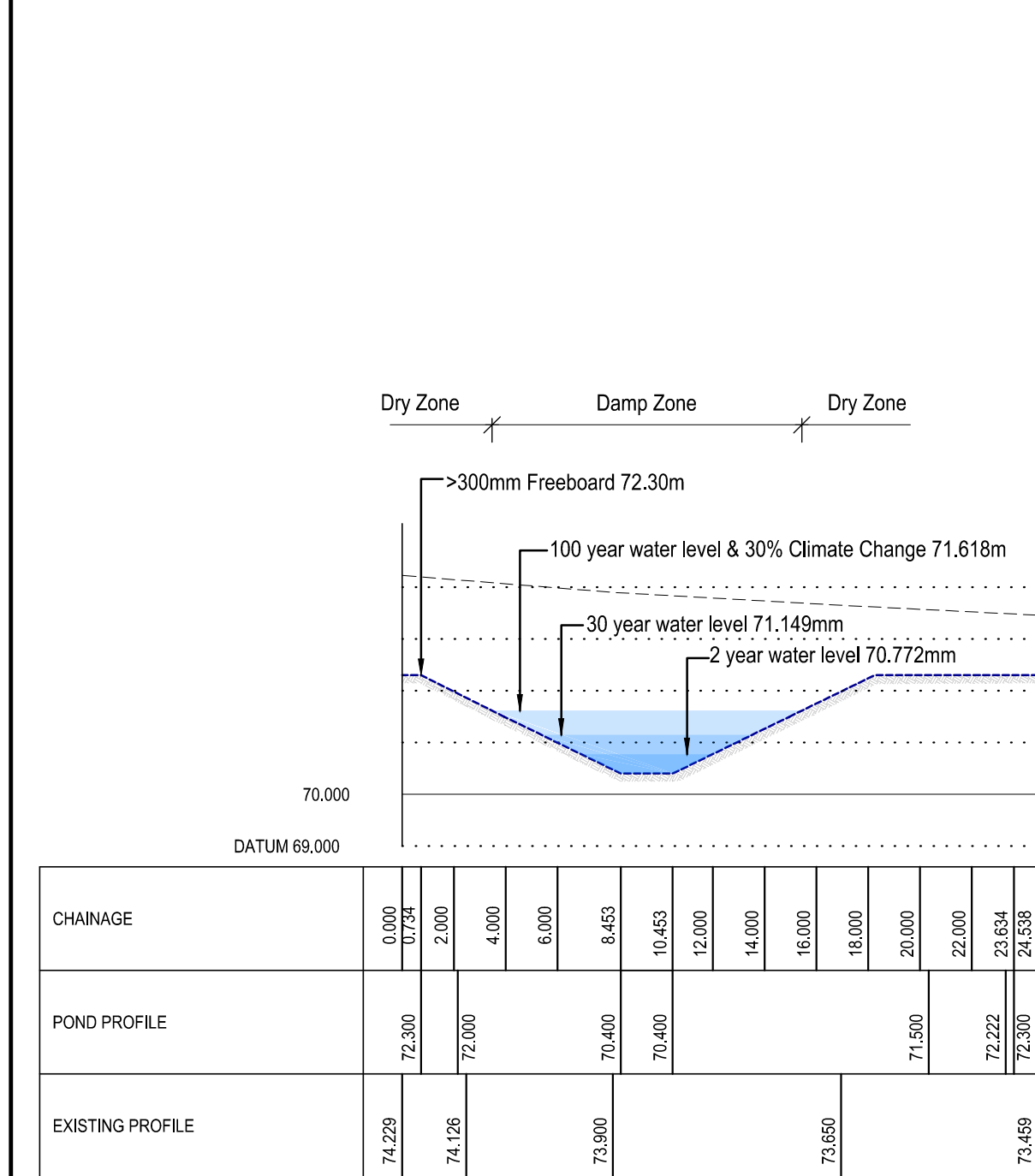




CIVIL / STRUCTURAL DESIGN RISK MANAGEMENT	
Abnormal or unusual residual risks associated with the design outcomes shown on this drawing are:-	
RSK LDE LTD has followed its Design Risk Management process for Hazard Elimination and Risk reduction in developing the designs shown on this drawing. Abnormal or unusual residual risks may be shown above where it is considered that such risk may not normally be expected by competent persons engaged on work of this nature or type.	
- All adoptable sewer works and material to be in accordance with "Sewers for Adoption" 6th Edition, "The Relevant" British/European and Yorkshire Water's Standards/Requirements/Addendum and Kitemark". - Manhole covers shall must have a minimum clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways. - Filled ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out. - Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage run-off will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the filter drain/land drainage run-off. - Cover slabs must carry the BSI Kitemark or will be rejected by Yorkshire Water Inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab to bring the size down to 600mm x 600mm for the Yorkshire Water specified cover size. Please refer to Concrete Pipe Systems Association (CPSA) "Technical Bulletin" issued Autumn 2004 for Kitemarked cover slab opening sizes. - Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary. - The adoptable sewers should be a minimum of 1m, and manholes 0.5m, from kerb faces and service margins. - Sewers must have 5 metres clearance from trees and hedges (please also refer to Figure 2.3 on page 33 in "Sewers for Adoption" 6th Edition for restrictions on tree planting adjacent to sewers). - Sewers to be laid in Class "S" Bedding (150mm granular bed and surround. Where depth of cover to top of the sewer is less than 1.2m in highways and verges (or less than 900mm in none vehicular access areas) then a concrete slab should be provide above granular bed and surround. - Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2). - The chamber size of manholes with more than one connection in them may need to be increased an increment to accommodate the connections and bends. - Yorkshire Water policy is not to accept Type "C" brick manholes and 1050mm dia manhole rings. Instead it is preferred that you use a type "B" manhole with 1200mm dia or 1500mm dia rings, with the opening sited over the channel where depth of cover to pipe soffit is 1 - 1.5m.	



Legend

- Flood Zone 100yr + Climate change
- Flood Zone 30yr
- Flood Zone 1yr
- Permanent Water
- Aquatic Zone
- Safety berm
- Translocated / retained colliery spoil

POND MAINTENANCE SCHEDULE	
Litter removal.	Monthly
Inspect vegetation to pond edge and remove nuisance plants (for first 3 years).	Monthly (at start, then as required).
Hand cut submerged and emergent aquatic plants (at minimum of 1m above pond base; include max of 25% of pond surface).	Annually.
Remove 25% of bank vegetation from waters edge to a minimum of 1m above water level.	Annually.
Tidy all dead growth before start of growing season.	Annually.
Remove sediment from headwall aprons.	1 - 5 years or as required.
Remove sediment from one quadrant of the main body of ponds without sediment forebays.	2 - 10 years.
Remove sediment from the main body of big ponds when pool volume is reduced by 20%.	>25 years (usually).
Repair of erosion or other damage.	As required.
Aerate pond when signs of eutrophication are detected.	As required.
Realignment of rip - rap or other damage.	As required.
Repair/rehabilitation of inlets, outlets and overflows.	As required.
Inspect structures for evidence of por operation.	Monthly/after large storms.
Inspect banksides, structures, pipework etc for evidence of physical damage.	Monthly/after large storms.
Inspect water body for signs of eutrophication.	Monthly (May - October).
Inspect silt accumulation rates and establish appropriate removal frequencies.	Half yearly.
Check Flow control chamber	Half yearly.

THIS DRAWING IS FOR APPROVAL

Rev.	Date	Amendment	Drawn	Chkd.	Appd.
P2	16.02.15	Maintenace Schedule and construction details.	FJP		
P1	27.10.14	Issued for Approval	FJP	CB	IC

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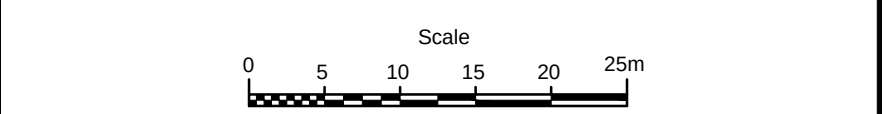
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Client
Harworth Estates

Project Title
North Gawber

Drawing Title
Pond General Arrangement & Sections

Drawn	Date	Checked	Date	Approved	Date
FJP	OCT 14	CB	OCT 14	IC	OCT 14
Scale	Orig Size	Dimensions			
H=1:250, V=1:125	A1	m			
Project No. 880442		Drawing File			
Drawing No. 43-04-01				Rev. P2	



File Location: L:\01 JOBS LIFE880442 - NORTH GAWBER HARWORTH\GROWTH\INFRASTRUCTURE\DETAILED DESIGN\43-04 POND GAWING