## Williams Consulting Engineers Australia Pty. Ltd.

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## CIVIL STRUCTURAL

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> 9<sup>th</sup> September, 2013 Project No.2013/049

Mr. Joshua Vermeer, J. K. Williams Contracting Pty. Ltd., 44 Jack Williams Drive, PENRITH. NSW. 2750

Dear Sir,

RE: JORDAN SPRINGS SUBDIVISION STAGES 4A,4B – STRUCTURAL CERTIFICATE FOR STORMWATER DRAINAGE PITS AND BOX CULVERT BASES AND SUNDRIES.

The writer has carried out inspections of the stormwater drainage pit bases, box culvert bases, and the pit walls and risers for Stages 4A,4B of the Jordan Springs subdivision as follows:

Date	Item	Inspected	
10/05/13	Culvert East North	Base slab reinforcement and cover	
13/05/13	Culvert West/South	Base slab reinforcement and cover	
31/05/13	Pits 18/5, 18/6	Pit base reinforcement and cover	
04/06/13	Pit 18/7	Pit base reinforcement and cover	
04/06/13	Pit 18/6	Pit wall reinforcement and cover	
05/06/13	Pit 18/5	Pit wall reinforcement and cover	
06/06/13	Pits 18/8, 18/9	Pit base reinforcement and cover	
06/06/13	Pit 18/7	Pit wall reinforcement and cover	
12/06/13	Pit 18/8	Pit wall reinforcement and cover	
12/06/13	Headwall East North	Reinforcement and cover	
14/06/13	Pits 18/5,18/6,18/7,18/8	Pit risers reinforcement and cover	
17/06/13	Pits 18/9	Pit wall reinforcement and cover	
17/06/13	Headwall West South	Reinforcement and cover	
18/06/13	Pits 6/10,6/15	Pit base reinforcement and cover	
20/06/13	Pits 6/10,6/15	Pit wall reinforcement and cover	
24/06/13	Pits 6/10,6/15,18/9	Pit riser reinforcement and cover	
04/07/13	Pits 69/2	Pit base reinforcement and cover	
08/07/13	Pit 69/2	Pit wall reinforcement and cover	
10/07/13	Pit 69/2	Pit riser reinforcement and cover	
10/07/13	Pit 6/17	Pit base reinforcement and cover	
12/07/13	Pit 6/17	Pit wall reinforcement and cover	
16/07/13	Pit 6/17	Pit riser reinforcement and cover	
23/07/13	Maintenance slabs	Slab reinforcement and cover	
		$\mathbf{p}_{\mathbf{a}\sigma e}$	e 2

Jordan Springs Subdivision, Stages 4A,4B (Cont.):

The reinforcement, cover and member thicknesses for all pits, box culvert bases, maintenance slabs and headwalls were satisfactory and in accordance with the approved drawings and site instructions by the writer.

The writer certifies that the stormwater drainage pits, box culvert bases, maintenance slabs and headwalls have been constructed in accordance with the approved engineering drawings prepared by J. Wyndham Prince Pty. Ltd., as per the table of plans on Page 3.

Yours faithfully,

R. D. Williams

B.Sc.(Tech.), Civil Engineering, Grad. Dip., Mining Engineering,

MIEAust., CPEng., NPER2445628

Jordan Springs Subdivision, Stages 4A,4B (Cont.):

## TABLE OF ENGINEERING CONSTRUCTION PLANS:

Stage 4A/B				
Plans	No.	Revisio n		
Cover Sheet	9408/CC10 1	Α		
Engineering Plan 1 of 3	9408/CC10 5	В		
Engineering Plan 2 of 3	9408/CC10 6	В		
Engineering Plan 3 of 3	9408/CC10 7	В		
Structural Pit 6/10	9408/CC14 6	В		
Structural Pit 6/15	9408/CC14 7	В		
Structural Pit 6/17	9408/CC14 8	В		
Structural Pit 18/5	9408/CC14 9	В		
Structural Pit 18/6	9408/CC15 0	В		
Structural Pit 18/7	9408/CC15 1	В		
Structural Pit 18/8	9408/CC15 2	В		
Structural Pit 18/9	9408/CC15 3	В		
Structural Pit 69/2	9408/CC20 3	Α		
Culvert Details 1 of 2	9408/CC15 4	В		
Culvert Details 2 of 2	9408/CC15 5	Α		