

Course Agenda	LEARNING OBJECTIVE	DURATION	TIME	PAGE
1. INTRODUCTION				
1.1 Course Objectives	---			1-1
1.2 What is an Integral Abutment?	1	0.5 hrs		1-3
1.3 Why use an Integral Abutment?	1		1-6	
1.4 When can an Integral Abutment be used?	1		1-7	
1.5 How are Integral Abutments designed?	2		1-11	
2. PENNDOT'S INTEGRAL ABUTMENT STANDARD BD-667M				
2.1 Pile Details	3	1.25 hrs	With Break	2-1
2.2 Abutment Reinforcement Details	3			2-7
2.3 Wingwall Types	4			2-16
2.4 Additional Details	3			2-23
2.5 Section Review & In-Class Exercise	---			2-26
3. PENNDOT'S INTEGRAL ABUTMENT SPREADSHEET				
3.1 Spreadsheet Overview	5	3.25 hrs	12:00-1:00 LUNCH	3-1
3.2 Preparation of Input Data	6			3-3
3.3 LPile Analysis	7			3-17
3.4 Specification Checks	8			3-27
3.5 Interpreting the Output	8			3-32
3.6 Section Review & In-Class Exercise	---			3-33
4. PRACTICAL APPLICATIONS				
4.1 Example #1 – Overview	9	1.5 hrs	With Break	4-1
4.2 Example #1 – Preparation of Input Data	9			4-4
4.3 Example #1 – LPile Analysis and Output	9			4-7
4.4 Example #1 – Specification Checks & Interpreting Output	9			4-15
4.5 Example #1 – Interior Beam PSLRFD Output	9			4-16
4.6 Example #1 – Exterior Beam PSLRFD Output	9			4-49
4.7 Example #1 – Integral Abutment Spreadsheet Run	9			4-80
5. MULTI-SPAN STRUCTURES				
5.1 Two Span Configuration	10	0.5 hrs		5-1
5.2 Two Span Configuration – Mixed Substructure Types	10		5-4	
5.3 Three or More Spans	10		5-5	
5.4 Structure Modeling for Thermal Movements	10		5-6	
5.5 Sample Problem	10		5-11	
5.6 Section Review	---		5-21	
CONCLUSION				
Perform Final Review of Major Sections	---	1.5 hrs		
Closing Remarks and Course Evaluations	---			
Administer the Final Exam	---			