

PRECAST ELEMENTS DESIGN AND DETAILING CHECKLIST

Name of Project: Input data
 Name of Structure: Input data
 Structure Number: Input data
 Project Number: Input data
 PIN: Input data

Originator: Input name and initials
 Checker: Input name and initials

Date:
 Date:

TITLE BLOCK	Provided (Originator)			Chk	Comments
	Yes	No	NA		
Complete all information required in the standard title. <ul style="list-style-type: none"> Top line = project name Second line = structure name Third line = sheet name 					
Complete the title block.					
Fill in initials, dates, and signatures.					

DESIGN	Provided (Originator)			Chk	Comments
	Yes	No	NA		
Meet the requirements of AASHTO LRFD and the UDOT Structures Design and Detailing Manual (SDDM) and as shown on the SD-6 series and SD-9 series drawings.					
Provide repetitive details, allowing the use of a single set of forms, small crews and efficiency in casting.					
Use simple details. Complex shapes or reinforcement shapes that reduce quantities typically do not overcome the extra cost and risk associated with complex shapes and details.					
Minimize the number of connections. Fewer larger connections are typically more cost effective than a larger number of smaller connections and provide fewer chances for geometric errors. Eliminate connections where possible.					
Provide as much tolerance in the system as possible to accommodate minor geometric inconsistencies. Adequate tolerance is especially important for elements spanning from support to support where temperature effects become measurable.					
Evaluate potential crane locations, precast element delivery truck locations, crane reach limitations and site geometry to determine appropriate element size and weights.					
Balance the number of elements required with the size of the element and access to the site. Larger elements in areas easy to access can provide the fastest construction but, in areas with difficult access, smaller sections can be faster to place.					

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SHEET	Provided (Originator)			Chk	Comments
	Yes	No	NA		
Define precast elements <ul style="list-style-type: none"> • Define length, width and height • Define fabrication tolerances for each dimension • Define and detail all reinforcing in the element • Verify construction clearances between reinforcing and blockouts or other connection elements • Review rebar placement requirements and clearances for highly reinforced elements • Verify constructability and minimum spacing requirements for reinforcing • Define and detail and connection elements • Define the weight of each separate piece 					
Define connections <ul style="list-style-type: none"> • Define connection materials • Define connection sizes • Define the construction sequence • Define leveling requirements • Define construction tolerances • Define closure pours • Define time limitations or minimum concrete/grout strengths at the construction steps 					
Provide complete plan and elevation views of the structure. Refer to appropriate SD sheets for design requirements and SS sheets for sample details.					
Provide appropriate notes and sheet references.					