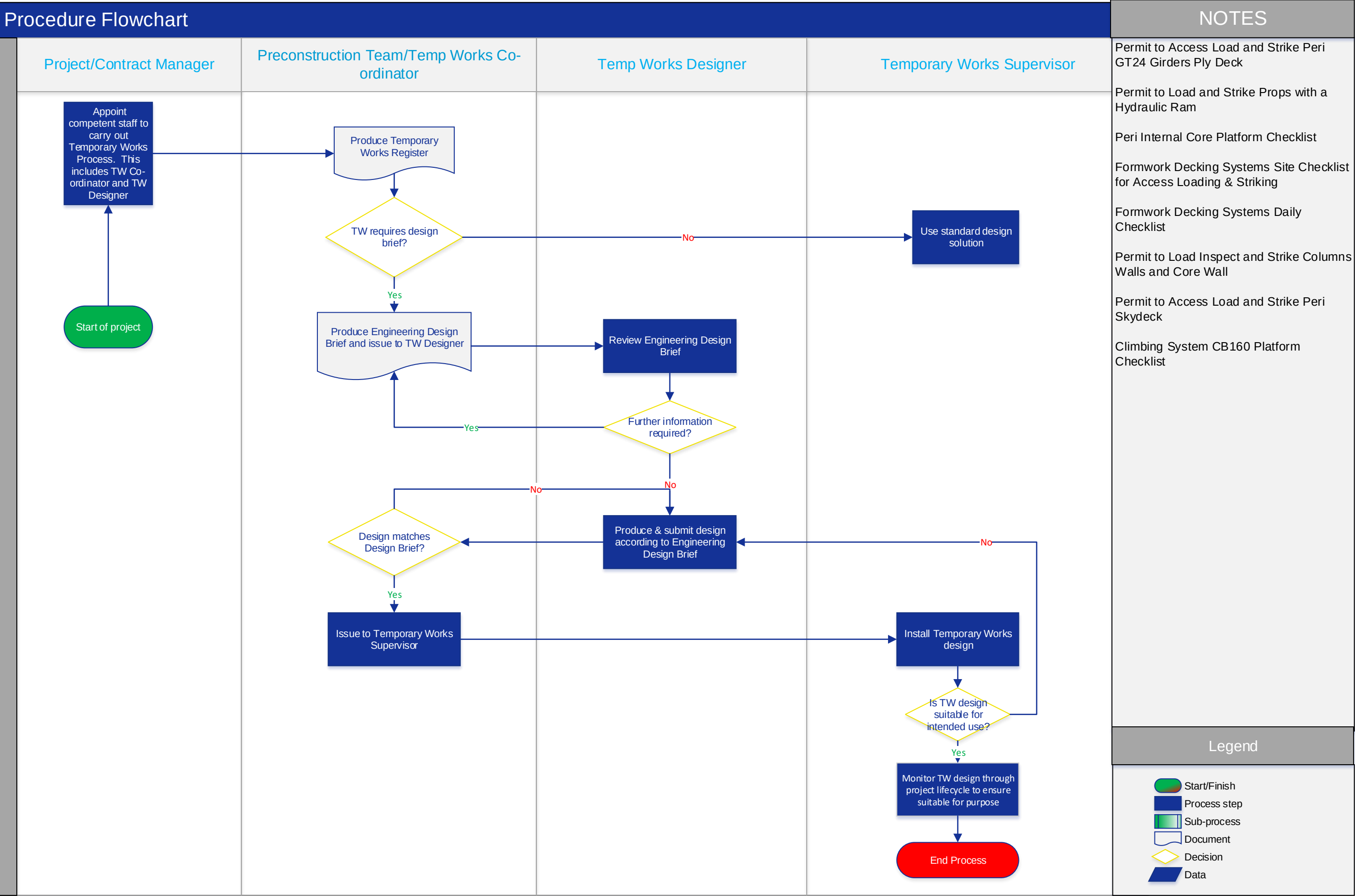




Health and Safety Procedure

Temporary Works



11/10/2018	11/10/2018	12/10/2018	15/10/2018
Lesley Evans	Warren Stevenson	Ben Dixon	Richard Crompton
Quality Manager	Quality Manager	Group HS&E Manager	Engineering Director
Prepared By	Category 3 Checked	Category 3 Checked	Approved

Current version

Suitability	Revision	Security	Date	Notes
A1	C06	Public	26/07/2019	Update

Version history

Suitability	Revision	Security	Date	Notes
A1	C01	Public	02/2011	Updated following JRL Group review
A1	C02	Public	10/2011	Deleting the Operations Director
A1	C03	Public	03/2014	Introduction of the Preconstruction Manager
A1	C04	Public	03/2018	Review and Update
A1	C05	Public	15/07/19	Reformatted, no changes to content

Table of Contents

1.0 Introduction & Scope 4

2.0 Responsibilities 5

3.0 Arrangements 5

4.0 Role of the Engineering Director 5

5.0 Role of the Temporary Works Co-ordinator (TWC)..... 6

6.0 Role of Temporary Works Designers (TWD)..... 6

7.0 Role of Temporary Works Supervisor (TWS)..... 7

8.0 Engineering Design Brief..... 7

9.0 Attached Forms 8

1.0 Introduction & Scope

Temporary works is any temporary structure required to construct a permanent structure, or used to support a permanent structure during its erection, until it becomes self-supporting. Temporary works can also be defined as any works used to access the works or to provide access to the works. A list, but not exhaustive, of temporary works are any of the following:

- Cofferdams
- Falsework and Support Scaffolding,
- Formwork,
- Scaffolding,
- Battered Deep Excavations,
- Trench Support,
- Underpinning,
- Headings,
- Structural Support of Existing Buildings,
- Facade Support,
- Tower Crane Bases,
- Support of Pre-cast or Prefabricated Units during erection.
- Temporary support and accesses in tunnel construction,
- Temporary bridges,
- Temporary platforms,
- Piling frames,
- Piling Mats,
- Anchorage's and thrust blocks.
- Operations where there are specific interfaces with the sequence of construction e.g. de-watering, pre-stressing.
- Any adaptation to permanent works for a temporary situation which has not been considered as part of the permanent works design e.g. strengthened structural design, lifting bolts in p.c. units etc.,
- Or any other structure defined as Temporary Works by a Director, Contracts Manager or Temporary Works Co-ordinator. (E.g. crane outrigger support, hoardings, multi-stacked cabins, public access tunnels, protective decks and fans.)
- Crane lifts are dealt with under the procedures for lifting operations. Nevertheless for non-routine lifts, particularly those involving special lifting arrangements or lifting beams, a temporary works input will often be required.

All temporary works need to be properly planned and all but the simplest require a design input to ensure a safe product and a safe working environment.

This contract procedure has been produced to be used on all JRL Group contracts.

Any policy which addresses all types of Temporary Works within JRL Group, must rely on the experience and knowledge of Managers to decide:

- When the procedures need to be implemented
- Who will be appointed under the procedure?

In some circumstance prior to awarding the contract or commencing construction work, the Temporary Work Design will require a Client or other third party (Highway Agency, Network Rail or similar) to review and approve the proposed design to be installed. In this instance, installation of the proposed temporary works design shall only commence once written confirmation that the proposed design is acceptable is obtained from the Client.

2.0 Responsibilities

- The Engineering Director will be responsible for implementing this procedure. The Preconstruction Manager and TWC will compile the Temporary Works Register (TWR). They will need to establish systems where others within their business such as Estimators and Planners alert them to the need for Temporary Works.
- This procedure will cover the vast majority of sites. Should the Contracts Manager or Engineering Manager feel for any reason that the procedure will not work on a particular contract due to the uniqueness of the project, a special procedure or special measures must be prepared.
- It is a **mandatory** requirement for any project to appoint a Temporary Works Co-Coordinator, Temporary Works Supervisor and Temporary Works Designer.

3.0 Arrangements

- This document describes procedures, both general and specific to clearly define statutory and line management responsibilities for the appointment of designated staff. This procedure is guidance for the designated staff that are required to manage the temporary works process from conception, through design, detailing, checking, method statement, fabrication, erection and loading through to dismantling.
- Where the design and construction of temporary works are undertaken by a specialist contractor or supplier, the following arrangements may occur.
 - Equipment is hired, with the supplier carrying out the design or providing the basic design data.
 - Equipment is erected and installed by operatives who are not in the direct employment of either the contractor or of the supplier.
 - Part or even the entire design and construct operation is carried out by a specialist contractor.
 - The design is procured from a third party.
- When specifically stated in the Temporary Works Register the Preconstruction Team/TWC must prepare an Engineering Design Brief adequately setting out the requirements of the design.
- Whatever the circumstances the responsibility for the safety of the work resides with JRL Group operating companies. It is required that the contractors or third party design, drawings, method statements etc. are adequately checked and their work on site supervised just as if it was the direct work of the JRL Group.
- All the implications and limitations of the contractor's work must be fully understood and compliance ensured. It is the responsibility of JRL Group to co-ordinate and communicate between such various parties and the site team and to ensure that the required procedures are developed, carried through and checked.
- All temporary works shall be designed, fabricated and installed in accordance with best practice, approved codes of practice, relevant design standards and considerations to the Health and Safety at Work regulations.

4.0 Role of the Engineering Director (ED)

The Engineering Director shall:

- Decide when Temporary Works procedures are required.
- Select persons to be appointed under this procedure and if necessary have them appointed as Temporary Works Co-ordinator.
- Identify a Responsible Person to carry out Temporary Works Appointments.
- Ensure that appointments are made in writing and that persons accept their appointment.
- Issue this procedure to a Temporary Works Sub Contractor and the Temporary Works Designer (if externally appointed).
- Ensure that persons appointed are competent to carry out their duties.
- Ensure that this procedure is complied with on sites under their control.

- Ensure TWC and TWD have been appointed.
- Ensure that appointments to TWD include the production of an Engineering Design Brief (EDB), and that persons accept their appointment.
- Ensure that persons appointed are competent to carry out their duties.
- Manage the design process and liaise with the TWC and TWD.
- Coordinate and lead the design work undertaken by the TWD.
- Ensure that the appointed TWC understands how to implement the procedure prior to construction work commencing.
- Ensure that sufficient time is allowed in the programme to adequately produce, review and approved the Temporary Works design.
- Ensure that all Temporary Works designed have construction status prior to commencing installation.

5.0 Role of the Temporary Works Co-ordinator (TWC)

The TWC must:

- Be appointed in writing.
- Be employed by JRL GROUP.
- Ensure that the Temporary Works Register is complete and maintained.
- Have the necessary experience and competence to carrying out his duties under this procedure.
- Ensure that a proper and adequate EDB or a standard design solution has been established and is suitable for actual site conditions.
- Visit site to review actual conditions.
- Ensure that any necessary site investigation information is available or, in its absence, to ensure that, if necessary, such investigation is carried out and the information provided.
- Ensure that a satisfactory design is carried out.
- Ensure that the design is checked for concept, structural adequacy and compliance with the brief. (The checking Designer may be from the same company as the Temporary Works Designer). Where necessary design should be checked by the Principal Contractor or permanent works designed.
- In conjunction with the ED, when appropriate make the design available to and co-ordinate with other interested parties e.g. Permanent Works Designer, Piling Designer.
- Decide if a method statement is required and instigate its production.
- Ensure that such a method statement is adequate for the purpose, or adequately noted on the drawings, including any requirements in respect of loading or bringing into use.
- To supervise any tests that may be required or deemed appropriate prior to loading or bringing into use of the temporary works.
- Ensure Temporary Works are inspected and conforms to the construction status drawings.
- Arrange for regular inspections, checks and maintenance of Temporary Works which are to remain loaded for extended periods. The frequency of inspections must be agreed with the Designer. Written records of these inspections are to be kept.
- Liaise between site, the Designer and ED.
- To ensure that the appropriate permit to work has been issued.

6.0 Role of Temporary Works Designers (TWD)

The TWDs must, in so far as it is relevant to the appointed scope of works:

- Be appointed in writing, i.e. the issue of the EDB to the TWD.
- Have appropriate experience and competence for work allocated to them.

- Have access to any specialist advice required to arrive at a satisfactory, safe and economic design.
- Understand and conform to relevant Codes of Practice and design standards.
- The Temporary works design shall be fully compliant with their obligations in the Construction Design and Management Regulations and Approved Codes of Practice. The designer shall be particularly aware of their responsibilities to ensure that the works can be constructed and dismantled in a safe manner.
- Have a clear design brief and be in receipt of sufficient information to produce the scheme. This may include programme requirements and proposed working methods or sequence.
- Request as much additional information that they may feel necessary to adequately complete the design or method of installation.
- Visit the site to review actual conditions (if applicable).
- Maintain a good working relationship with others appointed under this procedure.
- Ensure that the design incorporates safe access, egress and working areas for site personnel, and where necessary affords adequate protection to the public.
- Ensure that the design and calculations are checked in line with Category 1-4 design requirements prior to issue.
- Be available to give advice to the Site Team and produce a method statement (if applicable) when requested by Temporary Works Co-ordinator.
- The TWD shall provide assumptions in respect of sequence of works (where required).
- Provide clear notification of further design consideration not addressed in their designs that affect the Permanent Works design and/or other TWD.
- The TWD shall make available their risk assessment with details of any residual risk requiring control by the site.
- Feel free to visit the site at any time to check on compliance with the design.
- JRL Group are responsible for coordinating the design information between TWD's, PWD's and all other third parties.

7.0 Role of Temporary Works Supervisor (TWS)

The TWS must:

- Be appointed by the Responsible Person
- Have the necessary experience and competence to carry out his duties under this procedure.
- Ensure that all materials are inspected and are in good condition, prior to installation.
- Ensure that the Temporary Works are installed as per the design in any sequence specified.
- Ensure that the Temporary Works are fully inspected before final independent inspection is carried out.
- Report any faults or changes to the Temporary Works Co-ordinator.
- Ensure that the Temporary Works are not used until an appropriate Permit has been issued.
- Ensure that safe access, egress, working areas and public protection are provided and maintained.
- Not allow removal of the Temporary Works without an appropriate permit.

8.0 Engineering Design Brief

If the Temporary Works Register has specified that an Engineering Design Brief is required, the following process shall be followed:

- The engineering design brief is simply the basic information necessary for a designer to carry out the design. The more information that is provided the more likely a correct, efficient and safe design will be produced.

- The brief can be prepared at any time but is best prepared during the pre-construction phase. It is most likely to be prepared by the Preconstruction Manager & TWC but on a small project it may be developed by the Project Manager/Engineer or Site Manager with approval from ED/CD.
- Preparation of the brief can involve the collating information from a variety of sources: from site, the office, suppliers, consultants, the client or other interested parties.
- The following is an outline list of some or all of the information and questions that shall be considered when preparing information for an engineering design brief. The information can be provided in the form of drawings, plans, sketches, written statements, photographs, programmes. It may include:
- Accurate address of the site, including postcode, and possibly national grid map reference.
 - Name address and contact details of all parties involved
 - Permanent work drawings, together with archive drawings (if available) showing structure to be supported, either existing or new.
 - Construction programme for permanent structure, proposed erection sequence and timing.
 - Plan of ground and foundation areas beneath and adjacent to the area to be supported detailing contours, and access ways.
 - Soils data for ground to be loaded by Temporary Works, from site investigation or local knowledge.
 - Effect of water courses, scour, flooding, surcharge loads or vibration.
 - Loading applied to Temporary Works by permanent structure, dead and live loads and formwork, (including earth pressures).
 - Effect of openings in existing structure.
 - Limit of loading on Permanent Works from Temporary Works.
 - Location of overhead and underground services and any special requirements by Statutory Authorities.
 - Clearances required from cables, roads, railways etc.
 - Construction method for Permanent Works defining:
 - Loads applied to Permanent Works before removal of Temporary Works.
 - Significant re-distribution of load before removal of Temporary Works resulting from pre-stressing, creep, shrinkage and temperature.
 - Loads applied to Temporary Works from plant, materials, access and attached items.
 - Exposure to determine wind loads.
 - Details of Temporary Works components to be used.
 - Factors controlling stripping or unloading times.
- The above information list is not exhaustive, if any additional information is deemed necessary by any party involved with the temporary works process then it shall be requested and the information shall be provided
- When an external party is appointed, any specific requirements that effect their design process must be included and clearly stated in the EDB.

9.0 Associated Forms

- [BO-JRLG-SM-XX-RG-Z-0011 - Temporary Works Register](#)
- [BO-JRLG-SM-XX-FM-Z-0008 - Engineering Design Brief](#)
- [BO-JRLG-SM-XX-FM-Z-0001 - Permit to Access Load and Strike - Peri Skydeck](#)
- [BO-JRLG-SM-XX-FM-Z-0002 - Permit to Access Load and Strike Peri GT24 Girders Ply Deck](#)
- [BO-JRLG-SM-XX-FM-Z-0003 - Permit to Load and Strike Props with a Hydraulic Ram](#)
- [BO-JRLG-SM-XX-FM-Z-0004 - Peri Internal Core Platform Checklist](#)
- [BO-JRLG-SM-XX-FM-Z-0005 - Formwork Decking Systems Site Checklist for Access Loading and Striking](#)
- [BO-JRLG-SM-XX-FM-Z-0006 - Formwork Decking Systems Daily Checklist](#)
- [BO-JRLG-SM-XX-FM-Z-0007 - Climbing System CB160 Platform Checklist](#)

- [BO-JRLG-SM-XX-FM-Z-0009 - Permit to Load Pre-Pour Inspect and Strike Columns Walls and Core Wall](#)