

1. CRU Roadway Checklist

Reviewer: \_\_\_\_\_

Project No.

Project Description:

Item No	CD	PD	SF	FP FR	DESCRIPTION
RW1					Any subdivisions or commercial/industrial areas not indicated? Conflicts with adjacent projects, if any?
RW2					Is there sufficient geometry, horizontal and vertical to properly locate and construct project? Are baseline ties shown? Benchmarks?
RW3					Do we need additional right-of-way to construct?
RW4					Existing pavement conditions - Are replacements required? Condition of concrete or bituminous. Are appropriate specifications included?
RW5					If shoulders are required to carry traffic during stage construction, are they structurally adequate or should reconstruction be required?
RW6					Have existing overlays been taken into consideration? Check with Maintenance and/or District personnel.
RW7					Are temporary roadways and pavements required to complete construction? If so, details are required.
RW8					Should limits of work be staged to minimize disruption to the public?
RW9					Load transfer devices are to be used for limited access projects with total amount of paving over 3000 tons. Can the roadway and/or structures handle the load of this piece of equipment, the paving train?
RW10					Are typical sections compliant with construction and design standards?
RW11					Is point of application of grade being changed? If so, have proper sections been developed?
RW12					Are paving limits shown? Pavement composition? Joint sealing? Do specs address over filling joint on sealing items and cleaning and sealing joints and cracks item? Saw cutting?
RW13					Is milling required? If so, what is roadway history? Are there any existing metal recessed pavement marking devices or were there any that were previously overlaid? Are there provisions for temporary patch? Limitations? Transitions? Mill curb to curb each shift.
RW14					Is milling item provided to maintain minimum vertical clearances at overhead bridges?
RW15					Will existing barriers have to be relocated?
RW16					Is temporary barrier located to allow contractor access?
RW17					Is guide railing required? If so, are limits reasonable? If existing, can it remain?
RW18					Will the flare recommended for a guiderail system interfere with existing field conditions?
RW19					If staged construction, has balance of cuts and fills been done for each stage? Are temporary stockpile locations identified on the plans, if needed?
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RW21					
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RW23					
RW24					
RW25					
RW26					
RW27					
RW28					
RW29					
RW30					

2. CRU Utility Checklist

Reviewer: \_\_\_\_\_

Project No.

Project Description:

	CD	PD	SF	FP FR	DESCRIPTION
UT1					Are existing utilities as shown on plans?
UT2					Are any underground utilities shown/ not shown? Will they affect construction? If so, have they been addressed?
UT3					Make sure conduits shown entering handhole will physically fit in specified handhole.
UT4					Must utilities be moved? If so, is relocation shown?
UT5					Are utilities to be maintained during construction? If so, are provisions in place?
UT6					Are any substations or utility appurtenances within the construction area required to be accessed during construction? If so, have provisions been included in specs?
UT7					Are utility agreements required? If so, are they in place and up to date?
UT8					Are relocations extensive enough to request an early order to start for utilities?
UT9					Will overhead utilities be in conflict with proposed construction and/or the use of construction equipment such as cranes or pile drivers? If so, should they be relocated.
UT10					If no relocations are shown, is project constructable?
UT11					If temporary supports indicated, is project constructable?
UT12					Are privately owned services involved? Is there a bid item for these relocations?
UT13					If over railroad, is casing required? Is utility to be bonded and grounded?
UT14					Will utility work impact contaminated soil? Are provisions to perform this work in the agreement?
UT15					Are pole relocations in conflict with proposed sidewalks?
UT16					Are utility durations taken into account with the overall construction schedule? Is it realistic?
UT17					
UT18					
UT19					
UT20					

3. CRU Environmental Checklist

Reviewer: \_\_\_\_\_

Project No.  
Project Description

Item No	CD	PD	SF	FP FR	DESCRIPTION
EV1					If contamination exists on the site, have the proper type and quantity of borings and pump tests been performed?
EV2					If contaminated soil, are there provisions for handling/treating?
EV3					If on-site water treatment is required, are its permitting, location, or transportation of water on site covered by specification?
EV4					If the work is located adjacent to a residential area or occupied building, provisions may be required to minimize the impact of noise producing activities, such as restricted work hours or temporary noise barriers.
EV5					Is Waste Stockpile Area identified on plans? An existing paved area is preferred.
EV6					
EV7					
EV8					
EV9					
EV10					

4. CRU Drainage Checklist

Reviewer: \_\_\_\_\_

Project No. \_\_\_\_\_

Project Description: \_\_\_\_\_

Item No	CD	PD	SF	FP FR	DESCRIPTION
DR1					Are existing systems plugged and if so, are they to be cleaned?
DR2					Is sheeting or shoring necessary to protect roadway? If so, an item will be required.
DR3					Are there provisions for temporary paving (before opening the road to traffic and after installation of drainage pipe)?
DR4					Box culverts should NOT be set level but at a minimum 1% grade.
DR5					Box culvert installations during stage construction need extra space to ensure connection at stage limit can be accomplished without compromising previous work.
DR6					Does contract call for handling water if a stream or river is involved? If so, is pertinent flow information shown on the plans (mean and flood)?
DR7					Is there rock in trench? Will blasting be required or allowed?
DR8					Are special structures required because of pipe size or number of pipes?
DR9					Are heavy duty lock down grates specified for major arteries? Are details shown?
DR10					Are catch basins, manholes, and utility grates installed to meet the final grade elevation? If not, and final paving will be done after the winter, ensure that sufficient item quantity for resetting catch basins and manholes (install manhole risers is preferred) is provided.
DR11					Any pipe with a diameter 36" or greater will need an oversized catch basin; go from a standard Type C to a Type I or II.
DR12					If structures are to be reset lower, is there sufficient room above piping to achieve?
DR13					Are existing structures to remain or be reset in good shape? i.e.: frames, grates, walls.
DR14					Are water conditions (i.e.: tidal) indicated or implied?
DR15					
DR16					
DR17					
DR18					
DR19					
DR20					

Item No	CD	PD	SF	FP FR	DESCRIPTION
ST1					If existing structures nearby, are they on timber mats? Prevalent along the shoreline.
ST2					Are bearings to remain? If so, are they in good condition? If not, is there a suggested jacking procedure along with associated quantities? Is jacking acceptable under live load? If yes, are parameters established?
ST3					Are bearing pads sound or do they display deterioration or cracking? If so, are repair procedures in place? Access available for elevated structures?
ST4					If structure is prestressed, are units in good condition?
ST5					Condition of paint- Adhesion and Toxicity tests must be performed. Are current containment, cleaning, and disposal specs in place? Current LHPP?
ST6					Will containment cause height restrictions? Waterway, roadway or railway?
ST7					Are painting specs current and complete? Problems noted environmental or access?
ST8					Have all structures been evaluated for superstructure replacement vs. painting? Prestressed concrete vs. steel beams?
ST9					Has substructure been examined for scour?
ST10					Underside of deck, are map cracking, efflorescence, or chlorides visible?
ST11					Are pop-outs evident on underside of deck? Are repair procedures in place?
ST12					Condition of deck surface - is it overlaid? If so, type known?
ST13					If deck is exposed, what is the condition? Are partial or full depth patches required? Are specs in place? Check removal procedures.
ST14					If stage construction, will temporary supports be required? If so, is a support concept noted on the plans and criteria provided for existing and new structure?
ST15					Type of joints/headers can they be constructed to eliminate "bumps"? Recommend possible solutions.
ST16					How is wearing surface to be removed? Item provided?
ST17					Does deck have membrane waterproofing? If so, is type known?
ST18					If possible, new bridge decks on existing roadways should be raised to meet the new profile created by the overlay.
ST19					Is transition roadway to bridge sufficient?
ST20					Have provisions been made to maintain navigational lighting during construction?
ST21					If bridge is to be closed, are there enough safety barriers and protection in place? Will it still provide contractor access?
ST22					Are existing utilities under the structure or in parapets? If so, how are they maintained throughout the contract period? Are items provided to maintain them?
ST23					Note presence of incident management conduit or signs.
ST24					If span is moveable, can stage construction work?
ST25					Is all previous repair work noted on the plans or as-built?
ST26					For box culvert installations, the construction sequence should be from outlet to inlet.

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ST27					Can the structure(s) handle the load (3000+ tons) of the load transfer device or paving train? Also, vibratory and/or oscillating rollers should be avoided.
ST28					Box culverts should not be set level but at a minimum 1% grade.
ST29					Are abutment construction joint details constructable? Are they through a bearing pad or right at the face of one?
ST30					Review the ratio of the flanges to webs on seismic retrofits. AISC mandates a minimum 3/8" web thickness. Even this is too thin, as with rolled sections the web will kink during processing.
ST31					Does the lightweight concrete special provision talk about plastic weight before and after pumping?
ST32					Review the pour sequence for a multi-span structure. Is it achievable?
ST33					Are closure pours indicated?
ST34					Is a backfilling sequence needed on abutments or wing walls to prevent "overturn" condition?
ST35					If steel bridge built on skew, ensure there is enough room at bearings to torque the bolts.
ST36					If temporary structure mounted barrier is called for on the existing bridge, can the barrier be bolted through the deck without interfering with the beams below?
ST37					If stage construction, are rebar splices needed and specified how to achieve?
ST38					Make sure all areas under bridge where concrete haunches are to be removed are protected and correct quantities included in haunch removal item. i.e. over parking lots, sidewalks, etc., not just over roadways.
ST39					Does the contract require an erection sequence? Attention should be given to structures with curved girders or tubs, and skewed abutments for differential deflection and rotation.
ST40					All fracture critical members (FCM) should be identified with requirements for fabrication.
ST41					Ensure that when cofferdam and pumping is an item in the contract, structure excavation is also an item. Is underwater (tremie) concrete required?
ST42					Is minimum vertical clearance shown on the plans?
ST43					If cofferdam required, is size and location shown on the plans and allowed by permit?
ST44					Are the temperature restrictions for the installation of bearings reasonable? Do the special provisions address installation outside of these tolerances?
ST45					
ST46					
ST47					
ST48					
ST49					
ST50					

6. CRU M PT Checklist

Reviewer: \_\_\_\_\_

Project No.:  
Project Description:

Item No	CD	PD	SF	FP FR	DESCRIPTION
MPT1					For stage construction, are stages reasonable and constructable?
MPT2					Will signing patterns conflict with adjacent project?
MPT3					In stage construction, are necessary items in place (ie: barrier, delineators, impact
MPT4					Has limitation of operations been checked?
MPT5					Will ramps have to be closed?
MPT6					
MPT7					
MPT8					
MPT9					
MPT10					

7. CRU Illumination, Lighting, Signals

Reviewer: \_\_\_\_\_

Project No:

Project Description:

Item No	CD	PD	SF	FP FR	DESCRIPTION
ILS1					Have foundation locations been checked for ROW infringements?
ILS2					Is illumination (existing) to be maintained during construction?
ILS3					Have detours been checked for illumination?
ILS4					Check for conflicts with existing/proposed drainage.
ILS5					
ILS6					
ILS7					
ILS8					
ILS9					
ILS10					

8. CRU General Checklist

Reviewer: \_\_\_\_\_

Project No.:

Project Description:

Item No	CD	PD	SF	FP FR	DESCRIPTION
GN1					If plans are illegible or difficult to read, they should be revised to clarify proposed versus existing.
GN2					Are buildings to be demolished? Have an asbestos and lead evaluation been made? Has decontamination been done? Are there provisions for pest eradication?
GN3					On bridge replacement projects, request plans for the original bridge.
GN4					If plans are incomplete, request full set for review once available. Roadway, bridge plans, and M & P should be reviewed together. Request a final plan review. Request and review Specifications and Special Provisions. Request and review all permits.
GN5					Review any special items of work which will require a long lead time and see if contract time addresses it or not.
GN6					Review the detail estimate sheets and highlight those quantities that are unusually high or low.
GN7					Are utility durations taken into account with the overall construction schedule? Is it realistic?
GN8					
GN9					
GN10					

9. CRU Rails Checklist

Reviewer: \_\_\_\_\_

Project No:

Project Description:

Item No	CD	PD	SF	FP FR	DESCRIPTION
RA1					Are rail switches to be new? Specifications should clearly indicate this.
RA2					Specifications and contract do not follow the format as used in heavy and highway construction, therefore, all items of work must be clearly identified in the specifications and must include all testing criteria, performance and acceptance criteria, submissions, methods of measurement, and basis of payment.
RA3					Check that all applicable codes and code requirements are listed.
RA4					Has environmental site assessment been performed? Are applicable items and specifications included?
RA5					Shop drawing submittals, if known (either by us or designer) require a long lead time, a note should be placed in contract indicating such.
RA6					Specifications should notify contractors that (if applicable) Amtrak safety training is required for all on site personnel.
RA7					Railroad protection or flagger item included in contract if needed. Has a force account with the Railroad been processed?
RA8					Check that all permits and railroad agreements are in place and included in the specifications.
RA9					
RA10					

10. CRU Railroad Station Checklist

Reviewer: \_\_\_\_\_

Project No:

Project Description:

Item No	CD	PD	SF	FP FR	DESCRIPTION
RS1					Pedestrian bridge must be constructed so as to be lifted as a single unit due to track shutdown limitations.
RS2					
RS3					
RS4					
RS5					
RS6					
RS7					
RS8					
RS9					
RS10					

Item No	CD	PD	SF	FP FR	DESCRIPTION
VC1					Are one-piece insulated wall panels shown? These are more efficient to install.
VC2					Is the Construction Staking item specific enough for the project?
VC3					Is it clear which building components require grounding?
VC4					Is it possible that heavy objects / equipment will be mounted on interior walls? These should be constructed of Concrete Masonry Units.
VC5					Is heavy duty door hardware required?
VC6					Does the space allow for adequate equipment movement? Avoid horizontal and vertical conflicts? (Railings, pinch points, and overhead lighting and utility conduits).
VC7					Are fire extinguisher locations and mounting details shown clearly?
VC8					Does the HVAC system require an independent inspection of operation and sequencing of equipment?
VC9					Are awnings provided at entrance doors?
VC10					Is the height of safety rails consistent?
VC11					Do all proposed data and communication lines and outlets consider the future occupant and future uses?
VC12					Do the door functions consider the room use? Is there an overall Keying scheme and does it consider future needs?
VC13					Is the roof access reasonable for the intended use and is it located in an unobstructed area?
VC14					Is a secure material storage pad shown for compressed gases, etc.?
VC15					Are there "pinch points" between railings, stairs, and equipment movement areas?
VC16					Is safety striping included in the plans for clearance areas, walkways and other hazards?
VC17					Are interior railings painted safety yellow?
VC18					Are personnel offices and material storage rooms adequately sized?
VC19					Are interior utility conduits placed so that they do not obstruct the movement of personnel, vehicles or equipment?
VC20					Is all signage incorporated into the contract? i.e. building number, name, safety items, hand washes, fire extinguishers, emergency exit only, etc.
VC21					Is the distance from work areas to restrooms reasonable?
VC22					Is access to all future building maintenance operations and equipment considered?
VC23					Is an overall building and equipment maintenance plan included in the contract for the end user?
VC24					Is the facility's end user fully involved in the design process and providing comments?
VC25					Are HVAC duct chases shown going through a firewall? Not allowed by code.
VC26					Include test pits in the contract to confirm utility locations and confirm soil types.
VC27					Plans and specs should be clear what safety features (i.e. lighting, fire alarms, sprinklers, 1-hour fire rating) are needed in temporary construction.
VC28					Is exterior emergency lighting required?
VC29					Is all infrastructure for future equipment / building use being installed?

12. CRU Vertical Construction Checklist

Reviewer: \_\_\_\_\_

Project No:

Project Description:

Item No	CD	PD	SF	FP FR	DESCRIPTION
VC30					Do exposed conduits use stickers for identification?
VC31					Is entire access to loading docks adequate for the proposed design vehicle?
VC32					
VC33					
VC34					
VC35					

13. CRU Detour Checklist

Reviewer: \_\_\_\_\_

Project No:

Project Description:

Item No	CD	PD	SF	FP FR	DESCRIPTION
DT1					Determine if there are any other projects that may be in construction along the detour route.
DT2					Determine how pedestrians will be accommodated and if a signed pedestrian detour will be required.
DT3					
DT4					
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DT10					

Item No	CD	PD	SF	FP FR	DESCRIPTION
OT1					Any salvageable materials? If so, is it noted? Ensure that maintenance or stores have a need for it.
OT2					If trees are to be planted at sidewalks, ensure openings are large enough for root ball or have specifications call for planting before sidewalks are installed.
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