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Workbook User Instructions

Step

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- Open the "CRU Project Review Checklist" file and save the file to the project folder. To do this: Click on File\Save
 As, and save the file into the project folder and save the file as "CRU Project Review Checklist Project Number."
 - Open "File/Page Setup" and change Header for your project. To change header, click on File, then Page Set up. Once in the page set up, click on Header/Footer tab. Then click on, "Custom Header" and fill in your project information. To save time when modifing the "Custom Header", copy and paste your right hand side section for each tab. To add yourself as reviewer, click on Left Section and type in your name over the line.
- 3 Print options are set, you can change in the "page setup" file
- 4 Greyed out box means do not check in that phase
- 5 Comments are not printed unless you change the page setup
- 6 Acronyms:

:	CD	Conceptual Design Phase
PD Preliminary Design Phase		Preliminary Design Phase
	SF	Semi-Final Design Phase
	FDFR	Final Design Final Review
	C Constructibility Review Unit/ District Construction	
	D	Designer/Consultant/Consultant Design
	S	Survey/Due Dilligence
	MO	Mention only (i.e. to designer from a construction persepective)





CD	PD	SF	FPFR		Comments						
Gei	General										
	NEW CONCRETE SPECS: Until the $6/1/12$ Rev. for Sections 6.01 and $M.03$ are adopted into the Supplemental Specs, make sure the designer addresses other items that reference those sections. The list of other affected items is available from OOC/QA Section.										
				If plans are illegible or difficult to read, they should be revised to clarify proposed versus existing.							
				Does the plan topography match existing conditions?							
				Are buildings to be demolished? Have an asbestos and lead evaluation been made? Has decontamination been done? Are there provisions for pest eradication?							
				On bridge replacement projects, request plans for the original bridge.							
				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.							
				Review any special items of work which will require a long lead time and see if contract time addresses it or not.							
				Review the detail estimate sheets and highlight those quantities that are unusually high or low.							
				Are utility durations taken into account with the overall construction schedule? Is it realistic?							
				If project disturbance includes ten acres or more on farm property, a Farmland Conversion Impact Rating Form (Form AD-1006) is to be completed in coordination with the Natural Resourse Conservation Service and possible mitigation is to be identified.							
Oth	er										
				Any salvageable materials? If so, is it noted? Ensure that maintenance or stores have a need for it.							
				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.							
				Coatings for fencing/posts/etc to match Town/City color requests: Make sure the ASTM Type is Type B for exterior and the color is something that can be accommodated. Type B only comes in certain colors. Type A may be spec'd to meet the color requirement but it is the worng application.							





CD	PD	SF	FPFR		Comments					
Roa	Roadway									
	NEW CONCRETE SPECS: Until the 6/1/12 Rev. for Sections 6.01 and M.03 are adopted into the Supplemental Specs, make sure the designer addresses other items that reference those sections. The list of other affected items is available from OOC/QA Section.									
				Any subdivisions or commercial/industrial areas not indicated? Conflicts with adjacent projects, Pending Maintenance Permits?						
				Is there sufficient geometry, horizontal and vertical to properly locate and construct project? Are baseline ties shown? Benchmarks?						
				Do we need additional right-of-way to construct?						
				Existing pavement conditions - Are replacements required? Condition of concrete or bituminous. Are appropriate specifications included?						
				If shoulders are required to carry traffic during stage construction, are they structurally adequate or should reconstruction be required?						
				Have existing overlays been taken into consideration? Check with Maintenance and/or District personnel.						
				Are temporary roadways and pavements required to complete construction? If so, details are required.						
				Should limits of work be staged to minimize disruption to the public?						
				Are typical sections compliant with construction and design standards?						
				If full depth reconstruction is being considered, what are the existing traffic volumes and speed? Speeds over 40 mph and heavy volumes require staged construction sequences.						
				Is point of application of grade being changed? If so, have proper sections been developed?						
				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?						
				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 (Piezometers, Tredles, etc)? Limitations? Transitions? Mill curb to curb each shift.						
				Proposed milling depth may be compromised if there are open longitudinal joints. Have pavement management review depth to limit delamination of lifts.						
				Will existing barriers have to be relocated?						
				Is temporary barrier located to allow contractor access?						
				If staged construction, has balance of cuts and fills been done for each stage? Are temporary stockpile locations identified on the plans, if needed?						
				If staged construction, does the contract item list allow the contractor to choose his temporary earth retaining system? If so, TPCBC may have to be pinned to pavement if drop offs are > 2.5' and there is less than a 4' shelf behind the barrier.						
				Cemeteries present a unique problem where older ones actually interred people outside the cemetary proper if they committed crimes, etc.						
				Are temporary roadways and pavements required to complete construction? If so, details are required.						
				Have old crib walls for roadway embankment support been identified? Some may contain asbestos.						
				Are there any Historical Miles Markers, Survey Monuments, etc.						
				Old stage coach route? If yes, there may be graves present on the side of the road.						
				Minimum depth of HMA 0.5" should be not less than 2".						
				If staged construction and shoulder is being used as temporary travel lane, is a temporary pavement wedge needed to correct cross slope differential, especially on a superelevated curve? (algebraic difference should not exceed 8 percent)						





CD	PD	SF	FPFR		Comments
				If slope must be steeper than 26.6° (1 v to 2 h) such as behind a culvert endwall, recommend installation of 12 inches of special riprap on the slope surface placed on a separation layer of 6 inches of granular fill. Do not use geotextile as a separation layer.	
				Proposed milling depth may be compromised if there are open longitudinal joints. Have pavement management review depth to limit delamination of lifts.	
				Will existing barriers have to be relocated?	
				Is temporary barrier located to allow contractor access?	
				Will the flare recommended for a guiderail system interfere with existing field conditions?	
				If staged construction, has balance of cuts and fills been done for each stage? Are temporary stockpile locations identified on the plans, if needed?	





CD	PD	SF	FPFR		Comments				
Utilities Ch. D. Liv. Market Ch. D. Liv. Ch. Ch. Ch. Ch. Ch. Ch. Ch. Ch. Ch. Ch									
П				Are Public Utilities present w/ in the limits of the Project?					
	\Box	\Box	$\overline{\Box}$	Have Utilities been notified of the project?					
		$\overline{\Box}$	$\overline{\Box}$	Have Utilities reviewed the plans?					
		$\overline{\Box}$	$\overline{\Box}$	Are existing utilities as shown on plans?					
				Are any underground utilities shown/ not shown? Will they affect construction? i.e. Can they handle construction loading and vibration limits? If not, have they been addressed?					
				Make sure conduits shown entering handhole will physically fit in specified handhole.					
				Are the utility relocations shown as proposed by the utility (vs. plans)? Are they compatible with staged construction?					
				Can temporary relocations help the construction schedule?					
				Have test pits been performed? If yes, a test pit data table must be shown on the plan sheet. Are traffic contol foundations considered?					
				Double-check sidewalk ramp widths and areas. Revised ADA requirement for sidewalk widths are increasing from 36" to 48". Ensure there is a minimum 36". Do grades meet ADA requirements?					
				Is additional ROW required to accommodate relocations or aerial conflicts?					
				Are there any OH lines attached to the Limited Access Highway Bridge? If yes, then OH facilities now must buried underground.					
				Can separate utility trenches be combined into a common trench? If yes, then line assignments need to be established and agreed upon by the utilities.					
				Are the existing utilities to be maintained during construction, temporary shut off, etc? If so, are provisions in place?					
				Are any substations or utility appurtenances within the construction area required to be accessed during construction? If so, have provisions been included in specs?					
				Are utility agreements required? If so, are they in place and up to date?					
				Are relocations extensive enough to request an early order to start for utilities?					
				Are overhead utilities in conflict with proposed construction and/or the use of construction equipment such as cranes or pile drivers? If so, should they be relocated or can they be deenergized.					
				Are utilities adjacent to a Railroad. If yes, should they be cased? Bonded, Grounded?					
				If no relocations are shown, is project constructible?					
				If temporary supports indicated, is project constructible?					
				Are privately owned services involved? Is there a bid item for these relocations?					
				Will utility work impact contaminated soil? Are provisions to perform this work in the agreement or in the State's contract?					
				Are utility durations taken into account with the overall construction schedule? Is it					
				realistic? If long lead materials are needed, an early material order needs to be placed. This can only					
				If long lead materials are needed, an early material order needs to be placed. This can only be directed by the Chief Engineer.					
				Contact Info up to date in the contract document?					
				Was there any "Notice To Contractor" that alert the contractor about any required utility special provisions?					





CD	PD	SF	FPFR		Comments					
Env	Environmental									
				If next to a class A watershed who has authority (DEP, regional water, etc)?						
				Are permits required?						
				Are copies of the permits available for District review?						
				Are there potential areas off site that could affect project work? Gas Stations, landfills, etc.	·					
				If contamination exists on the site, have the proper type and quantity of borings and pump tests been performed?						
				Is it anticipated a Health and Safety Plan is necessary?						
				If contaminated soil, are there provisions for handling/treating?						
				Do utility relocations affect the permit? How?						
				Do the permits cover all work - Temporary and permanent?						
				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.						
				Is Waste Stockpile Area identified on plans? An existing paved area is preferred.						
				Draft Permit Plates reviewed by District?						
				Did an Environmental Meeting take place?						
				Is a stormwater discharge permit required? >20 acre disturbance? In 2012 >10 acre disturbance.						
				Is there sufficient room for a sedimentation basin?	·					
				Permit timeline allow sufficient time for plantings in the Mitigation Area?						
	NOTE: The abbreviation "C.J.L." stands for Coastal Jurisdiction Line. Any construction work in the vicinity of this line needs to be permitted by DEEP's Office of Long Island Sound Programs.									





CD	PD	SF	FPFR		Comments					
Dra	Drainage									
	NEW CONCRETE SPECS: Until the 6/1/12 Rev. for Sections 6.01 and M.03 are adopted into the Supplemental Specs, make sure the designer addresses									
othe	other items that reference those sections. The list of other affected items is available from OOC/QA Section. Is sheeting or shoring necessary to protect roadway? If so, an item will be required.									
			Ш_	Is sheeting or shoring necessary to protect roadway? If so, an item will be required.						
				Are there provisions for temporary paving (before opening the road to traffic and after installation of drainage pipe)?						
				Box culverts should NOT be set level but at a minimum 1% grade.						
				Box culvert installations during stage construction need extra space to ensure connection at stage limit can be accomplished without compromising previous work.						
				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)?						
				Is there rock in trench? Will blasting be required or allowed?						
				Are special structures required because of pipe size or number of pipes?						
				Are heavy duty lock down grates specified for major arteries? Are details shown?						
				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.						
				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.						
				If structures are to be reset lower, is there sufficient room above piping to achieve?						
				Are pipe collars included in contract for piping installed in stages?						
				Are existing systems plugged and if so, are they to be cleaned?						
				Are existing structures to remain or be reset in good shape? i.e.: frames, grates, walls.						
				Are water conditions (i.e.: tidal) indicated or implied?						
				If Tidal outfall, is a check valve detailed?						
				Are all existing structures shown? Are they in good shape?						
				Cross sections should show proposed and existing drainage.						
				If slope must be steeper than 26.6° (1 v to 2 h) such as behind a culvert endwall, recommend installation of 12 inches of special riprap on the slope surface placed on a separation layer of						
				6 inches of granular fill. Do not use geotextile as a separation layer.						
				CB's may have a 2' sump if there is less than 3 CB's in a system. If there are 3 or more a 4' is required.						





CD	PD	SF	FPFR		Comments					
	Structures									
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				Are as builts of existing structures available and referenced in the specs or contract drawings?						
				If temporary structures are required are design criteria provided?						
				Is an index sheet included, required for multiple structure projects?						
				If existing structures are nearby, are they on timber mats? This is prevalent along the						
				shoreline. Is transition roadway to bridge sufficient?						
			H-							
		\vdash	\vdash	Have provisions been made to maintain navigational lighting during construction? If bridge is to be closed, are there enough safety barriers and protection in place? Will it still						
				provide contractor access?						
		П		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?						
				Note presence of incident management conduit or signs.						
	•			Is all previous repair work noted on the plans or as-built?						
				Can the structure(s) handle the load (3000+ tons) of the load transfer device or paving train?						
				Does the lightweight concrete special provision talk about plastic weight before and after pumping?						
				If stage construction, are rebar splices needed and specified how to achieve?						
	•			For Embankment Wall, installation shall call for an "unreinforced leveling pad" of dimensions 6" X 12". Contract shall include basis of payment to include the cost of the concrete leveling						
				pad.						
				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.						
				For painting projects will containment cause vertical clearance or weight issues(i.e.load restrictions)?						
				Are there any railroad/Coast Guard requirements? Are they indicated and is enough contract time allowed for these constraints?						
				Is minimum vertical clearance shown on the plans? For MNRR Elect. Lines?						
				Access to the site. Are there vertical clearance issues that would impede equipment						
				mobilization also check any road sags vertical clearance may be fine but lengthwise a trailer						
		П		might not be able to fit.						
				If staged construction, shoulder being used as temp travel lane and in proximity to existing (or proposed) structure, is there sufficient road runoff clearance or should the structure be						
				protected? (LRFD requires structures within 30 feet of end of road to withstand 400 kip load						
				or be protected from impact)						
Box	Cul	vert	s							
				Box culverts should NOT be set level but at a minimum 1% grade.						
				Box culvert installations during stage construction need extra space to ensure connection at						
				stage limit can be accomplished without compromising previous work.						
				For box culvert installations, the construction sequence should be from outlet to inlet.						
				If streambed material is to be placed inside box culvert, are baffles needed for retention?						





CD	PD	SF	FPFR		Comments						
Pres	Prestressed/Post Tensioned										
				If structure is prestressed, are units in good condition? Are the post tensioning nuts loose?							
				Are there cracks in the pavement? Sealed? Indicator of loss of Post Tensioning Strands.							
				Rust on underside of structure at the joints between units may indicate frozen post tensioning strands.							
Sub	stru	ctur	·e								
				Has substructure been examined for scour? Will Sheet Piling be left in place?							
				Hydrologic data included for structures over a waterway?							
				Are piers and abutments in sound condition? Are there repair details indicated? (class's'repair, partial depth patch,etc.)							
				Is sufficient boring data available? Were borings taken at the proposed locations for temporary/permanent sheeting? Piles?							
				Are abutment construction joint details constructible? Are they through a bearing pad or right at the face of one?							
				Is a backfilling sequence needed on abutments or wing walls to prevent "overturn" condition?							
				Ensure that when cofferdam and pumping is an item in the contract, structure excavation is also an item. Is underwater (tremie) concrete required?							
				If cofferdam required, is size and location shown on the plans and allowed by permit?							
				Which direction are the piles facing? Weakside? This will create movement of the substructure during construction activities.							
				Is damp proofing of existing structures noted on plans? Does it include a method for cleaning prior to application?							
Sup	erst	ruct	ure								
				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							
				Are bearing pads sound or do they display deterioration or cracking? If so, are repair procedures in place? Access available for elevated structures?							
				Have all structures been evaluated for superstructure replacement vs. painting? Prestressed concrete vs. steel beams?							
				Underside of deck, are map cracking, efflorescence, or chlorides visible?							
				Are pop-outs evident on underside of deck? Are repair procedures in place?							
				Condition of deck surface - is it overlaid? If so, type known?							
				If deck is exposed, what is the condition? Are partial or full depth patches required? Are specs in place? Check removal procedures.							
				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?							
				Type of joints/headers can they be constructed to eliminate "bumps"? Recommend possible solutions.							
				How is wearing surface to be removed? Item provided?							
				Does deck have membrane waterproofing? If so, is type known?							
				If possible, new bridge decks on existing roadways should be raised to meet the new profile created by the overlay.							
				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.							
				Review the pour sequence for a multi-span structure. Is it achievable?							
				Are closure pours indicated?							
				If steel bridge built on skew, ensure there is enough room at bearings to torque the bolts.							





CD	PD	SF	FPFR		Comments
				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?	
				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.	
				Are the temperature restrictions for the installation of bearings reasonable? Do the special provisions address installation outside of these tolerances?	
				All fracture critical members (FCM) should be identified with requirements for fabrication.	
				Will containment cause height restrictions? Waterway, roadway or railway?	
				Condition of paint- Adhesion and Toxicity tests must be performed. Are current containment, cleaning, and disposal specs in place (revisions dated 2013)?	
				Are painting specs current and complete? Problems noted environmental or access?	
				Coatings for fencing/posts/etc to match Town/City color requests: Make sure the ASTM Type is Type B for exterior and the color is something that can be accommodated. Type B only comes in certain colors. Type A may be spec'd to meet the color requirement but it is the worng application.	
				If span is moveable, can stage construction work?	
				Fire Suppression Standpipes must be no more than 30-36" off the ground with a 30 degree elbow.	
				Are there provisions to maintain lighting on and under the structure? Provisions for temporary lighting?	
				Are deck grades given? Are deflections for each beam shown?	
				Which joint type is shown? Is it correct for skew angle of bridge? (if > 45 degrees use Silicone not Asphaltic Plug)	
				Asphaltic Plug Joints (APJ's) should not be used if grade exceeds 4% and if within 150 feet of an intersection	
				If Asphaltic Plug Joints (APJ's) are proposed, has the correct special provision been included (method of measure = cubic feet not linear feet)?	
				For APJ's, has the designer included a table of bridge deck expansion joint thermal movement ranges?	
				For APJ's, Crafco is no longer on approved products list; asphalt removal should be 3' either side of joint; contractor to verify field condions as to joint measurements - make sure addressed in either Construction Staking or in APJ item	
				If 2 shear studs are detailed, if a flange is wide should 3 studs be installed? Any flange greater than 10" may accommodate up to 3 studs at 4x diameter o.c. spacing.	
				Are the welding notes clear and concise? Is additional information needed? Location or a diagram?	
Cath	ıodi	ic Pr	otecti	on	
				Is Cathodic Protection an option for a structure after repairs?	
				Grout should be a high early to accommodate Limits of Operations requirements.	
				In lieu of strips a wire mesh system might make a quicker installation	
Men	nbra	ane '	Water	proofing	
				If spray-applied membrane is specified, advise designer against for following reasons: highly flammable, deck must be sandblasted prior to application, cure time is long, VOC's are high (respirators may be required), material sticks to paving train tires	





CD	PD	SF	FPFR		Comments					
Ma	Maintenance									
				For stage construction, are stages reasonable and constructible?						
				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?						
				Alternate sequencing with potential for detours?						
				In stage construction, are necessary items in place (ie: barrier, delineators, impact attenuators; dowel bar splicers, etc., if needed)?						
				Has limitation of operations been checked?						
				Will ramps have to be closed?						
				Traffic Management Plan required? If yes see TMP stand alone check list						
				Are items quantities reasonable for the M&P of T items, police (local and state)?						
				Separate plan sheets for traffic plans?						
				If staged construction and shoulder is being used as temporary travel lane, is a temporary pavement wedge needed to correct cross slope differential, especially on a superelevated curve? (algebraic difference should not exceed 8 percent)						
				If staged construction, shoulder being used as temp travel lane and in proximity to existing (or proposed) structure, is there sufficient road runoff clearance or should the structure be protected? (LRFD requires structures within 30 feet of edge of road to withstand 400 kip load or be protected from impact)						
				If plans call for Temporary Pavement Marking Tape (especially on interstates), question whether painted markings could be used.						
				On milling and paving projects, review whether final pavement markings call for groove. Recommend that temporary marks be painted longer than the proposed groove on each end.						
				On limited access highways, if the item Type D Portable Impact Attenuation System (crash truck) is not listed on the estimate, ask whether it should be included.						
Det	our									
				Determine if there are any other projects that may be in construction along the detour route.						
				Determine how pedestrians will be accommodated and if a signed pedestrian detour will be required.						
				Are detour agreements in place if detour uses town roads?						





CD	PD	SF	FPFR		Comments				
Illu	Illumination and Signals								
NEV	N COI	NCRE	TE SP	ECS: Until the 6/1/12 Rev. for Sections 6.01 and M.03 are adopted into the Supplemental Spec	cs, make sure the designer addresses				
oth	er itei	ns th	at ref	erence those sections. The list of other affected items is available from OOC/QA Section.					
				Have the control junctions been identified?					
				Have foundation locations been checked for ROW infringements?					
				Should test pits be performed to rule out underground interference?					
				Is illumination (existing) to be maintained during construction?					
	Ī			Have detours been checked for illumination?					
	Ī			Check for conflicts with existing/proposed drainage.					
	Ī			Are there obstructions for sign locations?					
	Ī			Double-check sidewalk ramp widths and areas. Revised ADA requirement for sidewalk					
				widths are increasing from 36" to 48". Ensure there is a minimum 36". Do grades meet ADA					
				requirements?					
				Does temporary illumination also include under bridge luminaries?					
				Is selective clearing necessary for lights, signals, etc. to be visible?					
	•				•				





CD	PD	SF	FPFR		Comments				
Rai	Rails								
				Are rail switches to be new? Specifications should clearly indicate this.					
				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.					
				Are buildings to be demolished? Have an asbestos and lead evaluation been made? Has decontamination been done? Are there provisions for pest eradication?					
				Check that all applicable codes and code requirements are listed.					
				Has environmental site assessment been performed? Are applicable items and specifications included?					
				Shop drawing submittals, if known (either by us or designer) require a long lead time, a note should be placed in contract indicating such.					
				Specifications should notify contractors that (if applicable) Amtrak safety training is required for all on site personnel.					
				Railroad protection or flagger item included in contract if needed. Has a force account with the Railroad been processed?					
				Check that all permits and railroad agreements are in place and included in the specifications.					





CD	PD	SF	FPFR		Comments		
Railroad Station							
NEW	NEW CONCRETE SPECS: Until the 6/1/12 Rev. for Sections 6.01 and M.03 are adopted into the Supplemental Specs, make sure the designer addresses						
othe	other items that reference those sections. The list of other affected items is available from OOC/QA Section.						
				Pedestrian Bridge must be constructed so as to be lifted as a single unit due to track shutdown limitations.			





CD	PD	SF	FPFR		Comments			
Sur	Survey							
				Are control points noted from project limits to project limits?				
				Control points should be on both sides of a structure.				
				Retaining walls need bottom of footing and top of wall elevations at a minimum. Aka "Working Points"				
				Is the Current Construction Staking Special Provision Included?				
				Item for Construction Staking?				
				Is the proper vertical, horizontal, and geometry information in order to adequately locate and construct the project?				
				If aerial survey was used, has it been proofed with ground survey?				
				Are the CT grid coordinates given?				
				Datum Year indicated?				
				Check with District Surveys to see if they need monuments installed/Reset on the project.				





CD PD	SF	FPFR		Comments
Vertic	al Co	onstr	uction	
			PECS: Until the $6/1/12$ Rev. for Sections 6.01 and M.03 are adopted into the Supplemental Specerence those sections. The list of other affected items is available from OOC/QA Section.	s, make sure the designer addresses
			Are one-piece insulated wall panels shown? These are more efficient to install.	
			Is the Construction Staking item specific enough for the project?	
			Is it clear which building components require grounding?	
			Is it possible that heavy objects / equipment will be mounted on interior walls? These should be constructed of Concrete Masonry Units.	
			Is heavy duty door hardware required?	
			Does the space allow for adequate equipment movement? Avoid horizontal and vertical conflicts? (Railings, pinch points, and overhead lighting and utility conduits).	
			Are fire extinguisher locations and mounting details shown clearly?	
			Does the HVAC system require an independent inspection of operation and sequencing of	
			equipment?	
	ТП		Are awnings provided at entrance doors?	
		\Box	Is the height of safety rails consistent?	
			Do all proposed data and communication lines and outlets consider the future occupant and future uses?	
			Do the door functions consider the room use? Is there an overall Keying scheme and does it consider future needs?	
			Is the roof access reasonable for the intended use and is it located in an unobstructed area?	
			Is a secure material storage pad shown for compressed gases, etc.?	
			Are there "pinch points" between railings, stairs, and equipment movement areas?	
			Is safety striping included in the plans for clearance areas, walkways and other hazards?	
			Are interior railings painted safety yellow?	
		$\overline{\Box}$	Are personnel offices and material storage rooms adequately sized?	
			Are interior utility conduits placed so that they do not obstruct the movement of personnel, vehicles or equipment?	
			Is all signage incorporated into the contract? i.e. building number, name, safety items, hand washes, fire extinguishers, emergency exit only, etc.	
			Is the distance from work areas to restrooms reasonable?	
			Is access to all future building maintenance operations and equipment considered?	
			Is an overall building and equipment maintenance plan included in the contract for the end user?	
			Is the facility's end user fully involved in the design process and providing comments?	
	Ī		Are HVAC duct chases shown going through a firewall? Not allowed by code.	
		$\overline{\Box}$	Include test pits in the contract to confirm utility locations and confirm soil types.	
			Plans and specs should be clear what safety features (i.e. lighting, fire alarms, sprinklers, 1-	
			hour fire rating) are needed in temporary construction.	
			Is exterior emergency lighting required?	
			Is all infrastructure for future equipment / building use being installed?	
			Do exposed conduits use stickers for identification?	
			Is entire access to loading docks adequate for the proposed design vehicle?	
			Maintenance Facility: Stormwater discharge points outfall for maintenance stations must be	
			250' or greater from the out buildings.	
			HVAC - Do the flows for balances make sense? Are they achievable?	





CD	PD	SF	FPFR	Comments		
Bicycle and Pedestrian Considerations						
	Does the Design Report include the Bike/Pedestrian Checklist?					





CD	PD	SF	FPFR		Comments			
Tra	Traffic Management Plan							
				Project background				
				Project type				
				Project area/corridor				
				Project goals and constraints				
				Proposed construction phasing/staging				
				Related projects				
				List of Stakeholders				
				Approval contact(s)				
				TMP implementation task leaders (e.g. public information liason, incident management coordinator, etc.)				
				TMP monitors				
				Emergency contacts listing				
				Data collections and modeling approach				
				Existing roadyway characteristics (history, roadway classification, number of lanes, geometrics, urban/surburban/rail)				
				Existing and historical traffic data (volumes, speed, capacity, volume to capacity ratio, percent trucks, queue length, peak traffic hours)				
				Existing traffic operations (signal timing, traffic controls)				
				Incident and crash data listed w/ sources				
				Are Local community and business concerns/issues addressed?				
				Traffic growth rates (for future construction dates)				
				Traffic predictions during construction (volume, delay, queue)				
				Qualitative summary of anticipated work zone impacts				
				Impacts assessment of alternative project design and management strategies (in conjunction with each other): (1) Construction approach/phasing/staging strategies, (2) Work Zone impacts management strategies				
Tra	ffic A	Anal	ysis S	trategies				
				Analysis results: Traffic (volume, capacity, delay, queue, noise,% of Diversion w/ applicable queue)				
				Adequacy of alternates/detour routes				
				Business/community impact				
				Seasonal weather contigencies				
				Cost effectiveness/evaulation of alternatives				
				Selected alternative approach/phasing/staging strategy				
Ten	ıpoı	ary	Traff	ic Control (TTC) Strategies				
				Control strategies				
				List of allowable Traffic control devices				
				Anticipated Project coordination, w/ projects/contractors				





Public Information (PI)							
	Public awareness strategies (Public Meetings, Brochures, Newpaper Ads)						
	Motorist information strategies (VMS, CMS)						
	Dedicated Website						
	Site Specific Construction Signs with a Hotline						
Transportation (Operations (TO)						
	Work Zone safety management strategies						
	Will Connecticut Highway Assistance Motorist Patrol (C.H.A.M.P.) be utilized during active operations?						
	Traffic/incident management (Signal timing adjustment on parallel artery?)						
	Speed enforcement strategies, smart boards, DPS, etc.						
	Monitoring requirements: Is an inspection form included?						
	Evaluation report of successes and failures of TMP-List-w/division of responsibility						
	Contractor's contingency plan						
	Standby equipment or personnel						
	Estimated costs						





CD	PD	SF	FPFR		Comments			
Ove	erhe	ad S	Signs					
	NEW CONCRETE SPECS: Until the 6/1/12 Rev. for Sections 6.01 and M.03 are adopted into the Supplemental Specs, make sure the designer addresses other items that reference those sections. The list of other affected items is available from OOC/QA Section.							
				Scope of project to replace or new installation?				
				Are existing structures coated in lead based paint? Do the plans provide a coating chart?				
				Is there a LHPP provided under the contract?				
				Do plans or specs noted galvanized steel to be used? Bolts, nuts, washers, included?				
				Is an offset provided from the edge of pavement or guiderail?				
				Is there a conflict with utility poles?				
				Are there minimum clear distances from bottom of sign to pavement?				
				Do the foundations note class of concrete?				
				Are there sight lines from the proposed location based on existing commercial signage and other signage?				
				Are there underground conflicts with utilities, prive services, i.e. lawn sprinkers, sign illumination, etc.				





Date:June 20, 2013Location:Project ConceptAuthor:Monique BurnsPhone #:(860) 594-3292

CD	PD	SF	FPFR		Comments	
Guiderail						
				Are leading turn down end anchors installed outside the clear zone for R-B 350 guiderail and Modified R-I?		
				Guiderail should not be installed on slopes steeper than 10:1. Note: Inside and outside shy line flare rates shall be applied as required.		
				R-B 350 guiderail with leading end radii down the intersecting road and/or driveway: Use Type II anchor due to potential for limited ROW.		
				Radius rail, when less than 150' needs to be shop fabricated.		
				Would a leading end Impact Attenuation System (IAS) either flared, tangential or median/gore type be better due to limited ROW?		
				Is curbing removal and clear run out behind Impact Attenuation System (IAS) needed? Refer to Grading Standard Sheet Nos. HW 1800 01, 02, 03		
				Ensure trailing end anchors are outside clear zone and measured from double yellow line on dual direction roads.		
				System 6 should not be used to protect utility poles. When the distance from back of post to utility pole is within 2'-8", use R-B 350 System 5A. Length of system 5 and 5A at utility poles shall be 25' centered on the pole.		
				Is the latest edition of the 'Repair Guiderail' special provision included in the project documents?		
				When converting metal beam rail types to R-B 350 type, is a reset item is included if the existing rail is set behind existing curbing?		
				Weathering steel elements and posts shouldn't be used on galvanized elements.		
				• Check for 2' of 12:1 shelf behind all guiderail posts or extra-long posts (7'-6" is CTDOT standard long post) are provided.		
				• Review projects for potential conflict with driving guiderail posts and underground ledge. If there is a potential for conflict, is a special provision for payment of "Drilling Hole for Guiderail Posts" included?		
				• Ensure the minimum length of W-beam guiderail types, not including end anchors, is 62'-6".		
				• Review runs of rail for need to select clearing and thinning. Note: Over time, trees that were once outside the deflection of the rail may now be within the deflection distance of the rail. Consider including this item so that trees less than 4" in diameter within our ROW can be removed behind the rail.		
				Review project limits. Ensure that small runs of rail (200' or less), that are outside the project limits and are sub-standard do not remain. Note: Sub-standard systems may include, two cable or strong post three-cable guiderail down a local road, R-I with rail splice at post on a high speed facility, leading ends inside the clear zone, unattached or improperly strengthened guiderail transitions to bridges etc.		