

8/4/05 Draft Revision Date
CONSTRUCTION CHECKLIST FOR COLUMBUS CIP PLAN REVIEW

Project Name _____

Plan DrE Number _____

Reviewer/Date _____

Reviewer-

Check off items as 'A' = Acceptable, 'N' = Not Acceptable, 'NA' = Not Applicable

Note in margin if 'Comments' were added to plan on each item. *Italics indicate further instructions/ guidance.*

FIELD CHECK LIST

Check for potential construction problems-

___ Is the entire project in the City limits?

___ If the entire project is not in the City limits, is there an agreement with the adjacent agency?

___ Are plan benchmarks acceptable as shown? *Spot check benchmark locations and reference points. Verify that TBM's set for the project are within the project temporary work area or the right-of-way, and are on objects predicted to remain after the project completion. Check to see that project TBM's are not set on private property.*

___ Is MOT acceptable as shown? *Drive work areas in all directions to verify that the specified temporary traffic control design; runs traffic on arterial streets, is sensible, complies with the current manuals, and will be within City, County, or ODOT jurisdiction (minimize detours through other municipalities). Look at phasing feasibility. Verify conclusions as needed, with Columbus' Temporary Traffic Control Coordinator.*

___ Is there any deteriorated walk/ pavement going to be left adjacent to new walk/pavement?

___ Are there any drainage problems observed that plan does not address? *Example= reversed sidewalk slopes, unimproved outlet ditches, etc.*

___ Are there any special cross walks and/or flashers at schools that have not been carried to plans? *Consult with Columbus School Coordinator- Steve Wallace on any proposed changes in plan on these items.*

___ Does the project-phasing look feasible?

___ Are the temporary construction entrance locations acceptable? *Do they appear workable with acceptable sight distances?*

___ Has anything been noted in field check that does not show on plans (but is in the R/W) such as trees, shrubs, planters, fences, poles, driveways, private parking areas, walks, lead walks, steps, manholes,

benches, signs, walls, bus shelters, paper boxes, trash receptacles and parking blocks. *Sketch in items found.*

__Are there any noted problems with topo items, immediately out of the Right of Way, such as missed trees, building foundations, steps, downspouts, signs, poles, trees and/or shrubs added, grown, moved or removed. *(Check for missed private signs in the R/W) Sketch in items found.*

__ Are there any changes to conditions since plans were submitted, drives added/ paved, buildings constructed, ditches moved or filled.

__Do the plans account for existing slopes at project edges?

__Can the preferable 4:1 slope or maximum 3:1 slope be achieved utilizing the existing R/W? *Provide comment to indicate potential problems.*

__ Are any drives single width or providing an emergency access point? *Note in plan what they are comprised of and request item for M/S or F/S concrete. Confirm that the 'Maintaining Access to Private Property' general note is included.*

__Are the existing/ new walk grades shown at each doorway, step, wall and fence adjacent to new walk or pavement?

__Do the descriptions of the existing types of driveways match what is found in field? Example: asphalt, concrete, gravel. *Note any concrete aprons and include in the description. Draw in any extra drives. Comment if drive types are not labeled.*

__Are all existing gravel drives (that will be disturbed) asphalted to 10' past the R/W line? *To help keep gravel off the walks/street, comment that this will be included in plan.*

__Are all loop detectors, pull boxes, conduit, controllers and push button locations noted in the plan? *Check for protrusion problems with any pole mounted traffic controllers.*

__Are street lighting controllers shown to be relocated to City owned poles? *Check for protrusion problems where these are in the area of new walk. Verify locations.*

__Are roof drains shown on plans and included in quantities? Is a provision made to pipe 2-10' sections for each property @ all new walks for potential residential roof drains?

__Are there any noted hazardous material sites probable within the project limits? Examples= Old gas stations? *Are quantities included for removal, temporary storage, testing and disposal? See General Notes for insertion as needed.*

__Does field investigation and/or soil borings indicate a need for remediation items due to unstable soils? *Is there a plan quantity included for unsuitable material removal and replacement? Check for proposed expansion over old ditch lines, wetlands, and base failure of existing pavement, these are indicators of need.*

__Are there any utilities in the way that may need relocation? Is necessity of relocation clearly noted on the plans? *Plan labeling shall include specifically 'who' is to relocate. Consult with Utility Coordinator to confirm existing utilities are being dealt with.*

__Are the utilities in the work area are clearly identified on the plans, including wire and fiber cables?

__Do any mailboxes need to be relocated- temporarily or permanently? *Are there notes in plan to address this item? Supply per General Note list.*

__Are there any trees and/or trashcans in front of lead walks, steps and doors?

__Does the grade match design at alleys and side streets to allow for correct wheelchair ramp construction and crosswalk cross slope?

__Is seeding and mulching addressed? *Spot check the pay limits.*

__Are steps accounted for- including grade changes?

__Are there any water service box relocations needed? Do they need new tops, box replacement, or adjusted to grade? Are there pay items for these items? Are they shown on plan? *It is a good idea to have a contingency quantity on this item.*

__Are all curb stops shown on the plans at each occupied structure? *Field check & contact DOW for tap card check @ locations where missing.*

__Are all existing MH castings and valve boxes shown on the plans? *Spot check.*

__ If valve boxes are in the street after construction and were in grass before, is plan set up for addition of heavy-duty valve box? *It is a good idea to have a contingency quantity on this item.*

__ Does the plan show demolition of any structures? *Check for needed protective measures for structure demolition. Check plan to see how the structure demolition is addressed? (Cut and lift or smash and grab?) Traffic protection needs to be addressed. Field check all around the structure and take notes.*

__Does plan address the existing utilities on structures? *Are there any utilities on/or under existing structure that are not shown and labeled on plan that need to be dealt with? Are there any lights on the structure- are they dealt with?*

__Does the owner of the structure have any safety items in place: safety net, false work, and plates? *Are these addressed in the notes and pay items?*

__Are there line items set up for dust control, water and/or calcium? *These are typically needed.*

__ Are the temporary erosion controls addressed in the plan? *Plan view should show what is required and where. Check for individual pay items.*

__ Are there any items noted that might conflict with new walk and ramps. *Note if observed.*

__Are retaining walls needed due to widening or grade change? *Look for ways to minimize the use of walls and curb walls. Grading or shifting walk may be options.*

__Can trees be saved? Should trees be removed? Are all required removals X'd out? *Include Forester general notes.*

__Are the correct addresses shown on the plan view? *Confirm this is complete.*

___ Are there any driveways labeled 'To be Permanently Closed'? *If so, plan should label the drives to state this. Request a statement from PM explaining that the owners have been informed and it is authorized.*

___ Are all existing curves shown on the plan?

___ Are gutters paved over? *Note if so.*

___ Is the correct existing curb/ curb and gutter shown on the plan?

___ Are all existing bus pads/ bus shelters & bus stops shown on plan?

___ *Take notes on all specifics concerning the existing pushbuttons and ramps that are scheduled to remain. Confirm/ have consultant confirm, that compliance reports are on City file for the existing ramps that are scheduled to remain. Note if the existing ramps scheduled to remain, need detectable warnings added. Note if wheel chair user would have to make a turning motion in the existing cross walk – is there a relatively flat area available for this to occur? Check with ADA Coordinator for discussion on any questionable areas.*

___ Is there any existing traffic calming in place in project area? *Take notes if there is.*

SURVEY

Benchmarks-

___ Has the bench circuit been submitted with the first plan submittal?

___ Have the temporary and source benchmarks been listed in plan and are they clearly described? *The locations should be marked on the plan and profile sheets, or on the schematic plan.*

___ Are elevations based on North American Datum of 1988 (NAVD 88) when possible? *This datum information shall be clearly stated in plan.*

___ Is source benchmark 3rd order or better and of public record? *This shall be described in the plan.*

___ Are temporary benchmarks located within the Temporary or Permanent Right-of-Way, Temporary Work Area, but outside of the " Construction Limits" and shown on the plans? *They should be placed where they will not be disturbed by construction.*

___ Are project benchmarks spaced within approximately 600' of each other? *Comment if not.*

References-

___ Is a basis of bearing statement included in plan? *The Basis of Bearings statement on the plan shall be referenced to an official record of deed, plat or road improvement plan that has the bearing used. Also the Basis of Bearings statement may be tied to Franklin County Horizontal Survey Monuments. The location of monuments is described by using the State Plane Coordinate System, Ohio South Zone. Standard horizontal and vertical control method (tape, total station, EDM, GPS) used, and source monuments shall be described on the plans.*

___ Is the origin of stationing listed in plan? *Use established stationing from previous plans; reference previous plan.*

__ Are all of the existing monuments in project- limits described on the plan? *This includes all centerline and survey monuments falling within the work limits of the project, monuments adjacent to the project, property line markers and centerline markers. Describe all monuments in a table.*

__ Have construction control points have been supplied with 3-point references? *The references for these control points shall be located within the Temporary and Permanent Right-of-Way or Work Area, but outside of the "Construction Limits" shown on the plans, where they are likely to be undisturbed by the construction. Reference should be provided for all centerline transition points; PCs, PTs, PIs and control points near the beginning and end of the project.*

__ Have all new roadway intersections been referenced to the nearest existing intersection or center of right-of-way monument?

__ Does the plan call for the installation of permanent monumentation? *Check with PM to confirm if this is included in the scope. Who is setting pins on the project? Is a pay item needed?*

__ Is all new R/W acquired for this plan labeled 'Proposed R/W'? *If not request labeling.*

__ Is R/W being acquired for the plan? *The R/W plan shall be included in the F&OC submittal at the latest.*

COVER SHEET

__ After referencing the sample title sheet are there any missing sections? *Comment accordingly.*

__ Does the plan meet sheet size and border requirements? *If this is not the correct size, request changes.*

__ Are all Columbus Supplemental Specifications referenced as applicable? *SS-1550 & SS-1551 are typically needed.*

__ Does plan meet the ODOT design manual recommendation of 4mm (1.56") print font for most notes? *Font should not be less than .125" on the smallest notes.*

__ If plan contains 100 sheets or more, have they been drilled an connected with post connectors? *This format should be followed.*

__ Are the applicable Columbus Standard Drawing references in place? *Add as necessary.*

__ Is the ADT design designation data included?

__ Has the 2319DrA drawing been referenced on title sheet? *Required when ramps are included in the project.*

SCHEMATIC

__ Is the Basis of Survey information listed?

__ Is the Stationing labeled?

__ Is all Curve Data labeled?

__ Are Benchmark references labeled?

- __ Are Control Points labeled?
- __ Is the proposed pavement, R/W and centerline R/W shown and labeled?
- __ Are the political boundaries labeled (Corporation lines)?

GEOMETRICS

- __ Does plan comply with scope? *PM shall provide copy upon request, review and place in project folder. Consult w/PM as needed.*
- __ Is the 20year ADT information on the title sheet of plans for new roadway and alignment changes?
- __ Is alignment data listed? *Curve data/curb data- assure the standard CIP elements are listed- Delta, R, L, T, E, F.*
- __ Does plan exceed 15'-25' radii on residential non-signalized residential side streets?
- __ Does plan contain any tapers less than 50'-60' (example- turn lane)?

PLAN NOTES

- __ Does plan reference all applicable current CIP standard notes? *Set located on the J-drive- add/revise as applicable.*
- __ Are police officers are a line item? Reference the standard note set for best note. *The contractor may chose to use LEOs as needed in place of flaggers. Provide pay items only for officers, not for flaggers. Include flaggers in 614, lump sum.*
- __ Does plan reference the current CMS Specification? *Pedestrian Pathway Provision, LEO & Maintaining Access to Private Property are typically needed.*
- __ Are there any items that should be added for possible contingencies/line items such as increase/decrease in excavation, additional waterline fittings or callouts for special concrete (MS or FS)?
- __ Has the standard 'Backfill at Night' note been included? *Verify presence of the note requiring that all trenches and holes of 2 feet or deeper be backfilled or plated every day.*
- __ Have the current Temporary Traffic Control notes been successfully incorporated in the MOT note section? *Set located on the J-drive- add/revise as applicable.*
- __ Have all the applicable City Forester notification notes been included?
- __ Are there adjacent businesses and has access to them been addressed in the MOT section? Has the pedestrian MOT been sufficiently addressed in the plan? *Has the project been discussed with TTCC?*
- __ Has the MOT/Detours through signalized intersections been discussed with Signal Review personnel?
- __ Is there a need for referencing the current permanent marker note in the general note set?

___ Is the 'Pre-construction Notice' note included on CIP plans?

___ Has the 'Access to Private Property' note been included? *Verify that the following design note is used, "Access for pedestrian and vehicular traffic to all adjoining properties shall be maintained at all times. Where properties are accessed by only one driveway, part-width construction shall be used. With the written permission of the property owner, and occupant, driveways, or lead walks, may be closed. The permission letters shall be submitted to the project engineer before the start of the closure."*

___ Are all contingency items and notes for the 'As Per Plan' items included in the general summary section? *These should be carried from the General Note Section to the General Summary and noted as such.*

MOT SECTION

___ Has a temporary traffic control plan been included providing detailed temporary traffic control drawings, notes (construction, signal head and cable locations), and phasing for all portions of the project. *Plan shall also include existing location of right-of-way limits, curb lines (edge of pavement), curb cuts, sidewalks, all above ground utilities (poles, lights, fire hydrants, etc.) traffic signals, traffic signs (ground mounted and overhead), pavement markings, raised pavement markings (RPM's), etc. All existing items shall be shown using dashed and lighter weight lines.*

___ Does the MOT plan extend a minimum of 250 feet past work limits on mainline street and a minimum of 100 feet on side streets. *The proposed temporary traffic control shall be shown as bold lines along with the existing traffic control shown in lighter line weight.*

___ Are all temporary traffic control signs, drums, flashing arrow panels, portable changeable message signs, tapers, lane widths, pavement marking words with dimensions, temporary signal poles, signal heads, overhead sign locations, etc., shall be shown at appropriate locations (stations, sign legends, sign codes, sign sizes) shall be included.

___ Is there a warranted detour included for total closure (short term or long term) of the roadway and or intersection? *Confirm that the closure is warranted and a complete detour plan is included. Detours shall consist of a schematic of the street system surrounding and approaching the detour route and project area. Signs, barricades, flashing arrow panels, Portable changeable message signs, etc. and their locations shall be identified by a ballooning-numbering system. All signs, barricades, etc. shall be shown on a key-legend format corresponding to each balloon. The key-legend shall be on the same plan sheet as the schematic. All signs shall include legend, sizing, color, codes, etc.*

___ Is maintenance of signal detection incorporated into the plans by use of existing detection or through the use of microwave detection? *Design, notes and installation shall be included in plan.*

___ *Has evaluation and consultation with the Transportation Division been conducted by the consultant, concerning the need for temporary poles at existing or proposed signalized intersections?*

___ *Have the current TTC Notes been supplied by the Transportation Division to consultant incorporation into plans?*

QUANTITIES

___ Have all line items been carried to the general summary from the general note section?

___ Have all contingency items been denoted in a clear manner in the general summary?

- ___ Are Permanent Markers included as a line item? *Is this consistent with the scope?*
- ___ Is there a contingency item for 712.09 Type D geotextile- for pavement base reinforcement in soft areas? *Add if there is presence of pavement failure.*
- ___ Is there a quantity for Item 618 for roof drain tiles at 20' for each structure facing new pavement/curbing?
- ___ Are there unit prices included for tree removals?
- ___ Do the quantity sheet(s) match the calculation sheet(s)? *Confirm matching units, description and quantity.*
- ___ Do quantities of trees and light poles agree with the quantity sheet?
- ___ Does the plan contain quantities for retaining walls/curbs where the walk meets back slopes? *Can these possibly be deleted from project? Can these be avoided with temporaries for grading?*
- ___ Does the plan contain a line item for 12" curb behind P-ramps? *If not, is it clearly stated that curb is included in the curb ramp line item for that location? If this were the case the P-ramp line item would be 'As Per plan'.*
- ___ Have all curb ramps and detectable warnings been quantified?
- ___ Has plan intent been checked to see if contingencies need to be added for contaminated material testing, storage, removal, borrow, raised pavement markers removal and replacement etc.?
- ___ Have separate items been included for valve boxes ATG & service boxes ATG?

PAVEMENTS

- ___ Is a curb/curb and gutter detail included in the plan? *Verify that gutter cross slopes on curb-and-gutters and sidewalk are no more than 3/16th-inch per foot. Pay particular attention if ODOT Type 2 is used, notes will need to be added for transitioning to 3/16"/Ft. to meet Columbus standards at the ramps. Note that surface should be flush in front of ramps.*
- ___ Is the relationship between the proposed curb and gutter and the proposed pavement (including proposed pavement thickness) shown accurately via a project specific curb detail? *Detail should denote that the 8's/57's extend under the C&G and is included in the cost of the C&G line item. Note this if it doesn't.*
- ___ Does plan appear to account for the slopes at project edges?
- ___ Does project utilize all/part of the existing pavement in the new design? *Check with PM to see if test borings were taken. Check borings for the composition of the existing street and compare with the proposed pavement.*
- ___ Does plan have M/S or F/S concrete setup for drives that are single or emergency access? *Confirm this is in place.*
- ___ Does plan appear to match existing and new walk grades at each doorway, step, wall and fence adjacent to new walk or vehicle pavement?

__Are the descriptions of existing types of driveways accurate? *The different types should be labeled; asphalt, concrete, gravel. Draw in any extra drives. Note that existing gravel drives disturbed should be asphalted to 10' behind the R/W line, to keep the gravel off the walks, and street. Note is a drive has a concrete approach on an asphalt drive.*

__Is there a quantity for 8" sidewalk quantity included for radii on arterials? *Verify that 2303DrA is referenced.*

__ Does sidewalk fill in utility strip area at bus door locations (Bus stops)? *Walk sections shall be 10' long and centered on the door spacing provided by COTA.*

__ Check drive flares and request that they are minimum 5' on streets <35MPH and 8' on >35MPH. *(This is going to be proposed on next standard drawing update, discuss with the particular PM of project)*

__Are the sidewalk removal and replacement quantity items in the same units? *Check for unit to be SF.*

__Is there a hazardous material quantity included? *(Also in field check)*

__Is there a need for quantities included for unsuitable/hazardous soil/material? Does field inspection show evidence of need? *(This is needed when working in old ditch lines and around old gas station locations.)*

__Is there a line item for embankment?

__ Is there a 712.09 Type D geotextile for subgrade reinforcement in soft/ unstable areas that may have to be undercut?

__Has a subgrade compaction item been included?

__Are steps and lead walks paid separately?

__Is temporary pavement a pay item when shown on plan?

__Have any new items been built since the plans were drawn and do we need new cross sections?

__ Are pavement replacement types included in quantities?

__ Do mailboxes need to be relocated? *Assure that the mailbox note is included in plan for relocations.*

__Are there any obstructions (trees/ trash cans) in front of lead walks, steps or doors?

__Are there any problems noted with grades matching at alleys and side streets, that would present problems with correct wheelchair ramp construction and the cross walk- cross slope?

__ Is seeding and mulching addressed? *Spot check pay limits.*

__ Are all required wheelchair ramps included? *Check for details, locations, component dimensions, labeled slopes- See ramp section of checklist.*

__Are any quantities provided for alley reshaping?

__ Has Item 416 been substituted for all Item 415 items? *Check for applicable notes.*

- __ Has drainage been addressed in offset parking areas, is there a need for inlets?
- __ If plan modifies alley or street width, confirm that there is enough room left for the installation of the proper width walks, w/o encroaching onto private property?
- __ Have walks been included on all roadway improvement projects? *Recommend extension to the project limit lines.*
- __ Are there any utilities that appear to be close in elevation and may benefit from an 'Expose Prior to Installation' note to be added?
- __ Is there any existing pavement, that is scheduled for removal that contains brick pavers? *Check for notes and pay items that specify salvage. Consult Columbus Design Section for salvage requirements.*
- __ Is there any existing sandstone curb scheduled for removal? *Check for notes and pay items that specify salvage. Consult Columbus Design Section for salvage requirements.*
- __ Have casting quantities and kind been included? *Example= W.V., MH, Monuments, etc.*
- __ Have intersection detail sheets been provided? *Required when new pavement grades are established in plan.*
- __ Has the plan been designed to have a pedestrian walkway, at least 7' wide, between opposing ramps with a cross slope (longitudinal street slope) no greater than 2%? *Reference 2319DrA notes.*
- __ Does plan have pavement joint detail sheets for Items 305/452 paving?

ASPHALT

- __ Has the tack quantity calculation been included in plan? *Pay particular attention to units versus area-check CMS for coverage requirements.*
- __ Does plan include Item 416 in lieu of Item 415 item? *(Item 415 is not used anymore)*
- __ Are there any thickness problems with Item 402 & Item 404? *Example 1-1/4" vs. 1-1/2".*
- __ Are there any discrepancies between the methods used to calculate the asphalt vs. method of asphalt payment? *Is the plan consistent between cubic yards vs. tons?*
- __ Are the milling depths consistent with the overlay thickness?
- __ Are there milling quantities included in the plan?
- __ Are there notes that specify the installation of the loops are to be installed after the overlay and 4" deep? *Check to see if loops are to be installed prior to the finish course.*
- __ Is the Linear Grading, Berm, or Chip and Seal quantity acceptably listed in SY or LF?
- __ Are there any special items included in the contract? *Example= Brick prep or fabric.*

CROSS- SECTIONS

__ Is the cross-section grid format current? *New plans are to be in 1/2-foot dotted grids or plain 5-foot vertical and 10' horizontal grids- change the 1/2-foot solid line grids. Provide attachment for sample if needed.*

__ Are there any cross-sections with any utility drawn on top of or thru the proposed line or section involved?

__ Are the existing and proposed utilities included on the sections and do any drop off between pages or sections? *Compare against the plan views.*

__ Do sections check against grading and driveway replacement limits on plan views to verify that the sections go as far out as the called work?

__ Do the sections beginning and ending stations match the beginning and ending stations on plan & profile sheets?

__ Do the cross- section elevations match profile elevations for objects shown?

__ Do the sections match the plan view in regards to the utilities?

__ Are all existing and proposed slopes labeled?

__ Are all centerline elevations labeled?

__ Are all ditch flow line elevations labeled with the direction of flow shown?

__ Are the earthwork (cut & fill) and seeding & mulching quantities provided?

__ Are drive profiles included in the cross-sections? *Drive profiles are strongly recommended to be included in the cross sections with existing drive elevations being shown to approximately 25' beyond limit of drive work, with the slopes being labeled. Check against standard drawings for compliant design.*

__ Do any drives slope towards private property? *Check to see that walks crossing the drive are above elevation of roadway if so.*

__ Are proposed walks designed above the street elevation?

__ Are the side street profiles included?

__ Is the existing and proposed R/W shown and labeled, including any temporaries etc.?

__ Do the sections include items from plan view such as fences, walls, walks etc?

MISCELLANEOUS

__ Is a field office needed, if so is the type called out? *Consult PM for direction.*

__ Are the existing and proposed utilities all shown on profile view?

- __Is the layout by contractor included in the quantities?
- __Is all work by others clearly identified by specifically who and when?
- __ Are all utilities labeled and located?
- __Are all existing traffic controls shown 200' each way?
- __Are the right-of-way and construction limits shown?
- __ Does plan acceptably show any required special details?
- __ Are intersection detail sheets provided when new pavement grades are established in plan?
- __Are all addresses shown on both plan views and ROW sheets?
- __Has the project location been checked against the PMA site? *Contact Design Group and PM for notification of any potential overlaps of proposed work.*

RAMP DETAILS

- __Are the ramp detail/intersection detail sheets combined into 1 sheet @ 10 scale, pavement information in street and the ramp details at outer edges? *Discuss formatting if possible.*
- __ Are there any existing or proposed items in proposed ramps or landings that may need to be dealt with, it is desirable for ramps to be free of the following items- *Examples: water boxes, gas boxes, poles, hydrants, pull boxes, roof drain outlets etc. Verify that design complies with 2319DrA.*
- __ Are the R/W lines and all existing and proposed topo that is scheduled to remain in the final intersection configuration, shown on the ramp detail sheets? *This will allow reviewer to check for conflicts with ramps, landings.*
- __Have wheelchair ramps been designed using recommended design points of 7.7 % and 1.56 %?
- __ Has the slope % on ramps, landings and transitions been labeled?
- __Have spot elevations been provided at all ramp components, grade breaks, flares, tie in points @ existing walks and on E/P every 10' on radii around proposed corners?
- __Have all ramp components (including flare lengths) and transition panels widths and lengths been dimensioned?
- __Does the proposed design accommodate the particular ramp types used, per 2319DrA?
- __Have any quantities been provided for alley reshaping at ramp locations? *Add if needed.*
- __Has the location of the proposed ramps been referenced by labeling centerline of ramps by station/offset, running line perpendicular to the baseline?
- __Have roof drains been provided for at wheelchair ramp or sidewalks?
- __Are all proposed walks and new curb at least 4-inches above the gutter?

__ Confirm that ramp detail (elevation/ dimension) information is not provided in chart form. Information shall be included on detailed views.

__ Have P-1 ramps (2 side ramps) been used instead of P-2 ramps wherever the lawn next to the ramp is flat enough to walk on and does not have an obstruction present creating the needed for the P-2? *This is a good recommendation to avoid tripping hazard for people entering walk area from grass area of the end of a P-2 ramp.*

__ Are there any curb ramps in brick walks are not constructed of smooth concrete? *Attempt to get the ramp and it's landing constructed with smooth concrete as opposed to brick.*

__ Does grading behind walks and ramps meet the 4:1 desirable or 3:1 maximum slope?

__ Are all detectable warnings shown including line item designation?

__ Are the existing ramps scheduled to remain, all shown on same view with proposed ramps to confirm alignment?

__ Are the pedestrian push buttons shown on ramp details?

__ Is an ADA compliant walkway in place for pedestrian access to any push buttons?

__ Have justification notes been included when plan is not installing all the normally required ramps at an intersection. *Confirm signage has been added on the pavement marking and signing sheets.*

__ Does the plan contain a line item for 12" curb behind P-ramps? *If not, is it clearly stated that curb is included in the curb ramp line item for that location? If this were the case the P-ramp line item would be 'As Per Plan'.*

TRAFFIC CONTROLS (Signal/ Pavement Marking/ Signing)

__ Are all existing pavement markings and traffic control devices shown on plans for widenings or other roadway improvements to 200 feet beyond the project limits? *This may be reduced to the markings affected on driveways and minor intersections.*

__ Are all existing lane widths shown and labeled?

__ Are any temporary signal items (strain poles, microwave units, interconnect, etc) shown in plan view and included as pay items?

__ Are existing and proposed loop locations and quantities shown? *Installation of proposed loop shall be after the final asphalt course and installed 4" deep.*

__ Are new pull boxes and pull boxes ATG accounted for and carried to quantities?

__ Is electric and traffic conduit shown and was it carried to summary sheet?

__ Have electric and traffic removal items all been accounted for?

__ Is any interconnect work in plan? *CIP Plan Reviewer- discuss with Signal Reviewer to confirm that this is included. It will probably need checked by Operations Section.*

__Are there temporary markings in plan? If Item 642 tape or striping is set up, do the quantities seem reasonable?

__Is there Item 644 Permanent Striping set up? *Should include edge lines, centerlines, lane control lines, yellow, white? Permanent pavement marking should be Item 644. Should have separate pay items for the different types of striping, words and symbols.*

__Are there new Type 2 crosswalks proposed where there are Type II existing?

__Is the width of proposed Type 2 crosswalks approximately 11'-8" wide to utilize 10' wide bars?

__Are signs included in the quantities?

__ Do the number and type of signs appear correct?

__Are light poles 100 feet from stop sign (on the same side of the street)?

__Are stop signs or signals at all cross streets, wyes, and arterial tees? *Not required at all residential only tees, unless need is determined.*

__Are all of the existing signs located within the project limits shown on the plan?

__Does the CIP plan assure that when entering an intersection, the entire intersection is made ADA compliant including ramps, detectable warnings, pushbuttons, pavement markings and signage associated with ramps.

__Has plan included ADA accessible pathways to all signal push buttons and a 5' x 5' landing area, with $\leq 2\%$ cross slope centered under the button. *Landing area should be outlined on plan, with elevations given.*

__Are existing push buttons oriented to the landing pad & ≤ 42 -inches to center of the button- centered above the pad? *This is a target to meet.*

__Are existing push buttons of a type that meets current standards & are there signs for the push buttons in place for each button? *This is a target to meet.*

__Are there any pole or wall mounted elements at or above 27-inches that exceed a 4-inch projection into the walking path? *This would be a protrusion problem if so.*

__*Ramp locations should be reviewed and the relationship to pavement markings and signal items looked at to confirm that all items are workable. Are adjustments necessary and does the signal review section agree with all changes?*

__Have signal plans been checked to assure all proposed signal equipment is shown w/in the R/W, including pull boxes conduit and work pads?

__If proposed controllers are to be installed on poles that are in close proximity to R/W line, check to confirm cabinet door is oriented towards the public R/W and that bottom of cabinet is set to provide minimum 80" of head room clearance between B/cabinet and finish surface below.

__ Has cross check of signalized intersections for signal agreements been performed? *Consult Columbus Transportation Signal Agreement office. If any agreements are in place there may be cost savings to project. Discuss with Project Manager.*

LIGHTING AND POWER

- Have all pull boxes that need adjusted to grade been included in the quantity sheet?
- Are light poles located 100 feet from stop sign (on the same side of the street)?
- Do the DOE plan sheets show all proposed electric equipment w/in the R/W, including pull boxes conduit and work pads?
- If proposed controllers are to be installed on poles that are in close proximity to R/W line, check to confirm cabinet door is oriented towards the public R/W and that bottom of cabinet is set to provide minimum 80" of head room clearance between B/cabinet and finish surface below.
- Is provision made to relocate existing lighting controllers to City owned poles? *Verify locations.*
- Do the number of luminaries match the poles?
- Are pull boxes accounted for and carried to quantities?
- Is electric and traffic conduit shown and was it carried to summary sheet?
- Have electric and traffic removal items been accounted for?
- Does plan include the most current DOE general note?
- Does plan detail that the proposed conduit is located 2'B/Curb? *This is typically shown in plan detail with the proposed walk.*

STORM AND SANITARY SEWER

- Does the requirement of 30" bury depth of all sewers get met in plan? *If not encasement needs to be considered.*
- Does plan reference Item 901 for storm drainage piping? *If Item 603 is referenced, check to see if 901 would be more appropriate.*
- Are headwalls specified as cast-in-place or pre-cast?
- If setting structures over a brick sewer, check size of structure to be sure it fits. Most brick sewers have an outside diameter approximately 16" larger than diameter shown.*
- Are catch basins and MH removals included in quantities?
- Is 4" under drain reasonably close to the curb quantity?
- Do the proposed pipe installations have profiles in the plan detailing lengths, invert elevations, top of casting elevations, required backfill materials and slopes?
- Is pipe shown in profile carried to quantity?
- Are the MH's and catch basins adjusted to grade shown on quantity sheet?

- __Does plan contain T/Casting elevations- existing and proposed?
- __Is the pipe removal shown? Does it match the quantity sheet?
- __Do MH types match the quantity sheet?
- __Are existing sewers: brick, clay, concrete or plastic? *These should be labeled.*
- __Are roof drains shown on plans and included in quantities?
- __Is there a distinction made in plan between 901.17 backfill and Item 912 compacted granular backfill for pipe? Are there separate pay items? *Check quantity computations.*
- __Does plan specify Item 912 compacted granular when beneath the roadway?
- __Are there any new sanitary lines in plan and is there a separate CC-plan included w/in the DrE? *Confirm that it has been included in the index on title sheet.*
- __ *Confirm that any sanitary elevations shown in plan are from the same datum as general body of the plan or assure that the datum is very clearly stated in the plan to avoid confusion.*
- __Has notation been added to plan that AA-S133 Standard C.B.(s) have the AA-S141 H.D. grate and frame specified, when located in the roadway or shoulder?

WATER

- __Are quantities included for cut and plugs?
- __Are quantities included for water service taps?
- __Are the sizes of water service taps labeled on plan sheets?
- __ Do the sizes of any water service tap work match the plan views?
- __Has plan included extra valves in the quantities for hydrant relocations over 10' from existing?
- __ Do any extra valves show in the plan views and details of the waterline work?
- __Does plan include a quantity for increase or decrease in waterline fittings?
- __Does plan include a quantity for water service boxes adjusted to grade?
- __ Are curb stops shown on the plans at each occupied structure? *(Field card check locations where missing.)*
- __Is stone backfill of the waterline (when in Right-of-Way) included in the cost of the pipe? *Is there any other item set up (304, 815 or 912), which would cover the payment for the stone backfill? If not add a clarification note that the cost of the aggregate backfill is included in the cost of the pipe, and reference it from the General Summary to the General Notes. To assure Item 912 backfill, use this reference on all DrE plans.*
- __Does plan include a quantity for water main valve boxes adjusted to grade?

__Has a concrete blocking item been set up for backing bends and tees?

STRUCTURES

__If half width construction is specified- is there room for steel lap between old and new? Is this addressed in the plan?

__ Is there confirmed to be complete labeling of all 'units' specified & are intentions clearly indicated on all structural sheets. *Particular attention should be paid to the camber chart*

__Do approach slab grades match with pavement grades on street plans?

__Is there a sealing line item or contingency item to seal the entire surface if the required cure time prior to freezing is not likely to be available?

__Do plans provide for ceasing adjacent traffic during deck placement and curing?

__Is the structure demolition method specified? *Example= Cut and lift or smash and grab?*
Is traffic protection specified for area below during demolition?

__Are there any utilities on structure which need to be dealt with? *Check all around the structure.*

__Does the owner of the structure have any safety items in place? *Example= safety net, false work, or plates? These should be addressed in the notes.*

__If structure is in area of railroad, are there special notes to deal with the RR requirements? *Consult Project Manager to provide project scope.*

__ *Has the Columbus Structural Section reviewed structural sheets and provided comments?*

__ *Has the Columbus Bridge Section been consulted to see if they need conduit added for their facilities?*

TYPICAL PLAN SECTIONS

__ Title Sheet

__ Schematic

__ Survey Information/Reference Points

__ Typical Sections

__ General Notes

__ MOT

__ Erosion Control Plan

__ General Summary

__ Calculations

__ Plan/Profile including sub-summary

__ Cross Sections

__ Details Sheets- Intersections, Roadway, Ramps, Waterline, Driveways, Joints, Etc

__ Drainage Profiles

__ Signal/Interconnect

__ Pavement Marking & Signing

__ Street Lighting

__ ROW

__ Bench Circuit included with LG&T/ On File