




Design Comparison 2020 – Results (New drawing standards)

1. Make sure to check the publicly available standards prior to starting a project,
<https://www.up.com/customers/ind-dev/operations/specs/track/>, click “UPRR CAD Files”
2. Cover Sheet
 - a. Design consultant shall sign/seal the plans with registered PE. State rules will govern.
 - b. Standard Plan Milestone Titles:
 - i. 10% Plans/Dev Con – Review
 - ii. 25% Plans – Review
 - iii. 30% Plans – Review/Issued for Bid/Issued for Construction
 - iv. 60% Plans – Review/Issued for Bid/Issued for Construction
 - v. 90% Plans – Review/Issued for Bid/Issued for Construction
 - vi. 100% Plans – Issued for Bid/Issued for Construction
 - c. Lat/Long – Location Arrow (Standard developed and in CAD cell sheet library)



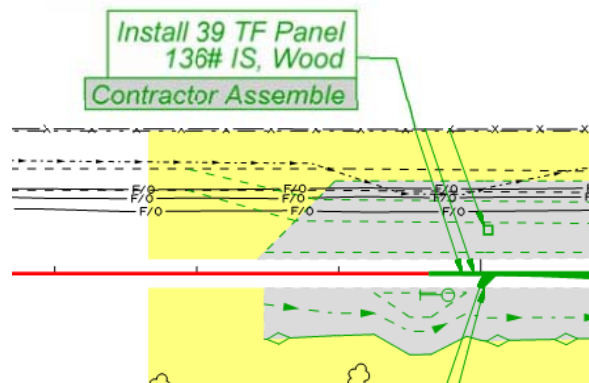
- i.
3. Legend Sheet
 - a. Row to be acquired – note current standard does not have yellow shading.
 - b. The PERMITTING section of the sheet has been replaced as follows:

PERMITTING	
	Temporary Workspace - Permitted
	Sensitive Resources - Impacted / Permitted
	Sensitive Resources - Do Not Impact

- i.
4. Geometry Sheet – Control Point Std Table Columns:
 - a. Number
 - b. Northing
 - c. Easting
 - d. Elevation
 - e. Description
 - f. Only add Station and Offset when requested by UP Design Manager
5. Key Plan –
 - a. Linear projects that are one sheet wide at 1”=100’ scale on an 11 x 17 landscape sheet – DO NOT USE
 - b. Premium/Terminal/Yard projects that are wider than one sheet - USE
 - i. Include existing and proposed capacities (track, parking, etc).

6. Plan and Profile Sheets

- a. Use aerial background on all plan sheets (May be omitted on Premium/Terminal facilities if it is included on key map and demo sheets.)
 - i. Adjust aerial opacity to -50 contrast, 80 brightness
 - ii. Do not use UP CAD standard "Aerial Text" pull down, use "Text"
- b. Mile Marker/Mile Post – Mile posts are based on the mile locations from the Valuation Maps, mile markers are the actual signs in the field. Both mile posts and mile markers (if present) are required to be annotated in the plans. If quarter mile markers are in the field, only represent these in the plans, otherwise show quarter mile posts.
- c. If siding extension - Limits should include the entire siding
- d. Revise use of permitting symbols/patterns.
- e. Grading limits
 - i. Use the gray shade for the area impacted by the grading/cross sections
 - ii. Only use the cut/fill lines on the outer grading limit, not 10' from adjacent track.
- f. Turnout panels at turnouts need to be verified in the field with construction – and annotated on plans if needed



- i.
- g. Annotation Notes:
 - i. Use "Text" pull down text, not "Aerial Text" pull down
 - ii. Capitalize as if a title (lowercase articles, coordinating conjunctions, and prepositions)
 - iii. Curve Data Standard:
 1. Curve #
 2. Delta
 3. Radius (R)
 4. Degree (D)
 5. Spiral Length (S/L)
 6. Super Elev.
 7. Design Speed

- iv. Contractor assemble UP install/remove materials – minimize repeat of note, example:



- v. Proposed Alignment Bearing – do not add to track centerline unless specifically requested
- vi. Proposed Alignment Text = “Trk Name, Rail Weight, Tie Type, Speed”
- h. Grading Qty Summary Standard –
 - i. Grading Quantities:

Proposed Subgrade-
 Station: xxxx.xx to xxxx.xx
 Cut: xxx.xx CY
 Fill: xxx.xx CY
 Net: xxx.xx CY (Cut or Fill)
 Subballast: xxxx.xx CY

Clear and Grub: xx.xx Acres
 Seeding: xx.xx Acres

- 7. Erosion Control Plans – Still under review, more to come