



# SunGuide<sup>®</sup> Proportional Map Design Review



**Date:** December 10, 2009

**Time:** 9:30 am to 11:15 am EST

**Location:** Video / Audio Teleconference

**Attendees:**

Arun Krishnamurthy, FDOT	Jennifer Heller, D5
Trey Tillander, FDOT	Mike Smith, D5
David Chang, PBS&J	Manny Fontan, D6
Khue Ngo, PBS&J	Mark Laird, AECOM/D6
Carlos ???, D1	Terry Hensley, D7
Chris ???, D1	Eric Gordin, FTE
Ryan Chris, D2	Kelley ???, FTE
Jason Summerfield, D2	Steve Dellenback, SwRI
Pete Vega, D2	Robert Heller, SwRI
John Wilcox, D2	Juanita Ortega, SwRI
Joe ???, D2	Adam Clauss, SwRI
Mark ???, D3	Josh Curtis, SwRI
Alex ???, D3	Roger Strain, SwRI
Dee McTague, AECOM/D4	

**Subject:** Design Review for Proportional Fonts (addition to Release 2.0)

**Note:** Agenda and slides for each agenda item are available from the project website at:

<http://sunguide.datasys.swri.edu>

**Discussion Items**

- Laird - Are roadway labels part of tiles or overlay?
  - o SwRI – Part of tiles. Will show screenshots with and without later.
- Laird - Is there a required version of DirectX?
  - o SwRI – DirectX 9 will yield the best performance. WPF framework will attempt to use advanced graphics hardware if present, if not will perform calculations in the actual CPU. Using a lesser graphics card should not cause the application to stop working, but could impact performance.
- Laird – What technology is being used (Microsoft Virtual Earth, Google, etc)?

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- SwRI – None of these. They all require an external internet connection, which was unacceptable to FDOT. The technology is completely custom implemented – from tile generation to display.
- Laird – Are different layers being implemented for the icon types?
  - SwRI – This is still being decided from a technical standpoint. From a functional standpoint, the current ordering of icons (such as event icons appearing on top) will be maintained.
- Krishnamurthy – Clarification regarding the Right-Click Menu Enhancement. This has not yet been approved by the CMB, this is scheduled for today’s CMB meeting.
- Dellenback – performance requirement for numbers of devices changed to read “number of devices on screen” per comment from D4.
  - McTague – Confirmed that this addresses her concern.
- Laird – on Slide 14 – “different background map” with regards to editor: Different from what?
  - SwRI – Different from old SVG map.
- Summerfield – Will mile-markers be present in the new editors?
  - SwRI – No, these are part of the NavTeq data (and thus part of the underlying tiles if FDOT wants them turned on).
- Fontan – Will the icons scale in the new map?
  - SwRI – Yes, they will be smaller at the outer zoom levels.
- Vega – The list of “route\_types” does not include city roads, does this mean we will not see city roads?
  - SwRI – No, that just means they are coded the same as some other roadway type within NavTeq, so they will be colored the same as the roadway type they are coded as.
- Krishnamurthy – From CO point of view, what software is needed to managed/edit tiles?
  - SwRI – ArcEditor and ArcGIS server. SwRI will send list offline with more details.
- Laird – Is the storage of the tiles on the server?
  - SwRI – Yes, most likely accessed via IIS on the same server hosting the Operator Map.
- Vega – shields for Orlando will overlap with icons?
  - SwRI – No, the reverse will happen. Icons will appear on top of shields (shields are part of the underlying tiles).
- Vega – If/when local agencies begin using SunGuide, and they want additional data (such as police stations/fire stations), how would this get added?
  - SwRI – In advance, either SwRI or FDOT CO (once FDOT CO has the tools) would need to make the modifications.
- Fontan – how is the zooming/panning accomplished?
  - SwRI – Similar controls to Google Maps / Virtual Earth (click drag to pan, mousewheel to zoom).

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- Laird – Can a small region of the map tiles be updated rather than the whole set?
  - o SwRI – Yes, although this may be a time consuming process (hours or more depending on size of region).
- Laird – In that case, how do they ensure that the tiles they generate line up with the ones generated by SwRI?
  - o SwRI – Will deliver a definition file that contains the appropriate factors.
- Dellenback – does there need to be another outer zoom level that covers the entire state of Florida?
  - o Vega – Arun will have to answer. EOC may need to use this during Hurricane situations, etc.
    - Arun – Typically they would be addressing problems in a particular region, not sure entire state view is needed.
  - o General question: Could open multiple instances of map – one for “northern” areas, one for “southern” areas.
    - SwRI – not sure technically this can be supported.
- Krishnamurthy – Local/County roads – Google Maps uses a “softer” color than straight black which is easier to look at. Google Maps it also uses a white line with a grey border. Can something similar be done?
  - o SwRI – Yes, will send out some more color samples.
- McTague – Is it a good idea to have any roadways as green since that will be similar to the TSS data coloring?
  - o SwRI – This was done to match FTE’s shields, FTE would need to give feedback for this.
- Dellenback – to save time, should a poll be sent out regarding colors?
  - o Krishnamurthy – Yes.
- Fontan – when zooming in Google Maps, the local roadway labels turn on as zoom in. Can this be done?
  - o SwRI – Yes, can turn labels on/off at any zoom level desired, in roadway classifications as they are defined by the NavTeq data.
- Hensley – On layer 7, parking lot signs and such began showing up. This is without the SunGuide icons, so it may be helpful to minimize “icons” that are part of the map layer.
- Fontan/ Krishnamurthy – would like to see the color scheme as close as possible to Google Maps coloring.
  - o Krishnamurthy – for FTE use their preferences, for others use Google Maps.
- Vega – would also like county lines to appear to the closer zoom levels.
  - o SwRI – Will look into how this can be accomplished as other colors transition to be more like Google Maps.
- Dellenback – Are city street labels wanted at any zoom level other than the closest?

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- Fontan – would like similar to Google where they come in few at a time as zoom in (i.e. “major local streets” appearing at an earlier zoom level than some other local streets).
  - SwRI – NavTeq data does not provide this distinction – county and city streets are coded the same way. Will try to generate samples of a future version with much more detail, FDOT can then request to turn details off.
- Dellenback – will wait from direction from Arun regarding how other agency roadways such as FTE, MDX, etc should be colored.
- Dellenback – How should alt-roads and bypass be indicated in shields (Google Maps does not distinguish between these)?
  - Hensley – operators do use these differently.
    - SwRI – will try to work out a coloring difference (either text or shield color).
- Dellenback – is FTE OK with the shields being used?
  - FTE – Yes, and will discuss the color issues (green roadways vs green TSS links) to let Arun know.
  - FTE also to review how coloring of intersections should be handled.
- Dellenback – looking at slide 39, some intersection ramps are black, some are orange. Is this OK?
  - Some of those may actually be frontage roadways that are not part of the freeway.
- Dellenback – slide 41, is that depiction plaza OK
  - FTE – Yes (if icons are added – FTE to provide direction)
- Krishnamurthy – (slide 42) – Can some shields be deleted?
  - SwRI – Yes, but unlike added features (which are added in a separate custom layer), these would need to be re-deleted each time new NavTeq data is acquired.
- Summerfield – Given loss of operator customization of the map colors, is there a possibility of generating an alternate color scheme that can be changed in (this in case users with visual impairments cannot easily see the main colors)?
  - SwRI – Yes, this could be accomplished by deploying two sets of map tiles. Map could then be configurable (per operator) as to which set of tiles gets used. SwRI will add requirement to make map configurable in this manner.
- Agree that translucency of TSS links helps see the underlying data under maps.
- Group discussion of aggregate lanes being shown at higher zoom levels rather than the full lane detail.
  - Is there a desire to have aggregate view, or is the lane detail sufficient? Or the reverse, is the lane level detail needed on the view?
  - Vote on lane data or aggregate at high levels:
    - D1 - Lane data
    - D2 – lane
    - D3 – lane
    - D4 – absent

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- D5 – lane
- D6 – lane
- D7 – absent
- CO – aggregate
- FTE – lane – lane level because the lane level detail is what is used on a daily basis.
- Add to future enhancement (aggregate data) list since districts do not currently desire as part of this release.
- Laird - At what levels will lanes show up on the map?
  - SwRI – Same as current map (configurable at what zoom level lanes begin to draw).
- Pete – as this progresses, can Steve/Arun send out screenshots showing color options at each zoom level?
  - SwRI – Yes. Will also send them as full resolution screenshots rather than compressed for presentation.

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## **ACTION ITEMS**

Numbering of Action Items is based on all action items identified on the SunGuide project.

<b>Number</b>	<b>Responsible</b>	<b>Text</b>	<b>Due Date</b>
1	SwRI	Provide details of required ESRI software and map definition file to FDOT CO (with delivery of 5.0)	Jan 15, 2009
2	SwRI	Adjust color scheme to more closely match Google Maps, add County boundaries	Jan 15, 2009
3	SwRI	Attempt to come up with coloring difference for ALT/Bypass roadway shields.	Jan 15, 2009
4	SwRI	Provide full resolution screenshots after other color modifications made	Jan 15, 2009
5	FDOT CO	Send poll about color preferences (this was made OBSOLETE) by the direction to use colors “like Google”	n/a
6	FTE	Decide preferred color for roadways (current green may be difficult to see with green TSS links)	Jan 15, 2009
7	FTE	Look at how coloring of intersections should be handled.	Jan 15, 2009
8	FTE	Provide icons and locations for service plazas	Jan 15, 2009
9	SwRI	Add requirement to allow the Operator Map to a user-configurable set of map tiles.	Dec 10, 2009