A Tale of Two Layouts

"It was the best of trains…."

Mike Birmingham & Seth Neumann

Similarities - 1

Operational Concept

- Prototype Ops oriented
- Follow the prototype, both physically and operationally
- DCC (NCE/S1)
- Western Prototype
- A main (1st Sub) and a branch with a major industry
- Start with TWC and move towards prototype (CTC on WP, TT&TO on SP&S)
- Car Card and Waybill for car forwarding

Physical Concept

- Base bench height = 50 inches
- Wide aisles for operations
- Walk-around design:
  - Sincere
  - no ducks
  - no crawls
- High scenery to track ratio
- track: flex in hidden areas + hand laid (except for concrete tie on modern railroads)
- HO

Similarities - 2

Methodology

- Extensive prototype research
  - ETTs
  - Shippers lists
  - Track profiles
  - USGS sections
  - Historical societies
  - Individuals who worked on the prototype
- Build a little, op a little, adjust and continue
- Use of mock ups
- Learning from others
- Regular construction group (the same one!)

Differences

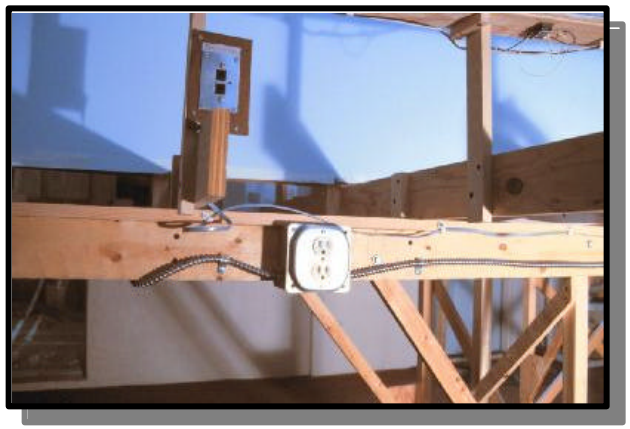
- Transition Era
- Double–deck
- Incandescent
- Lifetime layout
- Masonite backdrop
- L girder

- Contemporary Era
- Single level
- Fluorescent
- Build it now
- Aluminum backdrop
- Shelf Bracket and L girder

Construction

- Room Prep
- L Girder
- Full range of day & night effects
- Plaster for basalt cliffs
- Power switches on fascia
- Purpose-Built room
- “Doorminos” on shelf brackets and L girder tables
- Lots of Chroma 50
- Blue foam
- Mark VII and power

Lessons Learned - Electrical



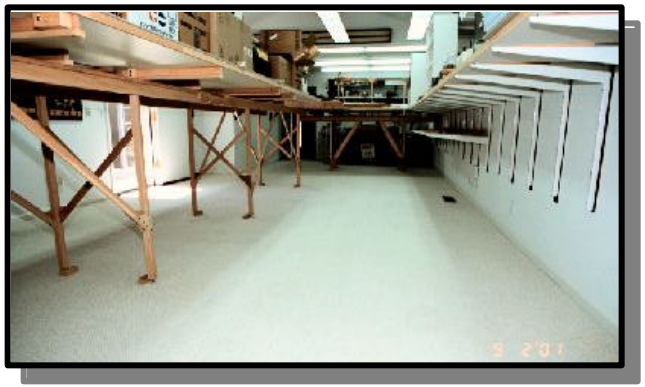
It's hard to have too much!

- Outlets every few feet
- Mix of switched and permanent outlets
- At least two 20A circuits for layout power and another two 20A circuits for lighting

Lessons Learned - Lighting

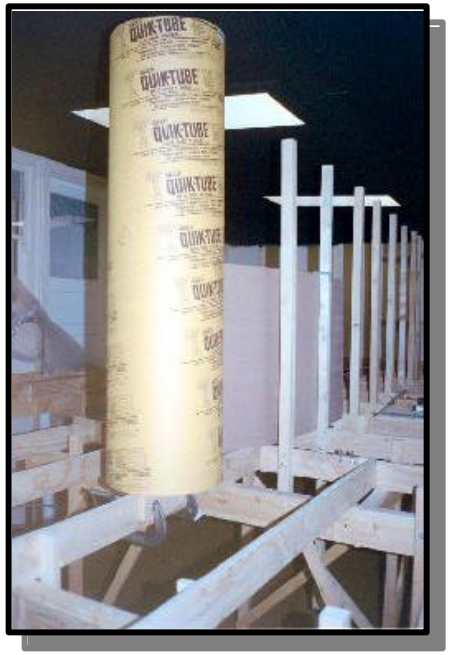
- Fluorescent for operator comfort, incandescent for effects
- “Chroma 50” type bulbs give good daylight spectrum
- Consider electronic ballasts for acoustic noise
- May require electronic filtering

Lessons Learned - Benchwork



- “Westcott” style brackets attached to 2x2 risers
- Integral upper deck brackets
- Ripped ply v. dimensional lumber
- L- girder tables with hollow core doors, – go up 1 size on girders
- Brackets go up fast and are easy to adjust but are expensive and hard to hang things from. Very good if you need additional shelving and storage

Lessons Learned – Backdrop 1



- Masonite backdrop supported by coving
- Concrete tube form for end

Lessons Learned – Backdrop 2

- 2x2 knee wall for support, 4” drain pipe for end
- Aluminum “trim coil” with polyester finish
- Local cost ~ $80 for 2’ x 50’ roll
- Snaps into vinyl track
- Paint with latex
- Installed by Ld/Op Sig Meet organizing committee in 4 hours

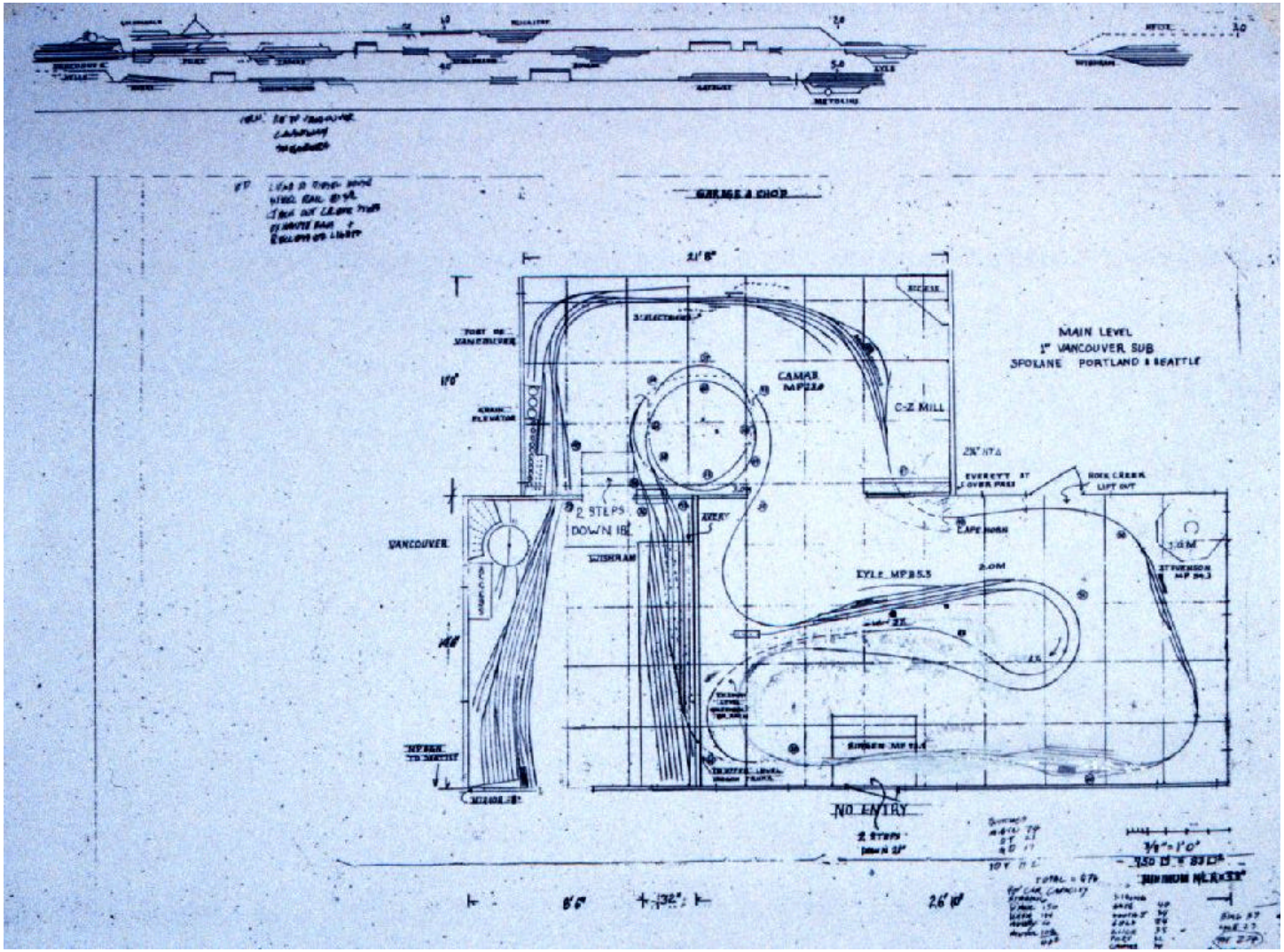
Lessons Learned – Roadbed

- Homasote/Homabed
- Sheets, strips or pre cut

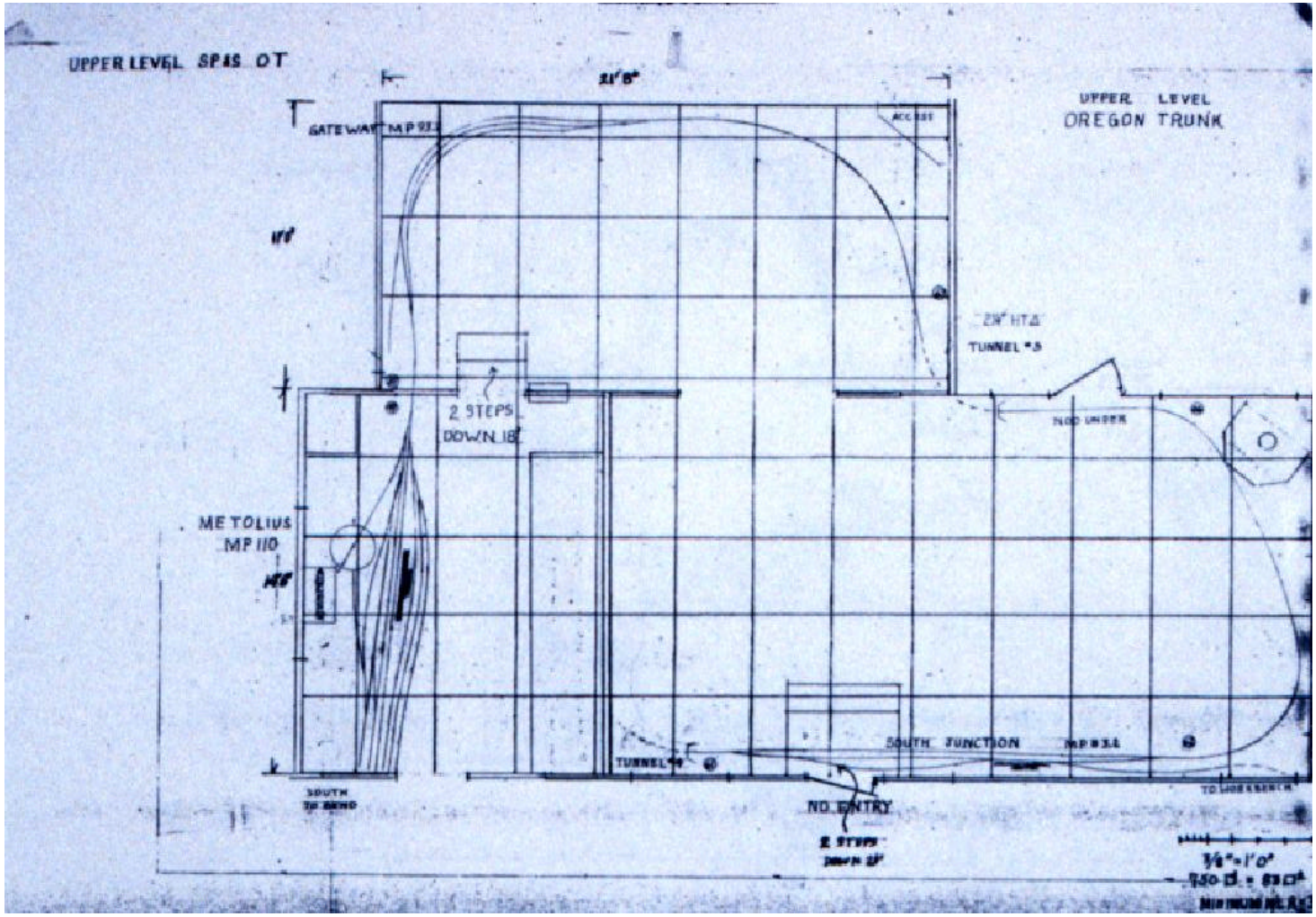
Lessons Learned – Operations

- Operate Early and Often
- SP&S 1st Division 1st Operated Feb 17, 2002
- Mock - ups help
- Temporary end-of-track staging

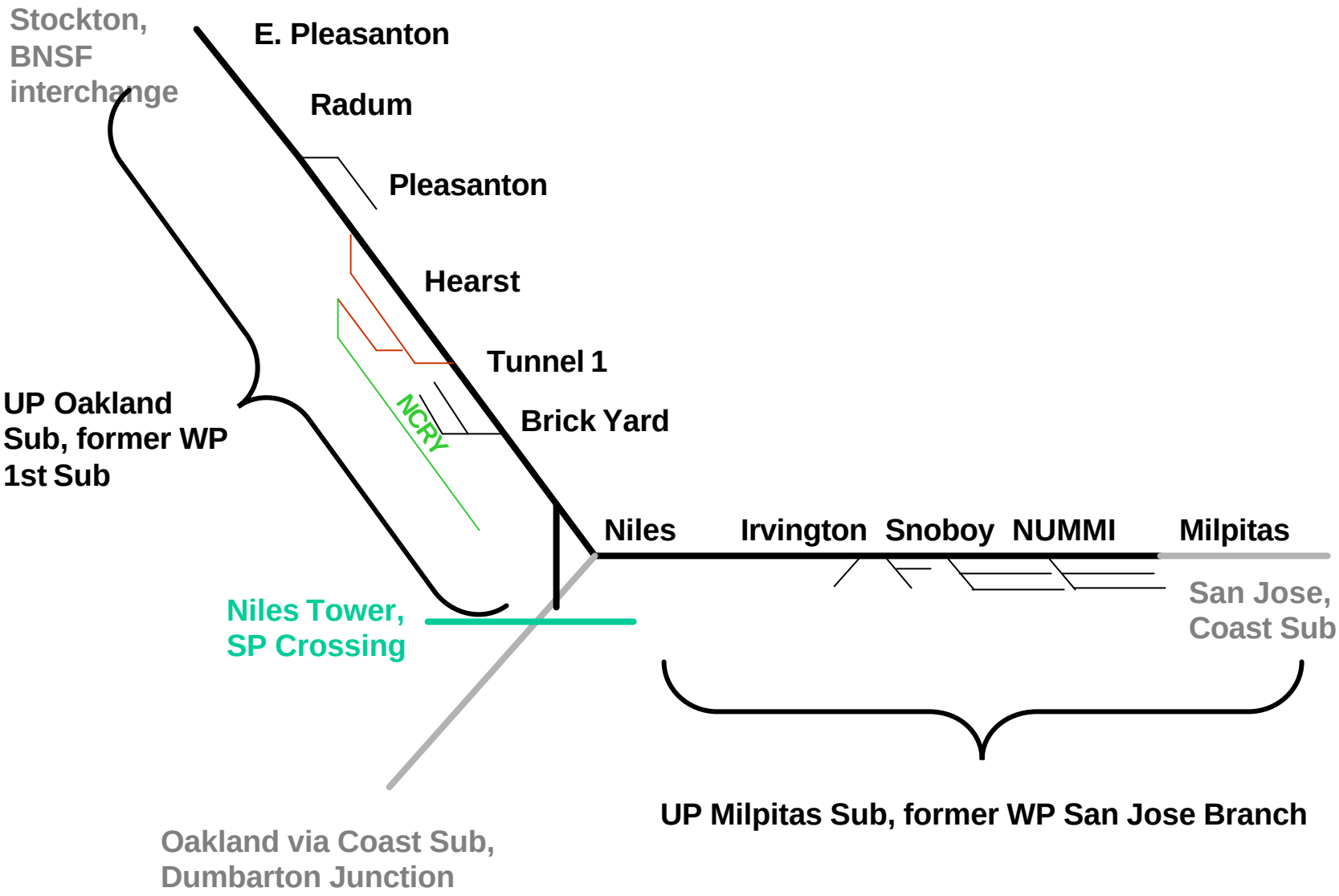
SP&S Plan - 1


MAIN LEVEL
1ST VANCOUVER SUB
SPOKANE PORTLAND & SEATTLE
CAMAS MP 22.0
C-Z MILL
VANCOUVER
2 STEPS DOWN 18"
EYLE MP 25.5
NO ENTRY

SP&S Plan - 2


UPPER LEVEL SP&S OT
UPPER LEVEL
OREGON TRUNK
GATEWAY MP 93
2 STEPS
DOWN 18"
METOLIUS
MP 110
TUNNEL #3
SOUTH JUNCTION
NO ENTRY

Niles Canyon - Schematic



Niles Canyon Plan