An aerial photograph of a complex highway interchange, likely Sand Lake Road, showing multiple lanes, overpasses, and surrounding urban development. The image is semi-transparent, allowing the text to be overlaid.

# **Sand Lake Road Temporary DDI Implementation**

**Anticipated Date 3/8/24**

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- Initial Hour by Hour walk through held - 2/15/24
- Signals meeting with CEI and TSM&O - 2/22/24
- Signal meeting with Lane, Signal sub, EOR, County, CEI and FDOT – 2/27/24
- Hour by Hour walk through (Update) - 2/29/24
- Signal Operations Bench Test - scheduled 3/6/24
- Daily Walk throughs and Pre-Activity verification - 3/4 to 3/8
- Final Walk through all Pre-activity and Staging prior to shift – Night of Implementation
- FDOT Decision Makers onsite during switch

| FRI 3/8/2024  |  | 7:00 PM |    | 8:00 PM |    | 9:00 PM |    | 10:00 PM |    | 11:00 PM |    | 12:00 AM |    | 1:00 AM |    | 2:00 AM |    | 3:00 AM |    | 4:00 AM |    | 5:00 AM |    |    |    |
|---|--|---------|----|---------|----|---------|----|----------|----|----------|----|----------|----|---------|----|---------|----|---------|----|---------|----|---------|----|----|----|
| TASK DESCRIPTION  |  | 15      | 30 | 45      | 60 | 15      | 30 | 45       | 60 | 15       | 30 | 45       | 60 | 15      | 30 | 45      | 60 | 15      | 30 | 45      | 60 | 15      | 30 | 45 | 60 |
| REVIEW PLAN W/ CREW ON SITE ( Safety Huddle)  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| REVIEW & STAGE ANY REMAINING MOT/SIGNS  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| CLOSE TURNING LANES & RAMP  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| LANES - CLOSE RAMP M & DETOUR   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| CLOSE LANE 4 ON I-4   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| SLR- SET DBL LEFT CLOSURE WB  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| SLR- SET DBL LEFT CLOSURE EB  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| SURV - START LAYOUT   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| OGEL - PULL TAPE & START STRIPING   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| OGEL - WEST SIDE: 12 STRT ARROW, 2 LEFT, 2 ONLY, X-OVER, RAMP M & X-WALK, RPMs                    |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| OGEL - EAST SIDE: 16 STRT ARROW, 2 LEFT, 2 WEST, 4 "1-4", X-OVER, RPM's                           |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| LANE - PRESTAGE 100 DRUMS ON TRAFFIC SEPARATOR UNDER BRIDGES                                      |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| Cont'd side bridge EB and WB signs  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| Cont'd Overlay Eb I4 sign   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| Cont'd relocate WB I4 sign to median  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| MOBILE TRAFFIC SIGNS 1, 2, 4, 5, 11, 14, & 14 (All Pre-Ordered)                                   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| CONT(EAST QUAD) - BAG SIGNAL HEADS (6); RELOCATE SIGNAL HEADS (5); UNBAG SIGNAL HEADS (11)        |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| CONT - TEST EAST QUAD SIGNAL HEADS AND PEDESTRIAN SIGNALS   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| CONT(WEST QUAD) - BAG SIGNAL HEADS (4); RELOCATE SIGNAL HEADS (2); UNBAG SIGNAL HEADS (8)         |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| TEST WEST QUAD SIGNAL HEADS AND PEDESTRIAN SIGNALS  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| FLOP CONES TO SWITCH TRAFFIC TO P1 Step 6   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| STEP 6 - MOVE PEDS TO NORTH SIDE + CLOSE SOUTH  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| SURV - START LAYOUT   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| OGEL - PULL REMAINING TAPE/ STRIPE TO P1A   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| OGEL - WEST SIDE: 1 LEFT/THRU, 1 EAST, 1 "1-4" RAMP M TIE-IN, PARTIAL X-OVER, RPMs                |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
|   |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| OGEL - EAST SIDE: 2 LEFT, 2 LEFT/THRU 2 RIGHT, 3 EAST, 2 WEST, 5 "1-4", RAMP E & L, X-WALKS, RPMs |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |
| Stage Set & wall (200 ft.) Sand Lady  |  |         |    |         |    |         |    |          |    |          |    |          |    |         |    |         |    |         |    |         |    |         |    |    |    |



# Implemented Lessons Learned

- **Communications Plan shared with County, Public, I Drive Chamber & Business District, EMS/LE/RTMC/County TMC**
  - Anticipated date of 3/8/24 has been communicated to I-Drive Chamber
  - Public Information Meeting Planned 3/7/24 (All three discussed SL with emphasis on DDI, DC, 535)
  - Public Awareness materials have been distributed
  - Advanced PCMS communications
- **Enhancements to Signing and Pavement Markings and Signals**
  - Pavement Directional Arrows for lane guidance
  - Directional Arrow Signal Heads
  - Wavetronix Detection added for signal communication redundancy
  - Paint Striping on night of Implementation followed later with Thermoplastic placement
  - Law Enforcement Officers in place for a month after implementation





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# Implementation Plan

## Pre-Activities (Month/Week prior)

- **Pavement**
  - Intersection has fresh asphalt overlay (see video next slide)
- **Striping**
  - All Pavement markings to remain during DDI have been done in Paint
  - Removable tape has been installed in the Crossover areas to avoid water blasting and ghosting
- **Signage**
  - 14 of 24 required signs will be installed and bagged in advance
  - Signs to be placed night of will be predrilled to expedite installation
- **MOT**
  - Cones and Barrels will be staged for efficient placement



# Current Configuration of Sand Lake Rd



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# Implementation Plan

## Pre-Activities (Month to Week prior)

- **Pedestrians currently on South Side, During Implementation they will be moved to the North**
  - Ped Signals in place and bagged
  - Longitudinal Channelizing Devices (LCDs) for pedestrian crosswalks in place but remain unavailable until after shift
  - Signing for ped crossing are in place
  - Crosswalks already striped on new pavement areas
- **Signals**
  - Temporary signals installed and bagged
  - Install Wavetronix detectors
  - Test signal operation via bench test in advance (target March 6<sup>th</sup>)

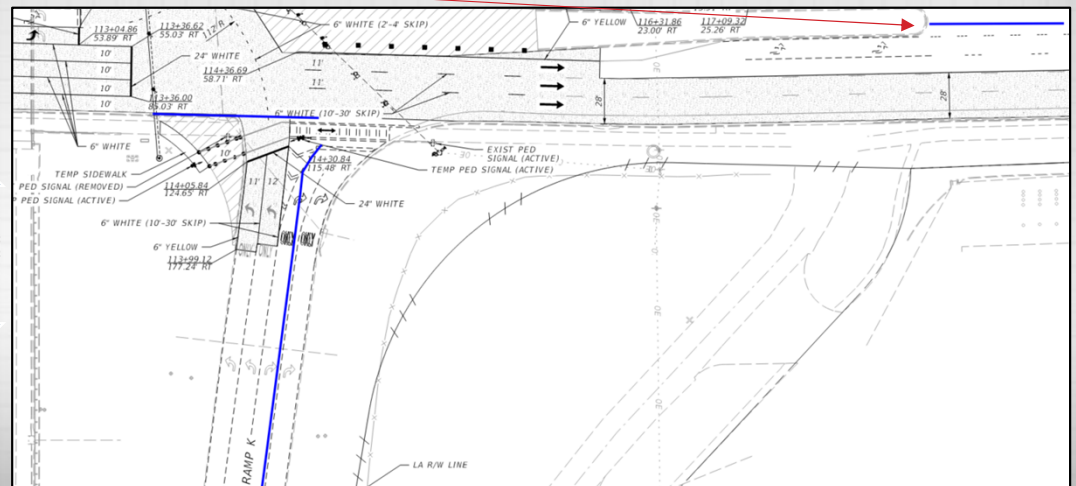
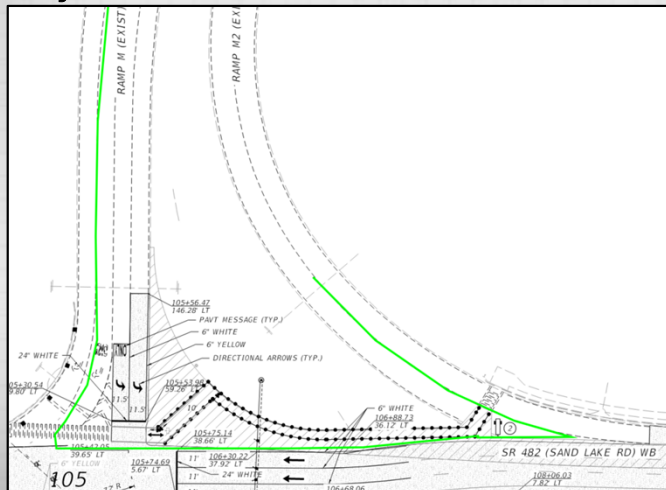




# Implementation Plan

## Night of: 11p to 12a

- Restrict WB I-4 off Ramp to Sand Lake- Only Right Turns Permitted
- Restrict EB I-4 off Ramp to Sand Lake- Only Right Turns Permitted
- Safety Divert on Ramp WB Sand Lake Rd to WB I-4 (Detour Traffic to Turkey Lake Rd)
- Safety Divert Right Lane on WB I-4 to create acceleration lanes for traffic entering from Ramp J to WB I-4
- Safety Divert Left turn movement into McDonalds

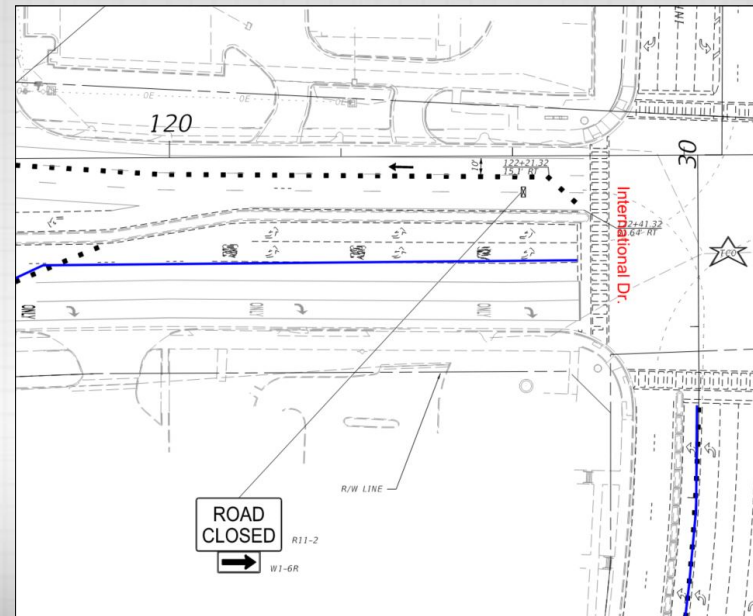
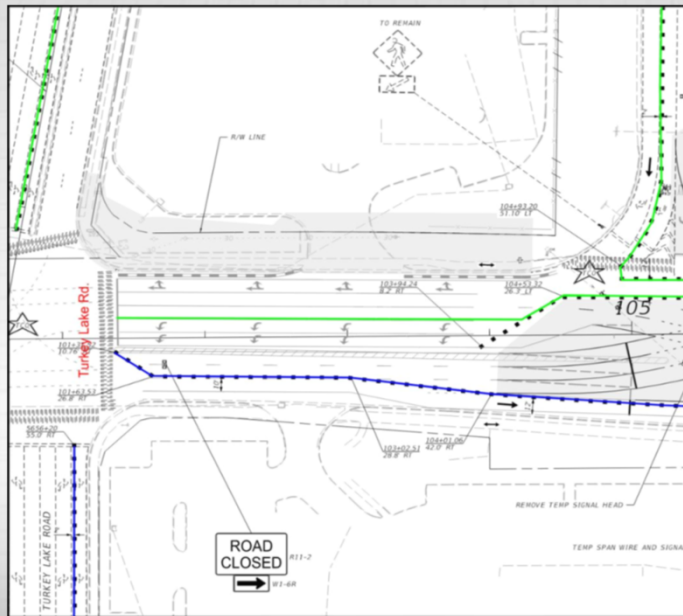




# Implementation Plan

Night of: 11p to 12a

- Reduce Turn Lanes on Turkey Lake and International Drive to single turn lanes
- Safety Divert Double Left Turn Lanes on Sand Lake Rd to Turkey Lake and I-Drive

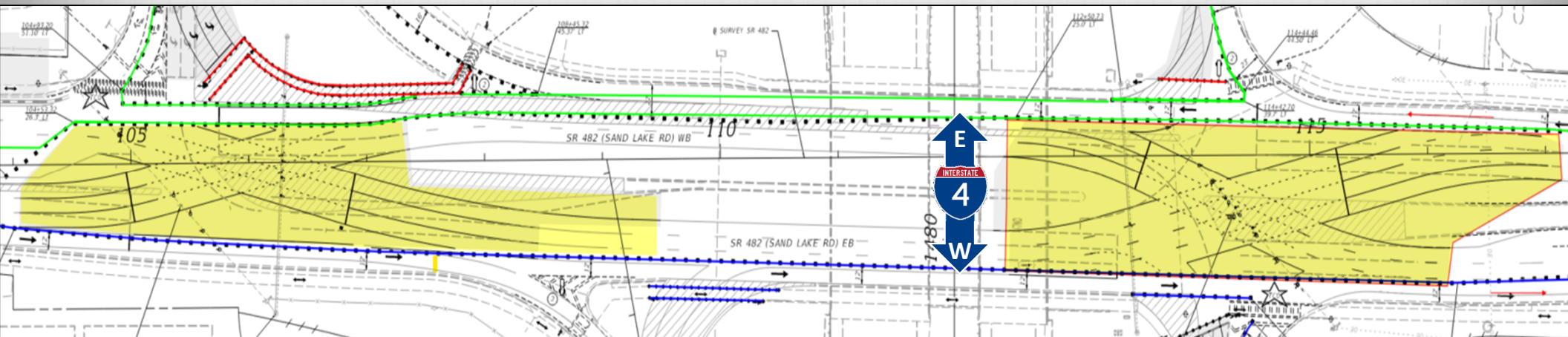




# Implementation Plan

## Night of: 12a to 1a TTCP Ph 1 Step 5

- Reduce EB and WB Sand Lake Rd to a single lane with Work Zone in the Middle
- Intersection Layout, Pull tape and start striping
- MOT staging in work zone in preparation for next phase
- Begin Shifting Bridge Mounted signs, Overlay EB I-4 Sign, Relocate WB I-4 Sign







# Implementation Plan

## Night of: 1a to 4a

- **Striping on going**
- **Install post mounted signs that were pre-drilled**
- **Multiple Signal crews working on site**
  - **Bag existing and Unbag new**
  - **Relocate signal heads**
  - **Test Signals East and West Quadrants**
  - **Test Pedestrian signals**

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# Implementation Plan

## Night of: 4a to 6a

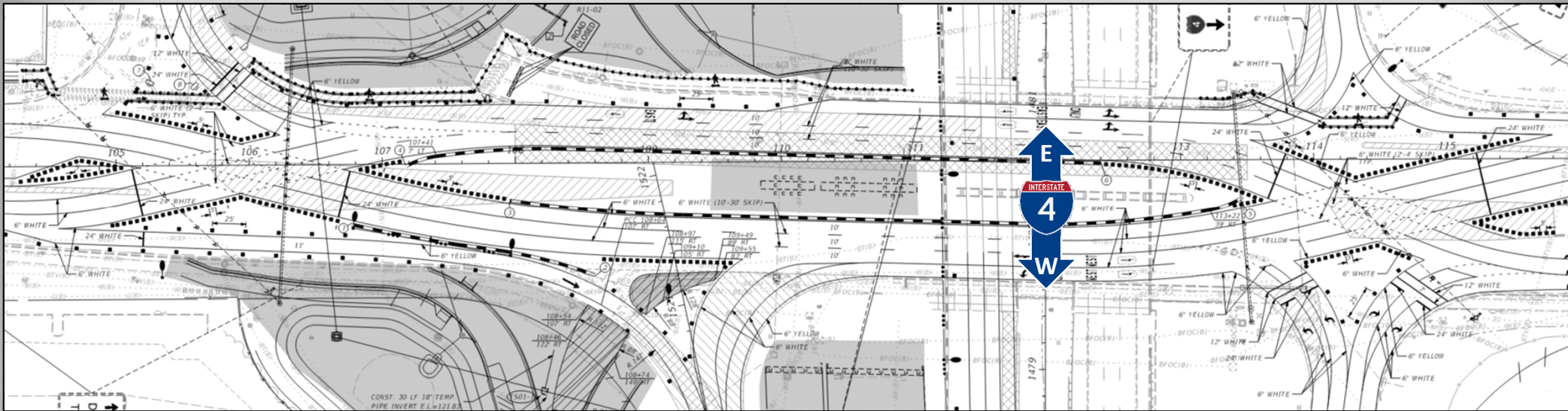
- Move Pedestrian to North side
- Pull remaining tape and stripe areas within work zone in outside areas
- Continue signal heads
  - Bag existing and Unbag new
  - Relocate signal heads
  - Test Signals East and West Quadrants with Ped signals
- Set K wall on Ramp J
- Install post mounted signs
- Placing drums in final configuration





# Implementation Plan

Night of: 6a to 8a  
TTCP Ph 1 Step 7





# Implementation Plan

## Night of: 6a to 8a

- Place remaining Barrels and Pedestrian LCDs in final locations
- Pull Sand Lake Rd Lane safety diversions
- Open DDI
- Ensure safety diversion on I-4 Lane 4 is in place
- Open both lanes of new Ramp J
- Bag remaining signs not needed



# Implementation Plan

## Post Shift Activities

- **Signals**
  - Final signal calibration
  - Remove old signal heads
- **MOT and Striping and Pavement Markings**
  - Tight barrel spacing
  - Place Thermoplastic over painted stripes
  - Way Finding Shields
  - RPM's
  - Law Enforcement for a Month
  - Low profile barrier wall to protect crane in median