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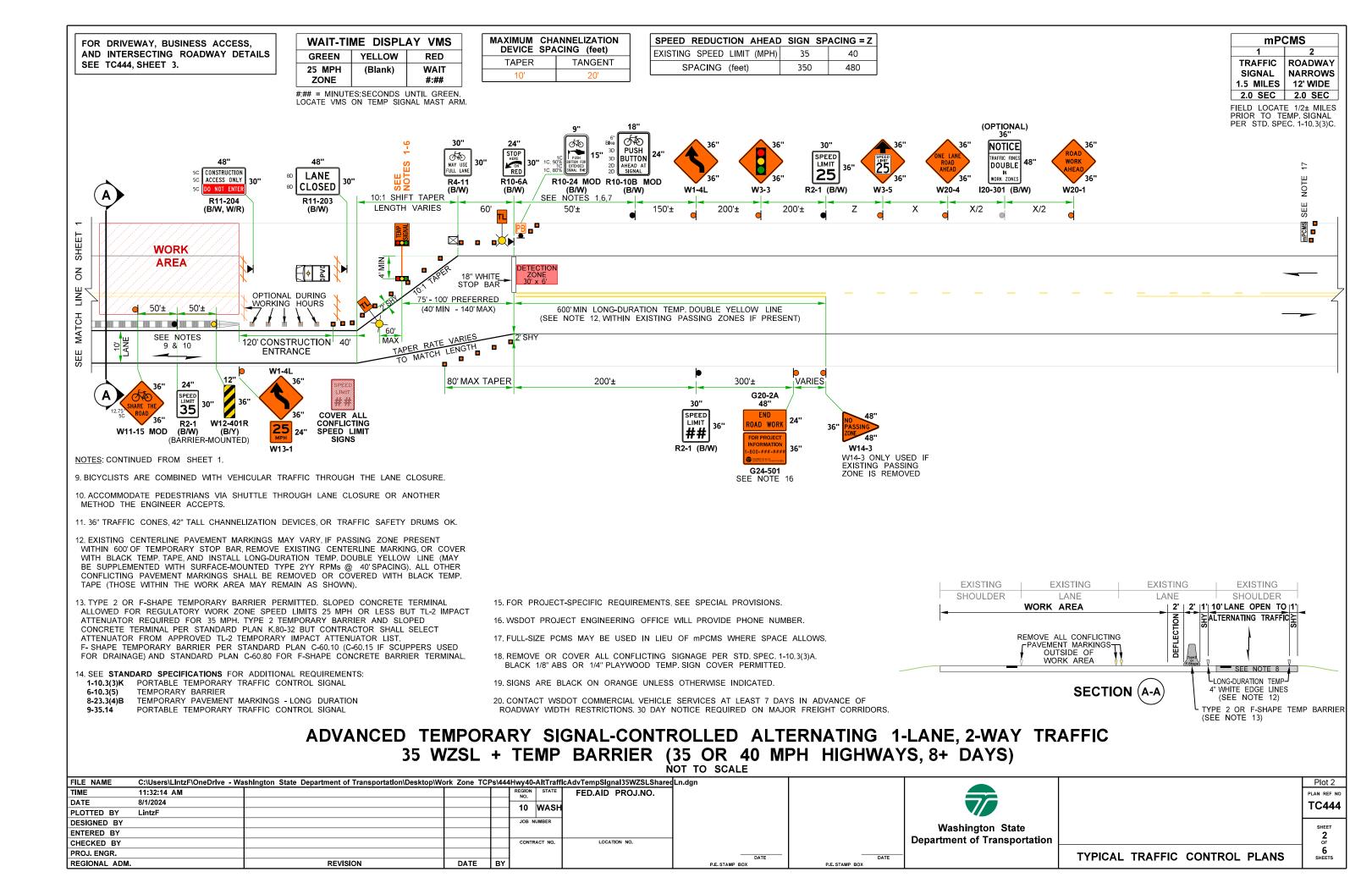
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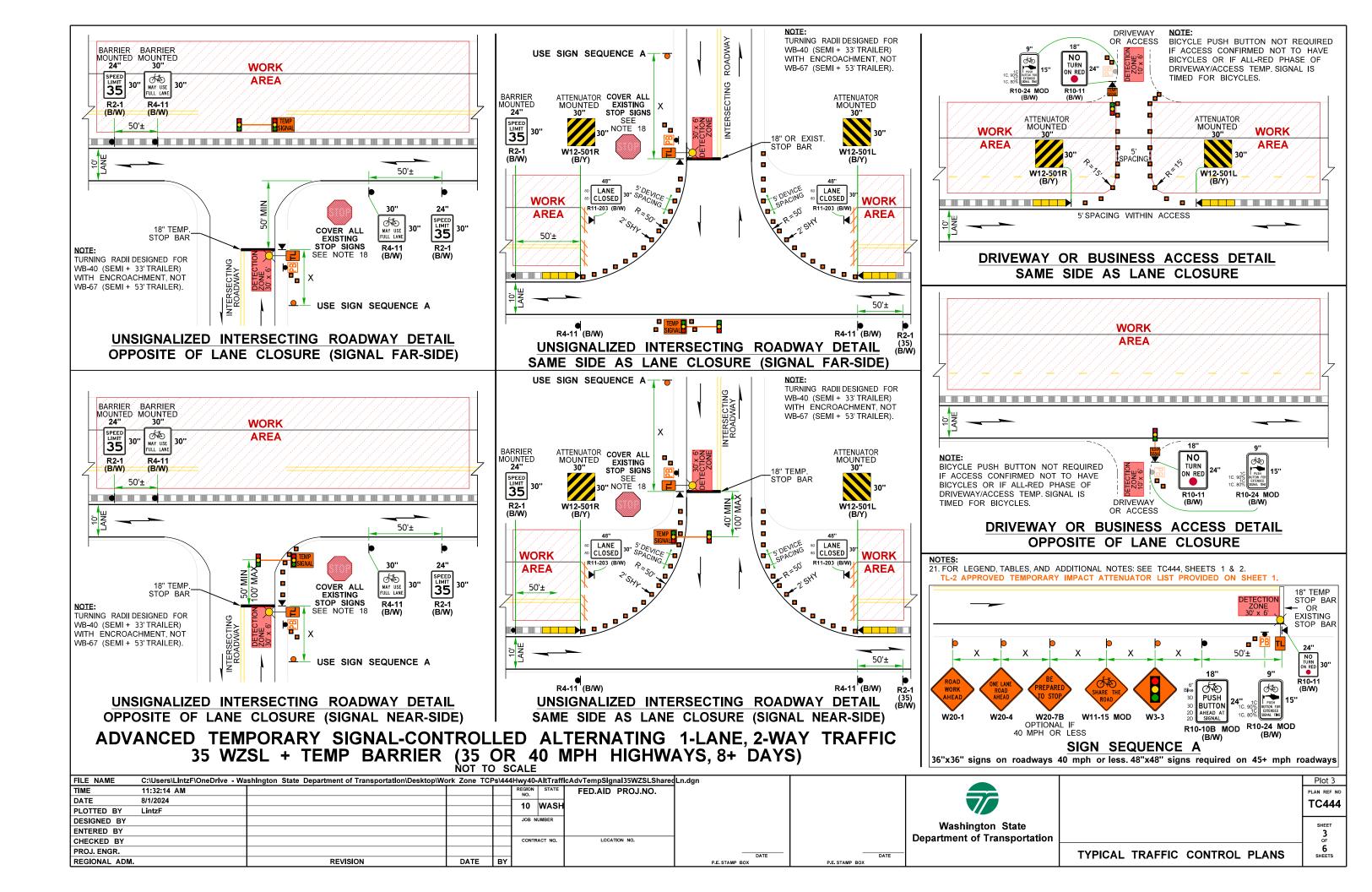
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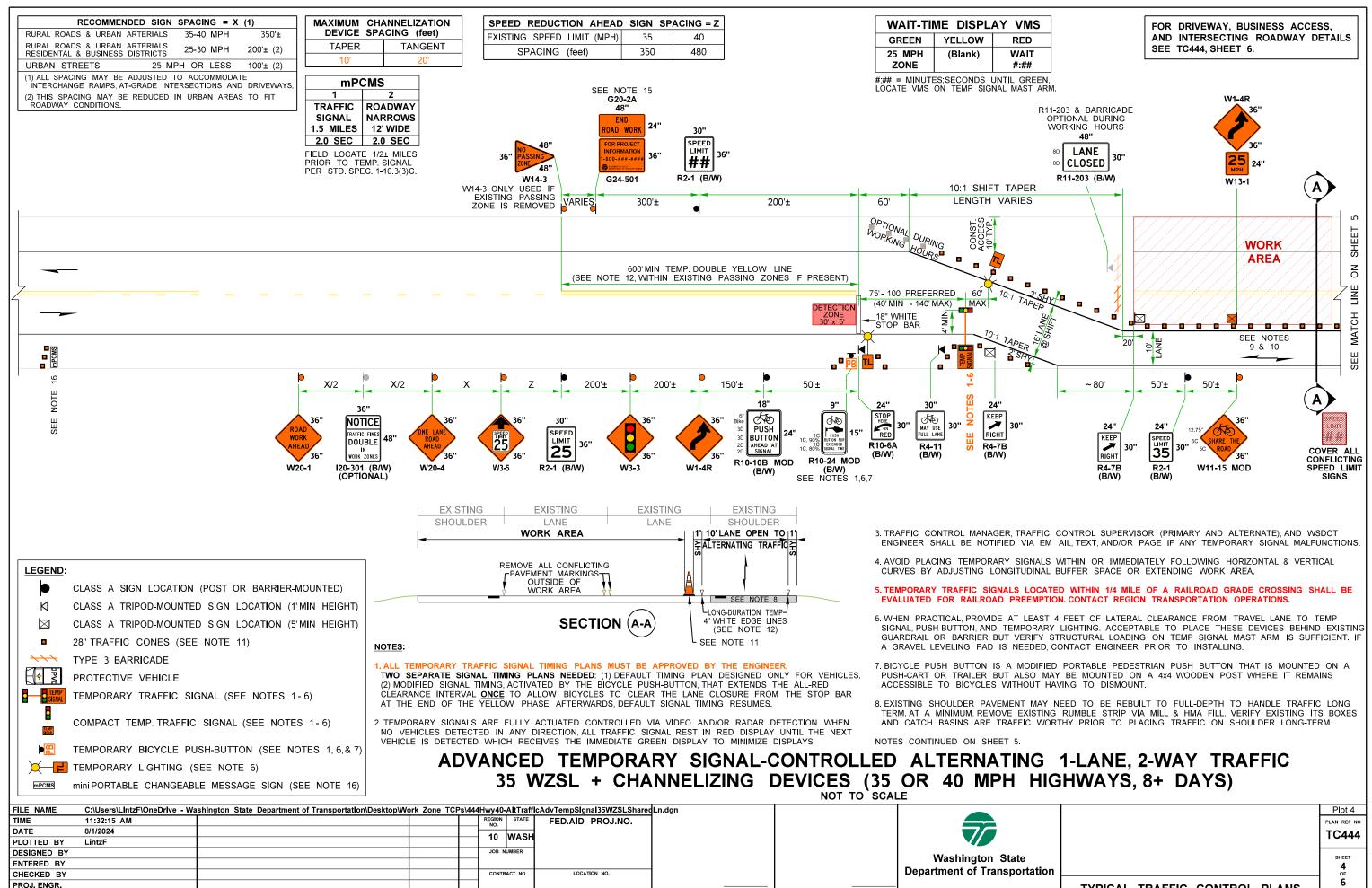
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TYPICAL	TRAFFIC	CONTROL	PLANS







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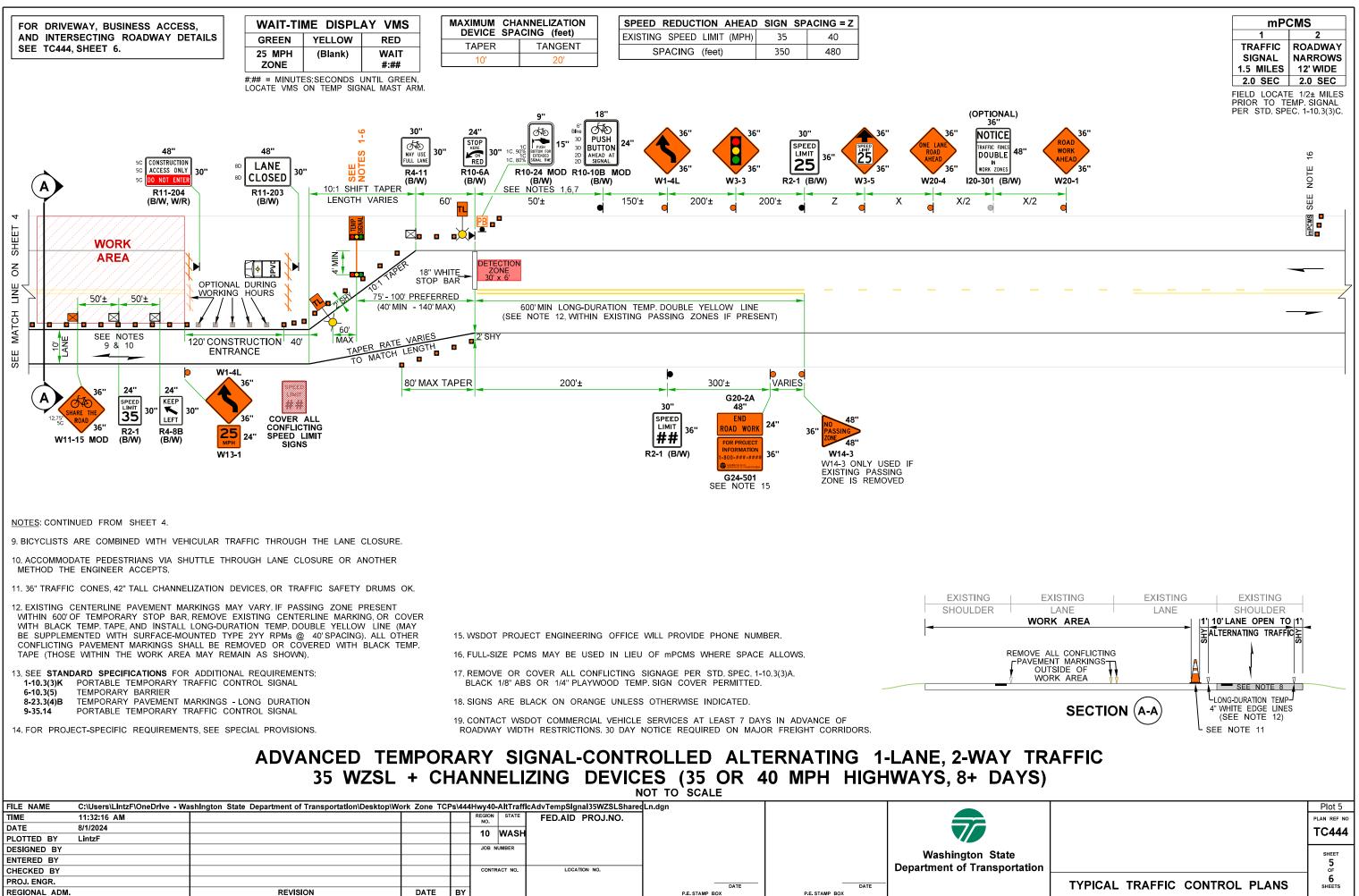
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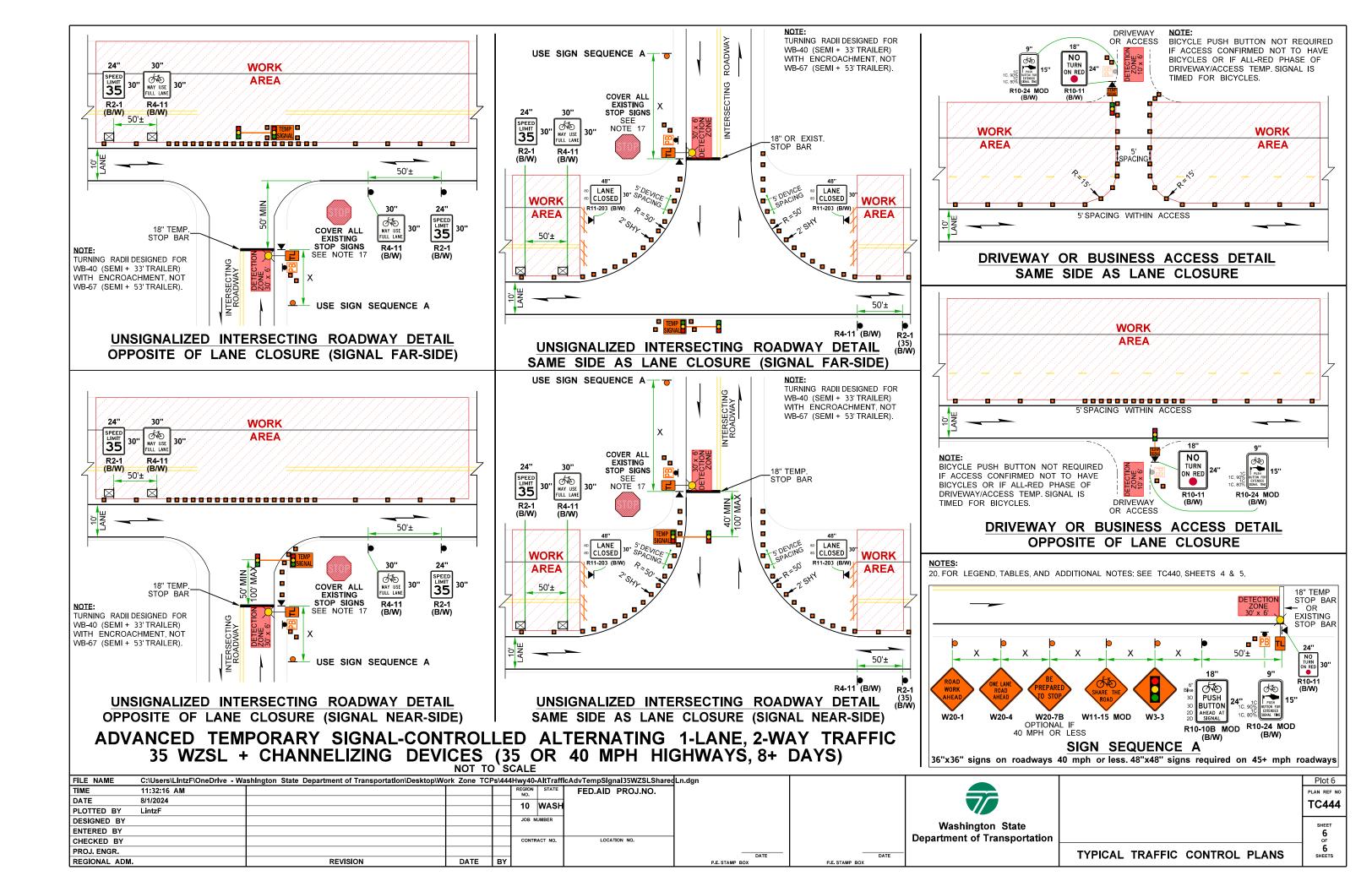
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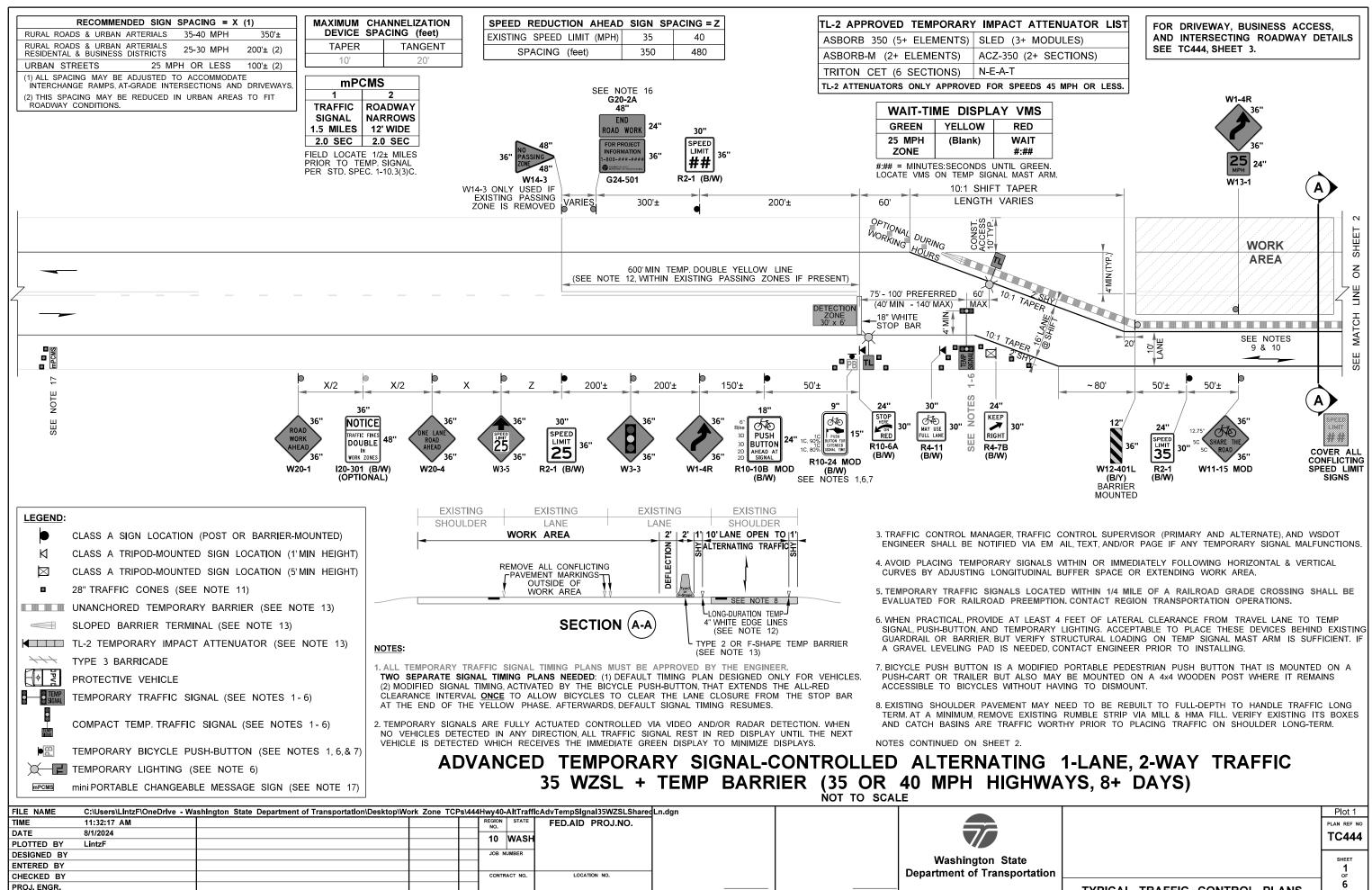
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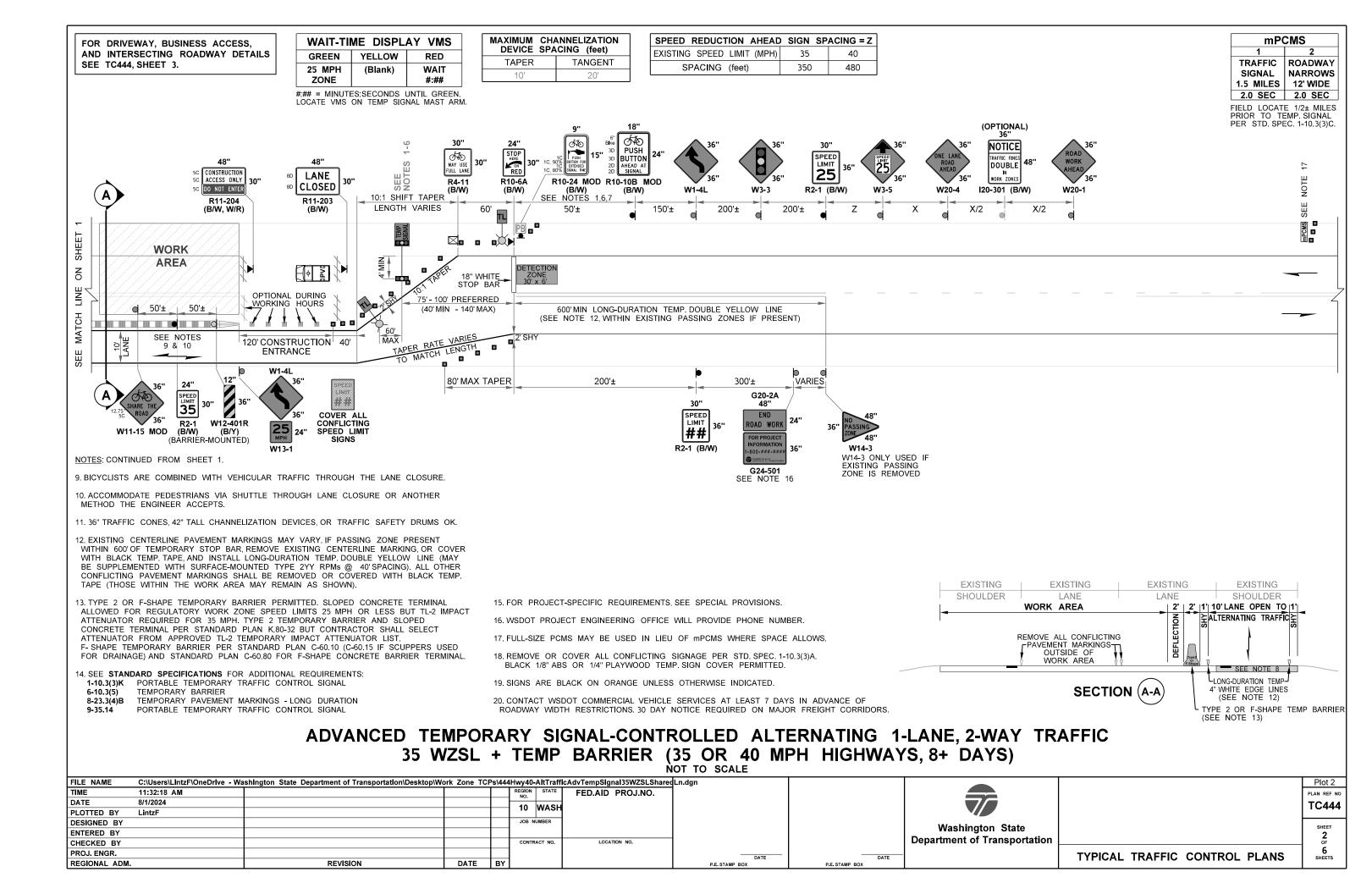
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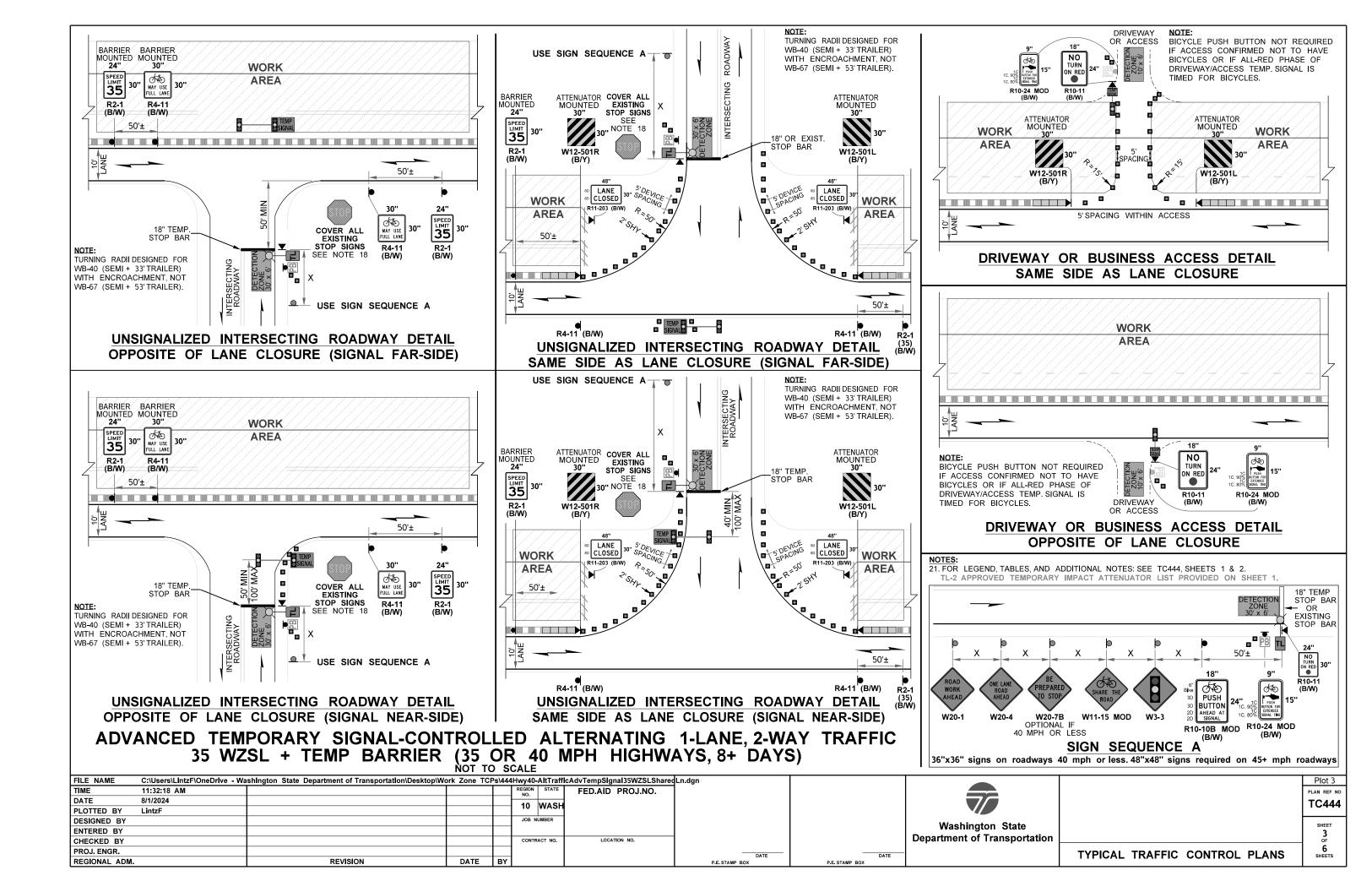
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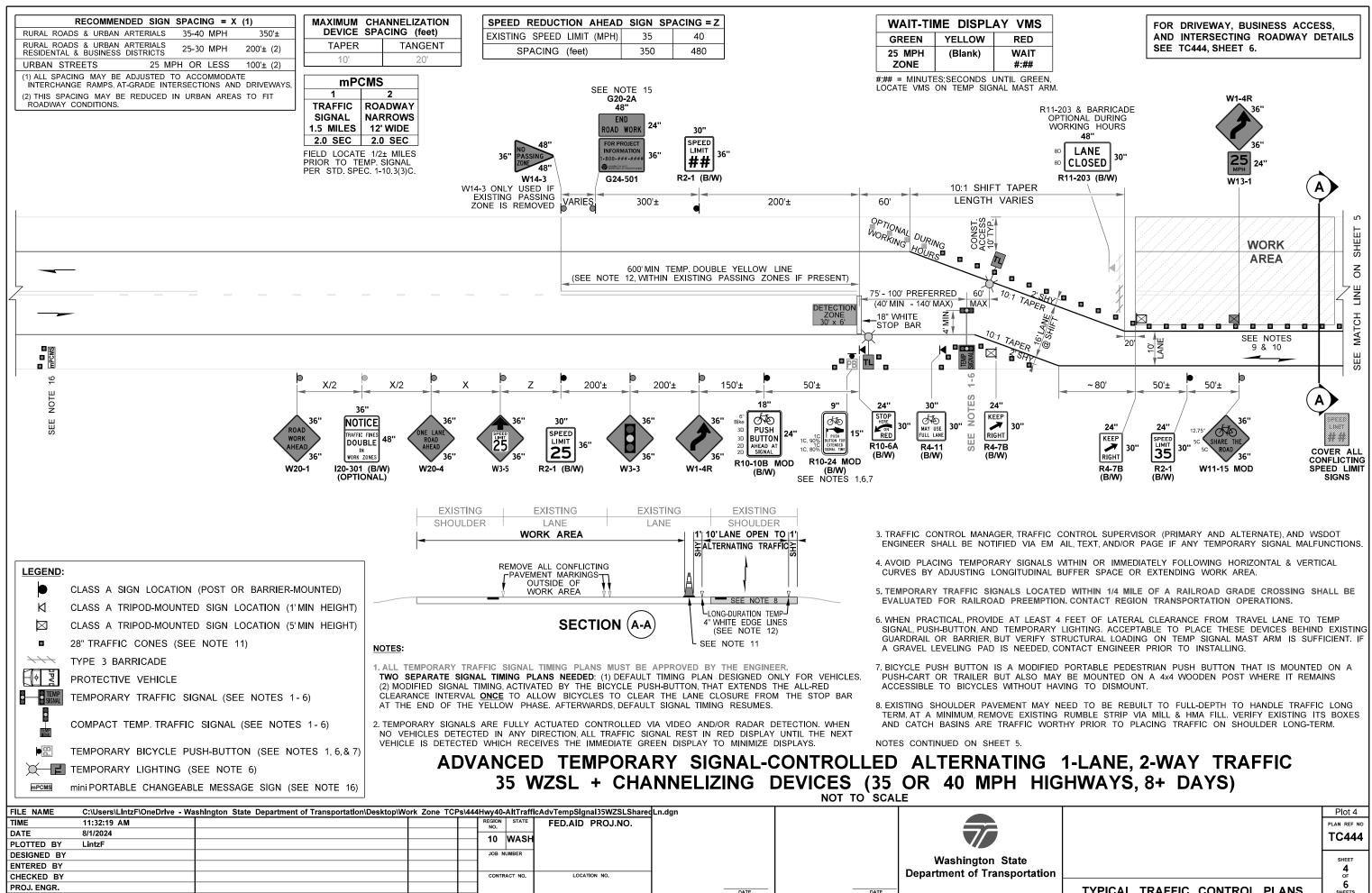
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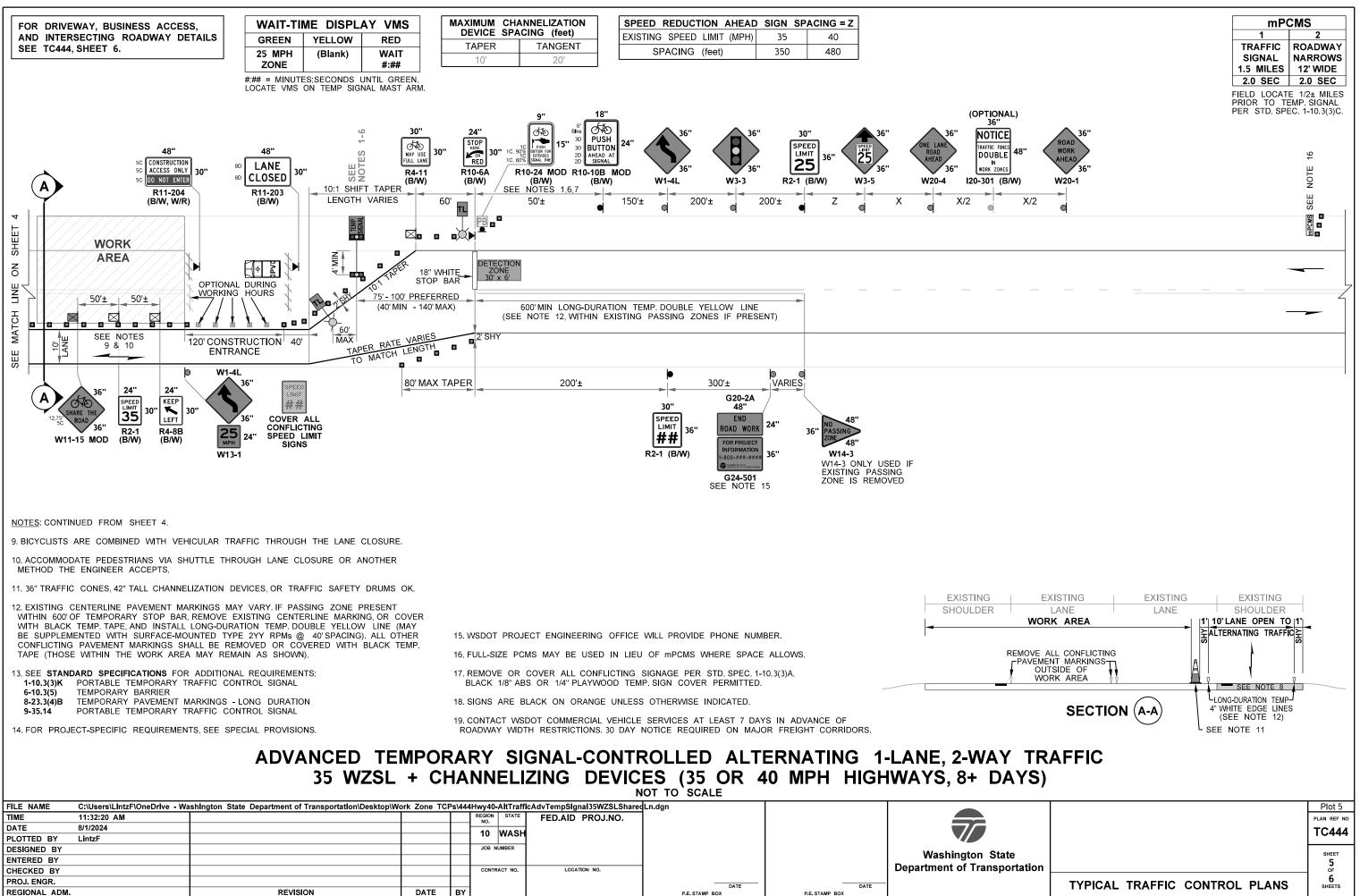
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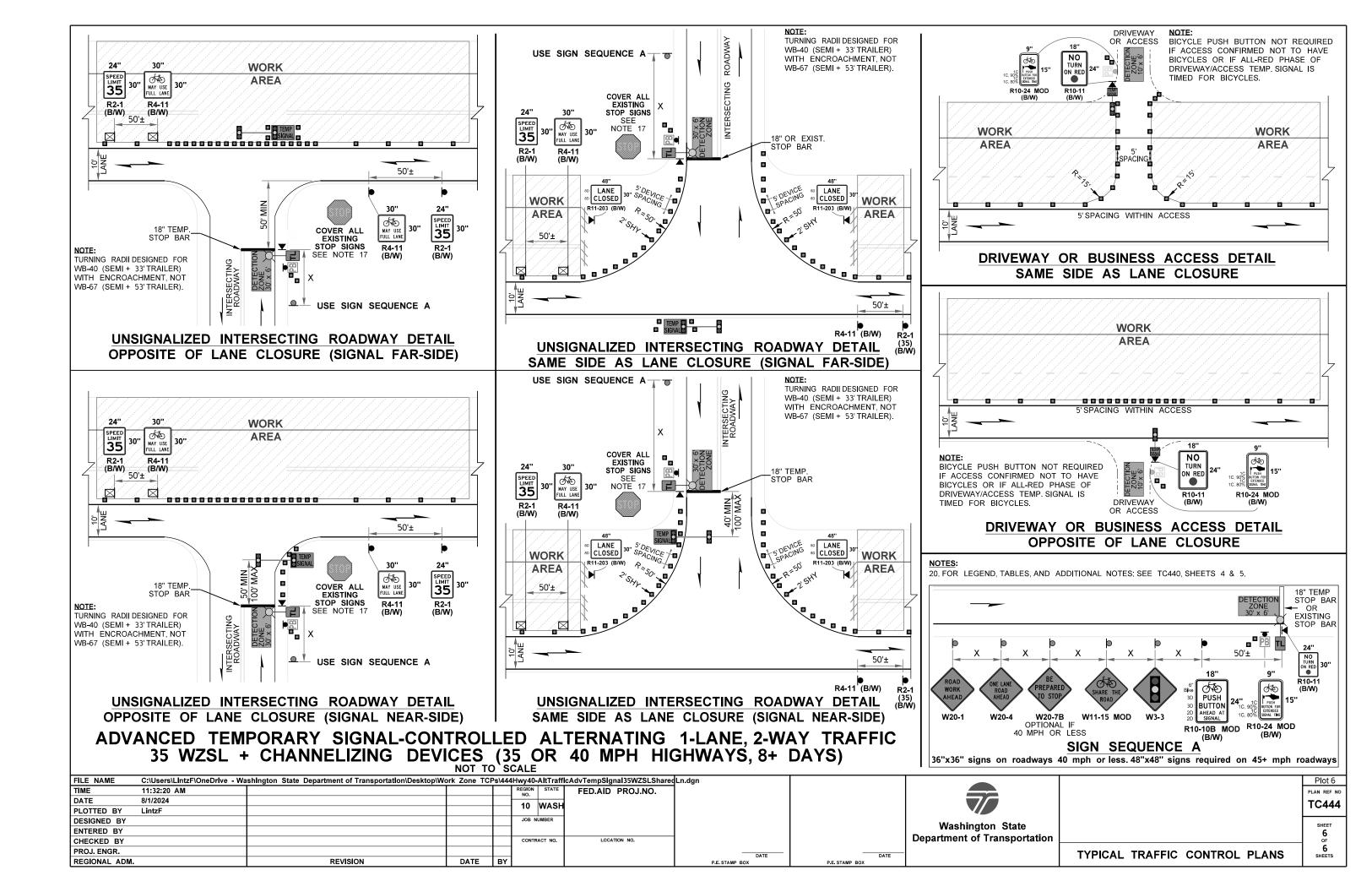
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### WORK ZONE MICROSTATION CELLS: Updated work zone cells incorporated (July 2024).

WSDOT CAE automatically updates cell libraries on WSDOT and on-site consultant staff computers (no action needed); however, external users or off-site consultants must manually install them. For additional information e-mail HOCAEHelpDesk@wsdot.wa.gov.

Division 4 in WSDOT Plans Preparation Manual, Section 400.06(29), provides updated work zone cell library policy and information for PS&Es. See https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/manuals/plans-preparation-manual

### **TYPICAL TCP USAGE EXPLANATION:**

- Plots 1-3: Advanced temporary signal-controlled 1-lane, 2-way alternating traffic on 40- mph, 2-lane highways with temporary barrier separating work area for long-duration closures (8+ days). While the regulatory speed limit is 25 mph approaching the temporary signal, it is increased to 35 mph after the lane closure taper to maximize traffic capacity, which minimizes delays & queues. Details for driveway, business access, and/or intersecting roadways included in Plot 3.
- Plots 4-6: Advanced temporary signal-controlled 1-lane, 2-way alternating traffic on 40- mph, 2-lane highways with channelizing devices separating work area for long-duration closures (8+ days). While the regulatory speed limit is 25 mph approaching the temporary signal, it is increased to 35 mph after the lane closure taper to maximize traffic capacity, which minimizes delays & queues. Details for driveway, business access, and/or intersecting roadways included in Plot 6.

Note: For existing 20 mph and 25 mph highways, use TC440 or TC441 only. Do not use the 35 WZSL version.

- Plots 11-16: Version for 30 mph highways of Sheets 1, 2, & 3 (temporary barrier) and Sheets 4, 5, & 6 (channelizing device) using a 30 mph WZSL between temporary signals. See Microstation file in .ZIP file.
- Plots 26-29: Version for 35 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(35 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.
- Plots 31-34: Version for 40 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(40 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.

### **Other Alternating Traffic TCPs (45+ mph):** See Typical Traffic Control Plan Library

- (https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/plan-sheet-library/work-zone-typical-traffic-control-plans-tcp) \* TC320s for flagger-controlled alternating traffic plans
- \* TC330s for other variations of AFAD-controlled alternating traffic plans
- \* TC440s for temporary signal-controlled alternating traffic plans, including a 35 mph regulatory speed limit version.
- \* TC350s for traffic holds
- If not published yet, they will be added in the future.

Other Alternating Traffic TCPs (40 mph or less): See Typical Traffic Control Plan Library

- (https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/plan-sheet-library/work-zone-typical-traffic-control-plans-tcp)
- \* TC420s for flagger-controlled alternating traffic
- \* TC430s for AFAD-controlled alternating traffic
- \* TC440s for temporary signal-controlled alternating traffic plans
- \* TC450s for traffic holds
- If not published yet, they will be added in the future.

### **DESIGNER NOTES:**

A. Temporary Traffic Signals located within 1/4 mile of a railroad grade crossing shall be evaluated for railroad preemption per WSDOT Manual 1330.04(7)(b). Note, this process tends to take up to 6 months due to collaboration with railroads.

B. Contact Region Traffic Operations to determine which Typical TCP(s) to utilize, as there are several variations available (or soon will be).

C. These typical traffic control plans may be modified for site specific situations and/or WSDOT Region Traffic Operations standard practices. Typical TCPs are not "Standard Plans".

D. Per WSDOT Executive Order E1060 (https://wwwi.wsdot.wa.gov/publications/policies/fulltext/1060.pdf); speed limit reductions and advisory speeds must be approved for work zones. Submit speed reduction reductions & advisory speed requests for work zones through WSDOT Region Transportation Operations. See Traffic Manual Section 5-18 for additional information for documentation and notification requirements.

E. See MUTCD Table 6F-1 for additional temporary sign size information. Work zone signs are usually smaller than those used permanently.

## **DESIGNER NOTES:** (continued)

- should include actual sign spacing values (withÀ) that have been verified in the field, on SR view, or via Google Maps.
- WSDOT Traffic Manual (https://www.wsdot.wa.gov/publications/manuals/fulltext/m51-02/chapter2.pdf).
- signs are used and consist of tripod-mounted (1-foot, 5-foot when behind channelizing devices) and barrier-mounted signs.
- I. For this Typical TCP, the work zone design speed is based on the 25 mph continuous regulatory speed limit for sign spacing, channelizing device W24-1 series signs based on the design speed in addition to using the 25 mph regulatory speed limit.
- TCP as reference and modify it from stopbar to stopbar using curvilinear alignment.
- out in Washington. Contact Region Traffic Operations for information regarding their standard practices.
- trailers need about 120' gap in devices to maneuver--so these devices are optional during working hours to allow that movement.
- 40' buffer to keep the distance between signals minimized (which maximizes traffic capacity).
- their deflection space) due to 25 mph speeds versus the typical 3 feet. Actual work area limits may be modified.
- O. See Design Manual Chapter 1610 for temporary barrier design & sloped concrete barrier terminal (allowed 25 mph or less). See Design Manual
- within the closed lane(s). This Typical TCP uses several Type 3 barricades strategically placed.
- Q. In lieu of portable trailer-mounted traffic signals, WSDOT HQ has a timber-pole mounted traffic signal variation that is more

# ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 35 WZSL (35 OR 40 MPH HIGHWAYS, 8+ DAYS)

F. WAC 468-95-300 modifies MUTCD Table 6-1 "Recommended Advance Warning Sign Minimum Spacing". Sign spacing may be adjusted for field conditions based on engineering judgement. The Sign Spacing table is acceptable to use in Typical TCPs; however, site-specific traffic control plans

G. The temporary sign spacing between W3-5 (speed reduction ahead) and R2-1 (speed limit) signage is based on Exhibit 2-8 in Chapter 2 of the

H. For 8+ day traffic control plans, Class A construction signs will be used and are typically mounted per Standard Plan K-80.10; however, tripod-mounted (1-foot, 5-foot when behind channelizing devices) and barrier-mounted signs are also used in these plans. For 7 day or less plans, Class B construction

spacing, buffer, roll ahead distances, and use of concrete barrier terminals. If 30 mph or higher speed limits are used, temporary impact attenuators shall be used. If the 8+ day bypass needs to be designed at a lower speed (15 mph or 20 mph), then add a W13-1P advisory speed plaque below the

J. Lane closure tapers for temporary signal alternating traffic is typically 50'-100' per closed lane with 6 devices minimum (10'-20' spacing on the taper) regardless of the posted speed limit or lane width per MUTCD 6C.08, Paragraph 15. Never use "L" for these tapers. This Typical TCP 10:1 tapers (but this can be reduced to 5:1 tapers in restricted areas) in lieu of actual taper distances to account for the additional lane shift behind centerline due to varying shoulder widths (10' shoulders shown in Typical TCP) which impacts the taper length. Site-specific traffic control plans may use this Typical

K. Channelization devices types may be modified (vertical panel channelizing devices prohibited). Warning lights on channelizing devices is being phased

L. Maximum channelizing device spacing table for tangents is reduced to 20' spacing to enhance delineation through the lane closure, even though 40' allowed in WAC 468-95-301 for 25 mph. Channelization spacing may ALWAYS be reduced. To allow construction access into the work area, truck &

M. Per MUTCD Section 6C.06, longitudinal buffer spaces are optional. This Typical TCP uses a 40' tangent & 120' construction access as the 160' longitudinal buffer (155' buffer for 25 mph). A protective vehicle has been added in the closed lane behind the first set of Type 3 barricades with just a

N. The lateral buffer (transverse distance between open travel lanes and work area) is optional. No lateral buffer has been provided in these Typical TCPs due to the low speeds of alternating traffic when channelizing devices used but a 1' lateral deflection distance used for temporary barrier (for

Chapter 1620 for temporary impact attenuators (required 30+ mph, approved Temporary Impact Attenuator list required to be provided on TCPs).

P. Placing Type 3 barricades or channelizing devices transversely (at 0° and 3-foot spacing) is an optional strategy to stop move errant drivers traveling

economical if traffic signals remain in place for 4 months or longer. For additional information, contact HQworkzone@wsdot.wa.gov.

R. If distance between mainline temporary lights exceed 200 feet, perform Light Level Criteria calculations per Design Manual 1040.10. At intersections, a single 200W+ class light at the stopbar is sufficient if the stop line for the cross-street is within 75 feet from the edge line of the main roadway.

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	DESIGNER GUIDANCE						