1. All anchor bolts shall be per ASTM F1554 grade 105. For intermediate wall heights, use the next higher "H".
2. Anchor bolts, nuts, washers and Rod "A" shall have a protective coating of either Hot-Dipped Galvanizing per AASHTO M232 for hardware or AASHTO M111 for washers and plates.
3. Panels shall have at least 3 feet of level ground on each side.
4. The Contract specifies actual foundation requirements for D1 or D2 and location of Western WA or Eastern WA.
5. Maximum panel length shall be 12 feet.
6. Panels shall meet the requirements of Standard Specifications Section 6-12 and Special Provisions Section 6-12.
7. Barrier shall only be used in the configuration shown in this Standard Plan.
8. Barrier shall be replaced with dummy joints adjacent at panel joints.
9. For cast-in-place barrier option, continuous barrier can be lengthened to 120' max. 1/2" premolded joint filler on barrier option shall be used in the configuration shown in this Standard Plan. Barrier is precast as shown.
EPOXY BONDING AGENT BETWEEN PILASTER AND BASE PLATE FOR ROD "A" THREADED BAR OPTION

EDGE OF PANEL = SURFACE TREATMENT NOT SHOWN

BLOCKOUT IN PANEL = TO BE FILLED WITH GROUT TYPE 2 AFTER SETTING PANEL (TYP.)

\( \Delta \) SLOPED GROUT OPTION

\( \Delta \) VERTICAL GROUT OPTION

ROD "A" (TYP.) - SEE TABLE FOR DIAMETER

FINISHED GROUND

TOP OF GROUT (TYP.)

SHAFT

ANCHOR BOLT = ASTM F 1554 (TYP.) - SEE TABLE FOR DIAMETER

CONSTRUCTION JOINT WITH ROUGHENED SURFACE

ROD "A" - DEFORMED REINFORCING BAR

ROD "A" - SEE TABLE FOR DIAMETER

JAM NUT

ASTM A683 NUT WITH ASTM F438 WASHER (TYP.)

ASTM A683 NUT WITH ASTM F438 WASHER (TYP.) SET THE ELEVATION OF THE LEVELING NUTS BEFORE SETTING THE PANEL

CONSTRUCTION JOINT WITH ROUGHENED SURFACE

SECTION D

SECTION F

SECTION E

SECTION C

BASE PLATE DETAIL

BASE PLATE, SHAFT AND TRAFFIC BARRIER NOT SHOWN FOR CLARITY

ROD "A" - ANCHOR BOLT OPTION

ASTM A706 GR 105 FOR ALL HEIGHTS "H"

ROD "A" - WEDGE HEAD OPTION

ASTM A706 GR 80 AS ALLOWED PER TABLE, FOR HEIGHTS "H" ≥ 18" IN THE WEST AND HEIGHTS "H" ≤ 18" IN THE EAST

NOISE BARRIER WALL TYPE 14

Standard Plan D-2.46-01

Washington State Department of Transportation

Wind and Seismic Limitations

<table>
<thead>
<tr>
<th>Location</th>
<th>Wind Exposure</th>
<th>Wind Velocity (MPH)</th>
<th>Peak Seismic Ground Acceleration Coefficient (g)</th>
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<tbody>
<tr>
<td>Western Washington</td>
<td>SPARSE</td>
<td>100</td>
<td>0.45</td>
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<tr>
<td>Eastern Washington</td>
<td>SUBURBAN</td>
<td>80</td>
<td>0.19</td>
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Foundation Design

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<thead>
<tr>
<th>Soil Type</th>
<th>Angle of Internal Friction, ( \alpha ) (Degrees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>32</td>
</tr>
<tr>
<td>D2</td>
<td>38</td>
</tr>
</tbody>
</table>

ASTM A563 NUT WITH ASTM F438 WASHER (TYP.) - SEE NOTE 9 - SHEET 1

SEE WEDGE HEAD OPTION FOR TAPERED HOLE DIMENSIONS. NO TAPER FOR ANCHOR BOLT OPTION.

HOLE DIAM. = ROD "A" DIAM. + 1/16" (TYP.)

SEE WEDGE HEAD OPTION FOR TAPERED HOLE DIMENSIONS. NO TAPER FOR ANCHOR BOLT OPTION.

HOLE DIAM. = BOLT DIAM. + 1/8" (SEE TABLE)

ANALYSIS

0.45

Putting it all together...

1. **Anchor Plate Detail**: Diagram showing the connection between the base plate and the shaft, including dimensions and notes for anchor bolts.
2. **Section C**: Details on the section of base plate and shaft, with dimensions for the hole diameters and anchor plate.
3. **Section D**: Shaft to panel connection details, indicating the available options for grout blockouts, anchor bolts, and base plate limits.
4. **Section E**: Base plate detail, showing the base plate, shaft, and traffic barrier not shown for clarity.
5. **Section F**: Diagram of plaster and shaft, with notes on the elevation of the leveling nuts before setting the panel.

Wind and Seismic Limitations: Tables showing the wind exposure, wind velocity, and peak seismic ground acceleration for different locations.

Foundation Design: Table displaying soil type and angle of internal friction.

Noise Barrier Wall Type 14: Standard plan details, approved for publication by the state design engineer.