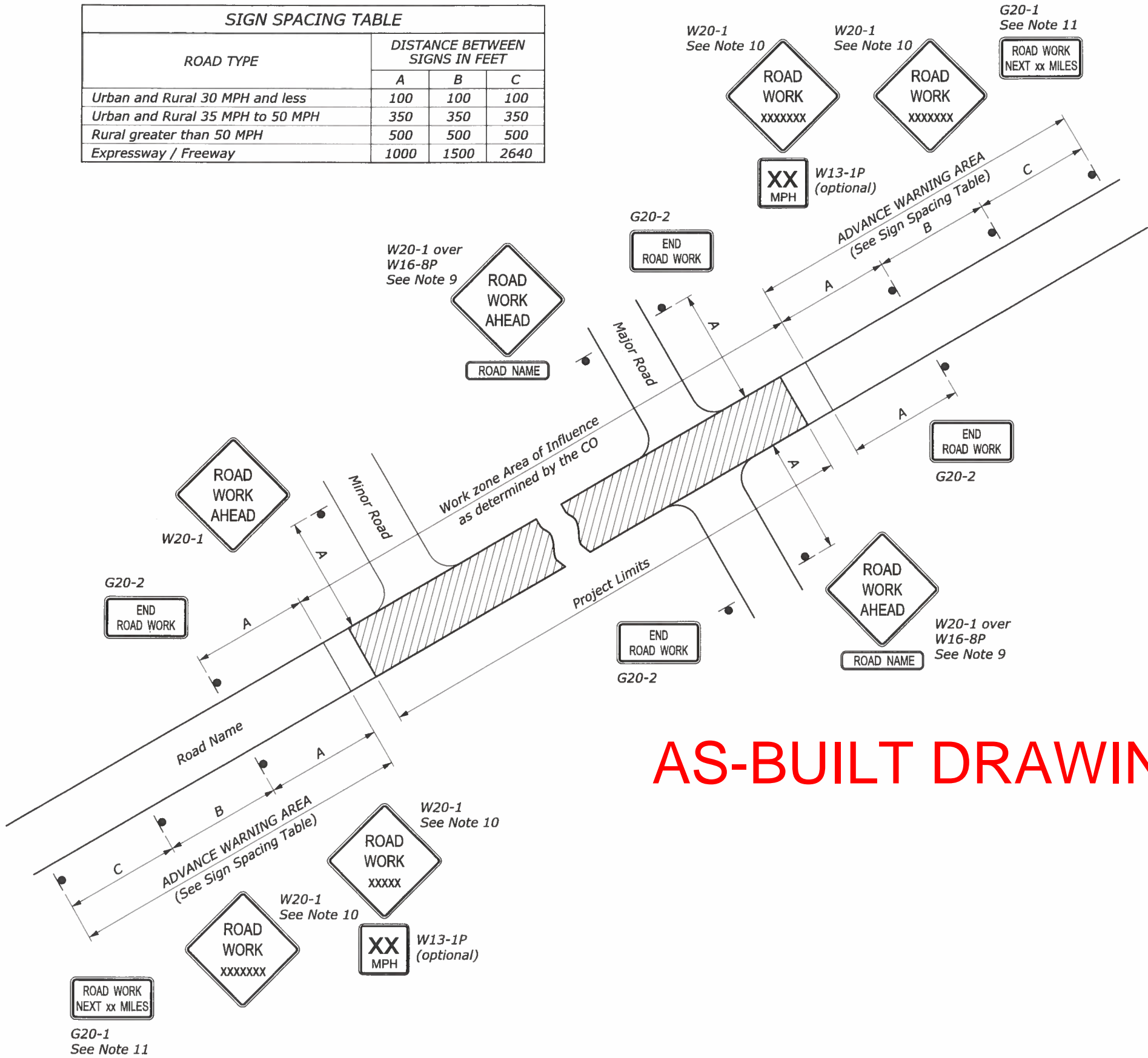


| ROAD TYPE | DISTANCE BETWEEN SIGNS IN FEET | | |
|----------------------------------|--------------------------------|------|------|
| | A | B | C |
| Urban and Rural 30 MPH and less | 100 | 100 | 100 |
| Urban and Rural 35 MPH to 50 MPH | 350 | 350 | 350 |
| Rural greater than 50 MPH | 500 | 500 | 500 |
| Expressway / Freeway | 1000 | 1500 | 2640 |

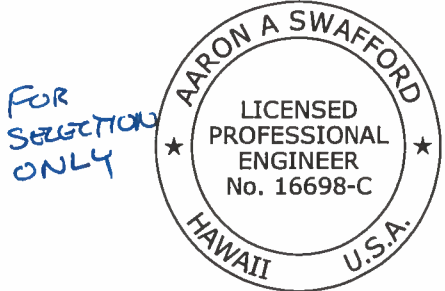


NOTE:

1. Erect all project advance warning signs before starting construction work.
2. Not all details shown on the temporary traffic control sheets may be applicable to this project. The Contractor may add or delete information and details in this traffic control plan as necessary to accommodate actual operations.
3. Where advance warning signs, placed as shown, interfere with permanent signs, locate the warning signs as determined by the CO for best results. Vary messages as required.
4. Additional or different message signs may be required to fit the actual construction conditions.
5. Install advisory speed plates under the W20 series warning signs as needed to indicate a maximum recommended speed through the construction area.
6. Ensure all sign supports exposed to impact by traffic meet the requirements of NCHRP-350 or MASH for crashworthiness.
7. Maintain two-way traffic during all non-work hours except as approved by the CO.
8. Do not store traffic control devices along the roadway when not in use. Cover post-mounted signs when not applicable.
9. If W20-1 is placed on a roadway other than that on which the actual construction work occurs, include a supplementary plaque indicating the name of the road on which the construction does occur (applies to major roads only).
10. The message on the W20-1 signs may be "ROAD WORK AHEAD" or may specify the distance to the work area in feet or in miles. Install an additional W20-1 sign when approach speeds exceed 50 MPH. When used place the two W20-1 signs "B" feet apart according to the Sign Spacing Table.
11. For work zones that are 2 miles or more in length, install G20-1 signs at each end of the project. Show the distance on the G20-1 sign to the nearest whole mile.
12. If signing on a roadway under a jurisdiction other than the client agency, verify that an encroachment permit has been obtained.
13. State standards may be used as an alternative if approved by the CO.
14. Refer to the Section 635 of the Special Contract Requirements for allowable retroreflective sheeting types.

AS-BUILT DRAWINGS

Note: Work was constructed as designed unless otherwise noted.



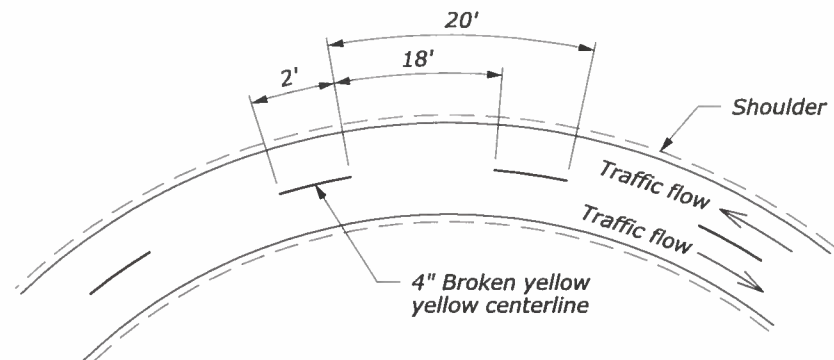
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Signature: [Signature] Expiration Date of the License: 4/30/18

| | |
|---|----------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY OFFICE | |
| U.S. CUSTOMARY STANDARD | |
| TEMPORARY TRAFFIC CONTROL ADVANCE SIGNING | |
| STANDARD APPROVED FOR USE 6/2005 | STANDARD |
| REVISED: DRAFT: 6/2014 | 635-1 |

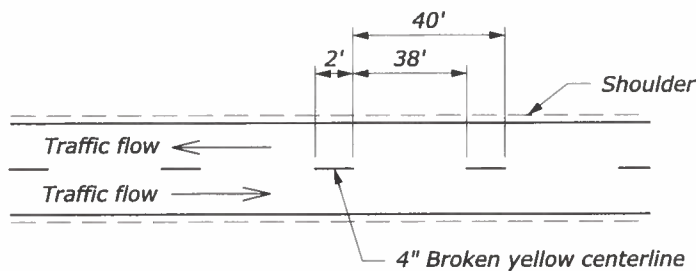
NO SCALE

AS-BUILT DRAWINGS

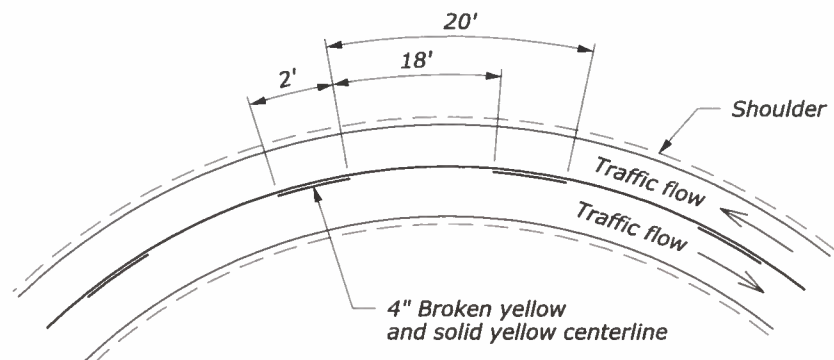
| STATE | PROJECT | SHEET NO. |
|-------|----------------|-----------|
| HI | HI STP SR50(2) | T7 |



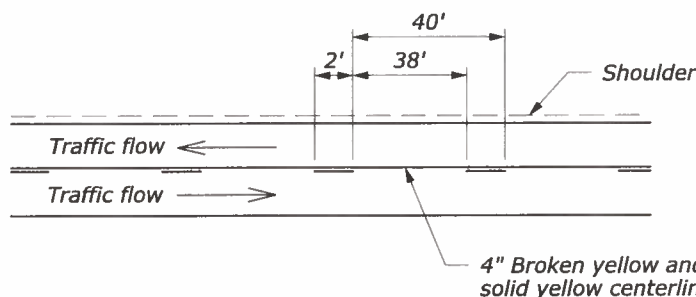
DETAIL A1
Passing zone both directions
Two-way traffic



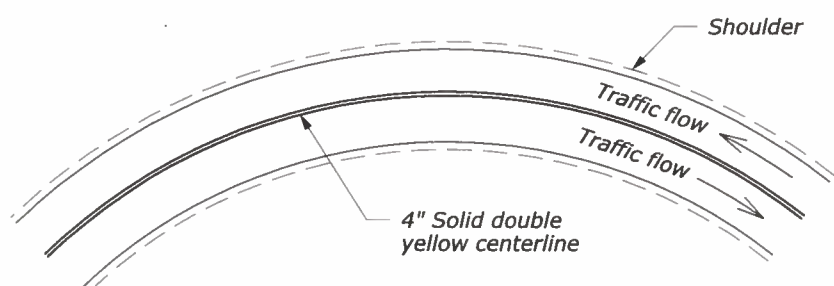
DETAIL B1
Passing zone both directions
Two-way traffic



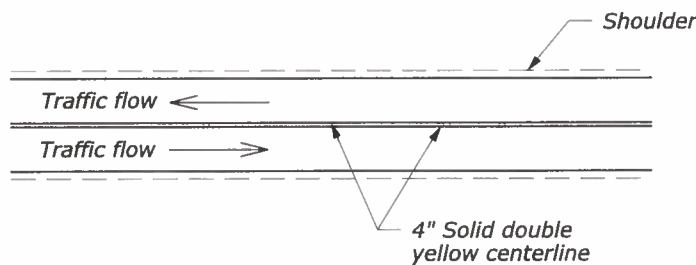
DETAIL A2
No passing zone one direction
Two-way traffic



DETAIL B2
No Passing zone one direction
Two-way traffic



DETAIL A3
No passing zone both directions
Two-way traffic



DETAIL B3
No Passing zone both directions
Two-way traffic

DETAIL A
Curves < 500' Radius

DETAIL B
Tangents or Curves ≥ 500' Radius

NOTE:

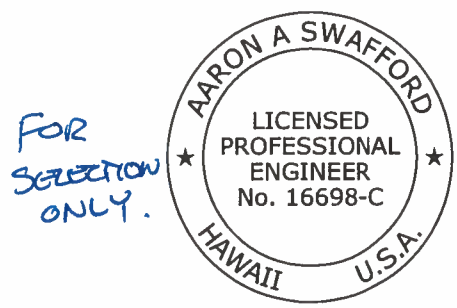
1. Use permanent pavement marking layout as designated in the contract to determine no passing zones for each direction of travel.
2. To substitute raised pavement markers for lines, use the following patterns:

2' broken line: two pavement markers spaced 2' apart allowed by the gap shown based on curvature.

Single solid line: pavement markers spaced on 10' centers.

Double solid line: two pavement markers, side by side, spaced on 10' centers.
3. For ADT of greater than 1000 and periods of 3 days or less, Standard 635-3 may be used as an alternate. For ADT of 1000 or less, Standard 635-3 may be used as an alternate for the full 14 day temporary marking period.

Note: Work was constructed as designed unless otherwise noted.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
[Signature] 4/30/18
Signature Expiration Date of the License

| | |
|---|----------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY OFFICE | |
| U.S. CUSTOMARY STANDARD | |
| TEMPORARY PAVEMENT MARKINGS | |
| STANDARD APPROVED FOR USE 6/2005 | STANDARD |
| REVISED: DRAFT: 9/2011 | 635-2 |

NO SCALE

| LENGTH AND SPACING TABLE | | | | |
|--------------------------|---------------------|---------------------|--------------|------------|
| APPROACH SPEED* | BUFFER SPACE LENGTH | CHANNELIZING DEVICE | | |
| | | TAPER AREA | BUFFER SPACE | WORK SPACE |
| MPH | FEET | SPACING IN FEET | | |
| 20 | 115 | 20 | 40 | 40 |
| 25 | 155 | 20-25 | 50 | 50 |
| 30 | 200 | 20-30 | 60 | 60 |
| 35 | 250 | 20-35 | 70 | 70 |
| 40 | 305 | 20-40 | 80 | 80 |
| 45 | 360 | 20-45 | 90 | 90 |
| 50 | 425 | 20-50 | 100 | 100 |
| 55 | 495 | 20-55 | 110 | 110 |
| 60 | 570 | 20-60 | 120 | 120 |
| 65 | 645 | 20-65 | 130 | 130 |
| 70 | 730 | 20-70 | 140 | 140 |

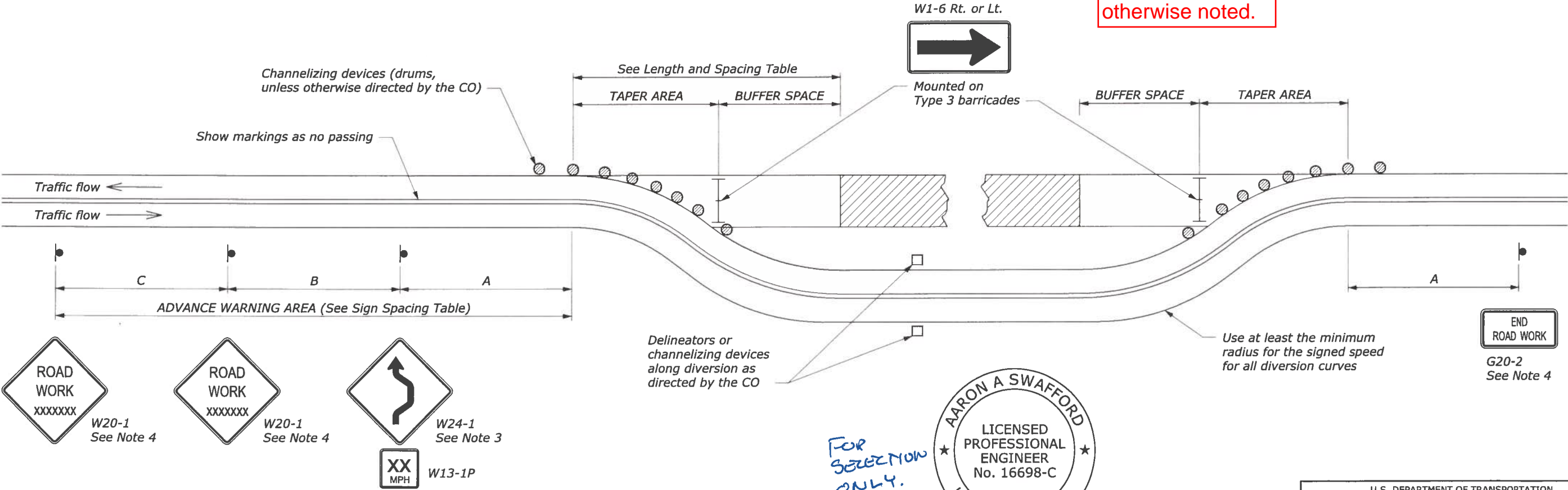
* Approach speed based on the regulatory posted speed, not the advisory speed.

| SIGN SPACING TABLE | | | |
|----------------------------------|--------------------------------|------|------|
| ROAD TYPE | DISTANCE BETWEEN SIGNS IN FEET | | |
| | A | B | C |
| Urban and Rural 30 MPH and less | 100 | 100 | 100 |
| Urban and Rural 35 MPH to 50 MPH | 350 | 350 | 350 |
| Rural greater than 50 MPH | 500 | 500 | 500 |
| Expressway / Freeway | 1000 | 1500 | 2640 |

- NOTE:**
1. Signs are shown for one direction of travel only. Place devices similar to those depicted for the opposite direction of travel.
 2. If the area approaching diversion is not already signed and marked as a no passing zone, add signing and/or marking as appropriate. Remove conflicting pavement markings.
 3. If the tangent distance along the temporary diversion is more than 600', use an appropriate "Reverse Curve" sign (W1-4) instead of the "Double Reverse Curve" sign (W24-1). Install a second, appropriate "Reverse Curve" sign (W1-4) in advance of the second reverse curve back to the original alignment. Use "Reverse Turn" signs (W1-3) instead when the diversion has sharp curves with recommended speeds of 30 mph or less.
 4. If the diversion is completely within the project limits, eliminate the "ROAD WORK AHEAD" (W20-1) and "END ROAD WORK" (G20-2) signs.
 5. Place channelizing devices outside temporary roadway.
 6. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.

AS-BUILT DRAWINGS

Note: Work was constructed as designed unless otherwise noted.



FOR SELECTION ONLY.

AARON A SWAFFORD
LICENSED PROFESSIONAL ENGINEER
No. 16698-C
HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Signature: [Signature] Expiration Date of the License: 4/30/18

| | |
|---|----------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY OFFICE | |
| U.S. CUSTOMARY STANDARD | |
| TEMPORARY TRAFFIC CONTROL FOR DIVERSION | |
| STANDARD APPROVED FOR USE 6/2005 | STANDARD |
| REVISED: DRAFT: 6/2015 | 635-4 |

NO SCALE

| LENGTH AND SPACING TABLE | | | | |
|--------------------------|---------------------|---------------------|--------------|------------|
| APPROACH SPEED* | BUFFER SPACE LENGTH | CHANNELIZING DEVICE | | |
| | | TAPER AREA | BUFFER SPACE | WORK SPACE |
| MPH | FEET | SPACING IN FEET | | |
| 20 | 115 | 20 | 40 | 40 |
| 25 | 155 | 20 | 50 | 50 |
| 30 | 200 | 20 | 60 | 60 |
| 35 | 250 | 20 | 70 | 70 |
| 40 | 305 | 20 | 80 | 80 |
| 45 | 360 | 20 | 90 | 90 |
| 50 | 425 | 20 | 100 | 100 |
| 55 | 495 | 20 | 110 | 110 |
| 60 | 570 | 20 | 120 | 120 |
| 65 | 645 | 20 | 130 | 130 |
| 70 | 730 | 20 | 140 | 140 |

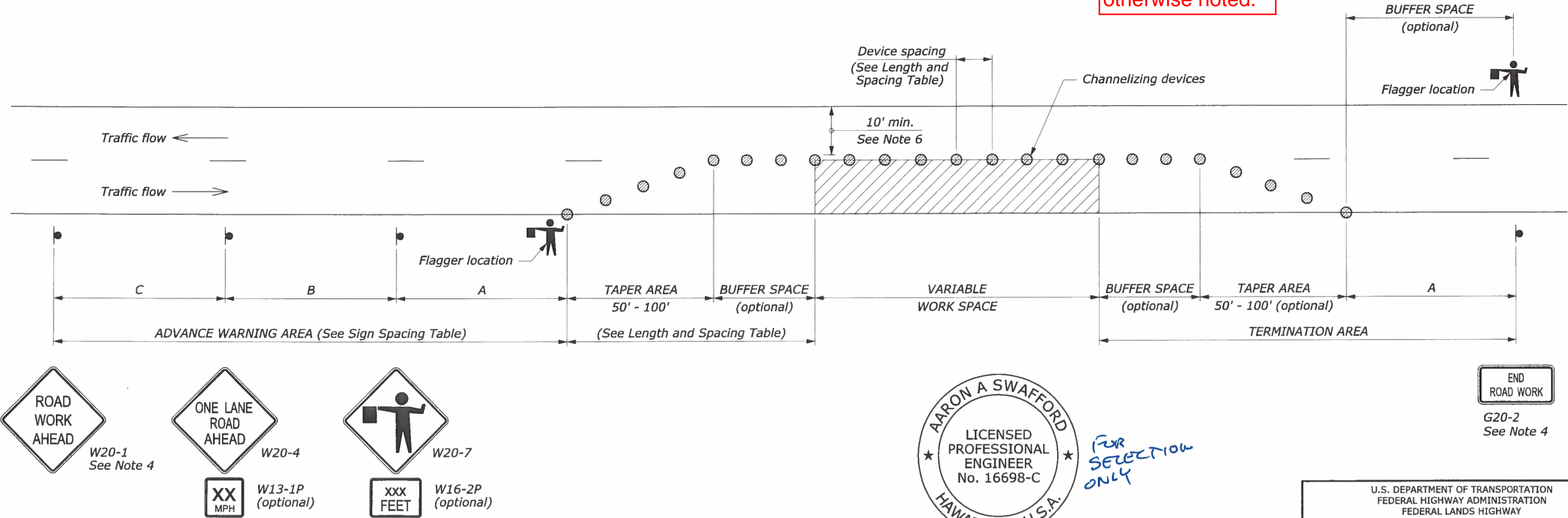
* Approach speed based on the regulatory posted speed, not the advisory speed.

| SIGN SPACING TABLE | | | |
|----------------------------------|--------------------------------|------|------|
| ROAD TYPE | DISTANCE BETWEEN SIGNS IN FEET | | |
| | A | B | C |
| Urban and Rural 30 MPH and less | 100 | 100 | 100 |
| Urban and Rural 35 MPH to 50 MPH | 350 | 350 | 350 |
| Rural greater than 50 MPH | 500 | 500 | 500 |
| Expressway / Freeway | 1000 | 1500 | 2640 |

- NOTE:**
- Signs are shown for one direction of travel only. Place devices similar to those depicted for the opposite direction of travel.
 - Final location and spacing of signs and devices may be changed to fit field conditions as approved by the CO.
 - For pilot car operation, mount the PILOT CAR FOLLOW ME (G20-4) sign at a conspicuous location on the rear of vehicle. Prominently display the name of the contractor on the pilot car.
 - If closure is completely within the project limits, eliminate the "ROAD WORK AHEAD" (W20-1) and "END ROAD WORK" (G20-2) signs.
 - For night time flagging operation, provide floodlighting at flagger stations.
 - For project specific minimum width, refer to the Special Contract Requirements, Section 156.
 - Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.

AS-BUILT DRAWINGS

Note: Work was constructed as designed unless otherwise noted.



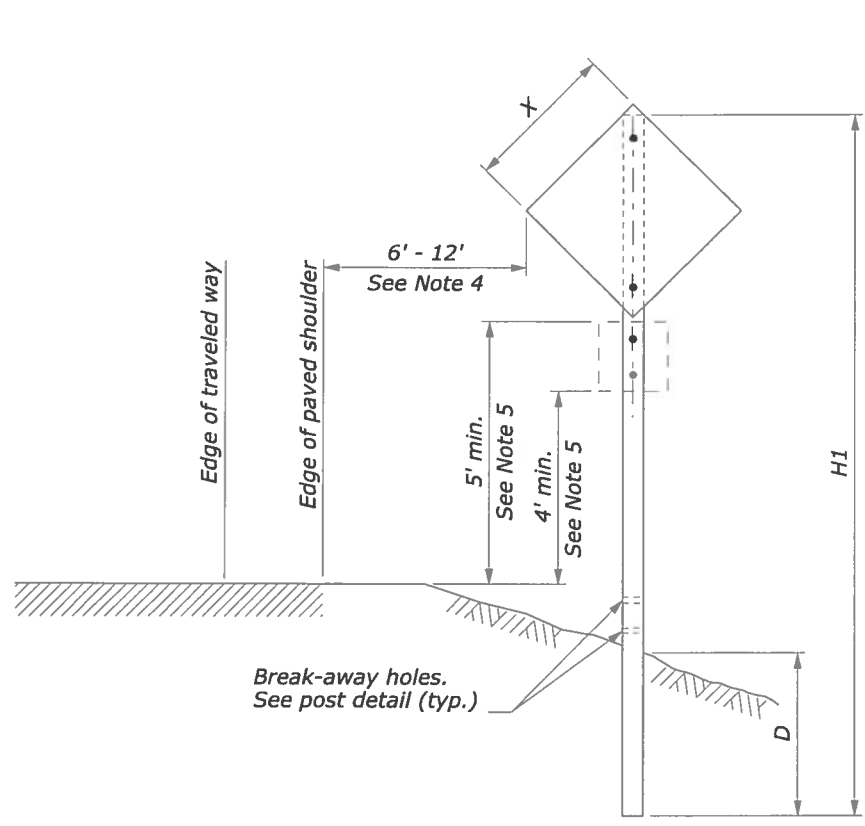
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Signature: *[Signature]* Expiration Date of the License: 4/30/18

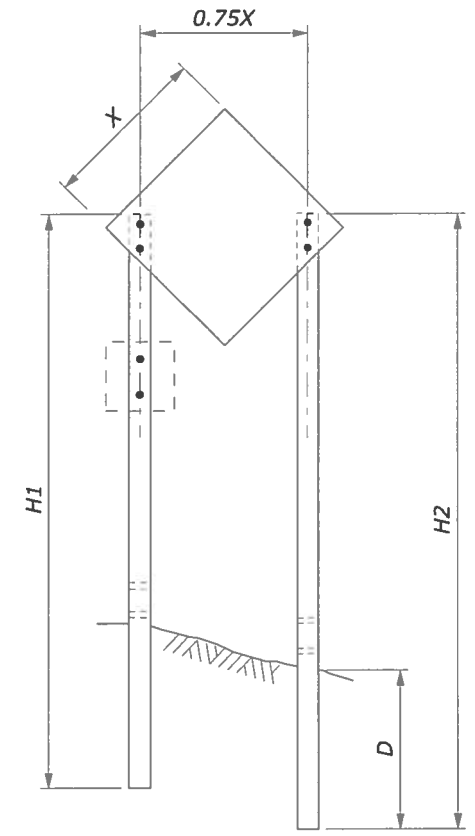
NO SCALE

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| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY | |
| U.S. CUSTOMARY STANDARD TEMPORARY TRAFFIC CONTROL SINGLE LANE CLOSURE LAYOUT (WITH FLAGGERS) | |
| STANDARD APPROVED FOR USE 6/2005 | STANDARD |
| REVISED: DRAFT: 8/2013 | 635-6 |

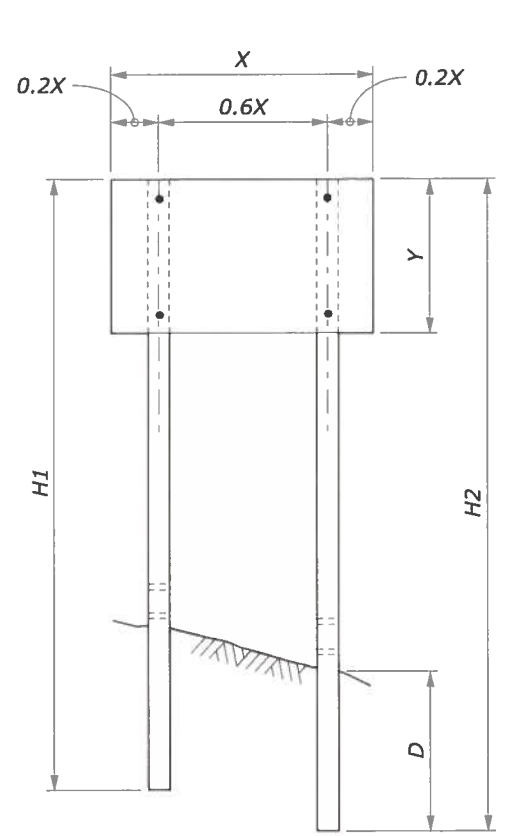
| | | |
|-------|----------------|-----------|
| STATE | PROJECT | SHEET NO. |
| HI | HI STP SR50(2) | T10 |



SINGLE POST SIGN



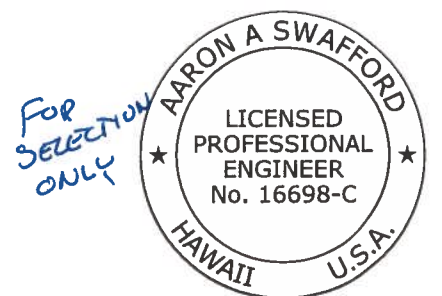
TWO POST SIGN



NOTE:

1. Attach sign panels with a minimum of 2 - $\frac{1}{4}$ " dia. bolts per post.
2. $H1$ and $H2$ = Overall post length. Select post lengths to fit field conditions.
3. D = Post embedment depth for average soil conditions.
4. In areas where lateral distance is limited, a minimum lateral offset of 2' may be used. In areas with curbs, a minimum lateral distance of 1' behind the face of the curb may be used.
5. In pedestrian locations, or in areas with obstructed views, use 7' minimum mounting height for main sign and 6' minimum mounting height for secondary sign.
6. Use 7' minimum spacing between posts for sign posts 6" x 6" or larger.
7. State standards may be used as an alternative if approved by the CO.

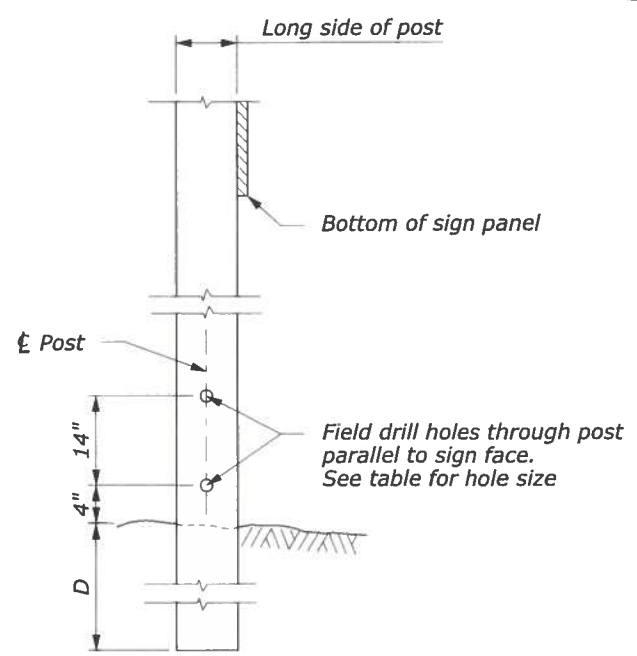
Note: Work was constructed as designed unless otherwise noted.



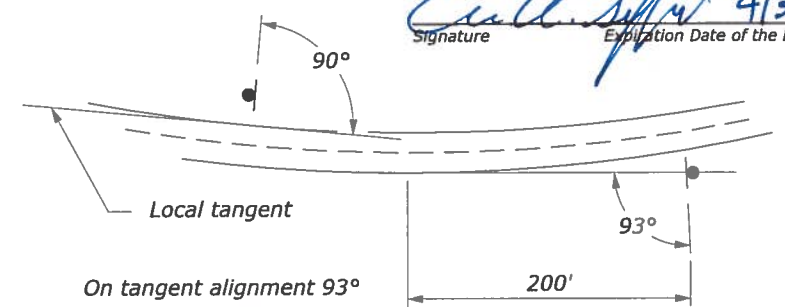
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Signature: *[Signature]* 4/30/18
Expiration Date of the License

AS-BUILT DRAWINGS

| WOOD POST SELECTION TABLE | | | | | |
|---|-------------|-----------------|------------------|----------|------------------|
| WIDTH "X" | AREA (SQFT) | NUMBER OF POSTS | POST SIZE (INCH) | D (INCH) | HOLE SIZE (INCH) |
| Diamond $\leq 36"$ Other Shapes $\leq 48"$ | < 10 | 1 | 4 x 4 | 36 | 0 |
| Diamond $\leq 48"$ | 10 - 20 | 1 | 4 x 6 | 48 | 1.5 |
| Diamond $\leq 48"$ Other Shapes $\leq 12'$ | 10 - 20 | 2 | 4 x 4 | 36 | 0 |
| | 20 - 50 | 2 | 4 x 6 | 48 | 1.5 |
| $> 13'$ | 50 - 65 | 2 | 6 x 6 | 48 | 2 |
| 12' - 16' | 50 - 65 | 3 | 4 x 6 | 48 | 1.5 |
| $> 17'$ | 65 - 95 | 4 | 4 x 6 | 48 | 2 |
| $> 30'$ | 65 - 95 | 3 | 6 x 6 | 48 | 2 |



POST DETAIL



SIGN INSTALLATION ANGLE

NO SCALE

| | |
|--|----------|
| U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY | |
| U.S. CUSTOMARY STANDARD TEMPORARY TRAFFIC CONTROL SIGN INSTALLATION WOOD POSTS | |
| STANDARD APPROVED FOR USE 6/2005 | STANDARD |
| REVISED: DRAFT: 9/2014 | 635-14 |