

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR UNDESIRABLE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- A) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.
 - B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
 - C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
 - E) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
 - F) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- G) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:
 - BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.
 - BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.
 - BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.
- H) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 100 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

- I) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.
- SIGNING**
- J) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
 - K) PROVIDE PERMANENT SIGNING.
 - L) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
 - M) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 100 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC BARRIER

- N) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION, PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.
- DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.
- ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.
- INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW, BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW, BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.
- INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.
- O) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED IMPACT ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.
- PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS:

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

TRAFFIC CONTROL DEVICES

- P) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- Q) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

- R) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

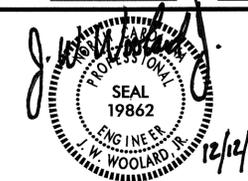
ROAD NAME	MARKING	MARKER
BUSHY MOUNTAIN ROAD	PAINT	NONE
- S) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
BUSHY MOUNTAIN ROAD	PAINT	NONE
- T) PLACE TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE. PLACE THE SECOND APPLICATION OF PAINT UPON SUFFICIENT DRYING TIME OF THE FIRST.
- U) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.
- V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- W) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

- X) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAYS TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION, AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 100 FT AND 100 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

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 L:\DONALDSON AT 12/12/07

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PHASING

NOTE: MAINTAIN ACCESS TO ALL DRIVEWAYS THROUGHOUT THE PROJECT FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE NOTED IN THE PHASING OR DIRECTED BY THE ENGINEER.

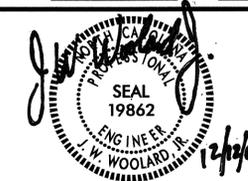
PHASE I

- STEP 1: PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY INSTALL ALL ADVANCE WARNING SIGNS ON -L- AND ALL APPROACHES AS SHOWN ON TCP-6.
- STEP 2: USING FLAGGERS AND RSD 1101.02 SHEET 1 OF 9, PLACE PORTABLE CONCRETE BARRIER, TEMPORARY GUARDRAIL RETROFIT, AND CRASH CUSHIONS AS SHOWN ON TCP-3.
- STEP 3: USING FLAGGERS AND RSD 1101.02, SHEET 1 OF 9. CONSTRUCT -L- FROM STA 10+50+/- TO STA 15+53+/- RIGHT, UP TO THE EDGE AND ELEVATION OF EXISTING SR 1001 INCLUDING SOUTH HALF OF PROPOSED STRUCTURE -L- FROM STA 12+48+/- TO STA 13+41+/- UP TO, BUT NOT INCLUDING, FINAL LIFT OF THE SURFACE COURSE. PLACE TYPE III BARRICADES AS SHOWN ON TCP-3. INSTALL TEMPORARY SHORING AS SHOWN ON SHEETS TCP-3 & TCP-4.

PHASE II

- STEP 1: USING FLAGGERS AND RSD 1101.02, SHEET 1 OF 9, PLACE TEMPORARY PAVEMENT MARKINGS AND PORTABLE CONCRETE BARRIER (TCP-5), REMOVE DRUMS AND BARRICADES FROM PROPOSED -L- AND PLACE TRAFFIC INTO TEMPORARY 1-LANE, 2-WAY TRAFFIC PATTERN. PLACE TYPE III BARRICADES AS SHOWN ON TCP-5.
- STEP 2: USING FLAGGERS AND RSD 1101.02, SHEET 1 OF 9, REMOVE EXISTING STRUCTURE AND EXISTING PAVEMENT FROM -L- STA 10+50+/- LEFT TO STA 15+53+/- LEFT. CONSTRUCT PROPOSED DRIVEWAYS AND -L- FROM STA 10+50+/- TO STA 11+75+/-, UP TO BUT NOT INCLUDING THE FINAL LIFT OF THE SURFACE COURSE OF SR 1001 INCLUDING NORTH HALF OF PROPOSED STRUCTURE -L- FROM STA 12+48+/- TO STA 13+41+/-.
- STEP 3: USING FLAGGERS AND RSD 1101.02, SHEET 1 OF 9, REMOVE PORTABLE CONCRETE BARRIER, PLACE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS (PAINT). REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN TRAFFIC TO FINAL PATTERN.

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PROJ. REFERENCE NO.	SHEET NO.
B-4675	TCP-4

Temporary Shoring No. 1

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

WHEN USING CONTRACTOR DESIGNED SHORING, USE THE FOLLOWING SOIL PARAMETERS:

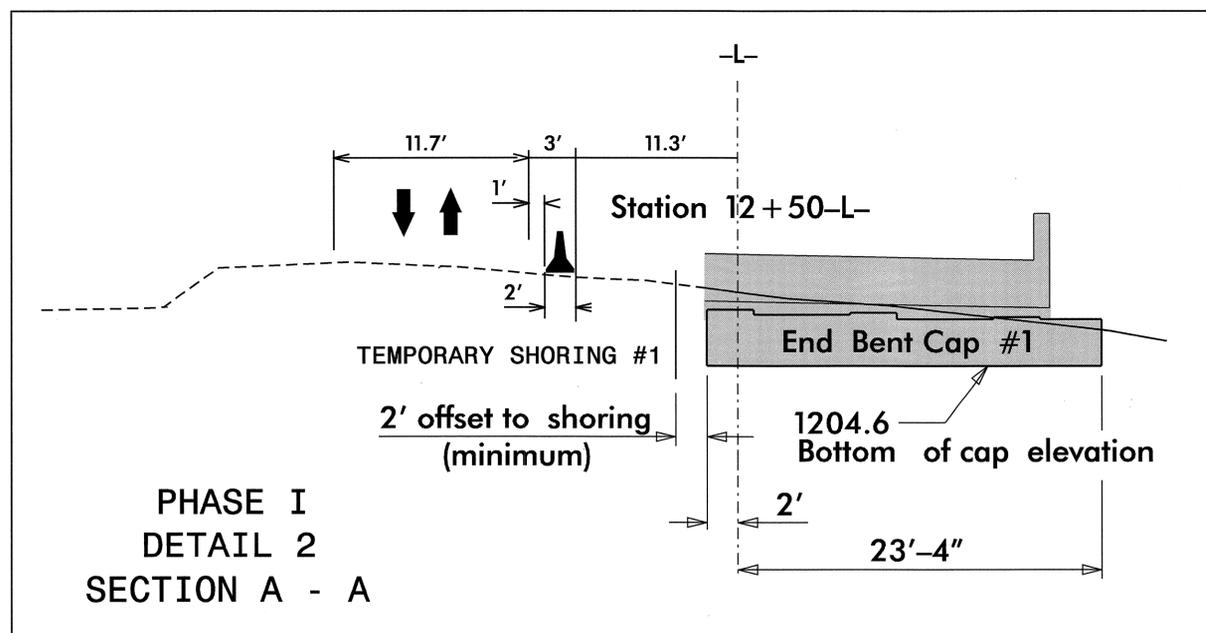
- UNIT WEIGHT OF SOIL ABOVE WATER TABLE, $\gamma = 120$ PCF
- UNIT WEIGHT OF SOIL BELOW WATER TABLE, $\gamma = 60$ PCF
- FRICTION ANGLE, $\phi = 30$ DEGREES
- COHESION, $c = 0$ PSF

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 12+34.00-L-, 4 FT. LT., TO STATION 12+56.00-L-, 4 FT. LT., WILL OR MAY NOT PENETRATE BELOW ELEVATION 1196 FT. DUE TO THE PRESENCE OF AN OBSTRUCTION, VERY DENSE OR HARD SOIL, WEATHERED OR HARD ROCK.

FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

DO NOT USE A TEMPORARY MSE WALL, FROM STA. 12+34.00 -L-, 4 FT. LEFT OF CENTERLINE OF -L-, TO STA. 12+56.00 -L-, 4 FT LEFT OF CENTERLINE OF -L-.

NOTE: THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTCU ON SEPTEMBER 12, 2007 AND SEALED BY A PROFESSIONAL ENGINEER, JOHN FARGHER, P.E. 023480.



Temporary Shoring No. 2

FOR TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

FOR CONTRACTOR DESIGNED SHORING, SURVEY THE SHORING LOCATION TO DETERMINE EXISTING ELEVATIONS AND ACTUAL DESIGN HEIGHTS BEFORE BEGINNING DESIGN.

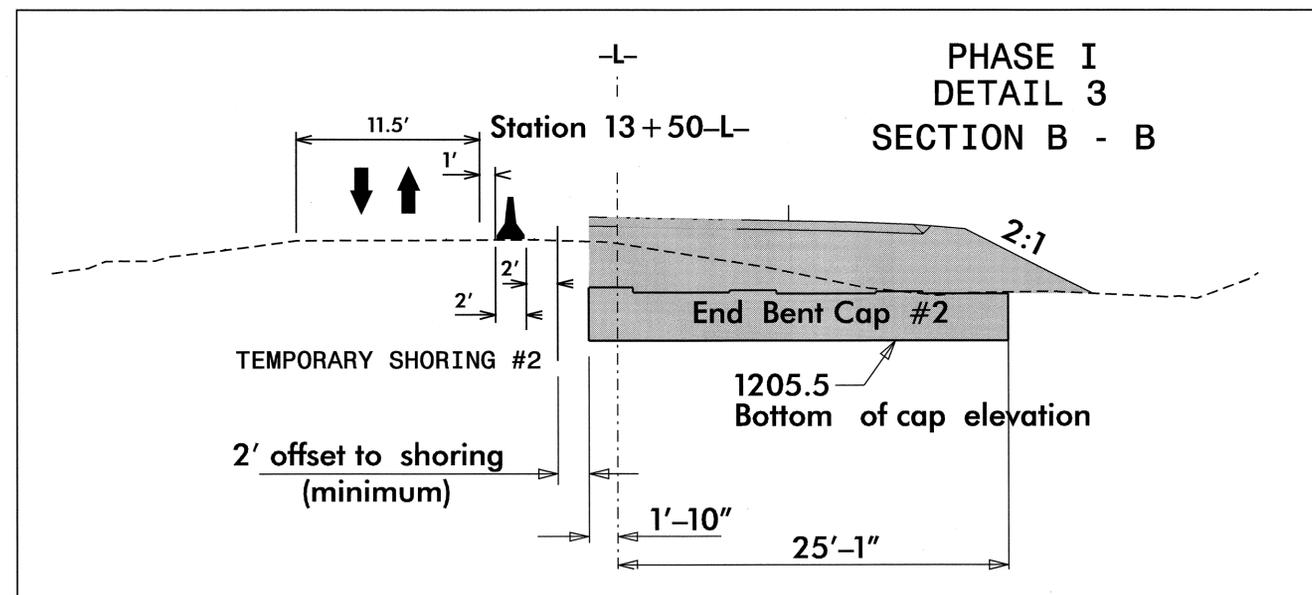
WHEN USING CONTRACTOR DESIGNED SHORING, USE THE FOLLOWING SOIL PARAMETERS:

- UNIT WEIGHT OF SOIL ABOVE WATER TABLE, $\gamma = 120$ PCF
- UNIT WEIGHT OF SOIL BELOW WATER TABLE, $\gamma = 60$ PCF
- FRICTION ANGLE, $\phi = 30$ DEGREES
- COHESION, $c = 0$ PSF

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 13+33.00-L-, 3 FT.-10 IN. LT., TO STATION 13+55.00-L-, 3 FT.-10 IN. LT., WILL OR MAY NOT PENETRATE BELOW ELEVATION 1194 FT. DUE TO THE PRESENCE OF AN OBSTRUCTION, VERY DENSE OR HARD SOIL, WEATHERED OR HARD ROCK.

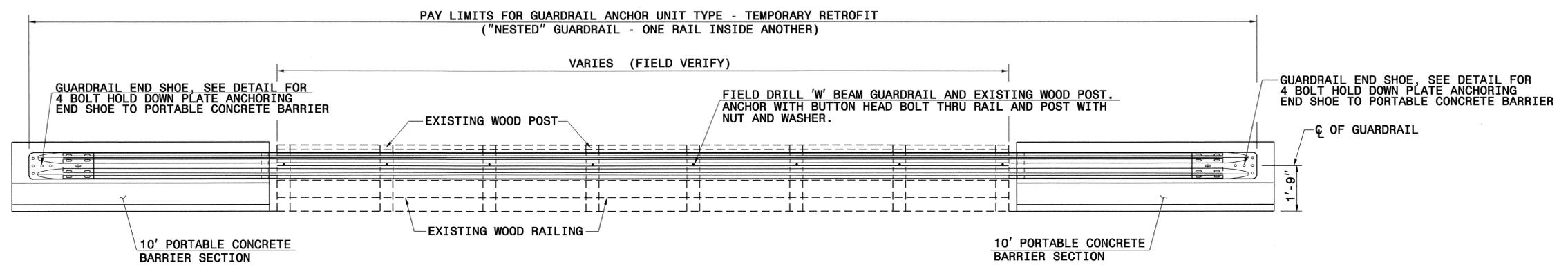
FOR PORTABLE CONCRETE BARRIERS ABOVE AND BEHIND TEMPORARY SHORING, USE AN NCDOT PORTABLE CONCRETE BARRIER (UNANCHORED OR ANCHORED) OR AN OREGON TALL F-SHAPE CONCRETE BARRIER IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS.

DO NOT USE A TEMPORARY MSE WALL FROM STA. 13+33.00 -L-, 3 FT 10 IN. LEFT OF CENTERLINE OF -L-, TO STA. 13+55.00 -L-, 3 FT 10 IN. LEFT OF CENTERLINE OF -L-.

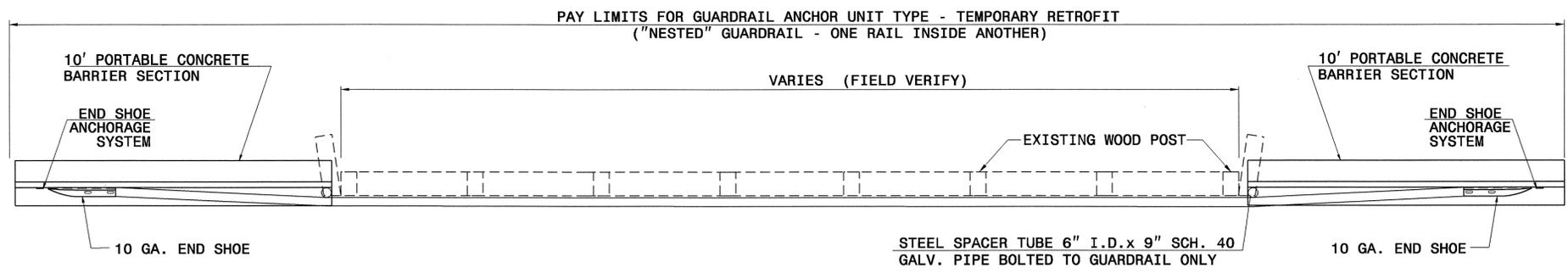


APPROVED:	DATE: 4/9/08	PHASE I DETAILS 2 & 3	
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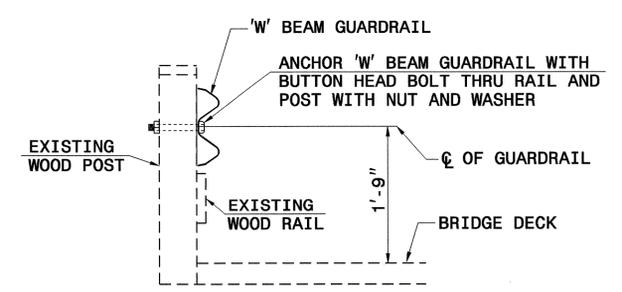
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ELEVATION VIEW



PLAN VIEW



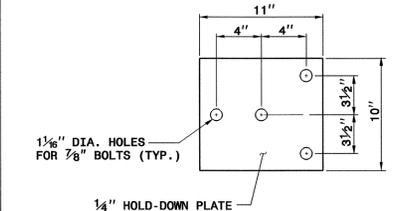
SECTION VIEW
GUARDRAIL ATTACHMENT TO WOOD POST

NOTES FOR 4 BOLT HOLD DOWN PLATE

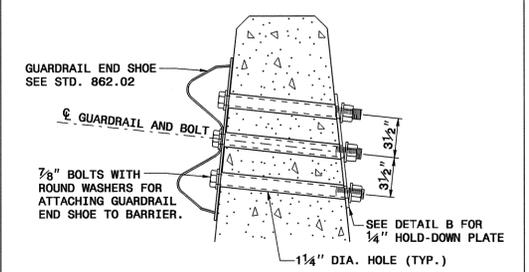
THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A 1/4" HOLD DOWN PLATE AND 4 - 7/8" DIA. BOLTS WITH NUTS AND WASHERS.

THE HOLD-DOWN PLATE SHALL CONFORM TO AASHTO M270 GRADE 36. AFTER FABRICATION, THE HOLD-DOWN PLATE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M111.

AFTER INSTALLATION, THE EXPOSED THREAD OF THE BOLT SHALL BE BURRED WITH A SHARP POINTED TOOL. THE 1/4" DIA. HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.



4 BOLT HOLD DOWN PLATE



PART SECTION OF BARRIER OR RAIL THRU END SHOE SECTION AND 4 BOLT HOLD DOWN PLATE

SYSTEMS
 02/16/07
 11/16/07



**PROJECT SERVICES UNIT
 STANDARDS AND SPECIAL DESIGN**
 Office 919-250-4128 FAX 919-250-4119

**DETAIL OF GUARDRAIL
 ANCHOR UNIT TYPE-
 TEMPORARY RETROFIT**

ORIGINAL BY: E.E. WARD DATE: 04-05
 MODIFIED BY: [Signature] DATE: [Blank]
 CHECKED BY: [Signature] DATE: 11/16/07
 FILE SPEC.: usr/details/stand/862stds/anc.dgn