FEMA

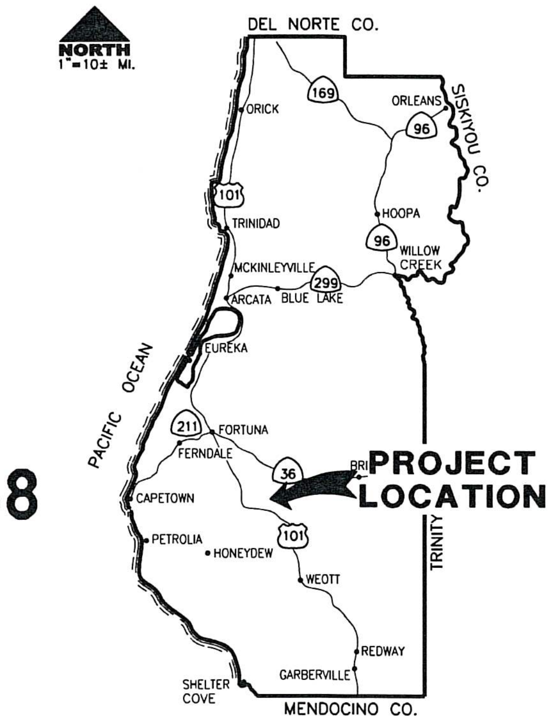
Cal OES
GOVERNOR'S OFFICE OF EMERGENCY SERVICES

# COUNTY OF HUMBOLDT
# DEPARTMENT OF PUBLIC WORKS

## PROJECT PLANS FOR CONSTRUCTION OF

# STORM DAMAGE REPAIR TO
## SHIVELY ROAD (C4F012) AT P.M.
## 0.52, 3.50, 3.51, 7.90 & 8.42
## FEMA-4308-DR-CA PW# 417, 789, 1087, FEMA-4434-DR-CA PW# 48
## CONTRACT NO. 217535, 217304, 219304, 217556, 217390

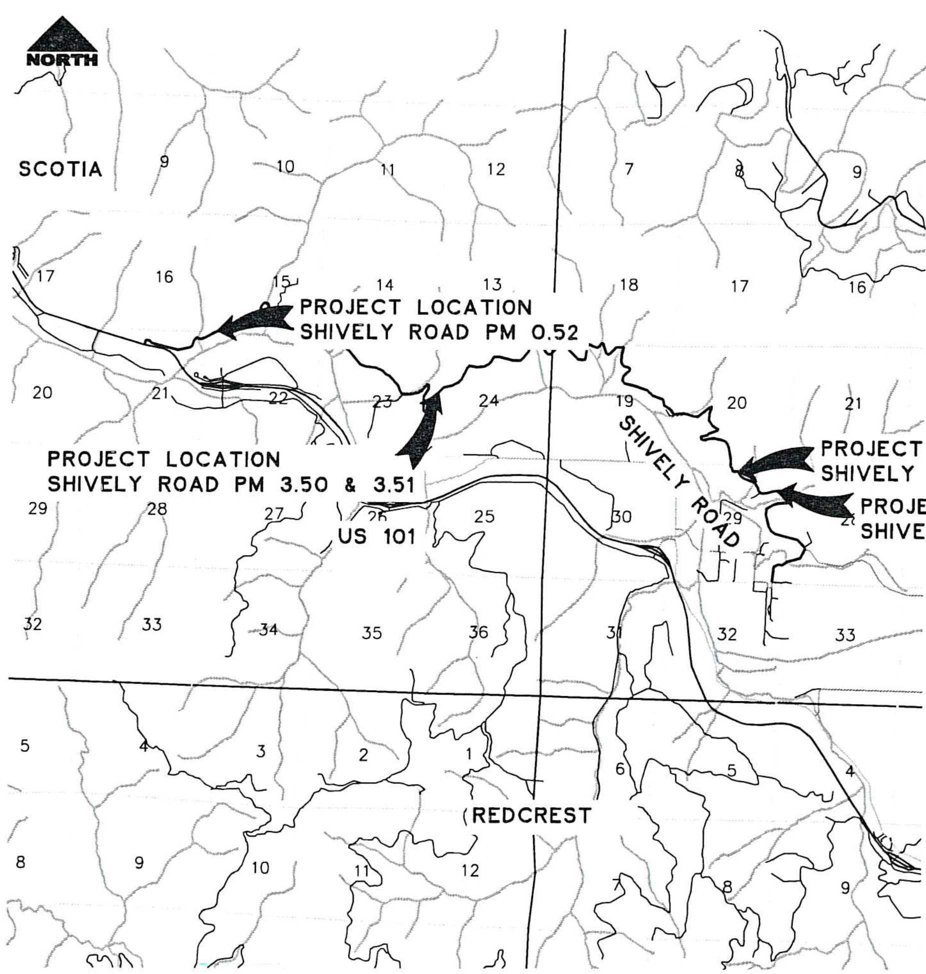
| SITE | FEMA PROJECT WORKSHEET |
|---|---|
| PM 0.52 | FEMA-4308-DR-CA PW#789 |
| PM 3.50 | FEMA-4308-DR-CA PW#1087 |
| PM 3.51 | FEMA-4434-DR-CA PW#48 |
| PM 7.90 | FEMA-4308-DR-CA PW#417 |
| PM 8.42 | FEMA-4308-DR-CA PW#417 |




**LOCATION MAP**

*SCALE: 1"=10± MILE*

COUNTY OF HUMBOLDT
IN THE REDWOODS




**VICINITY MAP**

NTS

### INDEX OF SHEETS



### NOTES

THE CONTRACTOR SHALL HAVE A CLASS "A" LICENSE FOR THIS PROJECT.

REFERENCE TO CALTRANS STANDARD PLANS DATED JULY 2018.

(SEE APPLICABLE STAN PLAN LIST IN SPECIAL PROVISIONS)

### DESIGN DESIGNATION

ADT = 129
V = 25MPH

### RECOMMENDED

Jeffrey A. Ball 3-3-21
JEFFREY A. BALL
RCE 70631, EXP. 6/30/2021
DATE

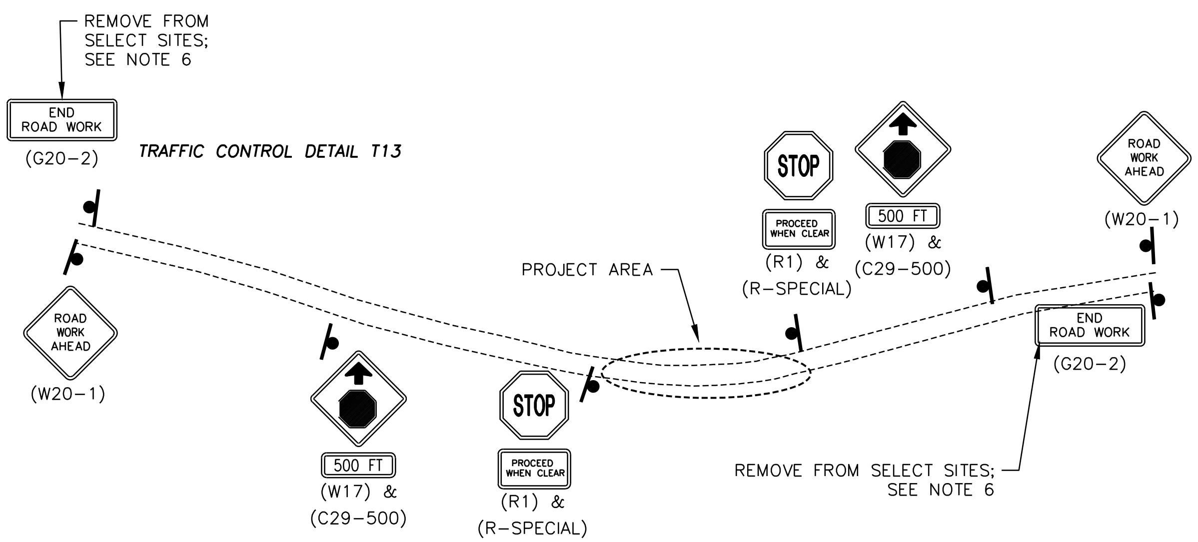
REGISTERED PROFESSIONAL ENGINEER
JEFFREY A. BALL
NO. 70631
CIVIL
STATE OF CALIFORNIA

### APPROVED

Tony R. Seghetti 3/3/21
TONY R. SEGHETTI
RCE 63714, EXP. 9/30/2022
DATE

REGISTERED PROFESSIONAL ENGINEER
TONY R. SEGHETTI
NO. 63714
CIVIL
STATE OF CALIFORNIA

| | | |
|---|---|---|
| ORIGINAL LOW BID PRICE | CONSTRUCTED BY | RESIDENT ENGINEER |
| | PROJECT COMPLETED / / | CONSTRUCTION COST $ |




**CONSTRUCTION AREA SIGNS**

SCALE: 1"=200'±

## NOTES

1) SIGNS SHALL BE PLACED AS SHOWN ON STD PLAN T13 AND/OR AS DIRECTED BY THE ENGINEER.

2) FINAL PLACEMENT OF SIGNS SHALL BE APPROVED BY RESIDENT ENGINEER.

3) ADDITIONAL PORTABLE SIGNS SHALL BE USED AS REQUIRED FOR OTHER ROADSIDE WORK.

4) SEE CALTRANS STANDARD PLANS T13 FOR TRAFFIC CONTROL SYSTEM.

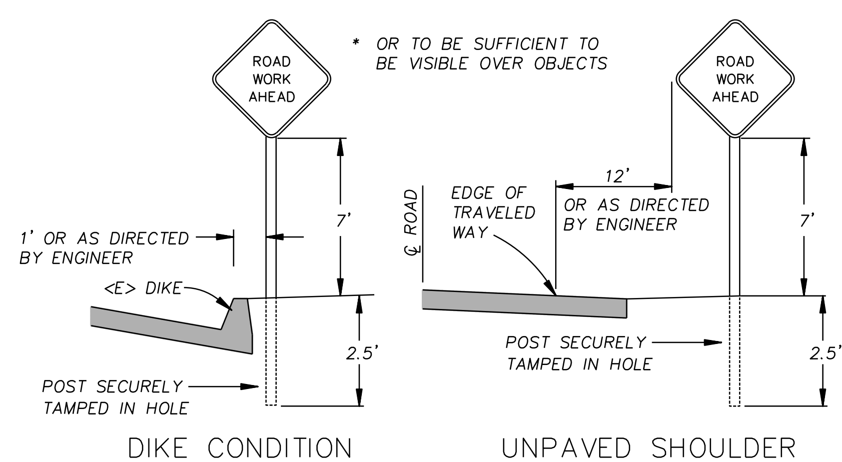
5) IN ADDITION TO CONSTRUCTION AREA SIGNS AND WHEN DIRECTED BY THE RESIDENT ENGINEER, THE CONTRACTOR SHALL UTILIZE FLAGMEN AS NECESSARY TO DIRECT TRAFFIC.

6) DISTANCE TO W20-1 AND G20-2 MAY BE EXTENDED TO ENCOMPASS SITES WITHIN ONE MILE OF EACH OTHER.

7) KEEP A MINIMUM OF 1 TRAFFIC LANE AT LEAST 10 FEET WIDE OPEN FOR TRAFFIC, EXCEPT THE FULL WIDTH OF THE TRAVELED WAY (18' MINIMUM) MUST BE OPEN WHEN CONSTRUCTION OPERATIONS ARE NOT ACTIVE OR AN APPROVED TRAFFIC CONTROL PLAN IS IN PLACE.

## QUANTITIES

| ITEM NO. | ITEM CODE | | ITEM DESCRIPTION | UNIT | 0.52 | 3.50 | 3.51 | 7.90 | 8.42 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 120090 | | Construction Area Signs | EA | 8 | 4 | 4 | 7 | 7 | 30 |
| 2 | 120100 | | Traffic Control System | LS | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1 |
| 3 | 129000 | | Temporary Railing (Type K) | EA | 19 | 9 | 5 | 0 | 4 | 37 |
| 4 | 130100 | | Job Site Management | LS | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1 |
| 5 | 130300 | | Prepare Storm Water Pollution Prevention Plan | LS | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1 |
| 6 | 130310 | | Rain Event Action Plan | EA | 3 | 3 | 3 | 3 | 3 | 15 |
| 7 | 130320 | | Storm Water Sampling and Analysis Day | EA | 2 | 2 | 2 | 2 | 2 | 10 |
| 8 | 130330 | | Storm Water Annual Report | EA | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1 |
| 9 | 130610 | | Temporary Check Dam | LF | 0 | 28 | 24 | 16 | 0 | 68 |
| 10 | 170103 | | Clearing and Grubbing (LS) | LS | 0 | 0 | 0 | 0 | 0 | 1 |
| 11 | 190101 | F | Roadway Excavation | CY | 8,633 | 3,158 | 1,573 | 252 | 120 | 13,736 |
| 12 | 190185 | | Shoulder Backing | CY | 13 | 7 | 5 | 2 | 2 | 29 |
| 13 | 198050 | F | Embankment | CY | 1,274 | 1,412 | 234 | 159 | 0 | 3,079 |
| 14 | 198250A | | Geosynthetic Reinforcement (Biaxial Geogrid) | SQYD | 0 | 0 | 0 | 711 | 0 | 711 |
| 15 | 210212 | | Dry Seed (SQFT) | SQFT | 11,980 | 4,610 | 1,985 | 0 | 190 | 18,765 |
| 16 | 210280 | | Rolled Erosion Control Product (Blanket) | SQFT | 6,420 | 0 | 0 | 0 | 0 | 6,420 |
| 17 | 210350 | | Fiber Rolls | LF | 1,065 | 450 | 195 | 0 | 37 | 1,747 |
| 18 | 210420 | | Straw | SQFT | 5,560 | 4,610 | 1,985 | 0 | 190 | 12,345 |
| 19 | 260203 | F | Class 2 Aggregate Base (CY) | CY | 208 | 132 | 94 | 96 | 46 | 576 |
| 20 | 390132 | | Hot Mix Asphalt (Type A) | TON | 115 | 76 | 54 | 50 | 27 | 322 |
| 21 | 665018 | | 18" Corrugated Steel pipe (.109" Thick) | LF | 67 | 0 | 0 | 0 | 0 | 67 |
| 22 | 665037 | | 36" Corrugated Steel Pipe (.109" Thick) | LF | 0 | 0 | 0 | 0 | 40 | 40 |
| 23 | 680902 | | 6" Perforated Plastic Pipe Underdrain | LF | 320 | 152 | 65 | 0 | 0 | 537 |
| 24 | 680902A | | 6" Perforated Plastic Pipe | LF | 300 | 130 | 55 | 0 | 0 | 485 |
| 25 | 680903 | | 6" Non-Perforated Plastic Pipe Underdrain | LF | 40 | 50 | 43 | 0 | 0 | 133 |
| 26 | 680903A | | 6" Non-Perforated Plastic Pipe | LF | 120 | 65 | 48 | 0 | 0 | 233 |
| 27 | 681995 | | Filter Fabric (Class C) | SQYD | 775 | 282 | 150 | 0 | 0 | 1,207 |
| 28 | 682023 | F | Class 1 Permeable Material | CY | 215 | 65 | 38 | 0 | 0 | 318 |
| 29 | 700637 | | 36" Corrugated Steel Pipe Inlet (.109" Thick) | LF | 5 | 0 | 0 | 0 | 0 | 5 |
| 30 | 710130 | | Remove Culvert | EA | 1 | 0 | 0 | 0 | 1 | 2 |
| 31 | 723015 | | Rock Slope Protection (2T, Class IX, Method A) | CY | 2,401 | 709 | 499 | 0 | 0 | 3,609 |
| 32 | 723020 | | Rock Slope Protection (1T, Class VII, Method A) | CY | 2,401 | 709 | 499 | 0 | 0 | 3,609 |
| 33 | 723055 | | Rock Slope Protection (1/4 T, ClassV, Method B) | CY | 0 | 0 | 0 | 0 | 150 | 150 |
| 34 | 723070 | | Rock Slope Protection (150 lb, Class III, Method B) | CY | 248 | 123 | 52 | 0 | 0 | 423 |
| 35 | 723095 | | Rock Slope Protection (20 lb, Class I Method B) | CY | 119 | 60 | 27 | 0 | 0 | 206 |
| 36 | 999990 | | Mobilization | LS | 0.5 | 0.2 | 0.2 | 0.05 | 0.05 | 1 |




**RURAL CONSTRUCTION AREA SIGN**

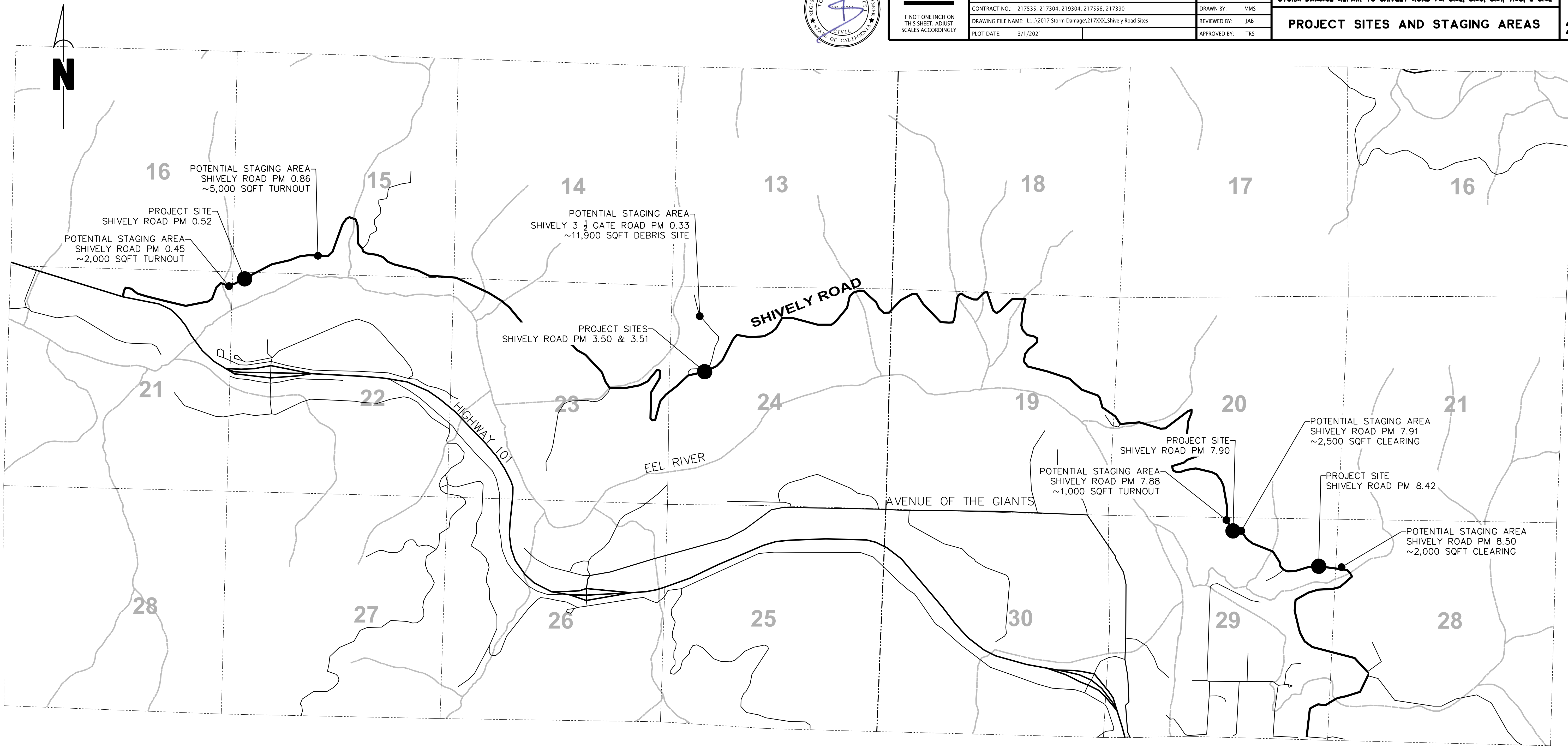
– NOT TO SCALE –

**CONSTRUCTION AREA SIGN SUMMARY**

| SIGN CODE | QTY | SIGN MESSAGE | PANEL SIZE | NUMBER & POST SIZE |
|---|---|---|---|---|
| W20–1 | 7 | ROAD WORK AHEAD | 36" x 36" | (1) 4" x 4" |
| W17<br>C29 | 8 | STOP AHEAD<br>500 FT | 36" x 36"<br>29" x 9" | (1) 4" x 4" |
| R1<br>R–SPECIAL | 8 | STOP<br>PROCEED WHEN CLEAR | 36" x 36"<br>36" x 18" | (1) 4" x 4" |
| G20–2 | 7 | END ROAD WORK | 36" x 18" | (1) 4" x 4" |

| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | DESIGN SECTION<br>ENGINEERING DIVISION | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS |
| | ROAD NO: C4F012 — MILE POST: 0.52, 3.50, 3.51, 7.90, 8.42 | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 0.52, 3.50, 3.51, 7.90, & 8.42 |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 417, 789, 1087, FEMA-4434-DR-CA PW# 48 | DRAWN BY: MMS | PROJECT SITES AND STAGING AREAS |
| | CONTRACT NO.: 217535, 217304, 219304, 217556, 217390 | REVIEWED BY: JAB | |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | APPROVED BY: TRS | |
| | PLOT DATE: 3/1/2021 | | |






**STAGING AND STOCKPILE LOCATIONS**

SCALE: 1"=±1200'

**STOCKPILE NOTES- STD PLAN T53**

1) SHALL HAVE FIBER ROLLS, HAY BALES AND OR SILT FENCE AROUND STOCKPILE (SILT FENCE DETAIL SHOWN).
2) SHALL BE COVERED WITH PLASTIC WHEN NOT IN USE AND BE WEIGHTED DOWN WITH SANDBAGS OR EQUIVALENT (AS PER STANDARD PLAN T53).
3) IF STOCKPILE AREA IS IN A TURNOUT, THE TURNOUT SHALL BE REESTABLISHED TO PRE-CONSTRUCTION CONDITIONS.
4) IF TEMPORARY CULVERTS ARE INSTALLED, THE DITCH LINE SHALL BE RECONSTRUCTED AT THE END OF THE PROJECT.
5) STOCKPILE LOCATIONS HAVE BEEN APPROVED BY PUBLIC WORKS AS DETAILED IN THE ENVIRONMENTAL REPORT. ALTERNATIVE SITES MAY BE APPROVED THROUGH PUBLIC WORKS IN WRITING.

| | | | |
|---|---|---|---|
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| | ROAD NO: C4F012 | MILE POST: 0.52 | |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 789 | | |
| | CONTRACT NO.: 217535 | | |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | | |
| | PLOT DATE: 3/1/2021 | | |

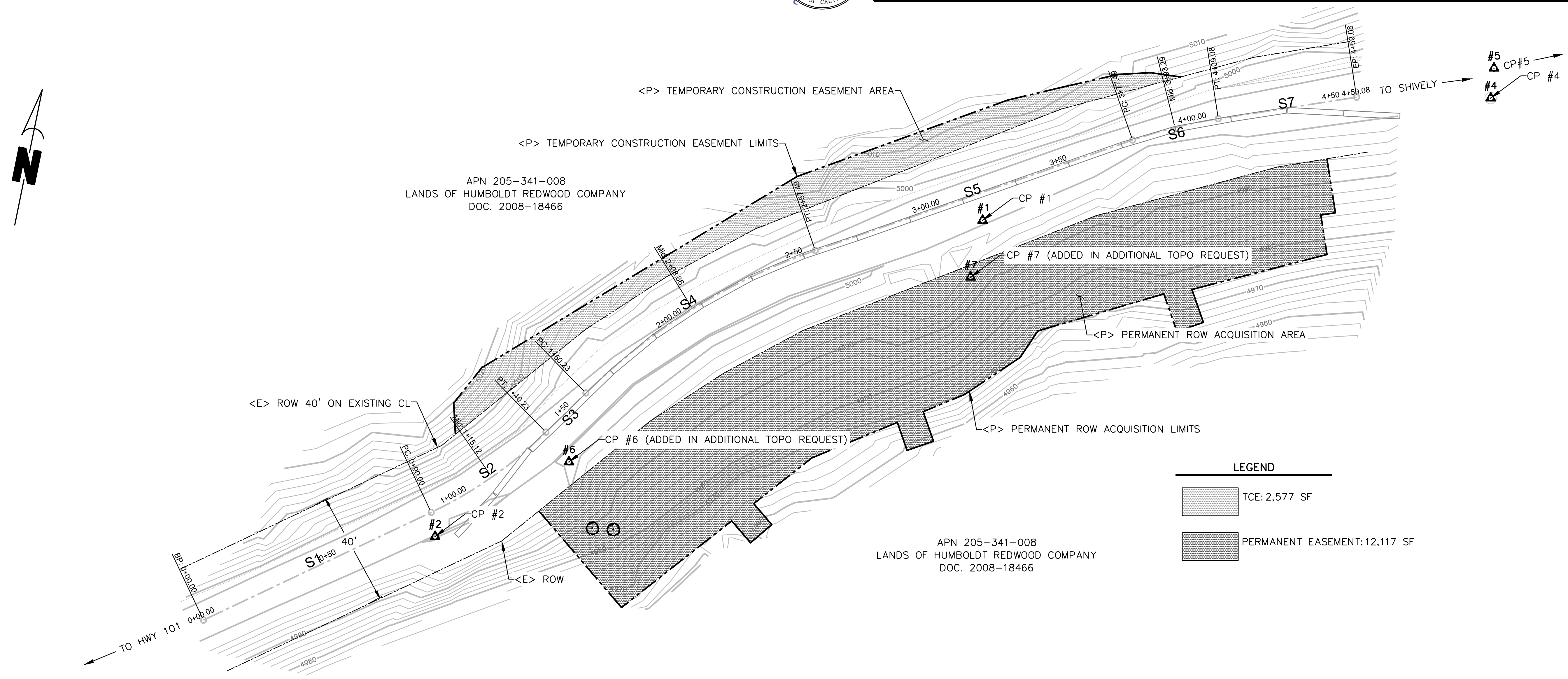
| DESIGN SECTION ENGINEERING DIVISION | |
|---|---|
| DESIGNED BY: | MMS |
| DRAWN BY: | MMS |
| REVIEWED BY: | JAB |
| APPROVED BY: | TRS |

**COUNTY OF HUMBOLDT**
**DEPARTMENT OF PUBLIC WORKS**

**STORM DAMAGE REPAIR TO SHIVELY ROAD PM 0.52**

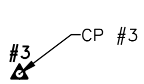
# SURVEY CONTROL & RIGHT OF WAY






## SHIVELY ROAD PM 0.52 SURVEY CONTROL

SCALE: 1"=20'




## SURVEY CONTROL POINTS SHIVELY ROAD PM 0.52

| Point Number | Easting | Northing | Point Elevation | Full Description |
|---|---|---|---|---|
| 1 | 5000.0000' | 5000.0000' | 5000.00' | setmagnail&humco.surveytag |
| 2 | 4804.4086' | 4887.0752' | 5000.06' | setgin.spike&humco.controltag |
| 3 | 4613.5336' | 4794.1471' | 4995.57' | setgin.spike&humco.controltag |
| 4 | 5181.5172' | 5043.6752' | 5000.10' | setgin.spike&humco.controltag |
| 5 | 5375.9526' | 5094.3843' | 5003.69' | setgin.spike&humco.controltag |
| 6 | 4852.2150' | 4913.7130' | 5000.19' | CP/SET80D&TAG-HUMCO SURVEY |
| 7 | 4995.7060' | 4979.6890' | 4994.74' | CP/SET60D&NC |

## SHIVELY ROAD PM 0.52 SURVEY NOTES

1. UNABLE TO LOCATE THE 18" CMP FLOW LINE OUT.

2. THE RIGHT OF WAY IN THIS AREA IS 40' WIDE. 20' ON EACH SIDE OF EXISTING CENTERLINE. PER BOOK 102 OF DEEDS PAGE 40 O.R. HUMBOLDT COUNTY.

3. BEARINGS SHOWN HEREON ARE BASED ON HOLDING A COMPASS BEARING OF S60°W BETWEEN CONTROL POINTS #1 & #2

4. ELEVATIONS SHOWN HEREON ARE BASED ON AN ASSUMED ELEVATION OF 5000.00' AT CP1.

4. ADDITIONAL SURVEY WAS TAKEN ON 7/21/2020

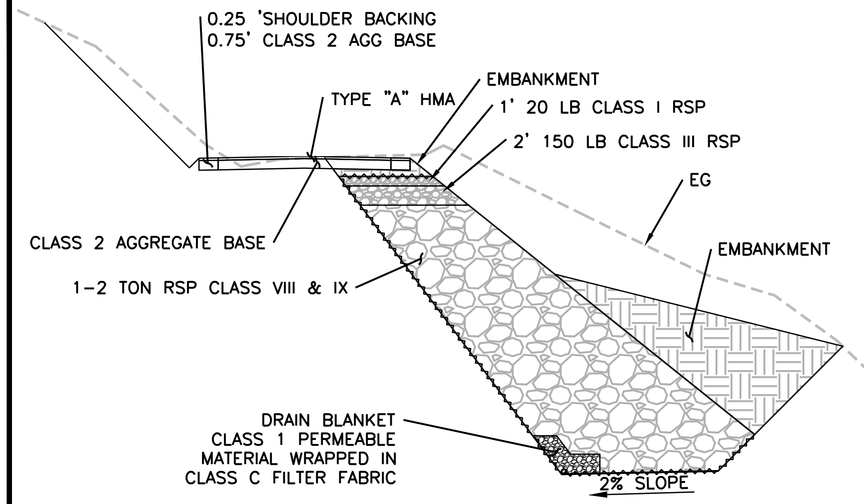
CREW: J. SHORT, M. LANDRY
FIELD WORK: 08/08/2018
WORKMAP: 08/28/2018 BY M. LANDRY
CONTROL POINTS = #1-5
TOPO POINTS= #1000-1137

## "S" LINE ALIGNMENT GEOMETRY SHIVELY ROAD PM 0.52

| Segment | Type | Length | Radius | Direction | Start Station | End Station | Delta |
|---|---|---|---|---|---|---|---|
| S1 | Line | 90.00' | | N64° 41' 05"E | 0+00.00' | 0+90.00' | |
| S2 | Curve | 50.23' | 150.00' | | 0+90.00' | 1+40.23' | 19°11'17" |
| S3 | Line | 20.00' | | N45° 29' 48"E | 1+40.23' | 1+60.23' | |
| S4 | Curve | 97.26' | 220.00' | | 1+60.23' | 2+57.49' | 25°19'44" |
| S5 | Line | 120.00' | | N70° 49' 32"E | 2+57.49' | 3+77.49' | |
| S6 | Curve | 31.59' | 175.00' | | 3+77.49' | 4+09.08' | 10°20'33" |
| S7 | Line | 50.00' | | N81° 10' 05"E | 4+09.08' | 4+59.08' | |

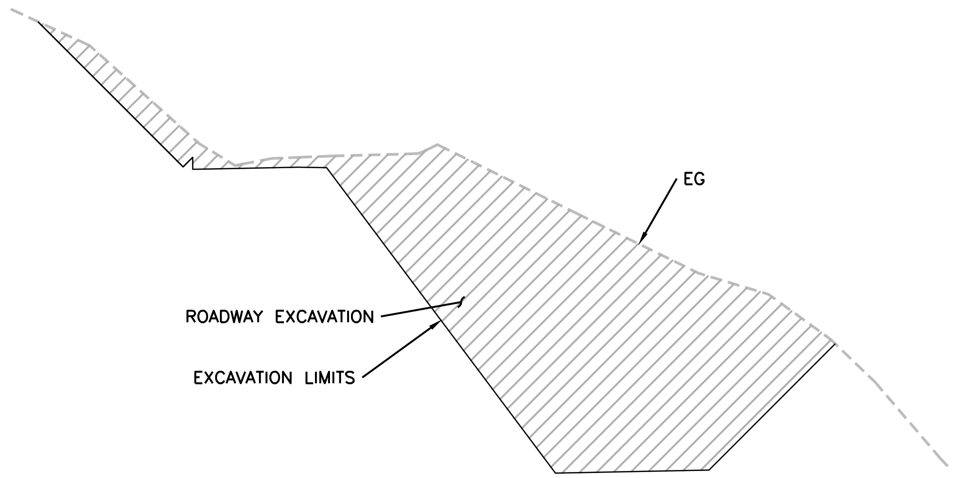
| | | | | |
|---|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | | DESIGN SECTION<br>ENGINEERING DIVISION | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS |
| | ROAD NO: C4F012 | MILE POST: 0.52 | | |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 789 | | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 0.52 |
| | CONTRACT NO.: 217535 | | DRAWN BY: MMS | TYPICAL SECTIONS |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | | REVIEWED BY: JAB | |
| | PLOT DATE: 3/1/2021 | | APPROVED BY: TRS | |





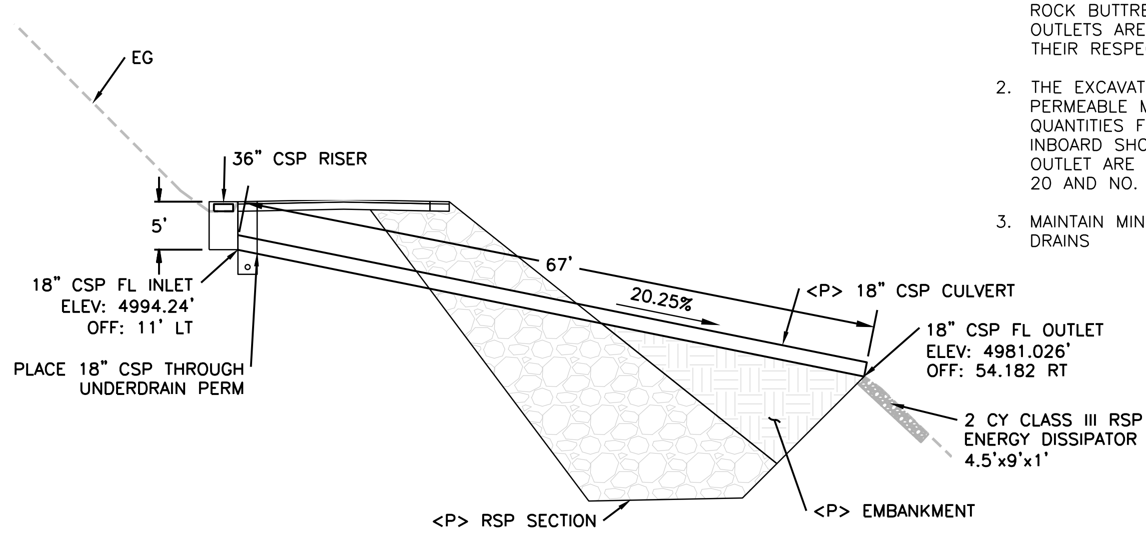

## BACKFILL SECTION

SCALE: 1"=10'



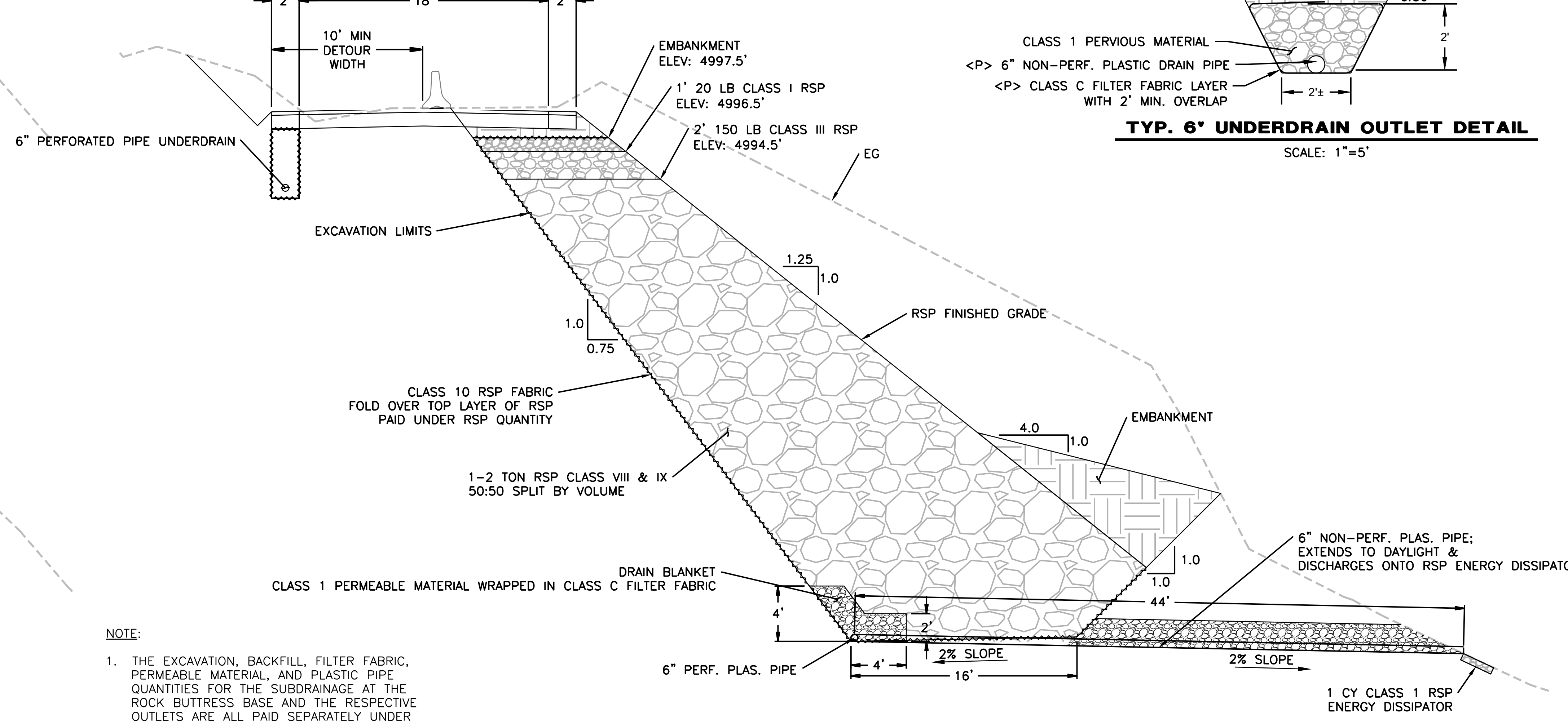

## EXCAVATION SECTION

SCALE: 1"=10'



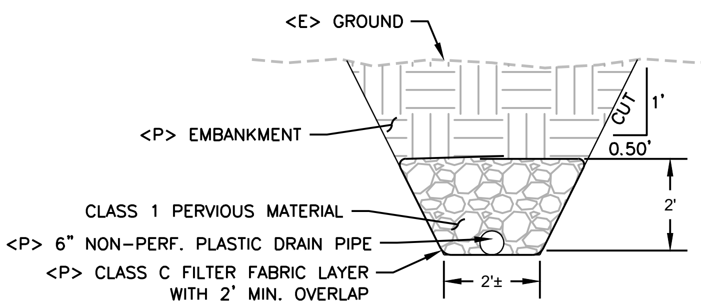

## CULVERT SECTION 2+75

SCALE: 1"=10'




## TYPICAL SECTION

SCALE: 1"=5'

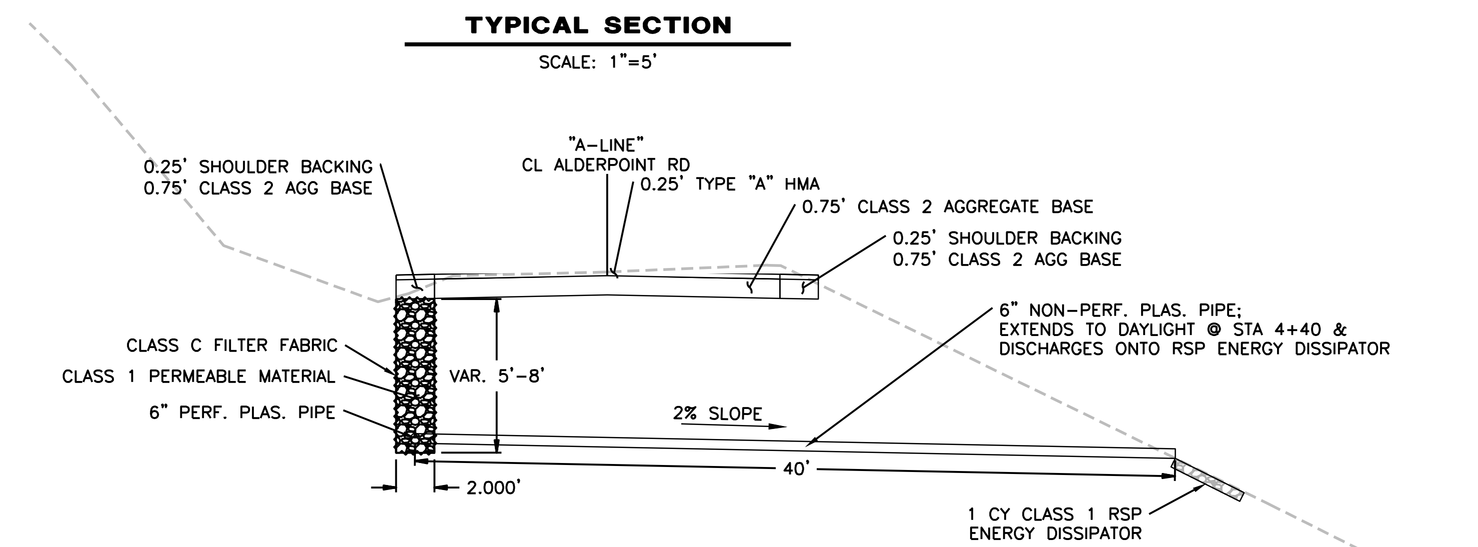



## TYP. 6" UNDERDRAIN OUTLET DETAIL

SCALE: 1"=5'

NOTE:

1. THE EXCAVATION, BACKFILL, FILTER FABRIC, PERMEABLE MATERIAL, AND PLASTIC PIPE QUANTITIES FOR THE SUBDRAINAGE AT THE ROCK BUTTRESS BASE AND THE RESPECTIVE OUTLETS ARE ALL PAID SEPARATELY UNDER THEIR RESPECTIVE BID ITEMS.
2. THE EXCAVATION, BACKFILL, FILTER FABRIC, PERMEABLE MATERIAL, AND PLASTIC PIPE QUANTITIES FOR THE UNDERDRAIN ALONG THE INBOARD SHOULDER AND THE RESPECTIVE OUTLET ARE ALL PAID UNDER BID ITEMS NO. 20 AND NO. 22
3. MAINTAIN MINIMUM SLOPE OF 1% FOR ALL DRAINS




## 6" UNDERDRAIN DETAIL

SCALE: 1"=5'

| | | | |
|---|---|---|---|
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| | ROAD NO: C4F012 | MILE POST: 0.52 | |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 789 | | |
| | CONTRACT NO.: 217535 | | |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | | |
| | PLOT DATE: 3/1/2021 | | |

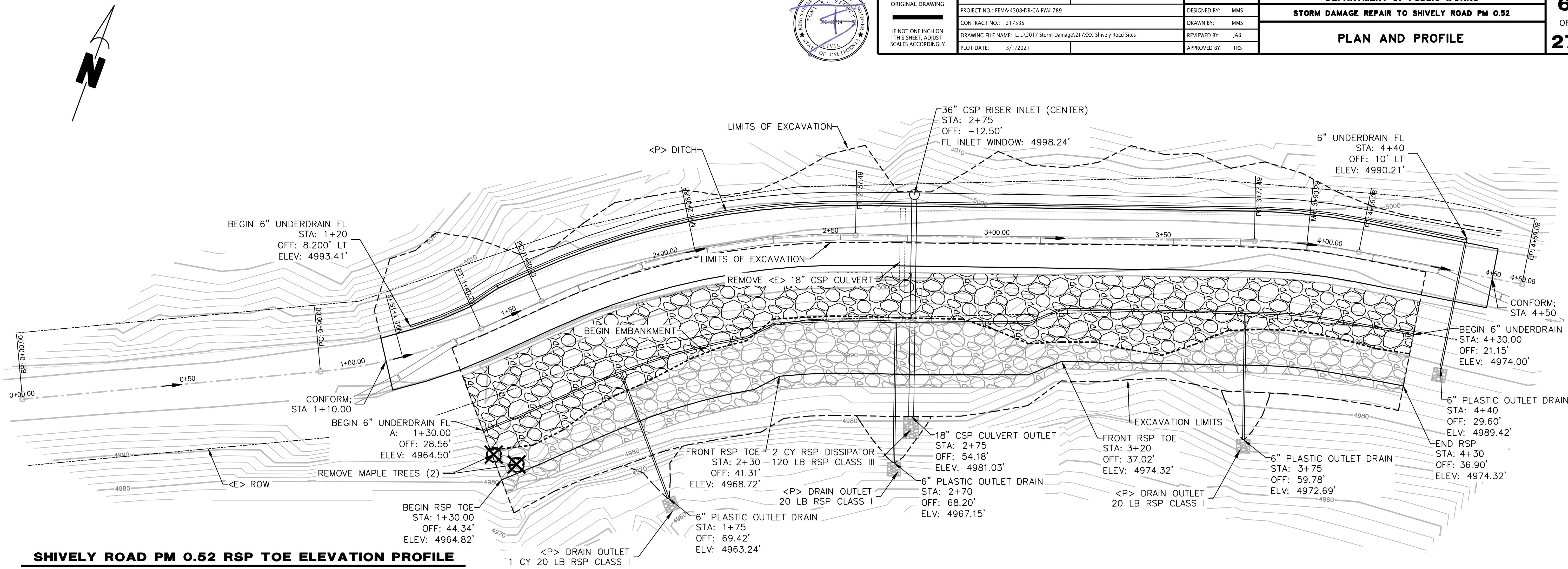
| DESIGN SECTION<br>ENGINEERING DIVISION | |
|---|---|
| DESIGNED BY: | MMS |
| DRAWN BY: | MMS |
| REVIEWED BY: | JAB |
| APPROVED BY: | TRS |

**COUNTY OF HUMBOLDT**
**DEPARTMENT OF PUBLIC WORKS**

**STORM DAMAGE REPAIR TO SHIVELY ROAD PM 0.52**

**PLAN AND PROFILE**



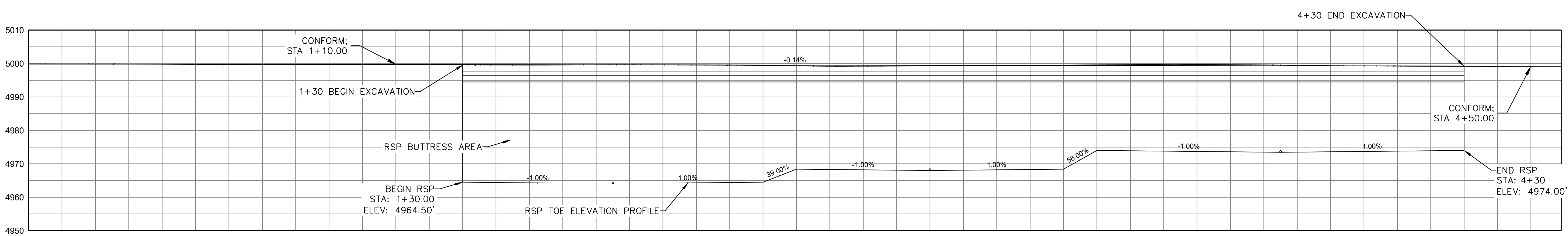



## SHIVELY ROAD PM 0.52 RSP TOE ELEVATION PROFILE

| No. | PVI Station | PVI Elevation | Grade In | Grade Out | A (Grade Change) |
|---|---|---|---|---|---|
| 1 | 1+30.00' | 4964.50' | | −0.01 | |
| 2 | 1+75.00' | 4964.05' | −0.01 | 0.01 | 0.02 |
| 3 | 2+20.00' | 4964.50' | 0.01 | 0.39 | 0.38 |
| 4 | 2+30.00' | 4968.40' | 0.39 | −0.01 | 0.4 |
| 5 | 2+70.00' | 4968.00' | −0.01 | 0.01 | 0.02 |
| 6 | 3+10.00' | 4968.40' | 0.01 | 0.56 | 0.55 |
| 7 | 3+20.00' | 4974.00' | 0.56 | −0.01 | 0.57 |
| 8 | 3+75.00' | 4973.45' | −0.01 | 0.01 | 0.02 |
| 9 | 4+30.00' | 4974.00' | 0.01 | | |

## SHIVELY ROAD PM 0.52 PLAN VIEW

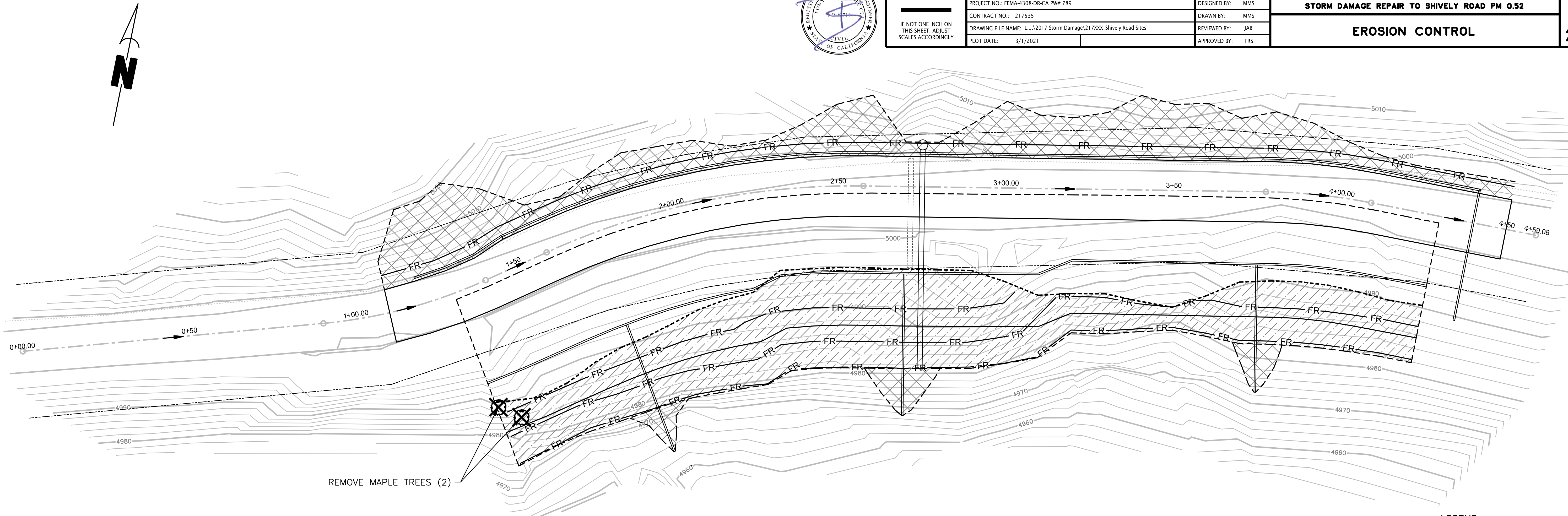
SCALE: 1"=15'




## SHIVELY ROAD PM 0.52 PROFILE VIEW

SCALE: 1"=15'

| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | DESIGN SECTION ENGINEERING DIVISION | COUNTY OF HUMBOLDT DEPARTMENT OF PUBLIC WORKS |
| | ROAD NO: C4F012 MILE POST: 0.52 | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 0.52 |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 789 | DRAWN BY: MMS | |
| | CONTRACT NO.: 217535 | REVIEWED BY: JAB | EROSION CONTROL |
| | DRAWING FILE NAME: L:\...\2017 Storm Damage\217XXX_Shively Road Sites | APPROVED BY: TRS | SHEET 7 OF 27 |
| | PLOT DATE: 3/1/2021 | | |

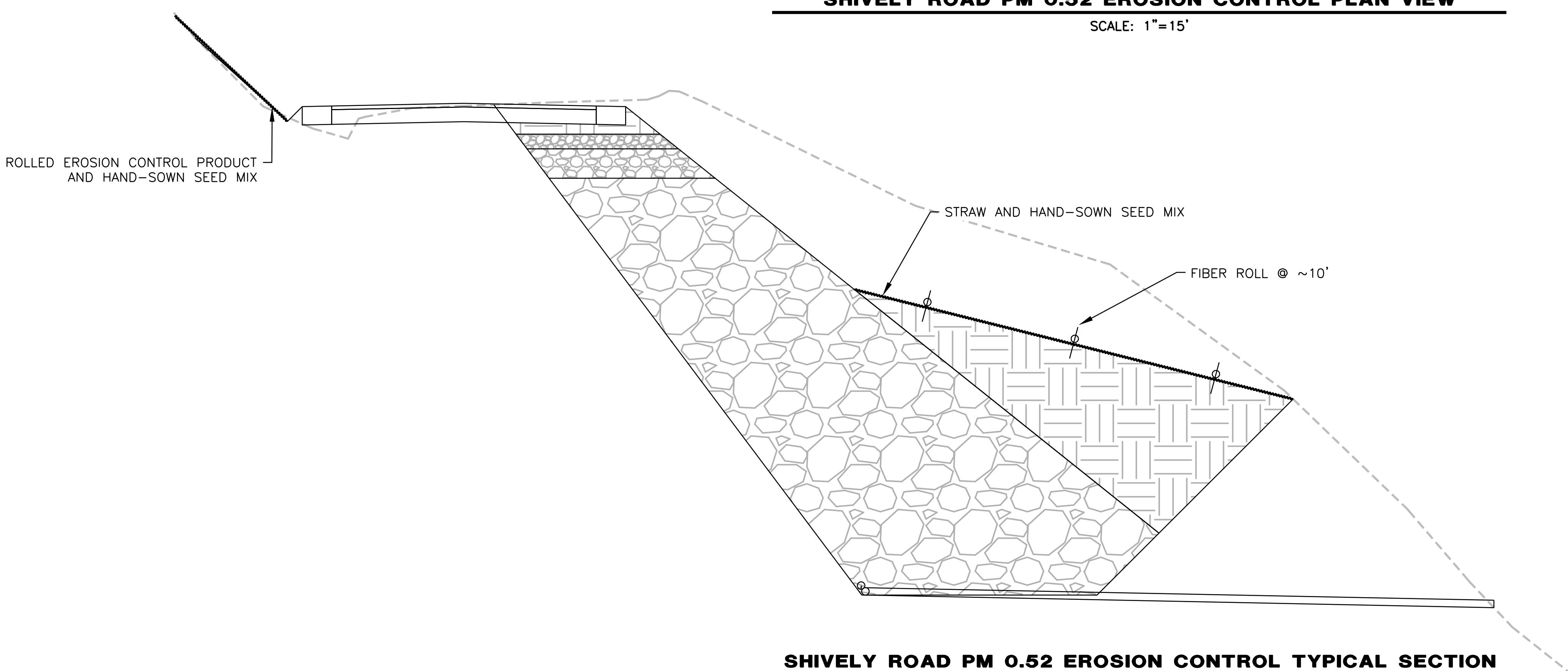



**SHIVELY ROAD PM 0.52 EROSION CONTROL PLAN VIEW**

SCALE: 1"=15'

LEGEND

- SEED AND ROLLED EROSION CONTROL PRODUCT
- SEED AND STRAW
- —FR— FIBER ROLL




**SHIVELY ROAD PM 0.52 EROSION CONTROL TYPICAL SECTION**

SCALE: 1"=5'

| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD<br>ROAD NO: C4F012 — MILE POST: 0.52<br>PROJECT NO.: FEMA-4308-DR-CA PW# 789<br>CONTRACT NO.: 217535<br>DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites<br>PLOT DATE: 3/1/2021 | DESIGN SECTION<br>ENGINEERING DIVISION<br>DESIGNED BY: MMS<br>DRAWN BY: MMS<br>REVIEWED BY: JAB<br>APPROVED BY: TRS | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS<br>STORM DAMAGE REPAIR TO SHIVELY ROAD PM 0.52<br>SECTION VIEWS (1 OF 2) |

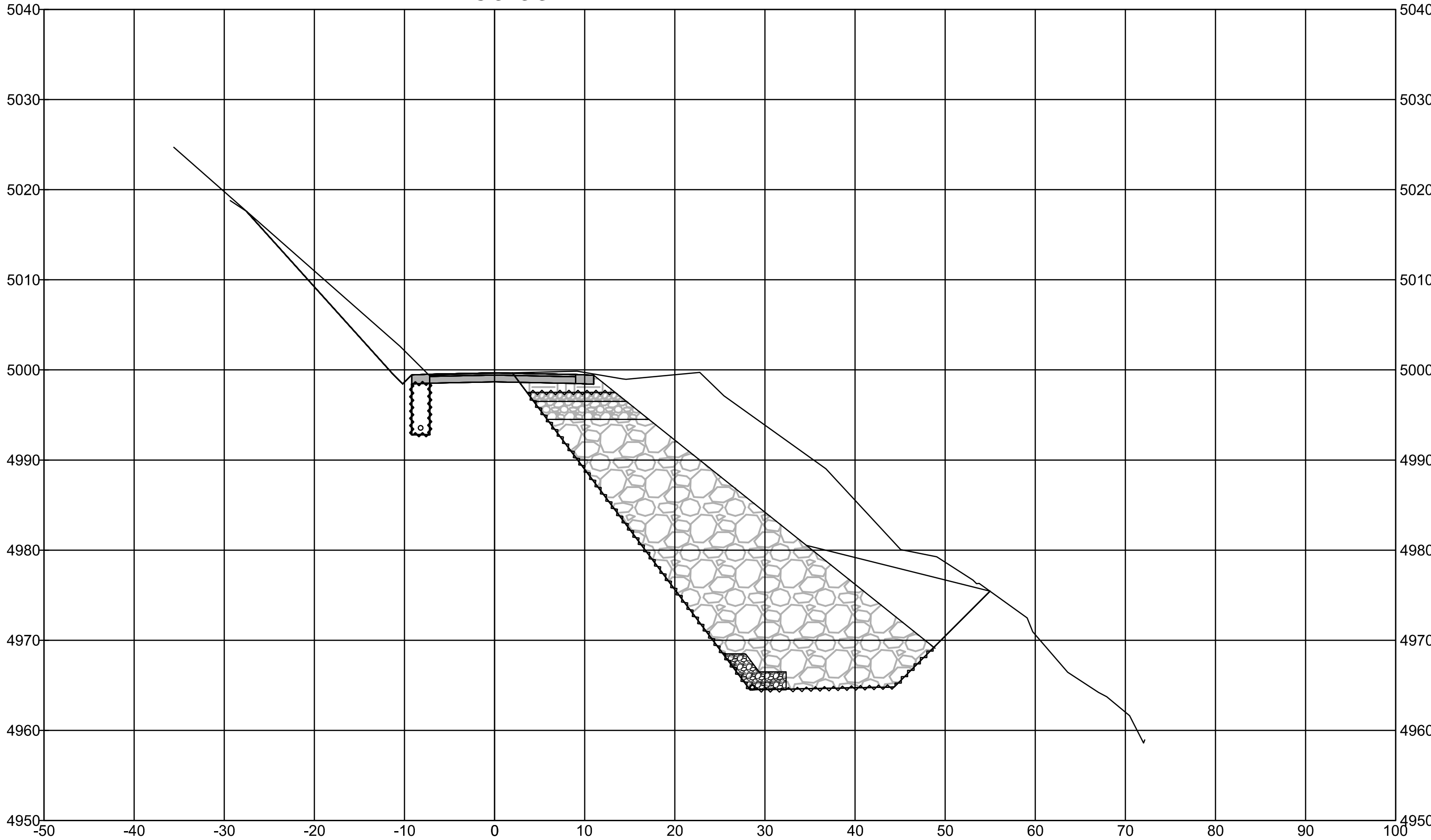


REGISTERED PROFESSIONAL ENGINEER TONY R. SECHETTI CIVIL STATE OF CALIFORNIA

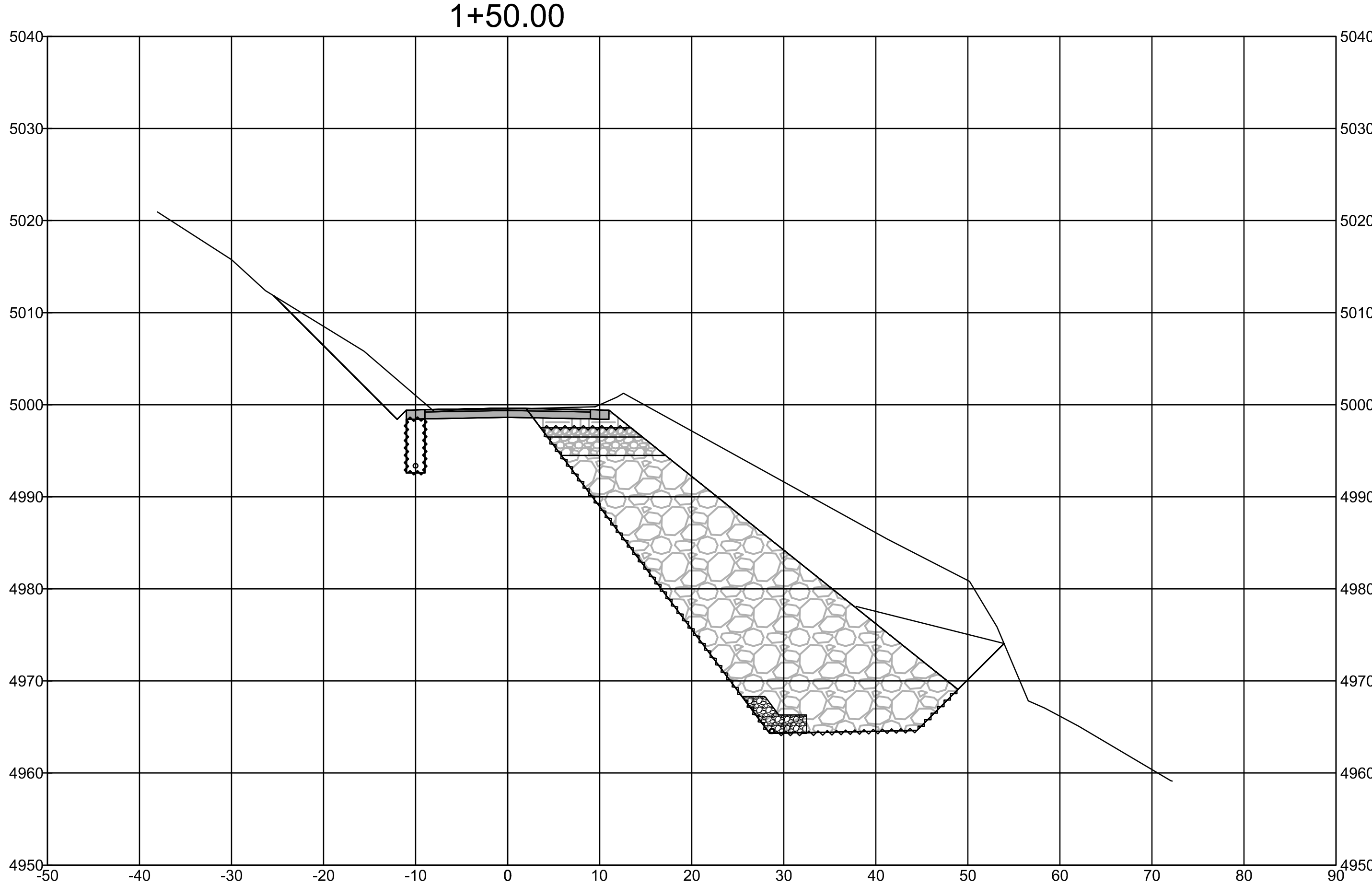
# SHIVELY ROAD PM 0.52 SECTIONS (1+30 TO 2+50)

SCALE: 1"=10'

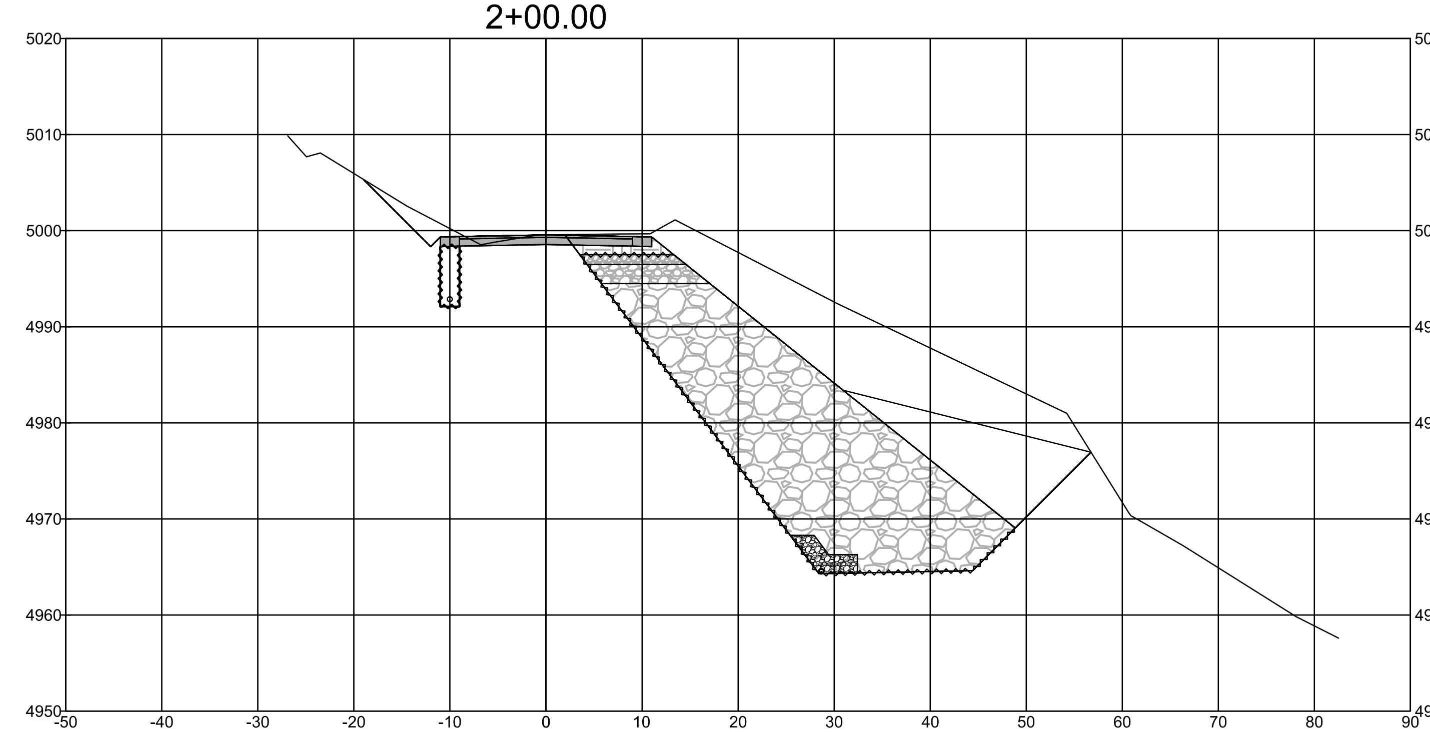
## 1+30.00



## 1+50.00



## 2+00.00



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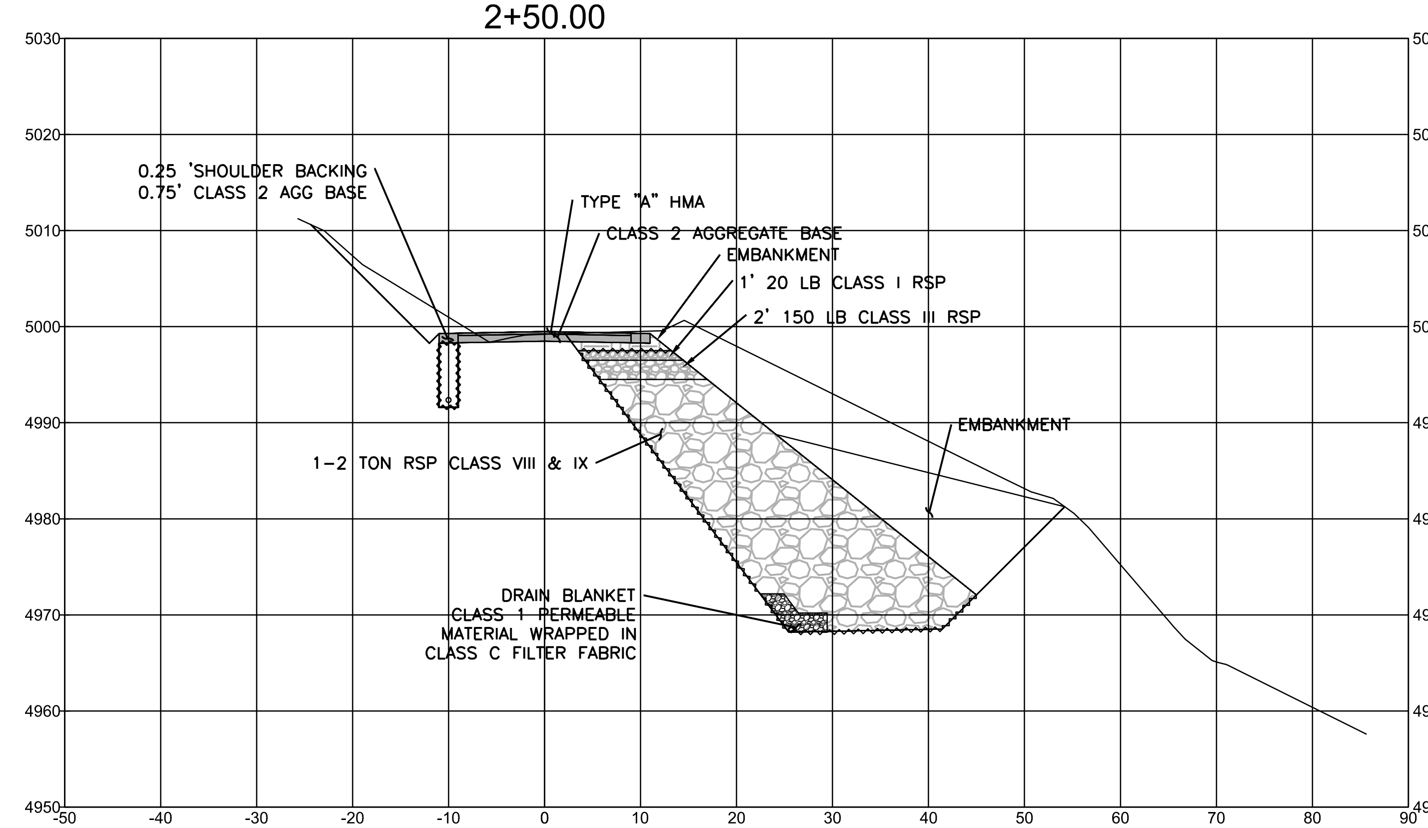


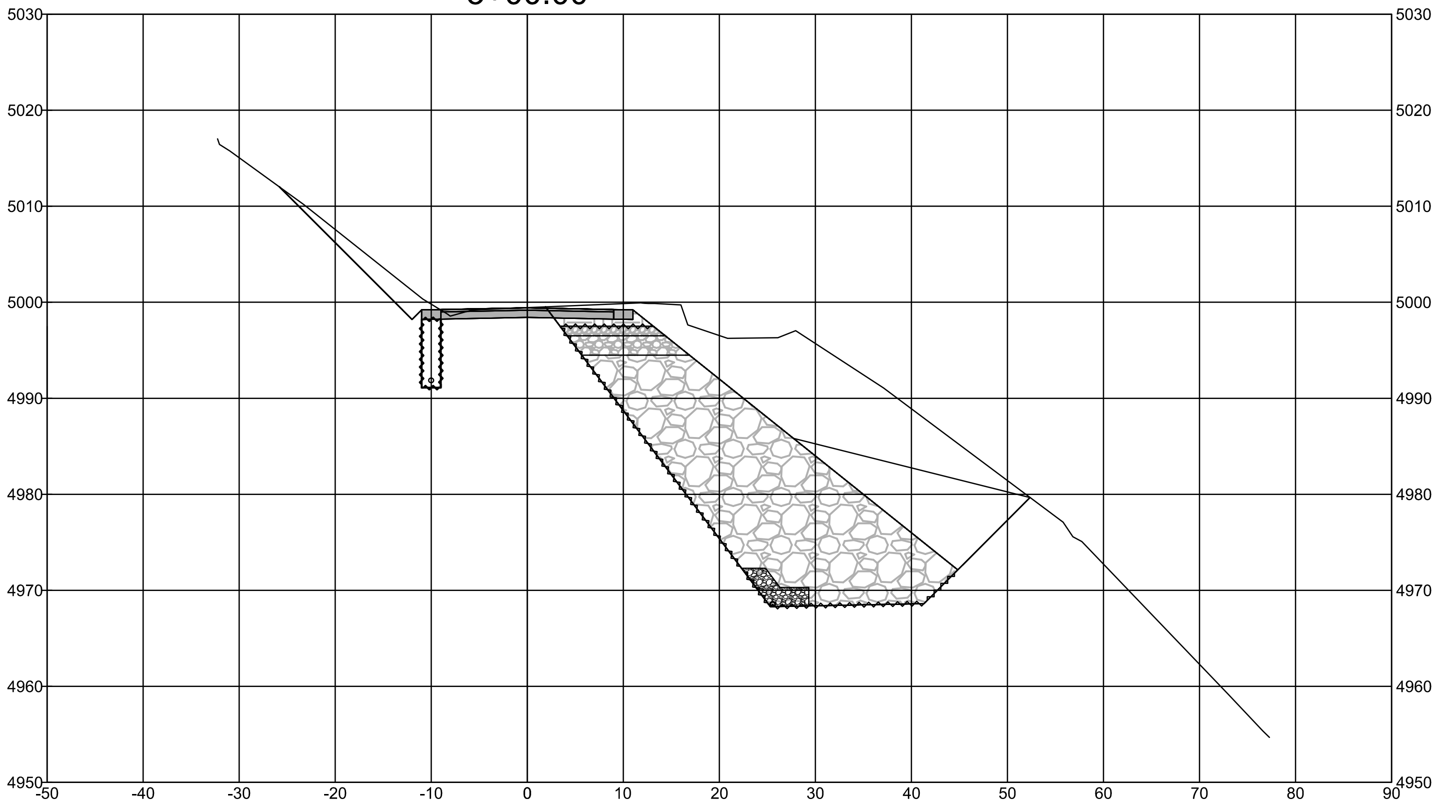
| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | DESIGN SECTION<br>ENGINEERING DIVISION | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS |
| | ROAD NO: C4F012 · MILE POST: 0.52 | | |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 789 | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 0.52 |
| | CONTRACT NO.: 217535 | DRAWN BY: MMS | SECTION VIEWS (2 OF 2) |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | REVIEWED BY: JAB | |
| | PLOT DATE: 3/1/2021 | APPROVED BY: TRS | |



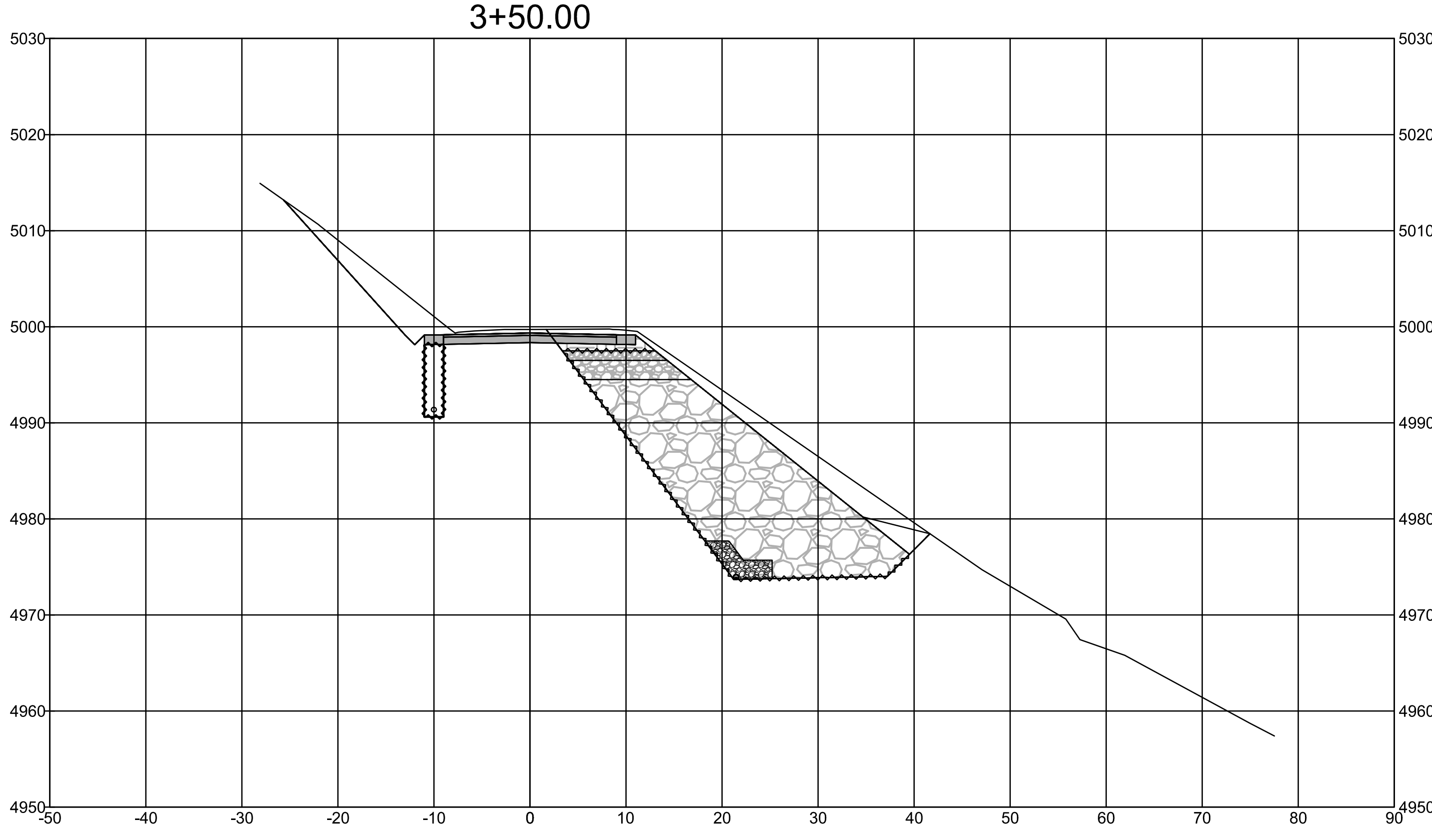
## SHIVELY ROAD PM 0.52 SECTIONS (1+40 TO 2+50)

SCALE: 1"=10'

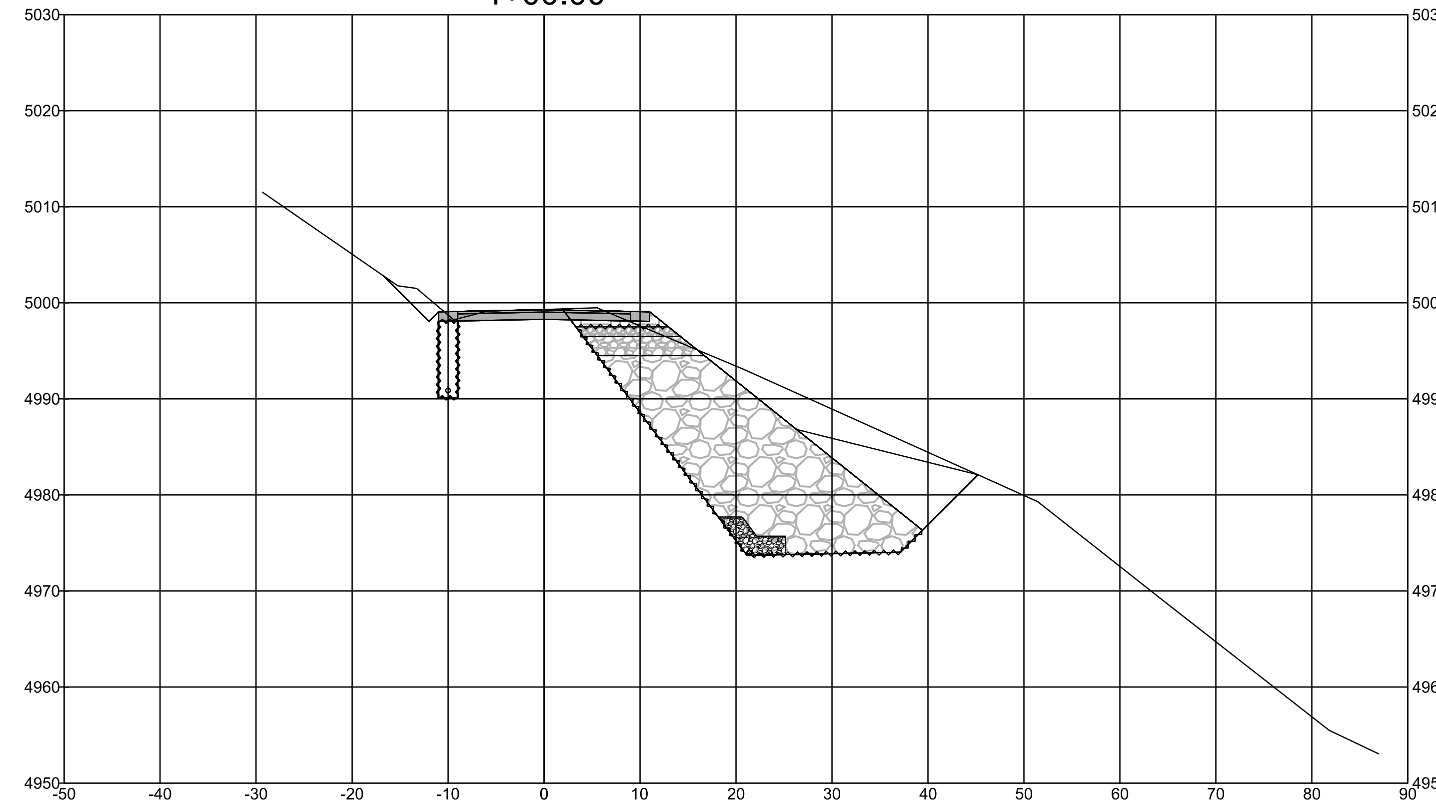
3+00.00



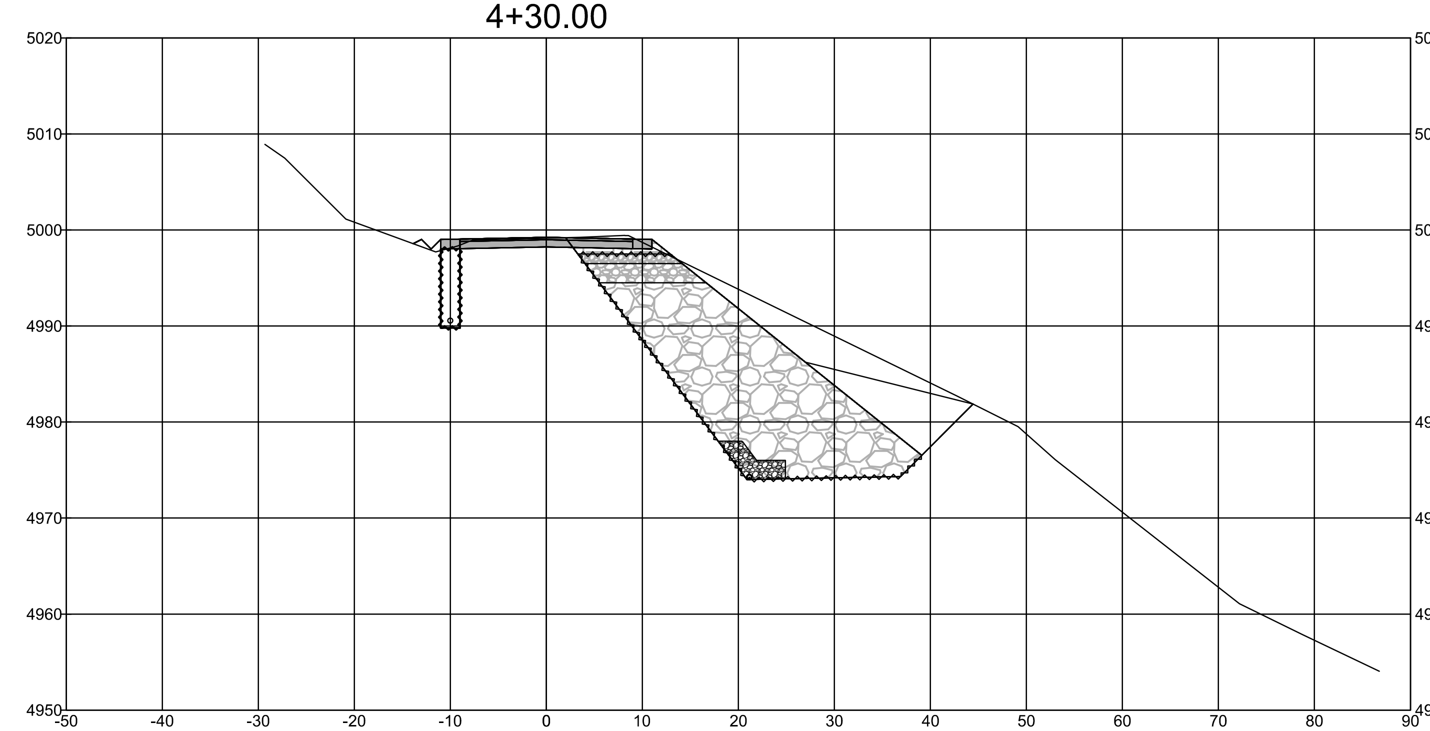

3+50.00




4+00.00

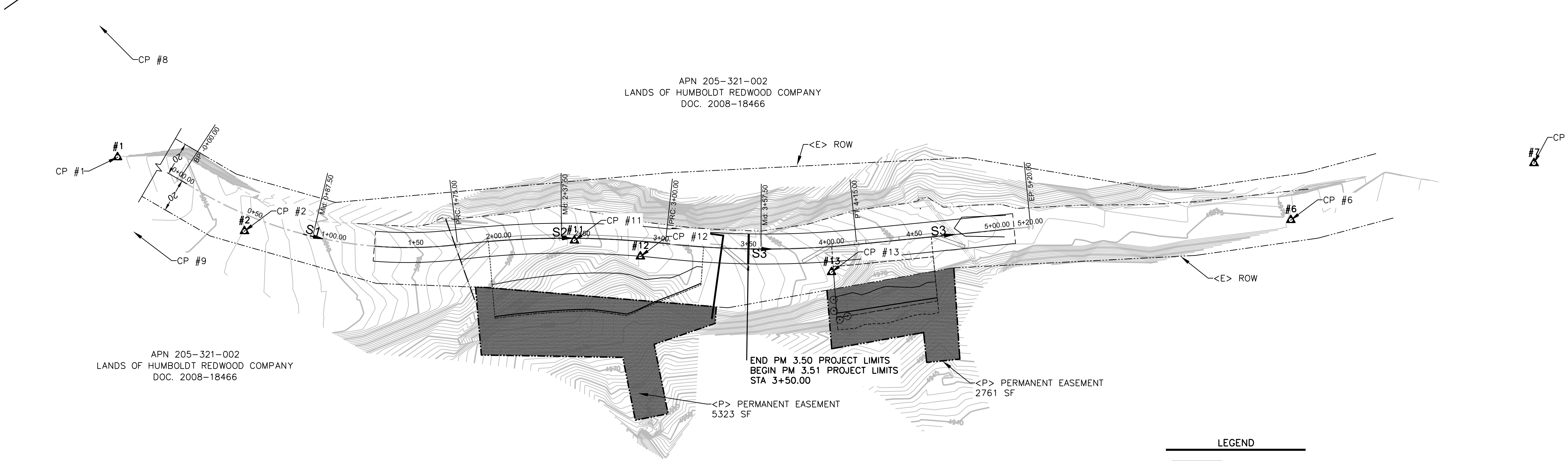



4+30.00



| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD<br>ROAD NO: C4F012 MILE POST: 3.50 & 3.51<br>PROJECT NO.: FEMA-4308-DR-CA PW# 1087 & FEMA-4434-DR-CA PW # 48<br>CONTRACT NO.: 217304 & 219304<br>DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites<br>PLOT DATE: 3/1/2021 | DESIGN SECTION<br>ENGINEERING DIVISION<br>DESIGNED BY: MMS<br>DRAWN BY: MMS<br>REVIEWED BY: JAB<br>APPROVED BY: TRS | **COUNTY OF HUMBOLDT**<br>**DEPARTMENT OF PUBLIC WORKS**<br>**STORM DAMAGE REPAIR TO SHIVELY ROAD PM 3.50 & 3.51**<br>SHIVELY ROAD PM 3.50 & 3.51<br>SURVEY CONTROL |






## SHIVELY ROAD PM 3.50 & 3.51 SURVEY CONTROL

SCALE: 1"=30'

LEGEND

PERMANENT EASEMENT: 8084 SF

## SHIVELY RD. PM 3.5 & 3.51

CREW: J. SHORT, M. LANDRY
FIELD WORK: 08/22/2018
WORKMAP: 08/29/2018 BY M. LANDRY
CONTROL POINTS = #1–7
TOPO POINTS= #1001–1203

**ADDITIONAL TOPO**
CREW: M. LANDRY, J. BALL
FIELD WORK: 4/24/19
CONTROL POINTS = #8–10
TOPO POINTS= #1204–1320

**ADDITIONAL TOPO**
CREW: J. SHORT, E. WARD
FIELD WORK: 04/09/2020
WORKMAP: 04/10/2020 BY J. SHORT
CONTROL POINTS = #11–#13
TOPO POINTS= #1400–1696

**GPS STATIC OBSERVATIONS**
CP2 (#22) & CP9 (#29)
6/19/19

**BASIS OF ELEVATION**
ELEVATION SHOWN HERON ARE BASED ON AN ASSUMED ELEVATION OF 5000.00' AT CP3

**SURVEY NOTES**
ORIGINAL ROW IN THIS AREA IS 40' WIDE, 20' WIDE ON EACH SIDE OF THE EXISTING CENTERLINE. IN ORDER TO PERFORM A ROAD RETREAT IN NOVEMBER 2019, THE COUNTY ACQUIRED AN ADDITIONAL 11,921 SQ FT PERMANENT EASEMENT FROM HUMBOLDT REDWOODS CO. ALONG THE NORTH-WESTERN SIDE OF THE ROAD.

BEARINGS SHOWN HEREON ARE BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM (CCS83), ZONE 1, EPOCH 2010.00, HAVING A CONVERGENCE ANGLE OF –01°19'23" USING NGS OPUS AT CP9 BEING A SET ½" REBAR WITH A PLASTIC CAP STAMPED "HUMCO CONTROL", DOWN 0.3'. THE BEARINGS FOR THIS PROJECT ARE IN GRID, HOWEVER THE DISTANCES HAVE BEEN SCALED TO GROUND DISTANCES; ROTATE GRID BEARINGS HEREON COUNTERCLOCKWISE 01°19'23" TO OBTAIN GEODETIC (TRUE) BEARINGS. MULTIPLY GROUND DISTANCES HEREIN BY THE SCALE FACTOR OF .99989513 TO OBTAIN "GRID" DISTANCES.

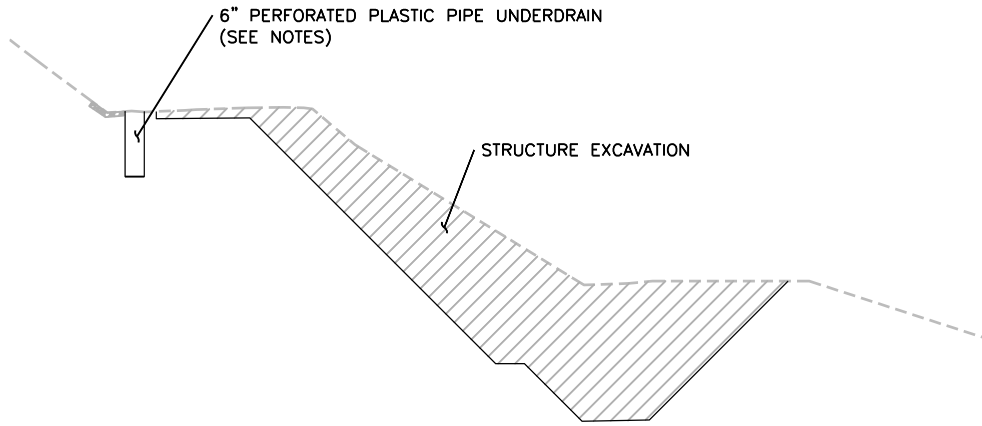
## SHIVELY ROAD PM 3.50 & 3.51 CONTROL

| Point Number | Easting | Northing | Point Elevation | Full Description |
|---|---|---|---|---|
| 1 | 5999154.1862' | 2055557.5131' | 5018.54' | SETGYNSPIKE&HUMCOSURVEYBRASSTAG |
| 2 | 5999234.2456' | 2055594.4646' | 5014.03' | SETGYNSPIKE&HUMCOSURVEYBRASSTAG |
| 6 | 5999589.0227' | 2056112.7684' | 4974.15' | SETGYNSPIKE&HUMCOSURVEYBRASSTAG |
| 7 | 5999644.7468' | 2056251.8861' | 4969.09' | SETGYNSPIKE&HUMCOSURVEYBRASSTAG |
| 8 | 5998819.7679' | 2055417.9641' | 5035.19' | SETGYNSPIKE&HUMCOSURVEYBRASSTAG |
| 9 | 5998609.9700' | 2055510.0440' | 5036.51' | SET1/2"REBAR.PPC.HUMCOSURVEY |
| 11 | 5999352.4510' | 2055753.4550' | 4996.59' | SET/80DS |
| 12 | 5999383.0050' | 2055780.4080' | 4992.47' | SET/80DS |
| 13 | 5999456.4890' | 2055869.0190' | 4983.39' | SET/80DS |

## SHIVELY ROAD PM 3.50 & 3.51 ALIGNMENT GEOMETRY

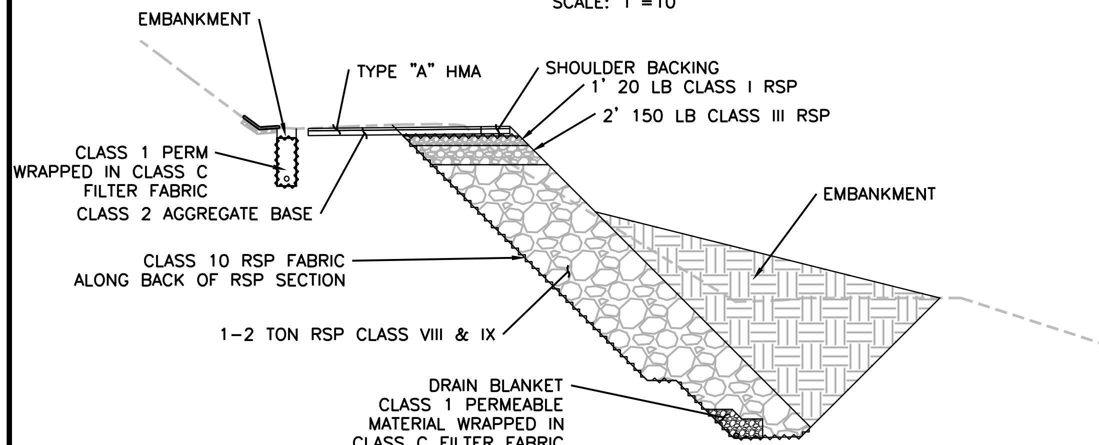
| Segment | Type | Length | Radius | Direction | Start Station | End Station | Delta |
|---|---|---|---|---|---|---|---|
| S1 | Curve | 175.00' | 250.00' | | 0+00.00' | 1+75.00' | 40°06'25" |
| S2 | Curve | 125.00' | 550.00' | | 1+75.00' | 3+00.00' | 13°01'18" |
| S3 | Curve | 115.00' | 550.00' | | 3+00.00' | 4+15.00' | 11°58'48" |
| S4 | Line | 105.00' | | N29° 15' 00"E | 4+15.00' | 5+20.00' | |

| | | | | |
|---|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | DESIGN SECTION<br>ENGINEERING DIVISION | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS | SHEET |
| | ROAD NO: C4F012 MILE POST: 3.50 & 3.51 | | | 11 |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 1087 & FEMA-4434-DR-CA PW # 48 | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 3.50 & 3.51 | |
| | CONTRACT NO.: 217304 & 219304 | DRAWN BY: MMS | SHIVELY ROAD PM 3.50 TYPICAL SECTIONS | OF |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | REVIEWED BY: JAB | | |
| | PLOT DATE: 3/1/2021 | APPROVED BY: TRS | | 27 |



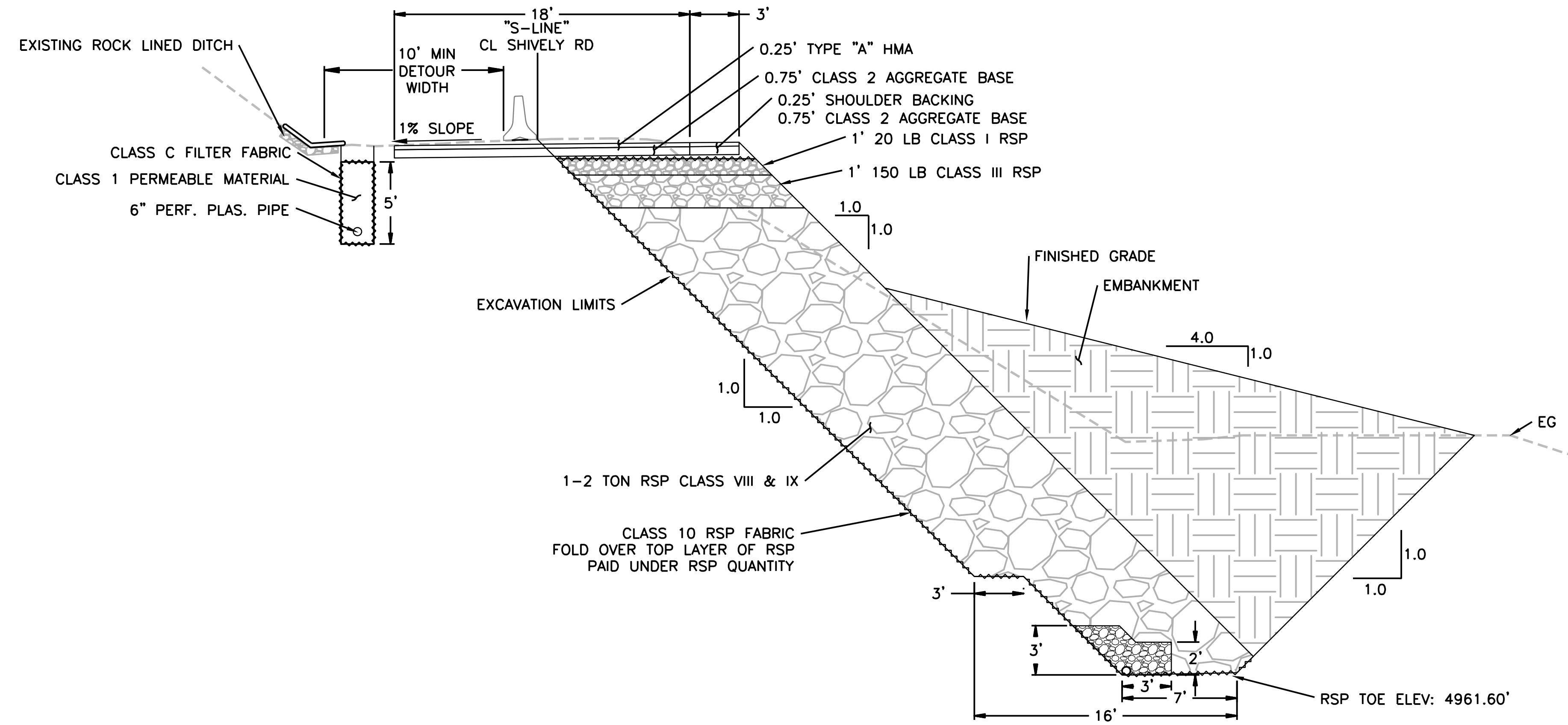

**EXCAVATION SECTION**

SCALE: 1"=10'



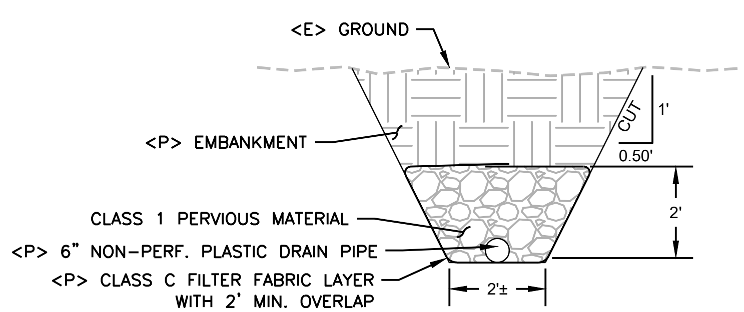

**BACKFILL SECTION**

SCALE: 1"=10'




**TYPICAL SECTION**

SCALE: 1"=5'

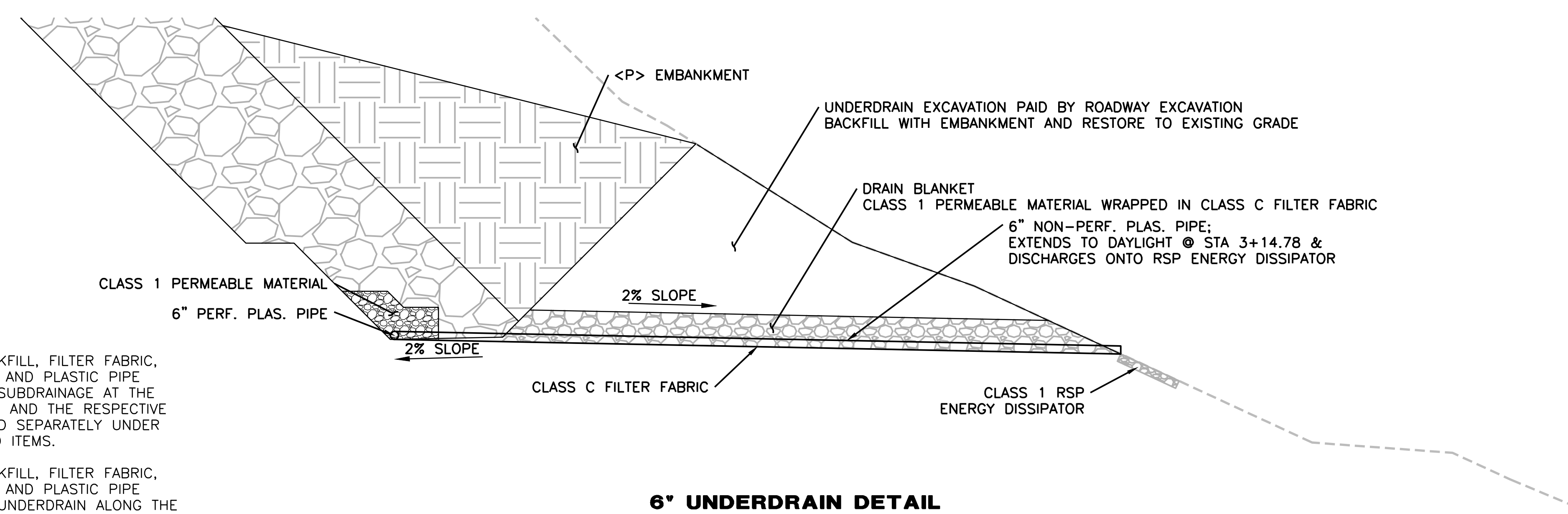



**TYP. 6" UNDERDRAIN OUTLET DETAIL**

SCALE: 1"=2'

NOTE:

1. THE EXCAVATION, BACKFILL, FILTER FABRIC, PERMEABLE MATERIAL, AND PLASTIC PIPE QUANTITIES FOR THE SUBDRAINAGE AT THE ROCK BUTTRESS BASE AND THE RESPECTIVE OUTLETS ARE ALL PAID SEPARATELY UNDER THEIR RESPECTIVE BID ITEMS.
2. THE EXCAVATION, BACKFILL, FILTER FABRIC, PERMEABLE MATERIAL, AND PLASTIC PIPE QUANTITIES FOR THE UNDERDRAIN ALONG THE INBOARD SHOULDER AND THE RESPECTIVE OUTLET ARE ALL PAID UNDER BID ITEMS NO. 22 AND NO. 24
3. MAINTAIN MINIMUM SLOPE OF 1% FOR ALL DRAINS




**6" UNDERDRAIN DETAIL**

SCALE: 1"=5'

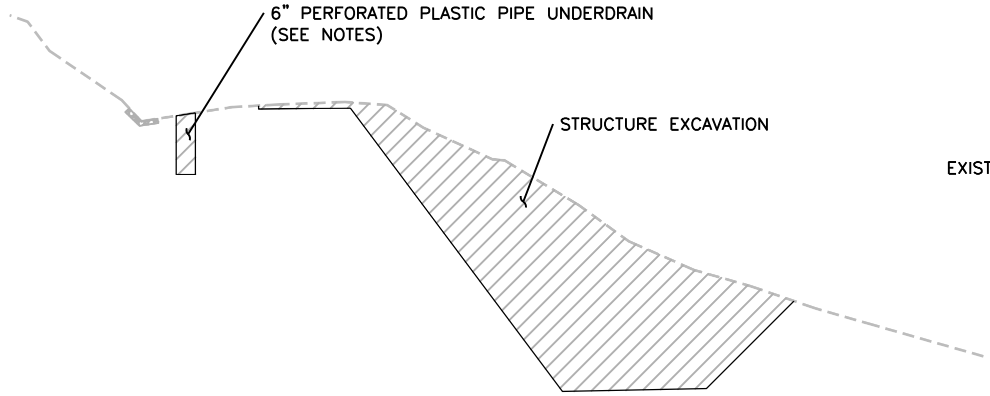
| | | |
|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD<br>ROAD NO: C4F012 MILE POST: 3.50 & 3.51<br>PROJECT NO.: FEMA-4308-DR-CA PW# 1087 & FEMA-4434-DR-CA PW # 48<br>CONTRACT NO.: 217304 & 219304<br>DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites<br>PLOT DATE: 3/1/2021 | DESIGN SECTION<br>ENGINEERING DIVISION<br>DESIGNED BY: MMS<br>DRAWN BY: MMS<br>REVIEWED BY: JAB<br>APPROVED BY: TRS |

**COUNTY OF HUMBOLDT**
**DEPARTMENT OF PUBLIC WORKS**

STORM DAMAGE REPAIR TO SHIVELY ROAD PM 3.50 & 3.51

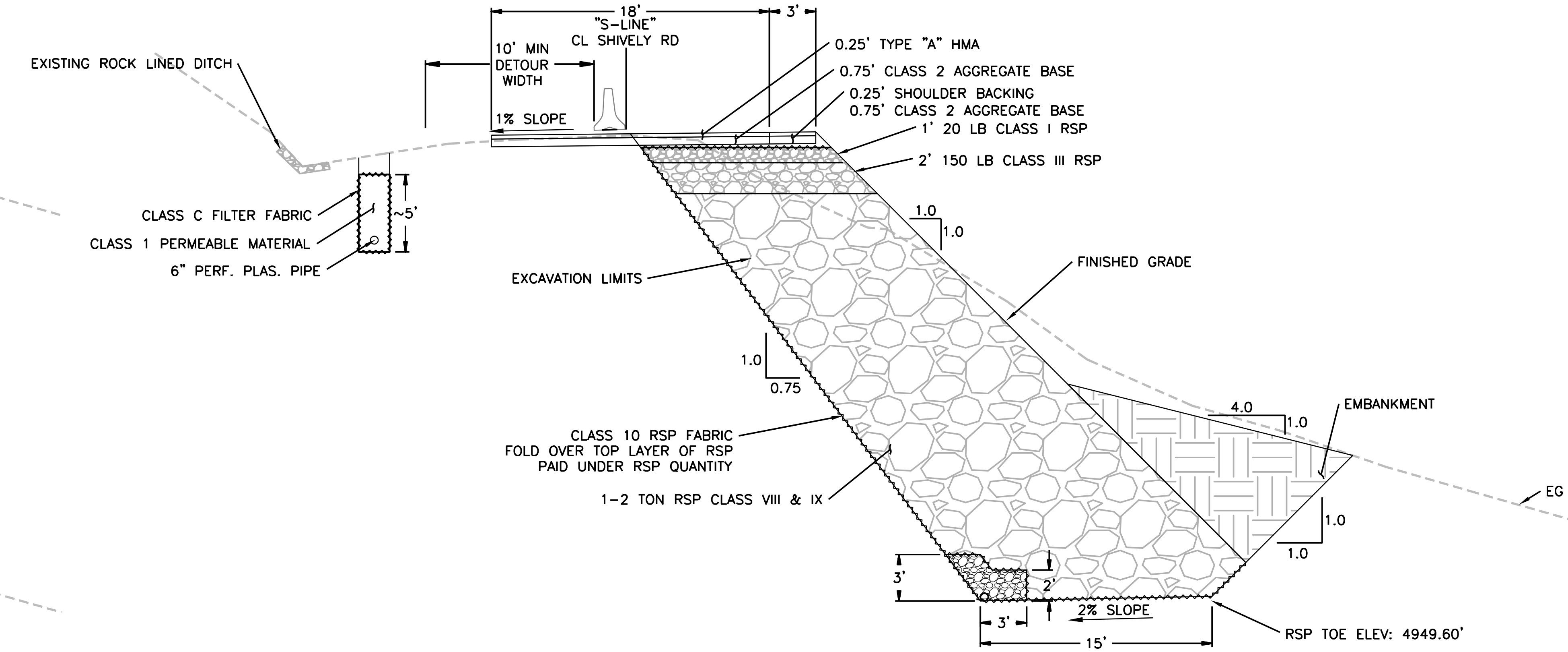
## SHIVELY ROAD PM 3.51 TYPICAL SECTIONS





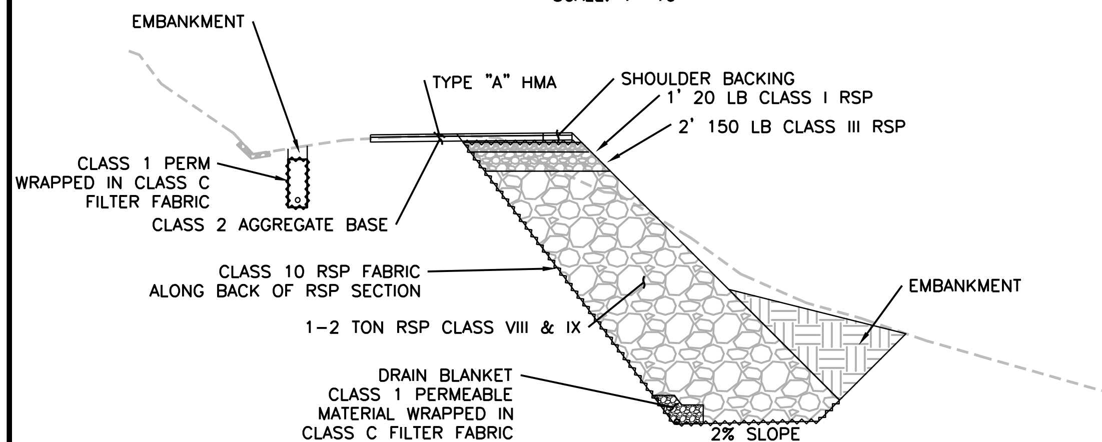

**EXCAVATION SECTION**

SCALE: 1"=10'



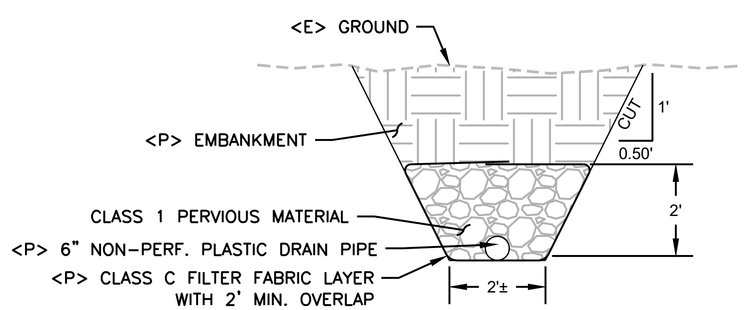

**TYPICAL SECTION**

SCALE: 1"=5'




**BACKFILL SECTION**

SCALE: 1"=10'

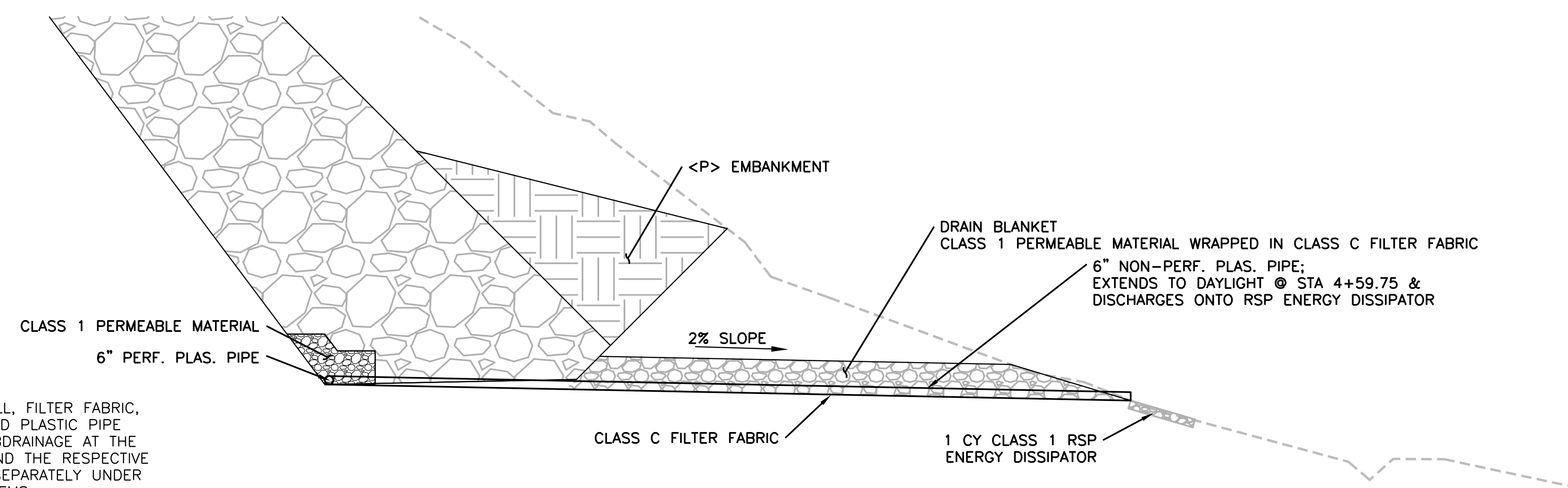



**TYP. 6" UNDERDRAIN OUTLET DETAIL**

Scale: 1"=2'

NOTE:

1. THE EXCAVATION, BACKFILL, FILTER FABRIC, PERMEABLE MATERIAL, AND PLASTIC PIPE QUANTITIES FOR THE SUBDRAINAGE AT THE ROCK BUTTRESS BASE AND THE RESPECTIVE OUTLETS ARE ALL PAID SEPARATELY UNDER THEIR RESPECTIVE BID ITEMS.
2. THE EXCAVATION, BACKFILL, FILTER FABRIC, PERMEABLE MATERIAL, AND PLASTIC PIPE QUANTITIES FOR THE UNDERDRAIN ALONG THE INBOARD SHOULDER AND THE RESPECTIVE OUTLET ARE ALL PAID UNDER BID ITEMS NO. 20 AND NO. 22
3. MAINTAIN MINIMUM SLOPE OF 1% FOR ALL DRAINS




**6" UNDERDRAIN DETAIL**

SCALE: 1"=5'

| | |
|---|---|
| ROAD NAME: | SHIVELY ROAD |
| ROAD NO: | C4F012 — MILE POST: 3.50 & 3.51 |
| PROJECT NO.: | FEMA-4308-DR-CA PW# 1087 & FEMA-4434-DR-CA PW # 48 |
| CONTRACT NO.: | 217304 & 219304 |
| DRAWING FILE NAME: | L:...\2017 Storm Damage\217XXX_Shively Road Sites |
| PLOT DATE: | 3/1/2021 |

BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REGISTERED PROFESSIONAL ENGINEER — TONY R. SEGHETTI — No. 63614 — CIVIL — STATE OF CALIFORNIA

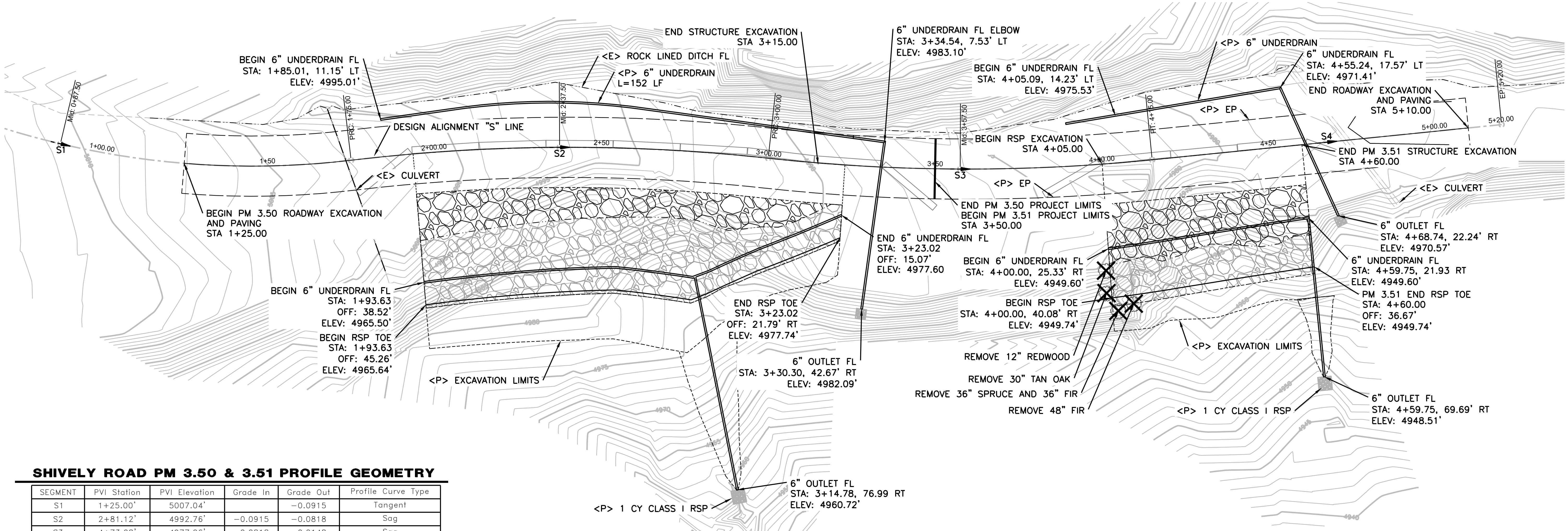
| DESIGN SECTION ENGINEERING DIVISION | |
|---|---|
| DESIGNED BY: | MMS |
| DRAWN BY: | MMS |
| REVIEWED BY: | JAB |
| APPROVED BY: | TRS |

**COUNTY OF HUMBOLDT**
**DEPARTMENT OF PUBLIC WORKS**

**STORM DAMAGE REPAIR TO SHIVELY ROAD PM 3.50 & 3.51**

# SHIVELY ROAD PM 3.50 & 3.51 PLAN AND PROFILE VIEW






## SHIVELY ROAD PM 3.50 & 3.51 PROFILE GEOMETRY

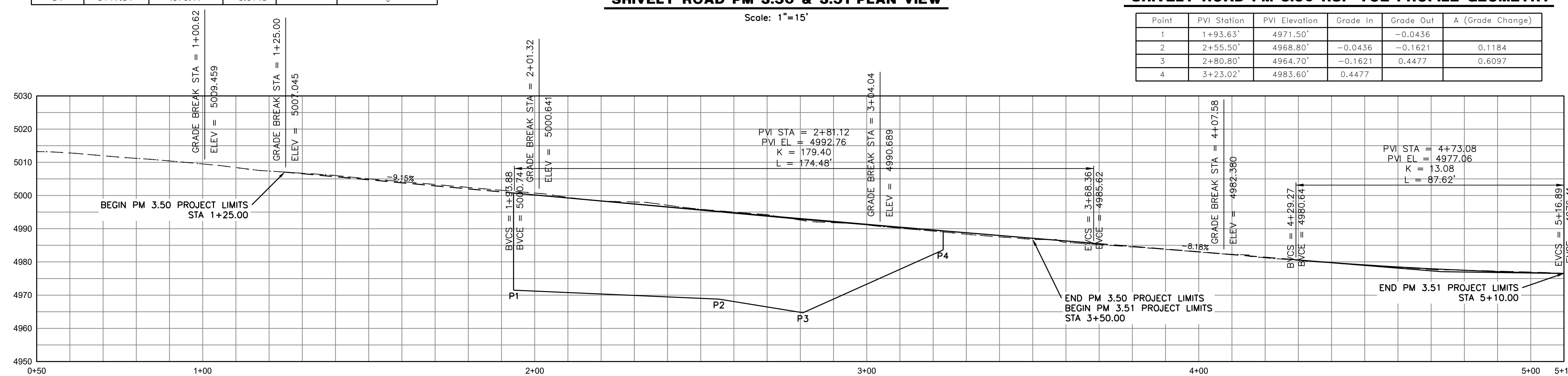
| SEGMENT | PVI Station | PVI Elevation | Grade In | Grade Out | Profile Curve Type |
|---|---|---|---|---|---|
| S1 | 1+25.00' | 5007.04' | | −0.0915 | Tangent |
| S2 | 2+81.12' | 4992.76' | −0.0915 | −0.0818 | Sag |
| S3 | 4+73.08' | 4977.06' | −0.0818 | −0.0148 | Sag |
| S4 | 5+17.34' | 4976.41' | −0.0148 | | Tangent |

## SHIVELY ROAD PM 3.50 & 3.51 PLAN VIEW

Scale: 1"=15'

## SHIVELY ROAD PM 3.50 RSP TOE PROFILE GEOMETRY

| Point | PVI Station | PVI Elevation | Grade In | Grade Out | A (Grade Change) |
|---|---|---|---|---|---|
| 1 | 1+93.63' | 4971.50' | | −0.0436 | |
| 2 | 2+55.50' | 4968.80' | −0.0436 | −0.1621 | 0.1184 |
| 3 | 2+80.80' | 4964.70' | −0.1621 | 0.4477 | 0.6097 |
| 4 | 3+23.02' | 4983.60' | 0.4477 | | |

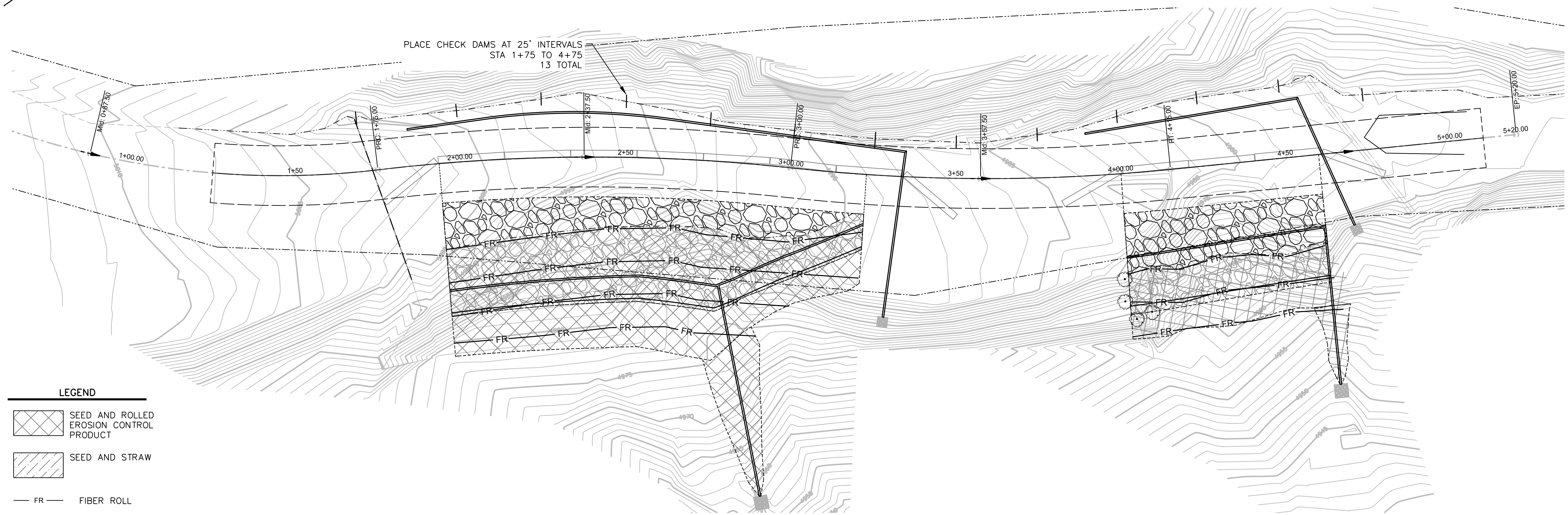



## SHIVELY ROAD PM 3.50 & 3.51 PROFILE VIEW

Scale: 1"=15'

| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD<br>ROAD NO: C4F012 MILE POST: 3.50 & 3.51<br>PROJECT NO.: FEMA-4308-DR-CA PW# 1087 & FEMA-4434-DR-CA PW # 48<br>CONTRACT NO.: 217304 & 219304<br>DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites<br>PLOT DATE: 3/1/2021 | DESIGN SECTION<br>ENGINEERING DIVISION<br>DESIGNED BY: MMS<br>DRAWN BY: MMS<br>REVIEWED BY: JAB<br>APPROVED BY: TRS | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS<br>STORM DAMAGE REPAIR TO SHIVELY ROAD PM 3.50 & 3.51<br>SHIVELY ROAD PM 3.50 & 3.51<br>SURVEY CONTROL |



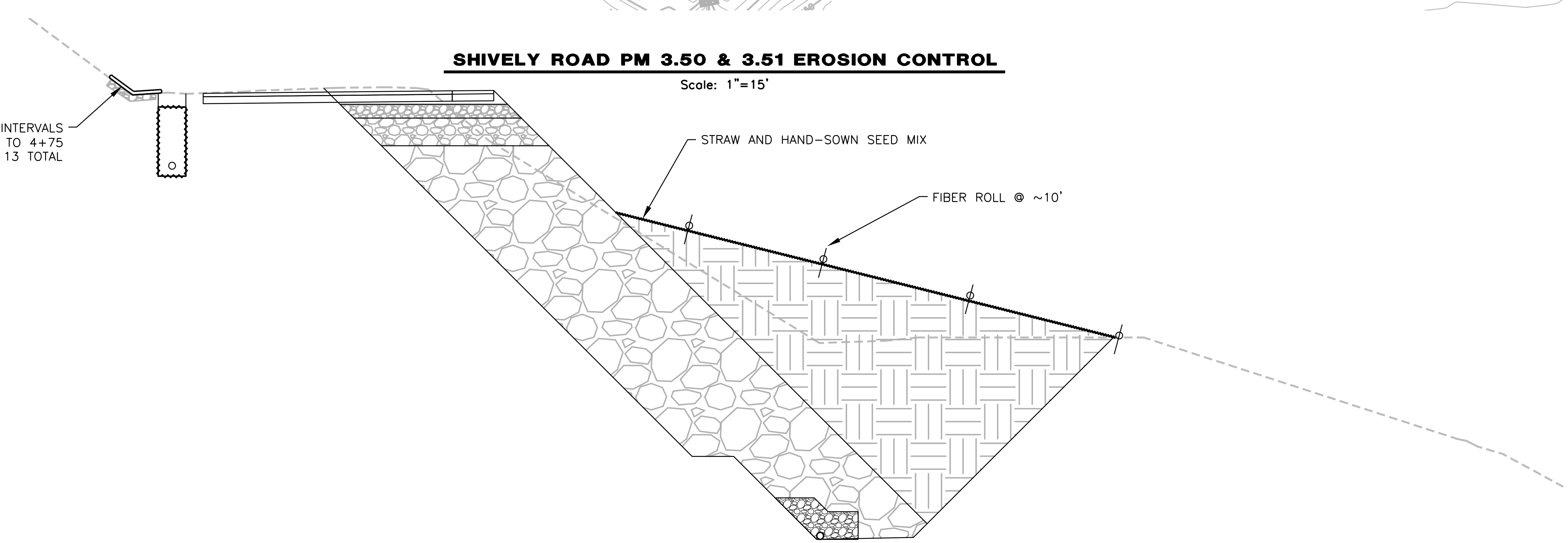



## LEGEND

- SEED AND ROLLED EROSION CONTROL PRODUCT
- SEED AND STRAW
- — FR — FIBER ROLL

## SHIVELY ROAD PM 3.50 & 3.51 EROSION CONTROL

Scale: 1"=15'




## SHIVELY ROAD PM 3.50 & 3.51 EROSION CONTROL TYPICAL SECTION

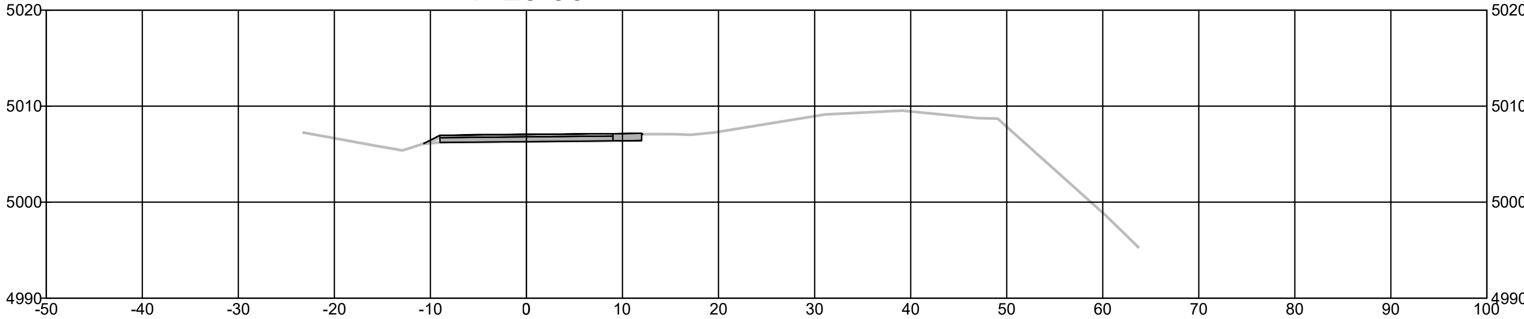
Scale: 1"=5'

| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | DESIGN SECTION<br>ENGINEERING DIVISION | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS |
| | ROAD NO: C4F012 MILE POST: 3.50 & 3.51 | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 3.50 & 3.51 |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 1087 & FEMA-4434-DR-CA PW # 48 | DRAWN BY: MMS | SHIVELY ROAD PM 3.50 & 3.51<br>SECTION VIEWS |
| | CONTRACT NO.: 217304 & 219304 | REVIEWED BY: JAB | SHEET 15 OF 27 |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | APPROVED BY: TRS | |
| | PLOT DATE: 3/1/2021 | | |

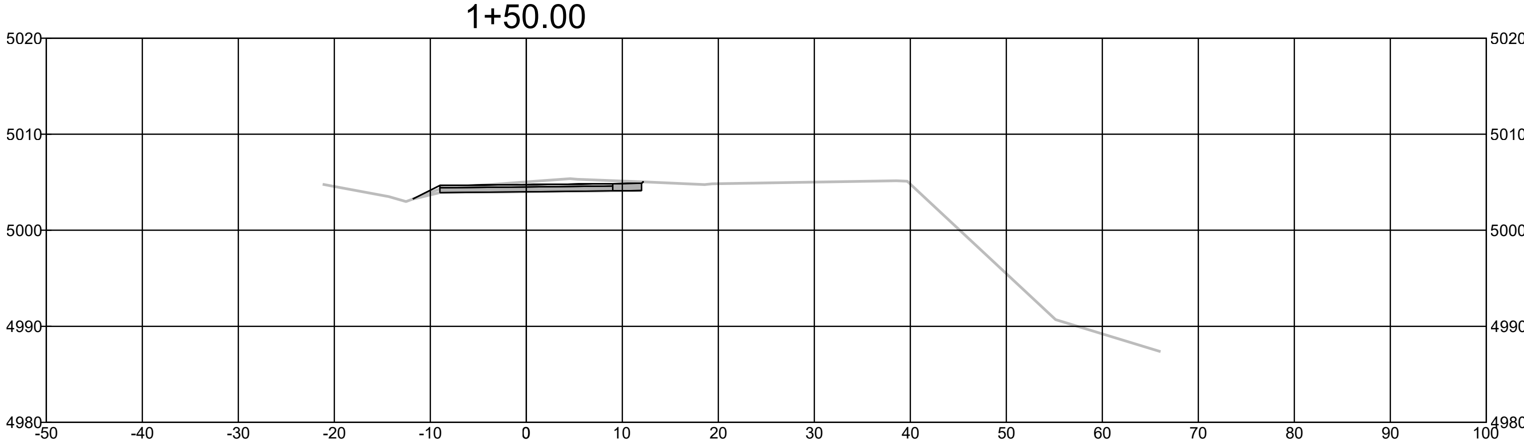
## SHIVELY ROAD PM 3.50 & 3.51 SECTIONS (1+25 TO 2+25)

SCALE: 1"=10'

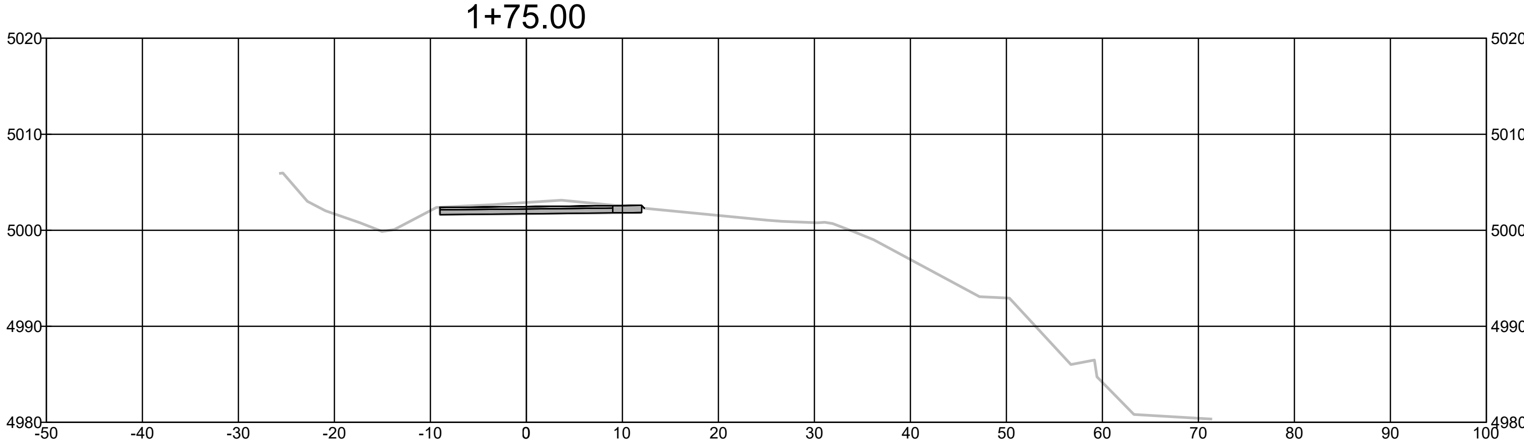
1+25.00



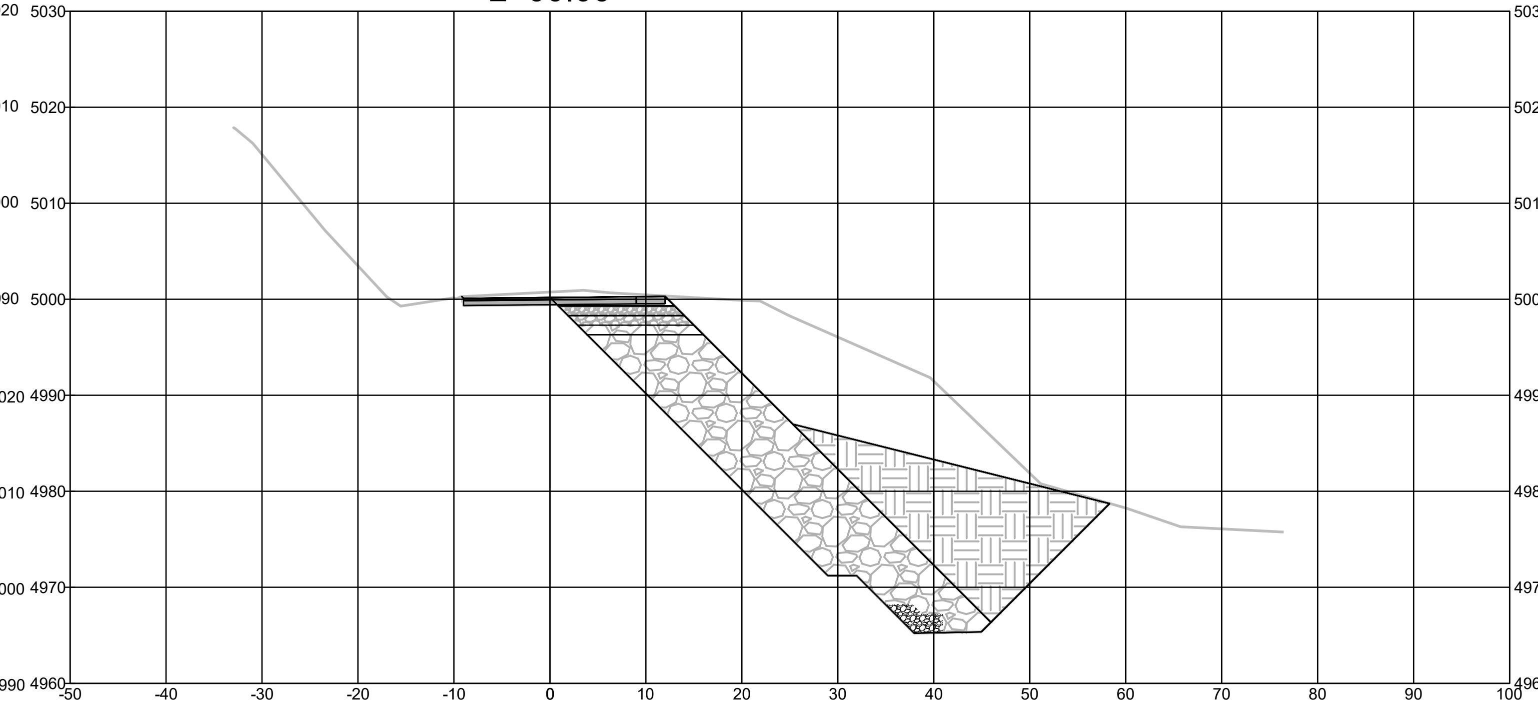
1+50.00



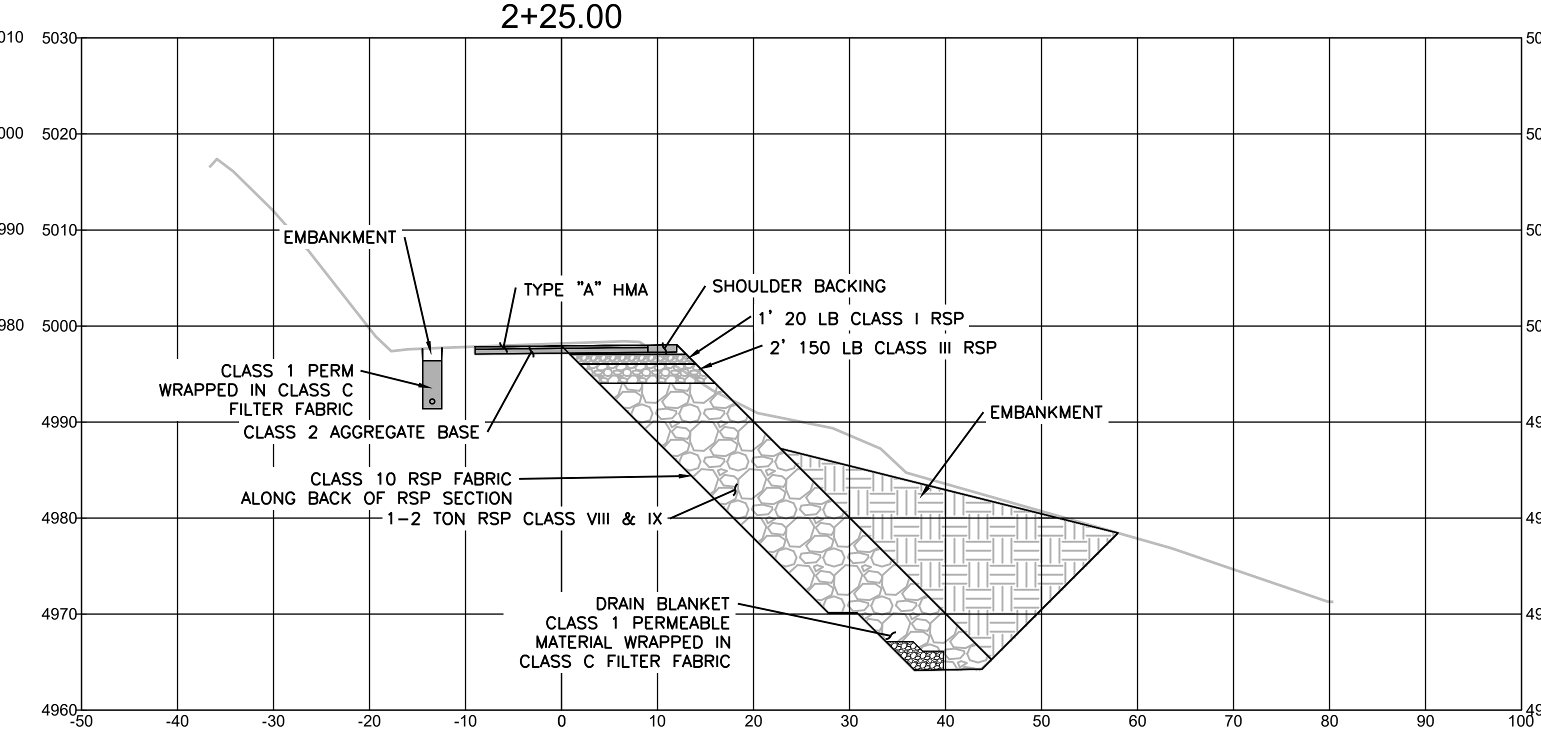
1+75.00



2+00.00



2+25.00



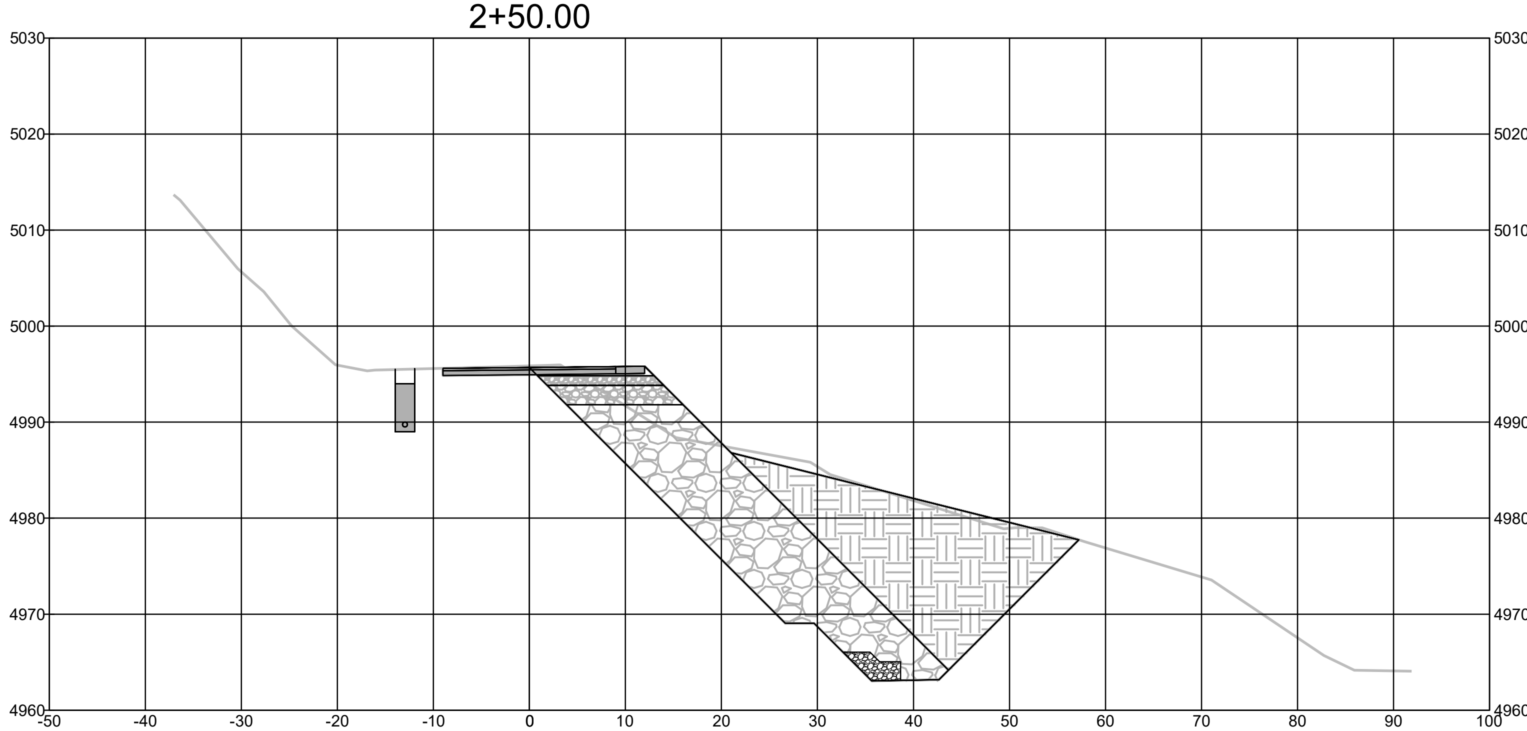

| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD<br>ROAD NO: C4F012 MILE POST: 3.50 & 3.51<br>PROJECT NO.: FEMA-4308-DR-CA PW# 1087 & FEMA-4434-DR-CA PW # 48<br>CONTRACT NO.: 217304 & 219304<br>DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites<br>PLOT DATE: 3/1/2021 | DESIGN SECTION<br>ENGINEERING DIVISION<br>DESIGNED BY: MMS<br>DRAWN BY: MMS<br>REVIEWED BY: JAB<br>APPROVED BY: TRS | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS<br>STORM DAMAGE REPAIR TO SHIVELY ROAD PM 3.50 & 3.51<br>SHIVELY ROAD PM 3.50 & 3.51<br>SECTION VIEWS (2 OF 4) |

SHEET 16 OF 27

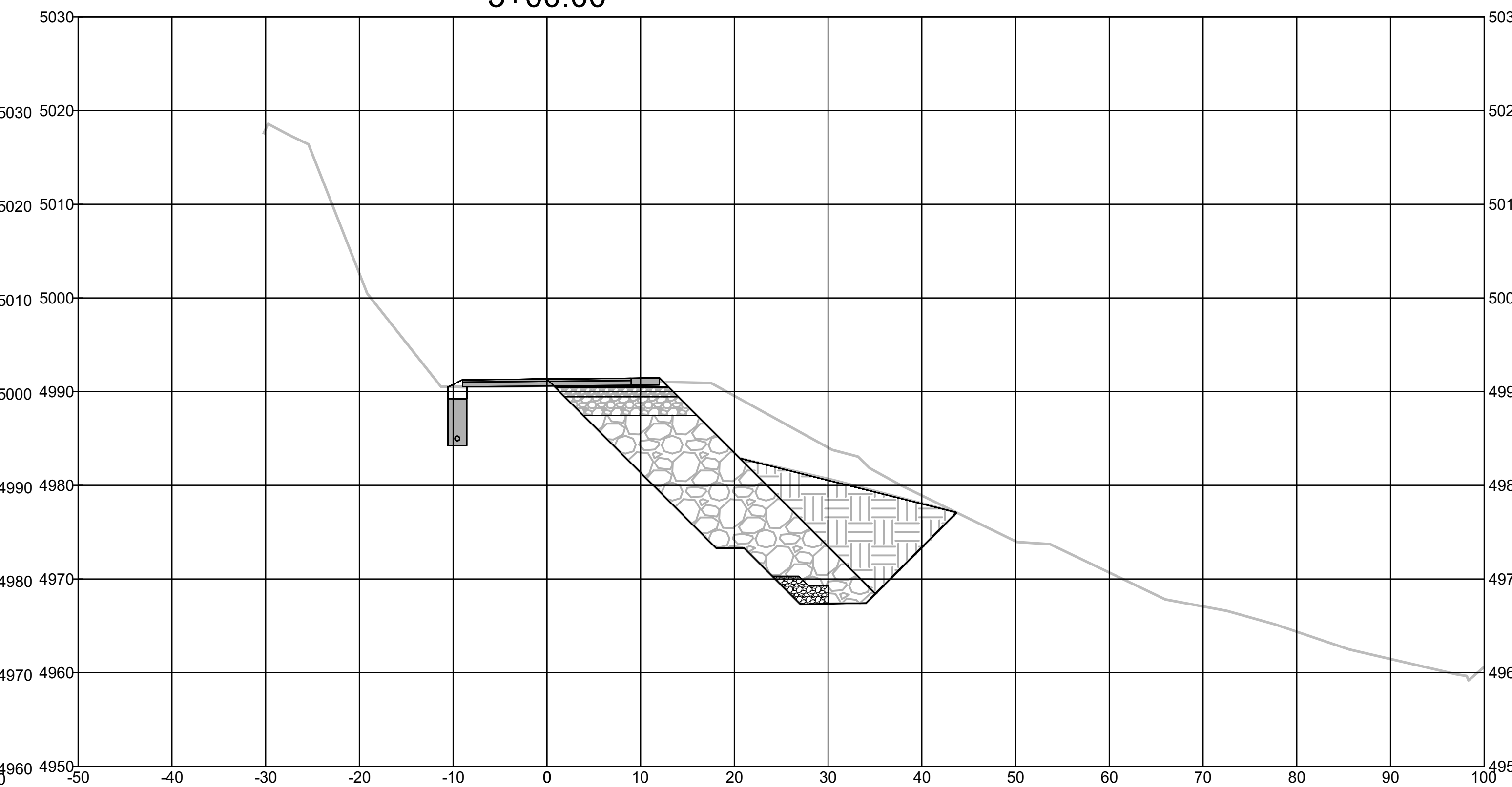
# SHIVELY ROAD PM 3.50 & 3.51 SECTIONS (2+50 TO 3+25)

SCALE: 1"=10'

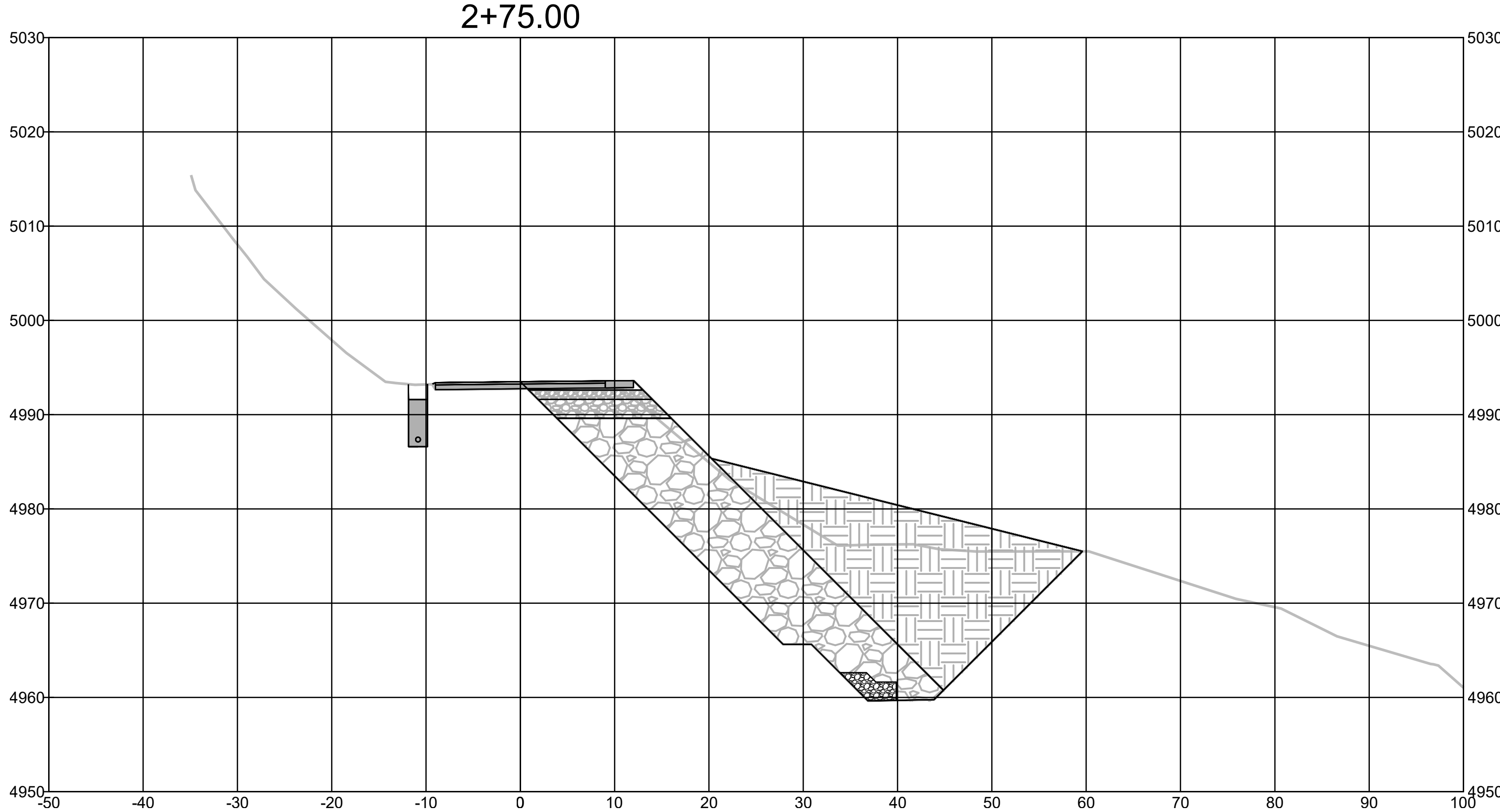
## 2+50.00



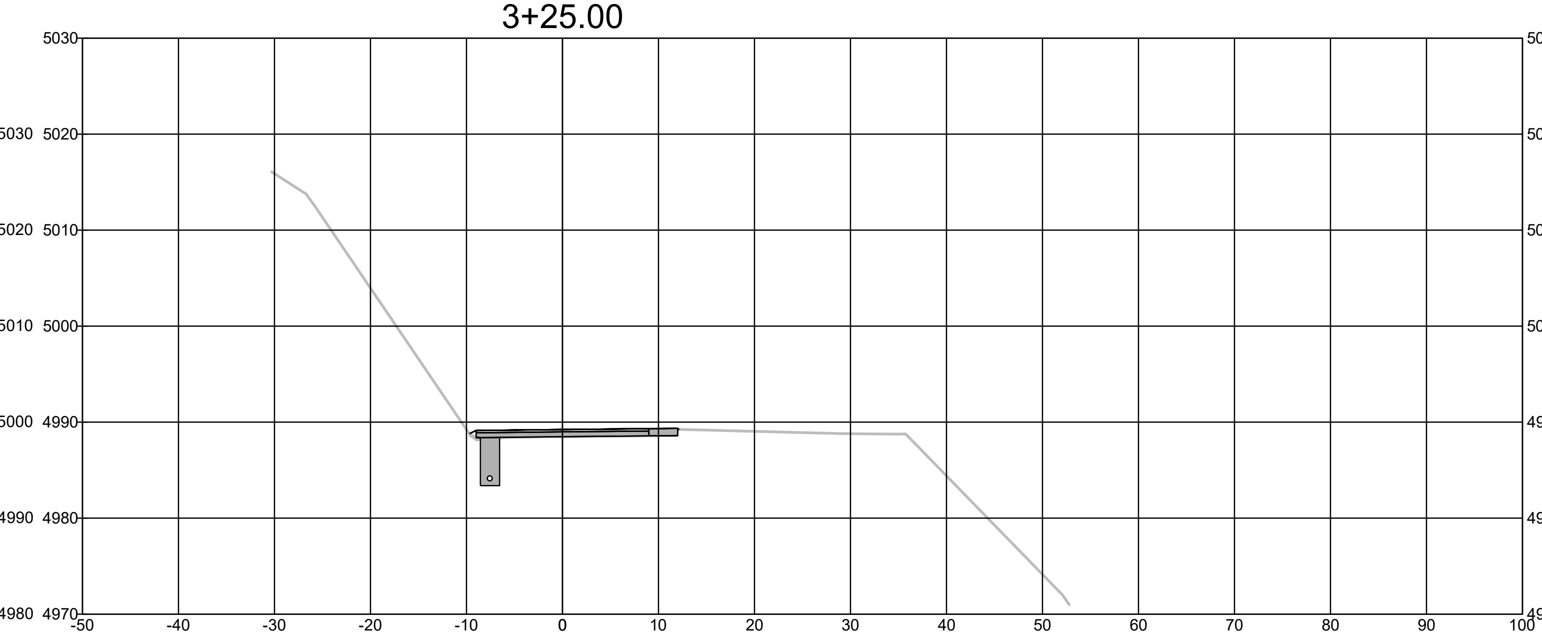

## 3+00.00




## 2+75.00




## 3+25.00



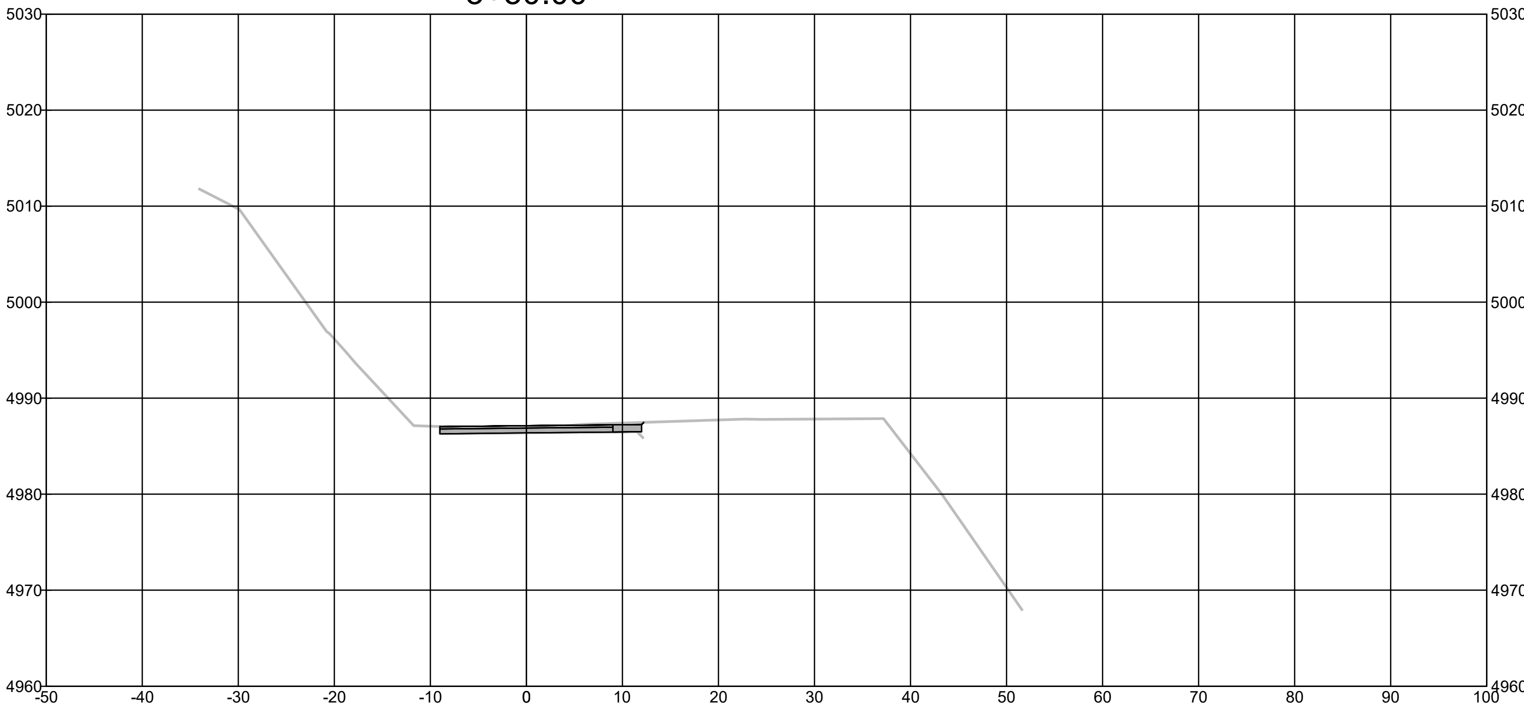
# SHIVELY ROAD PM 3.50 & 3.51 SECTIONS (3.+50 TO 4+25)

SCALE: 1"=10'

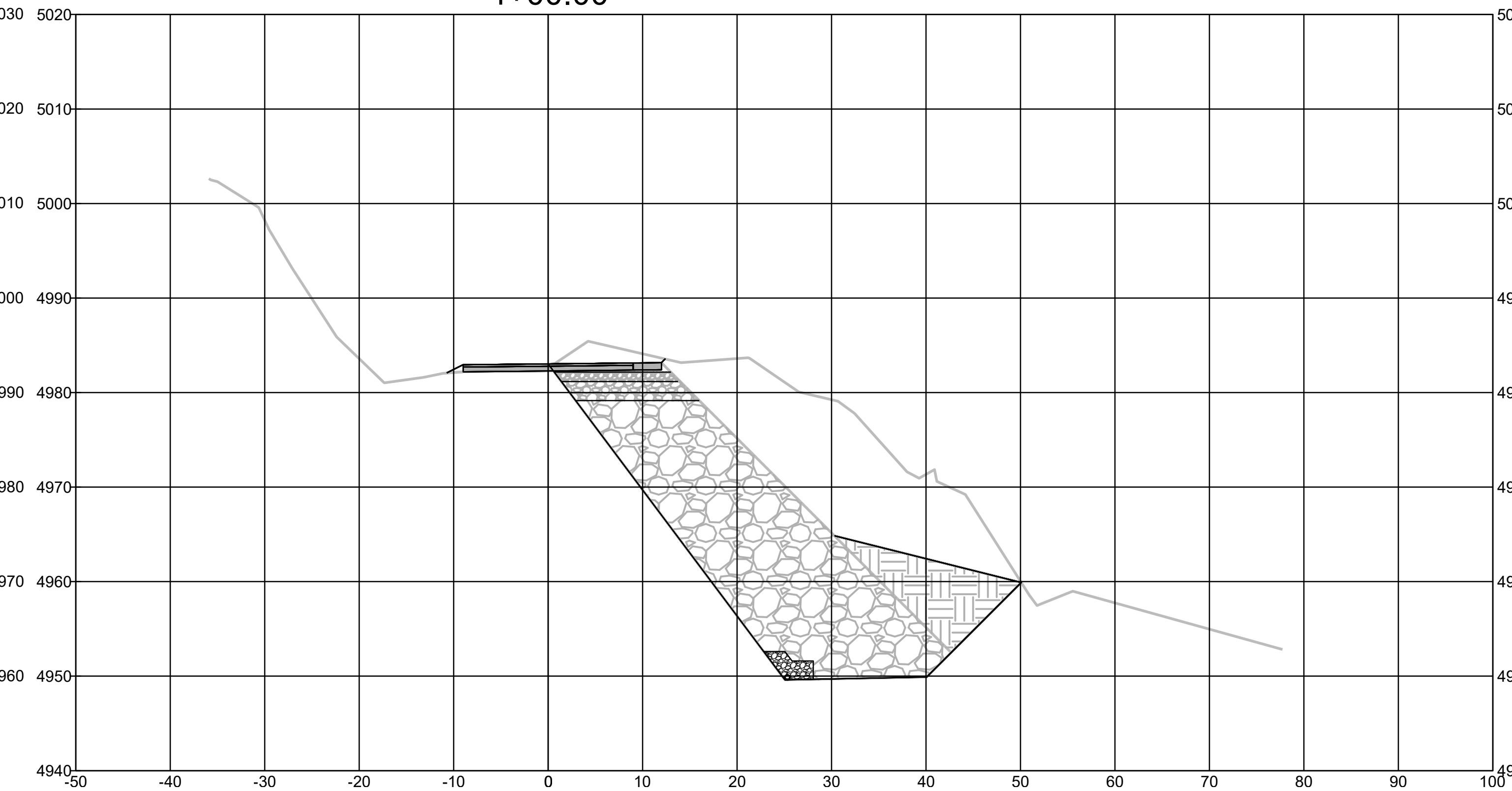

| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD<br>ROAD NO: C4F012 MILE POST: 3.50 & 3.51<br>PROJECT NO.: FEMA-4308-DR-CA PW# 1087 & FEMA-4434-DR-CA PW # 48<br>CONTRACT NO.: 217304 & 219304<br>DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites<br>PLOT DATE: 3/1/2021 | DESIGN SECTION<br>ENGINEERING DIVISION<br>DESIGNED BY: MMS<br>DRAWN BY: MMS<br>REVIEWED BY: JAB<br>APPROVED BY: TRS | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS<br>STORM DAMAGE REPAIR TO SHIVELY ROAD PM 3.50 & 3.51<br>SHIVELY ROAD PM 3.50 & 3.51<br>SECTION VIEWS (3 OF 4) |



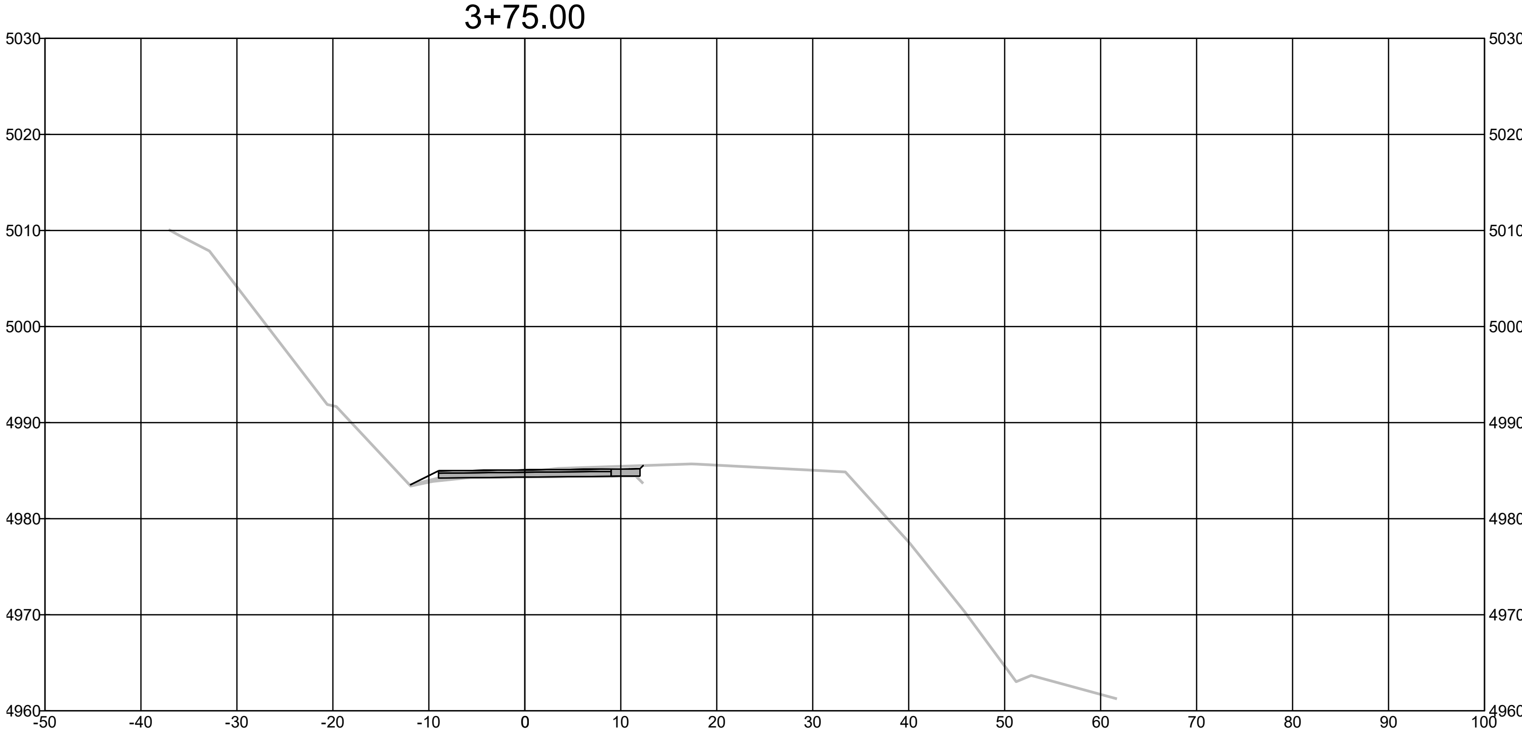
3+50.00



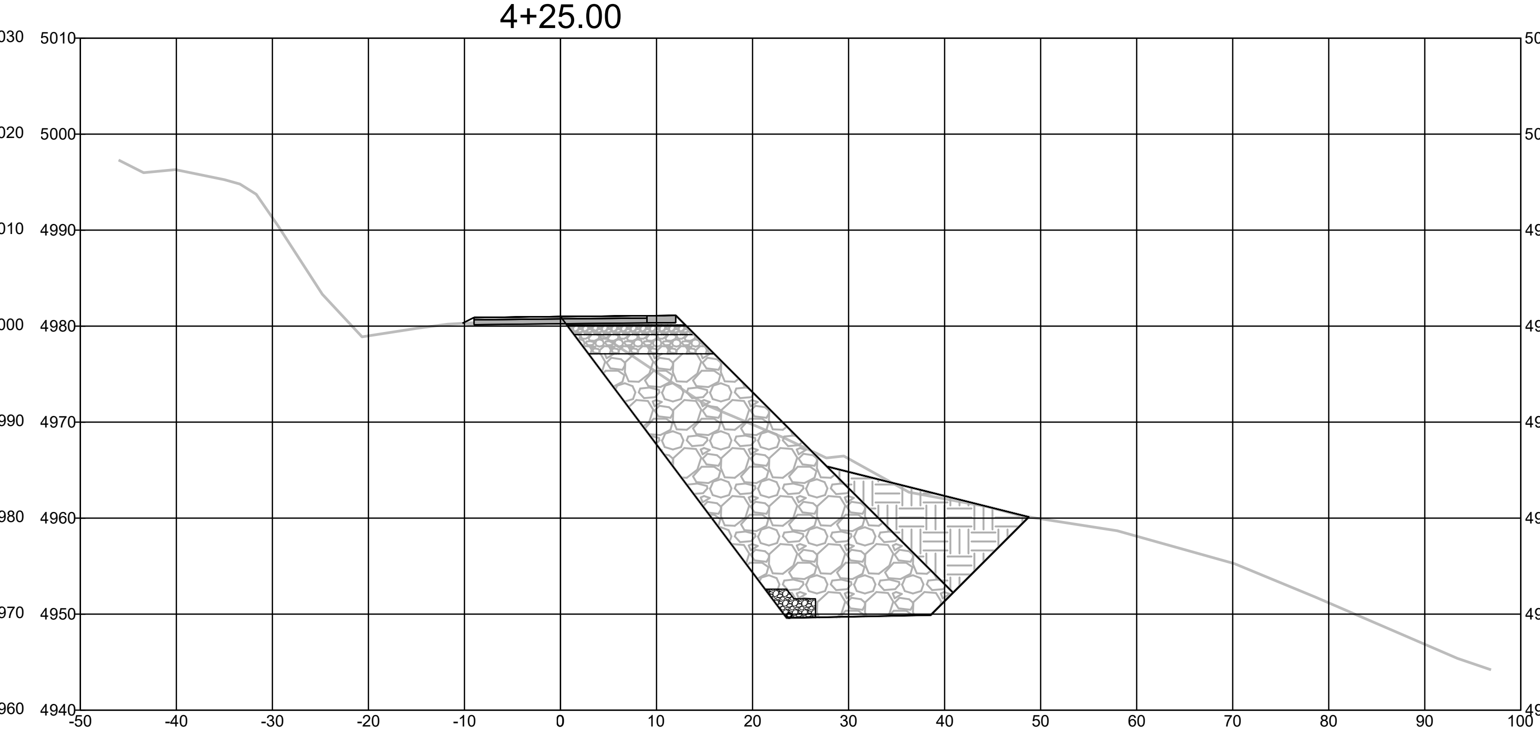

4+00.00




3+75.00




4+25.00



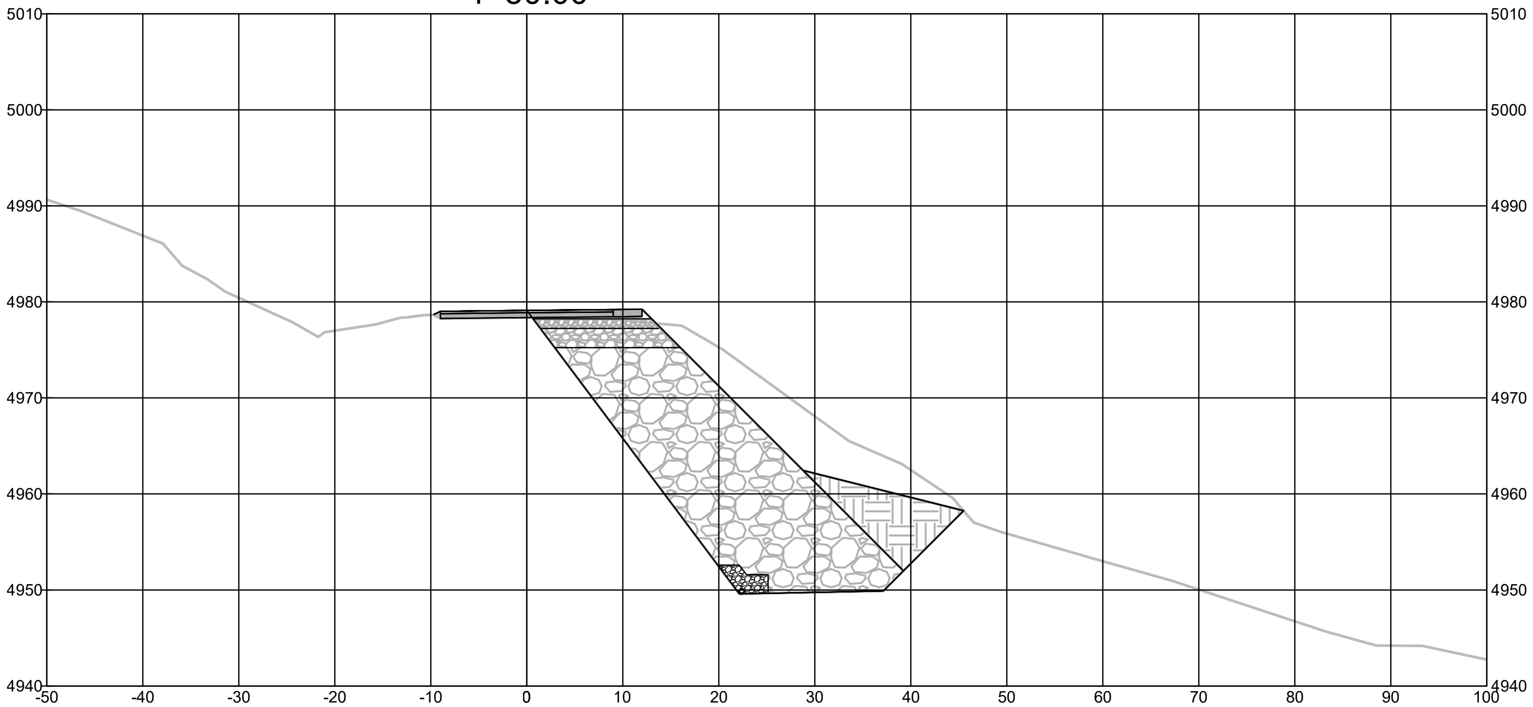
# SHIVELY ROAD PM 3.50 & 3.51 SECTIONS (4+50 TO 5+10)

SCALE: 1"=10'

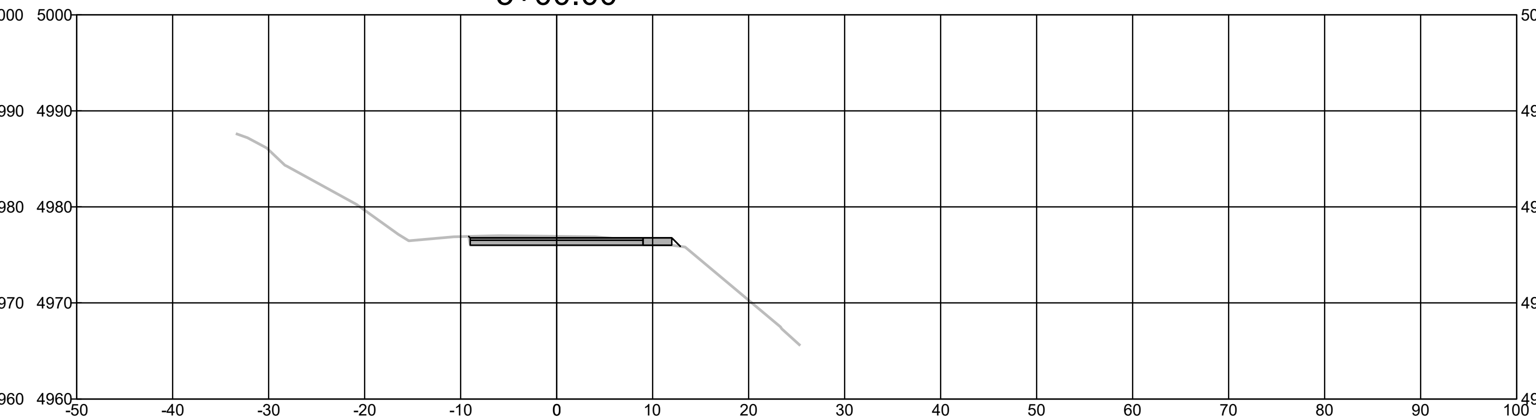
| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | DESIGN SECTION<br>ENGINEERING DIVISION | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS |
| | ROAD NO: C4F012 MILE POST: 3.50 & 3.51 | | |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 1087 & FEMA-4434-DR-CA PW # 48 | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 3.50 & 3.51 |
| | CONTRACT NO.: 217304 & 219304 | DRAWN BY: MMS | SHIVELY ROAD PM 3.50 & 3.51<br>SECTION VIEWS (4 OF 4) |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | REVIEWED BY: JAB | |
| | PLOT DATE: 3/1/2021 | APPROVED BY: TRS | |



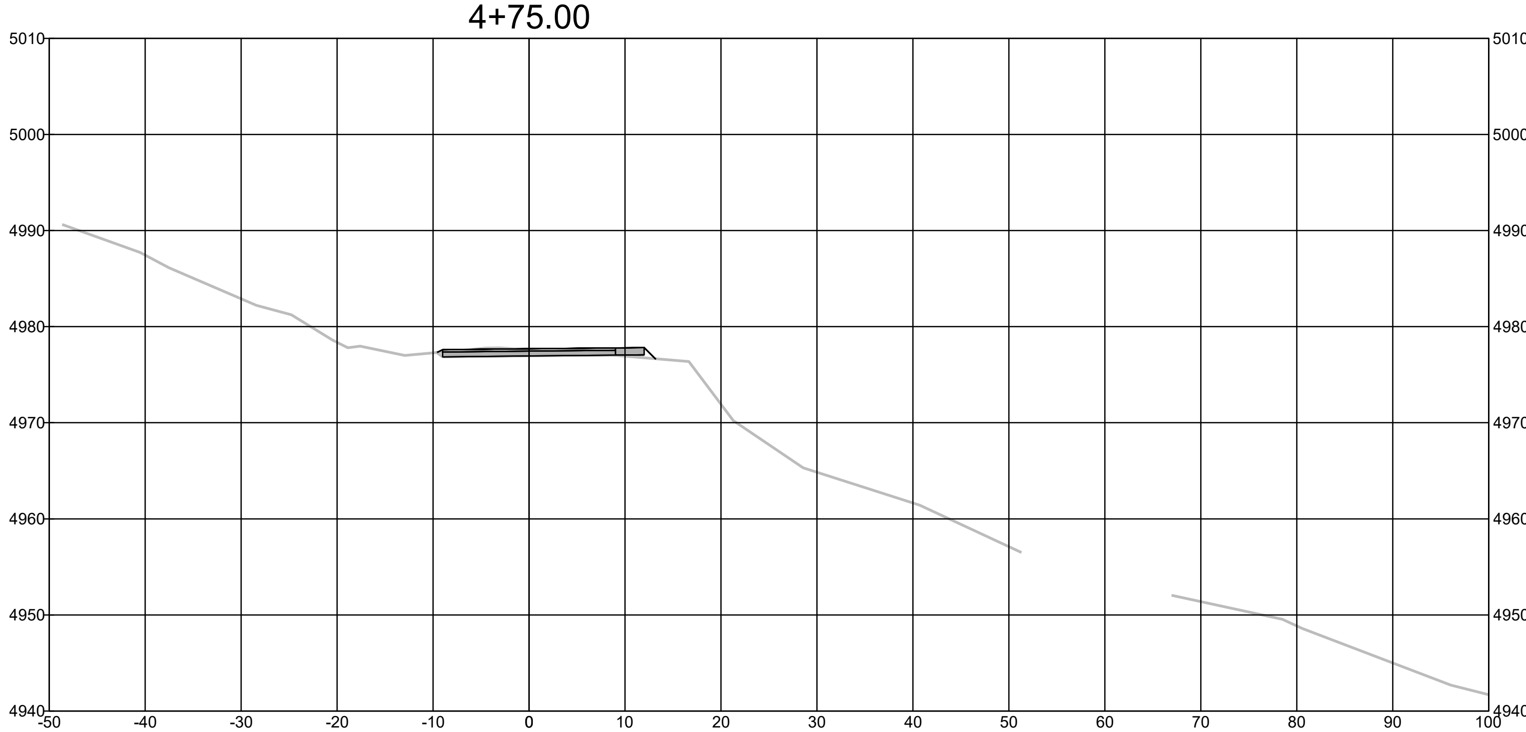
4+50.00



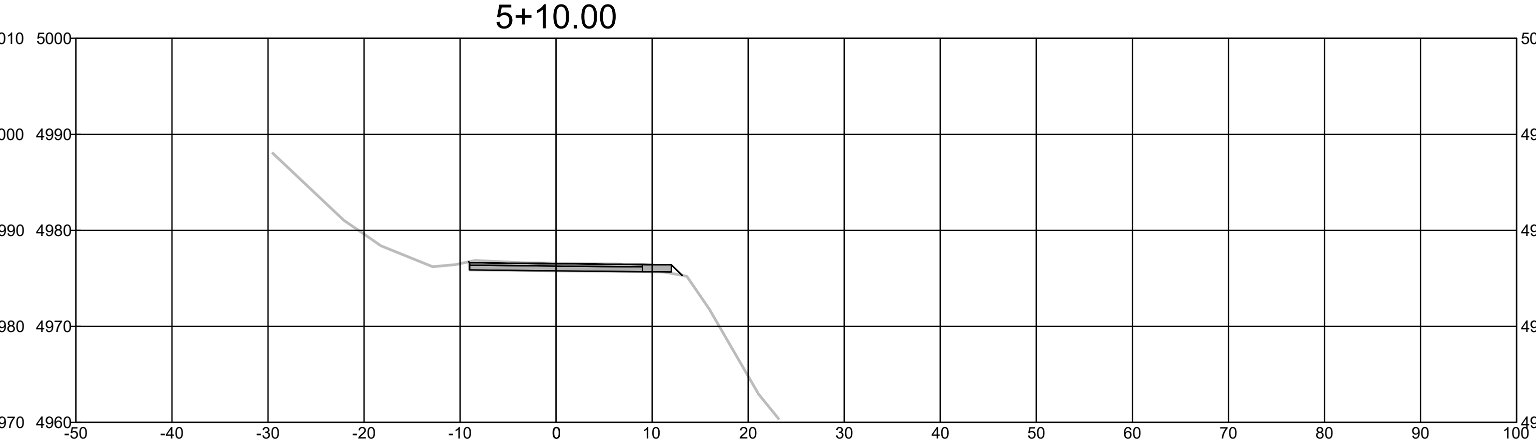

5+00.00




4+75.00

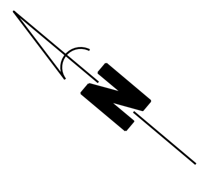


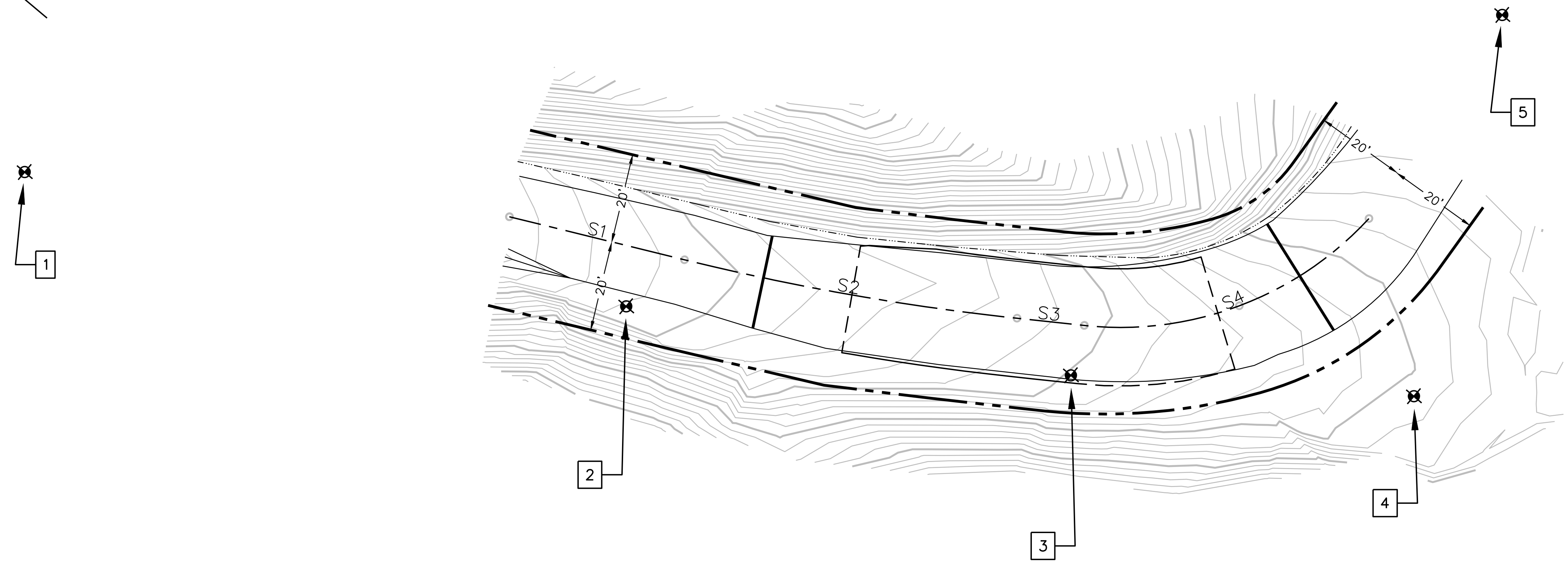

5+10.00



| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | DESIGN SECTION<br>ENGINEERING DIVISION | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS |
| | ROAD NO: C4F012 / MILE POST: 7.90 | | |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 417 | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 7.90 |
| | CONTRACT NO.: 217556 | DRAWN BY: MMS | SURVEY CONTROL |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | REVIEWED BY: JAB | |
| | PLOT DATE: 3/1/2021 | APPROVED BY: TRS | |






**SURVEY CONTROL**

SCALE = 1:15

### SHIVELY RD. PM 7.90

CREW: E. WARD, R. MASSA
FIELD WORK: 07/23/2020
WORKMAP: 07/24/2020
CONTROL POINTS = #1-5
TOPO POINTS= #1000-1168

**BASIS OF BEARINGS NOTE**
BEARINGS ARE BASED ON HOLDING A COMPASS BEARING OF N29W BETWEEN CONTROL POINTS #3 AND #1

**BASIS OF ELEVATION**
ELEVATION SHOWN HERON ARE BASED ON AN ASSUMED ELEVATION OF 5000.00' AT CP3

**SURVEY NOTES**
ORIGINAL ROW IN THIS AREA IS 40' WIDE, 20' WIDE ON EACH SIDE OF THE EXISTING CENTERLINE. PER ROAD REGISTER.
UNDERGROUND UTILITIES RESEARCH WAS NOT PERFORMED

### SHIVELY ROAD PM 7.90 CONTROL POINTS

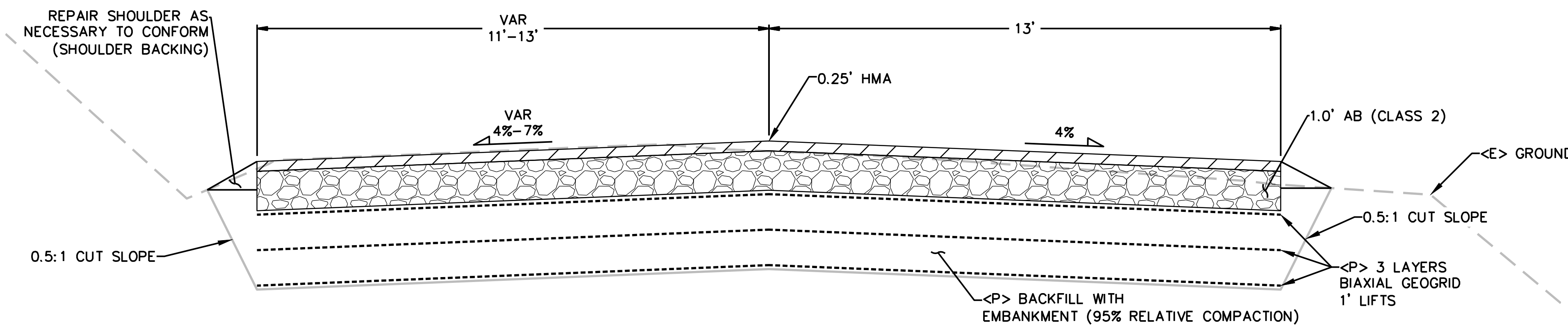
| Point Number | Easting | Northing | Point Elevation | Full Description |
|---|---|---|---|---|
| 1 | 9885.3290' | 5206.8730' | 5017.62' | CP/SET GIN SPIKE & TAG HUMCO SURVEY |
| 2 | 9948.2920' | 5085.4470' | 5005.72' | CP/SET80D & TAG HUMCO SURVEY |
| 3 | 10000.0000' | 5000.0000' | 5000.00' | CP/SET GIN SPIKE & TAG HUMCO SURVEY |
| 4 | 10045.3610' | 4938.7080' | 4995.13' | CP/SET 80D & TAG HUMCO SURVEY |
| 5 | 10122.8220' | 4978.1120' | 4988.83' | CP/SET GIN SPIKE & TAG HUMCO SURVEY |

### SHIVELY ROAD PM 7.90 ALIGNMENT GEOMETRY

| Segment | Type | Length | Radius | Direction | Start Station | End Station | Delta |
|---|---|---|---|---|---|---|---|
| S1 | Line | 40.00' | | S26° 10' 55"E | 0+00.00' | 0+40.00' | |
| S2 | Curve | 75.00' | 560.00' | | 0+40.00' | 1+15.00' | 7°40'25" |
| S3 | Line | 15.00' | | S33° 51' 20"E | 1+15.00' | 1+30.00' | |
| S4 | Curve | 70.00' | 75.00' | | 1+30.00' | 2+00.00' | 53°28'34" |

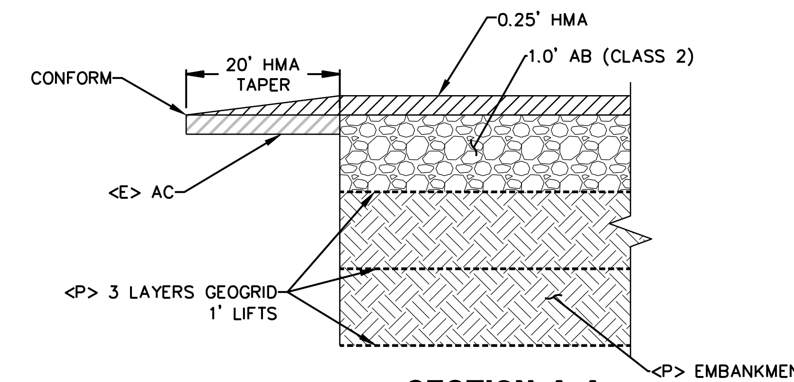

| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | DESIGN SECTION<br>ENGINEERING DIVISION | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS |
| | ROAD NO: C4F012 / MILE POST: 7.90 | | |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 417 | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 7.90 |
| | CONTRACT NO.: 217556 | DRAWN BY: MMS | TYPICAL SECTIONS |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | REVIEWED BY: JAB | |
| | PLOT DATE: 3/1/2021 | APPROVED BY: TRS | |





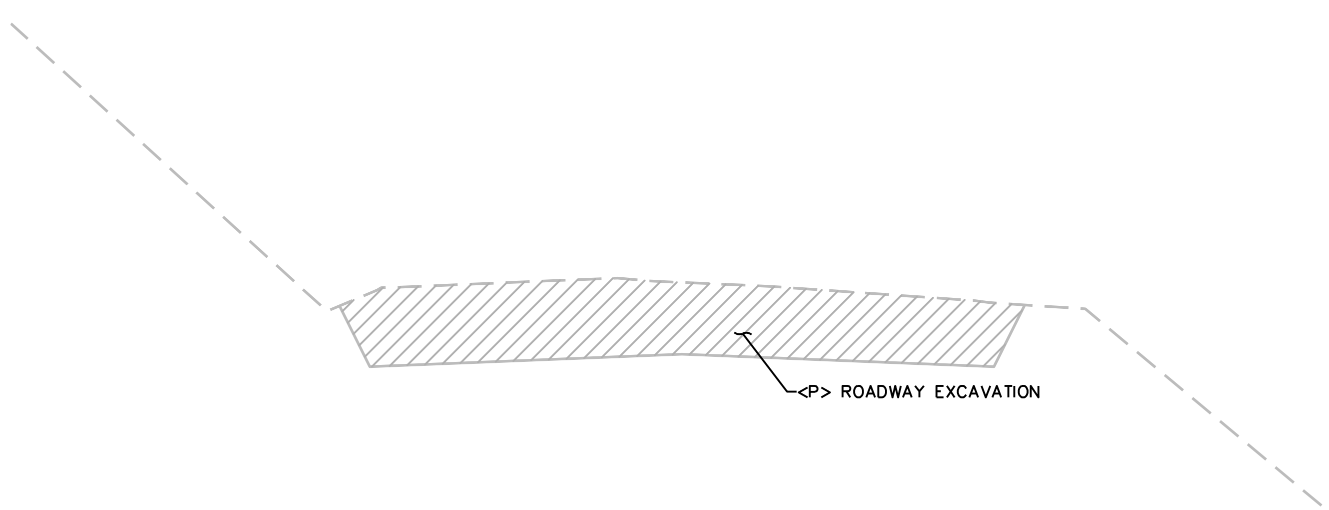

## TYPICAL ROAD SECTION

SCALE = 1:2



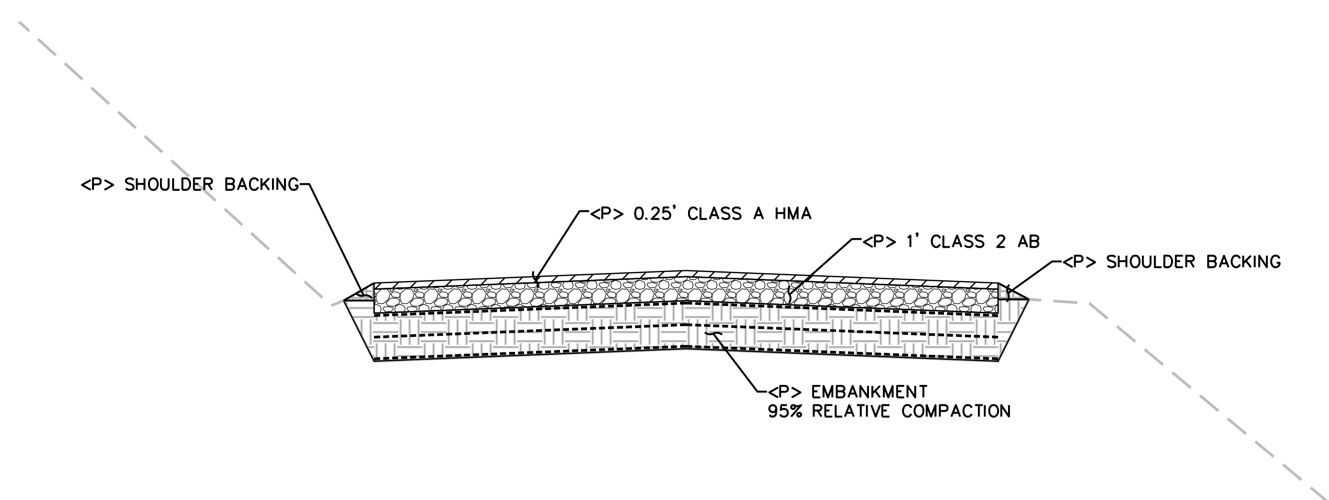

## SECTION A-A
## HMA CONFORM DETAIL

SCALE: NTS




## EXCAVATION SECTION

SCALE = 1:4




## BACKFILL SECTION

SCALE= 1:4

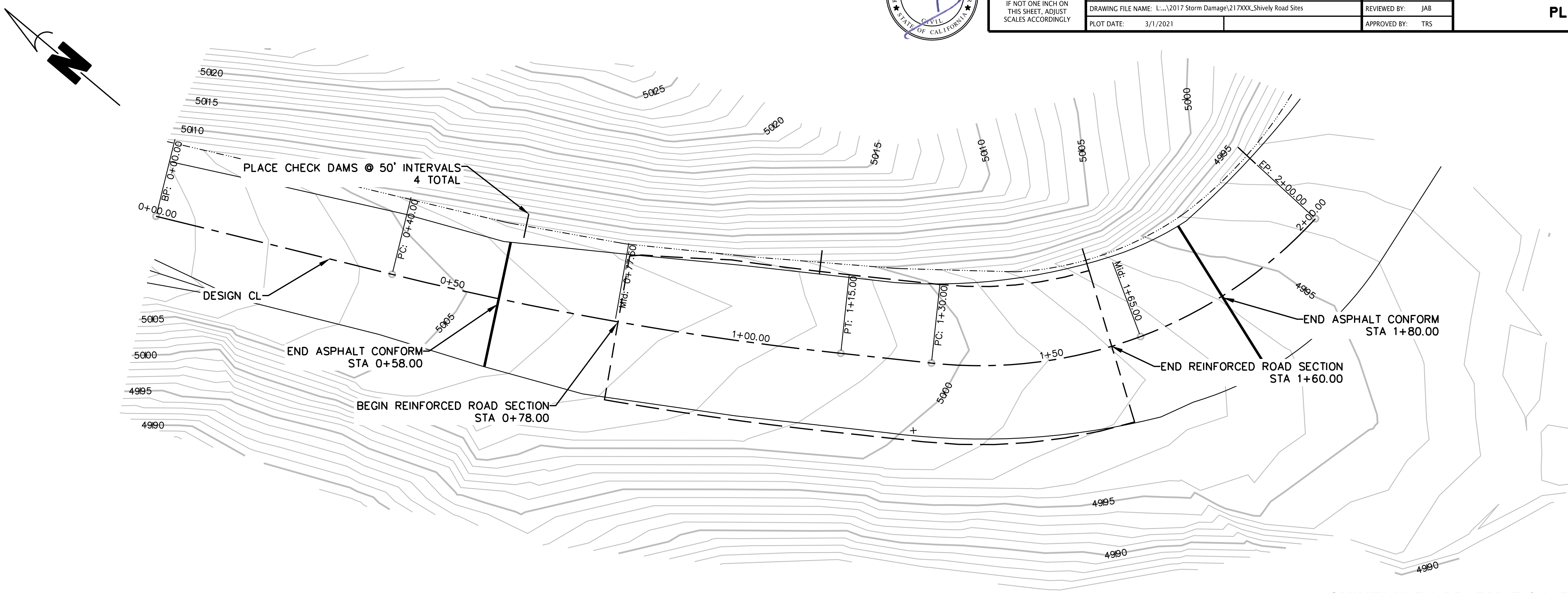
| | | |
|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD<br>ROAD NO: C4F012 MILE POST: 7.90<br>PROJECT NO.: FEMA-4308-DR-CA PW# 417<br>CONTRACT NO.: 217556<br>DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites<br>PLOT DATE: 3/1/2021 | DESIGN SECTION<br>ENGINEERING DIVISION<br>DESIGNED BY: MMS<br>DRAWN BY: MMS<br>REVIEWED BY: JAB<br>APPROVED BY: TRS |

**COUNTY OF HUMBOLDT**
**DEPARTMENT OF PUBLIC WORKS**

**STORM DAMAGE REPAIR TO SHIVELY ROAD PM 7.90**

**PLAN AND PROFILE**



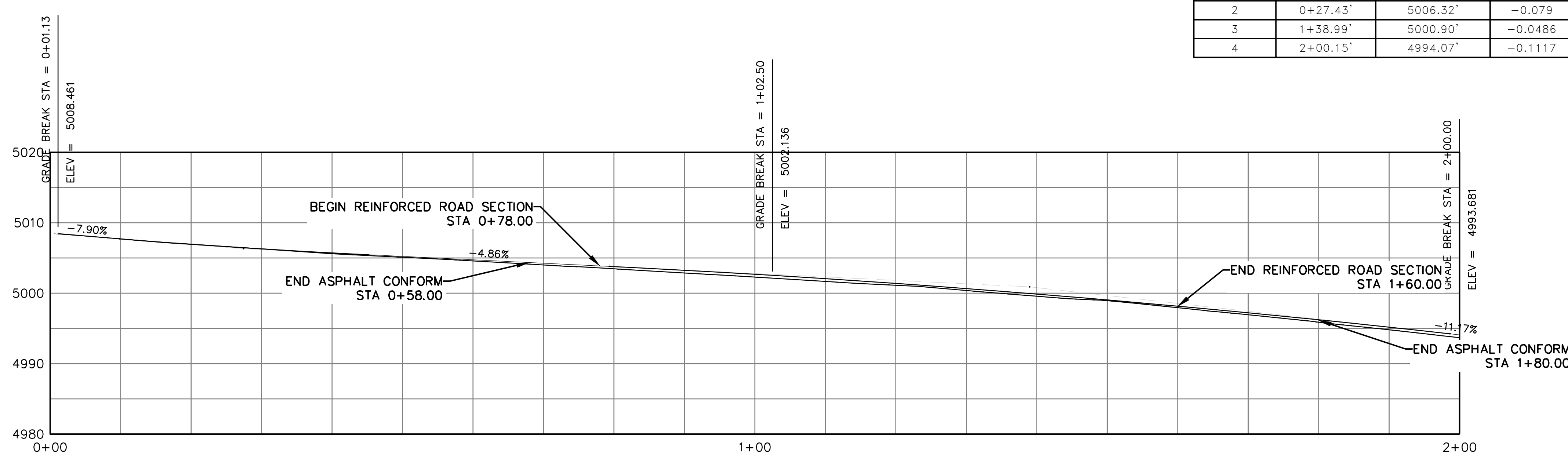



## SHIVELY ROAD PM 7.90 PLAN VIEW

SCALE: 1"=10'

## SHIVELY ROAD PM 7.90 PROFILE GEOMETRY

| SEGMENT | PVI Station | PVI Elevation | Grade In | Grade Out | Profile Curve Type |
|---|---|---|---|---|---|
| 1 | 0+00.58' | 5008.45' | | −0.079 | |
| 2 | 0+27.43' | 5006.32' | −0.079 | −0.0486 | Sag |
| 3 | 1+38.99' | 5000.90' | −0.0486 | −0.1117 | Crest |
| 4 | 2+00.15' | 4994.07' | −0.1117 | | |




## SHIVELY ROAD PM 7.90 PROFILE

SCALE: 1"=10'


| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | | DESIGN SECTION<br>ENGINEERING DIVISION |
| | ROAD NO: C4F012 | MILE POST: 7.90 | |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 417 | | DESIGNED BY: MMS |
| | CONTRACT NO.: 217556 | | DRAWN BY: MMS |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | | REVIEWED BY: JAB |
| | PLOT DATE: 3/1/2021 | | APPROVED BY: TRS |

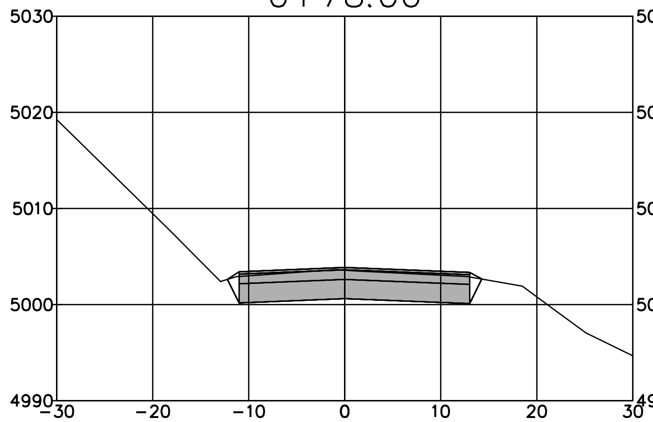
**COUNTY OF HUMBOLDT**
**DEPARTMENT OF PUBLIC WORKS**

**STORM DAMAGE REPAIR TO SHIVELY ROAD PM 7.90**

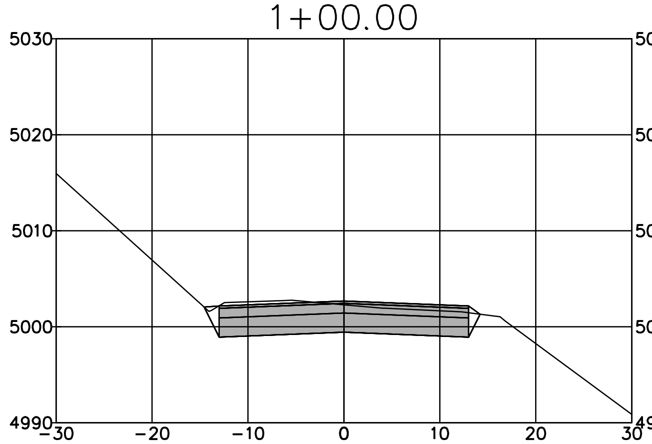
## SECTION VIEWS

SHEET 22 OF 27

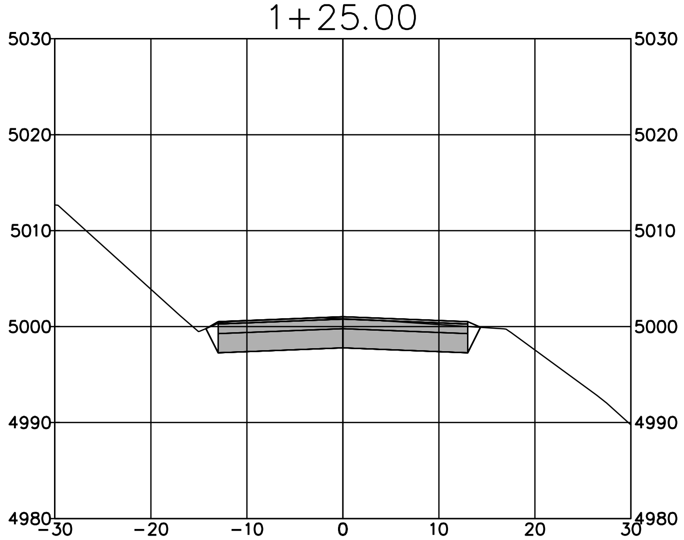
0+78.00



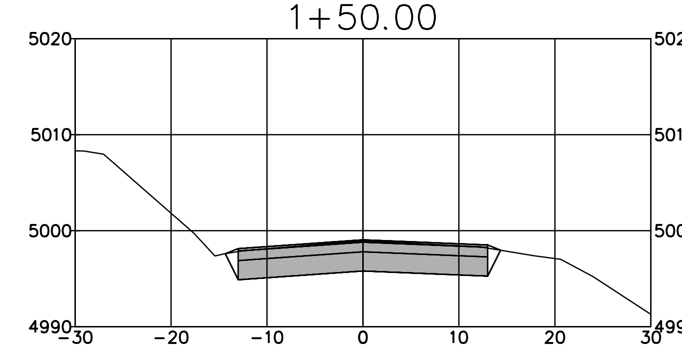

1+00.00



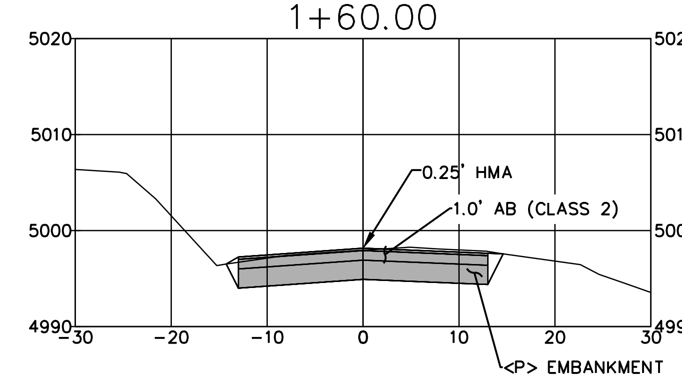

1+25.00




1+50.00




1+60.00




**SHIVELY ROAD PM 7.90 SECTIONS [0+78 TO 1+60]**

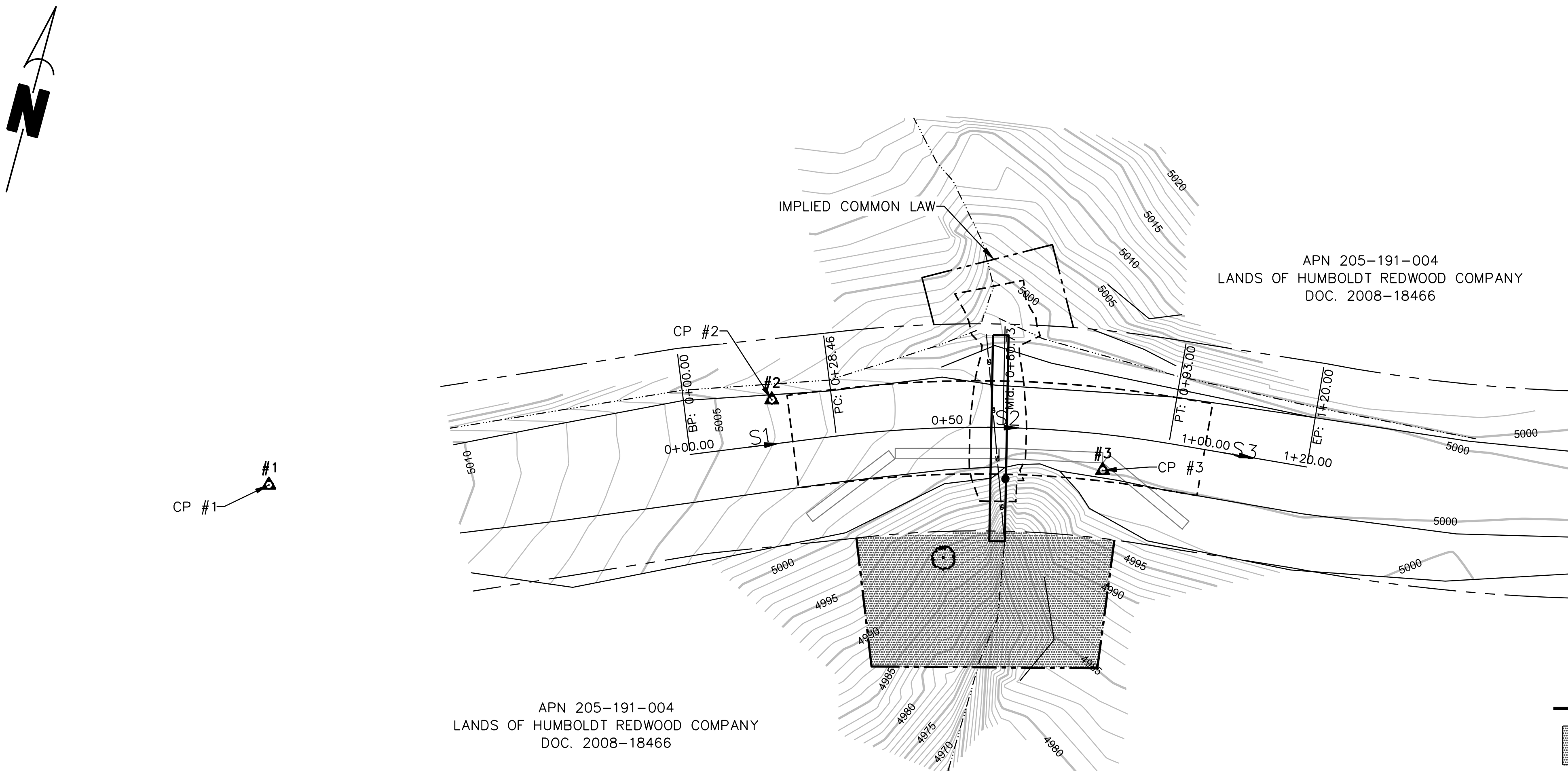
SCALE: 1"=10'

| | | |
|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING | ROAD NAME: SHIVELY ROAD | DESIGN SECTION ENGINEERING DIVISION |
| IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NO: C4F012 MILE POST: 8.42 | DESIGNED BY: MMS |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 417 | DRAWN BY: MMS |
| | CONTRACT NO.: 217390 | REVIEWED BY: JAB |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | APPROVED BY: TRS |
| | PLOT DATE: 3/1/2021 | |

**COUNTY OF HUMBOLDT**
**DEPARTMENT OF PUBLIC WORKS**

**STORM DAMAGE REPAIR TO SHIVELY ROAD PM 8.42**

# SHIVELY ROAD PM 8.42 SURVEY CONTROL




LEGEND

PERMANENT EASEMENT: 1200 SF

## SHIVELY ROAD PM 8.42 SURVEY CONTROL

SCALE: 1"=15'

### DESIGN CL "S" ALIGNMENT GEOMETRY

| Segment | Type | Length | Radius | Direction | Start Station | End Station | Delta |
|---|---|---|---|---|---|---|---|
| S1 | Line | 28.46' | | N67° 51' 04"E | 0+00.00' | 0+28.46' | |
| S2 | Curve | 64.54' | 219.82' | | 0+28.46' | 0+93.00' | 16°49'18" |
| S3 | Line | 27.00' | | N84° 40' 21"E | 0+93.00' | 1+20.00' | |

### SURVEY NOTES:

1. THE PURPOSE OF THIS SURVEY IS TO DETERMINE TOPOGRAPHY FOR DESIGN OF A STORM DAMAGE REPAIR AND CULVERT REPLACEMENT ON SHIVELY ROAD PM 8.42

2. UNDERGROUND UTILITIES RESEARCH WAS NOT PERFORMED

3. THE BEARINGS ARE BASED ON HOLDING A COMPASS BEARING OF S74W BETWEEN CONTROL POINT #3 AND #1.

4. ELEVATIONS ARE BASED UPON THE ASSUMED ELEVATION OF 5000.00' AT CONTROL POINT #3.

5. THE RIGHT OF WAY FOR THIS PROJECT IS 40' WIDE. 20' ON EACH SIDE OF EXISTING CENTERLINE.

| | |
|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING | |
| IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | |

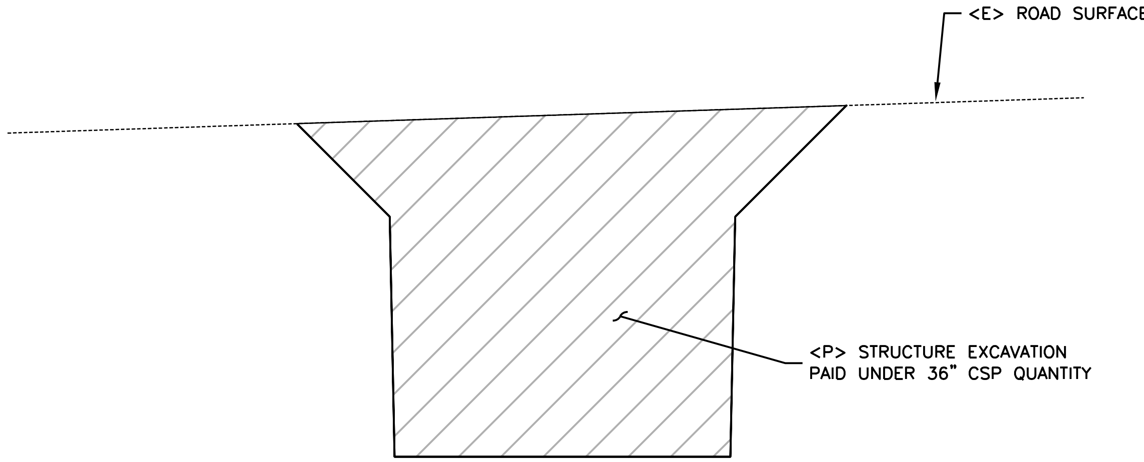
| | | | |
|---|---|---|---|
| ROAD NAME: SHIVELY ROAD | | DESIGN SECTION<br>ENGINEERING DIVISION | |
| ROAD NO: C4F012 | MILE POST: 8.42 | | |
| PROJECT NO.: FEMA-4308-DR-CA PW# 417 | | DESIGNED BY: | MMS |
| CONTRACT NO.: 217390 | | DRAWN BY: | MMS |
| DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | | REVIEWED BY: | JAB |
| PLOT DATE: 3/1/2021 | | APPROVED BY: | TRS |

**COUNTY OF HUMBOLDT**
**DEPARTMENT OF PUBLIC WORKS**

**STORM DAMAGE REPAIR TO SHIVELY ROAD PM 8.42**

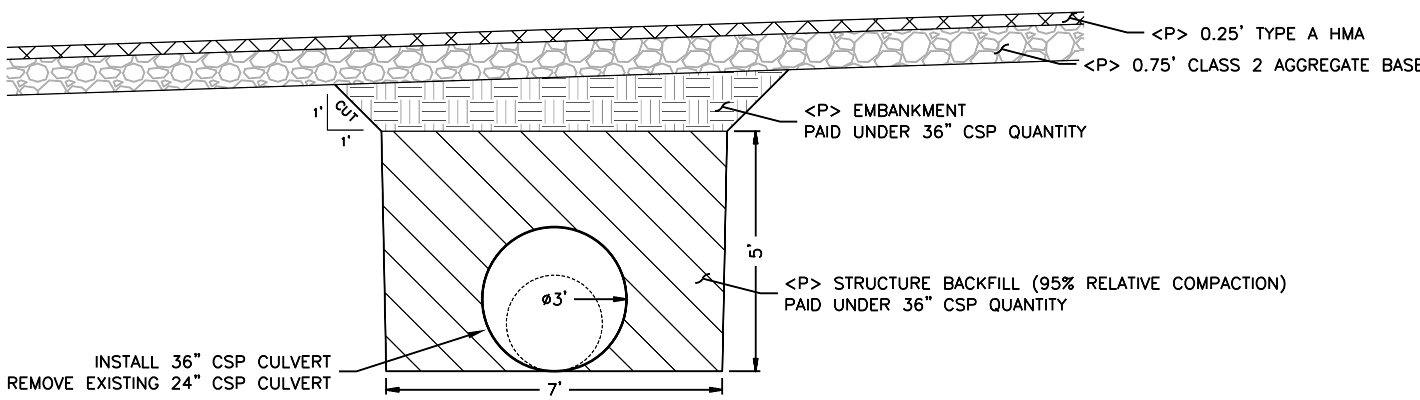
# SHIVELY ROAD PM 8.42 TYPICAL SECTIONS





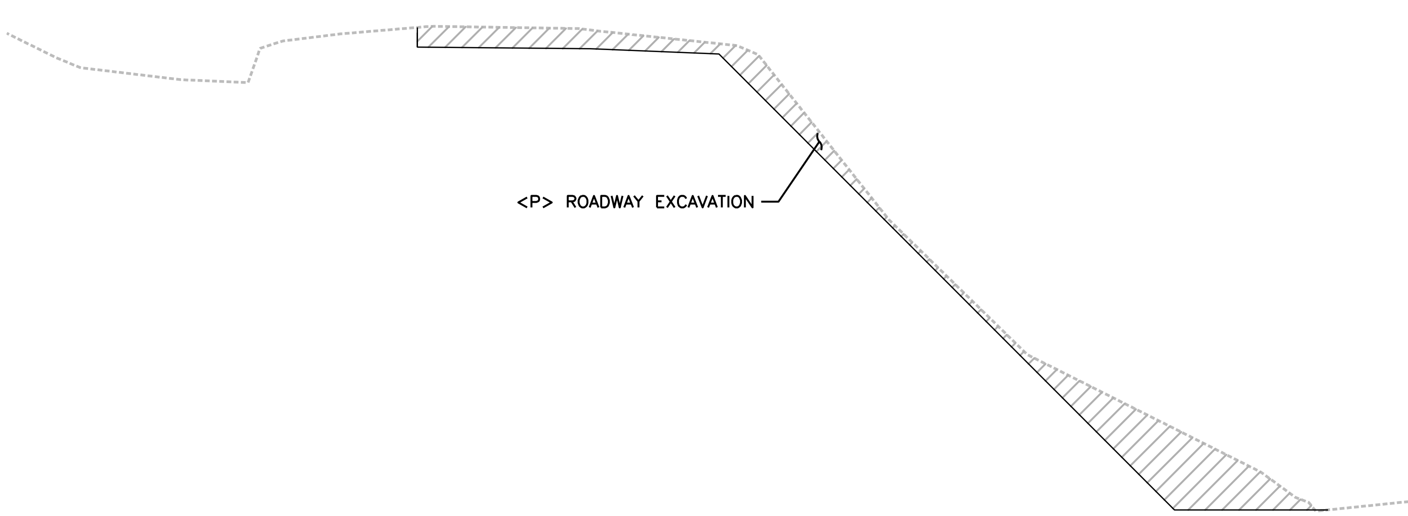

**SHIVELY ROAD PM 8.42 EXCAVATION SECTION**

SCALE: 1"=2'



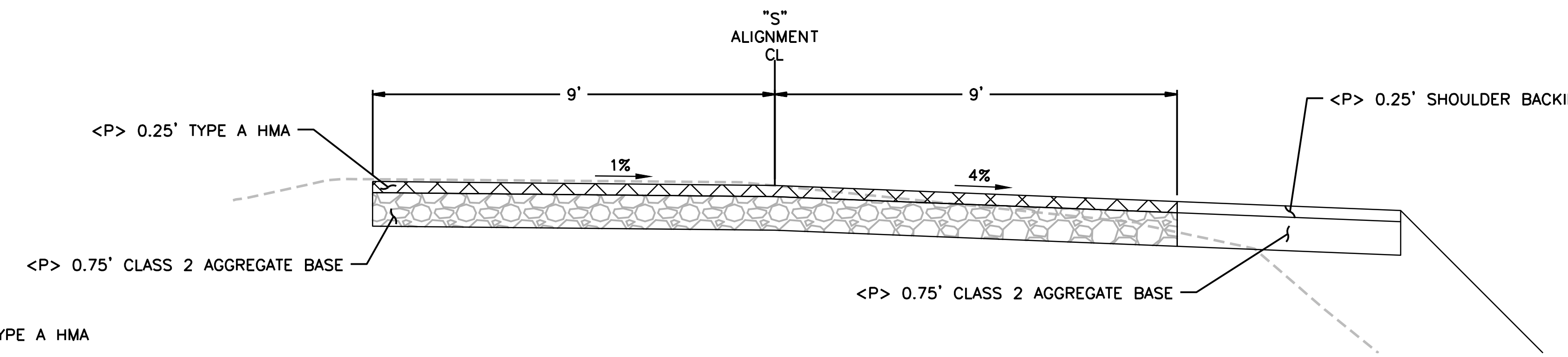

**SHIVELY ROAD PM 8.42 BACKFILL SECTION**

SCALE: 1"=2'



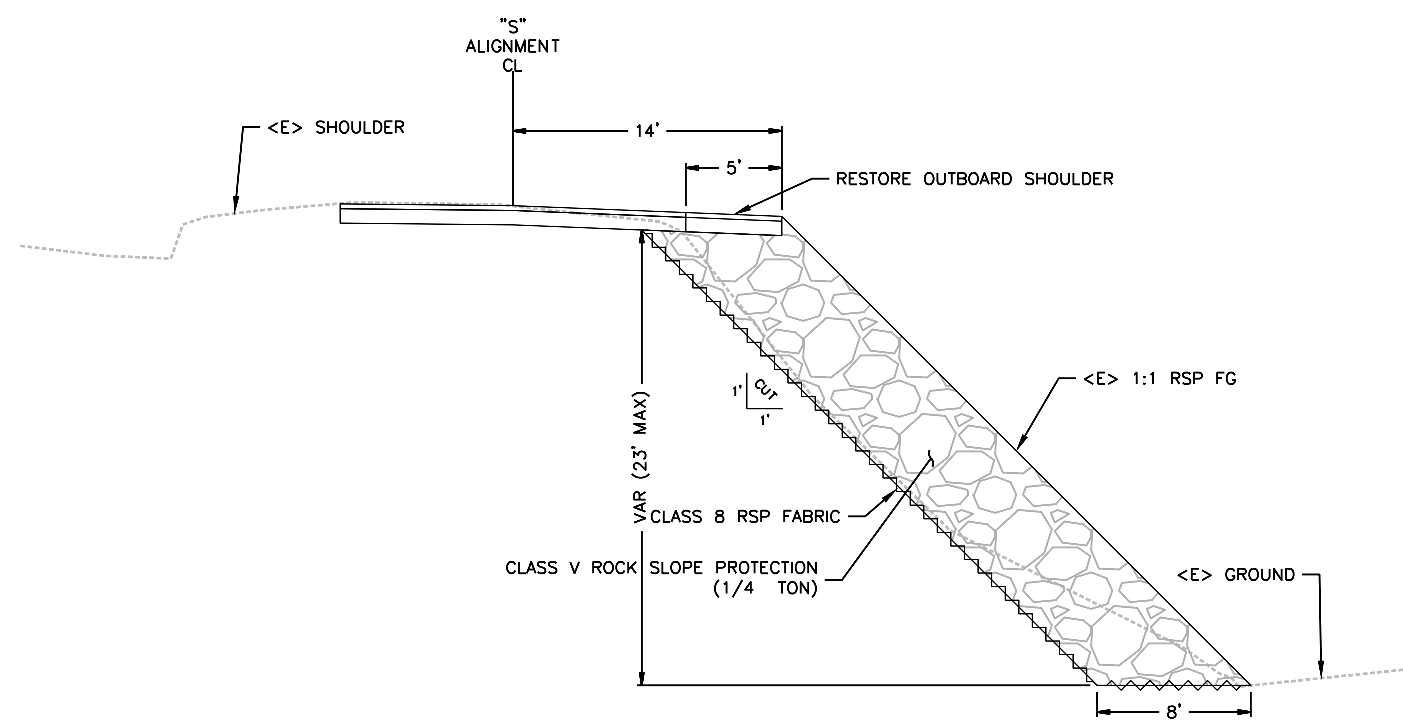

**SHIVELY ROAD PM 8.42 RSP/ROAD EXCAVATION**

SCALE: 1"=5'




**SHIVELY ROAD PM 8.42 ROAD SECTION**

SCALE: 1"=5'




**SHIVELY ROAD PM 8.42 RSP SECTION**

SCALE: 1"=5'

| | |
|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING | ROAD NAME: SHIVELY ROAD |
| IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NO: C4F012 MILE POST: 8.42 |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 417 |
| | CONTRACT NO.: 217390 |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites |
| | PLOT DATE: 3/1/2021 |

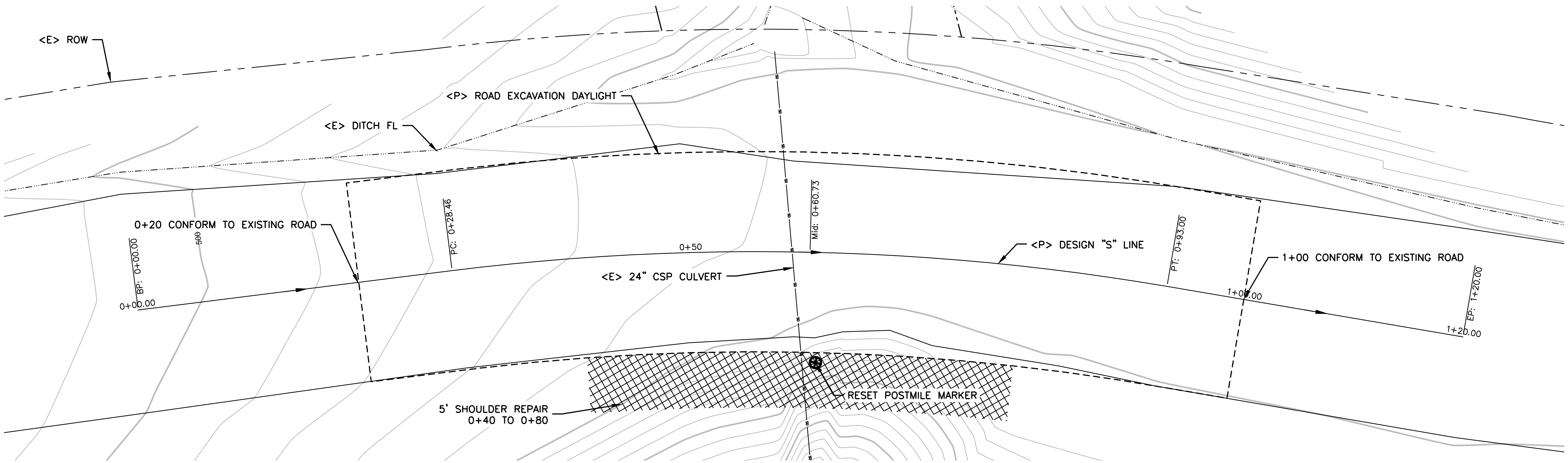
DESIGN SECTION
ENGINEERING DIVISION
DESIGNED BY: MMS
DRAWN BY: MMS
REVIEWED BY: JAB
APPROVED BY: TRS

**COUNTY OF HUMBOLDT**
**DEPARTMENT OF PUBLIC WORKS**

**STORM DAMAGE REPAIR TO SHIVELY ROAD PM 8.42**

# SHIVELY ROAD PM 8.42 ROAD PLAN AND PROFILE

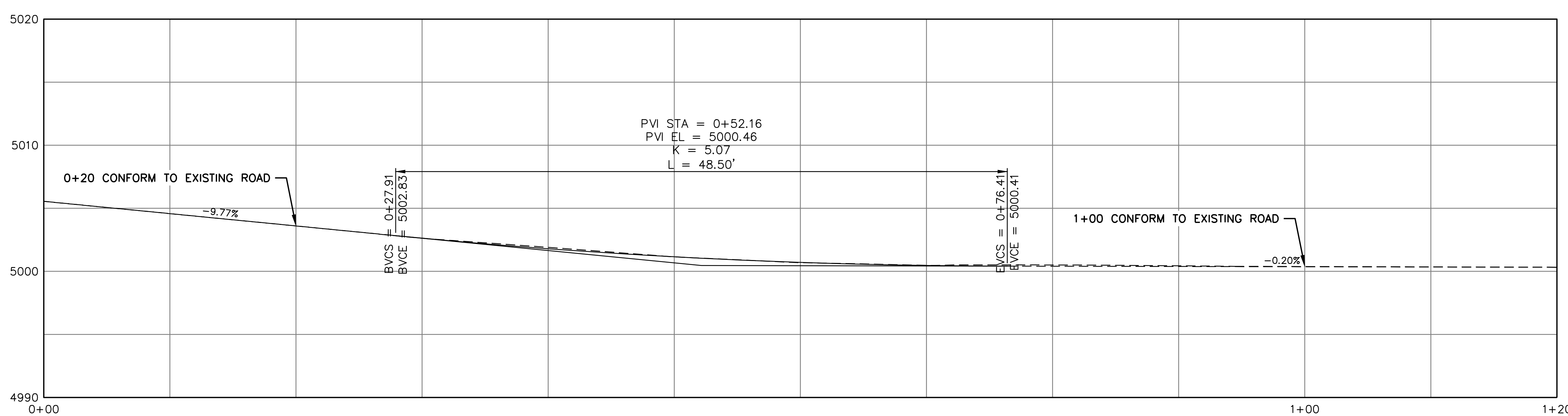
SHEET 25 OF 27




## SHIVELY ROAD PM 8.42 ROAD PLAN VIEW

SCALE: 1"=5'

| SEGMENT | PVI Station | PVI Elevation | Grade In | Grade Out | Profile Curve Type |
|---|---|---|---|---|---|
| 1 | 0+00.00' | 5005.56' | | -9.77% | |
| 2 | 0+52.16' | 5000.46' | -9.77% | -0.20% | Sag |
| 3 | 1+20.00' | 5000.32' | -0.20% | | |

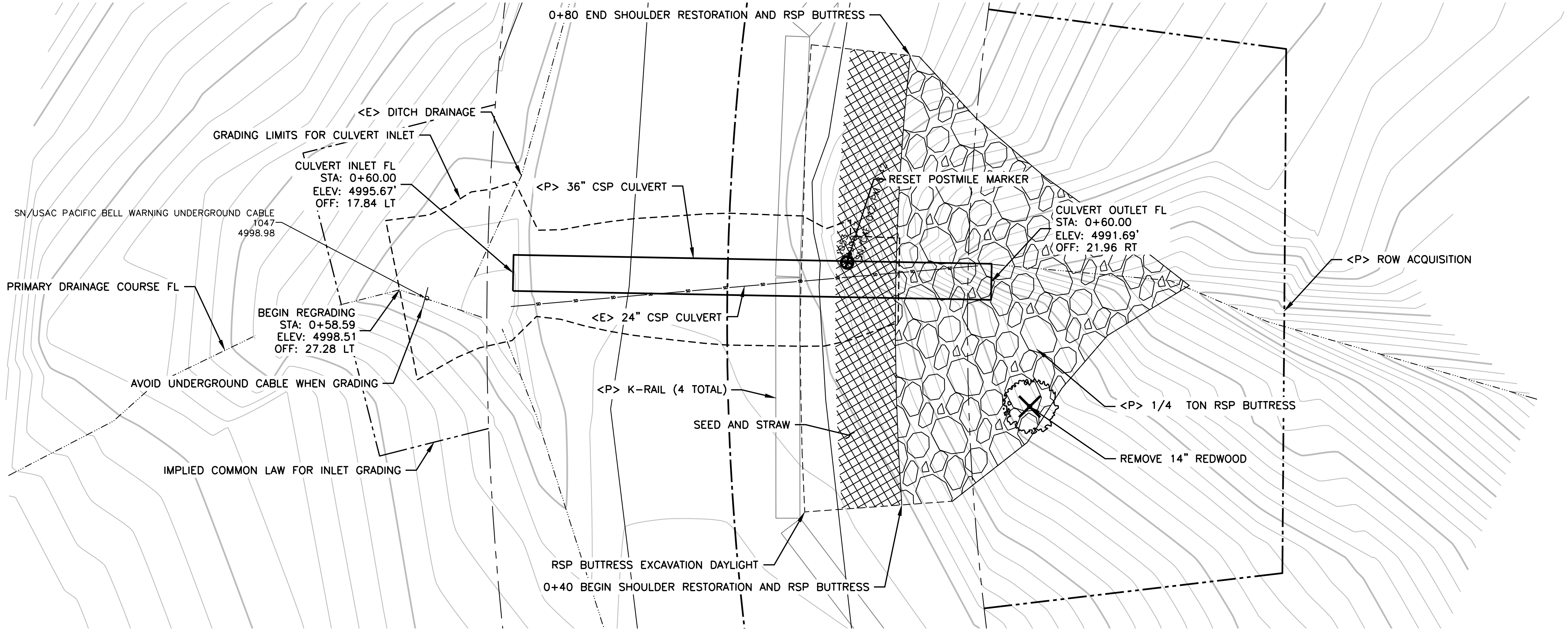



## SHIVELY ROAD PM 8.42 ROAD PROFILE

SCALE: 1"=5'

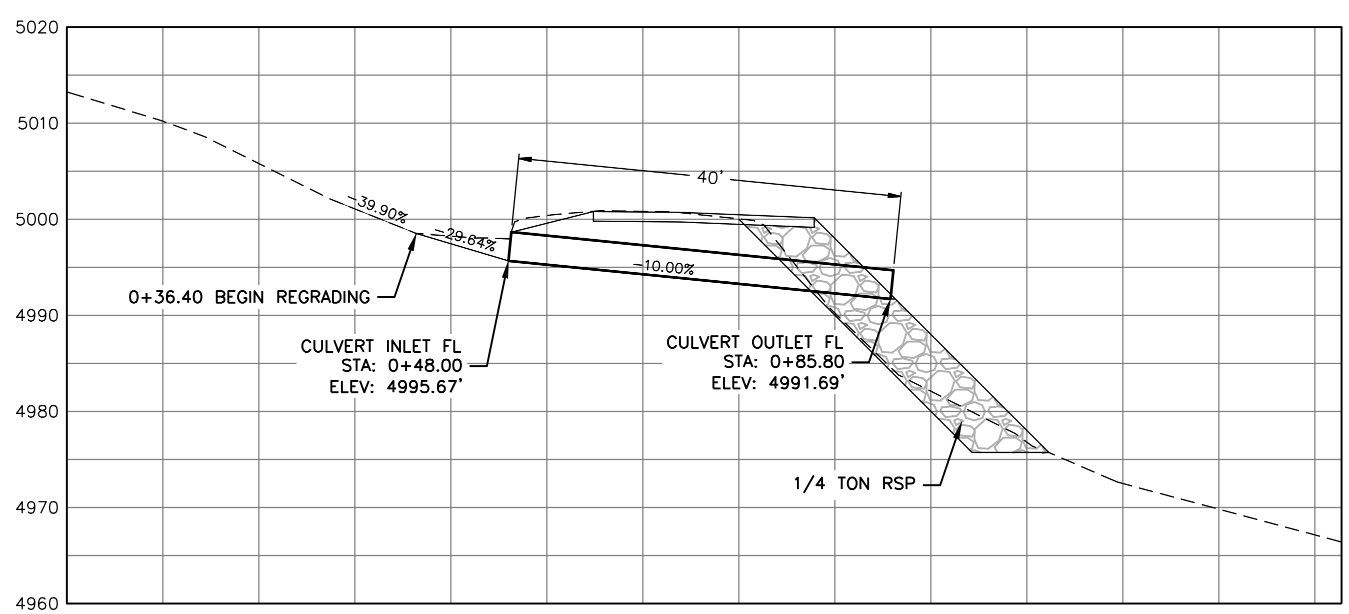
| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD<br>ROAD NO: C4F012 MILE POST: 8.42<br>PROJECT NO.: FEMA-4308-DR-CA PW# 417<br>CONTRACT NO.: 217390<br>DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites<br>PLOT DATE: 3/1/2021 | DESIGN SECTION<br>ENGINEERING DIVISION<br>DESIGNED BY: MMS<br>DRAWN BY: MMS<br>REVIEWED BY: JAB<br>APPROVED BY: TRS | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS<br>STORM DAMAGE REPAIR TO SHIVELY ROAD PM 8.42<br>SHIVELY ROAD PM 8.42 CULVERT PLAN AND PROFILE |






**SHIVELY ROAD PM 8.42 CULVERT PLAN VIEW**

SCALE: 1"=5'




**SHIVELY ROAD PM 8.42 CULVERT PROFILE**

SCALE: 1"=10'

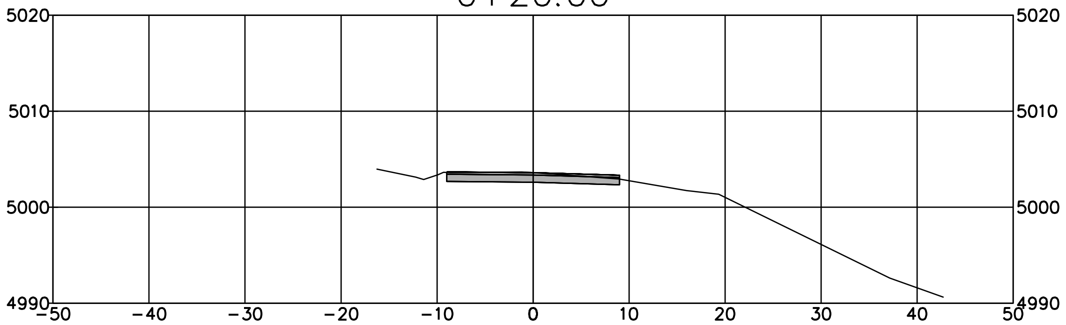

| | | | |
|---|---|---|---|
| BAR IS ONE INCH ON ORIGINAL DRAWING<br><br>IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY | ROAD NAME: SHIVELY ROAD | DESIGN SECTION<br>ENGINEERING DIVISION | COUNTY OF HUMBOLDT<br>DEPARTMENT OF PUBLIC WORKS |
| | ROAD NO: C4F012 MILE POST: 8.42 | | |
| | PROJECT NO.: FEMA-4308-DR-CA PW# 417 | DESIGNED BY: MMS | STORM DAMAGE REPAIR TO SHIVELY ROAD PM 8.42 |
| | CONTRACT NO.: 217390 | DRAWN BY: MMS | SHIVELY ROAD PM 8.42 ROADWAY SECTIONS |
| | DRAWING FILE NAME: L:...\2017 Storm Damage\217XXX_Shively Road Sites | REVIEWED BY: JAB | |
| | PLOT DATE: 3/1/2021 | APPROVED BY: TRS | |



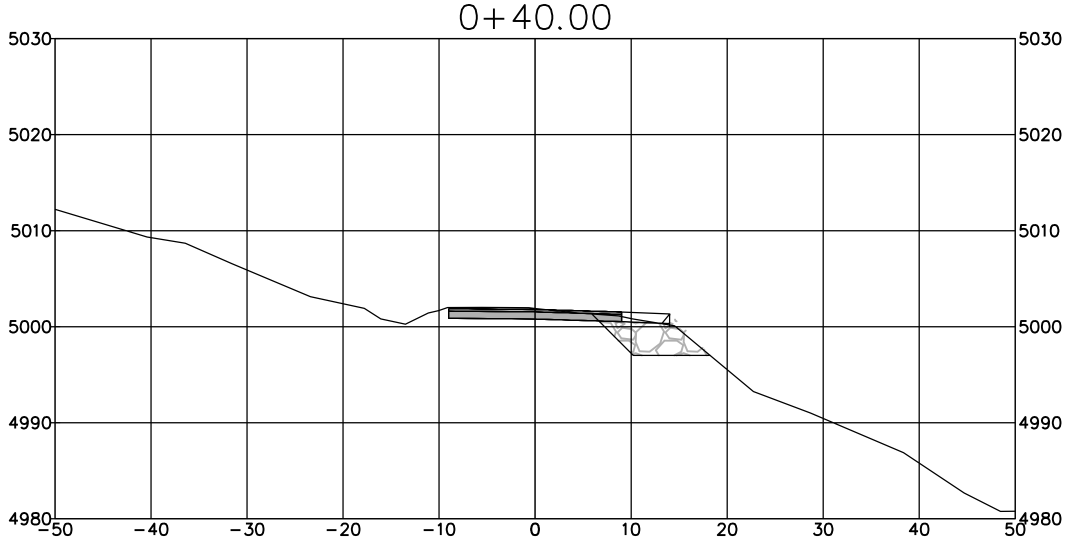
# SHIVELY ROAD PM 8.42 SECTIONS (0+20 TO 1+00)

SCALE: 1"=10'

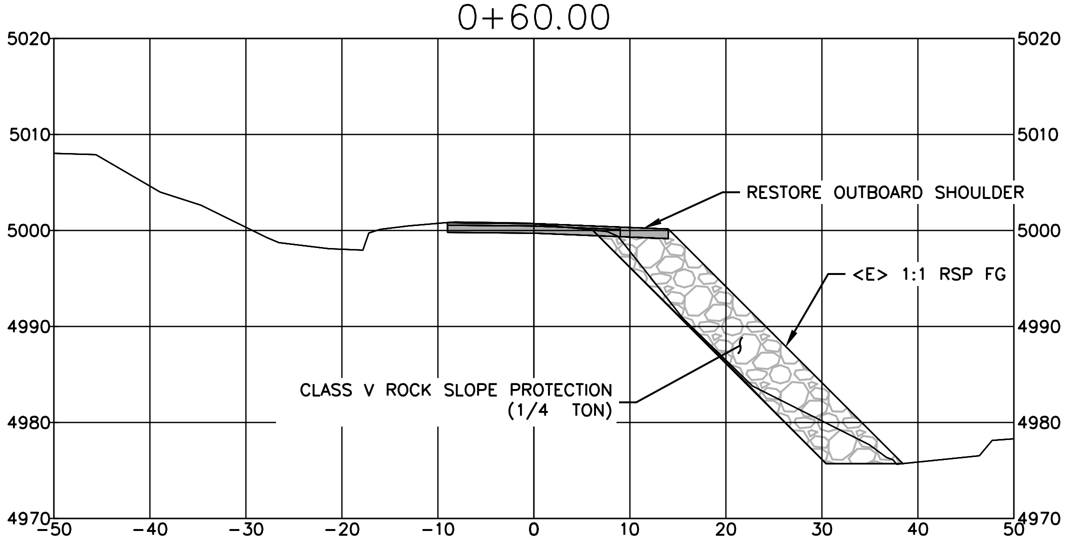
0+20.00



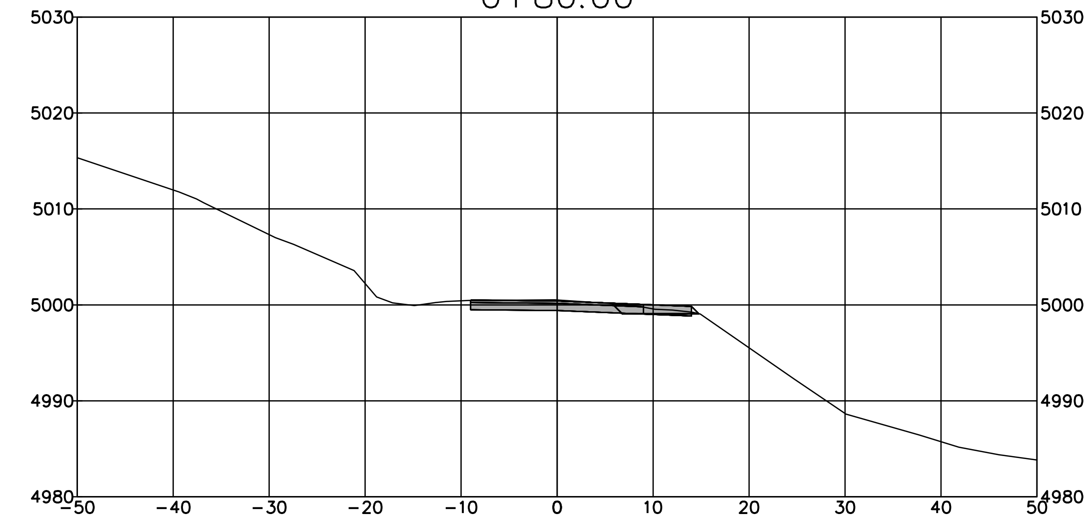

0+40.00




0+60.00




0+80.00




1+00.00