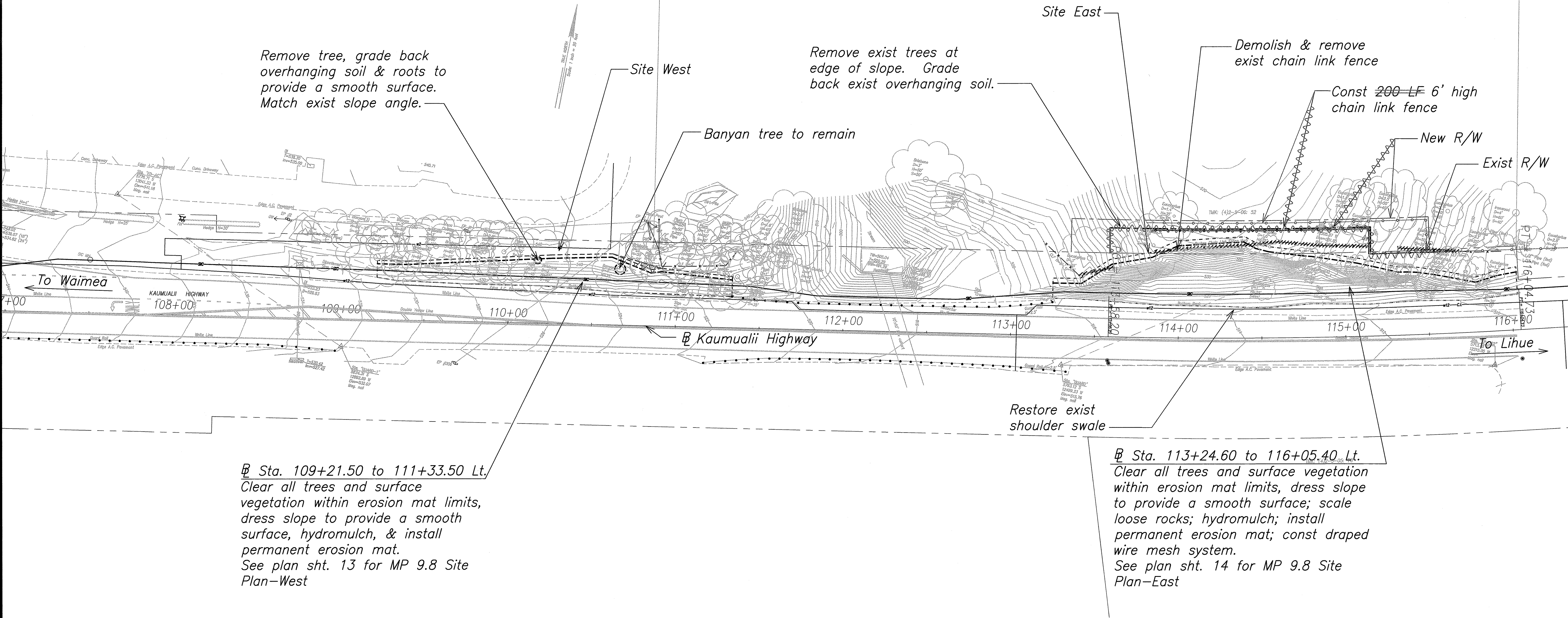
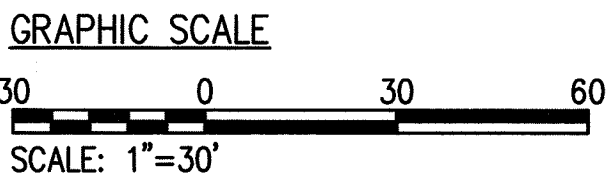
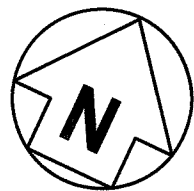


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAWAII	HWY-K-06-07	2007	12	31



**SITE PLAN**  
SCALE: 1" = 30'



ORIGINAL PLAN	SURVEY PLOTTED BY	R.M. TOMILL	DATE	
NOTE BOOK	DRAWN BY	BRANDON WEAVER		
10/24/2001.dwg	TRACED BY	BANDY HAMAMOTO		
No.	QUANTITIES BY	BRANDON WEAVER		
	CHECKED BY	ABDALAN NIKOU		

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

**EarthTech**  
A tyco International Ltd. Company

**ABDALAN R. NIKOU**  
LICENSED PROFESSIONAL ENGINEER  
No. 6198-C  
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE: 4/30/2008  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

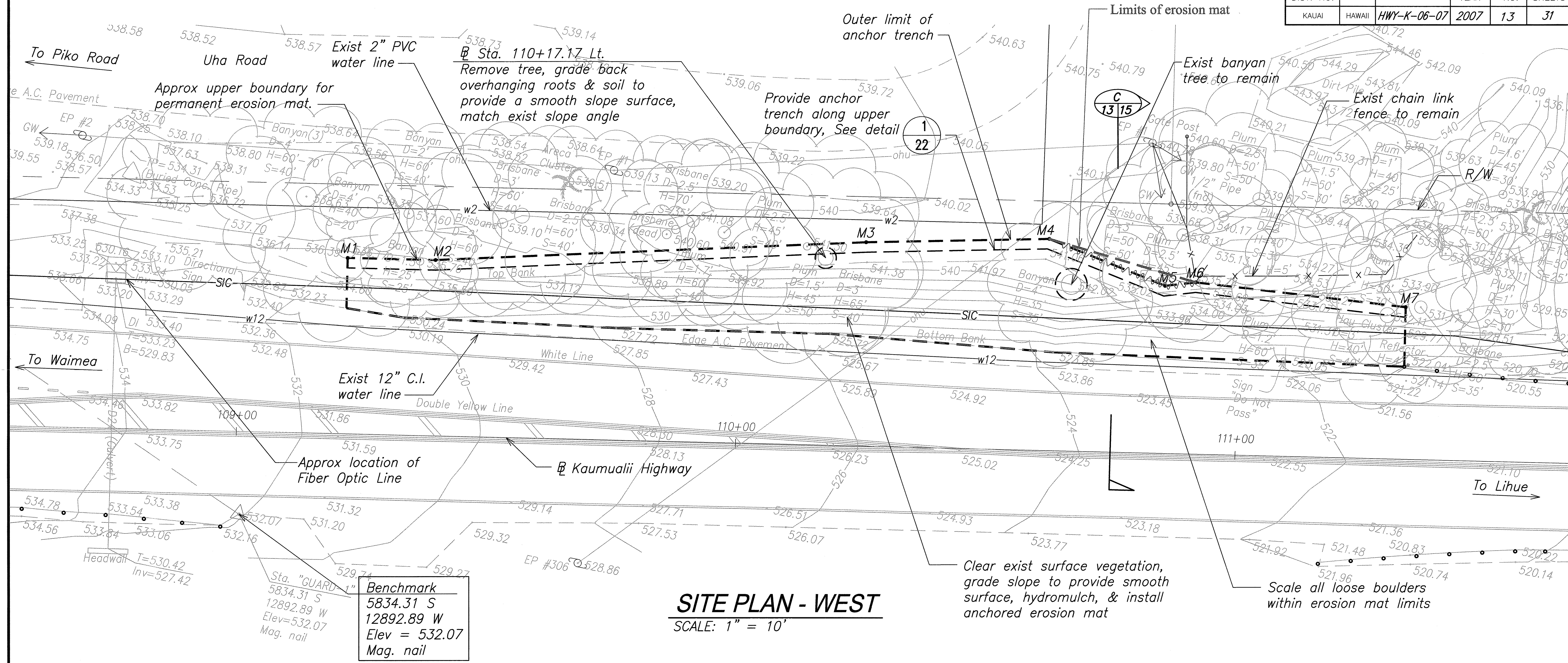
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**MP 9.8**  
**GENERAL SITE PLAN**  
**KAUMUALII HIGHWAY & RICE STREET,**  
**EMERGENCY SLOPE STABILIZATION**  
**PROJECT NO. HWY-K-06-07**

Scale: As Noted      Date: Apr 2007

SHEET No. 1 OF 5 SHEETS

"AS-BUILT"





NOTES

- The extent of erosion mat shown here is in plan view. The Contractor shall account for changes in the slope and general topography to meet the coverage area shown.
- Remove exist vegetation and grade back soil overhang at top of slope to provide smooth surface.
- Hydromulch smoothed slope prior to erosion mat installation.
- Erosion mat shall overlap 6" min at edges & 2' min at end splices. Stagger end splices 4' min. See sht 22 for details.
- Secure erosion mat w/ 1' metal stakes as recommended by manufacturer; 4' o.c. staggered; See sht 22 for details.

SITE PLAN - WEST  
SCALE: 1" = 10'

Erosion Mat

Point	Highway Sta.	O/S Lt.
M1	109+21.45	35.3
M2	109+39.06	35.2
M3	110+25.17	40.9
M4	110+61.80	42.4
M5	110+85.20	33.6
M6	110+91.31	34.4
M7	111+33.45	30.5
Erosion control mat		2,982 s.f.

LEGEND FOR AS-BUILT POSTINGS

~~~~~ Squiggly line for as-built deletion

== Double line for as-built deletion

Roadway Text for as-built posting

EarthTech  
tyco International Ltd. Company

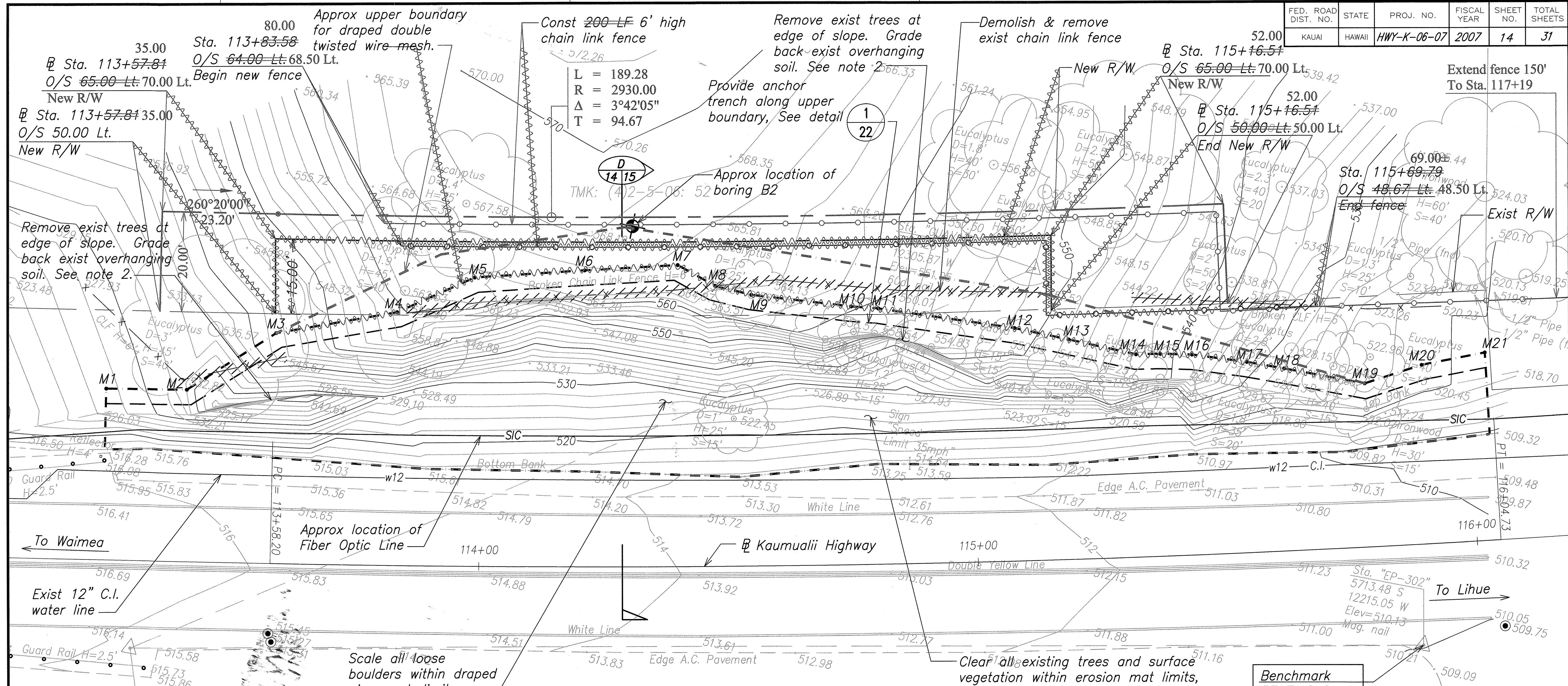
RODOLAN R. NIKOU  
LICENSED PROFESSIONAL ENGINEER  
No. 6198-C  
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2008  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

GRAPHIC SCALE  
10 0 10 20  
SCALE: 1"=10'

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
MP 9.8  
SITE PLAN - WEST  
KAUMUALII HIGHWAY & RICE STREET,  
EMERGENCY SLOPE STABILIZATION  
PROJECT NO. HWY-K-06-07  
Scale: As Noted Date: Apr 2007  
SHEET No. 2 OF 5 SHEETS





**SITE PLAN - EAST**  
SCALE: 1" = 10'

**NOTES**

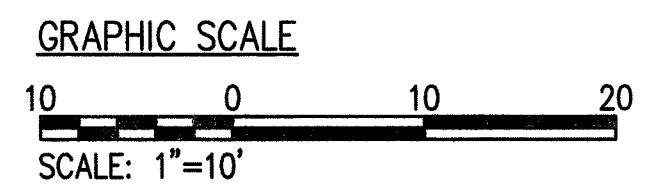
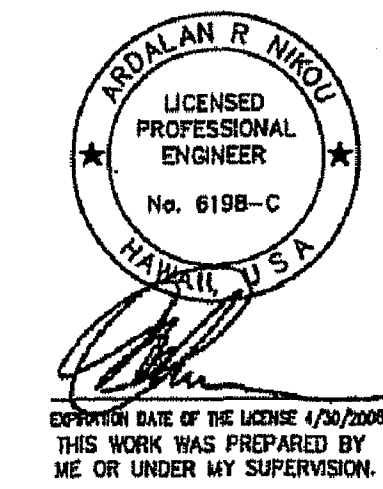
- The extent of draped double twisted mesh & erosion mat shown here is in plan view. The Contractor shall account for changes in the slope and general topography to meet the coverage area shown.
- Remove all exist trees and surface vegetation within erosion mat limits, and grade back soil overhang at top of slope to provide smooth surface.
- Hydromulch smoothed slope prior to erosion mat installation.
- Erosion mat shall overlap 6" min at edges & 2' min at end splices. Stagger end splices 4' min. See sht 22 for details.
- Secure erosion mat w/ 1' metal stakes as recommended by manufacturer; 4' o.c. staggered; See sht 22 for details.
- Draped double twisted mesh system shall be installed over the anchored erosion mat. See sht 16 for draped mesh details.

**Wire Mesh**

| Point | Highway Sta. | O/S Lt. | Point            | Highway Sta. | O/S Lt.     |
|-------|--------------|---------|------------------|--------------|-------------|
| M1    | 113+24.62    | 34.6    | M12              | 115+08.50    | 46.7        |
| M2    | 113+40.75    | 34.4    | M13              | 115+19.42    | 44.0        |
| M3    | 113+58.41    | 46.1    | M14              | 115+33.02    | 40.6        |
| M4    | 113+82.92    | 50.7    | M15              | 115+37.93    | 40.5        |
| M5    | 113+98.67    | 57.9    | M16              | 115+44.35    | 40.1        |
| M6    | 114+21.11    | 59.4    | M17              | 115+55.40    | 38.2        |
| M7    | 114+40.13    | 60.4    | M18              | 115+62.91    | 36.5        |
| M8    | 114+47.69    | 56.2    | M19              | 115+79.05    | 32.7        |
| M9    | 114+55.07    | 54.3    | M20              | 115+90.77    | 35.8        |
| M10   | 114+75.38    | 51.7    | M21              | 116+03.72    | 37.6        |
| M11   | 114+80.92    | 51.2    |                  |              |             |
|       |              |         | Draped Wire Mesh |              | 14,980 S.F. |

**LEGEND FOR AS-BUILT POSTINGS**

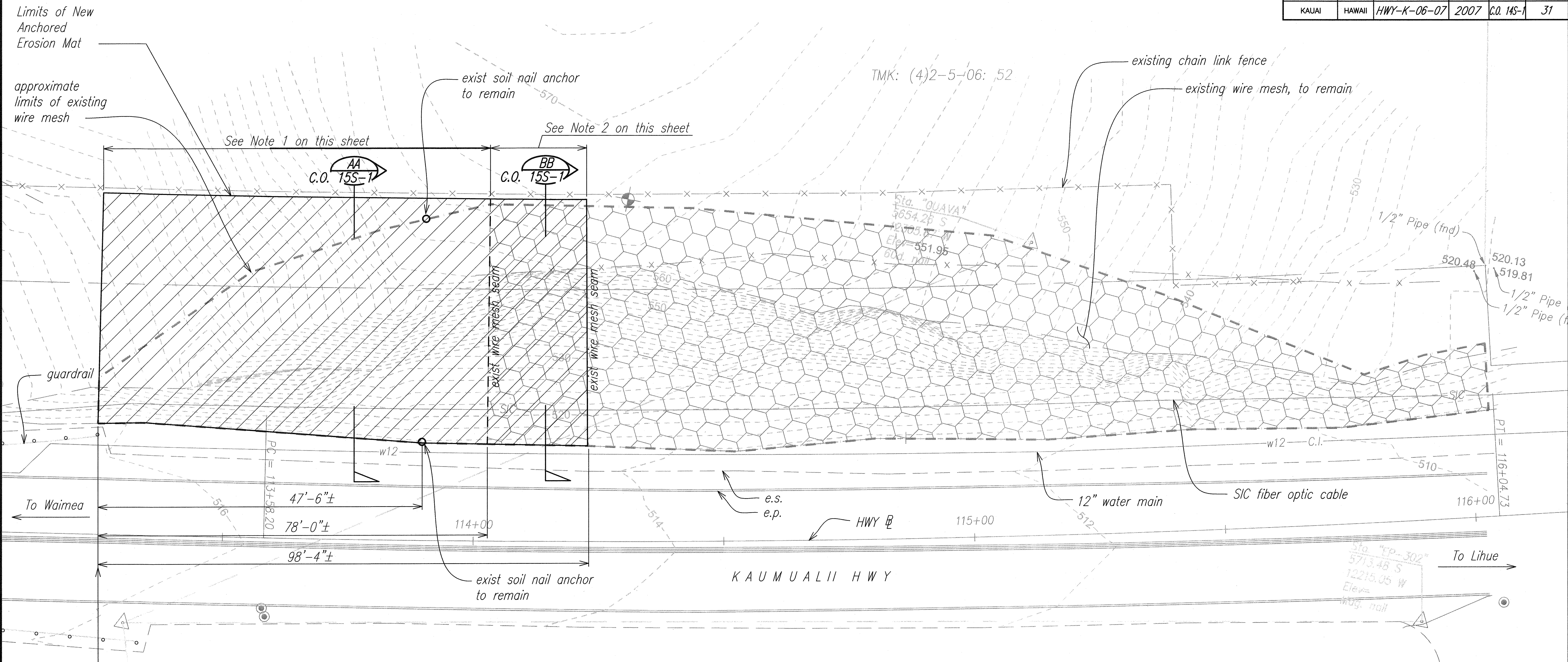
- Squiggly line for as-built deletion
- Double line for as-built deletion
- Text for as-built posting



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**MP 9.8**  
**SITE PLAN - EAST**  
KAUMUALII HIGHWAY & RICE STREET  
EMERGENCY SLOPE STABILIZATION  
PROJECT NO. HWY-K-06-07  
Scale: As Noted Date: Apr 2007  
SHEET No. 3 OF 5 SHEETS



| FED. ROAD DIST. NO. | STATE  | PROJ. NO.   | FISCAL YEAR | SHEET NO.  | TOTAL SHEETS |
|---------------------|--------|-------------|-------------|------------|--------------|
| KAUAI               | HAWAII | HWY-K-06-07 | 2007        | C.O. 14S-1 | 31           |



Limits of New Anchored Erosion Mat

approximate limits of existing wire mesh

See Note 1 on this sheet

See Note 2 on this sheet

existing soil nail anchor to remain

existing chain link fence

existing wire mesh, to remain

guardrail

To Waimea

To Lihue

KAUMUALII HWY

12" water main

SIC fiber optic cable

1/2" Pipe (fnd)

1/2" Pipe

1/2" Pipe

520.13

519.81

520.48

519.81

510

512

514

516

518

520

522

524

526

528

530

532

534

536

538

540

542

544

546

548

550

552

554

556

558

560

562

564

566

568

570

572

574

576

578

580

582

584

586

588

590

592

594

596

598

600

602

604

606

608

610

612

614

616

618

620

622

624

626

628

630

632

634

636

638

640

642

644

646

648

650

652

654

656

658

660

662

664

666

668

670

672

674

676

678

680

682

684

686

688

690

692

694

696

698

700

702

704

706

708

710

712

714

716

718

720

722

724

726

728

730

732

734

736

738

740

742

744

746

748

750

752

754

756

758

760

762

764

766

768

770

772

774

776

778

780

782

784

786

788

790

792

794

796

798

800

802

804

806

808

810

812

814

816

818

820

822

824

826

828

830

832

834

836

838

840

842

844

846

848

850

852

854

856

858

860

862

864

866

868

870

872

874

876

878

880

882

884

886

888

890

892

894

896

898

900

902

904

906

908

910

912

914

916

918

920

922

924

926

928

930

932

934

936

938

940

942

944

946

948

950

952

954

956

958

960

962

964

966

968

970

972

974

976

978

980

982

984

986

988

990

992

994

996

998

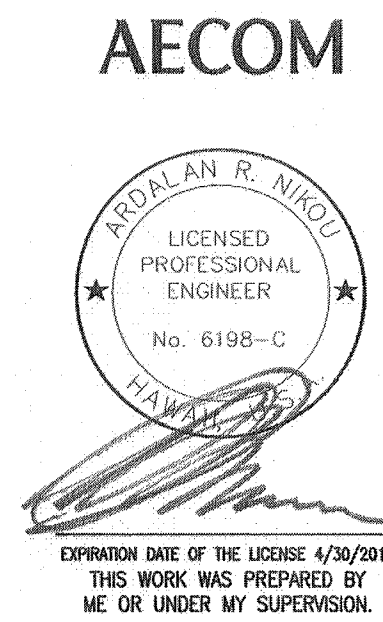
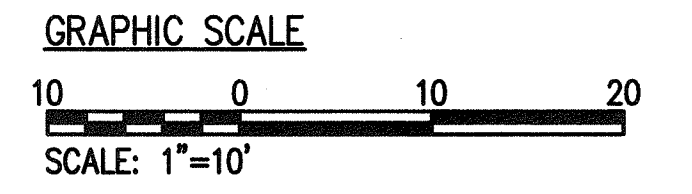
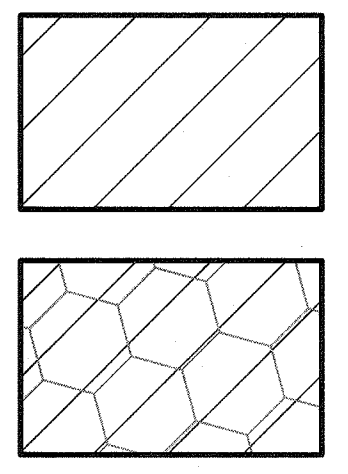
1000

- Note 1 (New Anchored Erosion Mat Only, Remove Exist Wire Mesh):**
- Remove and dispose of wire mesh to the limits shown. Detach the wire mesh panel by cutting the hog-ring fasteners along the panel seam. DO NOT cut top and bottom support cable, see Note 2 for instruction.
  - Clear and grub, level the slope surface, and apply grass hydro-mulch seeding prior to installing anchored erosion mat.
  - Temporarily roll back the existing wire mesh panel that is to remain and install anchored erosion mat to the the limits shown.

- Note 2 (New Anchored Erosion Mat, Existing Wire Mesh to Remain):**
- Temporarily roll back the existing wire mesh panel that is to remain and install anchored erosion mat to the the limits shown.
  - Clear and grub, level the slope surface, and apply grass hydro-mulch seeding prior to installing anchored erosion mat. Provide a 2'-0" overlap onto existing erosion mat.
  - Reset existing wire mesh panel. Straighten bent wire mesh.
  - Fasten the top and bottom support cables to the existing ground anchors at the approximate locations shown on the plan. See Support Cable Detail on Sheet C.O. 15S-1. Cut off excess cable.

**Legend:**

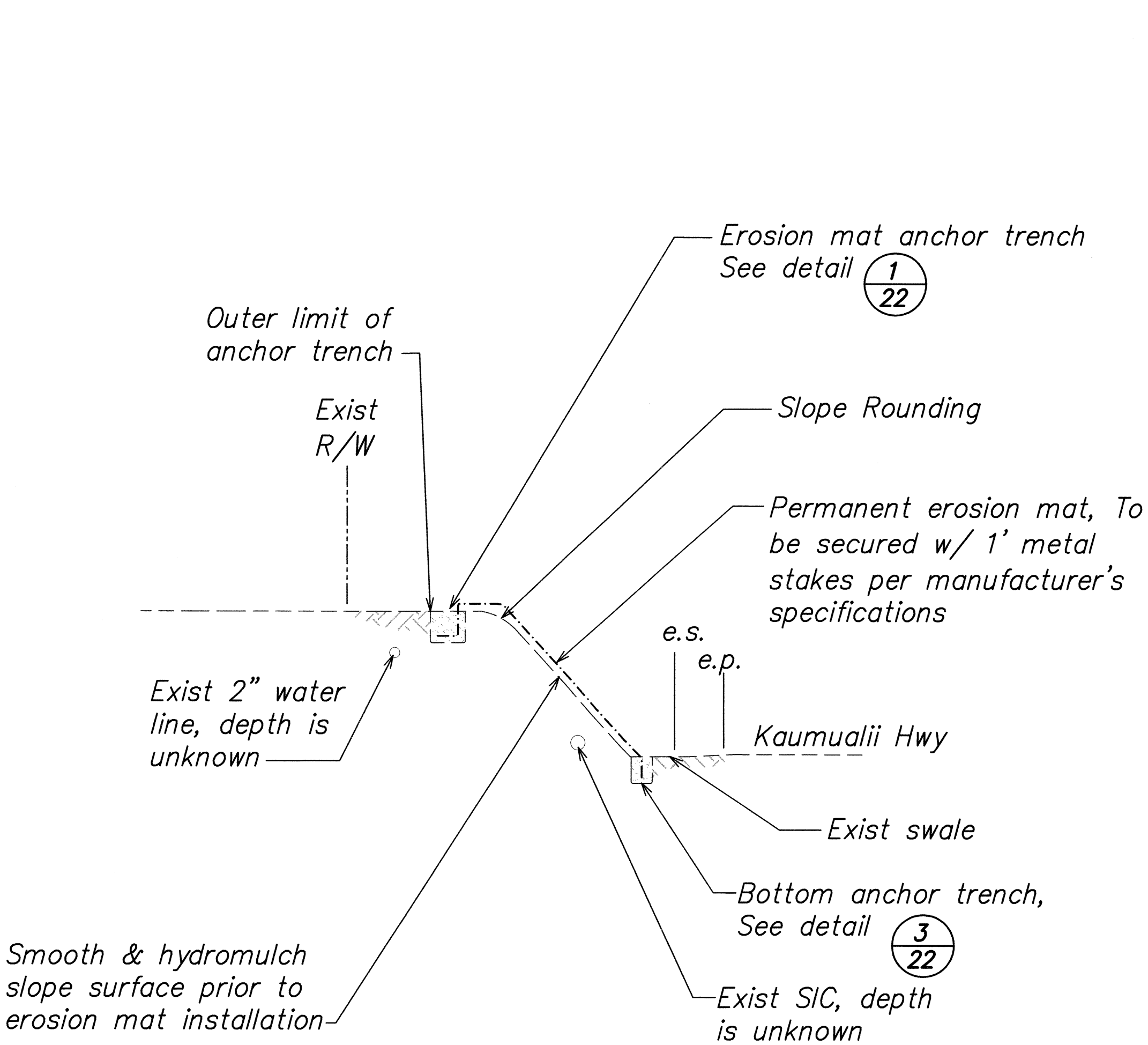
- New Anchored Erosion Mat Only, Remove Exist Wire Mesh
- New Anchored Erosion Mat, Existing Wire Mesh to Remain



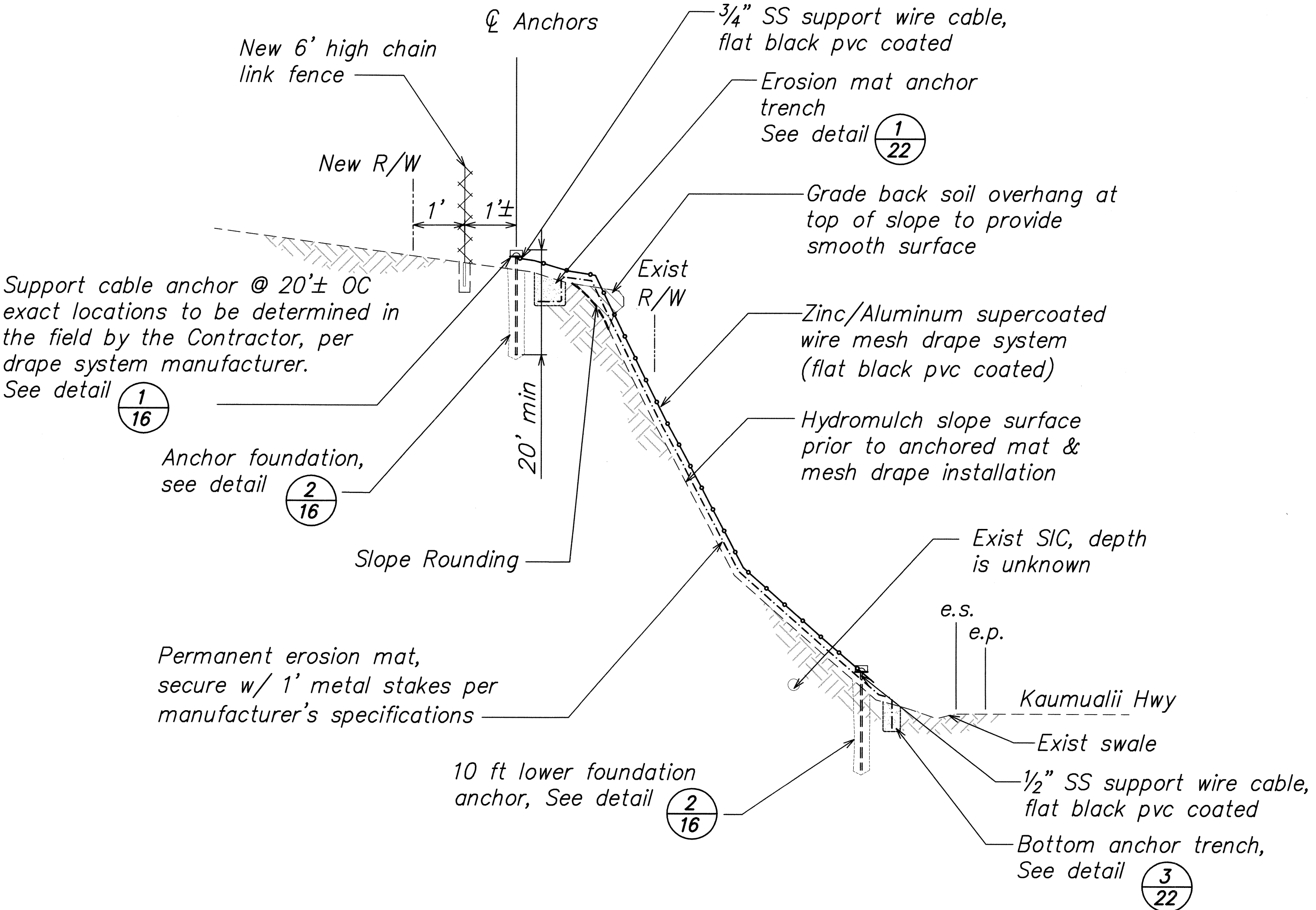
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**MP 9.8 - REPAIR**  
**SITE PLAN**  
**KAUMUALII HIGHWAY & RICE STREET,**  
**EMERGENCY SLOPE STABILIZATION**  
**PROJECT NO. HWY-K-06-07**  
Scale: As Noted Date: Apr 2007  
SHEET No. 1 OF 1 SHEETS

|                   |                |      |  |
|-------------------|----------------|------|--|
| SURVEY PLOTTED BY | R.M. TOWILL    | DATE |  |
| DRAWN BY          | BRANDON WEAVER |      |  |
| CHECKED BY        | BRANDON WEAVER |      |  |
| APPROVED BY       | ARADAN NIKOU   |      |  |
| ORIGINAL PLAN     |                |      |  |
| NOTE BOOK         |                |      |  |
| No.               |                |      |  |

| FED. ROAD DIST. NO. | STATE  | PROJ. NO.   | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|--------|-------------|-------------|-----------|--------------|
| KAUAI               | HAWAII | HWY-K-06-07 | 2007        | 15        | 31           |

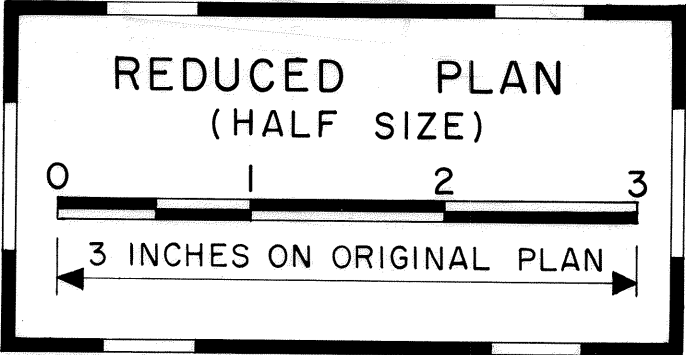


TYPICAL SECTION C  
 NOT TO SCALE 13 | 15

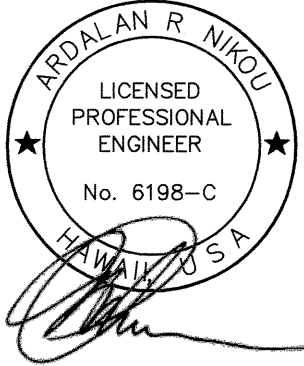


TYPICAL SECTION D  
 NOT TO SCALE 14 | 15

|               |                   |                |      |  |
|---------------|-------------------|----------------|------|--|
| ORIGINAL PLAN | SURVEY PLOTTED BY | E.M. TOWILL    | DATE |  |
| NOTE BOOK     | DRAWN BY          | BRANDON WEAVER |      |  |
|               | DESIGNED BY       | RANDY HAMAMOTO |      |  |
|               | QUANTITIES BY     | BRANDON WEAVER |      |  |
|               | CHECKED BY        | ABDULAN NIKOU  |      |  |



**EarthTech**  
 A tyco International Ltd. Company



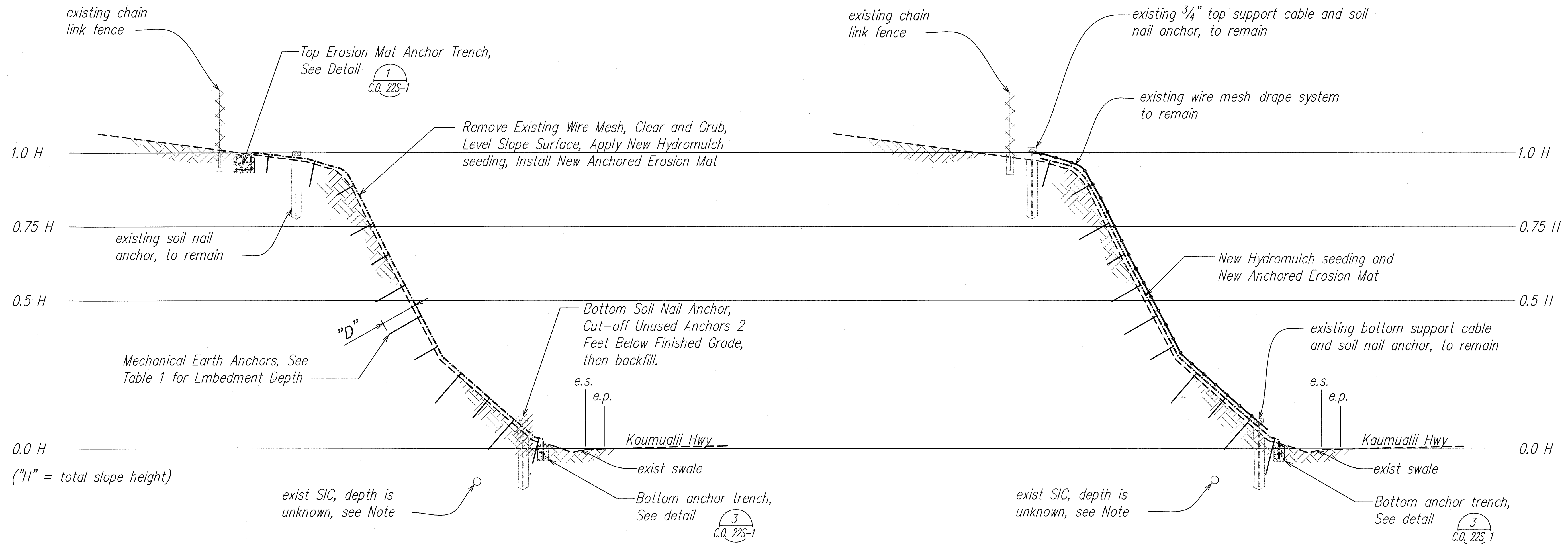
EXPIRATION DATE OF THE LICENSE 4/30/2008  
 THIS WORK WAS PREPARED BY  
 ME OR UNDER MY SUPERVISION.

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION  
**MP 9.8**  
**TYPICAL SECTION C & D**  
**KAUMUALII HIGHWAY & RICE STREET**  
**EMERGENCY SLOPE STABILIZATION**  
**PROJECT NO. HWY-K-06-07**

Scale: As Noted Date: Apr 2007

SHEET No. 4 OF 5 SHEETS



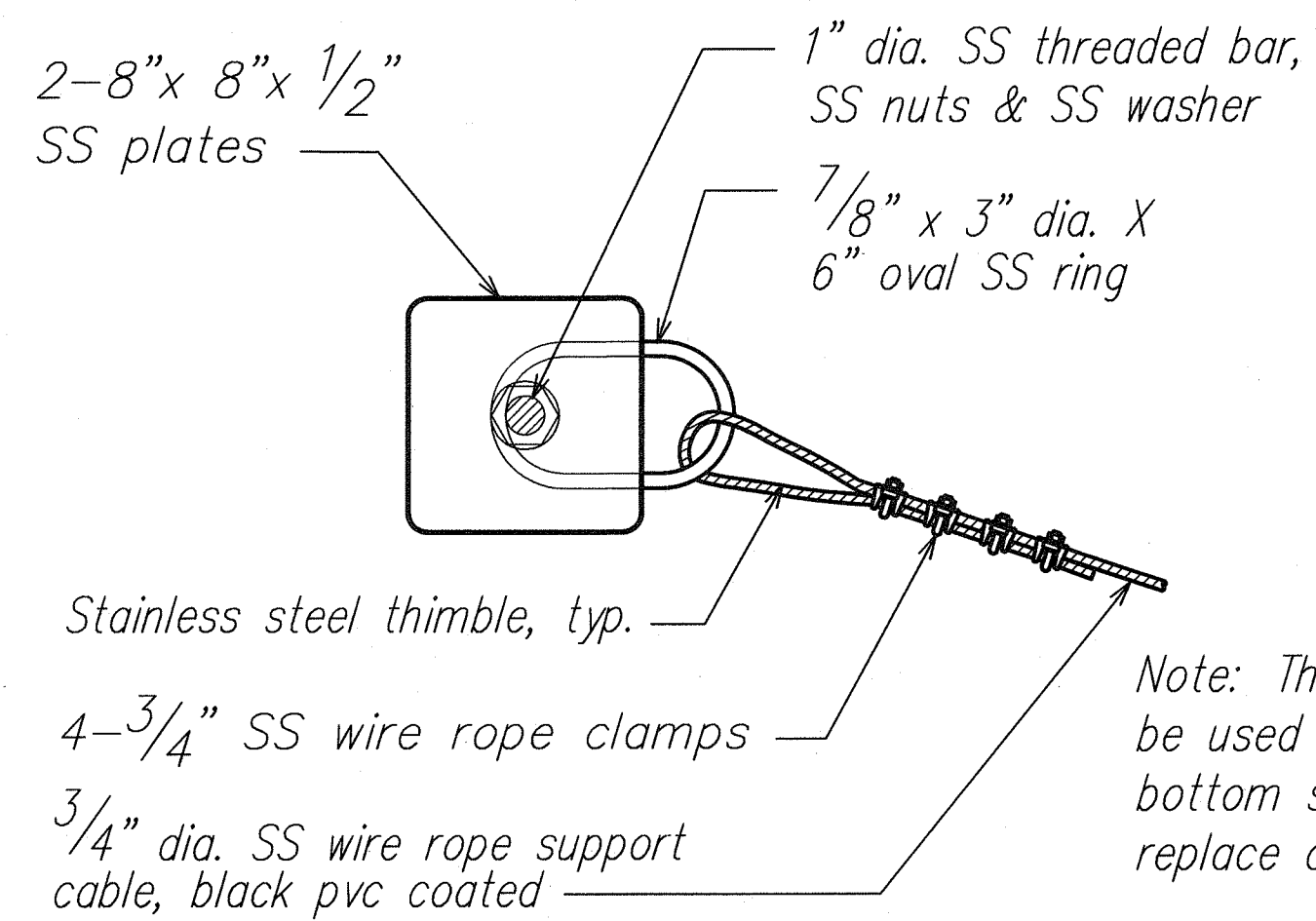


TYPICAL SECTION AA  
NOT TO SCALE  
C.O. 15S-1

TYPICAL SECTION BB  
NOT TO SCALE  
C.O. 15S-1

Note: Contractor shall tone the location of the SIC fiber optic cables. Maintain a minimum clearance of 2 feet from the SIC fiber optic cables for all mechanical earth anchors.

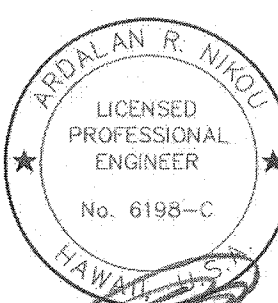
| TABLE 1 - ANCHOR EMBEDMENT DEPTH |                        |
|----------------------------------|------------------------|
| Slope Height "H"                 | Depth "D"              |
| 0.0 H to 0.5 H                   | 4ft and 6 ft Staggered |
| 0.5 H to 0.75 H                  | 4ft and 6 ft Staggered |
| 0.75 H to 1.0 H                  | 2ft and 3 ft Staggered |



1 SUPPORT CABLE DETAIL  
C.O. 15S-1  
NOT TO SCALE

Note: The existing components may be used to fasten ends of top and bottom support cable. Discard and replace damaged components.

AECOM



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**MP 9.8 - REPAIR**  
**TYPICAL SECTIONS**  
**KAUMUALII HIGHWAY & RICE STREET**  
**EMERGENCY SLOPE STABILIZATION**  
**PROJECT NO. HWY-K-06-07**

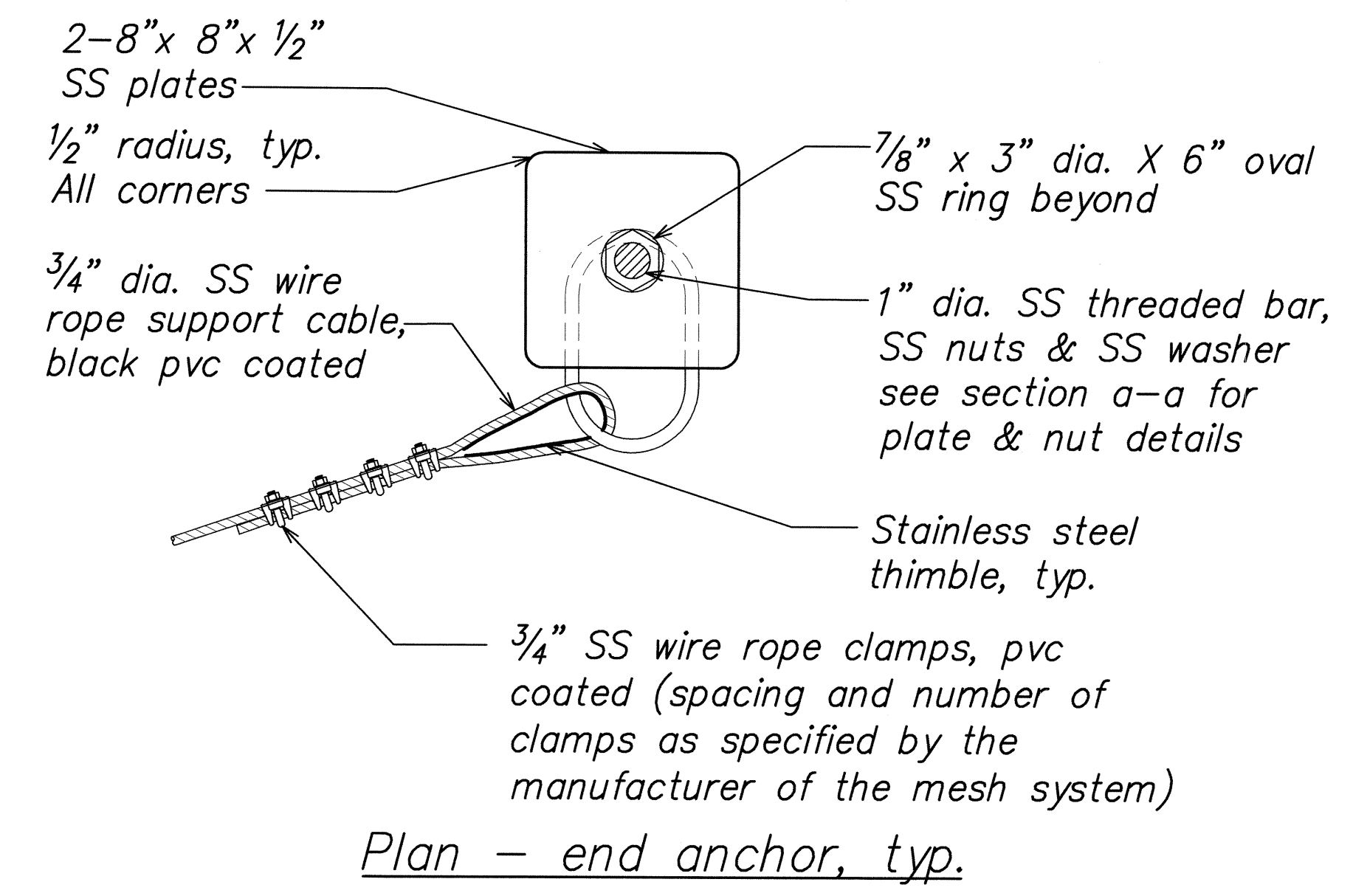
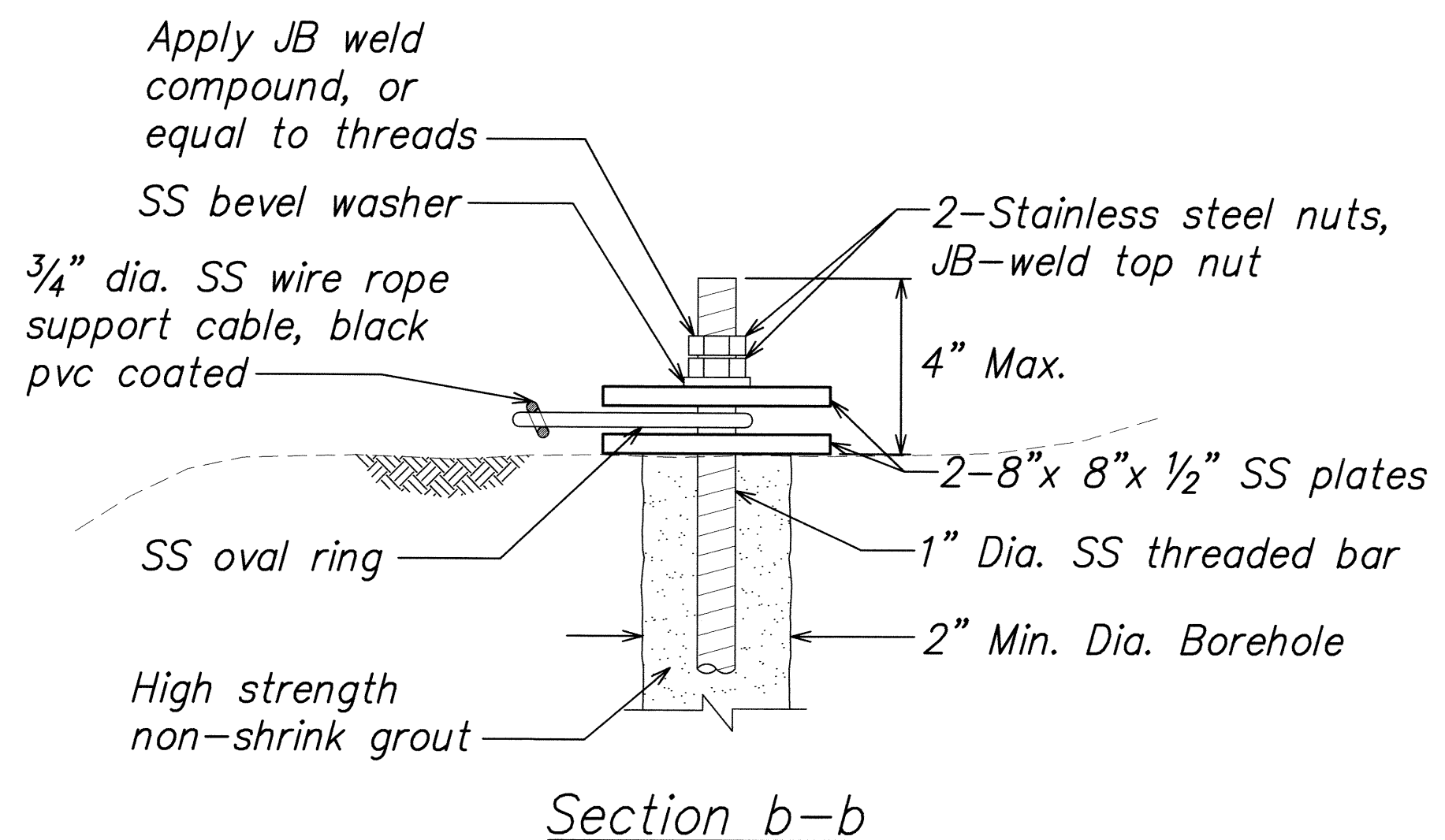
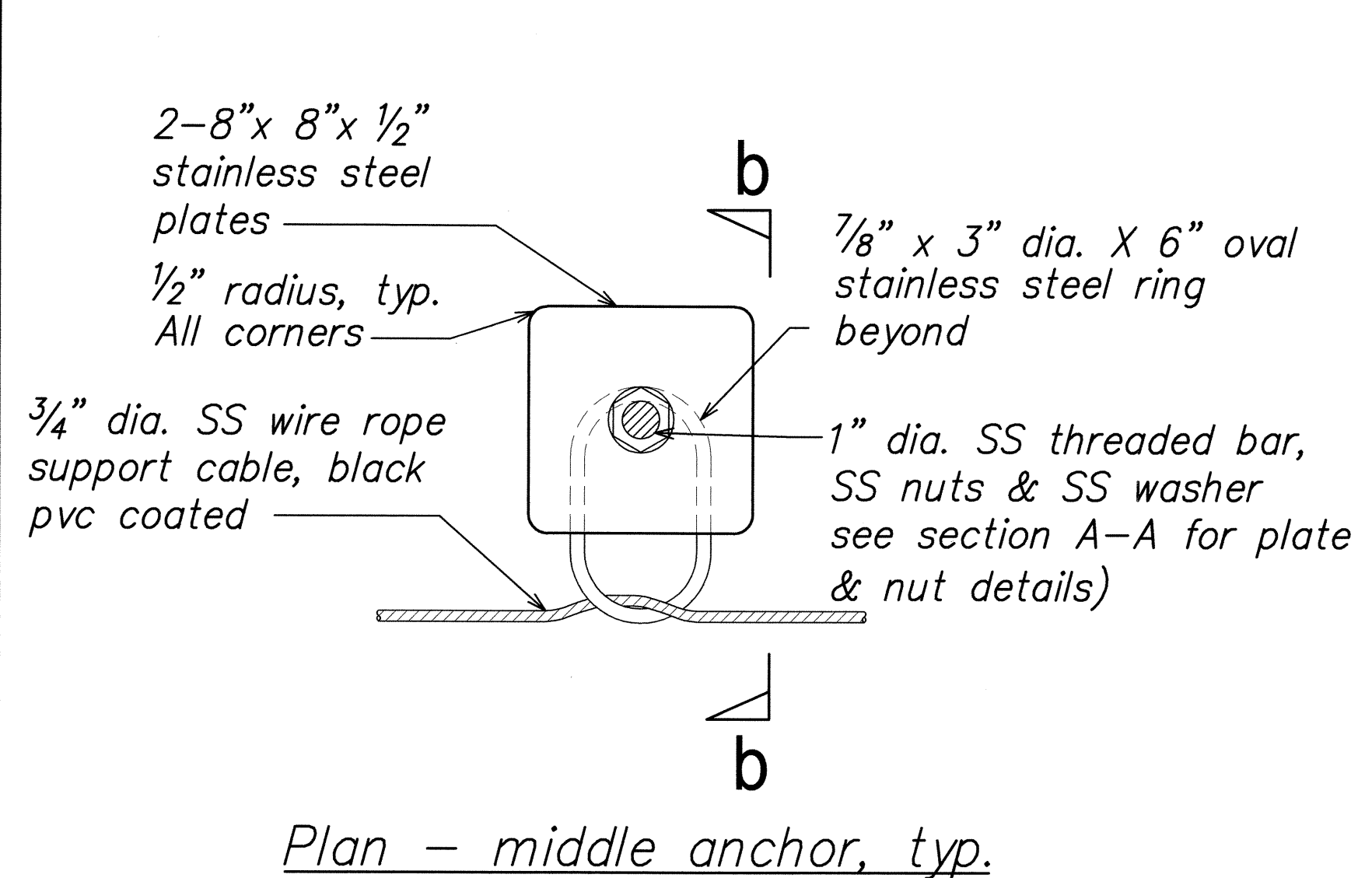
Scale: As Noted Date: Apr 2007

SHEET No. 1 OF 1 SHEETS

C.O. 15S-1

|                   |                |      |  |
|-------------------|----------------|------|--|
| SURVEY PLOTTED BY | R.M. JONILL    | DATE |  |
| DRAWN BY          | BRANDON WEAVER |      |  |
| TRACED BY         | RANDY HAMAMOTO |      |  |
| QUANTITIES BY     | BRANDON WEAVER |      |  |
| CHECKED BY        | ARULAN NIKOU   |      |  |
| ORIGINAL PLAN     |                |      |  |
| NOTE BOOK         |                |      |  |
| No.               |                |      |  |

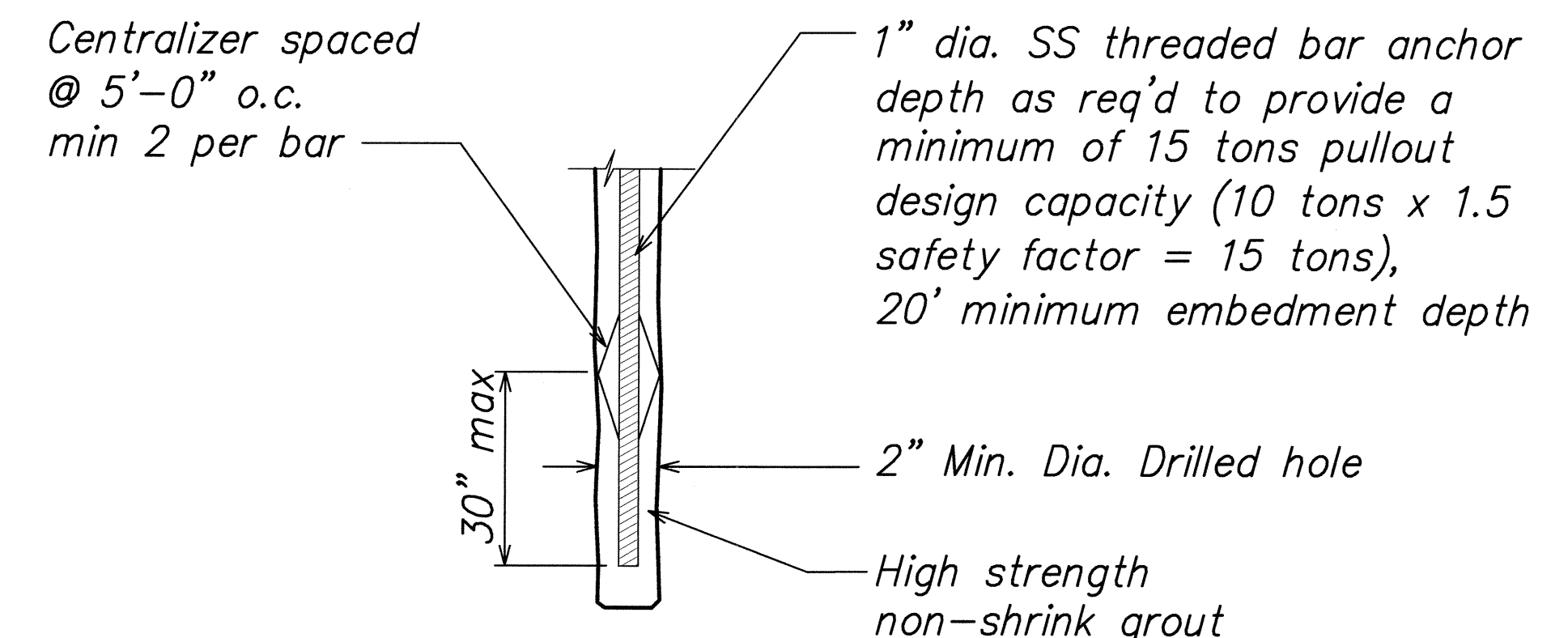
| FED. ROAD DIST. NO. | STATE  | PROJ. NO.   | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|--------|-------------|-------------|-----------|--------------|
| KAUAI               | HAWAII | HWY-K-06-07 | 2007        | 16        | 31           |



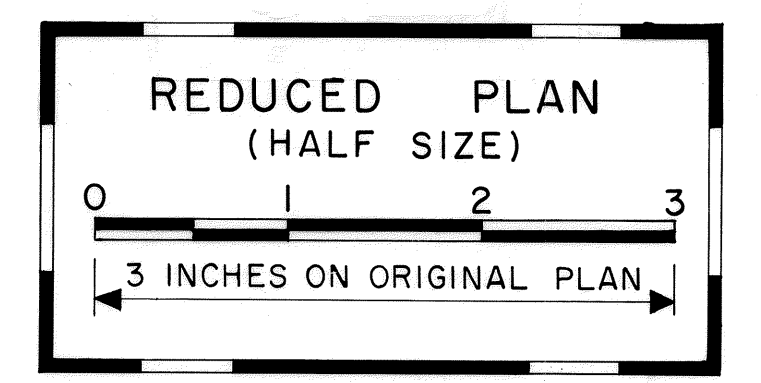
1 DRAPED WIRE MESH ANCHOR DETAILS  
16 NOT TO SCALE

- Notes:
- The 10 foot lower foundation anchors shall be placed at 50 o.c.. Similar details as shown on this sheet shall apply, except JB weld compound shall not be applied to threads. Additionally, load testing of these anchors shall not be required.

|                   |                |      |  |
|-------------------|----------------|------|--|
| SURVEY PLOTTED BY | R.M. JOWELL    | DATE |  |
| DESIGNED BY       | BRANDON WEAVER |      |  |
| NOTED BY          | RANDY HAMAMOTO |      |  |
| QUANTITIES BY     | BRANDON WEAVER |      |  |
| CHECKED BY        | ABDALAN NIKOU  |      |  |



2 ANCHOR FOUNDATION DETAIL  
16 NOT TO SCALE



EarthTech  
A tyco International Ltd. Company

ABDALAN R. NIKOU  
LICENSED PROFESSIONAL ENGINEER  
No. 6198-C  
HAWAII

EXPIRATION DATE OF THE LICENSE 4/30/2008  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
MP 9.8  
DRAPE SYSTEM DETAILS  
KAUMUALII HIGHWAY & RICE STREET  
EMERGENCY SLOPE STABILIZATION  
PROJECT NO. HWY-K-06-07  
Scale: As Noted Date: Apr 2007  
SHEET No. 5 OF 5 SHEETS