DESIGN NOTES

1. Design is based on the assumption that backfill within the reinforced soil mass, methods of construction and quality of materials conform to the requirements of Hilfiker Retaining Walls.

2. Assumed Soil Characteristics:
   - Wall Backfill:
     - Unit Weight: 130 pcf
     - Internal Friction Angle: 34°
     - Cohesion = 0 psf
   - Retained Backfill:
     - Unit Weight: 125 pcf
     - Internal Friction Angle: 36°
     - Cohesion = 0 psf
   - Foundation Soils:
     - Unit Weight: 125 pcf
     - Internal Friction Angle: 36°
     - Cohesion = 0 psf

   Traffic Surcharge Loading (LL) = 250 psf

   Worst Case Applied Bearing Pressure by MSE Wall- @ 40' Height - 5610 psf.

   If actual characteristics, grades or dimensions of soil materials differ from those listed above or shown on the plans, Hilfiker Retaining walls shall be notified to evaluate the need to redesign.

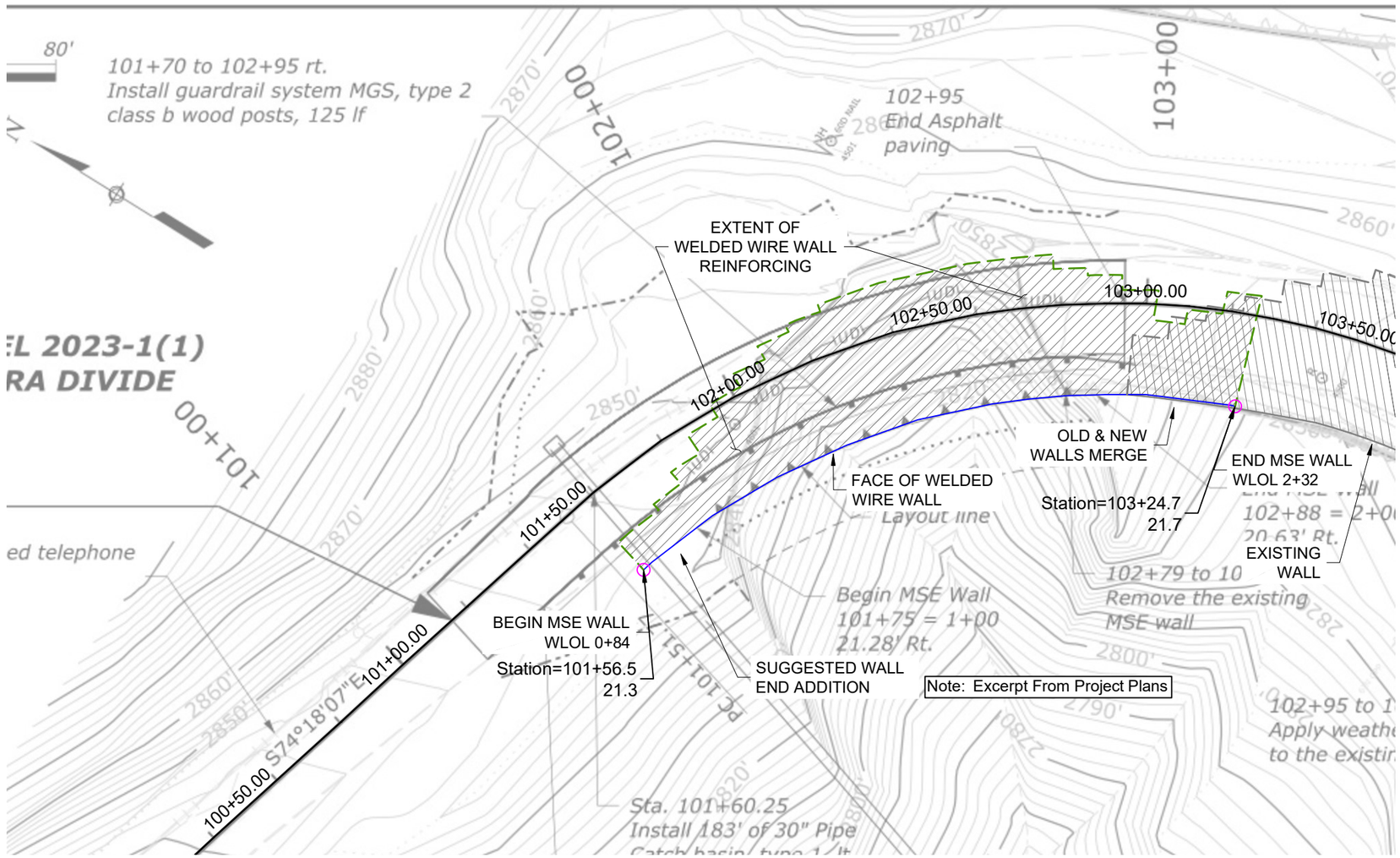
3. If during construction, the wall location, structure location or loads are different than that proposed in this plan set and calculation package, HRW shall be notified to evaluate the need for a redesign.

4. The design requires a non-saturated backfill. Surface and sub-surface drainage control may be required to prevent saturation of the backfill or relieve hydrostatic pressures.

5. Design Procedure:
   Mechanically Stabilized Earth walls and Reinforced Soil Slopes, FHWA report No. FHWA-NHI-00-043.

6. All information hereon is derived from the reference drawings, and is subject to geometric and geotechnical confirmation. The applicable Hilfiker construction guide and specifications are an integral part of this submittal.

7. Hilfiker Retaining Walls shall be responsible only for the internal stability of the retaining wall, and not for global stability or foundation bearing capacity. The Owner shall be responsible for global stability and foundation competence. The Owner is responsible for all job site drainage, safety and fall protection provisions for workers in compliance with OSHA and any other applicable requirements.



PLAN VIEW
SCALE: 1" = 30'

Note:
If existing drainage is encountered is shall be tied into the the new drainage system with in-kind material or as approved by the C.O.

SUPPLIED QUANTITIES:

WELDED WIRE WALL : 3680 FT^2

HW 240415AW

REV.NO.	DATE	BY	DESCRIPTION
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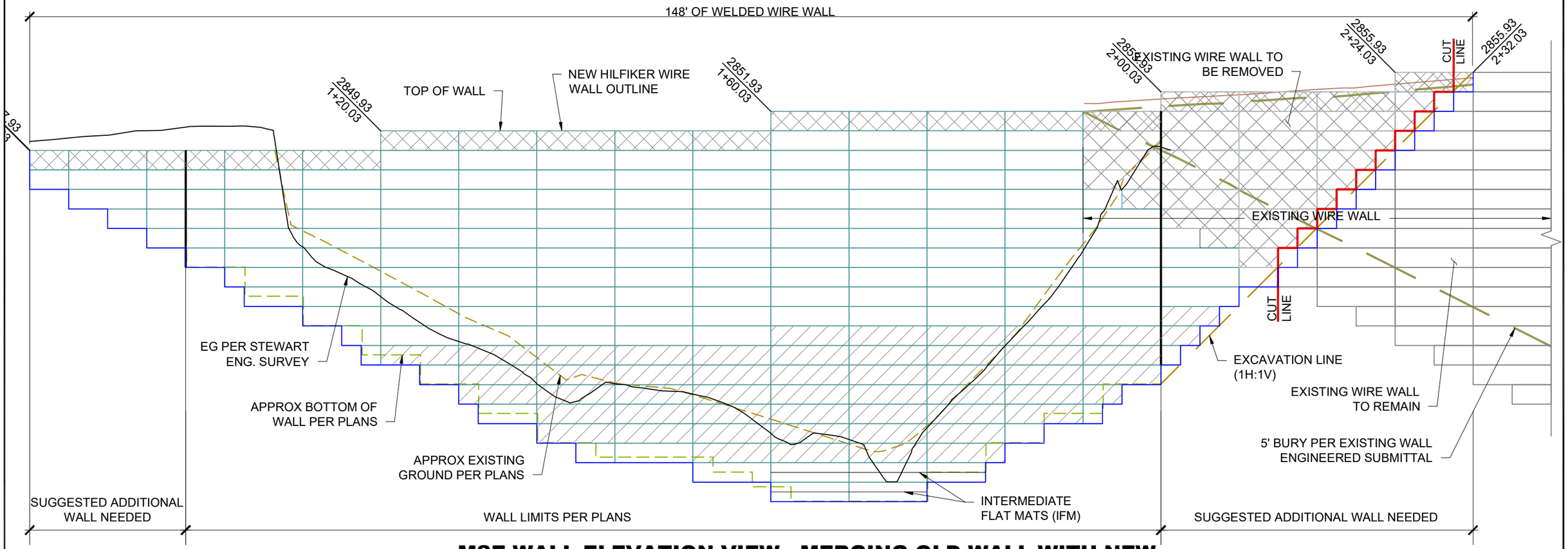
SANTA CLARA DIVIDE, CA ERFO FS ANGEL
2023-1(1) 3N17

MSE WELDED WIRE WALL
PLAN VIEW & GENERAL NOTES

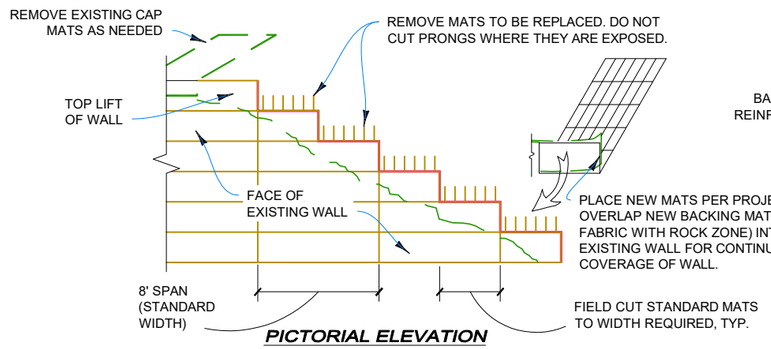
PROJECT	24-045
DATE	9-9-24
DESIGN	KLC
DRAWN	KLC

SHT 1 OF 5



MSE WALL ELEVATION VIEW - MERGING OLD WALL WITH NEW

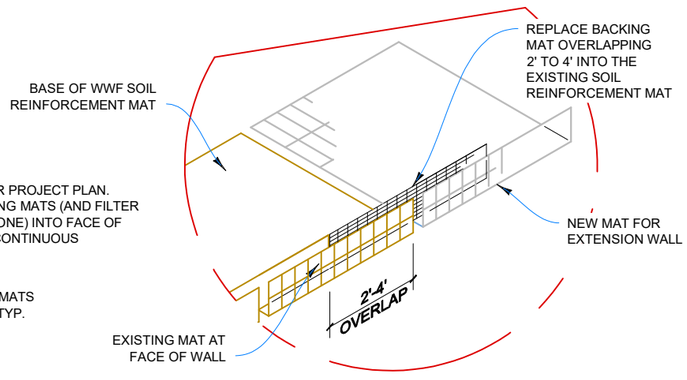
SCALE: 1" = 10'



PICTORIAL ELEVATION

CONNECTION TO EXISTING WALL

SCALE: 1" = 10'



BACKING MAT REPLACEMENT

NOT TO SCALE

HW 240415AW

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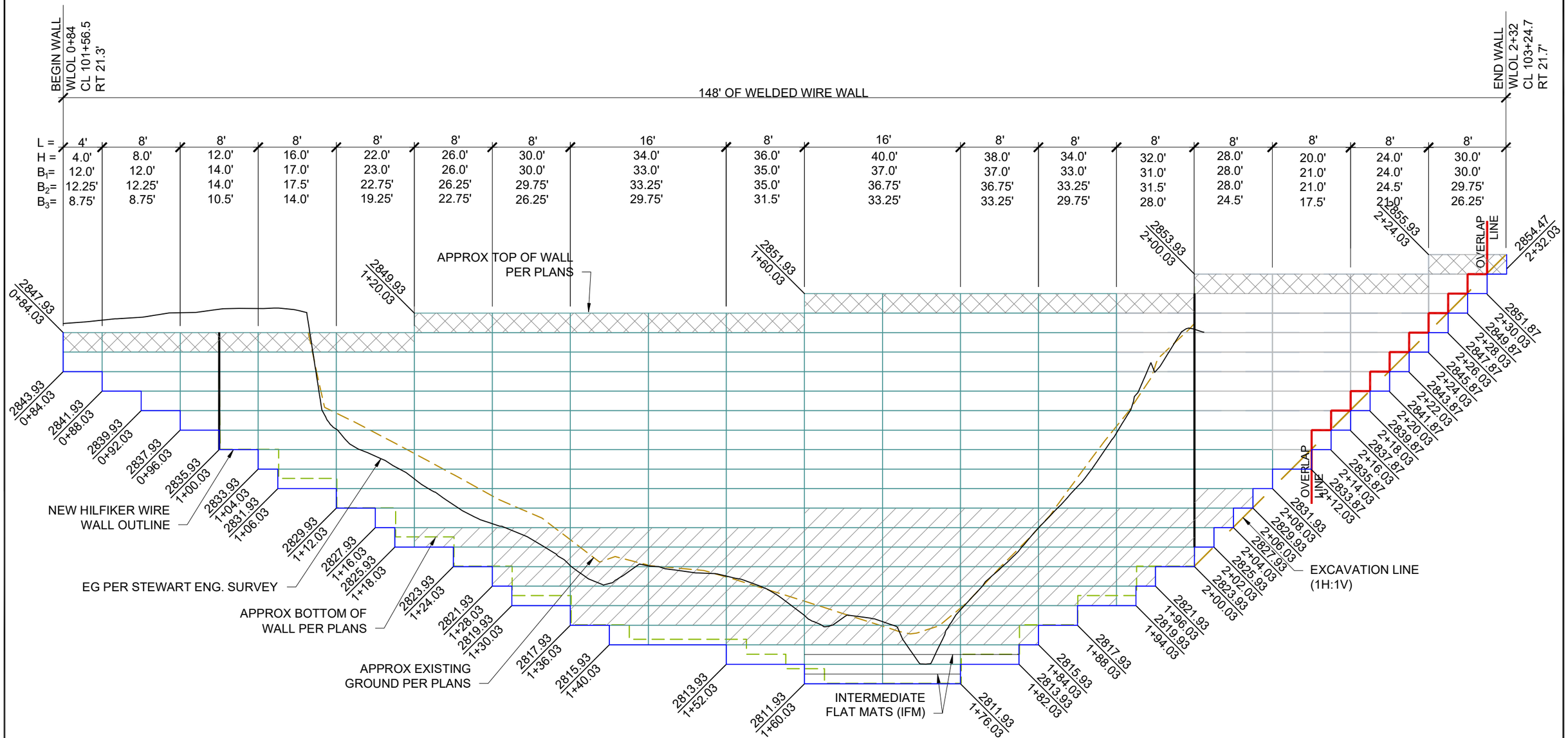
SANTA CLARA DIVIDE, CA ERFO FS ANGEL
2023-1(1) 3N17
MSE WELDED WIRE WALL - NEW & OLD WALL ELEVATION VIEW & DETAILS

PROJECT	24-045
DATE	9-9-24
DESIGN	KLC
DRAWN	KLC

SHT 2 OF 5



MSE WALL ELEVATION VIEW

SCALE: 1" = 10'

WALL WIRE TYPE LEGEND

FINISH: HOT DIP GALVANIZED
SERVICE LIFE: 75 YEARS

- TYPE 1 - 8X12 W4.5x3.5 MATS
- TYPE 3 - 8x21 W7.0x4.0 MATS
- TYPE 3 - 8x21 W7.0x4.0 IFM'S
- TYPE 4 - 8x21 W9.5x4.0 MATS

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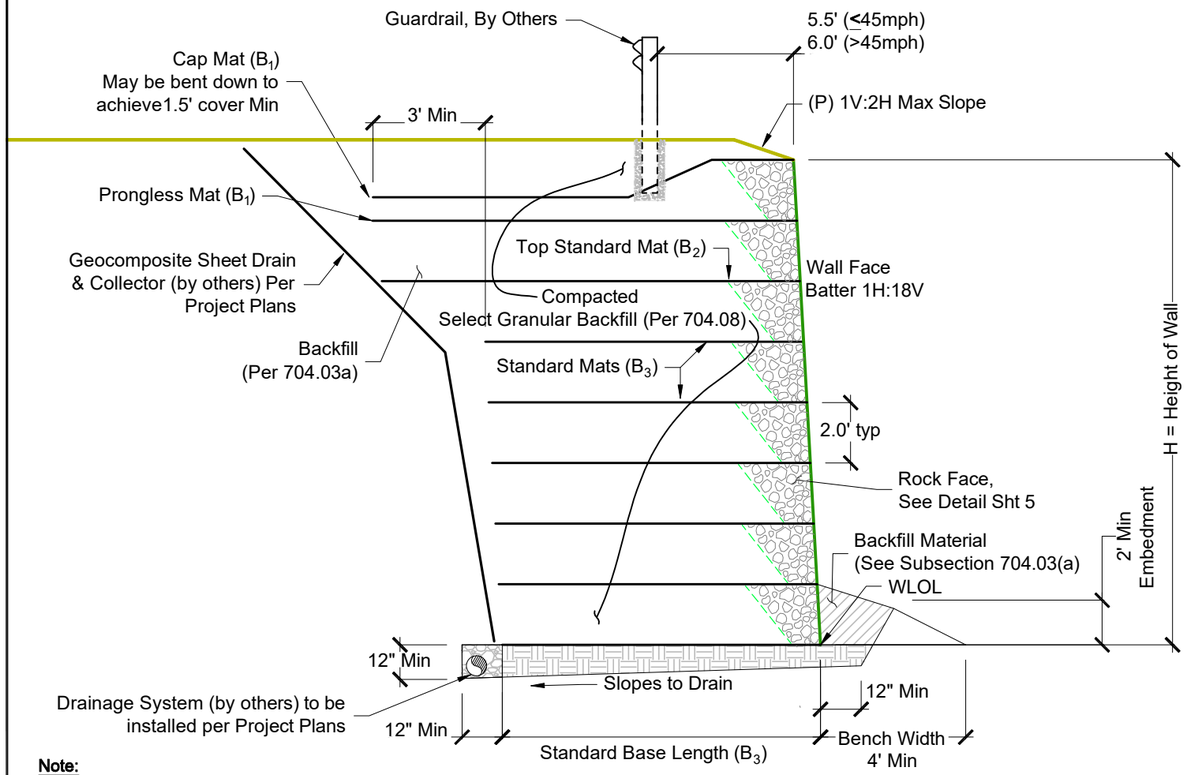
2023-1(1) 3N17

MSE WELDED WIRE WALL
ELEVATION VIEW

PROJECT	24-045
DATE	9-9-24
DESIGN	KLC
DRAWN	KLC

SHT 3 OF 5



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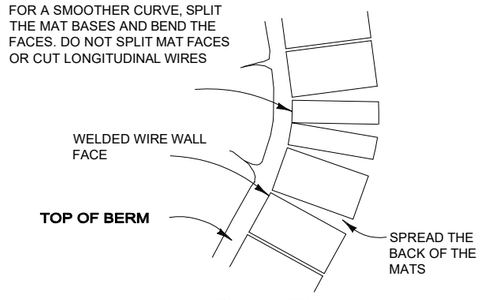
CROSS SECTION, TYP

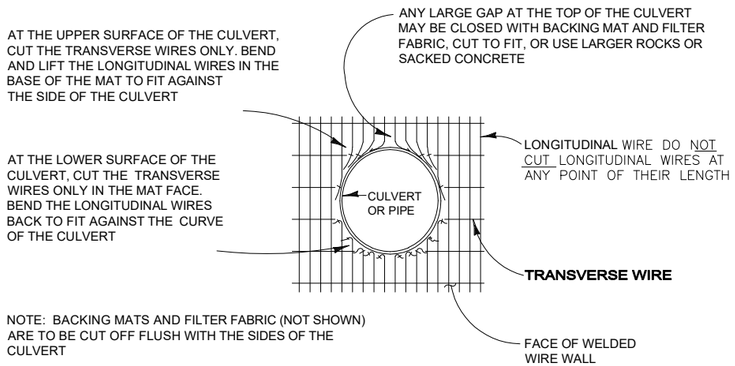
SCALE: 1" = 5'



PLAN VIEW

CONCAVE CURVE

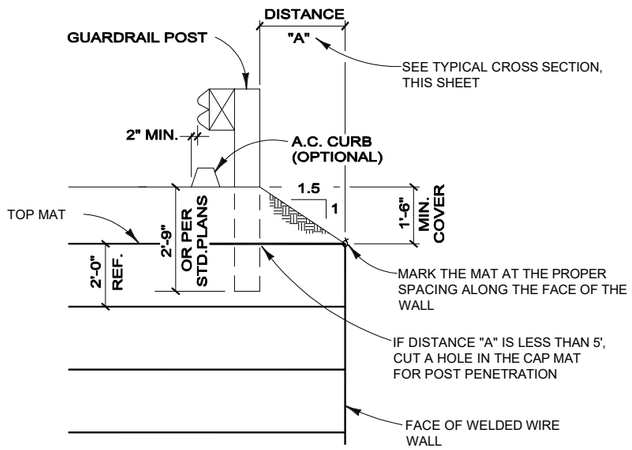
NOT TO SCALE



ELEVATION

CULVERT THRU WALL FACE

NOT TO SCALE



SECTION

GUARDRAIL DETAIL

NOT TO SCALE
(FENCE DETAIL SIMILAR)

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2023-1(1) 3N17

MSE WELDED WIRE WALL
CROSS SECTION & DETAILS

PROJECT	24-045
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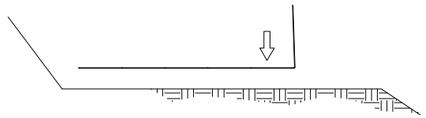
DESIGN	KLC
DRAWN	KLC

SHT 4 OF 5

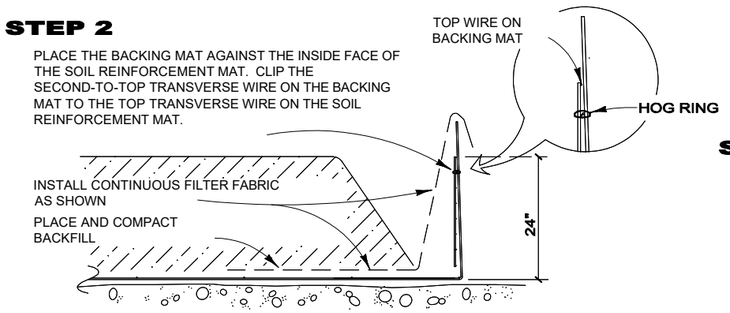
STEP 1

PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION.



STEP 2

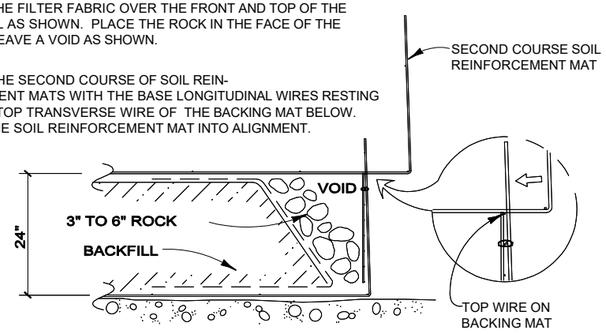
PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.



STEP 3

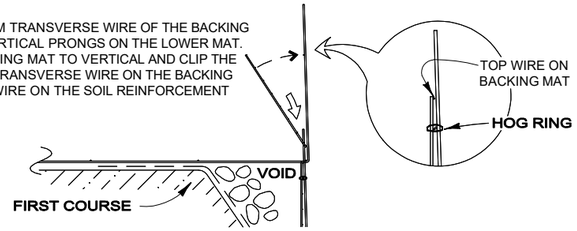
BRING THE FILTER FABRIC OVER THE FRONT AND TOP OF THE BACKFILL AS SHOWN. PLACE THE ROCK IN THE FACE OF THE WALL. LEAVE A VOID AS SHOWN.

PLACE THE SECOND COURSE OF SOIL REIN-FORCEMENT MATS WITH THE BASE LONGITUDINAL WIRES RESTING ON THE TOP TRANSVERSE WIRE OF THE BACKING MAT BELOW. SLIDE THE SOIL REINFORCEMENT MAT INTO ALIGNMENT.



STEP 4

HOOK THE BOTTOM TRANSVERSE WIRE OF THE BACKING MAT OVER THE VERTICAL PRONGS ON THE LOWER MAT. ROTATE THE BACKING MAT TO VERTICAL AND CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP WIRE ON THE SOIL REINFORCEMENT MAT.

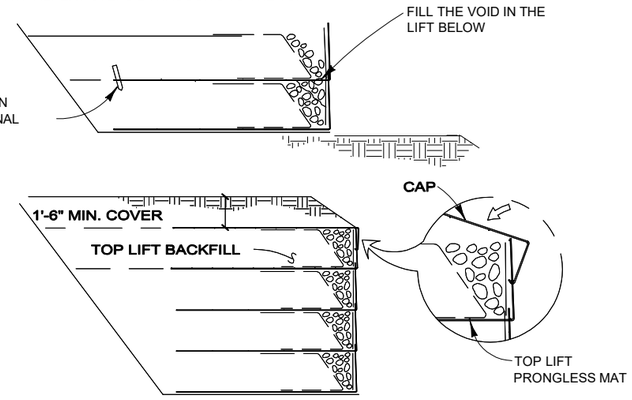


CONSTRUCTION SEQUENCE

NOT TO SCALE

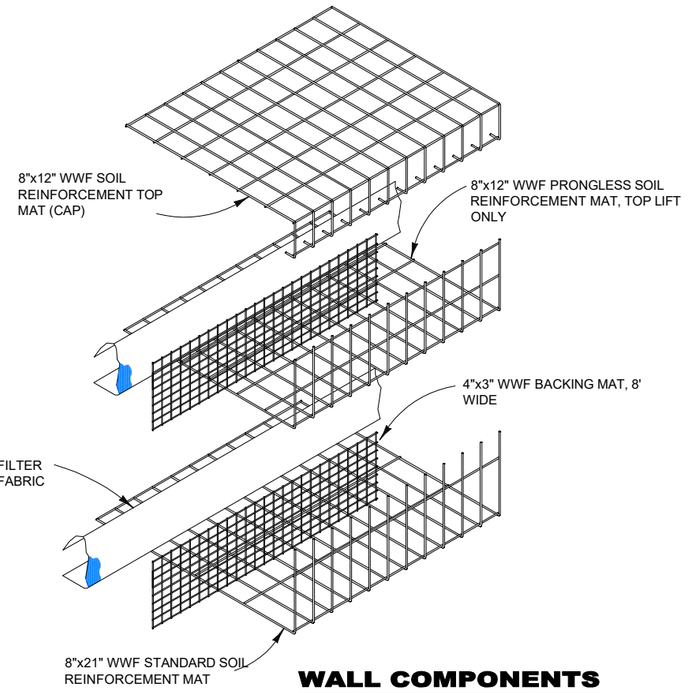
STEP 5

INSTALL THE FILTER FABRIC AS IN STEPS 2 AND 3. PLACE AND COMPACT THE BACKFILL AND ROCK TO THE BASE ELEVATION OF THE NEXT MAT. REPEAT STEPS 2 THROUGH 5 TO THE TOP LIFT.



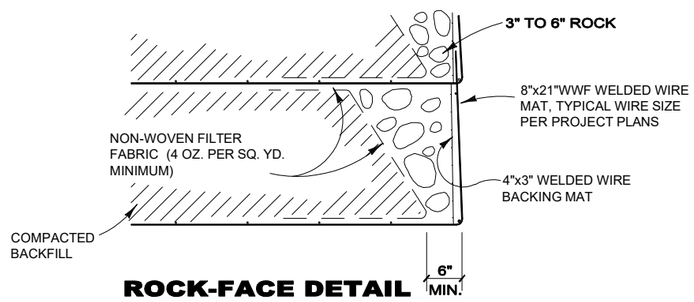
STEP 6: TOP LIFT

PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND FILTER FABRIC. PLACE AND COMPACT BACKFILL AND ROCK IN THE TOP LIFT. HOOK THE CAP OVER THE MIDDLE TRANSVERSE WIRE ON THE PRONGLESS MAT, AND ROTATE INTO PLACE. PLACE AND COMPACT COVER OVER TOP MAT TO 1'-6" MINIMUM DEPTH.



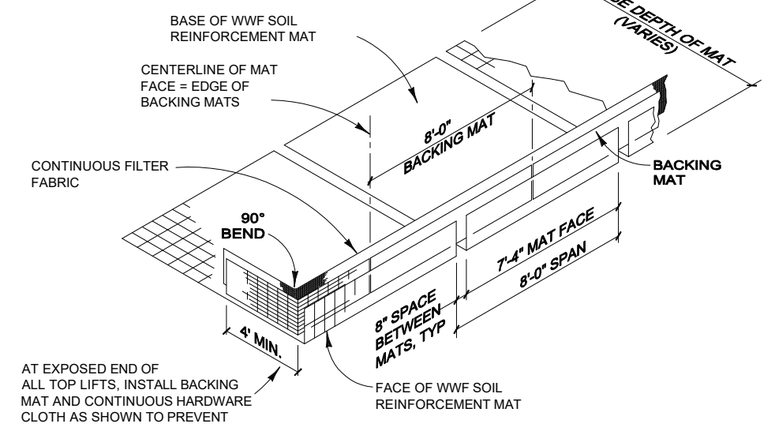
WALL COMPONENTS

NOT TO SCALE



ROCK-FACE DETAIL

NOT TO SCALE



ISOMETRIC VIEW

WELDED WIRE WALL COMPONENTS WITH RETURN MAT

NOT TO SCALE

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2023-1(1) 3N17
MSE WELDED WIRE WALL CONSTRUCTION SEQUENCE & DETAILS

PROJECT	24-045
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SHT 5 OF 5