

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

State	Proj. No.	Sheet No.
MO		
SEC/SUR 17	TWP 29N	RGE 22W

General Notes:

Design Specifications:

2002 - AASHTO 17th Edition  
Seismic Performance Category A

Factor of safety shall be 2.0 for overturning, 1.5 for sliding and 2.0 for bearing.

$\phi = 24^\circ$  for backfill material to be retained by the mechanically stabilized earth wall system.

$\phi = 24^\circ$  for foundation material the wall is to rest on.

$\phi \geq 34^\circ$  for the select granular backfill for structural systems.

Design  $\phi = 34^\circ$  for the select granular backfill for structural systems.

All concrete for leveling pad and coping shall be Class B or B-1 with  $f'c = 4000$  psi.

The boring logs or other factual records of subsurface data and investigations performed by the department for the design of this project is available from the Project Contact upon written request as outlined in the Project Special Provisions.

Panel reinforcement shall be epoxy coated.

The MSE wall system shall be built vertical.

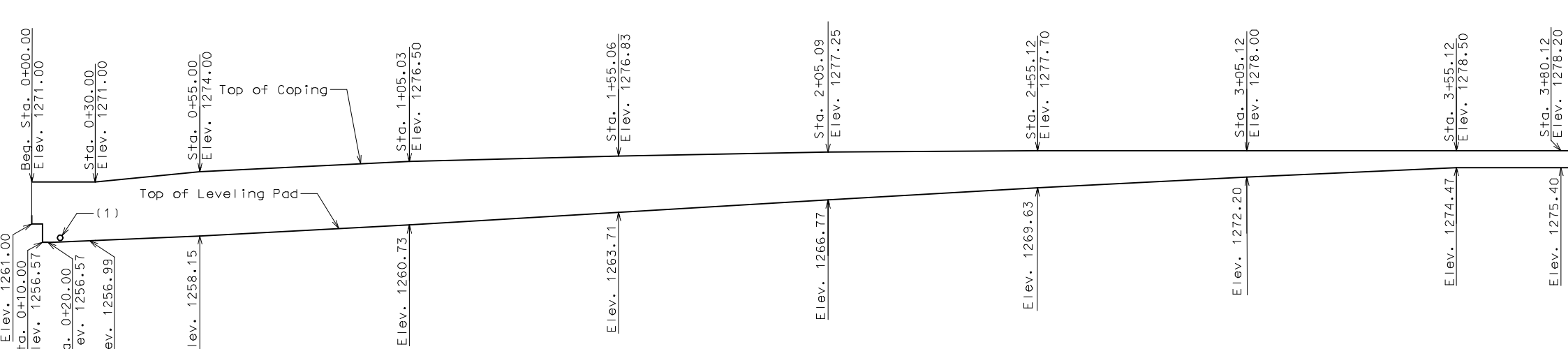
A filter cloth meeting the requirements for a Separation Geotextile material shall be placed between the select granular backfill for structural systems and the backfill being retained by the mechanically stabilized earth wall system.

Anchorage reinforcement shall be spaced to avoid roadway drop inlet behind wall.

Coping shall be required on this structure.

The MSE wall system shall be a large block wall system in accordance with Sec 720.

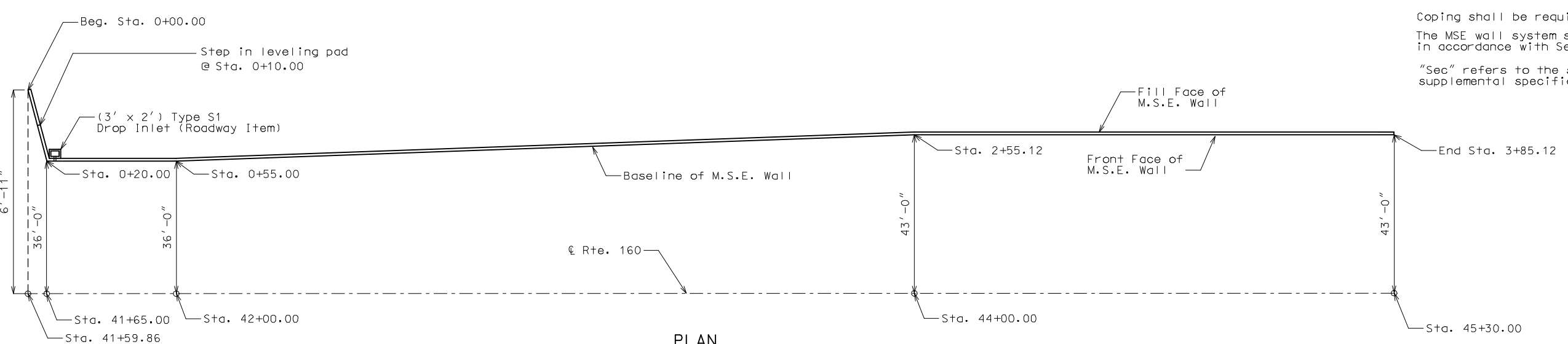
"Sec" refers to the sections in the standard and supplemental specifications unless specified otherwise.



DEVELOPED ELEVATION

Note: Coping and leveling pad not shown for clarity.

(1) Provide opening in wall for 12"  $\varnothing$  Group B pipe, Sta. 41+67.08 (Sta. 0+22.08 @ wall), Flow Line Elev. = 1256.56. See Roadway Drainage Plans for location and details of drop inlet.



Note: Elevations given are taken from top of coping and top of leveling pad.

Dimensions in plan view are taken from the baseline of M.S.E. Wall.

Baseline of M.S.E. Wall is at the Front Face of the Wall.

Stationing of M.S.E. Wall is along Front Face of the Wall.

For Typical Sections thru Wall, see sheet no. 2.

Estimated Quantities

Item	Total
Concrete and Masonry Protection System	1
Sacrificial Graffiti Protection System	1
Mechanically Stabilized Earth Wall Systems	4105

B.M. ELEV. 1287.80 CHISELED  ON EAST CORNER OF CONCRETE PAD FOR TRAFFIC CONTROL BOX IN THE SOUTHEAST CORNER OF RTE. 160 AND DIVISION ST. STA. 52+75.00

RETAINING WALL ALONG WEST SIDE OF RTE. 160 NORTH OF RAILROAD BRIDGE NO. A6224

STATE ROAD FROM BUSINESS LOOP I-44 TO ROUTE EE

ABOUT 0.8 MILES NORTH OF BUSINESS LOOP I-44

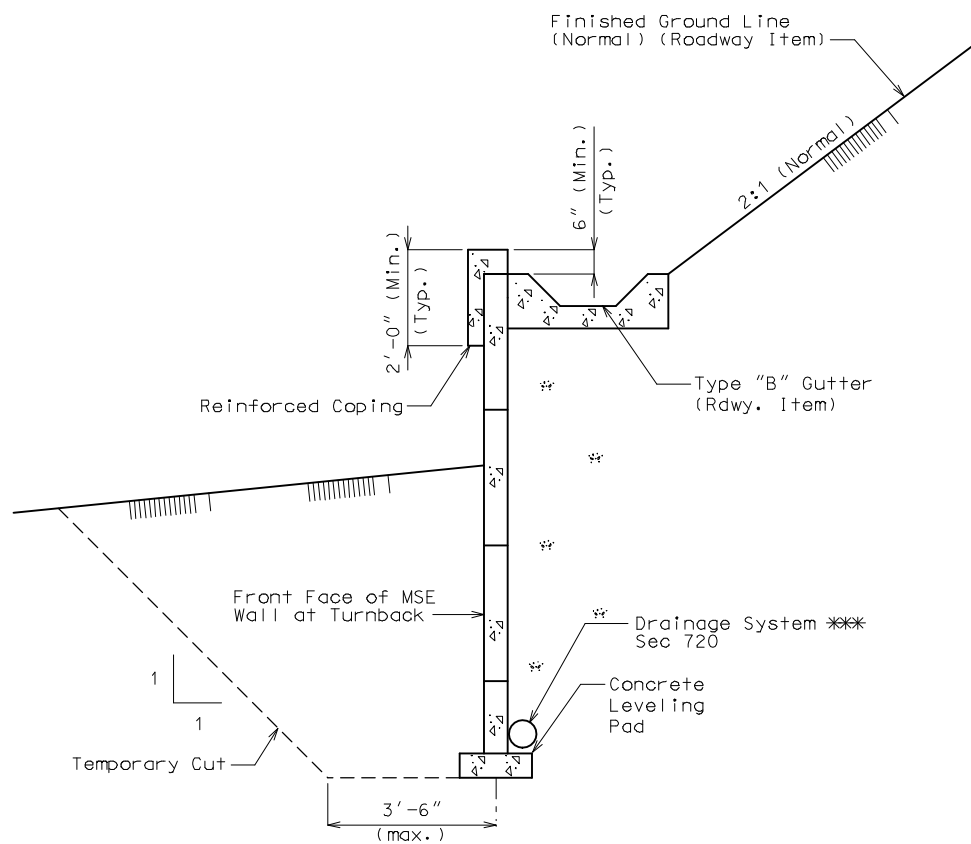
PROJECT NO. STA. 41+59.86

JOB NO. J8U0535 RTE. 160

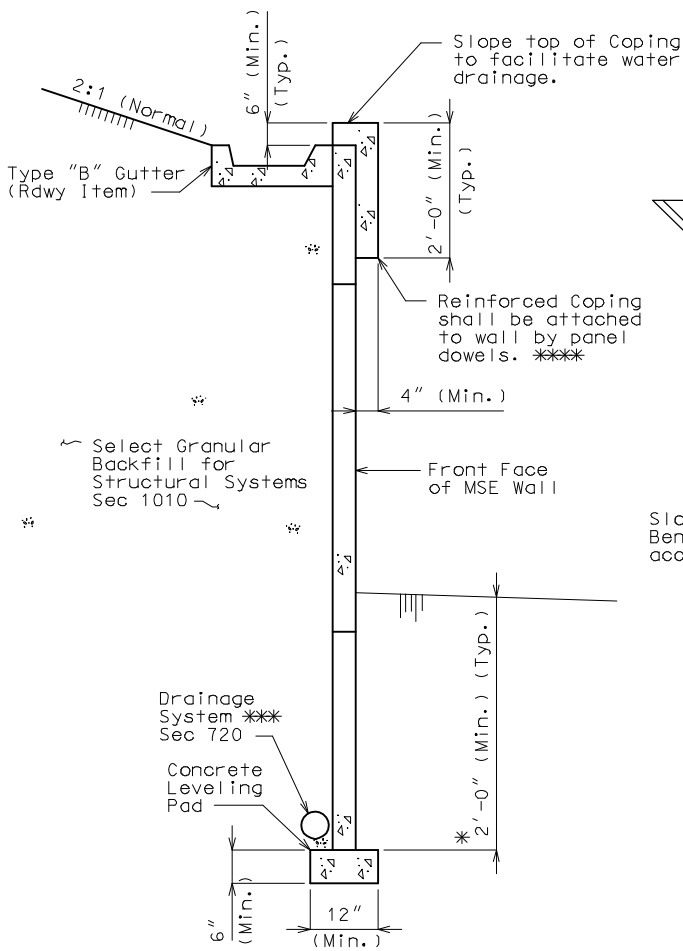
GREENE COUNTY

STD. 609.00

A6803

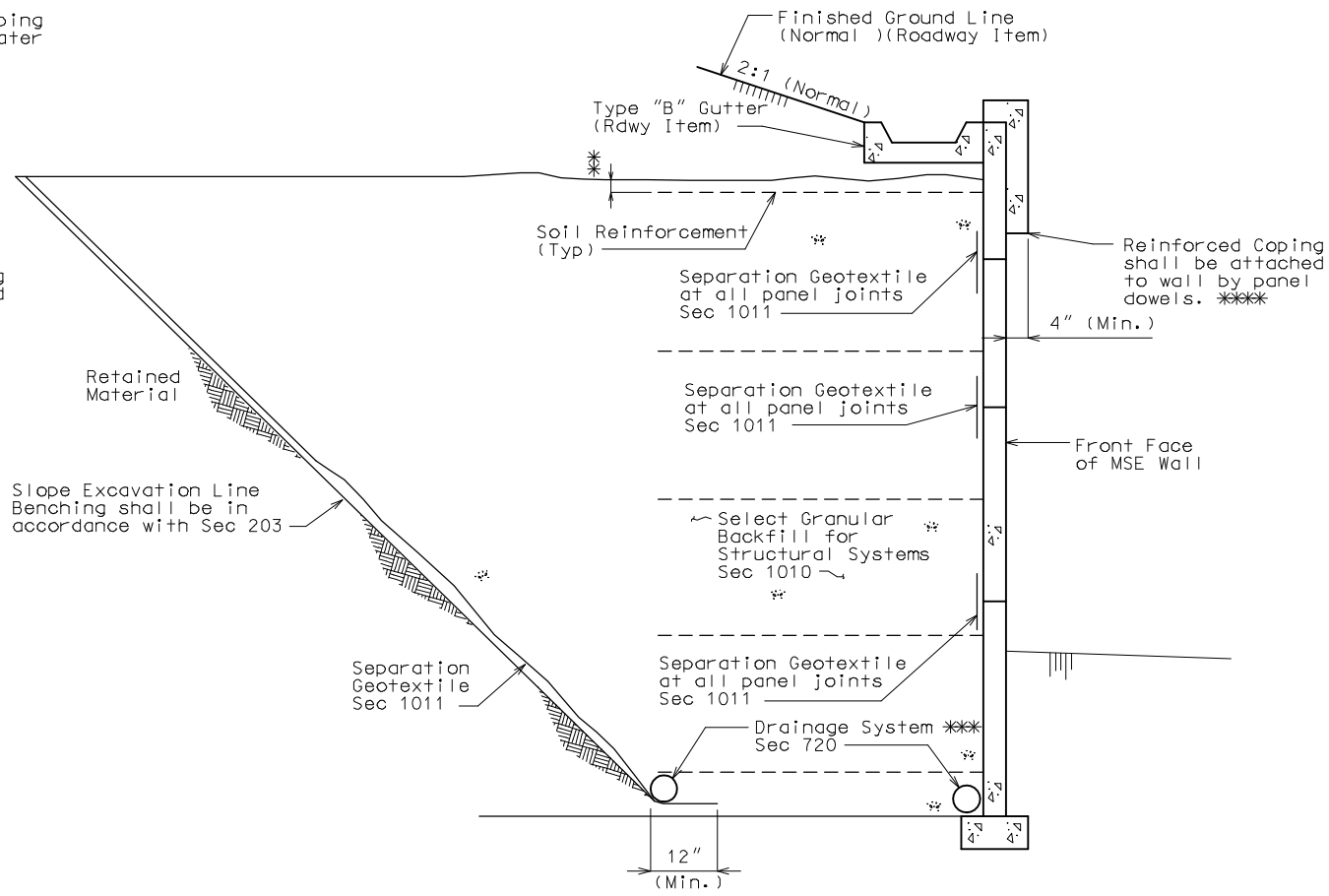


TYPICAL SECTION LOOKING UPSTATION  
THRU WALL AT TURNBACK  
STA. 0+00.00 TO 0+20.00



TYPICAL SECTION THRU WALL

\* For minimum embedment see AASHTO 5.8.1 & Geotechnical Report



TYPICAL SECTION THRU WALL  
SHOWING FILTER CLOTH

\*\* Topmost layer of reinforcement shall be fully covered with select granular backfill for structural systems, as approved by the wall manufacturer, before placement of the Separation Geotextile.

\*\*\* Adjustment in the vertical alignment of the drainage pipes from that depicted in the plans may be necessary to ensure positive flow out of the drainage system.

Outlet ends of pipes shall be located to avoid clogging or flow into the drainage system.

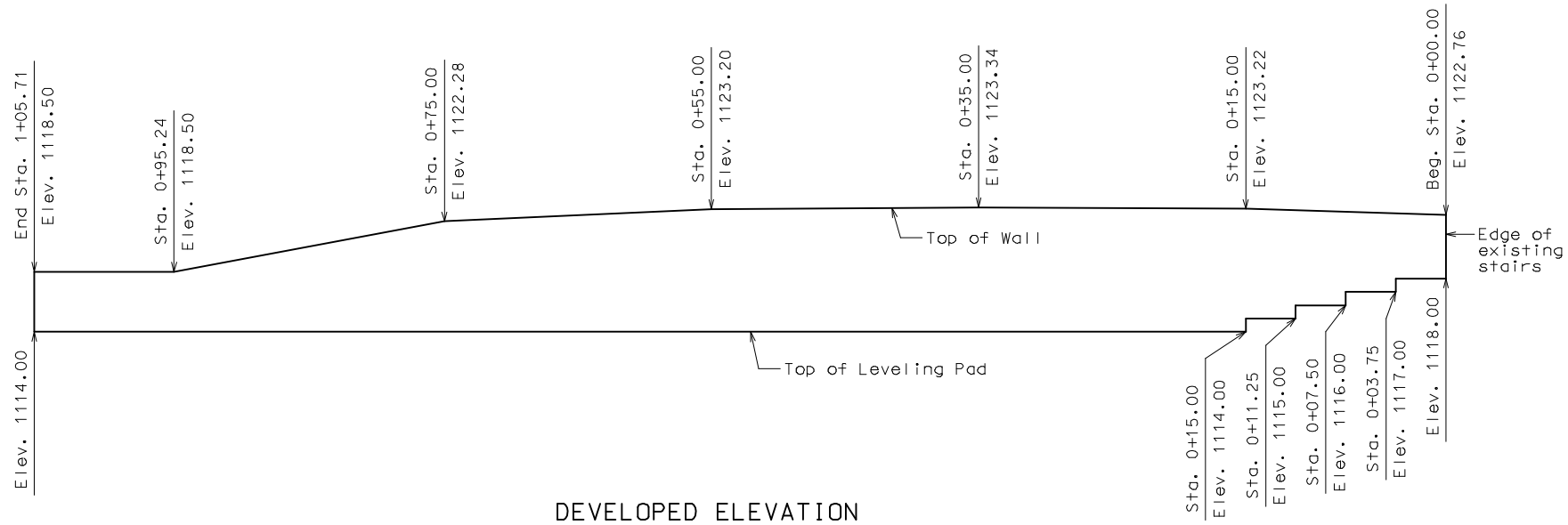
\*\*\* Inverted U-shape reinforced capstone may be used in lieu of coping. Panel dowels for capstone as required by manufacturer.

MSE Wall Systems Data Table					
Proprietary Wall Systems		Combination Wall Systems			
Manufacturer	System	Facing Unit Manufacturer	Facing Unit	Geogrid Manufacturer	Geogrid

MSE Wall Systems Data Table is to be completed by MoDOT construction personnel to record the manufacturer of the proprietary wall system or the manufacturers of the combination wall system that was used for constructing the MSE wall.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

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SEC/SUR 13	TWP 39N	RGE 8W



DEVELOPED ELEVATION

Note: Leveling pad not shown for clarity.

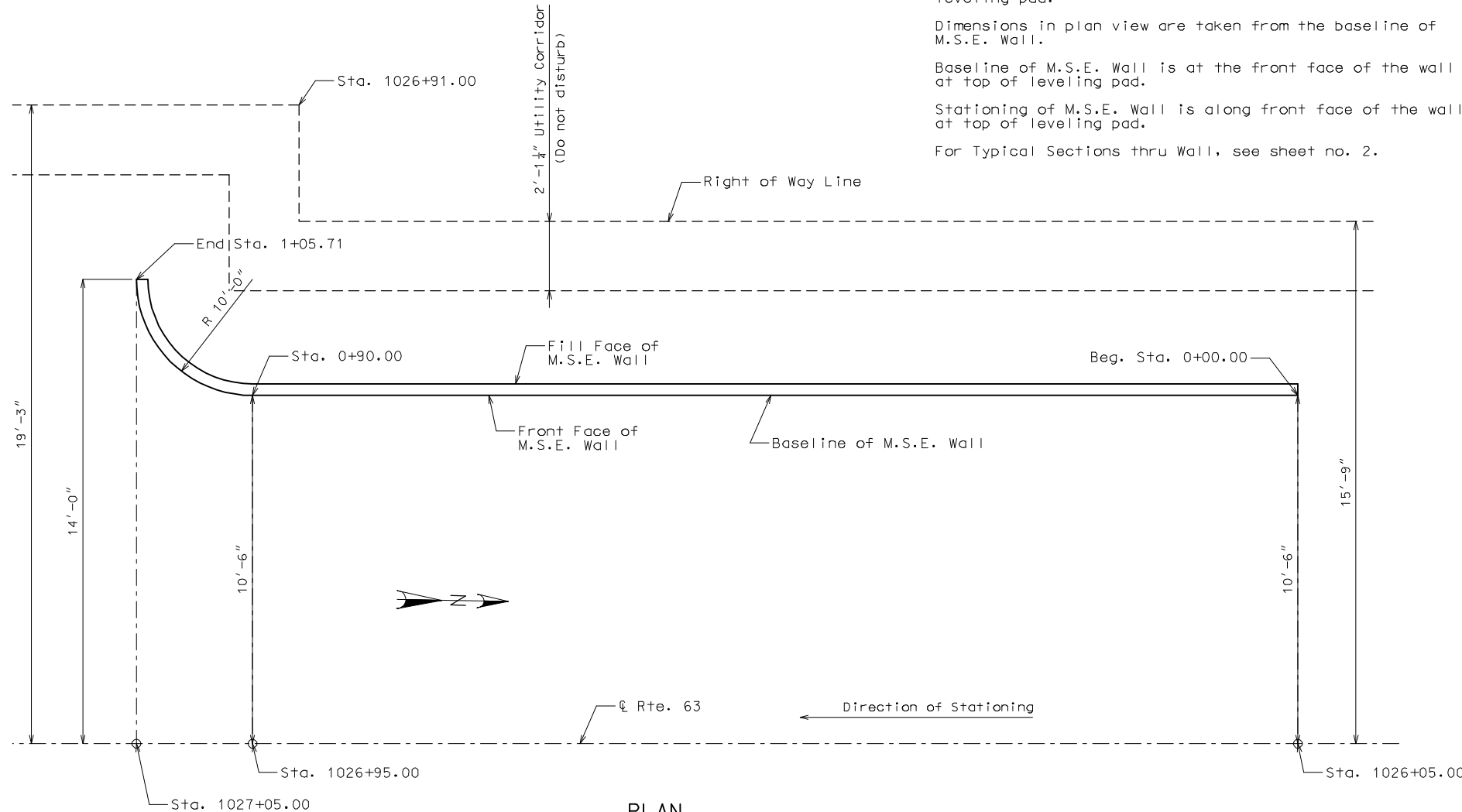
Note: Elevations given are taken from top of wall and top of leveling pad.

Dimensions in plan view are taken from the baseline of M.S.E. Wall.

Baseline of M.S.E. Wall is at the front face of the wall at top of leveling pad.

Stationing of M.S.E. Wall is along front face of the wall at top of leveling pad.

For Typical Sections thru Wall, see sheet no. 2.



PLAN

Note: Leveling pad not shown for clarity.

Note: This drawing is not to scale. Follow dimensions.

General Notes:

Design Specifications:

2002 - AASHTO 17th Edition  
 Seismic Performance Category A

Factor of safety shall be 2.0 for overturning, 1.5 for sliding and 2.0 for bearing.

$\phi = 29^\circ$  for backfill material to be retained by the mechanically stabilized earth wall system.

$\phi = 29^\circ$  for foundation material the wall is to rest on.

$\phi \geq 34^\circ$  for the select granular backfill for structural systems.

Design  $\phi = 34^\circ$  for the select granular backfill for structural systems.

All concrete for leveling pad shall be Class B or B-1 with  $f'c = 4000$  psi.

The boring logs or other factual records of subsurface data and investigations performed by the department for the design of this project is available from the Project Contact upon written request as outlined in the Project Special Provisions.

A filter cloth meeting the requirements for a Separation Geotextile material shall be placed between the select granular backfill for structural systems and the backfill being retained by the mechanically stabilized earth wall system.

The MSE wall system shall be a small block wall system in accordance with Sec 720.

The top and bottom elevations are given for a vertical wall. If a battered wall system is used, the height of the wall shall be adjusted as necessary to fit the ground slope and the concrete leveling pad shall be adjusted as necessary to account for the wall batter.

The baseline of the wall shown is for a vertical wall. If a battered wall system is used, this baseline shall correspond to top of leveling pad elevations.

"Sec" refers to the sections in the standard and supplemental specifications unless specified otherwise.

Estimated Quantities

Item		Total
Mechanically Stabilized Earth Wall Systems	sq. foot	820

B.M. ELEV. 1118.741 1932 USGS BENCHMARK.  
 32.818' LEFT OF CL ROUTE 63 AT STA. 1027+42.552

RETAINING WALL ALONG WEST SIDE OF RTE. 63

STATE ROAD FROM RTE. 68 TO RTE. P

ABOUT 0.45 MILES SOUTH OF RTE. 68

PROJECT NO.

STA. 1026+05.00

JOB NO. J5P0783

RTE. 63

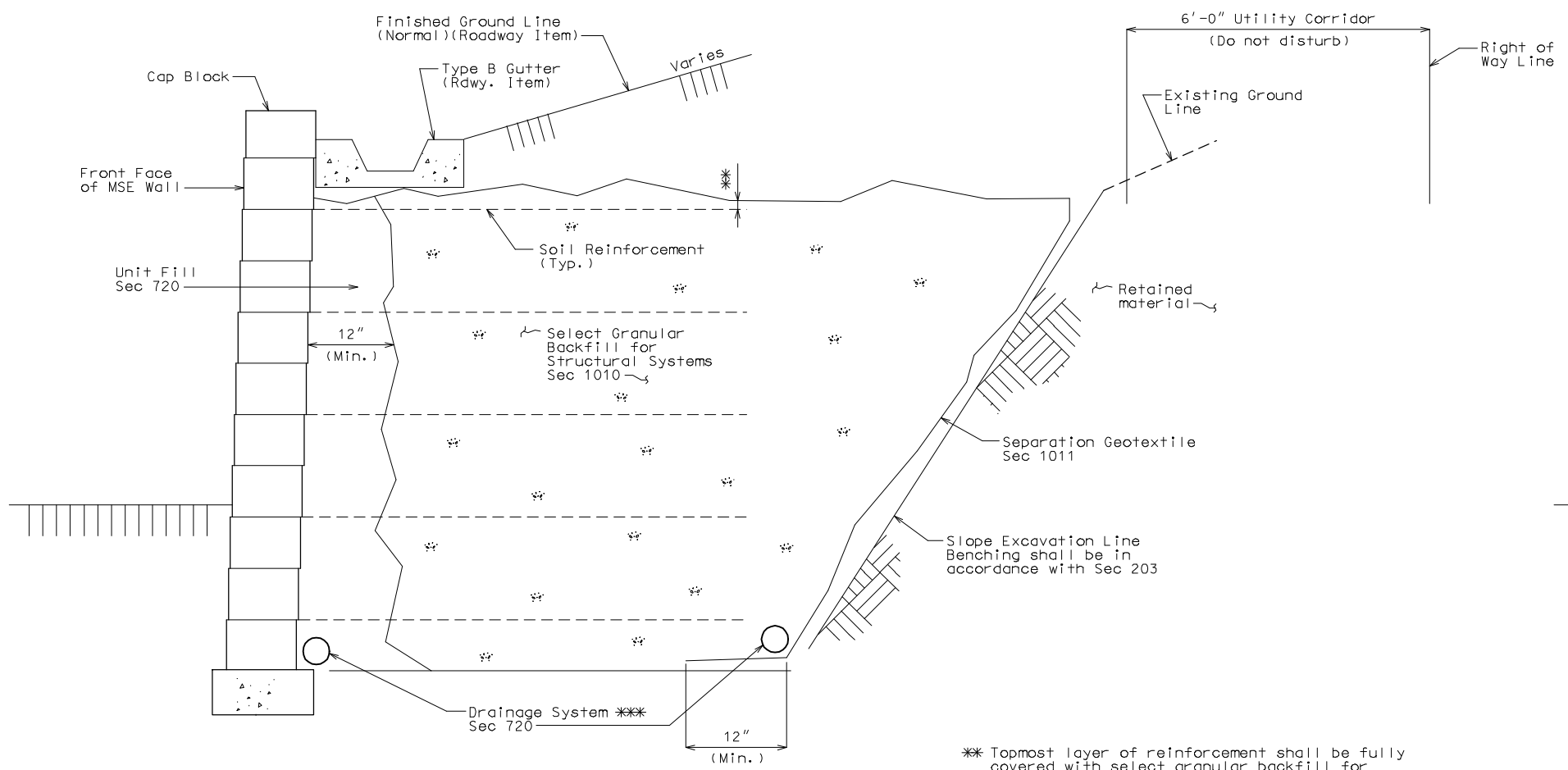
MARIES COUNTY

Date: / /

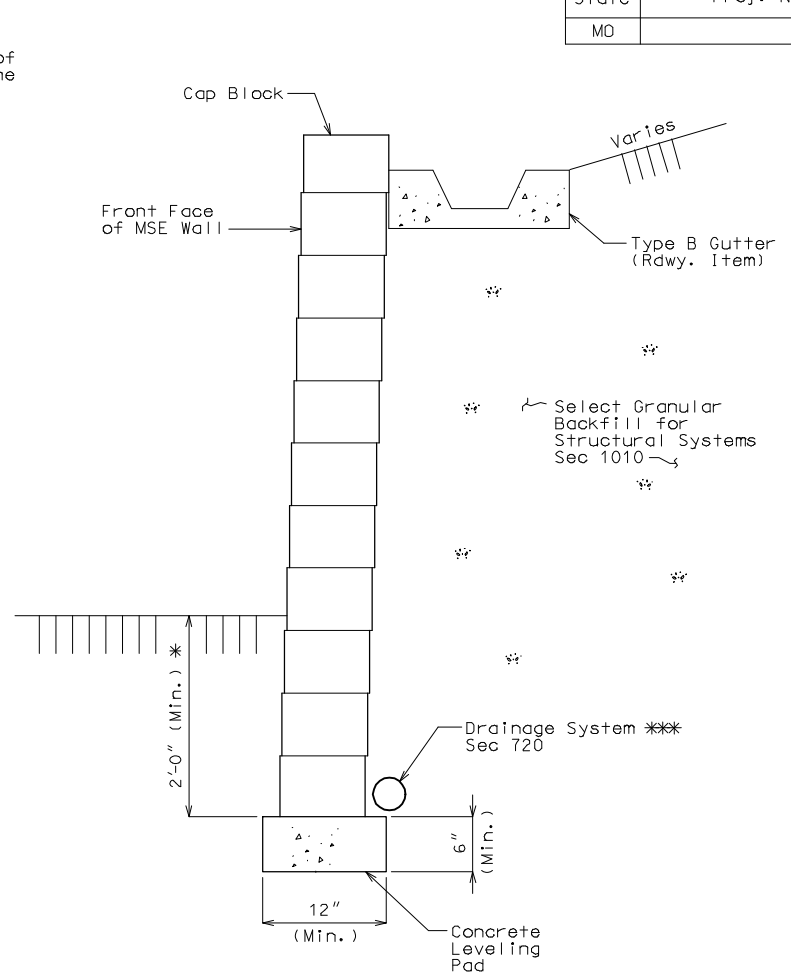
STD. 609.00

A7062

State	Proj. No.	Sheet No.
MO		



TYPICAL SECTION THRU WALL SHOWING SEPARATION GEOTEXTILE

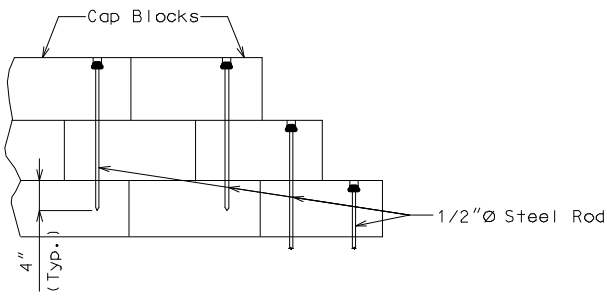


TYPICAL SECTION THRU WALL

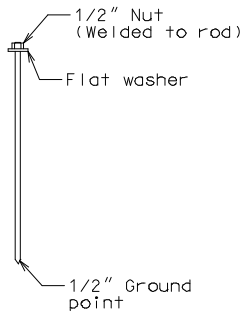
\*\* Topmost layer of reinforcement shall be fully covered with select granular backfill for structural systems, as approved by the wall manufacturer, before placement of the separation geotextile.

\*\*\* Adjustment in the vertical alignment of the drainage pipes from that depicted in the plans may be necessary to ensure positive flow out of the drainage system. Outlet end of pipes shall be located to avoid clogging or flow into the drainage system.

\* For minimum embedment, see AASHTO 5.8.1 & Geotechnical Report.

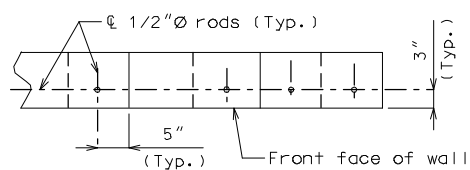


WALL PROFILE



DETAILS OF 1/2" THREADED ROD OR REINFORCING ROD

Note:  
 Holes shall be 5/8" round and extended 4" into the third layer of blocks, recessed 2" deep by 1 1/2" round.  
 Rods or reinforcing bars shall be secured by an approved resin anchor system in accordance with Sec 1039.  
 Recess hole shall be backfilled with non-shrink cement grout.  
 Cost of furnishing and installing the resin anchor system complete-in-place will be considered completely covered by the contract unit price for Mechanically Stabilized Earth Wall Systems.



WALL PLAN

MSE Wall Systems Data Table					
Proprietary Wall Systems		Combination Wall Systems			
Manufacturer	System	Facing Unit Manufacturer	Facing Unit	Geogrid Manufacturer	Geogrid

MSE Wall Systems Data Table is to be completed by MoDOT construction personnel to record the manufacturer of the proprietary wall system or the manufacturers of the combination wall system that was used for constructing the MSE wall.