

USER: TThompson
PLOTTED: 08-MAR-2010 14:45
\\kcow00\Jobs\49259\Bridges\Plans\CDtoMoDotA7801_03-05-10\J7P0601\A7801-dgn\ZPLOT_F01.dgn

Designed JUL 2009
Detailed JUL 2009
Checked AUG 2009

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

Sheet No. 1 of 3

RETAINING WALL AT END BENT 2
OF BRIDGE A6380

STATE ROAD FROM RTE. H TO STATE LINE
ABOUT 2.6 MILES NORTH OF RTE. 90

STA. 736+55.41 (RTE. I-49)

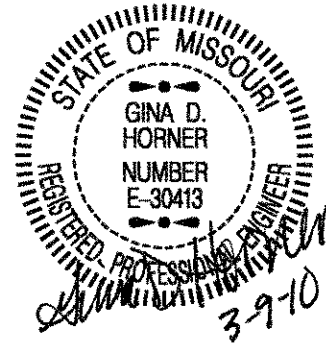
STD. 611.60

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SEC/SUR 22

TWP 21N

RGE 32W



DATE PREPARED

07/28/09

ROUTE I-49 STATE MO

DISTRICT BR SHEET NO. 1

COUNTY

MCDONALD

JOB NO.

J7P0601

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A7801

DESCRIPTION

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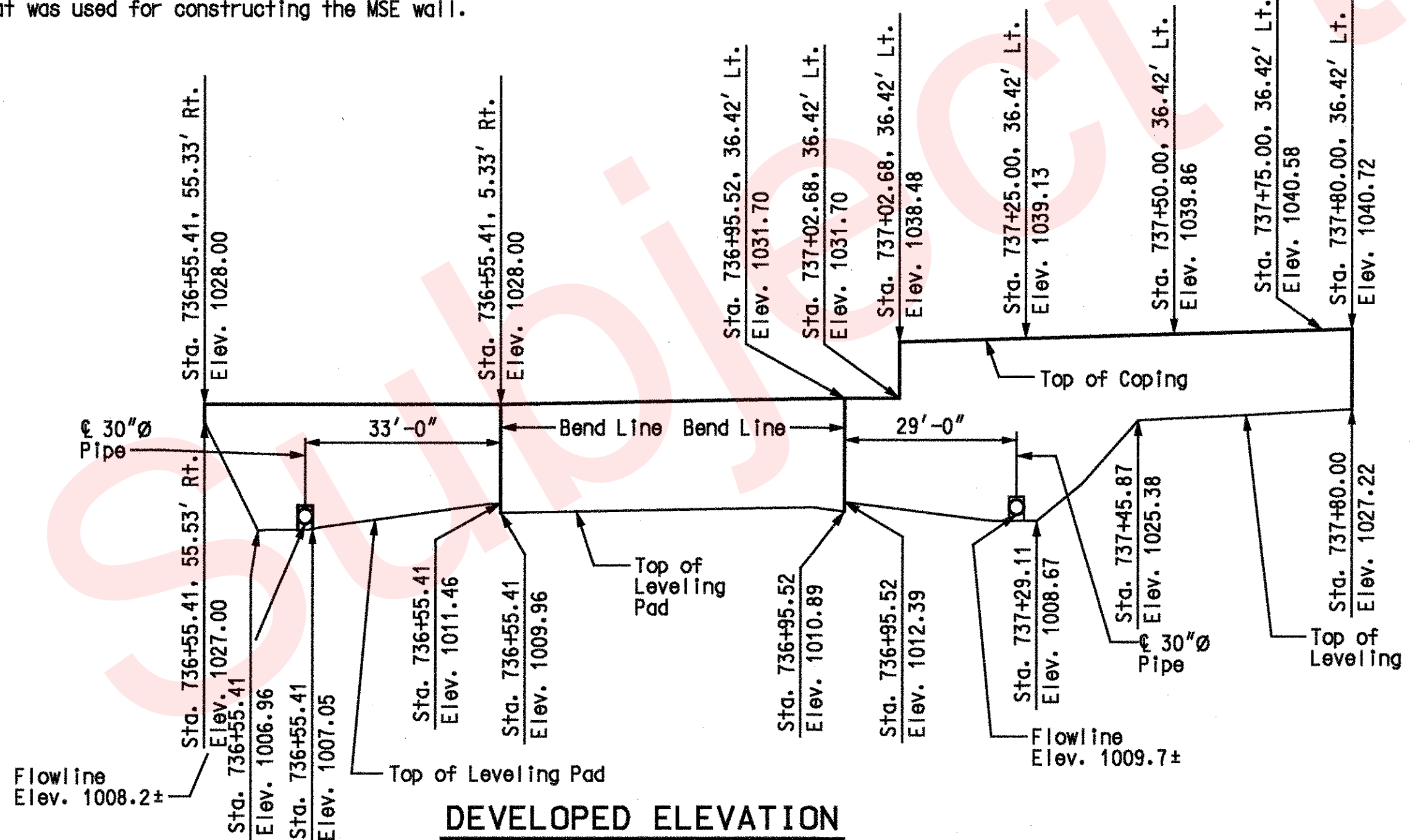
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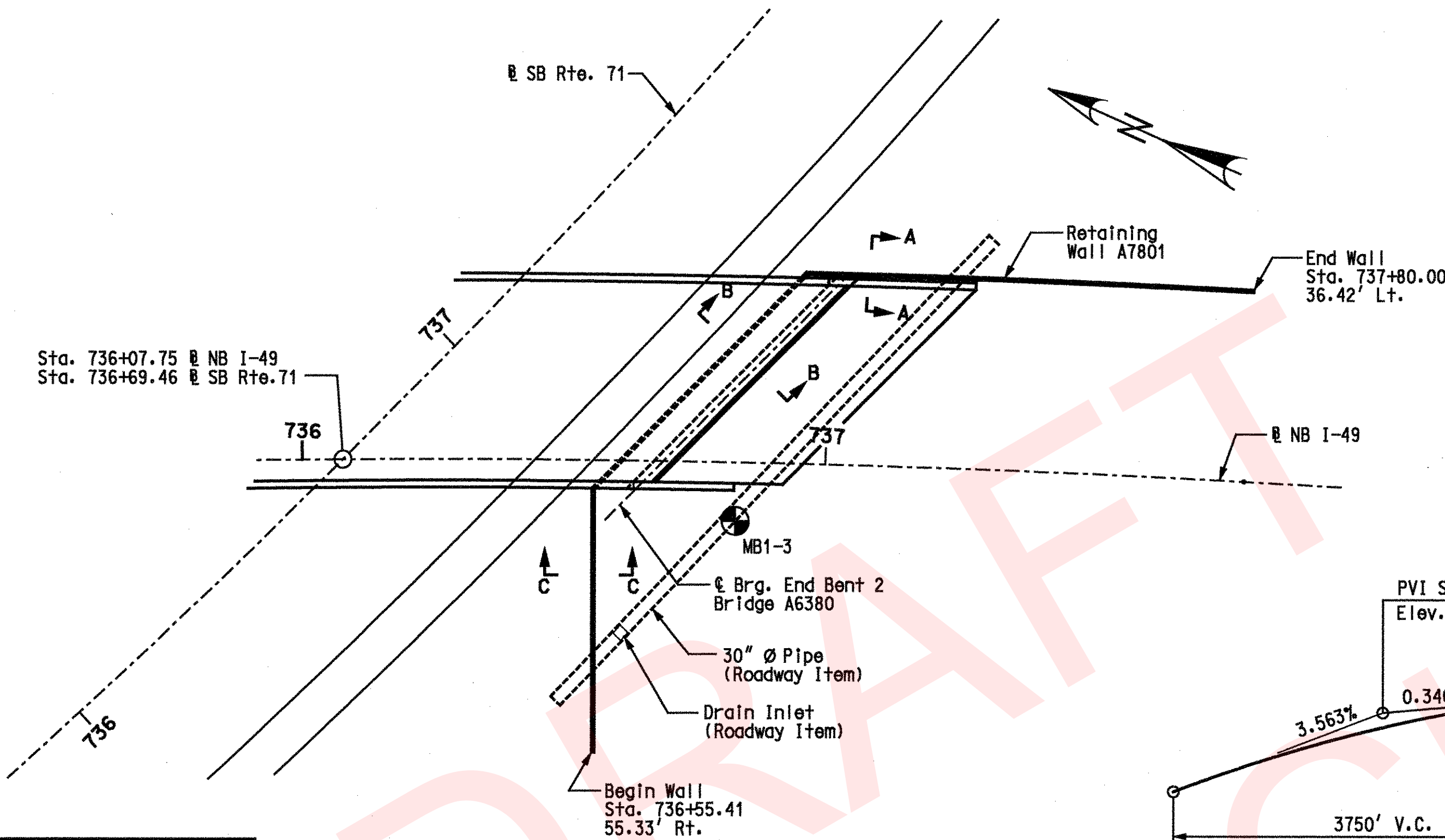
MSE WALL SYSTEMS DATA TABLE					
Proprietary Wall Systems		Combination Wall Systems			
Manufacturer	System	Facing Unit Manufacturer	Facing Unit	Geogrid Manufacturer	Geogrid

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.

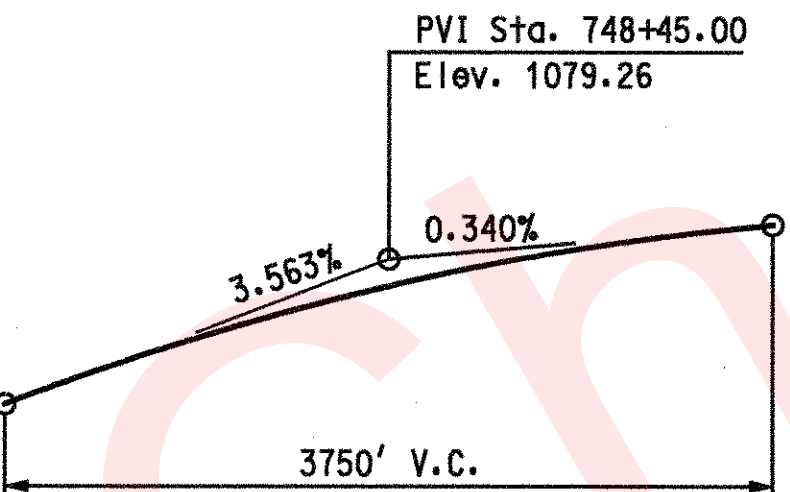


Note: This drawing is not to scale. Follow Dimensions.

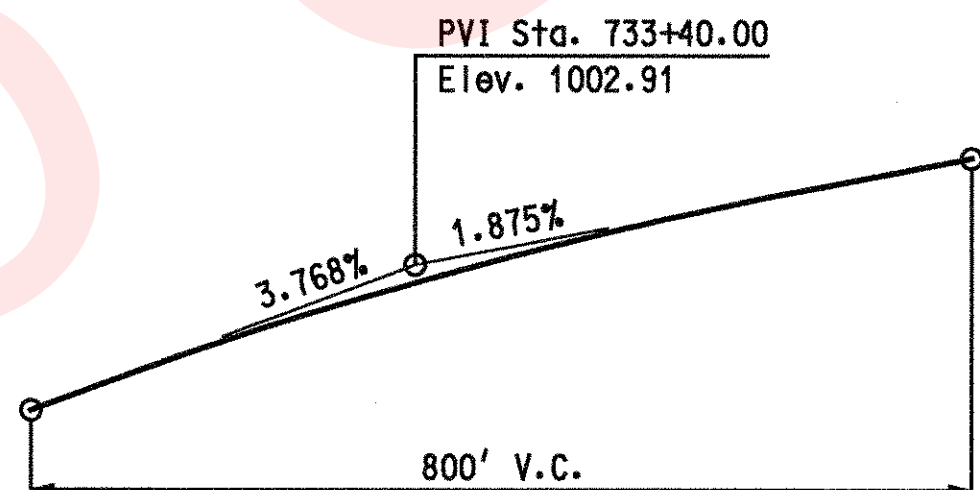
Sheet No. 2 of 3



PLAN



PROFILE GRADE - NB I-49



PROFILE GRADE - SB RTE. 71

CURVE DATA
NB I-49
P.I. Sta. = 739+20.393
 $\Delta = 44^\circ 43' 02''$ (Rt.)
D = 2°00'00.0" (Rt.)
L = 2235.86'
T = 1178.36'
R = 2864.79'
SE = 6.3%

CURVE DATA
SB RTE. 71
P.I. Sta. = 736+04.58
 $\Delta = 66^\circ 31' 00''$ (Lt.)
Lc = 1987.22'
Ts = 1368.30'
R = 1909.86'
D = 3°00'00"
Ls = 230.00'
Os = 3°27'00" (Lt.)
Xs = 229.92'
Ys = 4.62'
SE = 7.9%

GENERAL NOTES:

Design Specifications:
2002 - AASHTO 17th Edition.
Seismic performance category A.
Acceleration coefficient = 0.05

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

For seismic design, the factor of safety shall be 1.5 for overturning and 1.1 for sliding.

$\phi = 34^\circ$ for retained fill material to be retained by the mechanically stabilized earth wall.

$\phi = 34^\circ$ for foundation material the wall is to rest on.

$\phi = 34^\circ$ for selected granular backfill.

All concrete for leveling pad and coping shall be Class B or B-1 with $f'c = 4,000$ psi.

Panel reinforcement shall be epoxy coated.

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.

Front face of wall shall be vertical.

All stationing is along NB I-49.

The contractor shall be solely responsible to coordinate construction of the wall with bridge and roadway construction and ensure that the bridge and roadway construction, resulting or existing obstructions, shall not impact the construction or performance of the wall. Soil reinforcement shall be designed and placed to avoid damage by pile driving, guardrail post installation, utility and sign foundations. (See Roadway and Bridge plans.)

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.

The cost of joint filler, complete-in-place, will be considered completely covered by the contract unit price for Concrete Traffic Barrier (Type B). See roadway plans.

Total Length of wall = $192' - 4\frac{1}{2}''$

ESTIMATED QUANTITIES		
ITEM	QUANTITY	
Mechanically Stabilized Earth Wall Systems	Sq. Ft.	3,668

Notes:

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

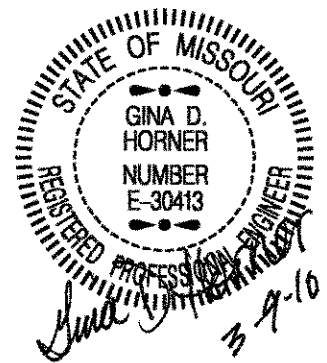
For Section A-A, B-B and C-C, see Sheet No. 3.

⊕ Denotes boring location.

BENCHMARKS

BM-71-99-97 R.R. spike in West face of corner post 0.9 mi. South of Rte. H on county road SW of H-21, East of county road. Elev. 925.19

BM-49-01-01 R.R. spike East of root of 1.2' wild cherry with blazed "X" West side of county road SW H-21, West of Gardner's chicken houses. BM is 1.475 miles South of Rte. H. Elev. 949.43



DATE PREPARED

ROUTE I-49 STATE MO

DISTRICT BR SHEET NO. 2

COUNTY McDONALD

JOB NO. J7P0601

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A7801

DESCRIPTION	DATE

DATE					

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITAL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

HNTB

715 KIRK DRIVE
KANSAS CITY, MO 64105-1310
TELEPHONE (816) 472-1201
CERTIFICATE OF AUTHORITY NO. 001270

