JAN '99 5215-02-71, 72 (5215-02-00)

* REVISIONS

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5215-02-71	NH 1999(034)	1
5215-02-72	BR 1999(099)	1

INDEX OF SHEETS

Sheet No. 1 Title
Sheet No. 2.1-2.2 Typical Sections and Details
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Sheet No. 3.A-3.F Miscellaneous Quantities
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Sheet No. 5.1-5.20 Plan and Profile
Sheet No. 6.1-6.23 Standard Detail Drawings
Sheet No. ——— Sign Plates
Sheet No. 8.1-8.24 Structure Plans
Sheet No. 9.1-9.8 Computer Earthwork Data
Sheet No. 9.9-9.30 Cross Sections

TOTAL SHEETS = 333

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CASSVILLE - LANCASTER ROAD

(C.T.H. Y - S.T.H. 35) (RATTLESNAKE CREEK BRIDGE)

S.T.H. 81

GRANT COUNTY

As Built Construction Plan

WORK TYPE Grading, Base, Asph, Pavt, Structures
STRUCTURES B-22-139, B-22-140, B-22-141
PRIME CONTRACTOR Hoffman
STRUCTURE SUBCONTRACTOR Lunda
PROJECT MANAGER DAVE OWEN
WORK START-COMPLETED 5-3-1999 5-26-2000



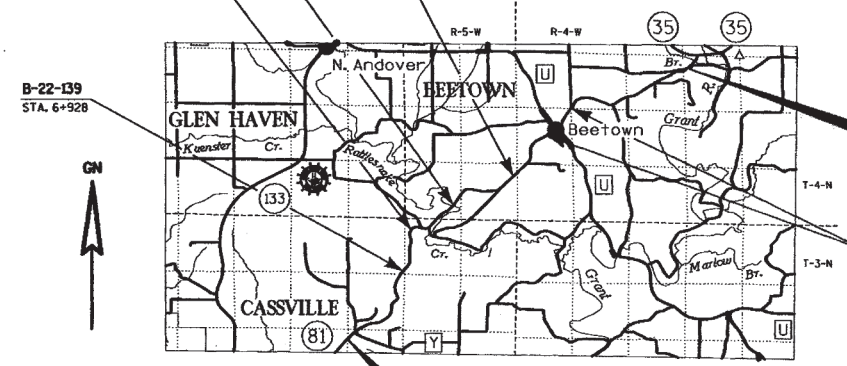
PROJECT 5215-02-72
EXCEPTION TO NET ℄ LENGTH OF 5215-02-71
STA 9+523.66 TO 9+550.72
B-22-141

GRADING AND PAVING, B-22-139, B-22-140, AND C-22-124	BRIDGE REPLACEMENT B-22-141
STATE PROJECT NUMBER	STATE PROJECT NUMBER
5215-02-71	5215-02-72

B-22-140
STA. 8+050

C-22-124
STA. 11+305

B-22-139
STA. 6+928



END PROJECT 5215-02-71
STA. 18+380.000

STA. 13+552.045 TO STA. 14+386.589
EXCEPTION TO NET ℄ LENGTH OF 5215-02-71

BEGIN PROJECT 5215-02-71
STA. 4+080.000
Y = 82,697.029
X = 521,623.575

DESIGN DESIGNATION

		CTH Y-CTH U	CTH U-CTH 35
A.D.T.	1988 =	600	1310
A.D.T.	2016 =	900	1950
D.H.V.	=	117	254
D.	=	60%-40%	60%-40%
T.	=	9.8%	9.8%
DESIGN SPEED	=	90 kph	90 kph
ESALS	=	189,800	394,200

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SURVEY LINE
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)
CULVERT (Profile View)
SILT FENCE
EROSION BALES
RIPRAP
REINFORCED SOD
COMBUSTIBLE FLUIDS
UNDERGROUND UTILITIES
GAS — G —
ELECTRIC — E —
TELEPHONE OR TELEGRAPH — T —
SERVICE PEDESTAL
CABLE MARKER P
POWER POLE
TELEPHONE POLE
RAILROAD
MARSH AREA
WOODED OR SHRUB AREA
EROSION MAT
RIPRAP DITCH CHECK
HEAVY RIPRAP
ASPHALTIC FLUME

LAYOUT
SCALE 0 1.6 km

TOTAL NET LENGTH OF CENTERLINE	
5215-02-71	13.438 km
5215-02-72	0.027 km
TOTAL	13.465 km (RURAL)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NATIONAL VERTICAL DATUM OF 1929.

ALL COORDINATES ON THIS PLAIN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM SOUTH ZONE GRID - NAD 83 (1991)

ORIGINAL PLANS RELEASED FOR CONSTRUCTION
WISCONSIN
PETER F. WOOD
E-17511
Veronia
9/23/98
PROFESSIONAL ENGINEER
STRAND ASSOCIATES CONSULTING ENGINEERS MADISON, WISCONSIN 53715

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	STRAND
Designer	STRAND
District Examiner	M.P. RAMPETSREITER
District Supervisor	D.A. HUNTLEY
Proj. Dev. Engineer	R.R. FILSINGER
C.O. Examiner	N.R. AFFELDT

APPROVED FOR DISTRICT OFFICE
DATE: 9/24/98 David A. Huntley (Signature)

AUTHORIZED FOR CENTRAL OFFICE DESIGN
DATE: 10/2/98 Richard R. Filsinger (Signature)

M

WisDOT: MSHT10

FILE NAME: TITLE.DGN

SHT 1 OF 1052 GRANT CO.

PLOT SCALE:

PLOT NAME: 58,59, 63 63

REV. DATE:

ORIGINATOR: LEVELS ON + 1, 3, 4,

GENERAL NOTES

PRIOR TO PLACEMENT OF STEEL PLATE BEAM GUARD, SHOULDERS SHALL BE IN PLACE, SHAPED, AND COMPACTED.

NO TREES (AND/OR SHRUBS) ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

EXACT LOCATIONS OF PRIVATE ENTRANCES SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD. EXISTING DRIVEWAYS AND FIELD ENTRANCES WILL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER.

WHEN THE QUANTITY OF ITEM BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE Mg, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE FACTOR USED FOR EXPANDING THE FILLS TO COMPUTE THE VOLUME OF MATERIAL REQUIRED IS 1.30 FOR COMMON EXCAVATION. THE ROCK EXCAVATION IN ITS ORIGINAL POSITION HAS BEEN EXPANDED BY 1.05 TO COMPUTE THE FINAL POSITION VOLUME.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. THE LOCATION OF EBS SHALL BE DETERMINED BY THE ENGINEER
FILL REQUIRED TO FILL THE EBS AREA SHALL BE FILL OBTAINED FROM ROCK EXCAVATION
THE TOP 600mm OF FILL EMBANKMENTS BETWEEN SHOULDER SUBGRADE POINTS SHALL BE CONSTRUCTED WITH MATERIAL OBTAINED FROM ROCK EXCAVATION.

WHEN PORTIONS OF THE EXISTING ASPHALTIC ROADWAY ARE TO BE REMOVED TO ACCOMMODATE THE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT THROUGH THE ASPHALTIC PAVEMENT SUCH THAT REMOVAL OF THE PAVEMENT WILL BE ACCOMPLISHED WITHOUT DAMAGE TO THE REMAINING PAVEMENT.

TACK COAT HAS BEEN ESTIMATED AT AN APPLICATION RATE OF 0.113 LITERS PER SQUARE METER AND SHALL ABE PLACED BETWEEN LAYERS OF RECYCLED ASPHALTIC SURFACE AND BETWEEN RECYCLED ASPHALTIC SURFACE AND ASPHALTIC CONCRETE PAVEMENT.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

SILT FENCE TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER (SILTY SOILS TYPE REQUIRED).

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE SEEDED AND FERTILIZED AS DIRECTED BY THE ENGINEER. USE SEED MIX NO. 20 & 50. MULCH ALL AREAS, EXCEPT BASE COURSE INSLOPES.

THE EROSION CONTROL FEATURES AS REQUIRED IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

RADIUS DIMENSIONS ON CURB AND GUTTER ARE TO FLAG OF CURB UNLESS OTHERWISE NOTED.

EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER.

A SOD FLUME SHALL BE CONSTRUCTED AT DISCHARGE ENDS OF CURB AND GUTTER WHERE ASPHALTIC FLUMES ARE NOT SHOWN.

INLET GRATE ELEVATIONS REFERRED TO ON INLET NOTES ARE GRATE FLAG ELEVATIONS.

TEMPORARY LIMITED EASEMENTS FOR P.E. CONSTRUCTION HAVE BEEN OBTAINED, WHICH RIGHTS SHALL BE EXTENDED TO THE CONTRACTORS.

THE LOW SIDE CRUSHED AGGREGAGE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS SUPERELEVATION WHEN SUPERELEVATION IS GREATER THAN 4%. IF SUPERELEVATION LESS THAN OR EQUAL TO 4% THEN LOW SIDE CRUSHED AGGREGATE SHOULDER SLOPE IS 4%. HIGH SIDE CRUSHED AGGREGATE SHOULDER SLOPE IS EQUAL TO SUPERELEVATION.

EXISTING DRAINAGE DITCHES AND CULVERT PIPES SHALL REMAIN FUNCTIONAL DURING CONSTRUCTION.

EARTHWORK IS CONSIDERED TO HAVE ONE BALANCE POINT FOR THE ENTIRE PROJECT LIMITS.

THE ITEMS OF REMOVING OLD CULVERTS WILL PERTAIN ONLY TO THOSE CULVERTS ENUMERATED IN THE SUMMARY OF MISCELLANEOUS QUANTITIES. ALL OTHER CULVERTS WILL BE CONSIDERED INCIDENTAL TO CULVERT INSTALLATION OR COMMON EXCAVATION.

ABBREVIATIONS

ASPH.	ASPHALT
C.E.	COMMERCIAL ENTRANCE
CONC.	CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE
C.P.	CULVERT PIPE
C. & G.	CURB & GUTTER
F.E.	FIELD ENTRANCE
G	GAS
GR.	GRAVEL
INV. X	INVERT (X = ELEV. NORTH, SOUTH, EAST OR WEST DIRECTION PIPE)
L.H.F.	LEFT HAND FORWARD
P.C.C.	PORTLAND CEMENT CONCRETE
P.E.	PRIVATE ENTRANCE
R/L	REFERENCE LINE
R.D.E.	RESTRICTED DEVELOPMENT EASEMENT
REQ'D.	REQUIRED
R.H.F.	RIGHT HAND FORWARD
R/W	RIGHT OF WAY
S.S	STORM SEWER
T.L.E.	TEMPORARY LIMITED EASEMENT
VC	VERTICAL CURVE LENGTH
W	WATER
A.D.T.	AVERAGE DAILY TRAFFIC
BM	BENCHMARK
CTH	COUNTY TRUNK HIGHWAY
ELEV	ELEVATION
EXC	EXCAVATION
MIN.	MINIMUM
PI	POINT OF INTERSECTION
PC	POINT OF CURVATURE
PT	POINT OF TANGENT
R	RADIUS
RT.	RIGHT
LT.	LEFT
SE	SUPERELEVATION
STA	STATION
UNCL	UNCLASSIFIED
△	CENTRAL ANGLE
PLE	PERMANENT LIMITED EASEMENT
TLE	TEMPORARY LIMITED EASEMENT

PRELIMINARY RECYCLE INVESTIGATION SUMMARY

TEST NO. 339 - 502 - 92

SIEVE SIZE	GRADATION NO. 3	% BY WEIGHT PASSING
1"	100	100
¾"	100	100
½"	95-100	95
⅜"	75-100	88
NO. 4	45-85	66
NO. 8	30-60	50
NO. 30		34
NO. 50	10-30	27
NO. 200	5-12	10.5
(AT 77°F) PENETRATION		32
ASPHALT CONTENT (%)		6.2
NO. OF CORES TESTED		22
LAYER TESTED		FULL DEPTH

EXISTING ASPHALT PAVEMENT CORING LOG

STATION	ASPHALT THICKNESS (mm)
4+267	162
4+724	156
5+273	133
6+584	181
7+468	152
7+803	216
8+260	102
9+053	156
9+754	156
10+881	171
11+125	191
11+918	178
12+649	140
13+259	197
13+655	254
14+356	229
14+966	165
15+545	229
16+093	162
16+459	184
16+916	216
17+099	140
18+136	216

METRIC STANDARD DETAIL DRAWINGS

8A5-15c	INLET COVERS
8C1-5	INLETS, TYPES 1, 2, AND 3
8D1-12	CONCRETE CURB, CONCRETE CURB AND GUTTER AND PAVEMENT TIES
8D4-3	CONCRETE SURFACE DRAIN & ASPHALTIC FLUME
8E5-2	SODDED BACKSLOPE FLUME AND INTERCEPTING EMBANKMENT
8E8-2	TYPICAL INSTALLATIONS OF EROSION BALES
8E9-5	SILT FENCE
8F1-11	APRON ENDWALLS FOR CULVERT PIPE, PIPE ARCH, AND ELLIPTICAL PIPE
8F3-3	DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALLS, AND STEPS
9A1-11a	AT-GRADE SIDE ROAD INTERSECTIONS, TYPES "B", "C" AND "D"
9A1-11b	AT-GRADE SIDE ROAD INTERSECTIONS, TYPE "A" AND PASSING LANES
12A3-5	NAME PLATE, STRUCTURES
14B15-2a	CLASS "A" STEEL PLATE BEAM GUARD
14B18-3a	CLASS "A" STEEL PLATE BEAM GUARD (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B23-1a,b,&c	STEEL PLATE BEAM GUARD , SLOTTED RAIL TERMINAL
14B20-4a	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-4b	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END AND VERTICAL FACED PARAPETS
15A1-6	MARKER POSTS FOR RIGHT OF WAY
15C8-8a	PAVEMENT MARKING (MAINLINE)
15C8-8b	PAVEMENT MARKING (INTERSECTIONS)
15C2-3	BARRICADES AND TRAFFIC CONTROL FOR ROAD CLOSURES

DNR LIAISON

MR. RUSS ANDERSON
WDNR - SOUTHERN DISTRICT
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711-5397
(608)275-3324

DESIGN CONTACT

PETER WOOD, P.E.
STRAND ASSOCIATES
910 WEST WINGRA DRIVE
MADISON, WI 53715
(608)251-4843

UTILITIES

ELECTRIC :
GRANT-LAFAYETTE ELECTRIC COOP.
MR. DAN STELPFLUG,
231 N. SHERIDAN
LANCASTER, WI 53813
PHONE : (608) 723-2121

TELEPHONE :
FARMER'S TELEPHONE COMPANY
ATTN : KEN KLAAS, PLANT SUPT.
140 N. MONROE STREET
P. O. BOX 231
LANCASTER, WI 53613
PHONE : (608) 723-2181

ELECTRIC
ALLIANT UTILITIES
MR. GARY QUADE
222 W. WASHINGTON AVENUE
P. O. BOX 192
MADISON, WI 53703-2129
PHONE : (608) 252-3456
800-648-8891

CABLE TELEVISION :
SPRING GREEN COMMUNICATIONS, L.P.
MR. KEVIN MAYNE
245 S. WINSTED STREET
P. O. BOX 609
SPRING GREEN, WI 53588
PHONE : (608) 588-7454
800-621-8237

MEMBER ONE CALL SYSTEMS INTERNATIONAL

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

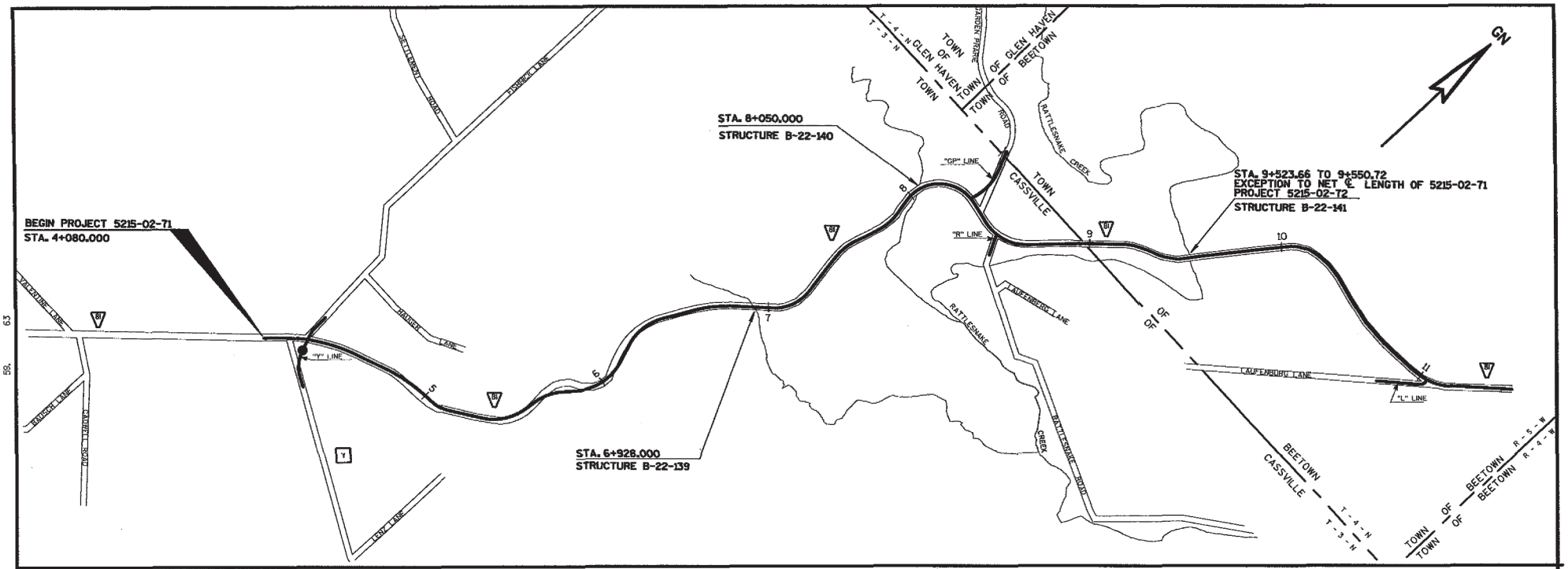
CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

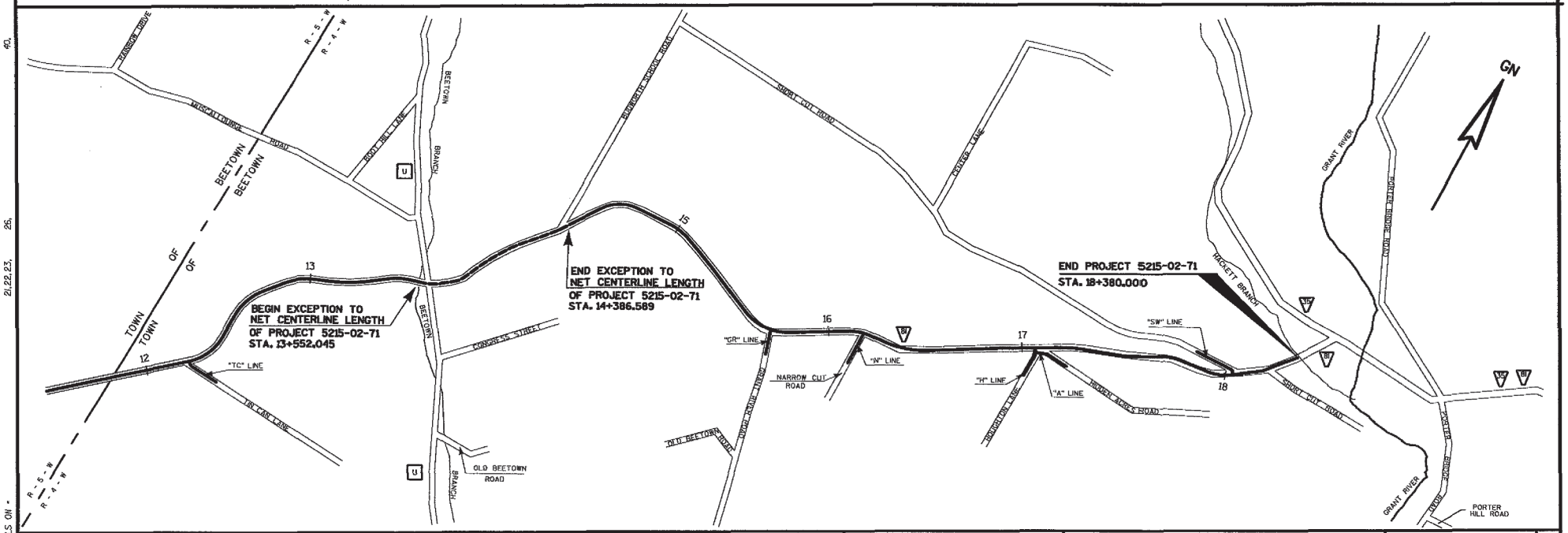
TELEFAX (414) 259-0947
TDD (FOR HEARING IMPAIRED) 1-800-542-2289

WIS. STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.

GENERAL NOTES		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5212-02-71,72	SHEET NO: 2.1 M

FILE NAME: M:\PP\STHB\NOT.DGN



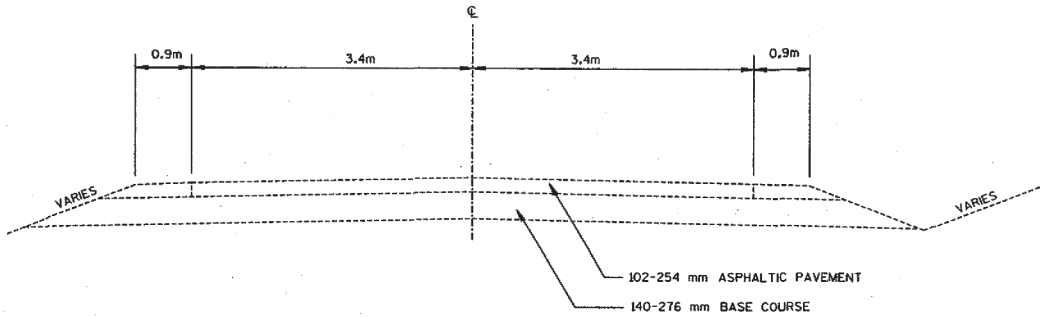


PROJECT OVERVIEW	SCALE: 1:10000	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71,72	SHEET NO: 2.2	M

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PLOT NAME: 58.
REV. DATE: 40.
21,22,23, 26.
ORIGINATOR: LEVELS ON *

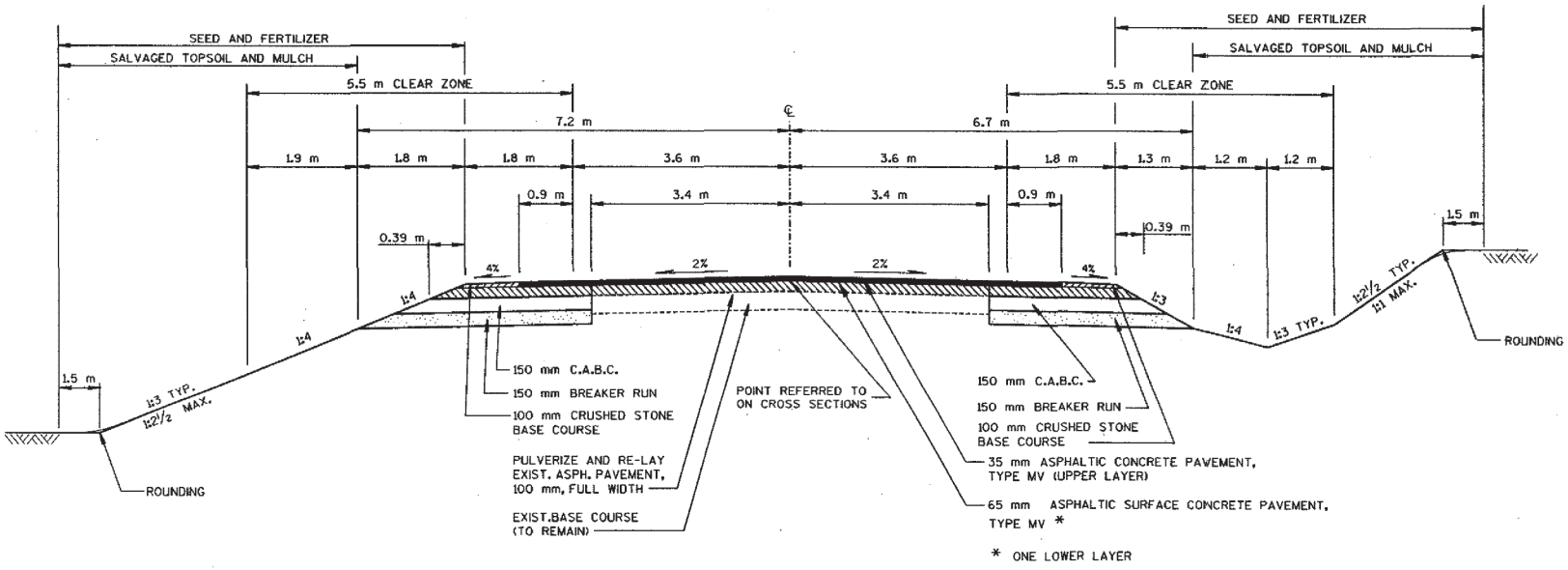
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WisDOT: MSHT20



TYPICAL EXISTING SECTION

STA. 4+080 TO STA. 18+380



TYPICAL FINISHED SECTION - REHABILITATION

IN FILL

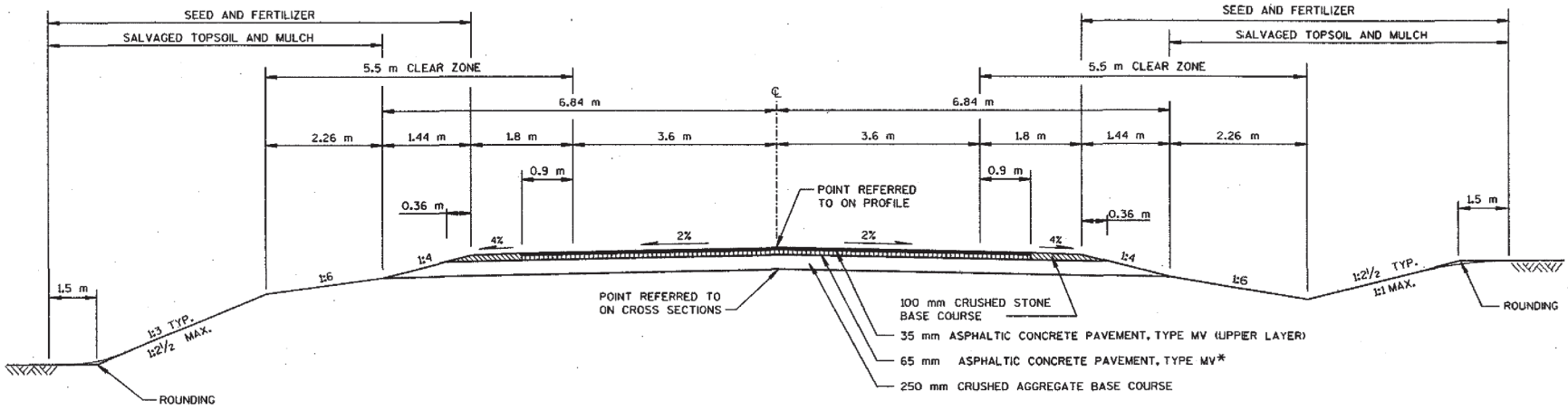
STA. 6+462 TO STA. 6+688
STA. 7+285 TO STA. 7+406
STA. 7+406 TO STA. 7+498 RT.
STA. 7+498 TO STA. 8+070
STA. 8+510 TO STA. 8+686
STA. 8+686 TO STA. 8+931 RT.
STA. 8+931 TO STA. 10+005

IN CUT

STA. 10+005 TO STA. 10+485 LT.
STA. 10+485 TO STA. 10+990
STA. 11+003 TO STA. 11+500 RT.
STA. 11+190 TO STA. 11+400
STA. 11+400 TO STA. 11+520 LT.
STA. 11+520 TO STA. 11+582
STA. 12+760 TO STA. 13+182
STA. 13+182 TO STA. 13+552 LT.
STA. 14+387 TO STA. 15+514
STA. 15+819 TO STA. 16+733

TYPICAL SECTION - EXISTING AND REHABILITATION		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.3	M

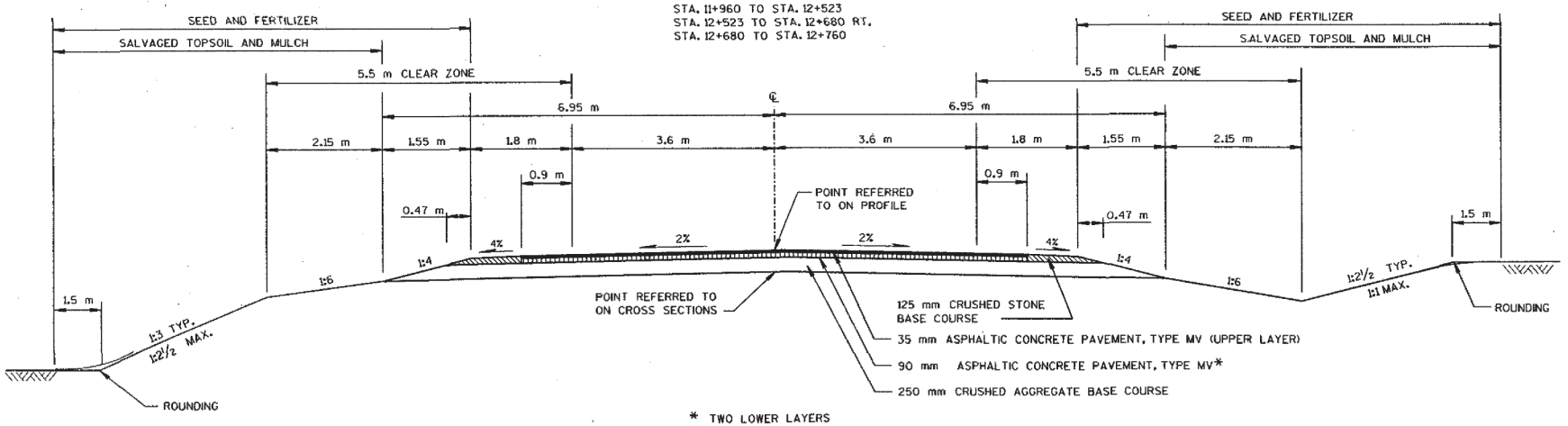
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REV. DATE:
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WISDOT: MSHT20



* ONE LOWER LAYER

TYPICAL FINISHED SECTION

STA. 4+080 TO STA. 6+462
STA. 6+688 TO STA. 7+094
STA. 7+094 TO STA. 7+239 RT.
STA. 7+239 TO STA. 7+285
STA. 8+070 TO STA. 8+510
STA. 10+990 TO STA. 11+120
STA. 11+120 TO STA. 11+190 LT.
STA. 11+582 TO STA. 11+852
STA. 11+852 TO STA. 11+960 RT.
STA. 11+960 TO STA. 12+523
STA. 12+523 TO STA. 12+680 RT.
STA. 12+680 TO STA. 12+760



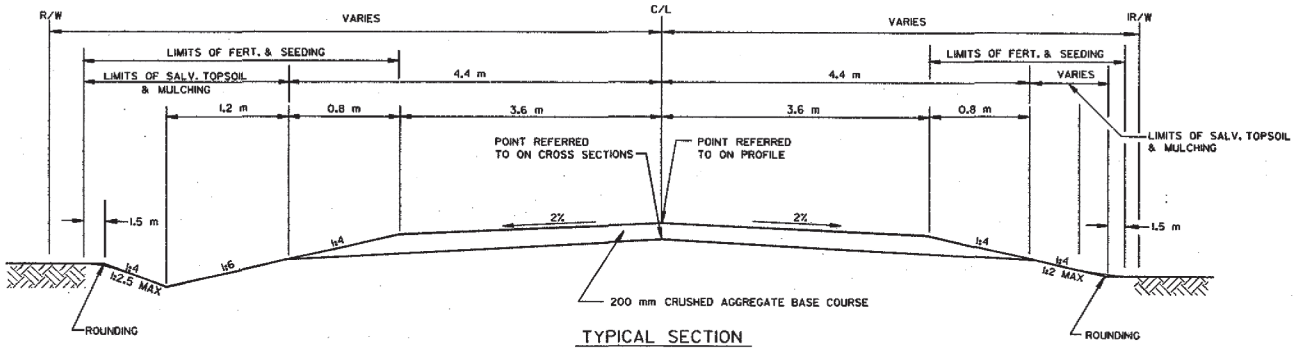
* TWO LOWER LAYERS

TYPICAL FINISHED SECTION

STA. 15+514 TO STA. 15+819
STA. 16+733 TO STA. 17+078
STA. 17+078 TO STA. 17+240 LT.
STA. 17+240 TO STA. 18+075
STA. 18+075 TO STA. 18+380 RT.
(STA. 18+075 TO STA. 18+380 LT. SEE HALF SECTION)

TYPICAL SECTIONS - RECONSTRUCTION		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.4	M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

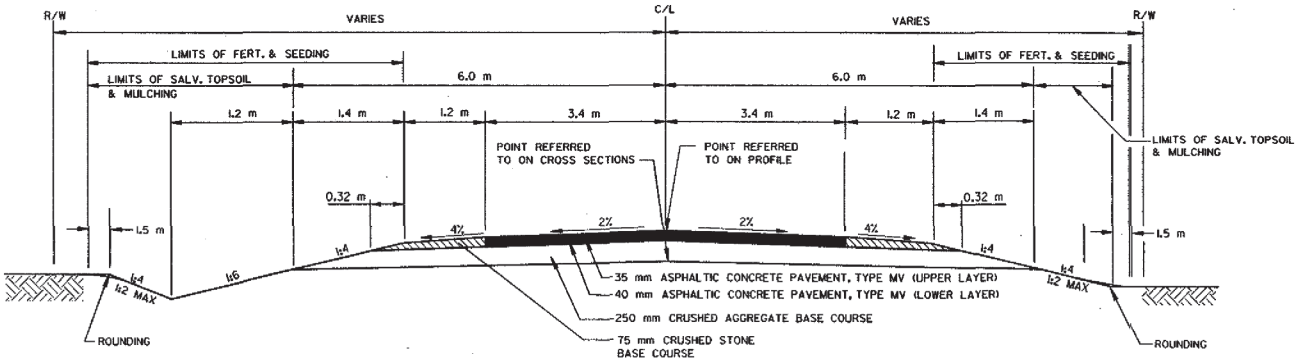


TYPICAL SECTION

IN CUT

IN FILL

RATTLESNAKE ROAD
LAUFENBERG LANE
TIN CAN LANE
NARROW CUT ROAD
HOUGHTON LANE
HIDDEN ACRES LANE
SHORT CUT ROAD (EAST)



TYPICAL SECTION
(FULL LENGTH)

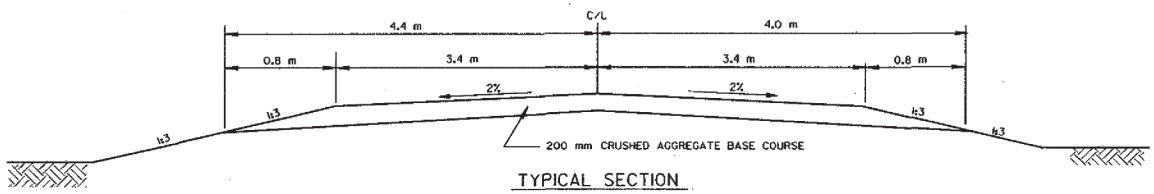
IN CUT

C.T.H. Y
SETTLEMENT ROAD
GARDEN PRAIRIE ROAD
GRANT RIVER ROAD
SHORT CUT ROAD (WEST)

TYPICAL SECTION
(WITHIN PAVING LIMITS)

IN FILL

RATTLESNAKE ROAD
LAUFENBERG LANE
TIN CAN LANE
NARROW CUT ROAD
HOUGHTON LANE
HIDDEN ACRES LANE
SHORT CUT ROAD (EAST)



TYPICAL SECTION

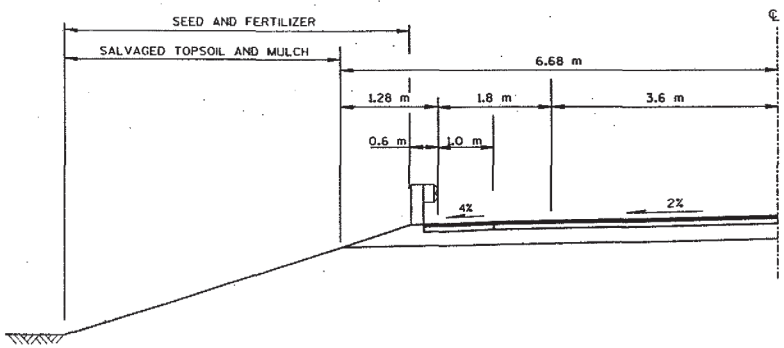
TEMP. BYPASS ROAD
STA 7+960 TO 8+160

TYPICAL SECTION - SIDE ROADS		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.5	M

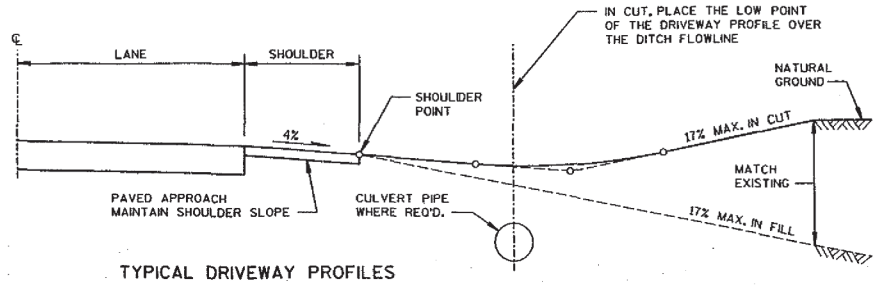
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FILE NAME: M:\PPQTS4.DGN

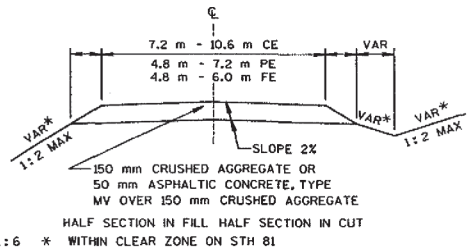
WISDOT: MSHT20



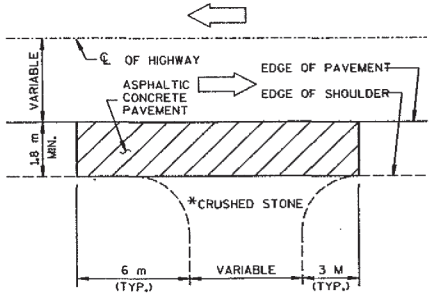
HALF SECTION WITH BEAM GUARD



TYPICAL DRIVEWAY PROFILES

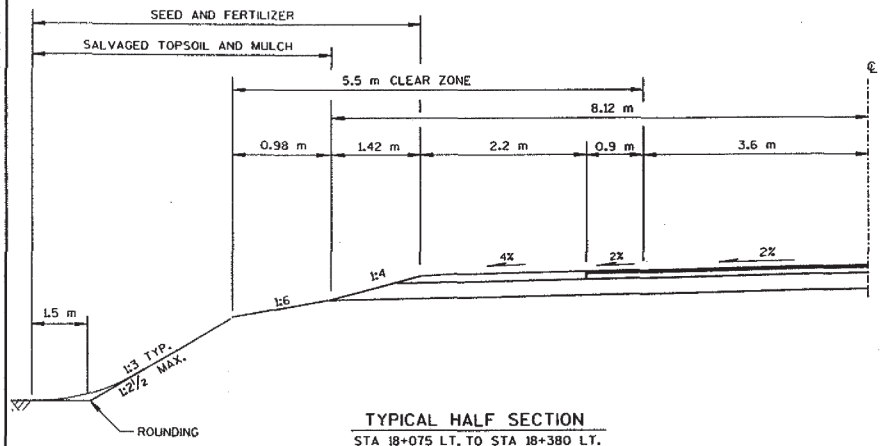


TYPICAL SECTION FOR PRIVATE ENTRANCES



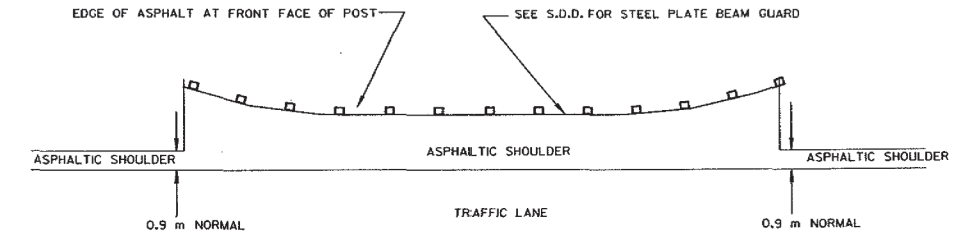
RURAL DRIVEWAY INTERSECTION DETAIL

*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED IN KIND TO DRIVEWAY PAVEMENT MATCH POINT



TYPICAL HALF SECTION

STA 18+075 LT. TO STA 18+380 LT.
SEE RECONSTRUCTION TYPICAL SECTIONS FOR PAVEMENT STRUCURE THICKNESSES

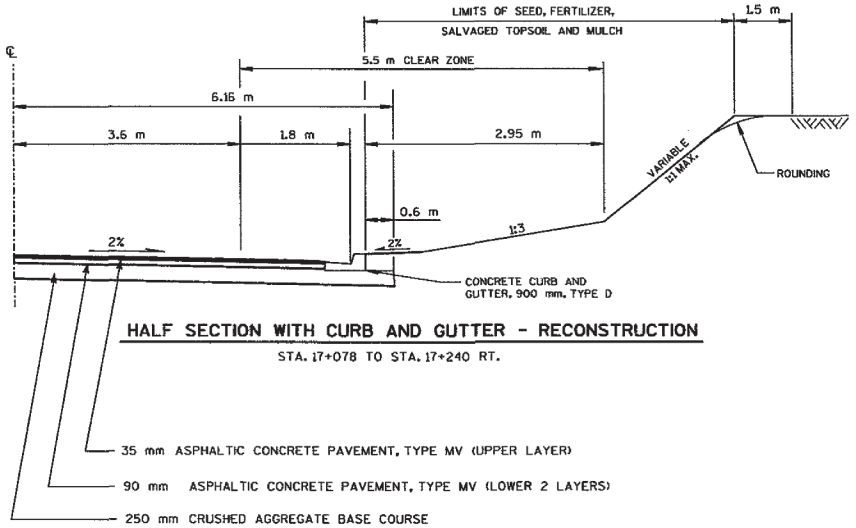


DETAIL FOR ASPHALTIC SHOULDER AT GUARDRAIL

TYPICAL SECTIONS & DETAILS		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.6	M

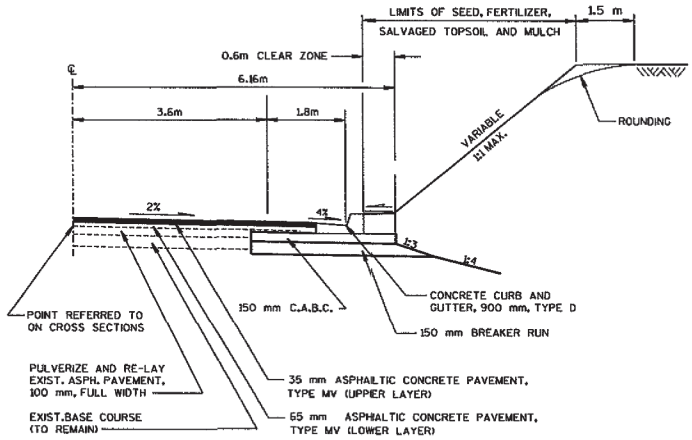
WISDOT: MSHT20

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



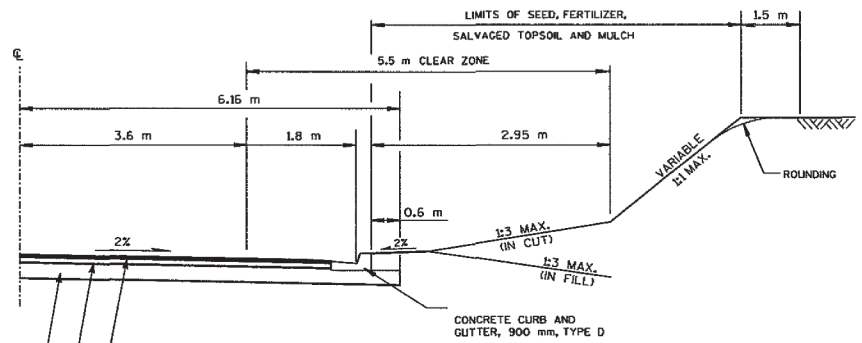
HALF SECTION WITH CURB AND GUTTER - RECONSTRUCTION

STA. 17+078 TO STA. 17+240 RT.



HALF SECTION WITH CURB AND GUTTER - REHABILITATION

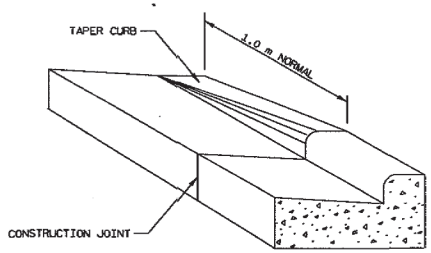
STA. 7+406 TO STA. 7+530 LT.
STA. 8+686 TO STA. 8+931 LT.
STA. 10+005 TO STA. 10+485 RT.
STA. 11+400 TO STA. 11+520 RT.
STA. 13+182 TO STA. 13+552 RT.
STA. 15+200 TO STA. 15+305 LT.



HALF SECTION WITH CURB AND GUTTER - RECONSTRUCTION

STA. 7+094 TO STA. 7+239 LT.
STA. 11+120 TO STA. 11+190 RT.

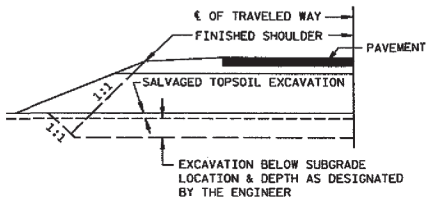
STA. 11+202 TO STA. 11+300 LT.
STA. 11+852 TO STA. 11+960 LT.
STA. 12+523 TO STA. 12+680 LT.



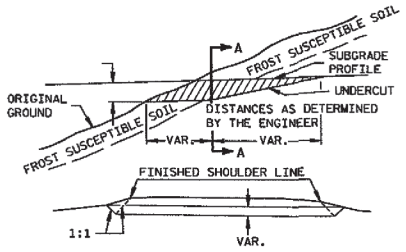
DETAIL OF CURB & GUTTER TERMINI

TYPICAL SECTIONS - CURB & GUTTER		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 27	M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63
FILE NAME: M:\PPQTS5.DGN
WISDOT: MSHT20



DETAIL FOR EXCAVATION BELOW SUBGRADE



SECTION A-A
CROSS SECTION SHOWING UNDERCUT

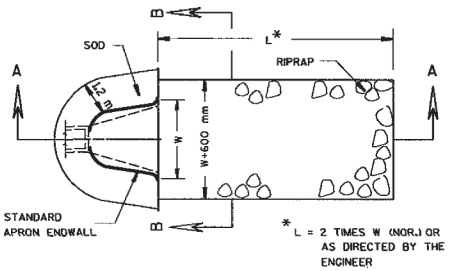
NOTE:
EXACT LOCATIONS AND EXTENT OF E.B.S. SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

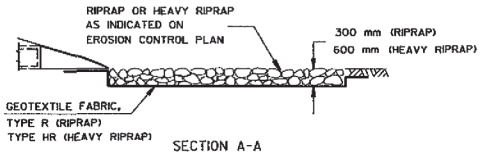
E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER.

BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.

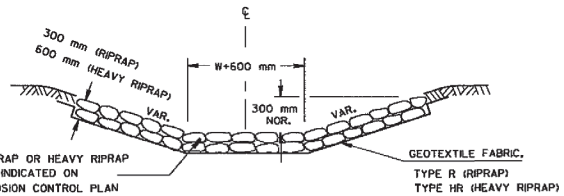
THE FILL SECTION WITHIN 30 m OF THE MOUTH OF THE CUT MUST BE KEPT 600 mm BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED.

DETAIL FOR EXCAVATION BELOW SUBGRADE AT TRANSITIONS FROM CUT TO FILL



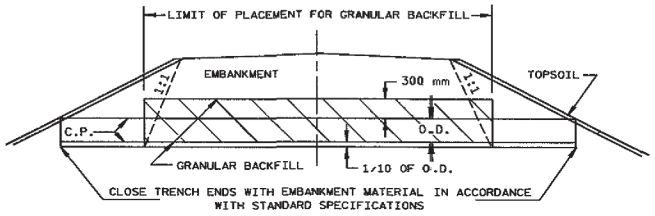


SECTION A-A



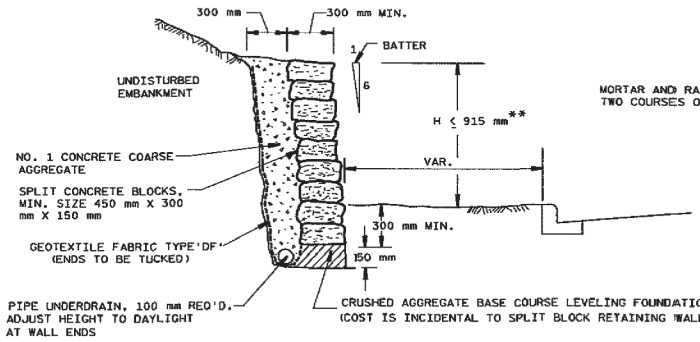
SECTION B-B

SOD, RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS

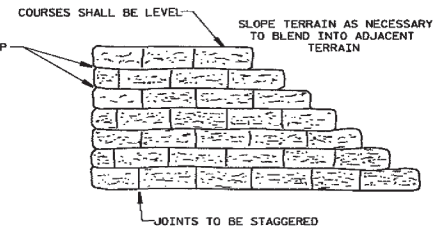


CULVERT BACKFILL DETAIL

** SEE PLAN SHEETS AND/OR CROSS SECTIONS FOR ACTUAL DIMENSIONS.



SIDE VIEW



FRONT VIEW

DETAIL FOR SPLIT CONCRETE BLOCK RETAINING WALL

DETAILS		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.8	M

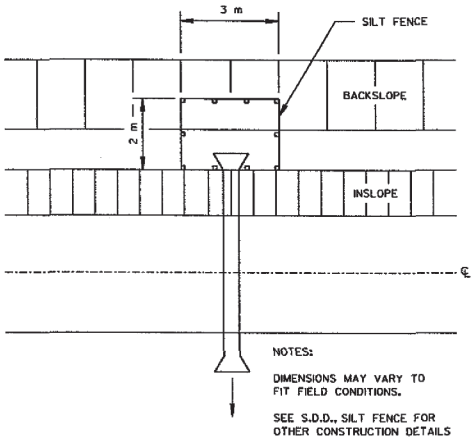
ORIGINATOR: LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63 REV. DATE: PLOT NAME: PLOT SCALE:

FILE NAME: M:\PP\DETAIL1.DGN

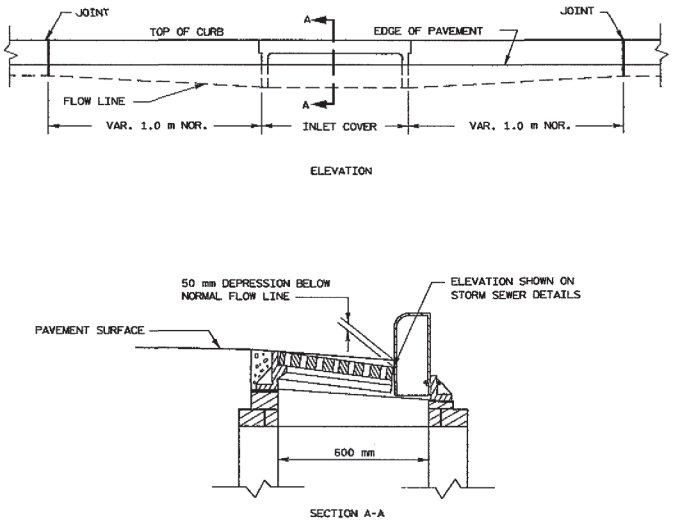
WISDOT: MSHT20

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

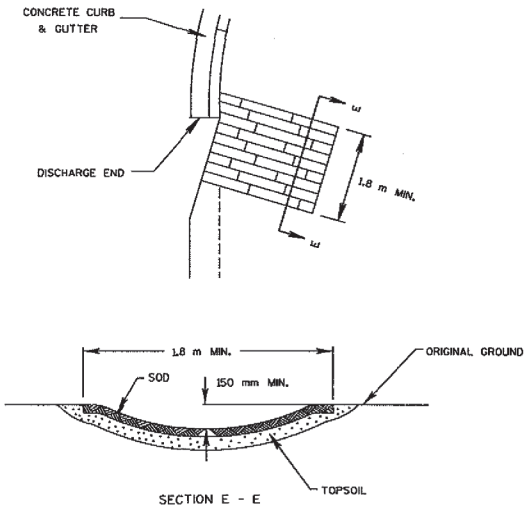
TOTAL PROJECT AREA = 59.2 HECTARES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 43.0 HECTARES



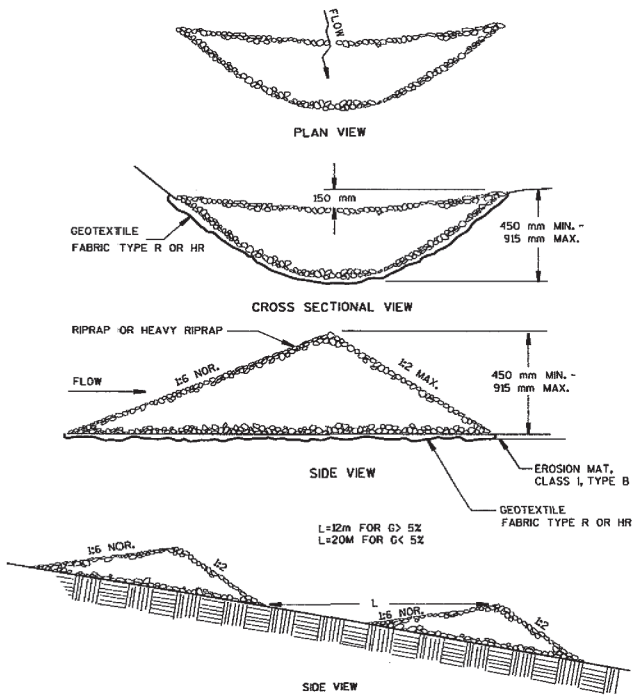
SILT FENCE DETAIL FOR CULVERT PIPE INLET



DETAIL OF CURB AND GUTTER AT INLETS



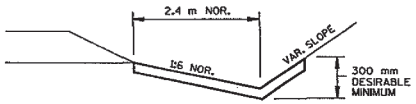
SOD FLUME DETAIL AT CURB ENDS



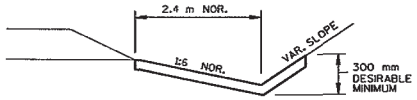
PERMANENT RIPRAP DITCH CHECK

DETAILS		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.9	M

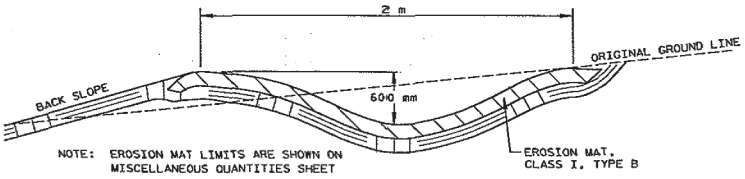
ORIGINATOR: LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63
PLOT NAME:
REV. DATE:
PLOT SCALE:
FILE NAME: M:\PP\DETAIL1.DGN
WISDOT: MSHT20



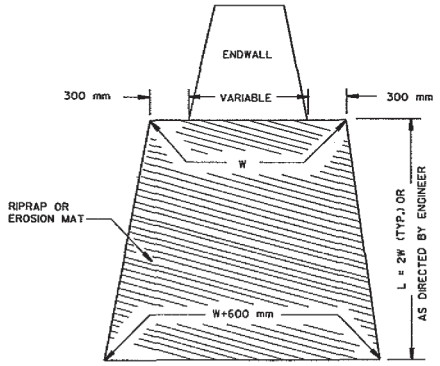
EROSION MAT DETAIL FOR DITCHES



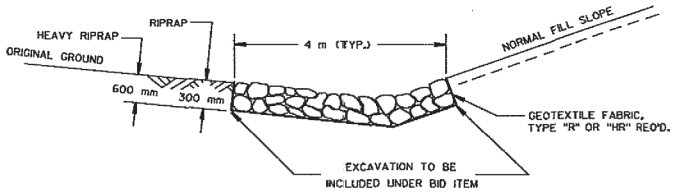
SOD DETAIL FOR DITCHES



DETAIL OF EROSION MAT
ON INTERCEPTING DITCH



RIPRAP OR EROSION MAT TREATMENT AT CULVERTS



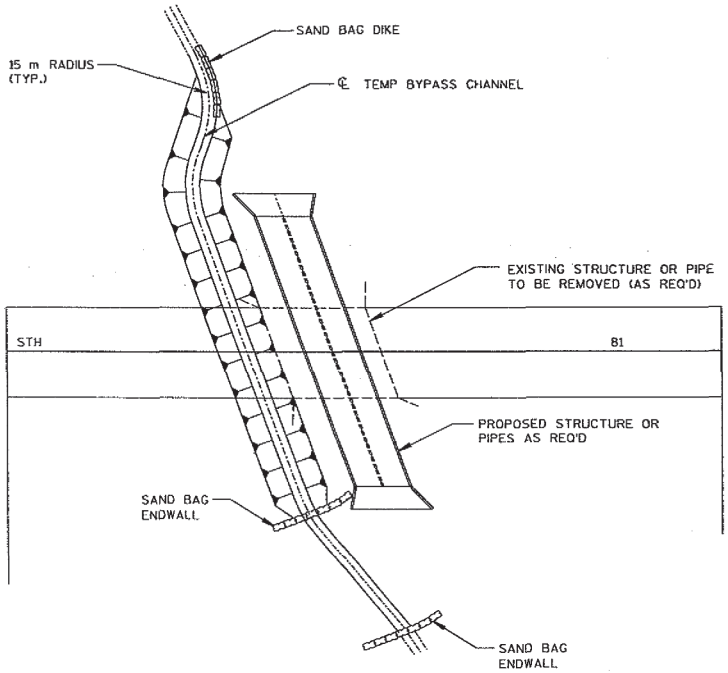
DETAIL FOR RIPRAP AND HEAVY RIPRAP

DETAILS		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.10	M

ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63
REV. DATE:
PLOT NAME:
PLOT SCALE:

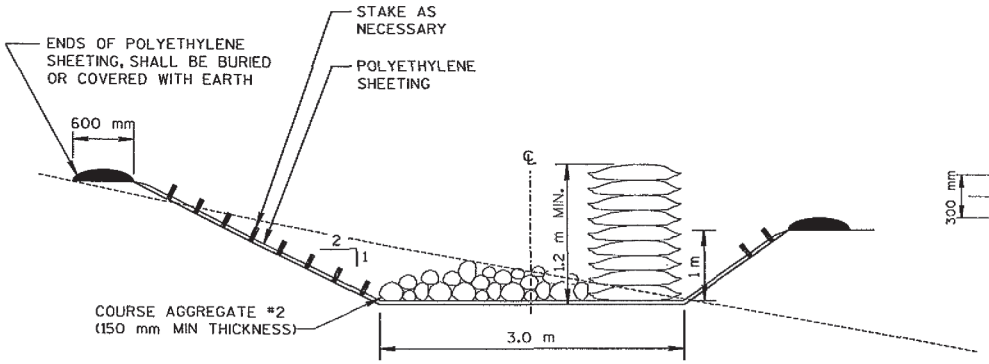
FILE NAME: M:\PP\DETAILDGN

WisDOT: MSHT20



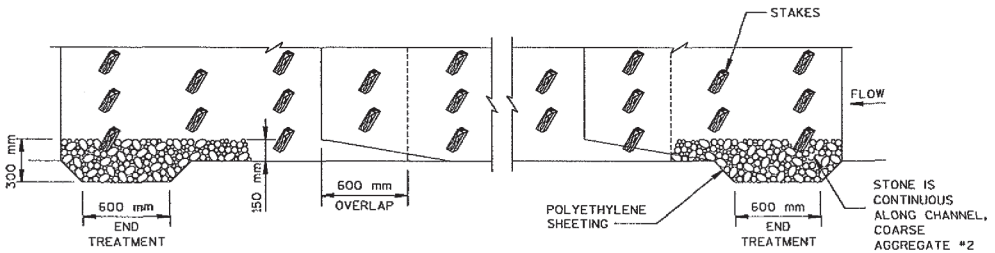
TYPICAL TEMPORARY BYPASS CHANNEL PLAN

STA 6+928 (B-22-139)
STA 8+050 (B-22-140)



TYPICAL SECTION

(TEMPORARY BYPASS CHANNEL)



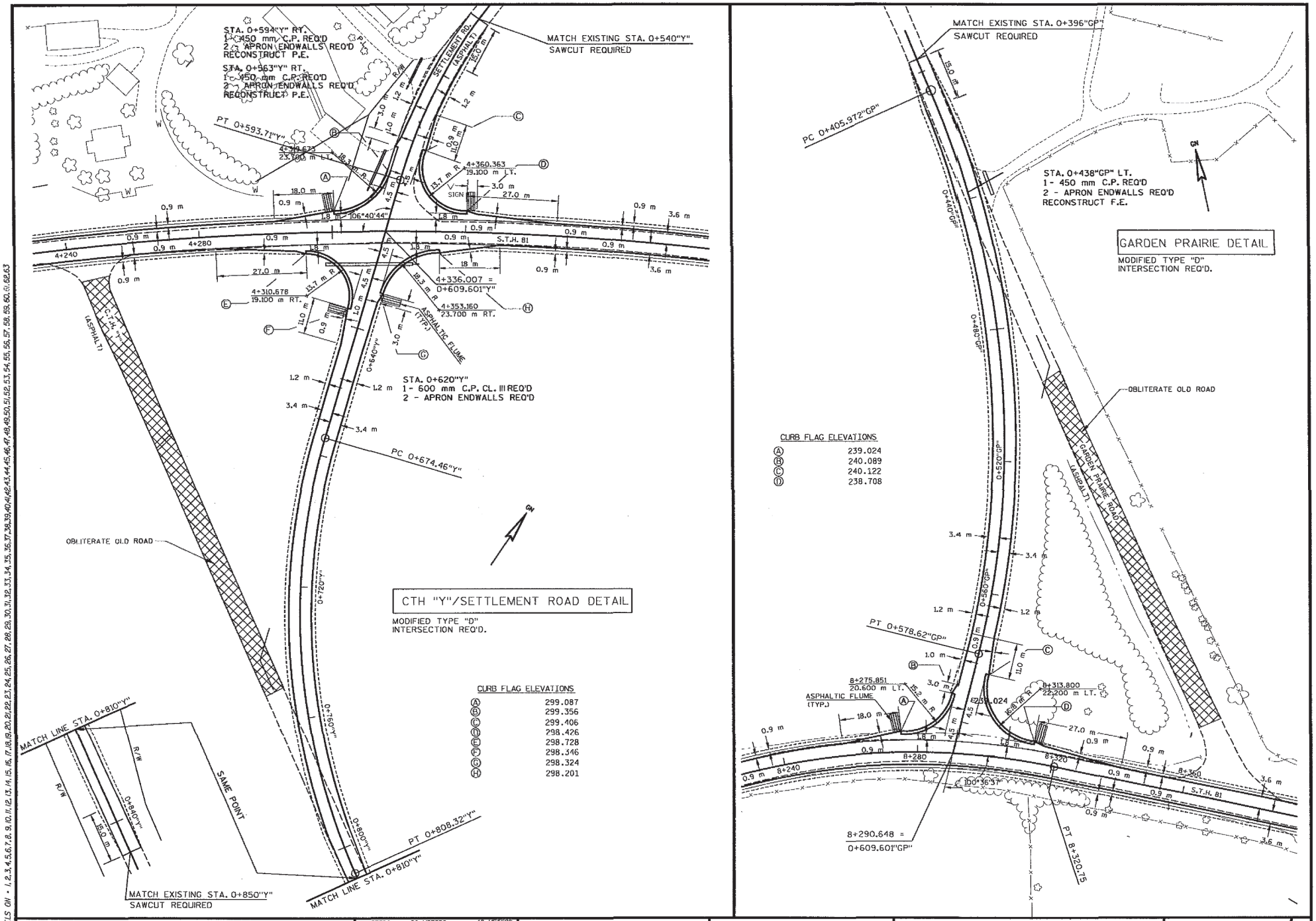
ELEVATION VIEW

BYPASS CHANNEL DETAILS		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.11	M

ORIGINATOR: LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63 PLOT NAME: REV. DATE: PLOT SCALE:

FILE NAME: M:\PP\BYPASS.DGN

WISDOT: MSHT20

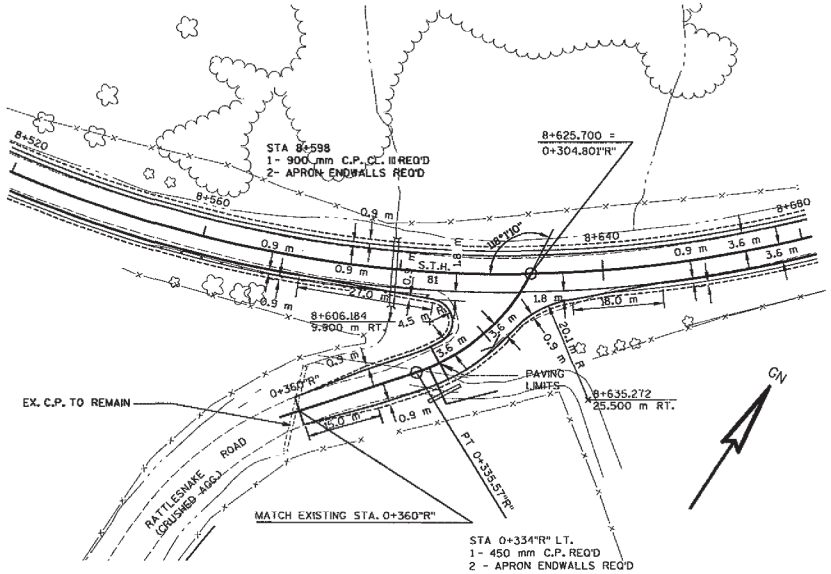


INTERSECTION DETAILS	0 METERS 20 METERS 40 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.12 M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

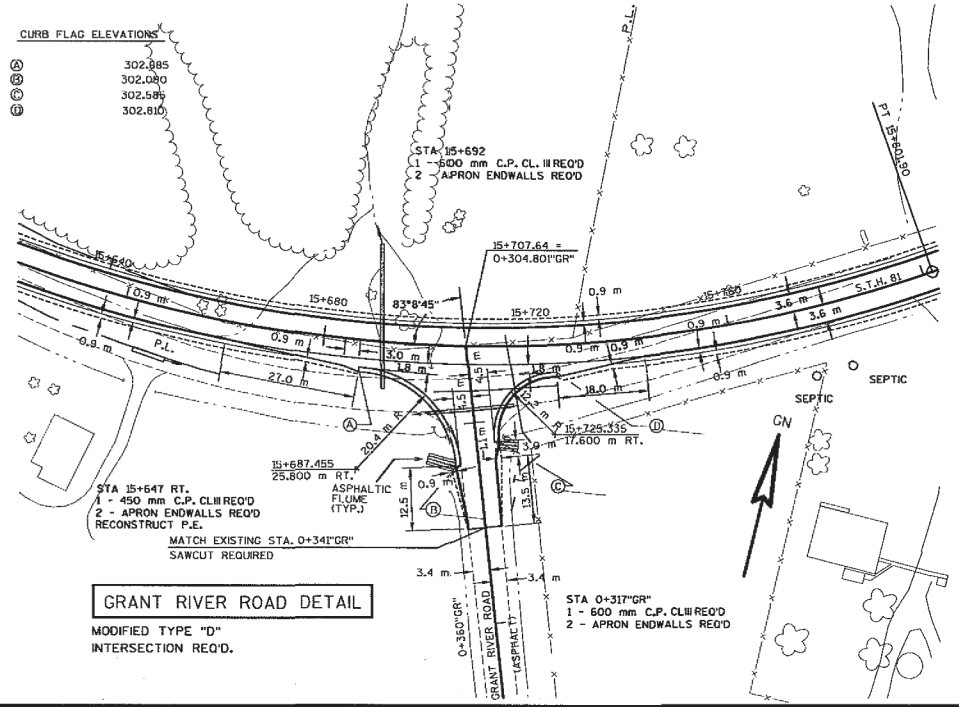
FILE NAME: M:\PP2\INTER1.DGN

WisDOT: MSHT20



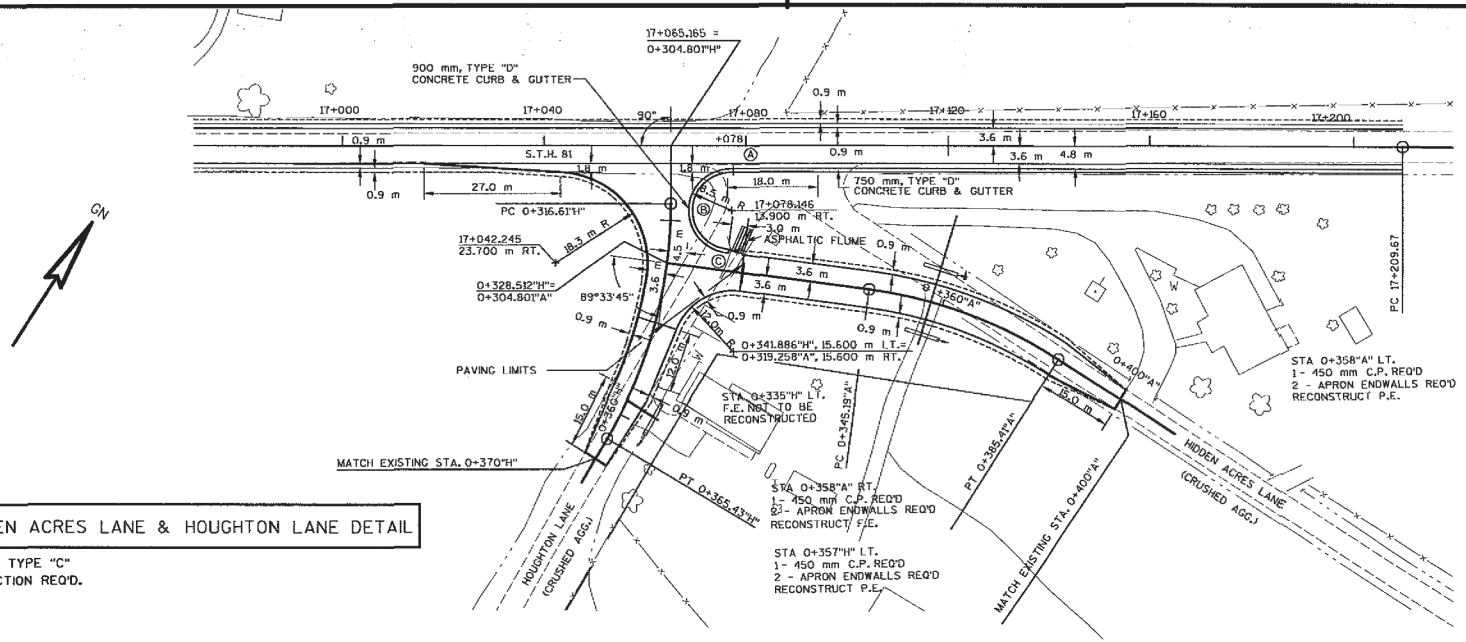
RATTLESNAKE ROAD DETAIL

MODIFIED TYPE "C"
INTERSECTION REQ'D.



GRANT RIVER ROAD DETAIL

MODIFIED TYPE "D"
INTERSECTION REQ'D.



HIDDEN ACRES LANE & HOUGHTON LANE DETAIL

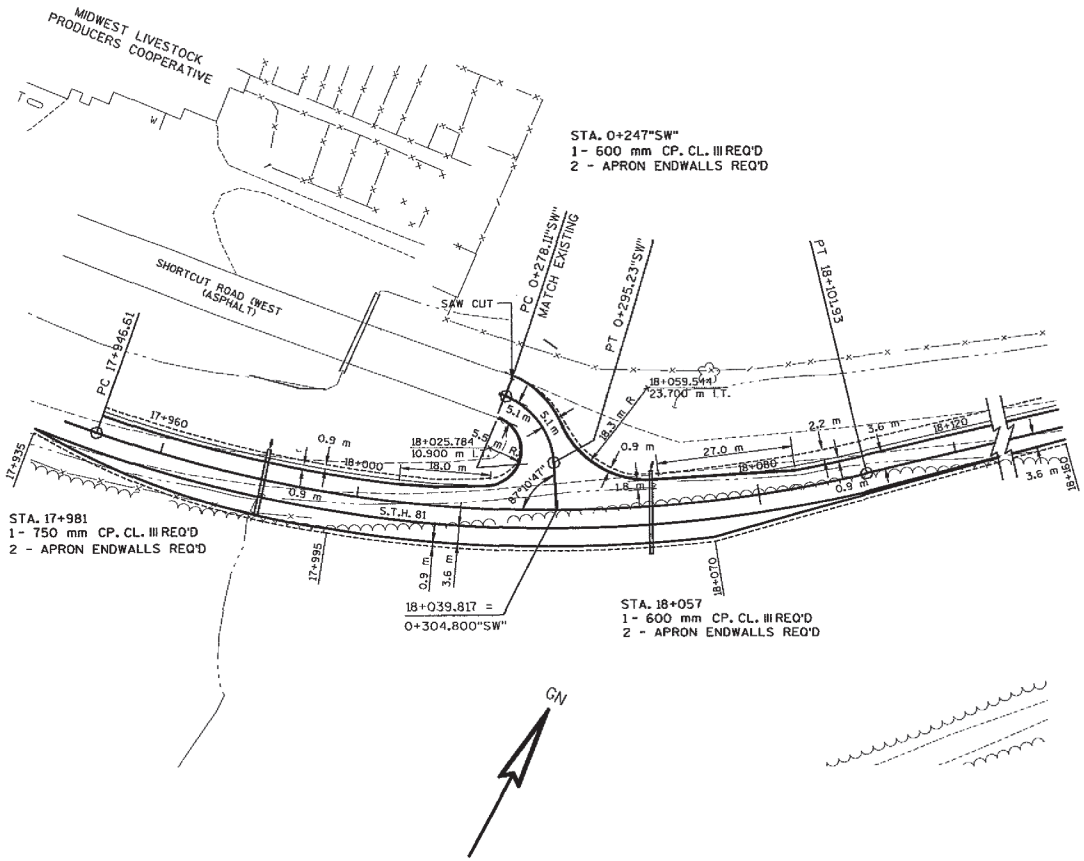
MODIFIED TYPE "C"
INTERSECTION REQ'D.

INTERSECTION DETAILS	0 METERS 20 METERS 40 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 2.13	M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

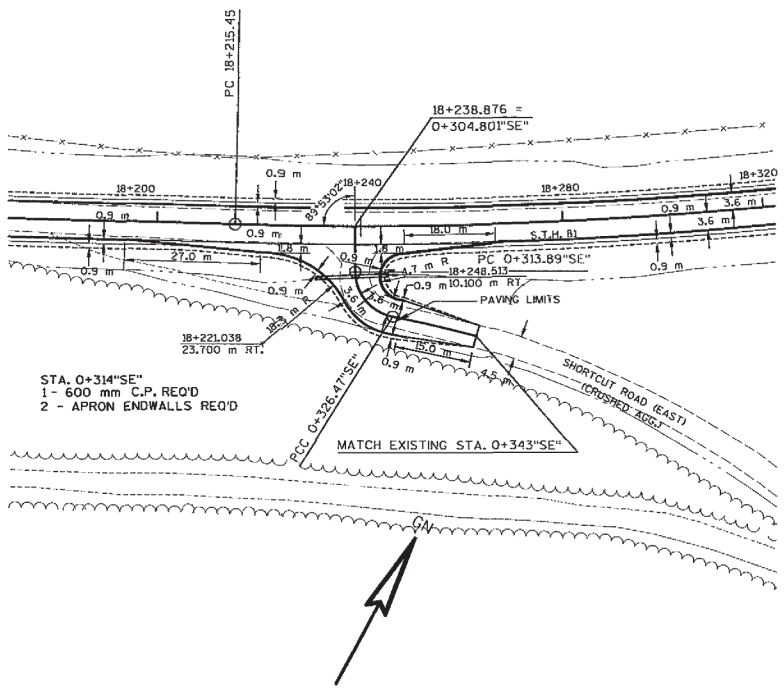
FILE NAME: M:\PP\INTER3.DGN

WisDOT: MSHT20



SHORTCUT ROAD (WEST) DETAIL

MODIFIED TYPE "C" INTERSECTION REQ'D.
WITH TEE INTERSECTION BYPASS LANE



SHORTCUT ROAD (EAST) DETAIL

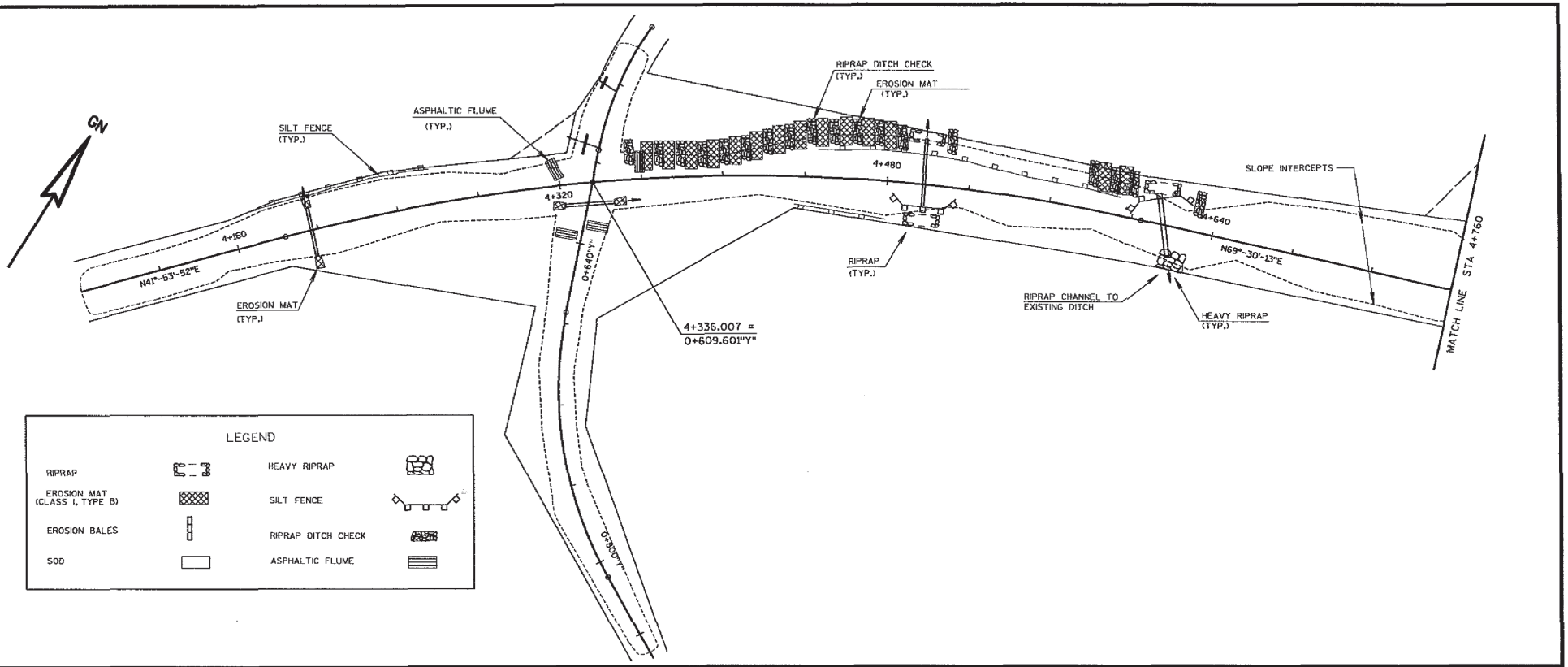
MODIFIED TYPE "C"
INTERSECTION REQ'D.

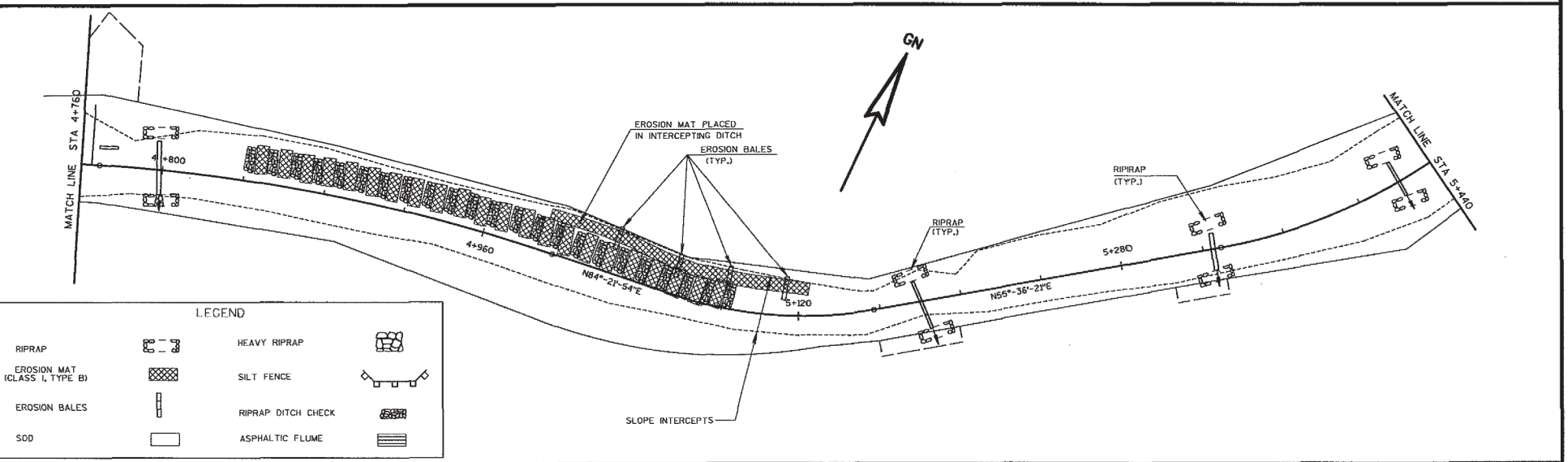
INTERSECTION DETAILS	0 METERS 20 METERS 40 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.14	M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME: M:\PP\INTER2.DGN

WISDOT: MSHT20



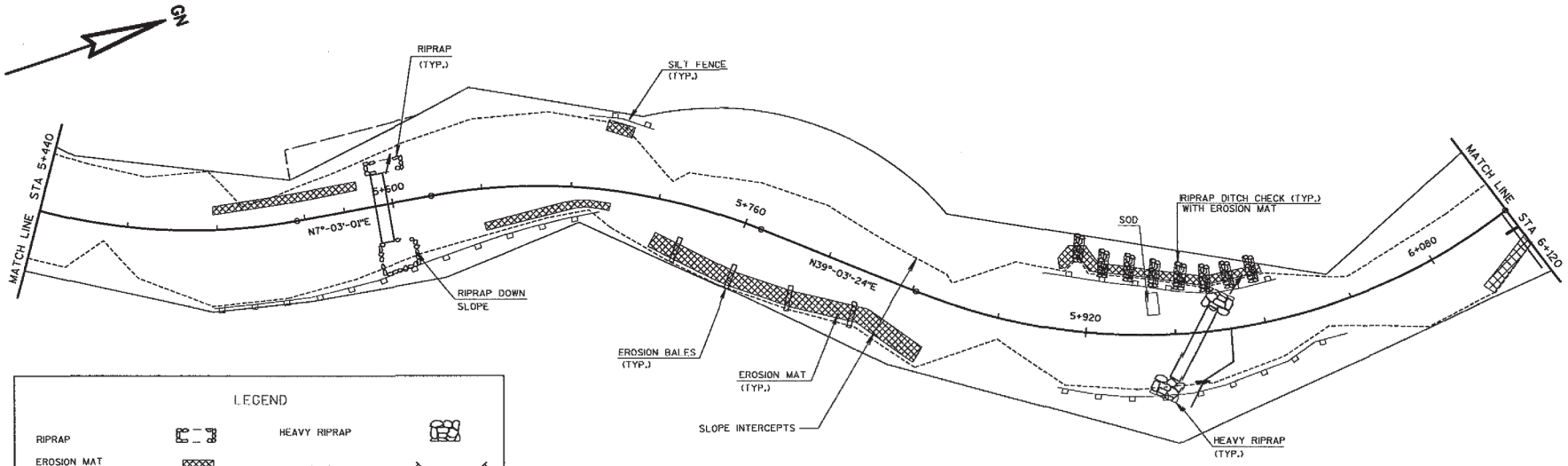


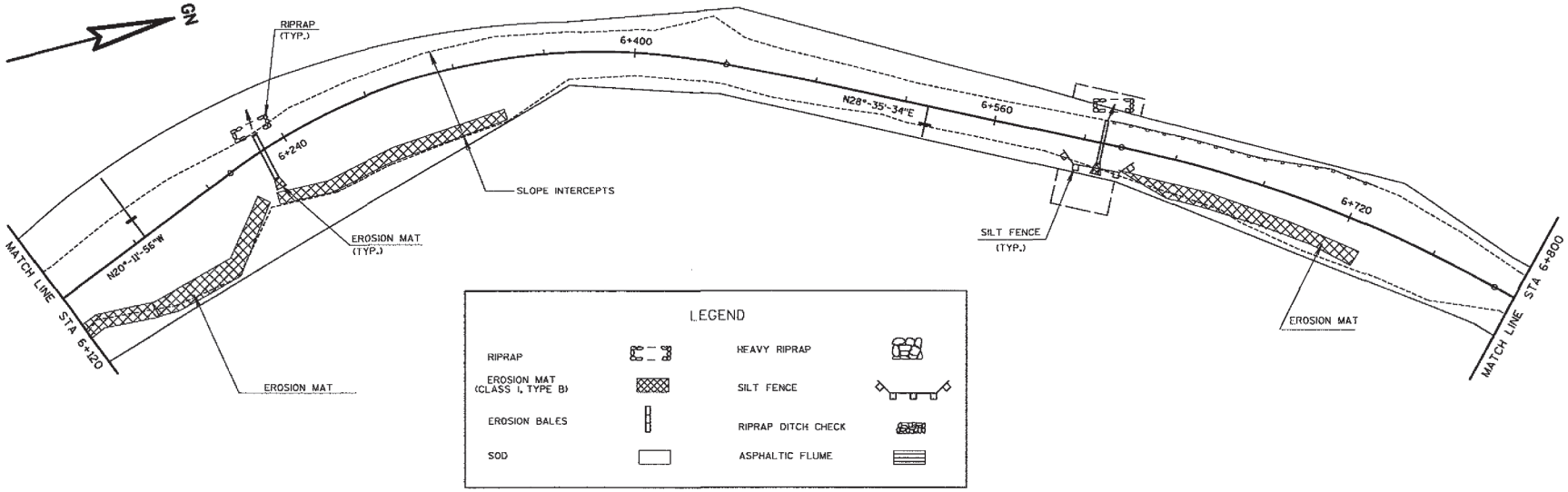
PLOT SCALE:
PLOT NAME: 59,
REV. DATE: 31,32,33,
25,
22,
ORIGINATOR: LEVELS ON "

EROSION CONTROL DETAILS	0 METERS 40 METERS 80 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 2.15	M

FILE NAME: M:\PP\EC01.DGN

WisDOT: MSHT40



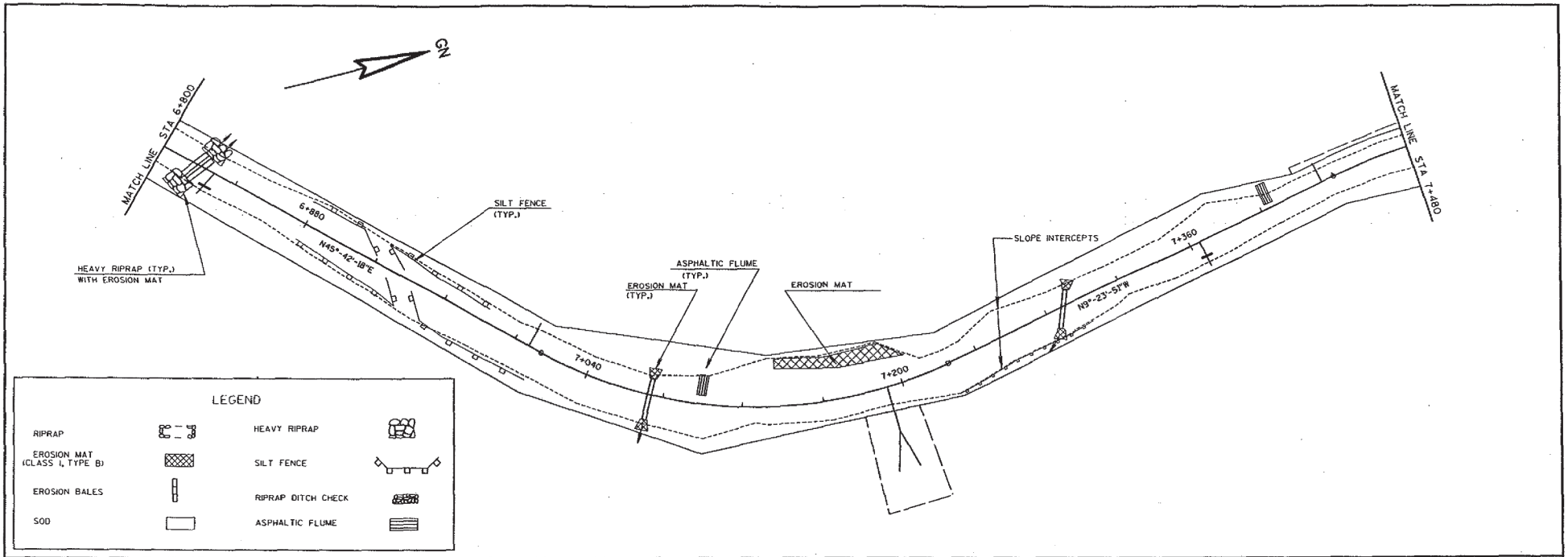


EROSION CONTROL DETAILS | 0 METERS 40 METERS 80 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 2.16 | M

PLOT SCALE:
PLOT NAME: 59,
REV. DATE: 31,32,33, 25, 22,
ORIGINATOR: LEVELS ON -

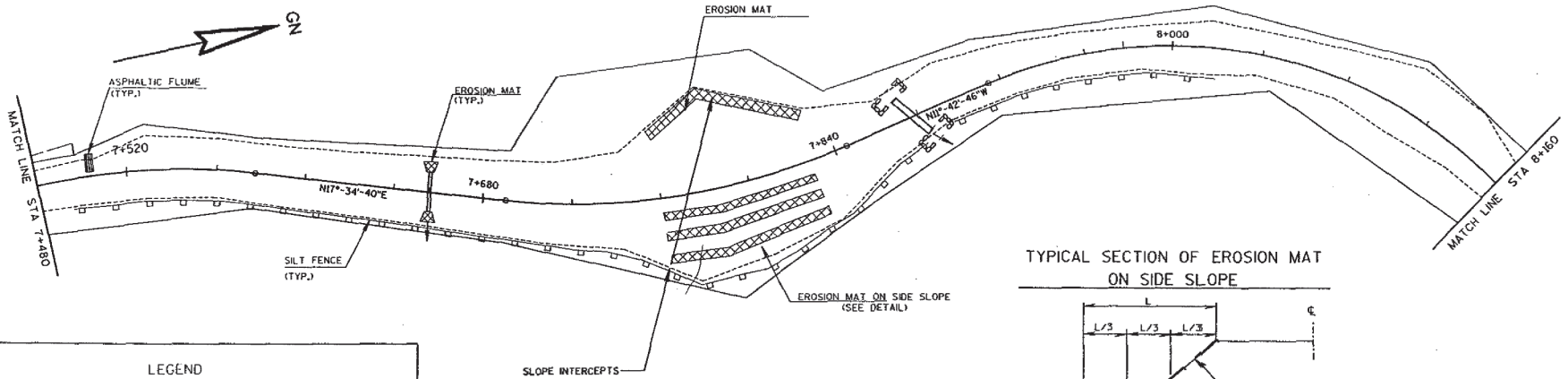
FILE NAME: M:\PP\EC02.DGN

WISDOT: MSHT40



LEGEND

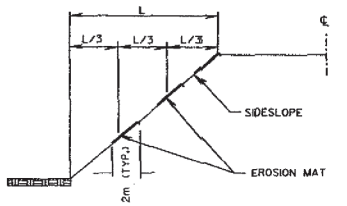
RIPRAP		HEAVY RIPRAP	
EROSION MAT (CLASS I, TYPE B)		SILT FENCE	
EROSION BALES		RIPRAP DITCH CHECK	
SOD		ASPHALTIC FLUME	



LEGEND

RIPRAP		HEAVY RIPRAP	
EROSION MAT (CLASS I, TYPE B)		SILT FENCE	
EROSION BALES		RIPRAP DITCH CHECK	
SOD		ASPHALTIC FLUME	

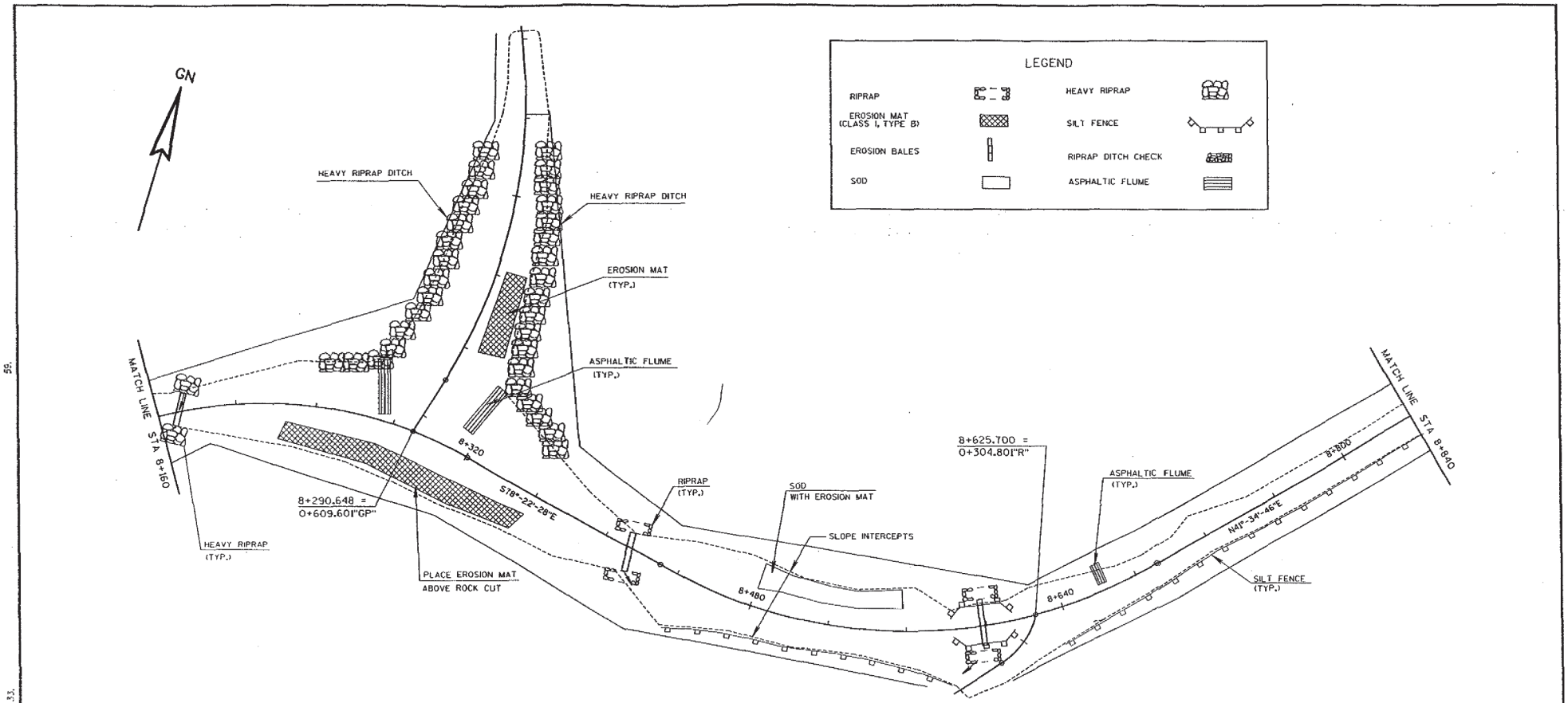
TYPICAL SECTION OF EROSION MAT ON SIDE SLOPE

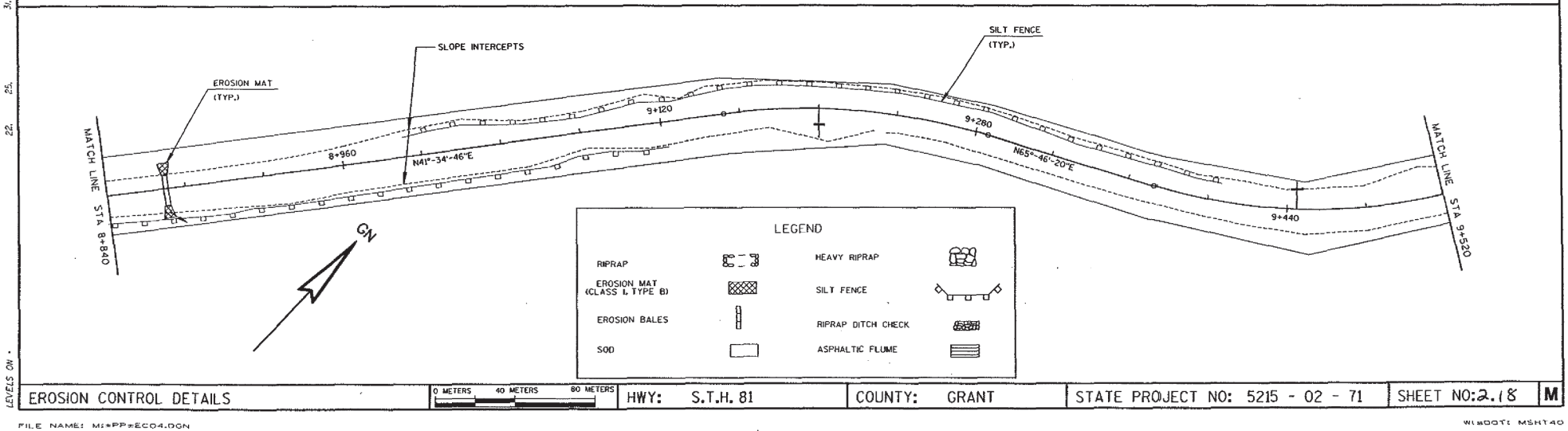


EROSION CONTROL DETAILS	0 METERS 40 METERS 80 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 2.17	M

PLOT SCALE:
PLOT NAME: 59
REV. DATE: 3/22/23 25 22
ORIGINATOR: LEVELS ON •
FILE NAME: M:\PP\EC03.DGN

WISDOT: MSHT40



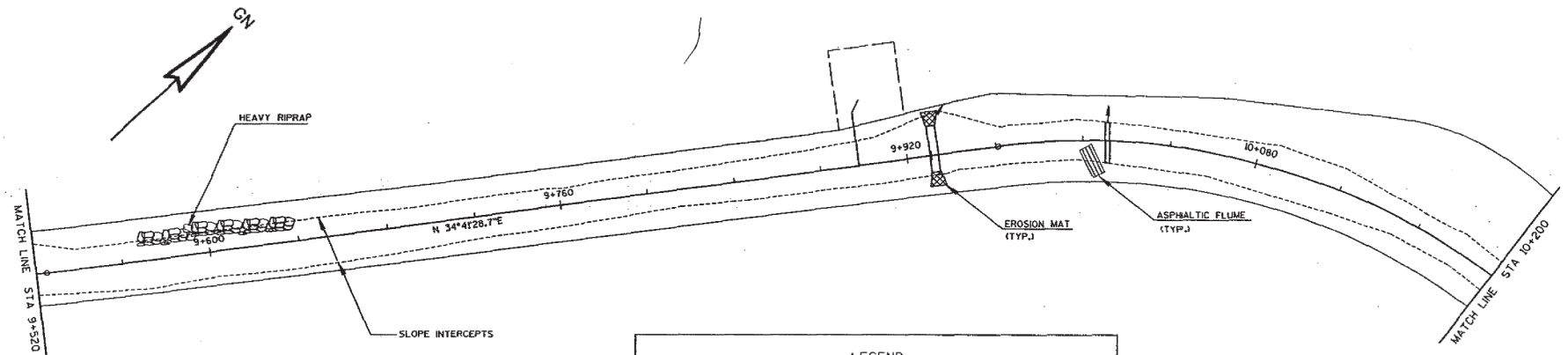


EROSION CONTROL DETAILS | 0 METERS 40 METERS 80 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO:2.18 | M

PLOT SCALE: 56.
PLOT NAME:
REV. DATE: 31.52.33.
ORIGINATOR: LEVELS ON .

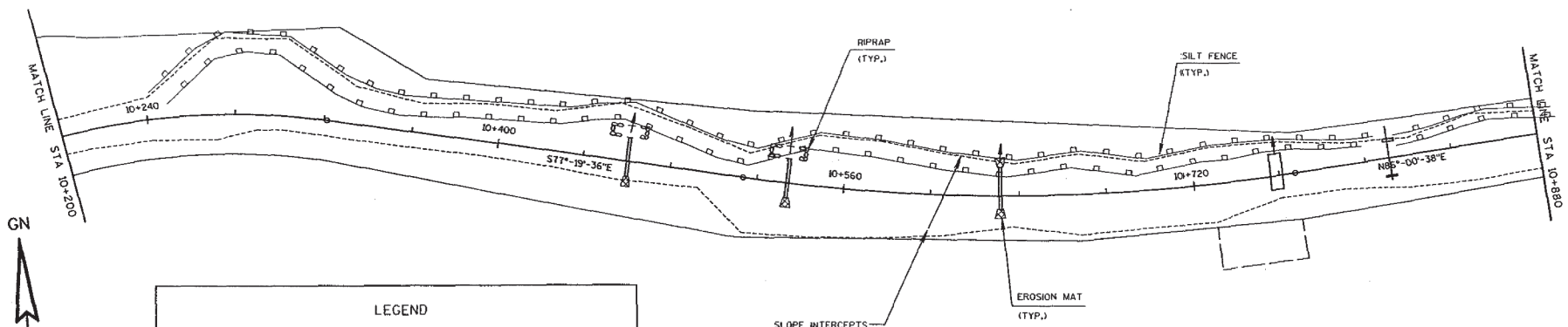
FILE NAME: M:\PP\EC04.DGN

WisDOT: MSHT40



LEGEND

RIPRAP		HEAVY RIPRAP	
EROSION MAT (CLASS I, TYPE B)		SILT FENCE	
EROSION BALES		RIPRAP DITCH CHECK	
SOD		ASPHALTIC FLUME	



LEGEND

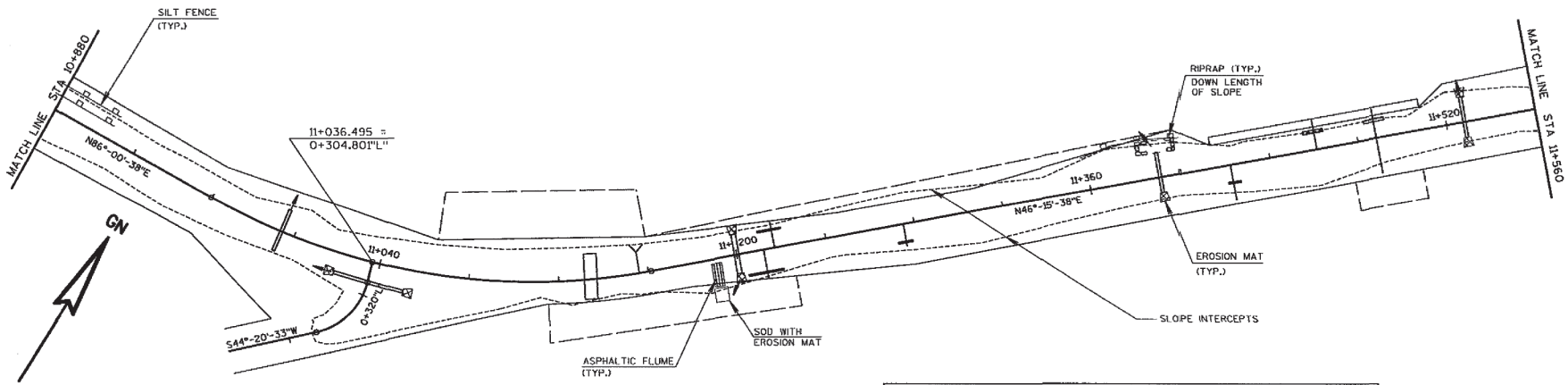
RIPRAP		HEAVY RIPRAP	
EROSION MAT (CLASS I, TYPE B)		SILT FENCE	
EROSION BALES		RIPRAP DITCH CHECK	
SOD		ASPHALTIC FLUME	

EROSION CONTROL DETAILS | 0 METERS 40 METERS 80 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 2.19 | M

PLOT SCALE:
PLOT NAME: 59.
REV. DATE: 31.32.33.
25.
22.
ORIGINATOR: LEVELS ON •

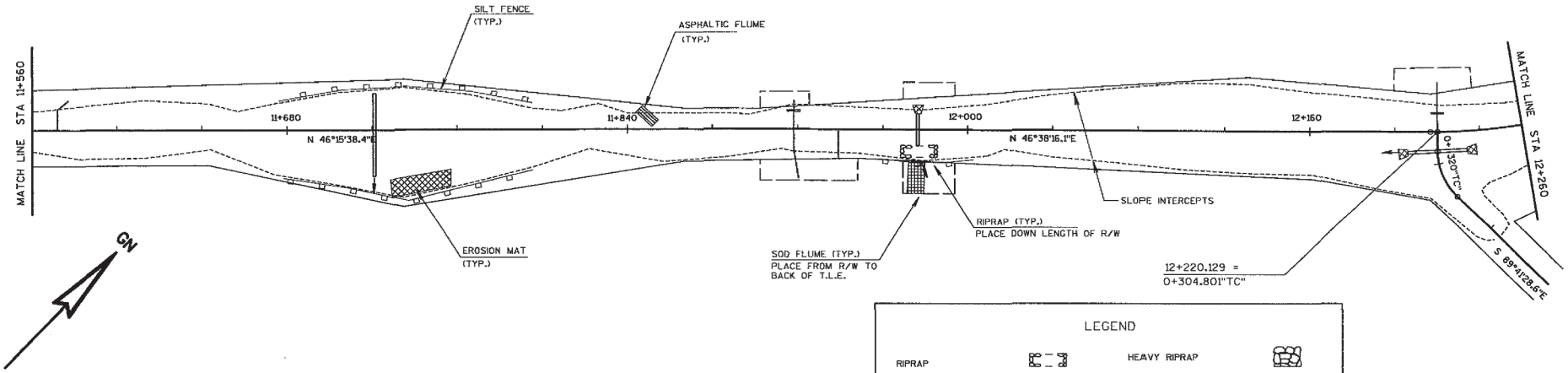
FILE NAME: M:±PP±ECOS.DGN

WISDOT: MSHT40



LEGEND

RIPRAP		HEAVY RIPRAP	
EROSION MAT (CLASS I, TYPE B)		SILT FENCE	
EROSION BALES		RIPRAP DITCH CHECK	
SOD		ASPHALTIC FLUME	



LEGEND

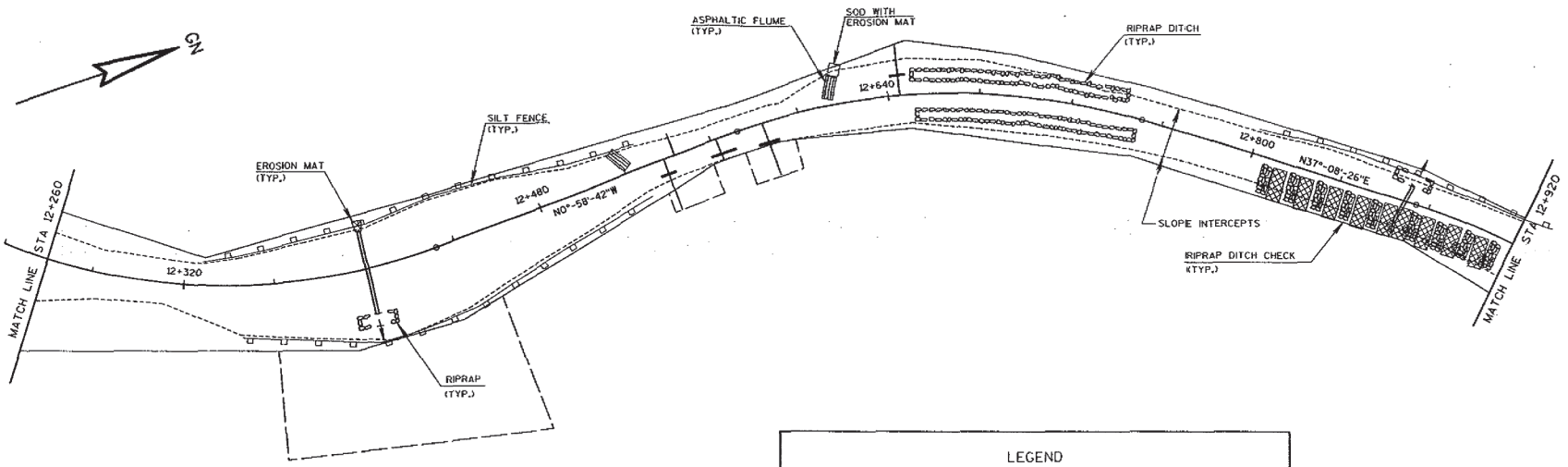
RIPRAP		HEAVY RIPRAP	
EROSION MAT (CLASS I, TYPE B)		SILT FENCE	
EROSION BALES		RIPRAP DITCH CHECK	
SOD		ASPHALTIC FLUME	
SOD FLUME			

EROSION CONTROL DETAILS | 0 METERS 40 METERS 80 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 2.30 | M

PLOT SCALE:
PLOT NAME: 59.
REV. DATE: 31,32,33,
25,
22,
ORIGINATOR: LEVELS ON •

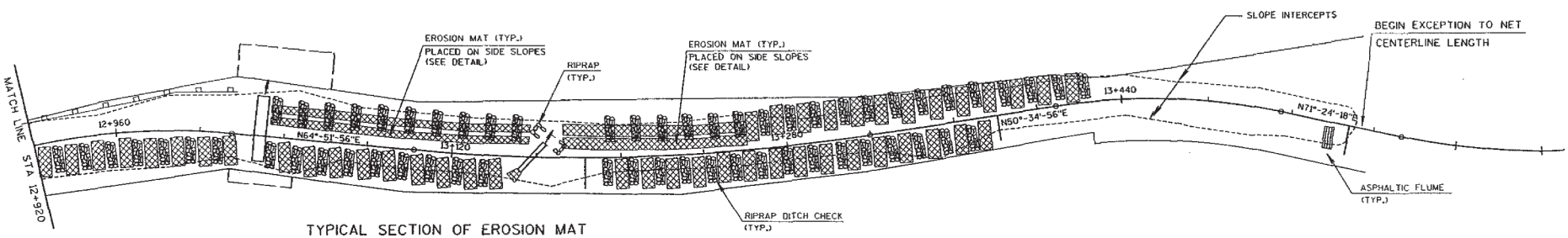
FILE NAME: M:\PP\ECO6.DGN

WISDOT: MSHT40

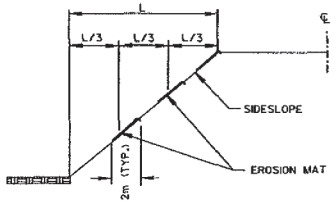


LEGEND

RIPRAP		HEAVY RIPRAP	
EROSION MAT (CLASS I, TYPE B)		SILT FENCE	
EROSION BALES		RIPRAP DITCH CHECK	
SOD		ASPHALTIC FLUME	



TYPICAL SECTION OF EROSION MAT ON SIDE SLOPE





LEGEND

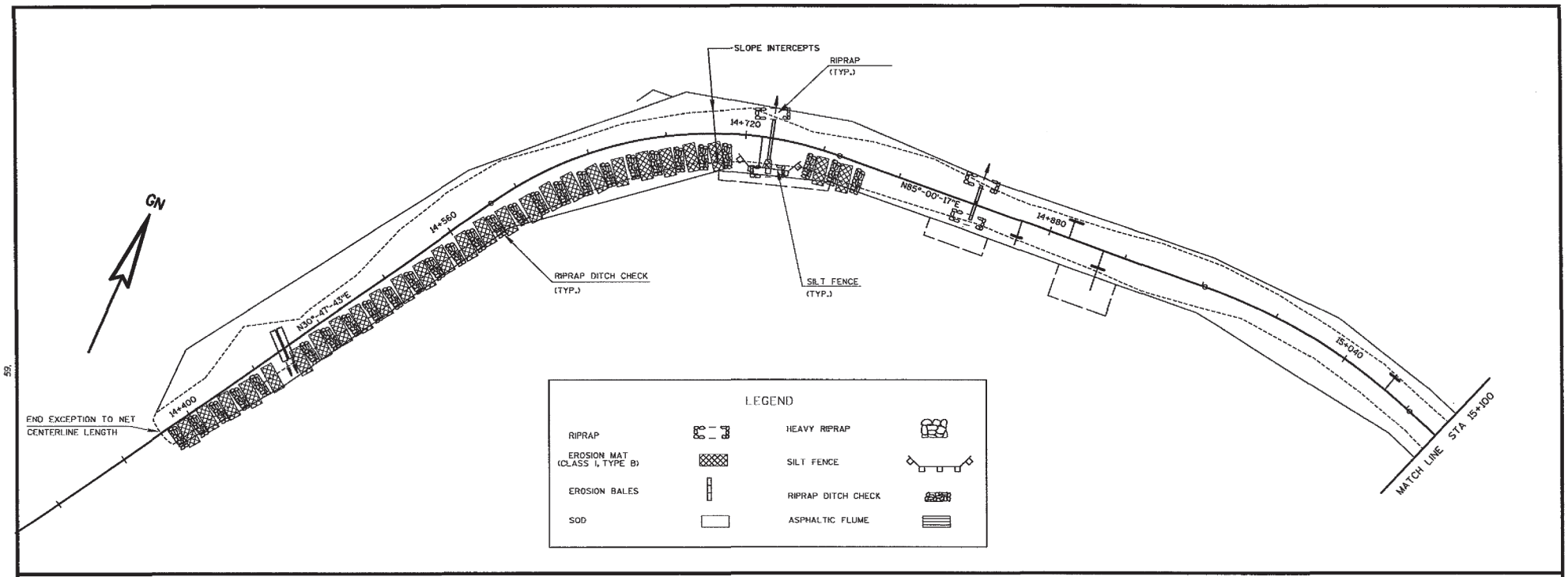
RIPRAP		HEAVY RIPRAP	
EROSION MAT (CLASS I, TYPE B)		SILT FENCE	
EROSION BALES		RIPRAP DITCH CHECK	
SOD		ASPHALTIC FLUME	

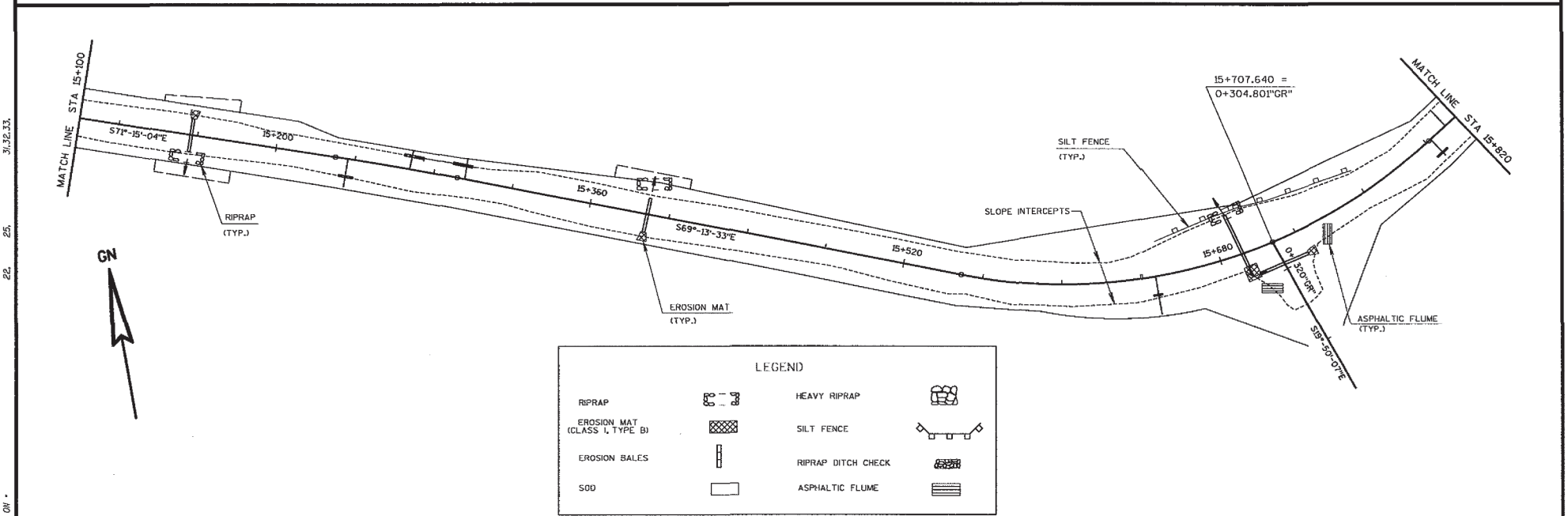
EROSION CONTROL DETAILS | 0 METERS 40 METERS 80 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 22 | M

PLOT SCALE:
PLOT NAME: 59.
REV. DATE: 31.32.33.
25.
22.
ORIGINATOR: LEVELS ON *

FILE NAME: M:\PP\EC07.DGN

WISDOT: MSHT40



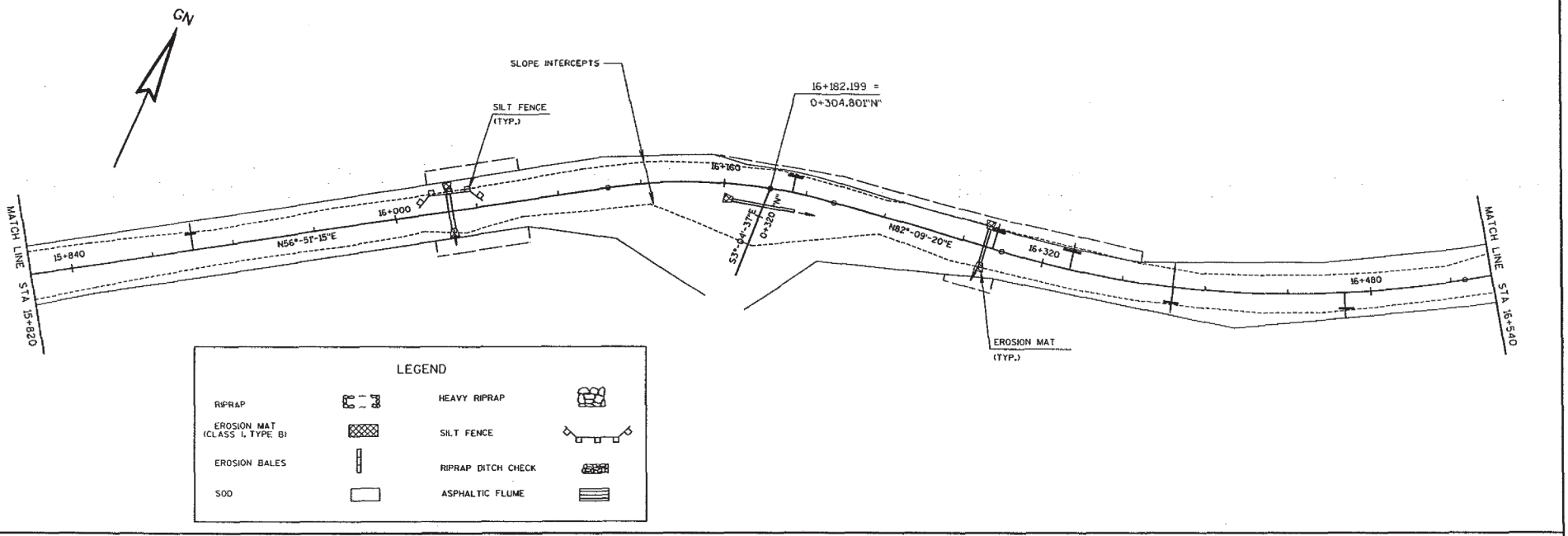


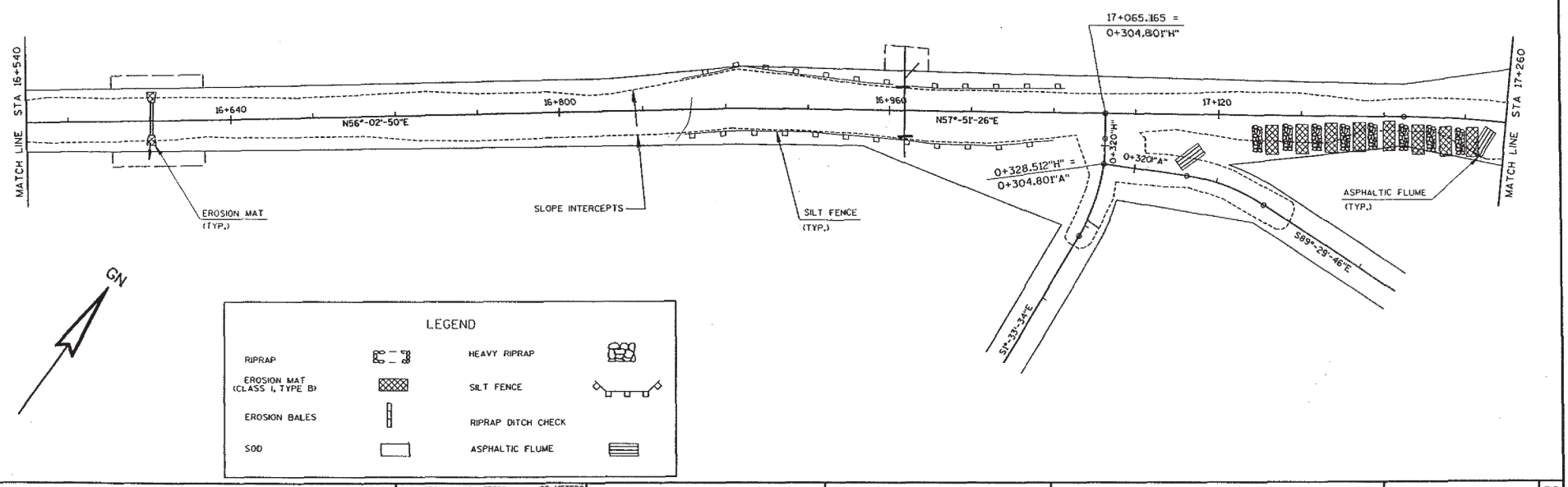
EROSION CONTROL DETAILS	0 METERS 40 METERS 80 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 2.22	M

PLOT SCALE:
PLOT NAME: 59.
REV. DATE: 31.32.33.
25.
22.
ORIGINATOR: LEVELS ON •

FILE NAME: M:\PP\ECO8.DGN

WisDOT: MSHT40



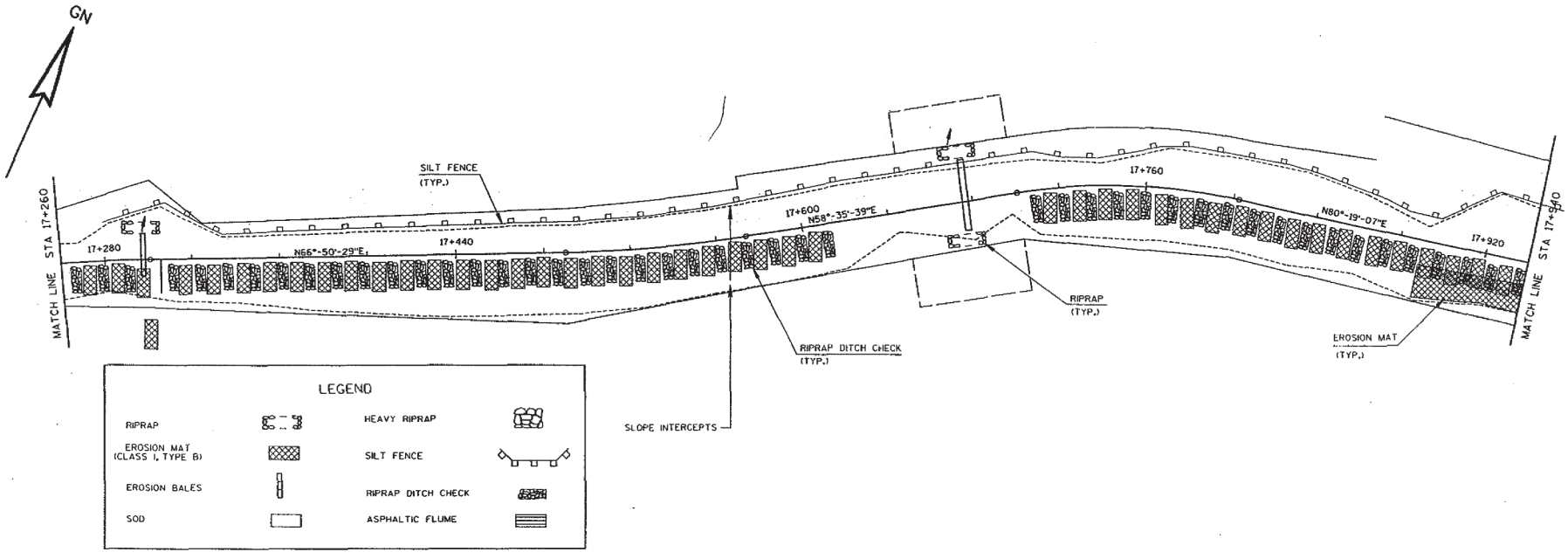


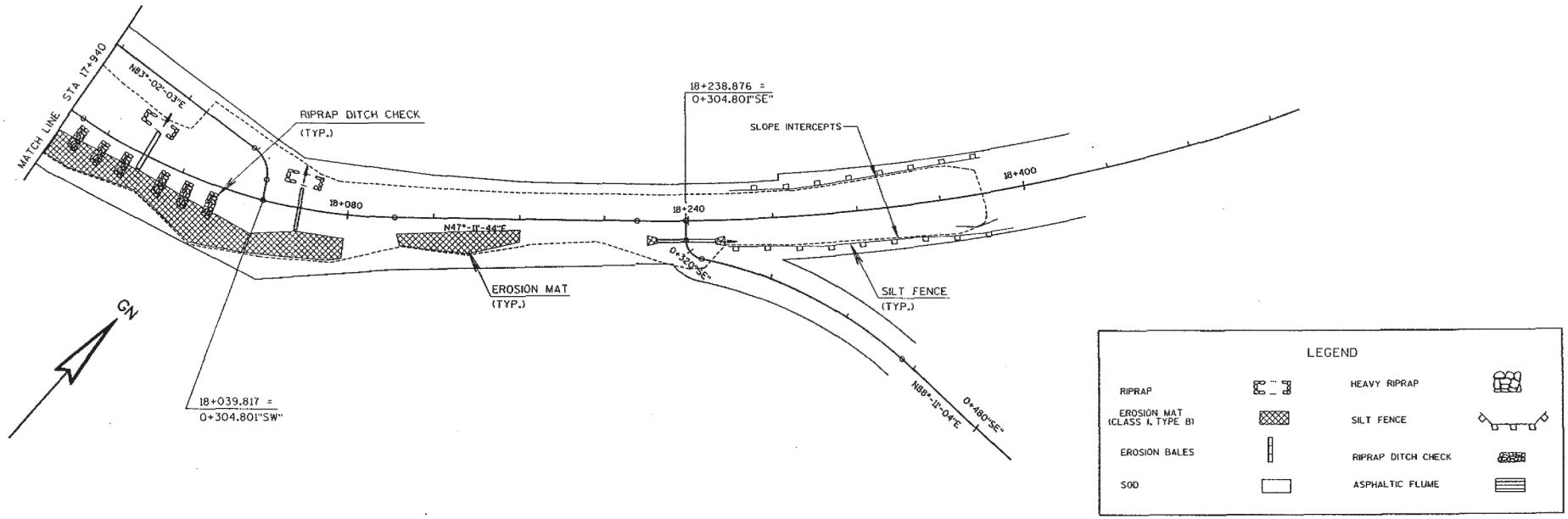
EROSION CONTROL DETAILS	0 METERS 40 METERS 80 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 2.23	M

PLOT SCALE:
PLOT NAME: 59.
REV. DATE: 31.32.33.
25.
22.
ORIGINATOR: LEVELS ON .

FILE NAME: M:\PP\EC09.DGN

WisDOT: MSHT40





PLOT SCALE:
PLOT NAME: 59.
REV. DATE: 3.30.33.
25.
22.
ORIGINATOR: LEVELS ON •

EROSION CONTROL DETAILS | 0 METERS 40 METERS 80 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 2.24 | M

FILE NAME: M:\PP\EC10.DGN

WISDOT: MSHT40

TRAFFIC CONTROL

SIGN AND BARRICADE LOCATION AND SPACING MAY BE ADJUSTED IN THE FIELD AS APPROVED BY THE ENGINEER.

ALL EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL IN USE SHALL BE COVERED AS DIRECTED BY THE ENGINEER. COST TO BE INCIDENTAL TO THE BID ITEM "TRAFFIC CONTROL."

ALL SIGNS ARE 1200mm X 1200mm UNLESS OTHERWISE NOTED.

DETAILS OF THE TRAFFIC CONTROL DEVICES AND THEIR LOCATION NOT SHOWN ON THE DETAIL DRAWINGS SHALL CONORM TO THE PERTINENT REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE PLANS, SPECIFICATIONS, AND CONTRACT.

ADDITIONAL DRUMS OR BARRICADES MAY BE REQUIRED ADJACENT TO DROP OFFS, OPEN TRENCHES, OR PROTRUSIONS (INCLUDING MANHOLE COVERS AND WATER VALVES). COST TO BE INCIDENTAL TO BID ITEM "TRAFFIC CONTROL".

TRAFFIC CONTROL DEVICES MAY REQUIRE ADJUSTMENT OR REMOVAL AS PORTIONS OF THE CONTRACT ARE COMPLETED.

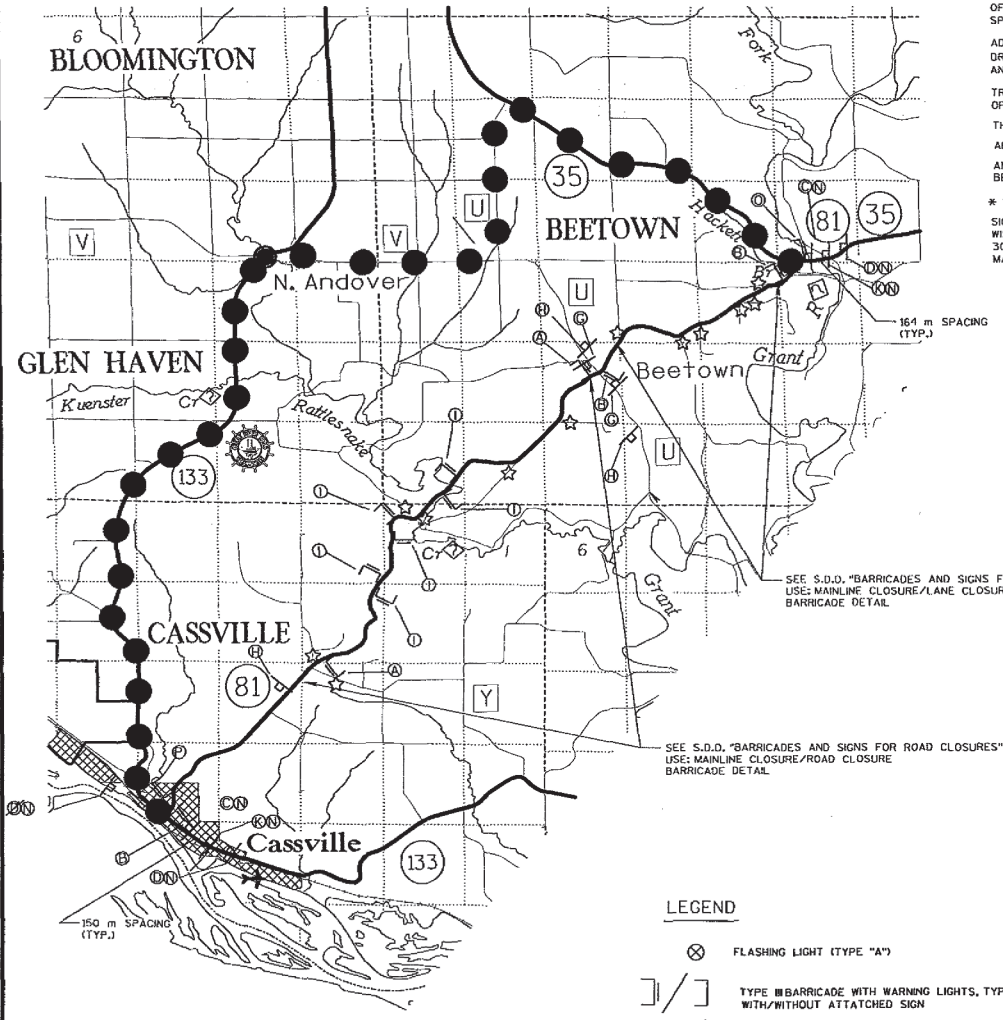
THE DETOUR ROUTE MARKER SIGNING WILL BE INSTALLED BY WISCONSIN D.O.T.

ALL TYPE III BARRICADES SHALL HAVE AN EQUIVALENT WIDTH OF 2.44 METERS.

ANY "STOP" SIGNS WHICH ARE REMOVED FOR A CONSTRUCTION OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED

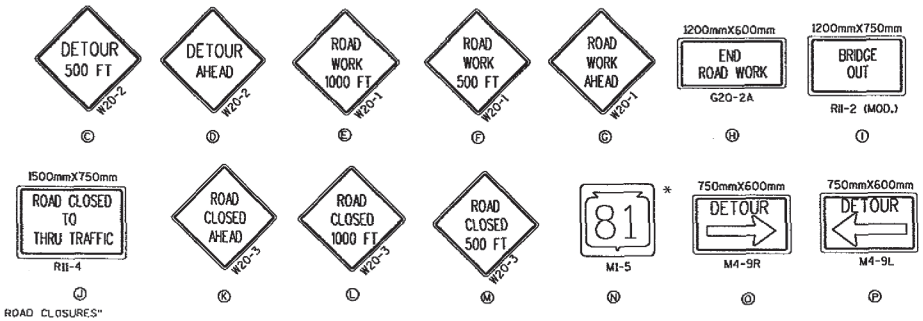
* SIGNS FURNISHED BY WISDOT AND INSTALLED BY CONTRACTOR.

SIGNS MUST BE PICKED UP AND RETURNED TO:
WISCONSIN DOT SIGN SHOP
3001 PIERSDORF STREET
MADISON, WI 53704



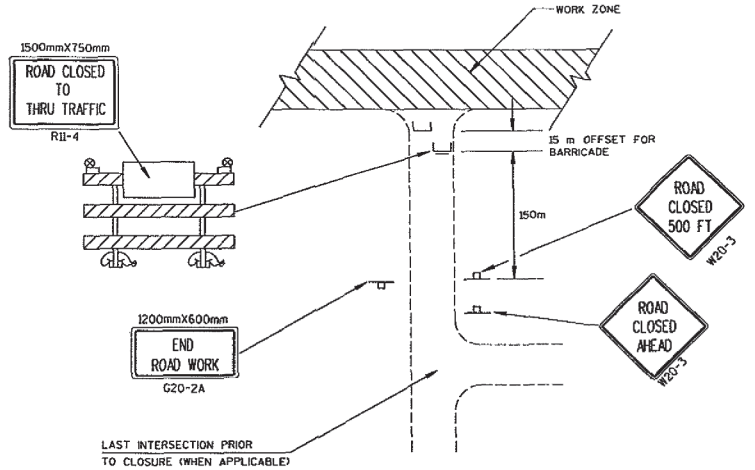
R11-3 (MOD.) 1500mmX750mm — BRIDGE OUT X MILES AHEAD LOCAL TRAFFIC ONLY — Ⓐ

R11-3 (1500mmX750mm) — ROAD CLOSED X MILES AHEAD LOCAL TRAFFIC ONLY — Ⓑ



LEGEND

- FLASHING LIGHT (TYPE "A")
- TYPE III BARRICADE WITH WARNING LIGHTS, TYPE A WITH/WITHOUT ATTATCHED SIGN
- SIGN ON WOOD POST
- STH 81 DETOUR ROUTE
- SEE DETAIL 4



DETAIL 4

PUBLIC ACCESS RESTRICTED
CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS

TRAFFIC CONTROL		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 2.25	M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME: TRAFFIC.DGN

WISDOT: MSHT20

DATE 17NOV98 — ESTIMATE OF QUANTITIES — SHEET: 3.1

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5215-02-71 QUANTITY	5215-02-72 QUANTITY
0010	20101	CLEARING	40M	127.00	127.00	
0020	20104	GRUBBING	40M	127.00	127.00	
0030	20301	REMOVING OLD CULVERT, STATION 5+600	LS	1.00	1.00	
0040	20302	REMOVING OLD CULVERT, STATION 5+971	LS	1.00	1.00	
0050	20303	REMOVING OLD CULVERT, STATION 8+598	LS	1.00	1.00	
0060	20304	REMOVING OLD CULVERT, STATION 8+870	LS	1.00	1.00	
0070	20305	REMOVING OLD CULVERT, STATION 9+125	LS	1.00	1.00	
0080	20306	REMOVING OLD CULVERT, STATION 9+933	LS	1.00	1.00	
0090	20307	REMOVING OLD CULVERT, STATION 13+028	LS	1.00	1.00	
0100	20308	REMOVING OLD CULVERT, STATION 14+458	LS	1.00	1.00	
0110	20309	REMOVING OLD CULVERT, STATION 17+298	LS	1.00	1.00	
0120	20310	REMOVING OLD CULVERT, STATION 17+671	LS	1.00	1.00	
0130	20330	REMOVING OLD CULVERTS	EACH	19.00	19.00	
0140	20351	REMOVING OLD BRIDGE, STATION 6+928	LS	1.00	1.00	
0150	20352	REMOVING OLD BRIDGE, STATION 8+050	LS	1.00	1.00	
0160	20353	REMOVING OLD BRIDGE, STATION 9+537.19	LS	1.00		1.00
0170	20408	REMOVING MASONRY	M3	2.00	2.00	
0180	20411	REMOVING GUARDRAIL	M	1,994.00	1,994.00	
0190	20460	REMOVING BUILDING, STATION 11+955	LS	1.00	1.00	
0200	20461	REMOVING BUILDING, STATION 12+577	LS	1.00	1.00	
0210	20501	COMMON EXCAVATION	M3	267,170.00	267,170.00	
0220	20502	ROCK EXCAVATION	M3	72,352.00	72,352.00	
0230	20610	EXCAVATION FOR STRUCTURES, BRIDGES B-22-141	LS	1.00		1.00
0240	20620	EXCAVATION FOR STRUCTURES, CULVERTS B-22-139	LS	1.00	1.00	
0250	20621	EXCAVATION FOR STRUCTURES, CULVERTS B-22-140	LS	1.00	1.00	
0260	20622	EXCAVATION FOR STRUCTURES, CULVERTS C-22-124	LS	1.00	1.00	
0270	20651	COFFERDAMS, STRUCTURE B-22-141	LS	1.00		1.00
0280	20901	GRANULAR BACKFILL	M3	150.00	150.00	
0290	21001	STRUCTURE BACKFILL	M3	3,606.00	3,365.00	241.00
0300	21302	FINISHING ROADWAY, PROJECT 5215-02-71	LS	1.00	1.00	
0310	21401	OBLITERATING OLD ROAD	M	844.00	844.00	
0320	30404	CRUSHED AGGREGATE BASE COURSE	MG	65,016.00	65,016.00	
0330	30426	BREAKER RUN STONE	MG	14,774.00	14,774.00	

DATE 26JAN99 ESTIMATE OF QUANTITIES SHEET: 3.1/A

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5215-02-71 QUANTITY	5215-02-72 QUANTITY
0010	20101	CLEARING	40M	127.00	127.00	
0020	20104	GRUBBING	40M	127.00	127.00	
0030	20301	REMOVING OLD CULVERT, STATION 5+600	LS	1.00	1.00	
0040	20302	REMOVING OLD CULVERT, STATION 5+971	LS	1.00	1.00	
0050	20303	REMOVING OLD CULVERT, STATION 8+598	LS	1.00	1.00	
0060	20304	REMOVING OLD CULVERT, STATION 8+870	LS	1.00	1.00	
0070	20305	REMOVING OLD CULVERT, STATION 9+125	LS	1.00	1.00	
0080	20306	REMOVING OLD CULVERT, STATION 9+933	LS	1.00	1.00	
0090	20307	REMOVING OLD CULVERT, STATION 13+020	LS	1.00	1.00	
0100	20308	REMOVING OLD CULVERT, STATION 14+458	LS	1.00	1.00	
0110	20309	REMOVING OLD CULVERT, STATION 17+298	LS	1.00	1.00	
0120	20310	REMOVING OLD CULVERT, STATION 17+671	LS	1.00	1.00	
0130	20330	REMOVING OLD CULVERTS	EACH	19.00	19.00	
0140	20351	REMOVING OLD BRIDGE, STATION 6+928	LS	1.00	1.00	
0150	20352	REMOVING OLD BRIDGE, STATION 8+050	LS	1.00	1.00	
0160	20353	REMOVING OLD BRIDGE, STATION 9+537.19	LS	1.00		1.00
0170	20408	REMOVING MASONRY	M3	2.00	2.00	
0180	20411	REMOVING GUARDRAIL	M	1,994.00	1,994.00	
0190	20460	REMOVING BUILDING, STATION 11+955	LS	1.00	1.00	
0200	20461	REMOVING BUILDING, STATION 12+577	LS	1.00	1.00	
0210	20501	COMMON EXCAVATION	M3	266,939.00	266,939.00	
0220	20502	ROCK EXCAVATION	M3	64,777.00	64,777.00	
0230	20610	EXCAVATION FOR STRUCTURES, BRIDGES B-22-141	LS	1.00		1.00
0240	20620	EXCAVATION FOR STRUCTURES, CULVERTS B-22-139	LS	1.00	1.00	
0250	20621	EXCAVATION FOR STRUCTURES, CULVERTS B-22-140	LS	1.00	1.00	
0260	20622	EXCAVATION FOR STRUCTURES, CULVERTS C-22-124	LS	1.00	1.00	
0270	20651	COFFERDAMS, STRUCTURE B-22-141	LS	1.00		1.00
0280	20901	GRANULAR BACKFILL	M3	150.00	150.00	
0290	21001	STRUCTURE BACKFILL	M3	3,606.00	3,365.00	241.00
0300	21302	FINISHING ROADWAY, PROJECT 5215-02-71	LS	1.00	1.00	
0310	21401	OBLITERATING OLD ROAD	M	844.00	844.00	
0320	30404	CRUSHED AGGREGATE BASE COURSE	MG	65,016.00	65,016.00	
0330	30426	BREAKER RUN STONE	MG	14,774.00	14,774.00	

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5215-02-71 QUANTITY	5215-02-72 QUANTITY
0340	40204	ASPHALTIC MATERIAL FOR TACK COAT	L	16,269.00	16,269.00	
0350	40301	RMP, ASPHALTIC MIXTURE	MG	30,526.00	30,526.00	
0360	40501	ASPHALTIC MATERIAL FOR PLANT MIXES	MG	1,832.00	1,832.00	
0370	40713	ASPHALTIC CONCRETE PAVEMENT, TYPE MV	MG	30,527.00	30,527.00	
0380	41010	SALVAGED ASPHALTIC PAVEMENT	MG	2,300.00	2,300.00	
0390	50201	CONCRETE MASONRY, BRIDGES	M3	298.00		298.00
0400	50265	PROTECTIVE SURFACE TREATMENT	M2	340.00		340.00
0410	50401	CONCRETE MASONRY, CULVERTS	M3	548.00	548.00	
0420	50409	CONCRETE MASONRY, ENDWALLS	M3	54.60	54.60	
0430	50504	HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	KG	3,880.00		3,880.00
0440	50505	HIGH STRENGTH BAR STEEL REINFORCEMENT, CULVERTS	KG	32,540.00	32,540.00	
0450	50511	COATED HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	KG	20,350.00		20,350.00
0460	51121	STEEL PILING, DELIVERED AND DRIVEN, HP 250 MM X 62 KG/M	M	36.00		36.00
0470	51605	RUBBERIZED MEMBRANE WATERPROOFING	M2	34.00	22.00	12.00
0480	52003	CULVERT PIPE, CLASS III, 450 MM	M	347.50	347.50	
0490	52005	CULVERT PIPE, CLASS III, 600 MM	M	686.30	686.30	
0500	52007	CULVERT PIPE, CLASS III, 750 MM	M	261.50	261.50	
0510	52009	CULVERT PIPE, CLASS III, 900 MM	M	155.70	155.70	
0520	52011	CULVERT PIPE, CLASS III, 1200 MM	M	20.40	20.40	
0530	52061	APRON ENDWALLS FOR CULVERT PIPE, 450 MM	EACH	75.00	75.00	
0540	52063	APRON ENDWALLS FOR CULVERT PIPE, 600 MM	EACH	62.00	62.00	
0550	52065	APRON ENDWALLS FOR CULVERT PIPE, 750 MM	EACH	21.00	21.00	
0560	52067	APRON ENDWALLS FOR CULVERT PIPE, 900 MM	EACH	19.00	19.00	
0570	52069	APRON ENDWALLS FOR CULVERT PIPE, 1200 MM	EACH	2.00	2.00	
0580	52075	PIPE CATTLE PASS	M	218.00	218.00	
0590	52088	TEMPORARY CULVERT PIPE, 1200 MM	M	20.00	20.00	
0600	52107	CORRUGATED STEEL CULVERT PIPE, 600 MM	M	33.60	33.60	
0610	52151	STEEL APRON ENDWALLS FOR CULVERT PIPE, 600 MM	EACH	9.00	9.00	
0620	60170	CONCRETE CURB AND GUTTER, 900 MM, TYPE D	M	2,472.00	2,472.00	
0630	60215	CONCRETE STEPS	M2	88.60	88.60	
0640	60601	RIPRAP	M3	604.50	604.50	

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5215-02-71 QUANTITY	5215-02-72 QUANTITY
0340	40204	ASPHALTIC MATERIAL FOR TACK COAT	L	16,269.00	16,269.00	
0350	40301	QMP, ASPHALTIC MIXTURE	MG	30,526.00	30,526.00	
0360	40501	ASPHALTIC MATERIAL FOR PLANT MIXES	MG	1,832.00	1,832.00	
0370	40713	ASPHALTIC CONCRETE PAVEMENT, TYPE MV	MG	30,527.00	30,527.00	
0380	41010	SALVAGED ASPHALTIC PAVEMENT	MG	2,300.00	2,300.00	
0390	50201	CONCRETE MASONRY, BRIDGES	M3	298.00		298.00
0400	50265	PROTECTIVE SURFACE TREATMENT	M2	340.00		340.00
0410	50401	CONCRETE MASONRY, CULVERTS	M3	548.00	548.00	
0420	50409	CONCRETE MASONRY, ENDWALLS	M3	54.60	54.60	
0430	50504	HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	KG	3,880.00		3,880.00
0440	50505	HIGH STRENGTH BAR STEEL REINFORCEMENT, CULVERTS	KG	32,540.00	32,540.00	
0450	50511	COATED HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	KG	20,350.00		20,350.00
0460	51121	STEEL PILING, DELIVERED AND DRIVEN, HP 250 MM X 62 KG/M	M	36.00		36.00
0470	51605	RUBBERIZED MEMBRANE WATERPROOFING	M2	34.00	22.00	12.00
0480	52003	CULVERT PIPE, CLASS III, 450 MM	M	347.50	347.50	
0490	52005	CULVERT PIPE, CLASS III, 600 MM	M	686.30	686.30	
0500	52007	CULVERT PIPE, CLASS III, 750 MM	M	261.50	261.50	
0510	52009	CULVERT PIPE, CLASS III, 900 MM	M	140.60	140.60	
0520	52011	CULVERT PIPE, CLASS III, 1200 MM	M	20.40	20.40	
0530	52015	CULVERT PIPE, CLASS III, 1800 MM	M	12.80	12.80	
0540	52061	APRON ENDWALLS FOR CULVERT PIPE, 450 MM	EACH	75.00	75.00	
0550	52063	APRON ENDWALLS FOR CULVERT PIPE, 600 MM	EACH	62.00	62.00	
0560	52065	APRON ENDWALLS FOR CULVERT PIPE, 750 MM	EACH	21.00	21.00	
0570	52067	APRON ENDWALLS FOR CULVERT PIPE, 900 MM	EACH	19.00	19.00	
0580	52069	APRON ENDWALLS FOR CULVERT PIPE, 1200 MM	EACH	2.00	2.00	
0590	52072	APRON ENDWALLS FOR CULVERT PIPE, 1800 MM	EACH	2.00	2.00	
0600	52075	PIPE CATTLE PASS	M	218.00	218.00	
0610	52088	TEMPORARY CULVERT PIPE, 1200 MM	M	20.00	20.00	
0620	52107	CORRUGATED STEEL CULVERT PIPE, 600 MM	M	33.60	33.60	
0630	52151	STEEL APRON ENDWALLS FOR CULVERT PIPE, 600 MM	EACH	9.00	9.00	

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5215-02-71 QUANTITY	5215-02-72 QUANTITY
0650	60602	HEAVY RIPRAP	M3	1,067.90	864.90	203.00
0660	61122	INLETS, TYPE 3	EACH	3.00	3.00	
0670	61180	INLET COVERS, TYPE HM	EACH	3.00	3.00	
0680	61200	PIPE UNDERDRAIN, 100 MM	M	220.00	220.00	
0690	61407	STEEL THRIE BEAM STRUCTURE APPROACH	M	32.00	32.00	
0700	61408	STEEL PLATE BEAM GUARD, CLASS A	M	132.00	132.00	
0710	61422	MARKER POSTS FOR RIGHT OF WAY	EACH	264.00	264.00	
0720	61433	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4.00		4.00
0730	61434	STEEL PLATE BEAM GUARD, SLOTTED RAIL TERMINAL	EACH	4.00	4.00	
0740	61802	MAINTENANCE AND REPAIR OF HAUL ROADS, PROJECT 5215-02-71	LS	1.00	1.00	
0750	61803	MAINTENANCE AND REPAIR OF HAUL ROADS, PROJECT 5215-02-72	LS	1.00		1.00
0760	61910	MOBILIZATION	LS	1.00	0.92	0.08
0770	62203	ASPHALTIC FLUMES	M2	46.08	46.08	
0780	62301	CALCIUM CHLORIDE SURFACE TREATMENT	MG	75.00	75.00	
0790	62401	WATER	KL	2,200.00	2,200.00	
0800	62505	SALVAGED TOPSOIL	M2	336,990.00	336,990.00	
0810	62702	MULCHING	M2	336,990.00	336,990.00	
0820	62811	EROSION BALES, DELIVERED	EACH	120.00	120.00	
0830	62812	EROSION BALES, INSTALLED	EACH	120.00	120.00	
0840	62817	SILT FENCE MAINTENANCE	M	24,675.00	24,675.00	
0850	62819	MOBILIZATIONS, EROSION CONTROL	EACH	18.00	18.00	
0860	62821	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	12.00	12.00	
0870	62824	EROSION MAT, DELIVERED, CLASS I, TYPE B	M2	10,480.00	10,480.00	
0880	62825	EROSION MAT, INSTALLED, CLASS I, TYPE B	M2	10,480.00	10,480.00	
0890	62830	EROSION MAT, DELIVERED, CLASS II, TYPE A	M2	496.00	496.00	
0900	62831	EROSION MAT, INSTALLED, CLASS II, TYPE A	M2	496.00	496.00	
0910	62848	SILT FENCE, SILTY SOIL, DELIVERED	M	8,225.00	8,225.00	
0920	62850	SILT FENCE, SILTY SOIL, INSTALLED	M	8,225.00	8,225.00	
0930	62905	FERTILIZER, TYPE B	KG	11,780.00	11,780.00	
0940	63003	SEEDING, TEMPORARY	KG	3,550.00	3,550.00	
0950	63009	SEEDING, MIXTURE NO. 20	KG	5,054.00	5,054.00	

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5215-02-71 QUANTITY	5215-02-72 QUANTITY
0640	60170	CONCRETE CURB AND GUTTER, 900 MM, TYPE D	M	2,472.00	2,472.00	
0650	60215	CONCRETE STEPS	M2	88.60	88.60	
0660	60601	RIPRAP	M3	604.50	604.50	
0670	60602	HEAVY RIPRAP	M3	1,067.90	864.90	203.00
0680	61122	INLETS, TYPE 3	EACH	3.00	3.00	
0690	61180	INLET COVERS, TYPE MM	EACH	3.00	3.00	
0700	61200	PIPE UNDERDRAIN, 100 MM	M	220.00	220.00	
0710	61407	STEEL THRIE BEAM STRUCTURE APPROACH	M	32.00	32.00	
0720	61408	STEEL PLATE BEAM GUARD, CLASS A	M	132.00	132.00	
0730	61422	MARKER POSTS FOR RIGHT OF WAY	EACH	264.00	264.00	
0740	61433	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4.00		4.00
0750	61434	STEEL PLATE BEAM GUARD, SLOTTED RAIL TERMINAL	EACH	4.00	4.00	
0760	61802	MAINTENANCE AND REPAIR OF HAUL ROADS, PROJECT 5215-02-71	LS	1.00	1.00	
0770	61803	MAINTENANCE AND REPAIR OF HAUL ROADS, PROJECT 5215-02-72	LS	1.00		1.00
0780	61910	MOBILIZATION	LS	1.00	0.92	0.08
0790	62203	ASPHALTIC FLUMES	M2	46.08	46.08	
0800	62301	CALCIUM CHLORIDE SURFACE TREATMENT	MG	75.00	75.00	
0810	62401	WATER	KL	2,200.00	2,200.00	
0820	62505	SALVAGED TOPSOIL	M2	336,990.00	336,990.00	
0830	62702	MULCHING	M2	336,990.00	336,990.00	
0840	62811	EROSION BALES, DELIVERED	EACH	120.00	120.00	
0850	62812	EROSION BALES, INSTALLED	EACH	120.00	120.00	
0860	62817	SILT FENCE MAINTENANCE	M	24,675.00	24,675.00	
0870	62819	MOBILIZATIONS, EROSION CONTROL	EACH	18.00	18.00	
0880	62821	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	12.00	12.00	
0890	62824	EROSION MAT, DELIVERED, CLASS I, TYPE B	M2	10,480.00	10,480.00	
0900	62825	EROSION MAT, INSTALLED, CLASS I, TYPE B	M2	10,480.00	10,480.00	
0910	62830	EROSION MAT, DELIVERED, CLASS II, TYPE A	M2	496.00	496.00	
0920	62831	EROSION MAT, INSTALLED, CLASS II, TYPE A	M2	496.00	496.00	
0930	62848	SILT FENCE, SILTY SOIL, DELIVERED	M	8,225.00	8,225.00	
0940	62850	SILT FENCE, SILTY SOIL, INSTALLED	M	8,225.00	8,225.00	

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5215-02-71 QUANTITY	5215-02-72 QUANTITY
0960	63012	SEEDING, MIXTURE NO. 50	KG	53.00	53.00	
0970	63101	SODDING	M2	496.00	496.00	
0980	64210	FIELD LABORATORY	LS	1.00	1.00	
0990	64220	FIELD OFFICE, TYPE C	LS	1.00	1.00	
1000	64302	TRAFFIC CONTROL, PROJECT 5215-02-71	LS	1.00	1.00	
1010	64503	GEOTEXTILE FABRIC, TYPE DF	M2	230.00	230.00	
1020	64505	GEOTEXTILE FABRIC, TYPE R	M2	2,399.00	2,399.00	
1030	64506	GEOTEXTILE FABRIC, TYPE HR	M2	2,223.30	1,780.30	443.00
1040	64602	PAVEMENT MARKING, 100 MM, EPOXY	M	51,511.50	51,511.50	
1050	64636	LOCATING NO-PASSING ZONES	KM	13.46	13.46	
1060	65010	CONSTRUCTION STAKING, SUBGRADE	M	13,465.00	13,465.00	
1070	65020	CONSTRUCTION STAKING, CRUSHED AGGREGATE BASE COURSE	M	13,465.00	13,465.00	
1080	66501	SAWING EXISTING PAVEMENT	M	53.60	53.60	
1090	90002	MISC 90002A SPLIT BLOCK RETAINING WALL	M2	130.00	130.00	
1100	90002	MISC 90002B SHEET MEMBRANE WATERPROOFING	M2	95.00	95.00	
1110	90003	MISC 90003A SALVAGED ASPHALTIC PAVEMENT, BASE COURSE, MAINTENANCE OF LOCAL TRAFFIC	M3	5,500.00	5,500.00	
1120	90003	MISC 90003B COARSE AGGREGATE, SIZE NO. 1	M3	56.00	56.00	
1130	90006	MISC 90006B CRUSHED STONE BASE COURSE	MG	6,885.00	6,885.00	
1140	90357	PULVERIZE AND RELAY EXISTING BASE AND SURFACE	M2	77,906.00	77,906.00	
1150	90365	QMP, BASE COURSES	MG	71,901.00	71,901.00	
1160	90394	PROFILOGRAPH	LS	1.00	1.00	
1170	90416	COARSE AGGREGATE, SIZE NO. 2	M3	180.00	180.00	
1180	90474	PREBORING STEEL PILING	M	36.00		36.00
1190	90643	SAND BAGS	EACH	1,200.00	1,200.00	
1200	90651	POLYETHYLENE SHEETING, DELIVERED	M2	1,500.00	1,500.00	
1210	90652	POLYETHYLENE SHEETING, INSTALLED	M2	1,500.00	1,500.00	
1220	90999	ON-THE-JOB TRAINING, ASP-1	HRS	400.00	400.00	

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5215-02-71 QUANTITY	5215-02-72 QUANTITY
0950	62905	FERTILIZER, TYPE B	KG	11,780.00	11,780.00	
0960	63003	SEEDING, TEMPORARY	KG	3,550.00	3,550.00	
0970	63009	SEEDING, MIXTURE NO. 20	KG	5,054.00	5,054.00	
0980	63012	SEEDING, MIXTURE NO. 50	KG	53.00	53.00	
0990	63101	SODDING	M2	496.00	496.00	
1000	64210	FIELD LABORATORY	LS	1.00	1.00	
1010	64220	FIELD OFFICE, TYPE C	LS	1.00	1.00	
1020	64302	TRAFFIC CONTROL, PROJECT 5215-02-71	LS	1.00	1.00	
1030	64503	GEOTEXTILE FABRIC, TYPE DF	M2	230.00	230.00	
1040	64505	GEOTEXTILE FABRIC, TYPE R	M2	2,399.00	2,399.00	
1050	64506	GEOTEXTILE FABRIC, TYPE HR	M2	2,223.30	1,780.30	443.00
1060	64602	PAVEMENT MARKING, 100 MM, EPOXY	M	51,511.50	51,511.50	
1070	64636	LOCATING NO-PASSING ZONES	KM	13.46	13.46	
1080	65010	CONSTRUCTION STAKING, SUBGRADE	M	13,465.00	13,465.00	
1090	65020	CONSTRUCTION STAKING, CRUSHED AGGREGATE BASE COURSE	M	13,465.00	13,465.00	
1100	66501	SAWING EXISTING PAVEMENT	M	53.60	53.60	
1110	90002	MISC 90002A SPLIT BLOCK RETAINING WALL	M2	130.00	130.00	
1120	90002	MISC 90002B SHEET MEMBRANE WATERPROOFING	M2	95.00	95.00	
1130	90003	MISC 90003A SALVAGED ASPHALTIC PAVEMENT, BASE COURSE, MAINTENANCE OF LOCAL TRAFFIC	M3	5,500.00	5,500.00	
1140	90003	MISC 90003B COARSE AGGREGATE, SIZE NO. 1	M3	56.00	56.00	
1150	90006	MISC 90006B CRUSHED STONE BASE COURSE	MG	6,885.00	6,885.00	
1160	90357	PULVERIZE AND RELAY EXISTING BASE AND SURFACE	M2	77,906.00	77,906.00	
1170	90365	QMP, BASE COURSES	MG	71,901.00	71,901.00	
1180	90394	PROFILOGRAPH	LS	1.00	1.00	
1190	90416	COARSE AGGREGATE, SIZE NO. 2	M3	180.00	180.00	
1200	90474	PREBORING STEEL PILING	M	36.00		36.00
1210	90643	SAND BAGS	EACH	1,200.00	1,200.00	
1220	90651	POLYETHYLENE SHEETING, DELIVERED	M2	1,500.00	1,500.00	
1230	90652	POLYETHYLENE SHEETING, INSTALLED	M2	1,500.00	1,500.00	

CLEARING AND GRUBBING

STATION	TO STATION	CLEARING 40m	GRUBBING 40m
4+500	-- 4+660	4	4
5+080	-- 5+880	20	20
5+925	-- 5+965	1	1
6+040	-- 6+380	9	9
6+680	-- 6+760	2	2
6+860	-- 7+060	5	5
7+100	-- 7+220	3	3
7+740	-- 7+860	3	3
8+060	-- 8+140	2	2
0+520'GP'	-- 0+600'GP'	2	2
8+280	-- 8+600	8	8
8+620	-- 8+660	1	1
8+850	-- 9+010	4	4
9+500	-- 9+540	1	1
9+940	-- 10+400	12	12
10+440	-- 10+480	1	1
10+520	-- 10+560	1	1
11+160	-- 11+240	2	2
11+420	-- 11+500	2	2
12+560	-- 12+600	1	1
13+040	-- 13+080	1	1
13+180	-- 13+552	10	10
14+620	-- 14+660	1	1
15+440	-- 15+720	7	7
16+400	-- 16+480	2	2
16+520	-- 16+620	3	3
17+340	-- 17+460	3	3
17+560	-- 17+680	3	3
17+740	-- 18+240	13	13
	TOTALS	127	127

REMOVING OLD CULVERT, STATION & REMOVING OLD CULVERT, EACH

STATION	DESCRIPTION	STATION L.S.	EACH
4+198	600mm CMCP		1
4+498	600mm CMCP		1
4+616	900mm CMCP		1
4+773	600mm CMCP		1
5+180	600mm CMCP		1
5+600	1.83m X 1.83m RCBC	1	
5+971	4.27m X 1.83m RCBC	1	
6+229	600mm CMCP		1
7+008	375mm CMCP		1
7+953	450mm CMCP		1
8+374	600mm CMCP		1
8+413	900mm CMCP		1
8+598	1.07m X 1.52m RCBC	1	
8+870	1.07m X 1.52m RCBC	1	
9+125	1.07m X 1.52m RCBC	1	
9+933	1.22m X 1.52m RCBC	1	
11+026	600mm CMCP		1
11+200	825mm CMCP		1
11+976	600mm CMCP		1
12+322	450mm CMCP		1
12+401	600mm CMCP		1
13+028	1.07m X 1.22m RCBC	1	
13+377	450mm CMCP		1
13+548	600mm CMCP		1
14+458	0.91m X 0.61m RCBC	1	
15+295	375mm CP		1
17+298	0.61m X 0.61m RCBC	1	
17+671	1.07m X 1.83m RCBC	1	
0+348"SE"	600mm CMCP		1
	TOTALS	10	19

OBLITERATE OLD ROADWAY

LOCATION	DESCRIPTION	m
0+649"Y" - 0+754"Y" RT.	C.T.H. Y/SETTLEMENT ROAD	136
4+907 - 5+106 RT.	S.T.H. 81	200
5+707 - 5+871 LT.	S.T.H. 81	176
6+065 - 6+287 LT.	S.T.H. 81	224
0+502"GP" - 0+581"GP" LT.	GARDEN PRAIRIE ROAD	108
	TOTAL	844

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

SALVAGED ASPHALTIC PAVEMENT

STA	TO STA	Mg
4+080	13+552	1625
14+487	13+380	675
TOTAL		2300

REMOVING BUILDING, STATION

STATION	DESCRIPTION	L.S.
11+955 RT.	SHED	1
12+577 RT.	MILK HOUSE	1
TOTAL		2

EARTHWORK SUMMARY (ONE BALANCE)

LOCATION	CUT m3	SALVAGED ASPHALT PAVEMENT m3	COMMON EXCAVATION m3	EXPANDED FILL m3	ROCK EXCAVATION m3
STA 4+080 TO 13+552	194128	3900	190228	209389	52264
STA 14+387 TO 18+380	45479	1600	43879	35610	8992
TEMP. BYPASS RD. (STA 7+980 TO 8+140 RT.)				1550	
CTH Y/SETTLEMENT RD.	1341		1341	135	
GARDEN PRAIRIE RD.	27036		27036	26	
HOUGHTON LA.	0		0	315	
HIDDEN ACRES RD.	218		218	60	
EBS (5% OF TOTAL EXC.)	12500		12500		
TOTALS	280702	5500	275202	247085	61256

WASTE = COMMON EXC.+ (ROCK EXC. X 1.05) - EXPANDED FILL - EBS - (EBS X 1.30)
= 63686 m3

REMOVING GUARD RAIL

LOCATION		m
4+781 - 4+808	LT.	27
4+781 - 4+812	RT.	31
5+034 - 5+091	RT.	57
5+275 - 5+602	RT.	338
5+562 - 5+628	RT.	51
5+628 - 5+879	LT.	269
5+949 - 5+965	RT.	16
6+883 - 6+922	LT.	39
6+889 - 6+927	RT.	38
6+933 - 6+972	LT.	39
6+938 - 6+977	RT.	39
8+007 - 8+045	RT.	38
8+007 - 8+045	LT.	38
8+055 - 8+088	LT.	33
8+056 - 8+088	RT.	32
8+548 - 8+605	RT.	57
9+503 - 9+526	LT.	23
9+505 - 9+526	RT.	21
9+548 - 9+570	LT.	22
9+548 - 9+570	RT.	22
10+288 - 10+334	LT.	46
10+444 - 10+476	LT.	32
10+530 - 10+577	LT.	47
17+176 - 17+542	LT.	366
17+652 - 17+925	LT.	273
TOTAL		1994

CRUSHED AGGREGATE BASE COURSE; SALVAGED ASPHALTIC PAVEMENT, BASE COURSE; BREAKER RUN STONE; CRUSHED STONE BASE COURSE; AND COARSE AGG. SIZE NO. 2

STA	TO	STA	CRUSHED AGGREGATE BASE COURSE Mg	SALVAGED ASPHALTIC PAVEMENT, BASE COURSE MAINT. OF LOCAL ACCESS m3	BREAKER RUN Mg	CRUSHED STONE BASE COURSE Mg	COARSE AGG. NO. 2
4 + 80	TO	6 + 462	17622			1278	
6 + 462	TO	6 + 688	401		491	85	
6 + 688	TO	7 + 285	4417			320	
7 + 285	TO	8 + 70	1392		1706	294	
8 + 70	TO	8 + 510	3255			236	
8 + 510	TO	10 + 990	4397		5389	928	
10 + 990	TO	11 + 190	1480			107	
11 + 190	TO	11 + 582	695		852	147	
11 + 582	TO	12 + 760	8715			632	
12 + 760	TO	13 + 552	1404		1721	296	
14 + 387	TO	15 + 514	1998		2449	421	
15 + 514	TO	15 + 819	2345			214	
15 + 819	TO	16 + 733	1621		1986	342	
16 + 733	TO	18 + 380	12662			1158	
4 + 080	TO	13 + 552		3850			
14 + 387	TO	18 + 380		1650			
SIDEROADS							
CTH Y/SETTLEMENT ROAD			636			24	
GARDEN PRAIRIE ROAD			549			21	
RATTLESNAKE ROAD			77				
LAUFENBERG LANE			61				
TIN CAN LANE			85				
GRANT RIVER ROAD			80			3	
NARROW CUT ROAD			37				
HOUGHTON LANE			141				
HIDDEN ACRES ROAD			93				
SHORT CUT ROAD (W.)			77				
SHORT CUT ROAD (E.)			50				
TEMP. BYPASS RD. (STA 7+980-8+140 RT.)			310				100
DRIVEWAYS			420			380	
TOTALS			65016	5500	14594	6885	100

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON = 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

MISCELLANEOUS QUANTITIES | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO:3.A | M

FILE NAME: M:\PP\QUANT1.DGN

WisDOT: MSHT20

CLEARING AND GRUBBING

STATION	TO STATION	CLEARING 40m	GRUBBING 40m
4+500	-- 4+660	4	4
5+080	-- 5+880	20	20
5+925	-- 5+965	1	1
6+040	-- 6+380	9	9
6+680	-- 6+760	2	2
6+860	-- 7+060	5	5
7+100	-- 7+220	3	3
7+740	-- 7+860	3	3
8+060	-- 8+140	2	2
0+520'GP'	-- 0+600'GP'	2	2
8+280	-- 8+600	8	8
8+620	-- 8+660	1	1
8+850	-- 9+010	4	4
9+500	-- 9+540	1	1
9+940	-- 10+400	12	12
10+440	-- 10+480	1	1
10+520	-- 10+560	1	1
11+160	-- 11+240	2	2
11+420	-- 11+500	2	2
12+560	-- 12+600	1	1
13+040	-- 13+080	1	1
13+180	-- 13+552	10	10
14+620	-- 14+660	1	1
15+440	-- 15+720	7	7
16+400	-- 16+480	2	2
16+520	-- 16+620	3	3
17+340	-- 17+460	3	3
17+560	-- 17+680	3	3
17+740	-- 18+240	13	13
	TOTALS	127	127

REMOVING OLD CULVERT, STATION & REMOVING OLD CULVERT, EACH

STATION	DESCRIPTION	STATION L.S.	EACH
4+198	600mm CMCP		1
4+498	600mm CMCP		1
4+616	900mm CMCP		1
4+773	600mm CMCP		1
5+180	600mm CMCP		1
5+600	1.83m X 1.83m RCBC	1	
5+971	4.27m X 1.83m RCBC	1	
6+229	600mm CMCP		1
7+008	375mm CMCP		1
7+953	450mm CMCP		1
8+374	600mm CMCP		1
8+413	900mm CMCP		1
8+598	1.07m X 1.52m RCBC	1	
8+870	1.07m X 1.52m RCBC	1	
9+125	1.07m X 1.52m RCBC	1	
9+933	1.22m X 1.52m RCBC	1	
11+026	600mm CMCP		1
11+200	825mm CMCP		1
11+976	600mm CMCP		1
12+322	450mm CMCP		1
12+401	600mm CMCP		1
13+028	1.07m X 1.22m RCBC	1	
13+377	450mm CMCP		1
13+548	600mm CMCP		1
14+458	0.91m X 0.61m RCBC	1	
15+295	375mm CP		1
17+298	0.61m X 0.61m RCBC	1	
17+671	1.07m X 1.83m RCBC	1	
0+348"SE"	600mm CMCP		1
	TOTALS	10	19

OBLITERATE OLD ROADWAY

LOCATION	DESCRIPTION	m
0+649"Y" - 0+754"Y" RT.	C.T.H. Y/SETTLEMENT ROAD	136
4+907 - 5+106 RT.	S.T.H. 81	200
5+707 - 5+871 LT.	S.T.H. 81	176
6+065 - 6+287 LT.	S.T.H. 81	224
0+502"GP" - 0+581"GP" LT.	GARDEN PRAIRIE ROAD	108
	TOTAL	844

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

SALVAGED ASPHALTIC PAVEMENT

STA	TO STA	Mg
4+080	13+552	1625
14+487	13+380	675
TOTAL		2300

REMOVING BUILDING, STATION

STATION	DESCRIPTION	L.S.
11+955 RT.	SHED	1
12+577 RT.	MILK HOUSE	1
	TOTAL	2

EARTHWORK SUMMARY (ONE BALANCE)

LOCATION	CUT m3	SALVAGED ASPHALT PAVEMENT m3	COMMON EXCAVATION m3	EXPANDED FILL m3	ROCK EXCAVATION m3
STA 4+080 TO 13+552	194128	3900	190228	209389	52264
STA 14+387 TO 18+380	45479	1600	43879	35610	8992
TEMP. BYPASS RD. (STA 7+980 TO 8+140 RT.)				1550	
CTH Y/SETTLEMENT RD.	1341		1341	135	
GARDEN PRAIRIE RD.	27036		27036	26	
HOUGHTON LA.	0		0	315	
HIDDEN ACRES RD.	218		218	60	
EBS (5% OF TOTAL EXC.)	12500		12500		
TOTALS	280702	5500	275202	247085	61256

WASTE = COMMON EXC.+ (ROCK EXC. X 1.05) - EXPANDED FILL - EBS - (EBS X 1.30)
= 63686 m3

REMOVING GUARD RAIL

LOCATION		m
4+781 - 4+808	LT.	27
4+781 - 4+812	RT.	31
5+034 - 5+091	RT.	57
5+275 - 5+602	RT.	338
5+562 - 5+628	RT.	51
5+628 - 5+879	LT.	269
5+949 - 5+965	RT.	16
6+883 - 6+922	LT.	39
6+889 - 6+927	RT.	38
6+933 - 6+972	LT.	39
6+938 - 6+977	RT.	39
8+007 - 8+045	RT.	38
8+007 - 8+045	LT.	38
8+055 - 8+088	LT.	33
8+056 - 8+088	RT.	32
8+548 - 8+605	RT.	57
9+503 - 9+526	LT.	23
9+505 - 9+526	RT.	21
9+548 - 9+570	LT.	22
9+548 - 9+570	RT.	22
10+288 - 10+334	LT.	46
10+444 - 10+476	LT.	32
10+530 - 10+577	LT.	47
17+176 - 17+542	LT.	366
17+652 - 17+925	LT.	273
TOTAL		1994

CRUSHED AGGREGATE BASE COURSE; SALVAGED ASPHALTIC PAVEMENT, BASE COURSE; BREAKER RUN STONE; CRUSHED STONE BASE COURSE; AND COARSE AGG. SIZE NO. 2

STA	TO	STA	CRUSHED AGGREGATE BASE COURSE Mg	SALVAGED ASPHALTIC PAVEMENT, BASE COURSE MAINT. OF LOCAL ACCESS m3	BREAKER RUN Mg	CRUSHED STONE BASE COURSE Mg	COARSE AGG. NO. 2
4 + 80	TO	6 + 462	17622			1278	
6 + 462	TO	6 + 688	401		491	85	
6 + 688	TO	7 + 285	4417			320	
7 + 285	TO	8 + 70	1392		1706	294	
8 + 70	TO	8 + 510	3255			236	
8 + 510	TO	10 + 990	4397		5389	928	
10 + 990	TO	11 + 190	1480			107	
11 + 190	TO	11 + 582	695		852	147	
11 + 582	TO	12 + 760	8715			632	
12 + 760	TO	13 + 552	1404		1721	296	
14 + 387	TO	15 + 514	1998		2449	421	
15 + 514	TO	15 + 819	2345			214	
15 + 819	TO	16 + 733	1621		1986	342	
16 + 733	TO	18 + 380	12662			1158	
4 + 080	TO	13 + 552		3850			
14 + 387	TO	18 + 380		1650			
SIDEROADS							
CTH Y/SETTLEMENT ROAD			636			24	
GARDEN PRAIRIE ROAD			549			21	
RATTLESNAKE ROAD			77				
LAUFENBERG LANE			61				
TIN CAN LANE			85				
GRANT RIVER ROAD			80			3	
NARROW CUT ROAD			37				
HOUGHTON LANE			141				
HIDDEN ACRES ROAD			93				
SHORT CUT ROAD (W.)			77				
SHORT CUT ROAD (E.)			50				
TEMP. BYPASS RD. (STA 7+980-8+140 RT.)			310				100
DRIVEWAYS			420			380	
TOTALS			65016	5500	14594	6885	100

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

MISCELLANEOUS QUANTITIES | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 3.A-/ M

FILE NAME: M:\PP\QUANT1.DGN

WisDOT: MSHT20

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

STEEL PLATE BEAM GUARD, CLASS A, STEEL THRIE BEAM STRUCTURE APPROACH AND ANCHORAGES, SLOTTED RAIL

STATION	TO	STATION		STEEL PLATE BEAM GUARD m	STEEL THRIE BEAM STR. APPROACH m	ANCHORAGES, SLOTTED RAIL EACH
9+448.5	--	9+519.6	LT	52	8	1
9+493.8	--	9+530.9	RT	18	8	1
9+548.0	--	9+617.2	LT	50	8	1
9+557.8	--	9+590.8	RT	14	8	1
		TOTALS		132	32	4

EROSION BALES

LOCATION STATION	TO	STATION	EROSION BALES DELIVERED EACH	EROSION BALES INSTALLED EACH
5+020	TO	5+120	20	20
5+720	TO	5+820	20	20
UNDISTRIBUTED			80	80
TOTALS			120	120

ASPHALTIC FLUMES

STATION	m2
C.T.H. Y/SETTLEMENT ROAD NORTHEAST QUADRANT	2.64
C.T.H. Y/SETTLEMENT ROAD NORTHWEST QUADRANT	2.64
C.T.H. Y/SETTLEMENT ROAD SOUTHWEST QUADRANT	1.44
C.T.H. Y/SETTLEMENT ROAD SOUTHEAST QUADRANT	1.44
7+094 LT.	3.60
7+406 LT.	2.04
7+498 LT.	1.80
GARDEN PRAIRIE ROAD NORTHWEST QUADRANT	2.76
GARDEN PRAIRIE ROAD NORTHEAST QUADRANT	2.76
8+686 LT.	2.52
9+960 RT.	2.04
11+190 RT.	3.60
11+852 LT.	3.60
12+523 LT.	3.60
12+615 LT.	2.76
13+552 RT.	1.80
GRANT RIVER ROAD SOUTHWEST QUADRANT	0.96
GRANT RIVER ROAD SOUTHEAST QUADRANT	2.64
HIDDEN ACRES LANE NORTHEAST QUADRANT	1.44
TOTAL	46.08

LANDSCAPING

STATION	TO	STATION	SALVAGED TOPSOIL m2	MULCHING m2	SEEDING MIX #20 kg	SEEDING (1) MIX #50 kg	SEEDING (2) TEMPORARY kg	FERTILIZE TYPE B kg
4+080	TO	13+552	194227	194227	2913		2000	6797
4+907	TO	5+120				1.7		
5+212	TO	5+517				2.4		
5+730	TO	5+913				4.4		
6+157	TO	6+370				3.4		
6+645	TO	6+767				1.0		
7+402	TO	7+193				2.2		
7+772	TO	7+864				1.1		
8+169	TO	8+382				6.8		
8+382	TO	8+595				6.0		
13+503	TO	13+552				1.2		
14+387	TO	18+380	65795	65795	987		750	2300
17+313	TO	18+136				12.4		
0+540 'Y'	TO	0+850 'Y'	2860	2860	43		25	100
0+396 'GP'	TO	0+600 'GP'	5970	5970	90		75	210
0+316 'H'	TO	0+370 'H'	140	140	2			5
0+320 'A'	TO	0+400 'A'	420	420	6			14
UNDISTRIBUTED			67578	67578	1014	10.4	700	2354
		TOTALS	336990	336990	5054	53.0	3550	11780

(1) USE #50 MIX IN 1:1 SLOPES IN ADDITION TO #20 MIX
(2) USE TEMPORARY SEEDING ON TOPS OF CUTS, BOTTOMS OF FILLS AND AS DIRECTED BY THE ENGINEER

WATER AND CALCIUM CHLORIDE

STATION	TO STATION	WATER kL	CALCIUM CHLORIDE Mg
4+080	TO 13+552	1750	50
14+387	TO 18+380	450	25
TOTALS		2200	75

SPLIT CONCRETE BLOCK RETAINING WALL

LOCATION	SPLIT CONCRETE BLOCK RETAINING WALL m2	COARSE AGGREGATE NO. 1 m3	PIPE UNDERDRAIN 100 mm m	GEOTEXTILE FABRIC TYPE DF m2
STA 8+716 TO 8+930	130	38	220	230
TOTALS	130	38	220	230

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

MISCELLANEOUS QUANTITIES		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 3.8	M

FILE NAME: M:\PP\QUANT4.DGN

STEEL PLATE BEAM GUARD, CLASS A, STEEL THRIE BEAM STRUCTURE APPROACH AND ANCHORAGES, SLOTTED RAIL

STATION	TO	STATION		STEEL PLATE BEAM GUARD m	STEEL THRIE BEAM STR. APPROACH m	ANCHORAGES, SLOTTED RAIL EACH
9+448.5	--	9+519.6	LT	52	8	1
9+493.8	--	9+530.9	RT	18	8	1
9+548.0	--	9+617.2	LT	50	8	1
9+557.8	--	9+590.8	RT	14	8	1
		TOTALS		132	32	4

EROSION BALES

LOCATION STATION	TO	STATION	EROSION BALES DELIVERED EACH	EROSION BALES INSTALLED EACH
5+020	TO	5+120	20	20
5+720	TO	5+820	20	20
UNDISTRIBUTED			80	80
TOTALS			120	120

ASPHALTIC FLUMES

STATION	m2
C.T.H. Y/SETTLEMENT ROAD NORTHEAST QUADRANT	2.64
C.T.H. Y/SETTLEMENT ROAD NORTHWEST QUADRANT	2.64
C.T.H. Y/SETTLEMENT ROAD SOUTHWEST QUADRANT	1.44
C.T.H. Y/SETTLEMENT ROAD SOUTHEAST QUADRANT	1.44
7+094 LT.	3.60
7+406 LT.	2.04
7+498 LT.	1.80
GARDEN PRAIRIE ROAD NORTHWEST QUADRANT	2.76
GARDEN PRAIRIE ROAD NORTHEAST QUADRANT	2.76
8+686 LT.	2.52
9+960 RT.	2.04
11+190 RT.	3.60
11+852 LT.	3.60
12+523 LT.	3.60
12+615 LT.	2.76
13+552 RT.	1.80
GRANT RIVER ROAD SOUTHWEST QUADRANT	0.96
GRANT RIVER ROAD SOUTHEAST QUADRANT	2.64
HIDDEN ACRES LANE NORTHEAST QUADRANT	1.44
TOTAL	46.08

LANDSCAPING

STATION	TO	STATION	SALVAGED TOPSOIL m2	MULCHING m2	SEEDING MIX *20 kg	SEEDING (1) MIX *50 kg	SEEDING (2) TEMPORARY kg	FERTILIZE TYPE B kg
4+080	TO	13+552	194227	194227	2913		2000	6797
4+907	TO	5+120				1.7		
5+212	TO	5+517				2.4		
5+730	TO	5+913				4.4		
6+157	TO	6+370				3.4		
6+645	TO	6+767				1.0		
7+402	TO	7+193				2.2		
7+772	TO	7+864				1.1		
8+169	TO	8+382				6.8		
8+382	TO	8+595				6.0		
13+503	TO	13+552				1.2		
14+387	TO	18+380	65795	65795	987		750	2300
17+313	TO	18+136				12.4		
0+540 'Y'	TO	0+850 'Y'	2860	2860	43		25	100
0+396 'GP'	TO	0+600 'GP'	5970	5970	90		75	210
0+316 'H'	TO	0+370 'H'	140	140	2			5
0+320 'A'	TO	0+400 'A'	420	420	6			14
UNDISTRIBUTED			67578	67578	1014	10.4	700	2354
		TOTALS	336990	336990	5054	53.0	3550	11780

(1) USE *50 MIX IN 1:1 SLOPES IN ADDITION TO *20 MIX
(2) USE TEMPORARY SEEDING ON TOPS OF CUTS, BOTTOMS OF FILLS AND AS DIRECTED BY THE ENGINEER

WATER AND CALCIUM CHLORIDE

STATION	TO STATION	WATER kL	CALCIUM CHLORIDE Mg
4+080	TO 13+552	1750	50
14+387	TO 18+380	450	25
TOTALS		2200	75

SPLIT CONCRETE BLOCK RETAINING WALL

LOCATION	SPLIT CONCRETE BLOCK RETAINING WALL m2	COARSE AGGREGATE NO. 1 m3	PIPE UNDERDRAIN 100 mm m	GEOTEXTILE FABRIC TYPE DF m2
STA 8+716 TO 8+930	130	38	220	230
TOTALS	130	38	220	230

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

MISCELLANEOUS QUANTITIES | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 3.8 / M

FILE NAME: M:\PP\QUANT4.DGN

WisDOT: MSHT20

ORIGINATOR: LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63 REV. DATE: PLOT NAME: PLOT SCALE:

ASPHALTIC ITEMS

STA			TO			STA	ASPHALTIC CONCRETE PAVEMENT,TYPE MV Mg	TACK COAT L
4	+	80	TO	6	+	462	5038	2422
6	+	462	TO	6	+	688	478	230
6	+	688	TO	7	+	285	1263	607
7	+	285	TO	8	+	70	1660	798
8	+	70	TO	8	+	510	931	447
8	+	510	TO	10	+	990	5245	2522
10	+	990	TO	11	+	190	423	203
11	+	190	TO	11	+	582	829	399
11	+	582	TO	12	+	760	2491	1198
12	+	760	TO	13	+	552	1675	805
14	+	387	TO	15	+	514	2384	1146
15	+	514	TO	15	+	819	806	620
15	+	819	TO	16	+	733	1933	930
16	+	733	TO	18	+	380	4354	3350

SIDEROADS

CTH Y/SETTLEMENT ROAD	284	184
GARDEN PRAIRIE ROAD	281	180
GRANT RIVER ROAD	80	51
RATTLESNAKE ROAD	54	34
HIDDEN ACRES/HOUGHTON LANE	94	61
SHORTCUT ROAD (WEST)	58	37
SHORTCUT ROAD (EAST)	65	42
DRIVEWAYS	100	
TOTALS	30527	16269

MARKER POSTS FOR R/W

STATION	TO	STATION	EACH
4+080	--	13+552 LT.	95
4+080	--	13+552 RT.	95
14+386	--	18+380 LT.	31
14+386	--	18+380 RT.	43
	TOTAL		264

CONCRETE CURB & GUTTER

STATION	TO STATION	CONC. CURB & GUTTER, 900 mm TYPE D m
7+094	TO 7+239 LT	145
7+406	TO 7+530 LT	114
8+686	TO 8+931 LT	245
10+005	TO 10+485 RT	480
11+120	TO 11+190 RT	70
11+140	TO 11+300 LT	160
11+400	TO 11+520 RT	120
11+852	TO 11+960 LT	108
12+523	TO 12+680 LT	157
13+182	TO 13+552 RT	370
15+200	TO 15+305 LT	105
17+078	TO 17+240 RT	162
CTH Y/SETTLEMENT RD.		107
GARDEN PRAIRIE RD.		50
GRANT RIVER RD.		53
HIDDEN ACRES RD./HOUGHTON LA.		26
TOTALS		2472

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

REMOVE CONC. MASONRY

LOCATION	m3	COMMENTS
STA 12+550 LT. TO 12+590 LT.	1.5	CONC. WALL
STA 12+560 RT.	0.25	CONC. WALL AT BARN
STA 12+568 RT.	0.25	CONC. WALL AT BARN
TOTAL	2.0	

CATTLE PASS

LOCATION	LENGTH (m)	CONC. MASONRY ENDWALLS (m3) *	CONCRETE STEPS (m2) *
STA 5+620	70.0	7.6	
STA 5+971	46.0	7.6	
STA 10+764	16.0	7.6	17.6
STA 13+028	25.0	7.6	
STA 15+890	15.0	7.6	11.0
STA 17+671	46.0	7.6	
TOTALS	218.0	45.6	28.6

* MORE LISTED ELSEWHERE IN STR. C-22-124 PLAN FOR CATEGORY 0040

TEMPORARY CULVERT PIPES

LOCATION	LENGTH m (DIA (mm) 1200)
STA 8+038 RT (TEMP. BYPASS)	20
TOTAL	20

RIPRAP, HEAVY RIPRAP AND FABRIC

STATION-STATION			DESCRIPTION	RIPRAP m3	HEAVY RIPRAP m3	GEOFABIC TYPE R m2	GEOFABRIC TYPE HR m2
4+350	--	4+500	RIPRAP LT. DITCH CHECKS	26.0		108.0	
4+580	--	4+610	RIPRAP LT. DITCH CHECKS	8.0		36.0	
4+820	--	5+080	RIPRAP LT. DITCH CHECKS	38.4		173.0	
4+498			PIPE INLET/OUTLET	3.2		11.0	
4+611			PIPE INLET/OUTLET		6.2		10.3
4+796			PIPE INLET/OUTLET	9.0		29.9	
5+180			PIPE INLET/OUTLET	9.0		29.9	
5+325			PIPE INLET/OUTLET	9.0			
5+422			PIPE INLET/OUTLET	9.0		29.9	
5+578			PIPE INLET/OUTLET		44.6	29.9	74.4
5+913	--	6+005	RIPRAP LT. DITCH CHECKS		23.0		76.8
5+962	--	6+005	PIPE INLET/OUTLET		29.3		49
6+608			PIPE OUTLET	9.0		29.9	
6+800			STREAMBANK LT.		50.0		83.5
6+824	--	6+817	PIPE INLET/OUTLET		10.9		18.2
GARDEN PRAIRIE RD.			BOTH DITCHES		402.0		670
7+880			PIPE INLET/OUTLET	9.0		29.9	
8+176			PIPE INLET/OUTLET		18.0		29.9
8+410	--	8+418	PIPE INLET/OUTLET	9.0		29.9	
8+596			PIPE INLET/OUTLET	9.0		29.9	
9+570	--	9+660 LT.	FILL SLOPE		120.0	200.0	750
10+462			PIPE OUTLET/SLOPE	8.7		29.1	
10+584			PIPE OUTLET/SLOPE	7.1		23.7	
11+791			PIPE OUTLET/SLOPE	2.2		7.3	
11+976			PIPE OUTLET	2.2		7.3	
12+401			PIPE OUTLET	6.6		22.0	
12+650	--	12+744	LT. DITCH	42.3		141.0	
12+650	--	12+750	RT. DITCH	45.0		150.0	
12+810	--	13+135	RIPRAP RT. DITCH CHECKS	38.4		172.8	
13+035	--	13+140	RIPRAP LT. DITCH CHECKS	12.0		54.0	
13+038			LT. SPRING BOX	60.0		28.0	
13+151			PIPE OUTLET	4.6		15.3	
13+190	--	13+370	RIPRAP RT. DITCH CHECKS	21.6		97.2	
13+190	--	13+425	RIPRAP LT. DITCH CHECKS	26.4		118.8	
14+400	--	14+775	RIPRAP RT. DITCH CHECKS	44.4		199.8	
14+458			PIPE INLET/OUTLET		10.9		18.2
14+732			PIPE INLET/OUTLET	9.0		29.9	
14+840			PIPE INLET/OUTLET	9.0		29.9	
15+389			PIPE OUTLET	4.0		15.0	
15+701			PIPE OUTLET	4.0		15.0	
17+282			PIPE OUTLET	4.0		15.0	
17+140	--	17+615	RIPRAP RT. DITCH CHECKS	56.4		253.8	
17+715	--	18+020	RIPRAP RT. DITCH CHECKS	36.0		162.0	
17+670			PIPE INLET/OUTLET	9.0		29.9	
18+057			PIPE OUTLET	4.0		15.0	
			TOTALS	604.5	714.9	2399.0	1780.3

MISCELLANEOUS QUANTITIES | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 3.c | M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63
FILE NAME: M:\PP\QUANT2.DGN
WISDOT: MSHT20

ASPHALTIC ITEMS

STA			TO			STA	ASPHALTIC CONCRETE PAVEMENT, TYPE MV Mg	TACK COAT L
4	+	80	TO	6	+	462	5038	2422
6	+	462	TO	6	+	688	478	230
6	+	688	TO	7	+	285	1263	607
7	+	285	TO	8	+	70	1660	798
8	+	70	TO	8	+	510	931	447
8	+	510	TO	10	+	990	5245	2522
10	+	990	TO	11	+	190	423	203
11	+	190	TO	11	+	582	829	399
11	+	582	TO	12	+	760	2491	1198
12	+	760	TO	13	+	552	1675	805
14	+	387	TO	15	+	514	2384	1146
15	+	514	TO	15	+	819	806	620
15	+	819	TO	16	+	733	1933	930
16	+	733	TO	18	+	380	4354	3350

SIDEROADS

CTH Y/SETTLEMENT ROAD	284	184
GARDEN PRAIRIE ROAD	281	180
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SHORTCUT ROAD (EAST)	65	42
DRIVEWAYS	100	
TOTALS	30527	16269

MARKER POSTS FOR R/W

STATION	TO	STATION	EACH
4+080	--	13+552 LT.	95
4+080	--	13+552 RT.	95
14+386	--	18+380 LT.	31
14+386	--	18+380 RT.	43
		TOTAL	264

CONCRETE CURB & GUTTER

STATION	TO STATION	CONC. CURB & GUTTER, 900 mm TYPE D m
7+094	TO 7+239 LT	145
7+406	TO 7+530 LT	114
8+686	TO 8+931 LT	245
10+005	TO 10+485 RT	480
11+120	TO 11+190 RT	70
11+140	TO 11+300 LT	160
11+400	TO 11+520 RT	120
11+852	TO 11+960 LT	108
12+523	TO 12+680 LT	157
13+182	TO 13+552 RT	370
15+200	TO 15+305 LT	105
17+078	TO 17+240 RT	162
CTH Y/SETTLEMENT RD.		107
GARDEN PRAIRIE RD.		50
GRANT RIVER RD.		53
HIDDEN ACRES RD./HOUGHTON LA.		26
TOTALS		2472

Beetown

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

REMOVE CONC. MASONRY

LOCATION	m3	COMMENTS
STA 12+560 LT. TO 12+590 LT.	1.5	CONC. WALL
STA 12+560 RT.	0.25	CONC. WALL AT BARN
STA 12+568 RT.	0.25	CONC. WALL AT BARN
TOTAL	2.0	

CATTLE PASS

LOCATION	LENGTH (m)	CONC. MASONRY ENDWALLS (m3) *	CONCRETE STEPS (m2) *
STA 5+620	70.0	7.6	
STA 5+971	46.0	7.6	
STA 10+764	16.0	7.6	17.6
STA 13+028	25.0	7.6	
STA 15+890	15.0	7.6	11.0
STA 17+671	46.0	7.6	
TOTALS	218.0	45.6	28.6

* MORE LISTED ELSEWHERE IN STR. C-22-124 PLAN FOR CATEGORY 0040

TEMPORARY CULVERT PIPES

LOCATION	DIA (mm) 1200 LENGTH m
STA 8+038 RT (TEMP. BYPASS)	20
TOTAL	20

RIPRAP, HEAVY RIPRAP AND FABRIC

STATION-STATION			DESCRIPTION	RIPRAP m3	HEAVY RIPRAP m3	GEOFABRIC TYPE R m2	GEOFABRIC TYPE HR m2
4+350	--	4+500	RIPRAP LT. DITCH CHECKS	26.0		108.0	
4+580	--	4+610	RIPRAP LT. DITCH CHECKS	8.0		36.0	
4+820	--	5+080	RIPRAP LT. DITCH CHECKS	38.4		173.0	
4+498			PIPE INLET/OUTLET	3.2		11.0	
4+611			PIPE INLET/OUTLET		6.2		10.3
4+796			PIPE INLET/OUTLET	9.0		29.9	
5+180			PIPE INLET/OUTLET	9.0		29.9	
5+325			PIPE INLET/OUTLET	9.0			
5+422			PIPE INLET/OUTLET	9.0		29.9	
5+578			PIPE INLET/OUTLET		44.6	29.9	74.4
5+913	--	6+005	RIPRAP LT. DITCH CHECKS		23.0		76.8
5+962	--	6+005	PIPE INLET/OUTLET		29.3		49
6+608			PIPE OUTLET	9.0		29.9	
6+800			STREAMBANK LT.		50.0		83.5
6+824	--	6+817	PIPE INLET/OUTLET		10.9		18.2
GARDEN PRAIRIE RD.			BOTH DITCHES		402.0		670
7+880			PIPE INLET/OUTLET	9.0		29.9	
8+176			PIPE INLET/OUTLET		18.0		29.9
8+410	--	8+418	PIPE INLET/OUTLET	9.0		29.9	
8+596			PIPE INLET/OUTLET	9.0		29.9	
9+570	--	9+660 LT.	FILL SLOPE		120.0	200.0	750
10+462			PIPE OUTLET/SLOPE	8.7		29.1	
10+534			PIPE OUTLET/SLOPE	7.1		23.7	
11+391			PIPE OUTLET/SLOPE	2.2		7.3	
11+976			PIPE OUTLET	2.2		7.3	
12+401			PIPE OUTLET	6.6		22.0	
12+650	--	12+744	LT. DITCH	42.3		141.0	
12+650	--	12+750	RT. DITCH	45.0		150.0	
12+810	--	13+135	RIPRAP RT. DITCH CHECKS	38.4		172.8	
13+035	--	13+140	RIPRAP LT. DITCH CHECKS	12.0		54.0	
13+038			LT. SPRING BOX	60.0		28.0	
13+151			PIPE OUTLET	4.6		15.3	
13+190	--	13+370	RIPRAP RT. DITCH CHECKS	21.6		97.2	
13+190	--	13+425	RIPRAP LT. DITCH CHECKS	26.4		118.8	
14+400	--	14+775	RIPRAP RT. DITCH CHECKS	44.4		199.8	
14+458			PIPE INLET/OUTLET		10.9		18.2
14+732			PIPE INLET/OUTLET	9.0		29.9	
14+840			PIPE INLET/OUTLET	9.0		29.9	
15+389			PIPE OUTLET	4.0		15.0	
15+701			PIPE OUTLET	4.0		15.0	
17+282			PIPE OUTLET	4.0		15.0	
17+140	--	17+615	RIPRAP RT. DITCH CHECKS	56.4		253.8	
17+715	--	18+020	RIPRAP RT. DITCH CHECKS	36.0		162.0	
17+670			PIPE INLET/OUTLET	9.0		29.9	
18+057			PIPE OUTLET	4.0		15.0	
			TOTALS	604.5	714.9	2399.0	1780.3

CULVERT PIPE, MINOR SIDE ROAD AND PRIVATE ENTRANCE

STATION	LOCATION	CP CLASS	THICKNESS (mm) STEEL	THICKNESS (mm) ALUMINUM	CULVERT PIPE LENGTH DIA (mm) 450.0 m	CULVERT PIPE LENGTH DIA (mm) 600.0 m	APRON ENDWALLS FOR CULVERT DIA (mm) 450.0 EACH	APRON ENDWALLS FOR CULVERT DIA (mm) 600.0 EACH
0+563 'Y'	RT	III	1.626	1.524	6.0		2	
0+594 'Y'	RT	III	1.626	1.524	10.0		2	
0+620 'Y'	CL	III	1.626	1.905		32.0		2
4+765	LT	III	1.626	1.905		9.0		2
5+960	RT	III	1.626	1.524	8.0		2	
5+985	RT	III	1.626	1.905		8.0		2
5+992	RT	III	1.626	1.905		8.0		2
6+117	RT	III	1.626	1.524	6.0		2	
6+165	LT	III	1.626	1.524	4.7		2	
6+530	RT	III	1.626	1.524	4.7		2	
6+828	RT	III	1.626	1.524	6.3		2	
7+365	RT	III	1.626	1.524	5.6		2	
7+978	LT	III	1.626	1.524	5.5		2	
7+978	RT	III	1.626	1.524	5.5		2	
0+438 'GP'	LT	III	1.626	1.524	5.0		2	
9+200	RT	III	1.626	1.524	5.0		2	
9+444	LT	III	1.626	1.524	7.0		2	
10+811	LT	III	1.626	1.524	9.0		2	
10+811	RT	III	1.626	1.524	5.0		2	
0+314 'L'	CL	III	1.626	1.905		31.0		2
11+212	RT	III	1.626	1.524	15.7		2	
11+308	LT	III	1.626	1.524	52.0		1	
11+460	LT	III	1.626	1.905		9.0		2
11+486	LT	III	1.626	1.905		9.0		2
12+220	LT	III	1.626	1.524	5.6		2	
0+314 'TC'	CL	III	1.626	1.905		28.0		2
12+538	RT	III	1.626	1.524	22.0		2	
12+562	RT	III	1.626	1.524	12.0		2	
14+864	RT	III	1.626	1.524	6.0		2	
14+889	LT	III	1.626	1.524	7.5		2	
14+909	RT	III	1.626	1.524	7.1		2	
15+065	LT	III	1.626	1.524	6.2		2	
15+230	RT	III	1.626	1.524	8.0		2	
15+647	RT	III	1.626	1.524	8.0		2	
0+317 'GR'	CL	III	1.626	1.905		26.0		2
15+803	RT	III	1.626	1.524	6.7		2	
15+882	RT	III	1.626	1.524	5.0		2	
15+900	LT	III	1.626	1.524	5.0		2	
0+314 'N'	CL	III	1.626	1.524	31.0		2	
16+193	LT	III	1.626	1.524	7.0		2	
16+230	LT	III	1.626	1.524	8.0		2	
16+295	LT	III	1.626	1.524	6.2		2	
16+331	LT	III	1.626	1.524	8.3		2	
16+383	RT	III	1.626	1.524	7.0		2	
16+465	RT	III	1.626	1.524	6.7		2	
16+967	LT	III	1.626	1.524	6.5		2	
16+967	RT	III	1.626	1.524	6.7		2	
0+314 'SE'	CL	III	1.626	1.905		28.0		2
0+247 'SW'	CL	III	1.626	1.905		16.0		2
TOTALS					347.5	*204.0	75	*22

* ADDITIONAL QUANTITY IS LISTED WITH THE CROSS DRAIN PIPES

SILT FENCE, SILTY TYPE

STATION - STATION		DELIVERED (m)	INSTALLED (m)	MAINTENANCE (m)
4+176 - 4+267	LT.	90	90	270
4+450 - 4+511	RT.	61	61	183
4+450 - 4+572	LT.	122	122	366
5+517 - 5+669	RT.	152	152	456
5+700	LT.	10	10	30
5+913 - 6+005	LT.	92	92	276
5+913 - 6+005	RT.	92	92	276
6+614 - 6+780	LT.	166	166	498
6+888 - 6+980	LT.	92	92	276
6+888 - 6+980	RT.	92	92	276
6+980 - 7+102	RT.	122	122	366
7+224 - 7+315	RT.	91	91	273
7+468 - 7+830	RT.	362	362	1086
7+772 - 7+830	RT.	58	58	174
7+986 - 8+016	RT.	30	30	90
8+412 - 8+565	RT.	153	153	459
8+595	LT.	10	10	30
8+595	RT.	10	10	30
8+839 - 8+992	RT.	153	153	459
8+992 - 9+215	RT.	223	223	669
8+992 - 9+215	LT.	223	223	669
10+240 - 10+912	LT.	672	672	2016
10+250 - 10+912	LT.	662	662	1986
11+003	LT.	10	10	30
11+003	RT.	10	10	30
11+186 - 11+217	RT.	31	31	93
11+369 - 11+400	RT.	31	31	93
11+521 - 11+552	RT.	31	31	93
11+521 - 11+552	LT.	31	31	93
11+674 - 11+826	RT.	152	152	456
11+674 - 11+826	LT.	152	152	456
11+918 - 12+009	RT.	91	91	273
12+334 - 12+527	RT.	193	193	579
12+334 - 12+527	LT.	193	193	579
12+985 - 13+442	LT.	457	457	1371
14+539 - 14+844	LT.	305	305	915
15+667 - 15+758	LT.	91	91	273
16+886 - 17+038	LT.	152	152	456
16+886 - 17+038	RT.	152	152	456
17+282 - 17+739	LT.	457	457	1371
17+922 - 17+983	LT.	61	61	183
18+258 - 18+379	LT.	121	121	363
18+258 - 18+379	RT.	121	121	363
UNDISTRIBUTED		1645	1645	4935
TOTAL		8225	8225	24675

MOBILIZATIONS, EROSION CONTROL

STA	TO	STA	EACH
4+080		6+460	3
6+460		8+040	1
5+040		8+520	3
8+520		11+580	1
11+580		12+760	3
12+760		13+552	1
14+387		16+720	3
16+720		18+380	3
			18

BYPASS CHANNEL QUANTITIES

GROUP CODE	STRUCTURE NO.	POLY SHEETING m2	SAND BAGS EACH	COARSE AGG NO. 2 m3
020	B-22-139	750	600	40
030	B-22-140	750	600	40
	TOTALS	1500	1200	80

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

MISCELLANEOUS QUANTITIES		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 3. D	M

FILE NAME: M:\PP\QUANTS.DGN

WisDOT: MSHT2D

ORIGINATOR: LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

REV. DATE: PLOT NAME: PLOT SCALE:

CULVERT PIPE, MINOR SIDE ROAD AND PRIVATE ENTRANCE

STATION	LOCATION	CP CLASS	THICKNESS (mm) STEEL	THICKNESS (mm) ALUMINUM	CULVERT PIPE LENGTH DIA (mm) 450.0 m	CULVERT PIPE LENGTH DIA (mm) 600.0 m	APRON ENDWALLS FOR CULVERT DIA (mm) 450.0 EACH	APRON ENDWALLS FOR CULVERT DIA (mm) 600.0 EACH
0+563 'Y'	RT	III	1.626	1.524	6.0		2	
0+594 'Y'	RT	III	1.626	1.524	10.0		2	
0+620 'Y'	CL	III	1.626	1.905		32.0		2
4+765	LT	III	1.626	1.905		9.0		2
5+960	RT	III	1.626	1.524	8.0		2	
5+985	RT	III	1.626	1.905		8.0		2
5+992	RT	III	1.626	1.905		8.0		2
6+117	RT	III	1.626	1.524	6.0		2	
6+165	LT	III	1.626	1.524	4.7		2	
6+530	RT	III	1.626	1.524	4.7		2	
6+828	RT	III	1.626	1.524	6.3		2	
7+365	RT	III	1.626	1.524	5.6		2	
7+978	LT	III	1.626	1.524	5.5		2	
7+978	RT	III	1.626	1.524	5.5		2	
0+438'GP'	LT	III	1.626	1.524	5.0		2	
9+200	RT	III	1.626	1.524	5.0		2	
9+444	LT	III	1.626	1.524	7.0		2	
10+811	LT	III	1.626	1.524	9.0		2	
10+811	RT	III	1.626	1.524	5.0		2	
0+314'L'	CL	III	1.626	1.905		31.0		2
11+212	RT	III	1.626	1.524	15.7		2	
11+308	LT	III	1.626	1.524	52.0		1	
11+460	LT	III	1.626	1.905		9.0		2
11+486	LT	III	1.626	1.905		9.0		2
12+220	LT	III	1.626	1.524	5.6		2	
0+314'TC'	CL	III	1.626	1.905		28.0		2
12+538	RT	III	1.626	1.524	22.0		2	
12+562	RT	III	1.626	1.524	12.0		2	
14+864	RT	III	1.626	1.524	6.0		2	
14+889	LT	III	1.626	1.524	7.5		2	
14+909	RT	III	1.626	1.524	7.1		2	
15+065	LT	III	1.626	1.524	6.2		2	
15+230	RT	III	1.626	1.524	8.0		2	
15+647	RT	III	1.626	1.524	8.0		2	
0+317'GR'	CL	III	1.626	1.905		26.0		2
15+803	RT	III	1.626	1.524	6.7		2	
15+882	RT	III	1.626	1.524	5.0		2	
15+900	LT	III	1.626	1.524	5.0		2	
0+314'N'	CL	III	1.626	1.524	31.0		2	
16+193	LT	III	1.626	1.524	7.0		2	
16+230	LT	III	1.626	1.524	8.0		2	
16+295	LT	III	1.626	1.524	6.2		2	
16+331	LT	III	1.626	1.524	8.3		2	
16+383	RT	III	1.626	1.524	7.0		2	
16+465	RT	III	1.626	1.524	6.7		2	
16+967	LT	III	1.626	1.524	6.5		2	
16+967	RT	III	1.626	1.524	6.7		2	
0+314'SE'	CL	III	1.626	1.905		28.0		2
0+247'SW'	CL	III	1.626	1.905		16.0		2
TOTALS					347.5	*204.0	75	*22

* ADDITIONAL QUANTITY IS LISTED WITH THE CROSS DRAIN PIPES

BYPASS CHANNEL QUANTITIES

GROUP CODE	STRUCTURE NO.	POLY SHEETING m2	SAND BAGS EACH	COARSE AGG NO. 2 m3
020	B-22-139	750	600	40
030	B-22-140	750	600	40
	TOTALS	1500	1200	80

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

SILT FENCE, SILTY TYPE

STATION - STATION		DELIVERED (m)	INSTALLED (m)	MAINTENANCE (m)
4+176 - 4+267	LT.	90	90	270
4+450 - 4+511	RT.	61	61	183
4+450 - 4+572	LT.	122	122	366
5+517 - 5+669	RT.	152	152	456
5+700	LT.	10	10	30
5+913 - 6+005	LT.	92	92	276
5+913 - 6+005	RT.	92	92	276
6+614 - 6+780	LT.	166	166	498
6+888 - 6+980	LT.	92	92	276
6+888 - 6+980	RT.	92	92	276
6+980 - 7+102	RT.	122	122	366
7+224 - 7+315	RT.	91	91	273
7+468 - 7+830	RT.	362	362	1086
7+772 - 7+830	RT.	58	58	174
7+986 - 8+016	RT.	30	30	90
8+412 - 8+565	RT.	153	153	459
8+595	LT.	10	10	30
8+595	RT.	10	10	30
8+839 - 8+992	RT.	153	153	459
8+992 - 9+215	RT.	223	223	669
8+992 - 9+215	LT.	223	223	669
10+240 - 10+912	LT.	672	672	2016
10+250 - 10+912	LT.	662	662	1986
11+003	LT.	10	10	30
11+003	RT.	10	10	30
11+186 - 11+217	RT.	31	31	93
11+369 - 11+400	RT.	31	31	93
11+521 - 11+552	RT.	31	31	93
11+521 - 11+552	LT.	31	31	93
11+674 - 11+826	RT.	152	152	456
11+674 - 11+826	LT.	152	152	456
11+918 - 12+009	RT.	91	91	273
12+334 - 12+527	RT.	193	193	579
12+334 - 12+527	LT.	193	193	579
12+985 - 13+442	LT.	457	457	1371
14+539 - 14+844	LT.	305	305	915
15+667 - 15+758	LT.	91	91	273
16+886 - 17+038	LT.	152	152	456
16+886 - 17+038	RT.	152	152	456
17+282 - 17+739	LT.	457	457	1371
17+922 - 17+983	LT.	61	61	183
18+258 - 18+379	LT.	121	121	363
18+258 - 18+379	RT.	121	121	363
UNDISTRIBUTED		1645	1645	4935
TOTAL		8225	8225	24675

MOBILIZATIONS, EROSION CONTROL

STA	TO	STA	EACH
4+080		6+460	3
6+460		8+040	1
5+040		8+520	3
8+520		11+580	1
11+580		12+760	3
12+760		13+552	1
14+387		16+720	3
16+720		18+380	3
			18

ORIGINATOR: LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63 PLOT NAME: REV. DATE: PLOT SCALE:

FILE NAME: M:\PP\QUANT3.DGN

WisDOT: MSHT20

CULVERT PIPE CROSS DRAINS AND GRANULAR BACKFILL

STATION	LOCATION	CP CLASS	THICKNESS mm STEEL	CULVERT PIPE, CL III DIA (mm) 600 m	750 m	900 m	1200 m	CSCP DIA (mm) 600 m	APRON ENDWALLS FOR CULVERT PIPE DIA (mm) 600 EACH	750 EACH	900 EACH	1200 EACH	STEEL APRON ENDWALLS DIA (mm) 600 EACH	INLETS & COVERS INLET, TYPE 3 EACH	INLET COVERS, TYPE HM EACH	GRANULAR BACKFILL m3
4+184	CL	III	1.626	24.0					2							
4+498	CL	III	1.626	38.0					2							
4+616	CL	III	2.007		29.0					2						
4+798	CL	III	2.007		26.0					2						
5+180	CL	III	1.626	32.6					2							
5+325	CL	III	2.007	28.6	18.1					2						
5+422	CL	III	1.626	18.3					2							
6+229	CL	III	2.007		21.0					2						
6+608	CL	III	1.626	19.2					2							
6+821	CL	III	2.007			31.6					4					
7+073	CL	III	2.007		21.0					2						
7+290	CL	III	2.007		19.2					2						
7+656	CL	III	1.626	16.7					2							
7+877	CL	III	2.007			21.0					2					
8+171	CL	III	2.007			17.0					2					
8+413	CL	III	2.007			30.0					2					
8+598	CL	III	2.007			24.0					2					35
8+870	CL	III	2.007			15.1					1			1	1	35
9+125	CL	III	2.007			17.0					2					35
9+933	CL	III	2.769				20.4					2				14
10+011	CL	III	2.007		17.6					1				1	1	
10+460	CL	III	1.626					4.3					1	1	1	
10+534	CL	III	1.626					5.7					2			
10+631	CL	III	1.626					6.8					2			
11+908	CL	III	1.626					7.0					2			
10+994	CL	III	1.626					9.8					2			
11+391	CL	III	1.626	17.9					2							
11+528	CL	III	1.626	19.5					2							
11+721	CL	III	1.626	39.6					2							
11+976	CL	III	1.626	19.0					2							
12+401	CL	III	1.626	36.7					2							
12+869	CL	III	1.626	18.0					2							
13+158	CL	III	2.007		17.4					2						
14+458	CL	III	2.007		32.0						4					
14+733	CL	III	1.626	19.7					2							
14+840	CL	III	1.626	18.0					2							
15+157	CL	III	1.626	17.0					2							
15+389	CL	III	1.626	17.4					2							
15+692	CL	III	1.626	28.0					2							
16+027	CL	III	2.007		17.6					2						
16+291	CL	III	1.626	16.7					2							
16+601	CL	III	1.626	15.2					2							
17+298	CL	III	2.007		19.8					2						
17+981	CL	III	2.007		22.8					2						
18+057	CL	III	1.626	22.2					2							
	UNDISTRIBUTED															31
	TOTALS			*482.3	261.5	155.7	20.4	33.6	*40.0	21	19	2	9	3	3	150

* ADDITIONAL QUANTITY IS LISTED WITH THE SIDEROAD AND PRIVATE ENTRANCE PIPES

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

1/26/99 – R1

CULVERT PIPE CROSS DRAINS AND GRANULAR BACKFILL

STATION	LOCATION	CP CLASS	THICKNESS mm STEEL	CULVERT PIPE, CL III DIA (mm) 600 m	DIA (mm) 750 m	DIA (mm) 900 m	DIA (mm) 1200 m	DIA (mm) 1800 m	CSCP DIA (mm) 600 LENGTH m	APRON ENDWALLS FOR CULVERT PIPE DIA (mm) 600 LENGTH m	DIA (mm) 750 EACH	DIA (mm) 900 EACH	DIA (mm) 1200 EACH	DIA (mm) 1800 EACH	STEEL APRON ENDWALLS DIA (mm) 600 LENGTH EACH	INLETS & COVERS INLET, TYPE 3 EACH	INLET COVERS, TYPE HM EACH	GRANULAR BACKFILL m3
4+184	CL	III	1.626	24.0						2								
4+498	CL	III	1.626	38.0						2								
4+616	CL	III	2.007		29.0						2							
4+798	CL	III	2.007		26.0						2							
5+180	CL	III	1.626	32.6						2								
5+325	CL	III	2.007	28.6	18.1						2							
5+422	CL	III	1.626	18.3						2								
6+229	CL	III	2.007		21.0						2							
6+608	CL	III	1.626	19.2						2								
6+821	CL	III	2.007			31.6						4						
7+073	CL	III	2.007		21.0						2							
7+290	CL	III	2.007		19.2						2							
7+656	CL	III	1.626	16.7						2								
7+877	CL	III	2.007			21.0						2						
8+171	CL	III	2.007			17.0						2						
8+413	CL	III	2.007			30.0						2						
8+598	CL	III	2.007			24.0						2						35
8+870	CL	III	2.007					12.8				1		2				35
9+125	CL	III	2.007			17.0						2						35
9+933	CL	III	2.769				20.4						2					14
10+011	CL	III	2.007		17.6						1					1	1	
10+460	CL	III	1.626						4.3						1	1	1	
10+534	CL	III	1.626						5.7						2			
10+631	CL	III	1.626						6.8						2			
11+908	CL	III	1.626						7.0						2			
10+994	CL	III	1.626						9.8						2			
11+391	CL	III	1.626	17.9						2								
11+528	CL	III	1.626	19.5						2								
11+721	CL	III	1.626	39.6						2								
11+976	CL	III	1.626	19.0						2								
12+401	CL	III	1.626	36.7						2								
12+869	CL	III	1.626	18.0						2								
13+158	CL	III	2.007		17.4						2							
14+458	CL	III	2.007		32.0							4						
14+733	CL	III	1.626	19.7						2								
14+840	CL	III	1.626	18.0						2								
15+157	CL	III	1.626	17.0						2								
15+389	CL	III	1.626	17.4						2								
15+692	CL	III	1.626	28.0						2								
16+027	CL	III	2.007		17.6						2							
16+291	CL	III	1.626	16.7						2								
16+601	CL	III	1.626	15.2						2								
17+298	CL	III	2.007		19.8						2							
17+981	CL	III	2.007		22.8						2							
18+057	CL	III	1.626	22.2						2								
	UNDISTRIBUTED																	31
	TOTALS			482.3	261.5	140.6	20.4	12.8	33.6	*40.0	21	19	2	2	9	2	2	150

* ADDITIONAL QUANTITY IS LISTED WITH THE SIDEROAD AND PRIVATE ENTRANCE PIPES

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

EROSION MAT, CLASS I, TYPE B, CLASS II, TYPE A AND SODDING

STATION -- STATION		EROSION MAT, CLASS I, TYPE B, DELIVERED m2	EROSION MAT, CLASS I, TYPE B, INSTALLED m2	EROSION MAT, CLASS II, TYPE A, DELIVERED m2	EROSION MAT, CLASS II, TYPE A, INSTALLED m2	SODDING m2
4+187	PIPE OUTLET	8	8			
4+350 - 4+500	BETWEEN DITCH CHECKS	192	192			
4+995 - 5+120	LEFT TOP DITCH	522	522			
4+580 - 4+610	BETWEEN DITCH CHECKS	24	24			
4+820 - 5+080	BETWEEN DITCH CHECKS	347	347			
5+517 - 5+600	LEFT SLOPE ABOVE ROCK	415	415			
5+630 - 5+700	RIGHT SLOPE	210	210			
5+690 - 5+710	LEFT SLOPE	80	80			
5+750 - 5+840	RIGHT TOP DITCH	376	376			
5+578	PIPE INLET/OUTLET	100	100			
5+913 - 6+005	LEFT TOP DITCH	385	385			
6+032 - 6+320	RIGHT SLOPE	205	205	20	20	20
6+229	PIPE INLET	23	23			
6+608	PIPE INLET	16	16			
6+608 - 6+740	RIGHT SLOPE ABOVE CUT	264	264	20	20	20
6+824 - 6+817	PIPE INLET/OUTLET	34	34			
7+073	PIPE INLET/OUTLET	23	23			
7+130 - 7+200	LEFT SLOPE	280	280	20	20	20
7+290	PIPE INLET/OUTLET	23	23			
7+656	PIPE INLET/OUTLET	16	16			
7+750 - 7+830	RIGHT & LEFT SLOPE	1280	1280	100	100	100
8+220 - 8+360	RIGHT SLOPE	560	560			
0+520'GP' - 0+560'GP'	LEFT SLOPE	160	160			
8480 - 8+560	LEFT SLOPE			320	320	320
8+870	PIPE INLET/OUTLET	34	34			
9+933	PIPE INLET/OUTLET	37	37			
10+011	PIPE INLET/OUTLET	37	37			
10+462	PIPE INLET	8	8			
10+534	PIPE INLET	8	8			
10+631	PIPE INLET/OUTLET	16	16			
10+758	PIPE INLET/OUTLET	16	16			
11+528	PIPE INLET/OUTLET	16	16			
11+391	PIPE INLET	8	8			
11+720 - 11+760	RIGHT SLOPE	80	80			
11+976	PIPE INLET			8	8	8
12+401	PIPE INLET	8	8			
12+620	FLUME DISCHARGE LT.			8	8	8
12+810 - 13+135	BETWEEN DITCH CHECKS	480	480			
12+871 - 12+867	PIPE INLET/OUTLET	16	16			
13+015 - 13+270	LEFT SLOPE	1020	1020			
13+035 - 13+140	BETWEEN DITCH CHECKS	156	156			
13+164	PIPE INLET	11	11			
13+190 - 13+370	BETWEEN DITCH CHECKS	263	263			
14+400 - 14+775	BETWEEN DITCH CHECKS	550	550			
15+150	PIPE INLET	8	8			
15+701	PIPE INLET/OUTLET	16	16			
16+027	PIPE INLET/OUTLET	23	23			
16+290	PIPE INLET/OUTLET	16	16			
16+607	PIPE INLET/OUTLET	16	16			
17+140 - 17+615	BETWEEN DITCH CHECKS	696	696			
17+715 - 18+020	BETWEEN DITCH CHECKS	448	448			
17+940 - 18+045	RIGHT SLOPE	800	800			
18+045 - 18+080	RIGHT SLOPE	70	70			
18+100	RIGHT SLOPE	80	80			
	TOTALS	10480	10480	496	496	496

PAVEMENT MARKING, 100mm, EPOXY

STATION TO STATION		YELLOW CENTERLINE m	WHITE EDGELINE m	REMARKS
4+080	8+640	9120	9120	N.B. & S.B. NO PASSING
8+640	9+120	600	960	S.B. NO PASSING
9+120	9+160	80	80	N.B. & S.B. NO PASSING
9+160	9+660	625	1000	N.B. NO PASSING
9+660	9+910	500	500	N.B. & S.B. NO PASSING
9+910	10+040	162.5	260	N.B. NO PASSING
10+040	11+120	2160	2160	N.B. & S.B. NO PASSING
11+120	11+680	700	1120	S.B. NO PASSING
11+680	11+720	10	80	CENTERLINE SKIP
11+720	12+320	750	1200	N.B. NO PASSING
12+320	13+552	2464	2464	N.B. & S.B. NO PASSING
14+386	15+170	1568	1568	N.B. & S.B. NO PASSING
15+170	15+380	262.5	420	N.B. NO PASSING
15+380	15+400	40	40	N.B. & S.B. NO PASSING
15+400	15+590	237.5	380	S.B. NO PASSING
15+590	15+920	660	660	N.B. & S.B. NO PASSING
15+920	15+960	50	80	N.B. NO PASSING
15+960	16+120	320	320	N.B. & S.B. NO PASSING
16+120	16+620	625	1000	N.B. NO PASSING
16+620	17+050	860	860	N.B. & S.B. NO PASSING
17+050	17+100	125	100	S.B. NO PASSING
17+100	17+260	320	320	N.B. & S.B. NO PASSING
17+260	17+500	300	480	N.B. NO PASSING
17+500	17+740	300	480	S.B. NO PASSING
17+740	18+380	1280	1280	N.B. & S.B. NO PASSING
0+620 'Y'	0+080'Y'	460		
	TOTALS	24579.5	26932	

LOCATING NO PASSING ZONES

STATION	TO STATION	km
4+080	13+552	9.47
14+386	18+380	3.994
TOTAL		13.46

SAWING EXISTING PAVEMENT

STATION	m
4+080.000	6.4
0+540.000"Y"	6.3
0+563.000"Y" RT.	4.0
0+850.000"Y"	6.0
0+396.000"GP"	5.8
13+552.045	6.3
14+386.589	6.1
16+331.000 LT.	5.0
0+358.000"A" LT.	4.0
0+278.11"SW"	10.2
18+380.000	6.5
TOTAL	53.6

PAVEMENT MARKING, 100mm, PAINT

	YELLOW CENTERLINE m	WHITE EDGELINE m
DETOUR (CTH V & CTH U)	14500	16100

PULVERIZE AND RELAY EXISTING BASE AND SURFACE

STA	TO	STA	m2
6 + 462	TO	6 + 688	2622
7 + 285	TO	8 + 70	9106
8 + 510	TO	10 + 990	28768
11 + 190	TO	11 + 582	4547
12 + 760	TO	13 + 552	9187
14 + 387	TO	15 + 514	13073
15 + 819	TO	16 + 733	10602
TOTAL			77906

ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

MISCELLANEOUS QUANTITIES		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 3. F	M

FILE NAME: M:\PP\QUANTS.DGN

WISDOT: MSHT20

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

EROSION MAT, CLASS I, TYPE B, CLASS II, TYPE A AND SODDING

STATION -- STATION		EROSION MAT, CLASS I, TYPE B, DELIVERED m2	EROSION MAT, CLASS I, TYPE B, INSTALLED m2	EROSION MAT, CLASS II, TYPE A, DELIVERED m2	EROSION MAT, CLASS II, TYPE A, INSTALLED m2	SODDING m2
4+187	PIPE OUTLET	8	8			
4+350 - 4+500	BETWEEN DITCH CHECKS	192	192			
4+995 - 5+120	LEFT TOP DITCH	522	522			
4+580 - 4+610	BETWEEN DITCH CHECKS	24	24			
4+820 - 5+080	BETWEEN DITCH CHECKS	347	347			
5+517 - 5+600	LEFT SLOPE ABOVE ROCK	415	415			
5+630 - 5+700	RIGHT SLOPE	210	210			
5+690 - 5+710	LEFT SLOPE	80	80			
5+750 - 5+840	RIGHT TOP DITCH	376	376			
5+578	PIPE INLET/OUTLET	100	100			
5+913 - 6+005	LEFT TOP DITCH	385	385			
6+032 - 6+320	RIGHT SLOPE	205	205	20	20	20
6+229	PIPE INLET	23	23			
6+608	PIPE INLET	16	16			
6+608 - 6+740	RIGHT SLOPE ABOVE CUT	264	264	20	20	20
6+824 - 6+817	PIPE INLET/OUTLET	34	34			
7+073	PIPE INLET/OUTLET	23	23			
7+130 - 7+200	LEFT SLOPE	280	280	20	20	20
7+290	PIPE INLET/OUTLET	23	23			
7+656	PIPE INLET/OUTLET	16	16			
7+750 - 7+830	RIGHT & LEFT SLOPE	1280	1280	100	100	100
8+220 - 8+360	RIGHT SLOPE	560	560			
0+520'GP' - 0+560'GP'	LEFT SLOPE	160	160			
8480 - 8+560	LEFT SLOPE			320	320	320
8+870	PIPE INLET/OUTLET	34	34			
9+933	PIPE INLET/OUTLET	37	37			
10+011	PIPE INLET/OUTLET	37	37			
10+462	PIPE INLET	8	8			
10+534	PIPE INLET	8	8			
10+631	PIPE INLET/OUTLET	16	16			
10+758	PIPE INLET/OUTLET	16	16			
11+528	PIPE INLET/OUTLET	16	16			
11+391	PIPE INLET	8	8			
11+720 - 11+760	RIGHT SLOPE	80	80			
11+976	PIPE INLET			8	8	8
12+401	PIPE INLET	8	8			
12+620	FLUME DISCHARGE LT.			8	8	8
12+810 - 13+135	BETWEEN DITCH CHECKS	480	480			
12+871 - 12+867	PIPE INLET/OUTLET	16	16			
13+015 - 13+270	LEFT SLOPE	1020	1020			
13+035 - 13+140	BETWEEN DITCH CHECKS	156	156			
13+164	PIPE INLET	11	11			
13+190 - 13+370	BETWEEN DITCH CHECKS	263	263			
14+400 - 14+775	BETWEEN DITCH CHECKS	550	550			
15+150	PIPE INLET	8	8			
15+701	PIPE INLET/OUTLET	16	16			
16+027	PIPE INLET/OUTLET	23	23			
16+290	PIPE INLET/OUTLET	16	16			
16+607	PIPE INLET/OUTLET	16	16			
17+140 - 17+615	BETWEEN DITCH CHECKS	696	696			
17+715 - 18+020	BETWEEN DITCH CHECKS	448	448			
17+940 - 18+045	RIGHT SLOPE	800	800			
18+045 - 18+080	RIGHT SLOPE	70	70			
18+100	RIGHT SLOPE	80	80			
	TOTALS	10480	10480	496	496	496

PAVEMENT MARKING, 100mm, EPOXY

STATION TO	STATION	YELLOW CENTERLINE m	WHITE EDGELINE m	REMARKS
4+080	8+640	9120	9120	N.B. & S.B. NO PASSING
8+640	9+120	600	960	S.B. NO PASSING
9+120	9+160	80	80	N.B. & S.B. NO PASSING
9+160	9+660	625	1000	N.B. NO PASSING
9+660	9+910	500	500	N.B. & S.B. NO PASSING
9+910	10+040	162.5	260	N.B. NO PASSING
10+040	11+120	2160	2160	N.B. & S.B. NO PASSING
11+120	11+680	700	1120	S.B. NO PASSING
11+680	11+720	10	80	CENTERLINE SKIP
11+720	12+320	750	1200	N.B. NO PASSING
12+320	13+552	2464	2464	N.B. & S.B. NO PASSING
14+386	15+170	1568	1568	N.B. & S.B. NO PASSING
15+170	15+380	262.5	420	N.B. NO PASSING
15+380	15+400	40	40	N.B. & S.B. NO PASSING
15+400	15+590	237.5	380	S.B. NO PASSING
15+590	15+920	660	660	N.B. & S.B. NO PASSING
15+920	15+960	50	80	N.B. NO PASSING
15+960	16+120	320	320	N.B. & S.B. NO PASSING
16+120	16+620	625	1000	N.B. NO PASSING
16+620	17+050	860	860	N.B. & S.B. NO PASSING
17+050	17+100	125	100	S.B. NO PASSING
17+100	17+260	320	320	N.B. & S.B. NO PASSING
17+260	17+500	300	480	N.B. NO PASSING
17+500	17+740	300	480	S.B. NO PASSING
17+740	18+380	1280	1280	N.B. & S.B. NO PASSING
0+620 'Y'	0+080'Y'	460		
	TOTALS	24579.5	26932	

LOCATING NO PASSING ZONES

STATION TO	STATION	km
4+080	13+552	9.47
14+386	18+380	3.994
TOTAL		13.46

SAWING EXISTING PAVEMENT

STATION	m
4+080.000	6.4
0+540.000"Y"	6.3
0+563.000"Y" RT.	4.0
0+850.000"Y"	6.0
0+396.000"GP"	5.8
13+552.045	6.3
14+386.589	6.1
16+331.000 LT.	5.0
0+358.000"A" LT.	4.0
0+278.11"SW"	10.2
18+380.000	6.5
TOTAL	53.6

PAVEMENT MARKING, 100mm, PAINT

	YELLOW CENTERLINE m	WHITE EDGELINE m
DETOUR (CTH V & CTH U)	14500	16100

PULVERIZE AND RELAY EXISTING BASE AND SURFACE

STA	TO	STA	m2
6 + 462	TO	6 + 688	2622
7 + 285	TO	8 + 70	9106
8 + 510	TO	10 + 990	28768
11 + 190	TO	11 + 582	4547
12 + 760	TO	13 + 552	9187
14 + 387	TO	15 + 514	13073
15 + 819	TO	16 + 733	10602
TOTAL			77906

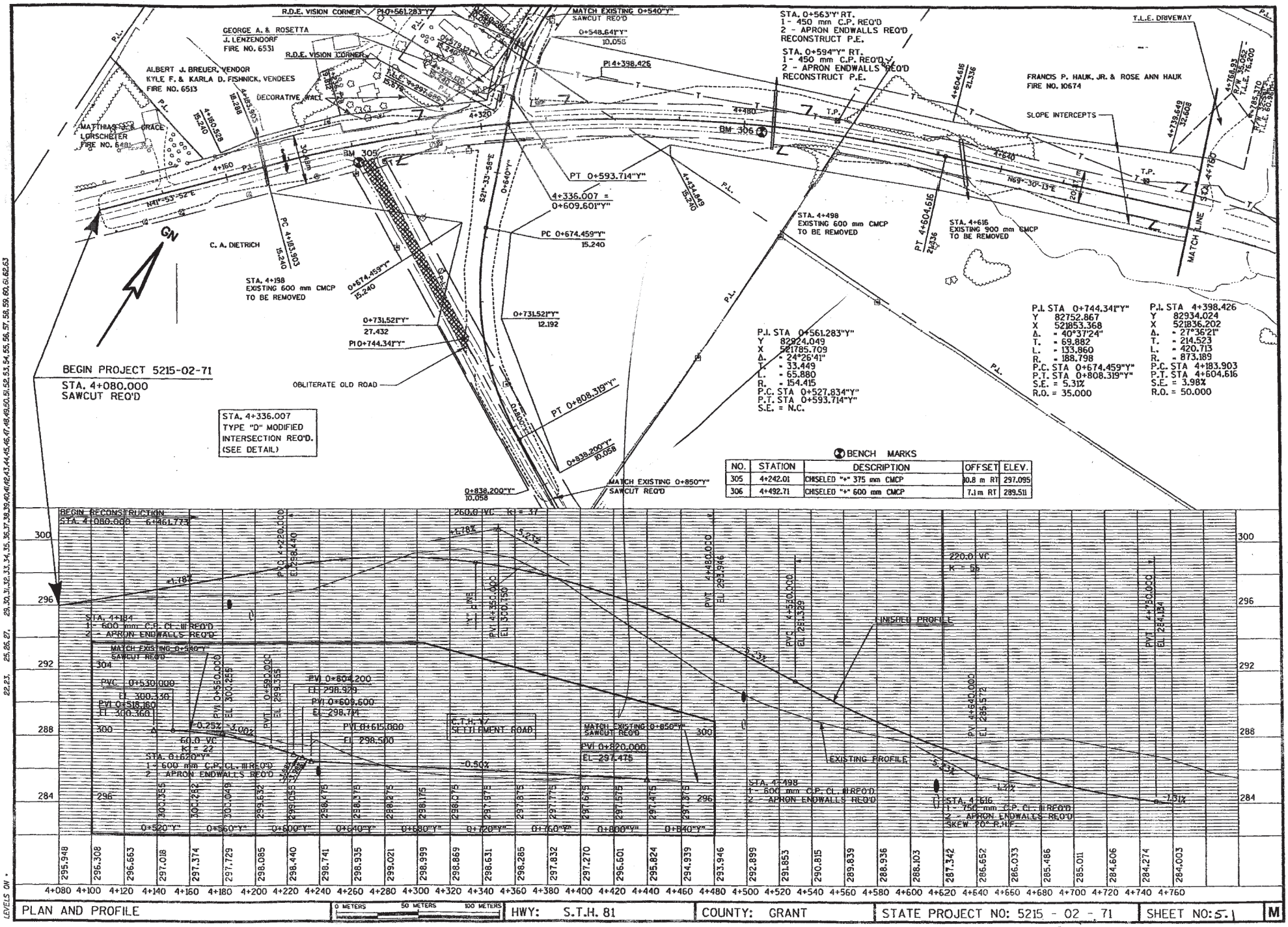
ALL ITEMS GROUP CODE 010 EXCEPT WHERE NOTED

MISCELLANEOUS QUANTITIES		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 3.F-A M

FILE NAME: M:\PP\QUANTS.DGN

WisDOT: MSHT20

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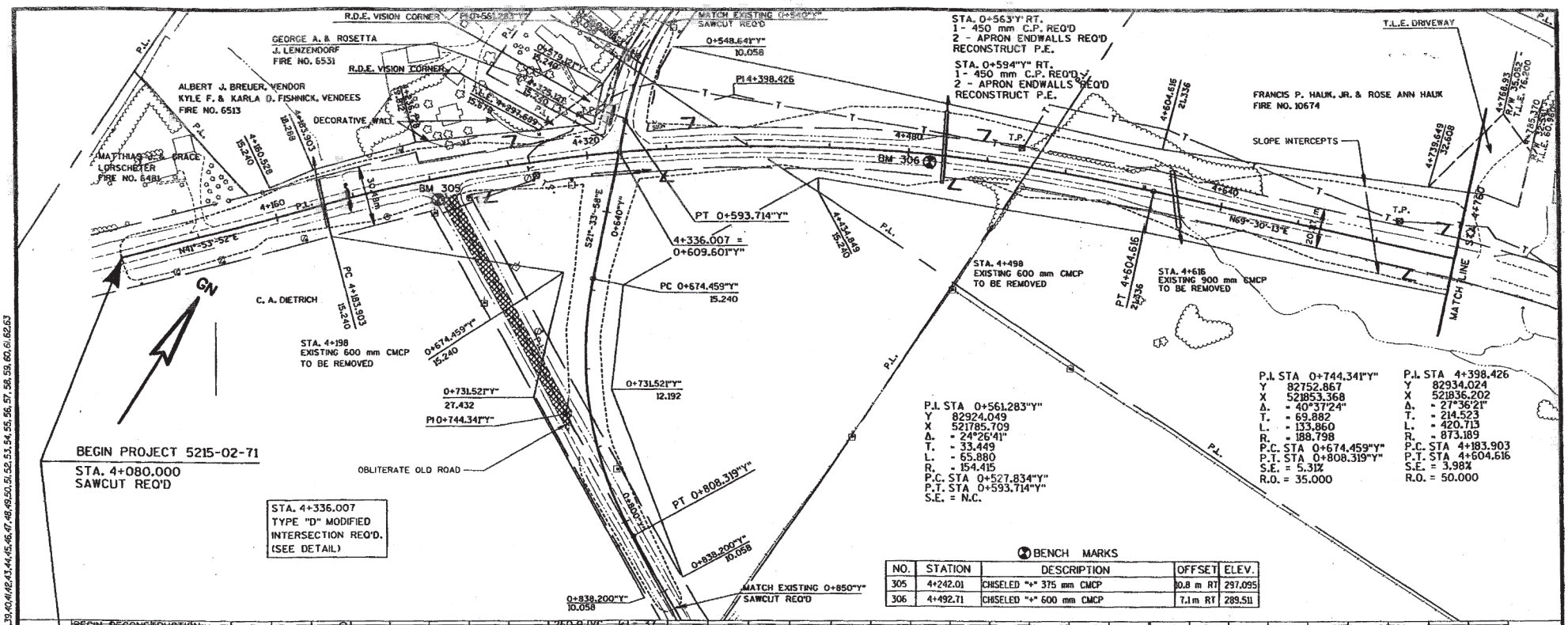


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.1 | M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: LEVELS ON •

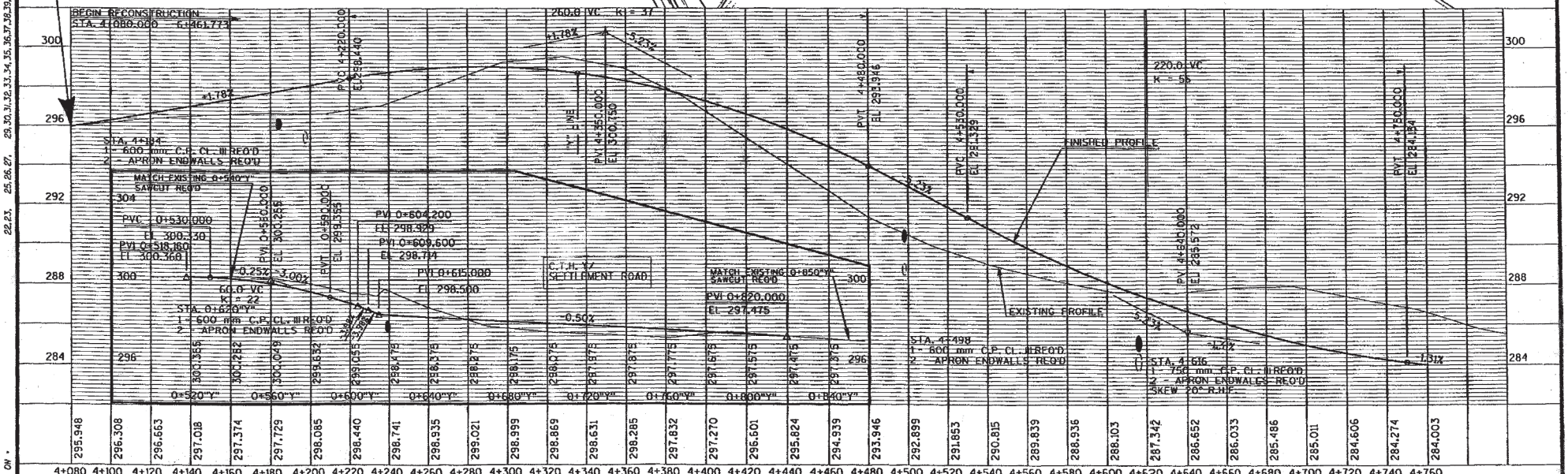
FILE NAME: M:\PP\M81PP01.DGN

WISDOT: MSHT40



BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
305	4+242.01	CHISELED "+" 375 mm CMCP	10.8 m RT	297.095
306	4+492.71	CHISELED "+" 600 mm CMCP	7.1 m RT	289.511

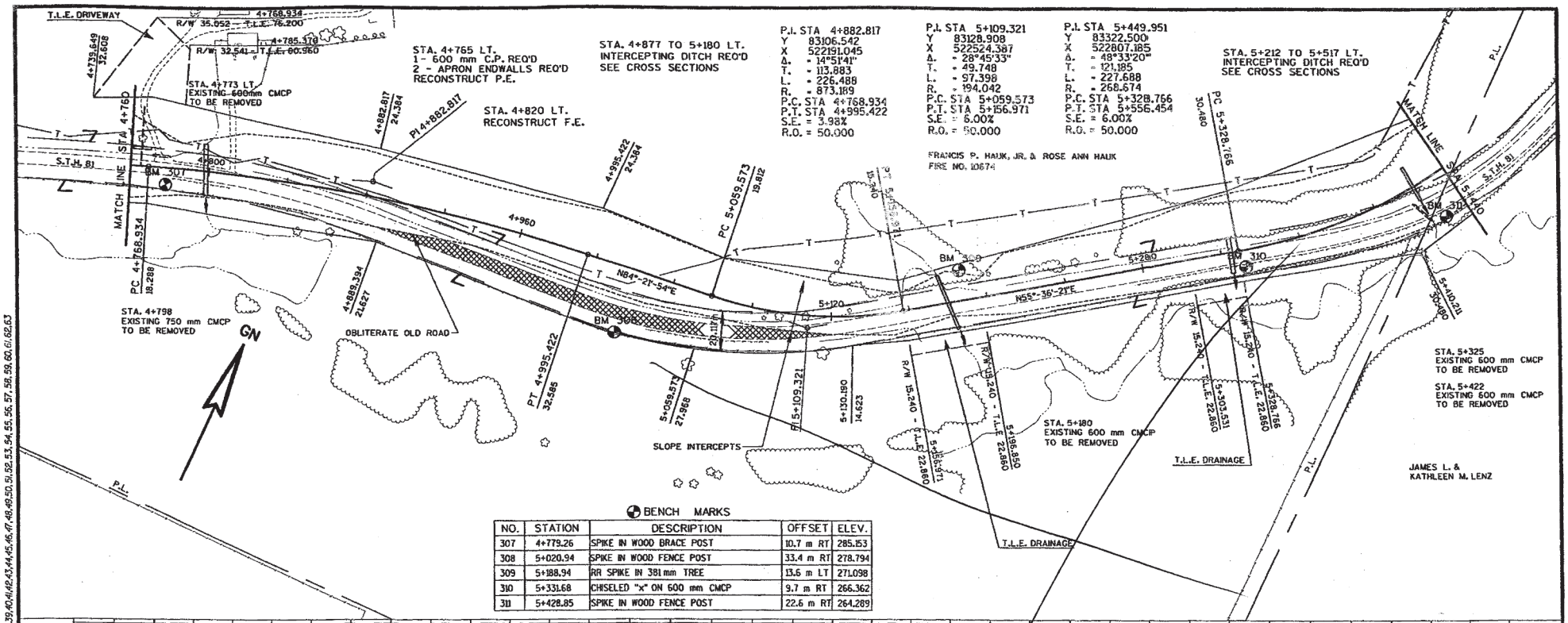


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5 A M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: LEVELS ON •

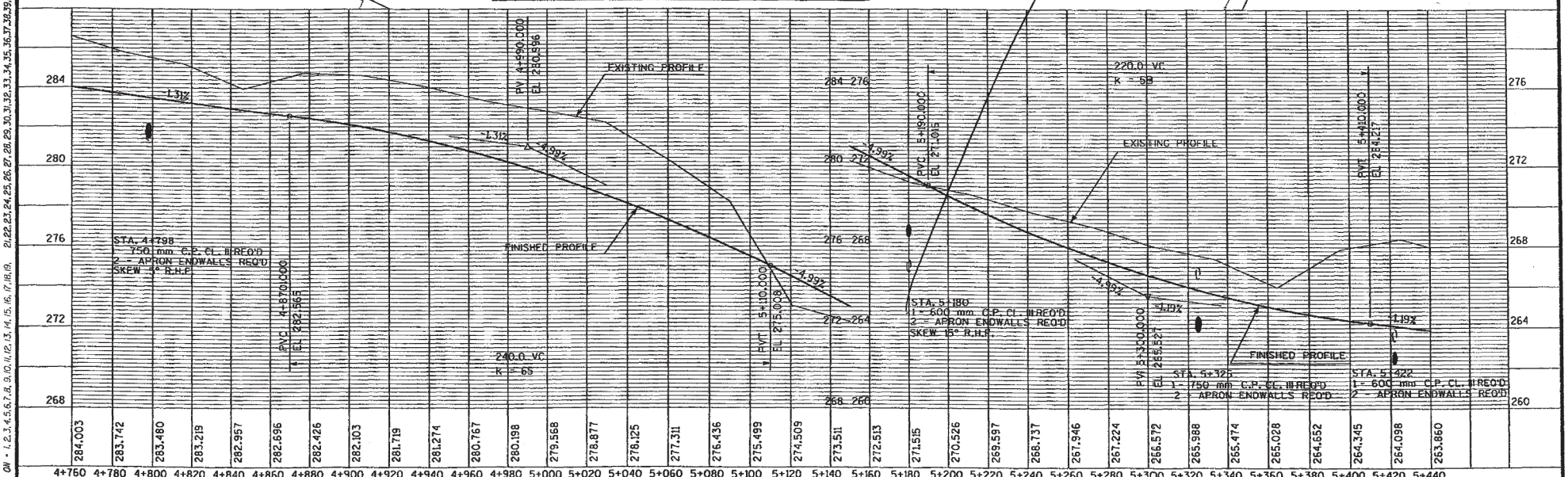
FILE NAME: M:\PP\M81PP01.DGN

WisDOT: MSHT40



BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
307	4+779.26	SPIKE IN WOOD BRACE POST	10.7 m RT	285.153
308	5+020.94	SPIKE IN WOOD FENCE POST	33.4 m RT	278.794
309	5+188.94	RR SPIKE IN 381 mm TREE	13.6 m LT	271.098
310	5+331.68	CHISELED "X" ON 600 mm CMCP	9.7 m RT	266.362
311	5+428.85	SPIKE IN WOOD FENCE POST	22.6 m RT	264.289



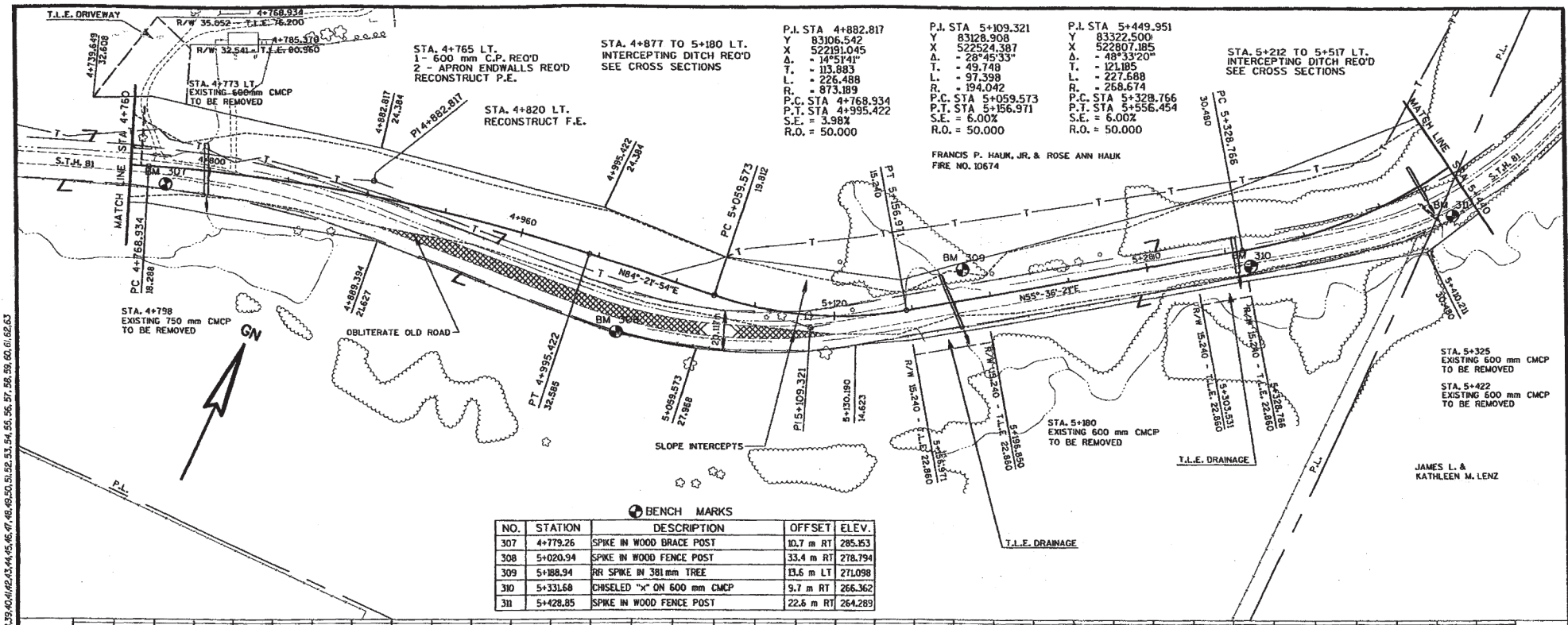
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PLOT SCALE: PLOT NAME: REV. DATE:

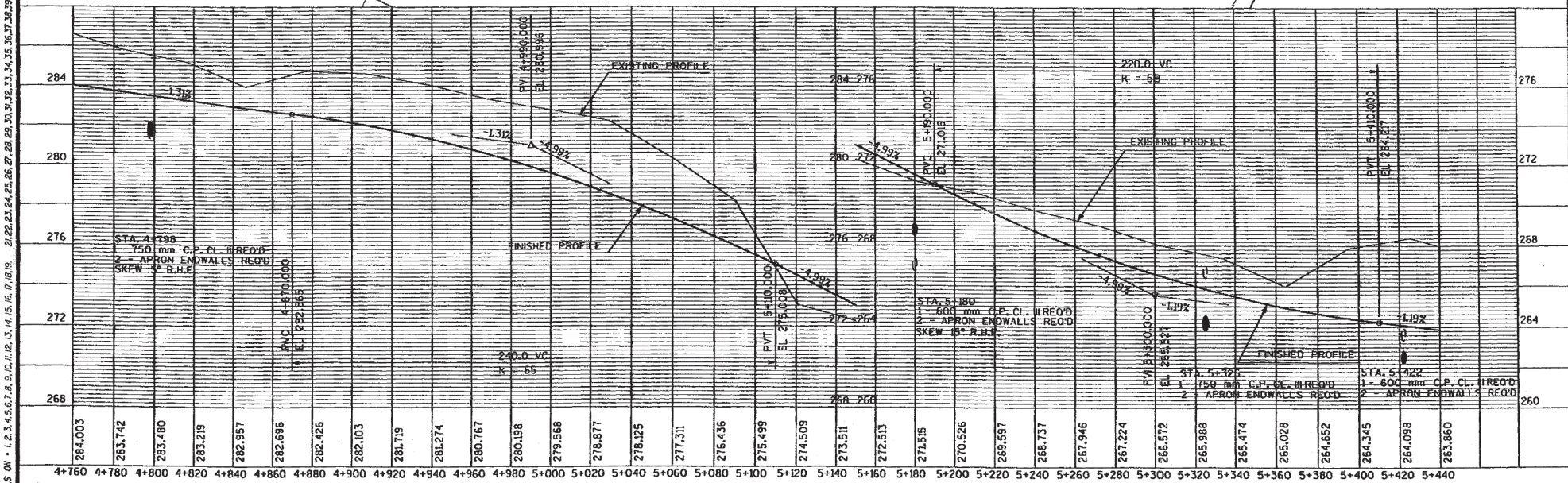
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WISDOT: MSHT40



BENCH MARKS

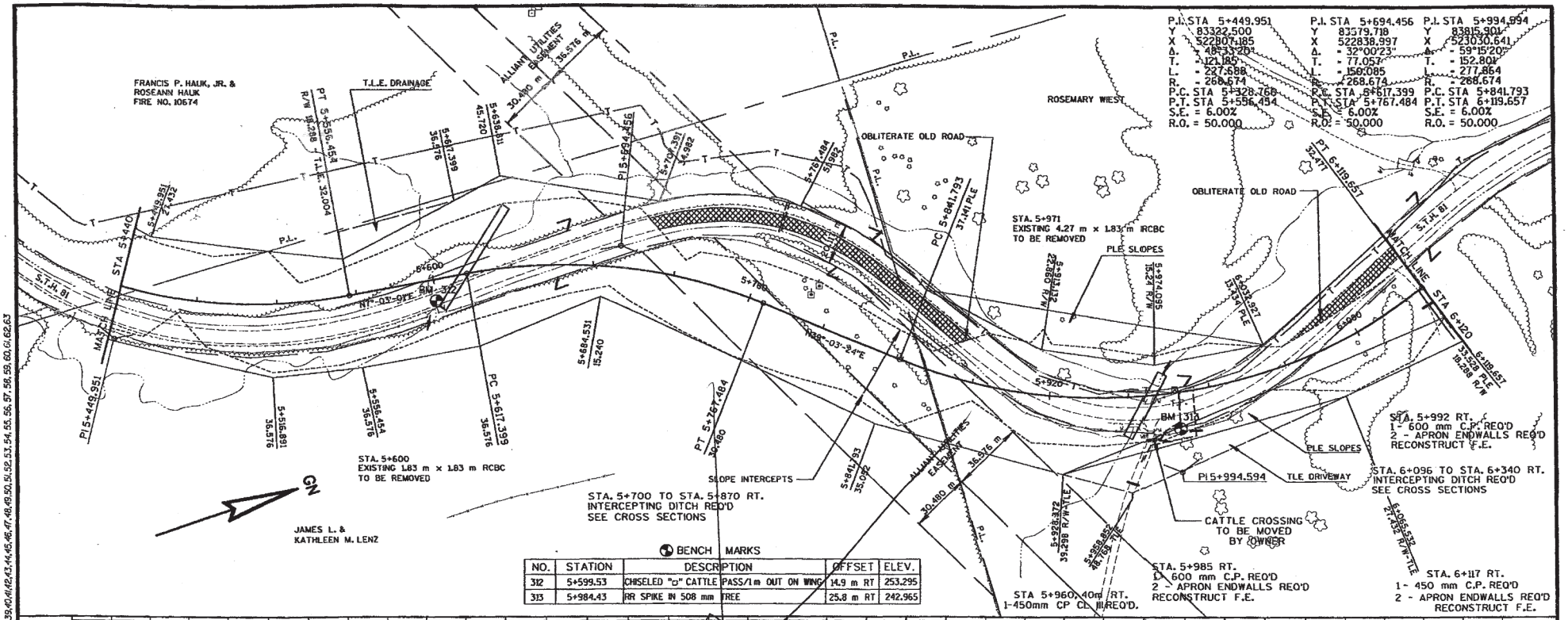
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
307	4+779.26	SPIKE IN WOOD BRACE POST	10.7 m RT	285.153
308	5+020.94	SPIKE IN WOOD FENCE POST	33.4 m RT	278.794
309	5+188.94	RR SPIKE IN 381 mm TREE	13.6 m LT	271.098
310	5+331.68	CHISELED "X" ON 600 mm CMCP	9.7 m RT	266.362
311	5+428.85	SPIKE IN WOOD FENCE POST	22.6 m RT	264.289



PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5-2-A

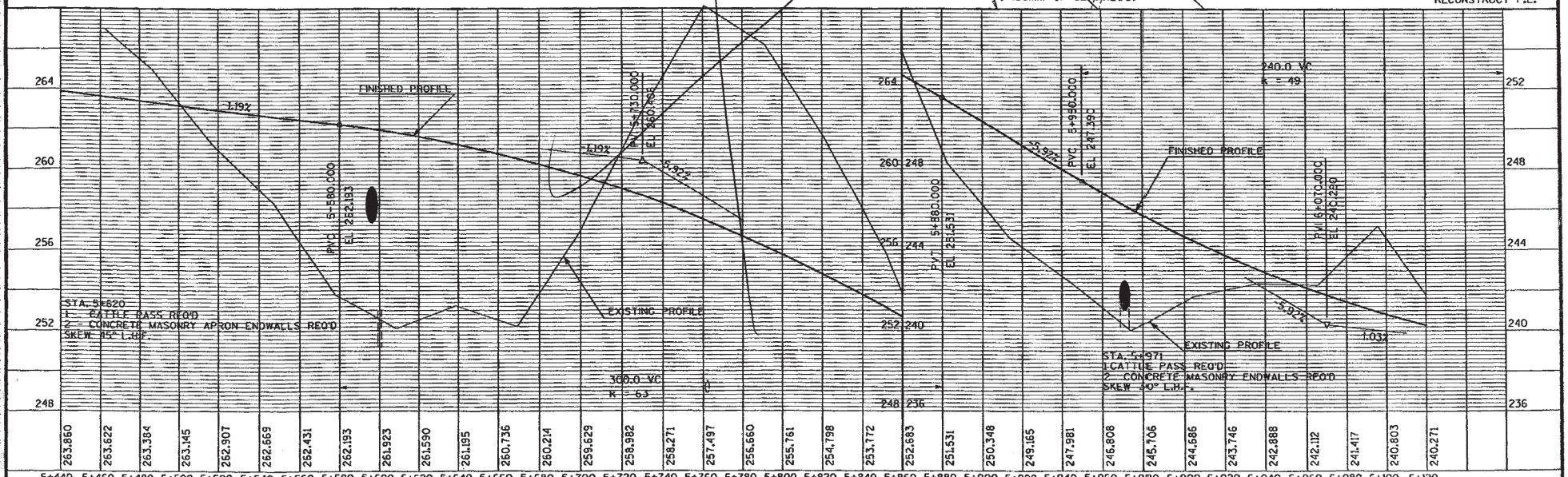
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PLOT NAME:
REV. DATE:
ORIGINATOR:
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FILE NAME: M:\PP\MB1PP02.DGN



BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
312	5+599.53	CHISELED "□" CATTLE PASS/1m OUT ON WING	14.9 m RT	253.295
313	5+984.43	RR SPIKE IN 508 mm TREE	25.8 m RT	242.965



263.860 263.622 263.384 263.145 262.907 262.669 262.431 262.193 261.923 261.590 261.195 260.736 260.214 259.629 258.982 258.271 257.497 256.660 255.761 254.798 253.772 252.683 251.531 250.348 249.165 247.981 246.808 245.706 244.686 243.746 242.888 242.112 241.417 240.803 240.271

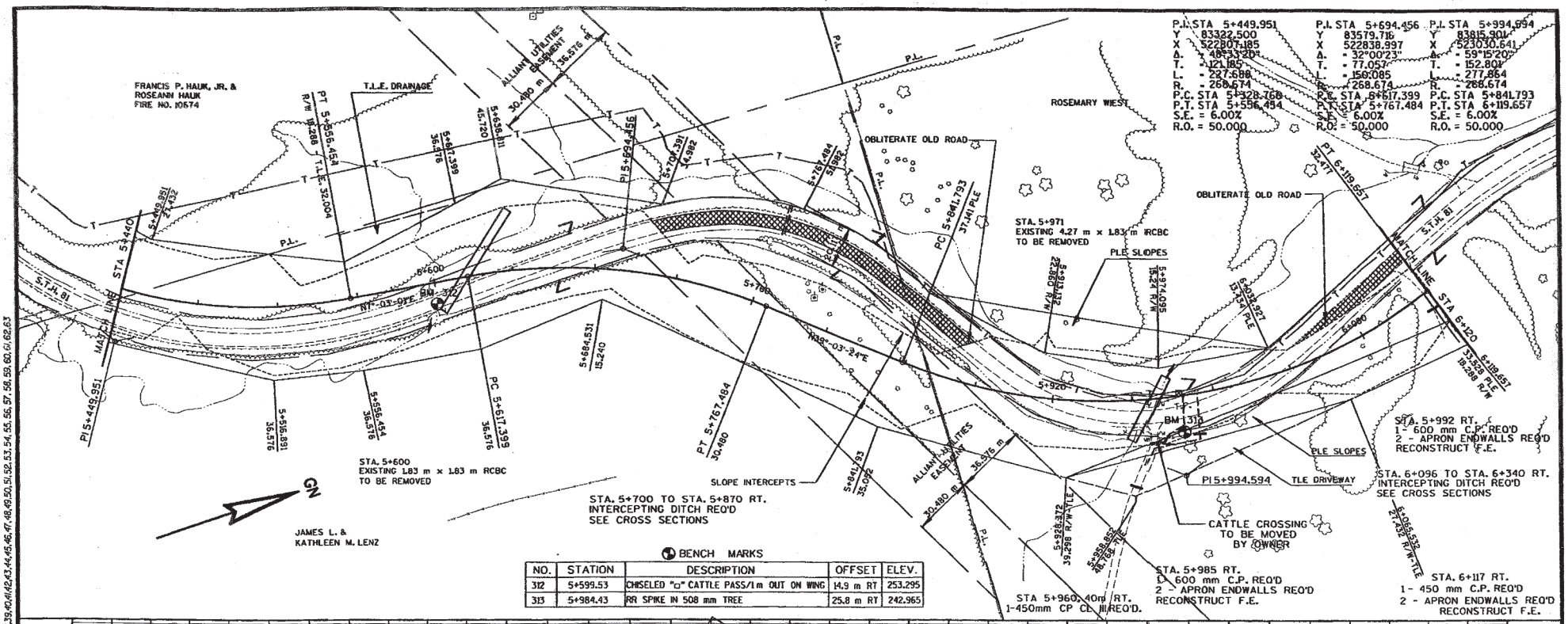
5+440 5+460 5+480 5+500 5+520 5+540 5+560 5+580 5+600 5+620 5+640 5+660 5+680 5+700 5+720 5+740 5+760 5+780 5+800 5+820 5+840 5+860 5+880 5+900 5+920 5+940 5+960 5+980 6+000 6+020 6+040 6+060 6+080 6+100 6+120

PLAN AND PROFILE	0 METERS 50 METERS 100 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 5.3	M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19, 21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

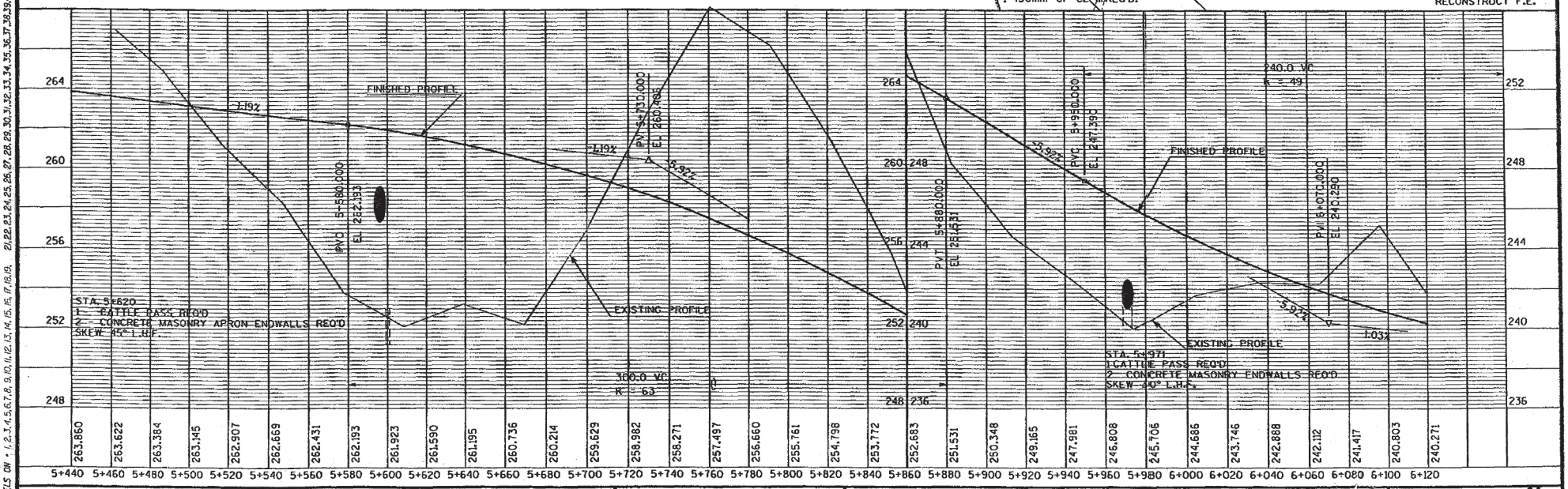
FILE NAME: M:\PP\M81PP03.DGN

WisDOT: MSHT40



BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
312	5+599.53	CHISELED "o" CATTLE PASS/1m OUT ON WING	14.9 m RT	253.295
313	5+984.43	RR SPIKE IN 508 mm TREE	25.8 m RT	242.965

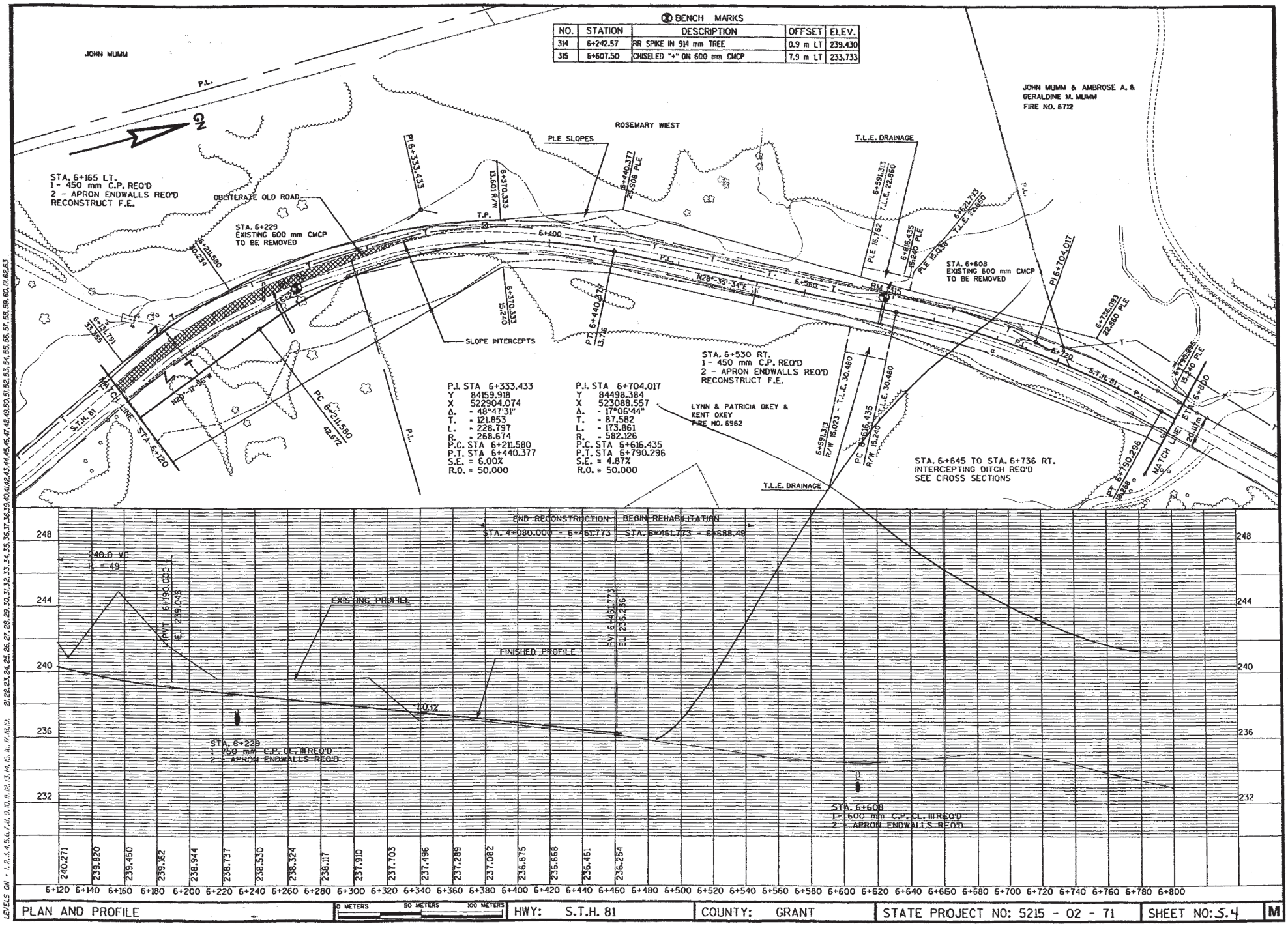


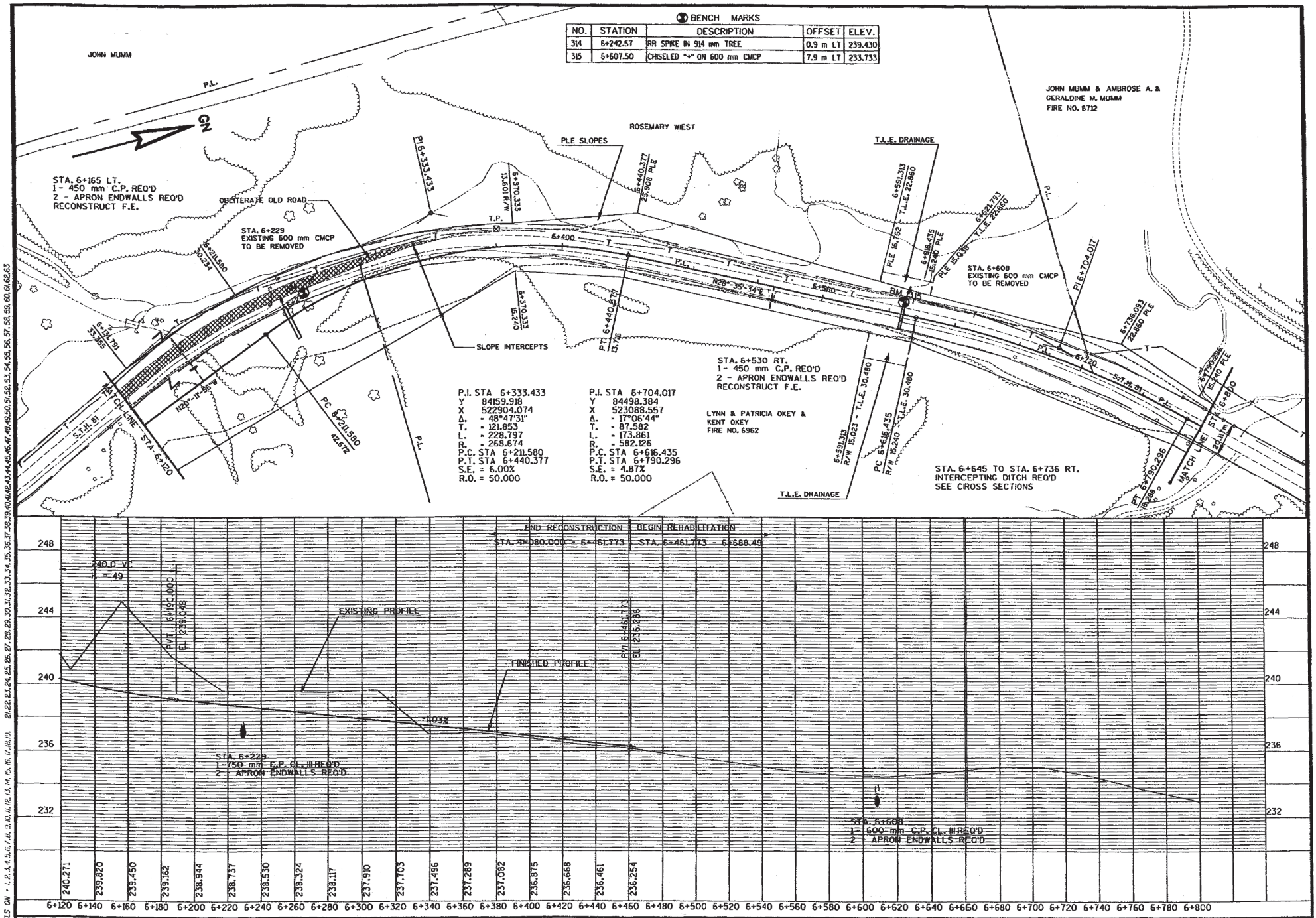
PLAN AND PROFILE	0 METERS 50 METERS 100 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 5.3-4 M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON * 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19, 21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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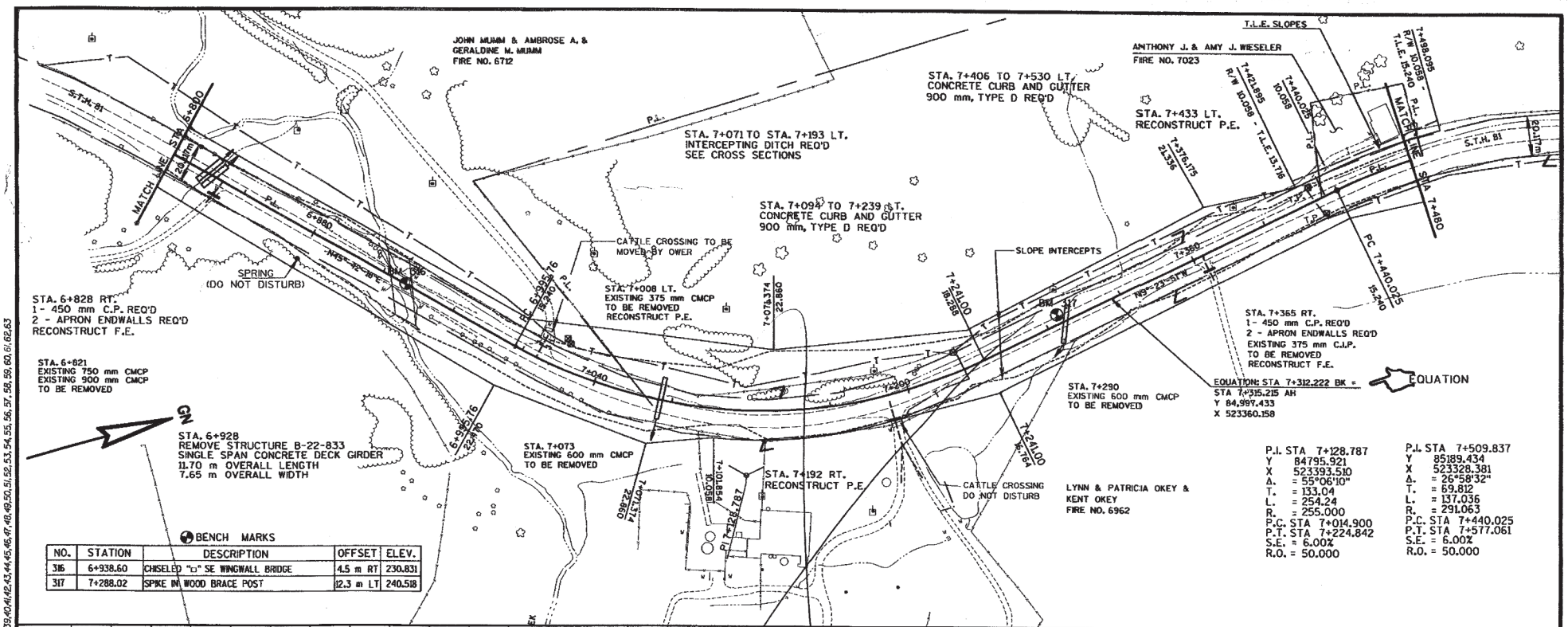

BENCH MARKS
NO. | STATION | DESCRIPTION | OFFSET | ELEV.
314 | 6+242.57 | RR SPIKE IN 914 mm TREE | 0.9 m LT | 239.430
315 | 6+607.50 | CHISELED "+" ON 600 mm CMCP | 7.9 m LT | 233.733
JOHN MUMM
P.L.
GN
ROSEMARY WIEST
PLE SLOPES
T.L.E. DRAINAGE
JOHN MUMM & AMBROSE A. & GERALDINE M. MUMM FIRE NO. 6712
STA. 6+165 LT.
1 - 450 mm C.P. REQ'D
2 - APRON ENDWALLS REQ'D
RECONSTRUCT F.E.
OBLITERATE OLD ROAD
STA. 6+229
EXISTING 600 mm CMCP
TO BE REMOVED
PI 6+333.433
6+370.333 15.801 R/W
6+440.377 28.908 PLE
6+591.313 T.L.E. 22.860
6+621.793 T.L.E. 22.860
6+616.435 15.240 PLE
PLE 15.62
PLE 15.035
STA. 6+608
EXISTING 600 mm CMCP
TO BE REMOVED
PI 6+704.017
6+736.093 22.860 PLE
6+795.286 15.240 PLE
6+211.580 30.234
6+341.791 33.365
6+370.333 15.240
6+440.377 13.716
SLOPE INTERCEPTS
N28°-35'-34"E
N28°-11'-36"W
S.T.H. 81
MATCH LINE STA. 6+120
PC 6+211.580 42.672
P.I. STA 6+333.433
Y 84159.918
X 522904.074
Δ. = 48°47'31"
T. = 121.853
L. = 228.797
R. = 268.674
P.C. STA 6+211.580
P.T. STA 6+440.377
S.E. = 6.00%
R.O. = 50.000
P.I. STA 6+704.017
Y 84498.384
X 523088.557
Δ. = 17°06'44"
T. = 87.582
L. = 173.861
R. = 582.126
P.C. STA 6+616.435
P.T. STA 6+790.296
S.E. = 4.87%
R.O. = 50.000
LYNN & PATRICIA OKEY & KENT OKEY FIRE NO. 6962
STA. 6+530 RT.
1 - 450 mm C.P. REQ'D
2 - APRON ENDWALLS REQ'D
RECONSTRUCT F.E.
6+591.313 R/W 15.023 - T.L.E. 30.480
PC 6+616.435 R/W 15.240 - T.L.E. 30.480
STA. 6+645 TO STA. 6+736 RT.
INTERCEPTING DITCH REQ'D
SEE CROSS SECTIONS
T.L.E. DRAINAGE
PT 6+790.296 18.288
MATCH LINE STA. 6+800 26.187
END RECONSTRUCTION STA. 6+080.000 - 6+461.773
BEGIN REHABILITATION STA. 6+461.773 - 6+688.49
240.0 VC
K = 49
INVT 6+190.000 EL. 239.048
EXISTING PROFILE
FINISHED PROFILE
PVI 6+461.773 EL. 236.236
-1.03%
STA. 6+229
1 - 750 mm C.P. CL. III REQ'D
2 - APRON ENDWALLS REQ'D
STA. 6+608
1 - 600 mm C.P. CL. III REQ'D
2 - APRON ENDWALLS REQ'D
248
244
240
236
232
240.271
239.820
239.450
239.182
238.944
238.737
238.530
238.324
238.117
237.910
237.703
237.496
237.289
237.082
236.875
236.668
236.461
236.254
6+120 6+140 6+160 6+180 6+200 6+220 6+240 6+260 6+280 6+300 6+320 6+340 6+360 6+380 6+400 6+420 6+440 6+460 6+480 6+500 6+520 6+540 6+560 6+580 6+600 6+620 6+640 6+650 6+680 6+700 6+720 6+740 6+760 6+780 6+800
PLAN AND PROFILE
0 METERS 50 METERS 100 METERS
HWY: S.T.H. 81
COUNTY: GRANT
STATE PROJECT NO: 5215 - 02 - 71
SHEET NO: 5.4
M
PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,
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FILE NAME: M:\PP\MS1PP04.DGN
WisDOT: MSHT40



PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: LEVELS DW - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.4 AM

FILE NAME: M:\PP\M81PP04.DGN

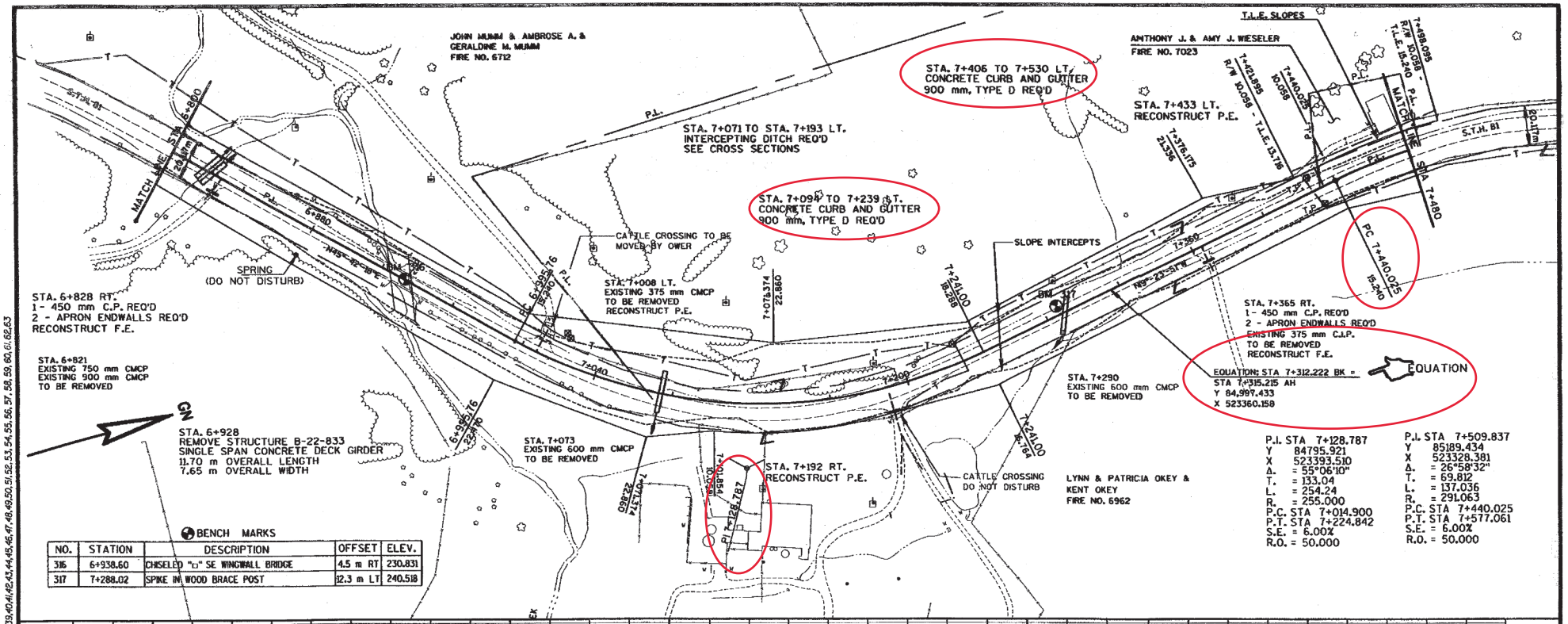


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.5 | M

PLOT SCALE: PLOT NAME: REV. DATE: ORIGINATOR: LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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WisDOT: MSHT40

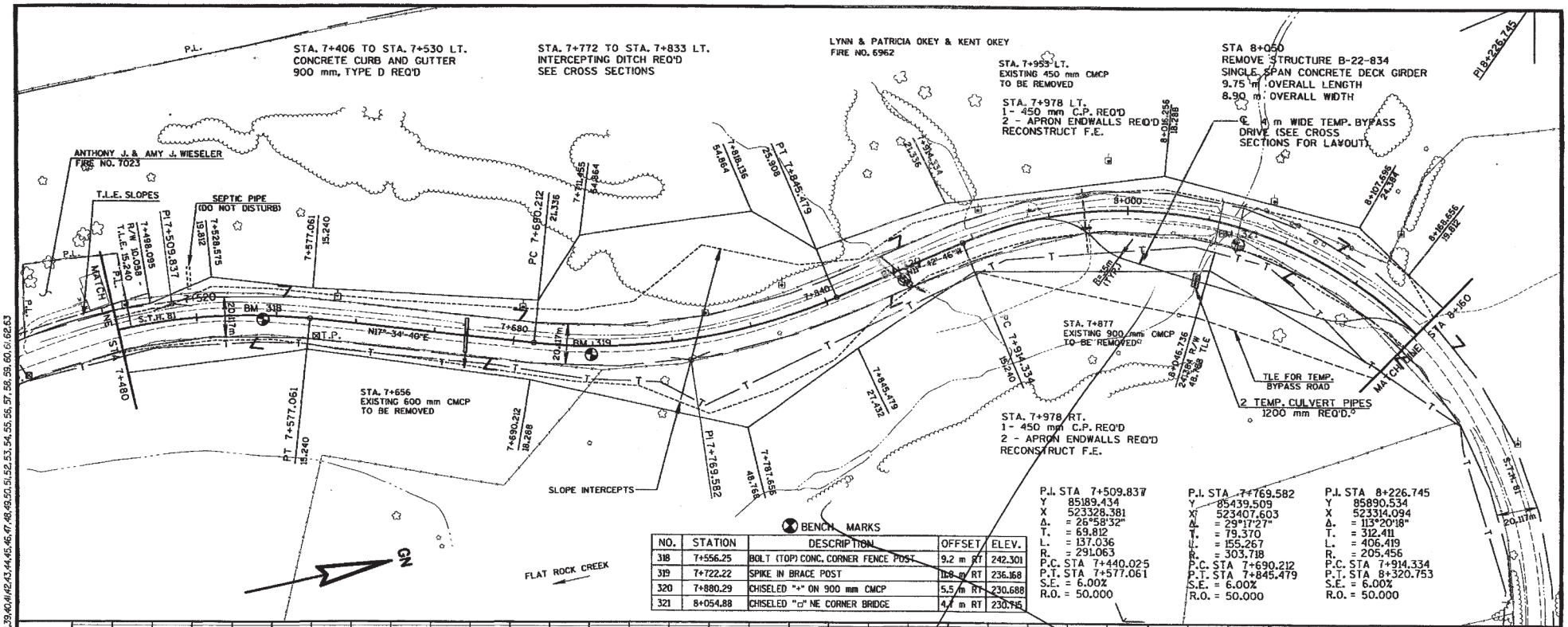


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.5-A M

PLOT SCALE: PLOT NAME: REV. DATE: ORIGINATOR: LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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WisDOT: MSHT4G



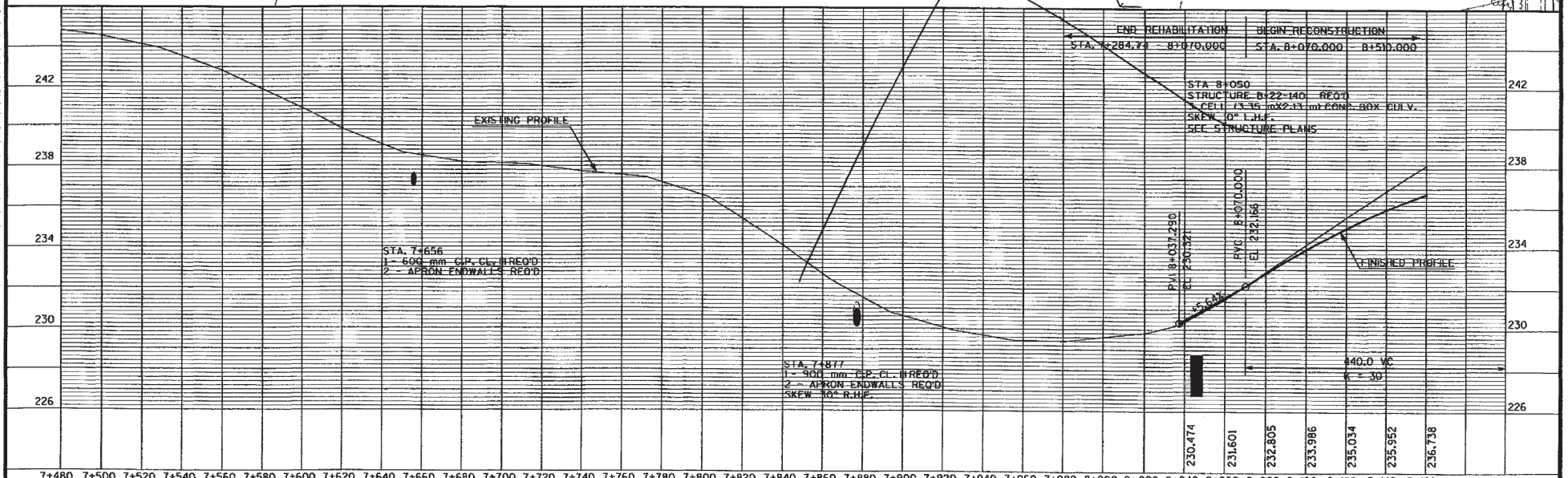
BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
318	7+556.25	BOLT (TOP) CONC. CORNER FENCE POST	9.2 m RT	242.301
319	7+722.22	SPIKE IN BRACE POST	11.8 m RT	236.168
320	7+880.29	CHISELED "+" ON 900 mm CMCP	5.5 m RT	230.688
321	8+054.88	CHISELED "□" NE CORNER BRIDGE	4.1 m RT	230.715

P.I. STA 7+509.837
Y 85189.434
X 523328.381
Δ. = 26°58'32"
T. = 69.812
L. = 137.036
R. = 291.063
P.C. STA 7+440.025
P.T. STA 7+577.061
S.E. = 6.00%
R.O. = 50.000

P.I. STA 7+769.582
Y 85439.509
X 523407.603
Δ. = 29°17'27"
T. = 79.370
L. = 155.267
R. = 303.718
P.C. STA 7+690.212
P.T. STA 7+845.479
S.E. = 6.00%
R.O. = 50.000

P.I. STA 8+226.745
Y 85890.534
X 523314.094
Δ. = 113°20'18"
T. = 312.411
L. = 406.419
R. = 205.456
P.C. STA 7+914.334
P.T. STA 8+320.753
S.E. = 6.00%
R.O. = 50.000

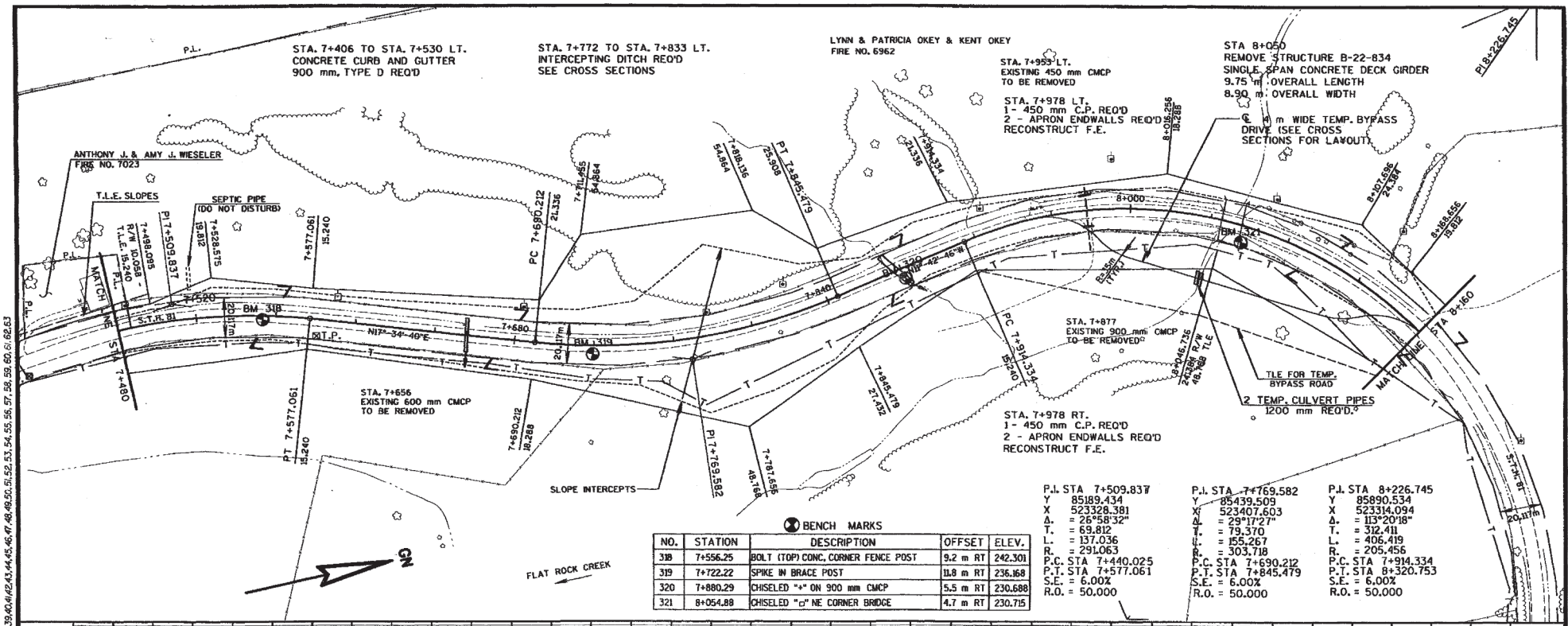


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.6 | M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

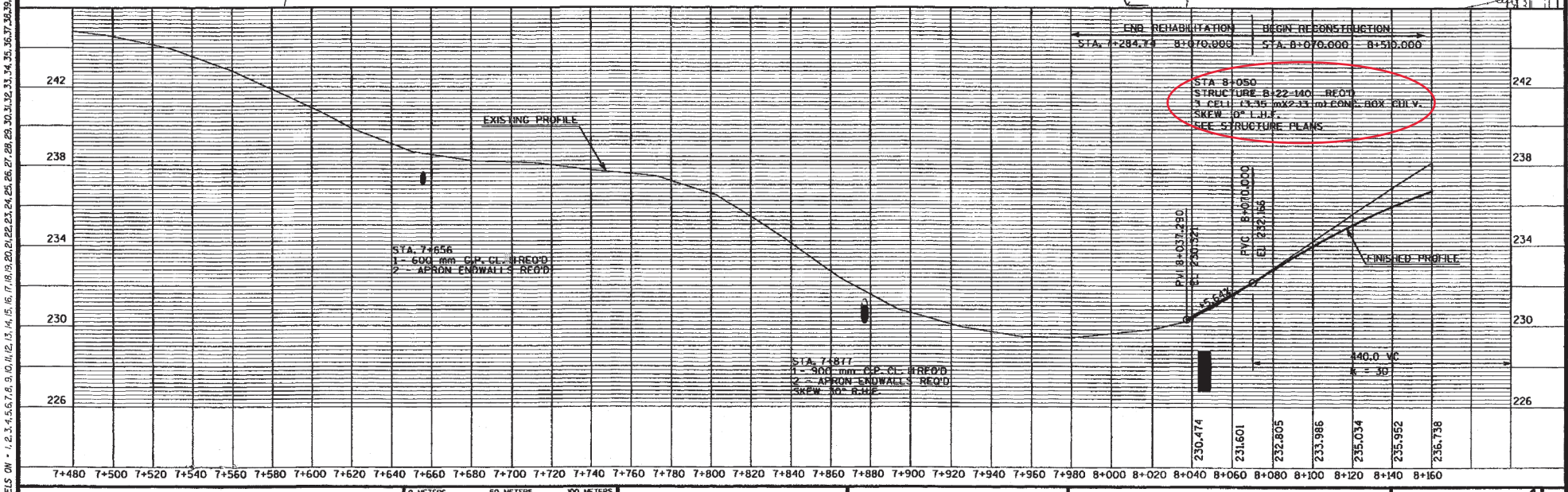
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WISDOT: MSHT40



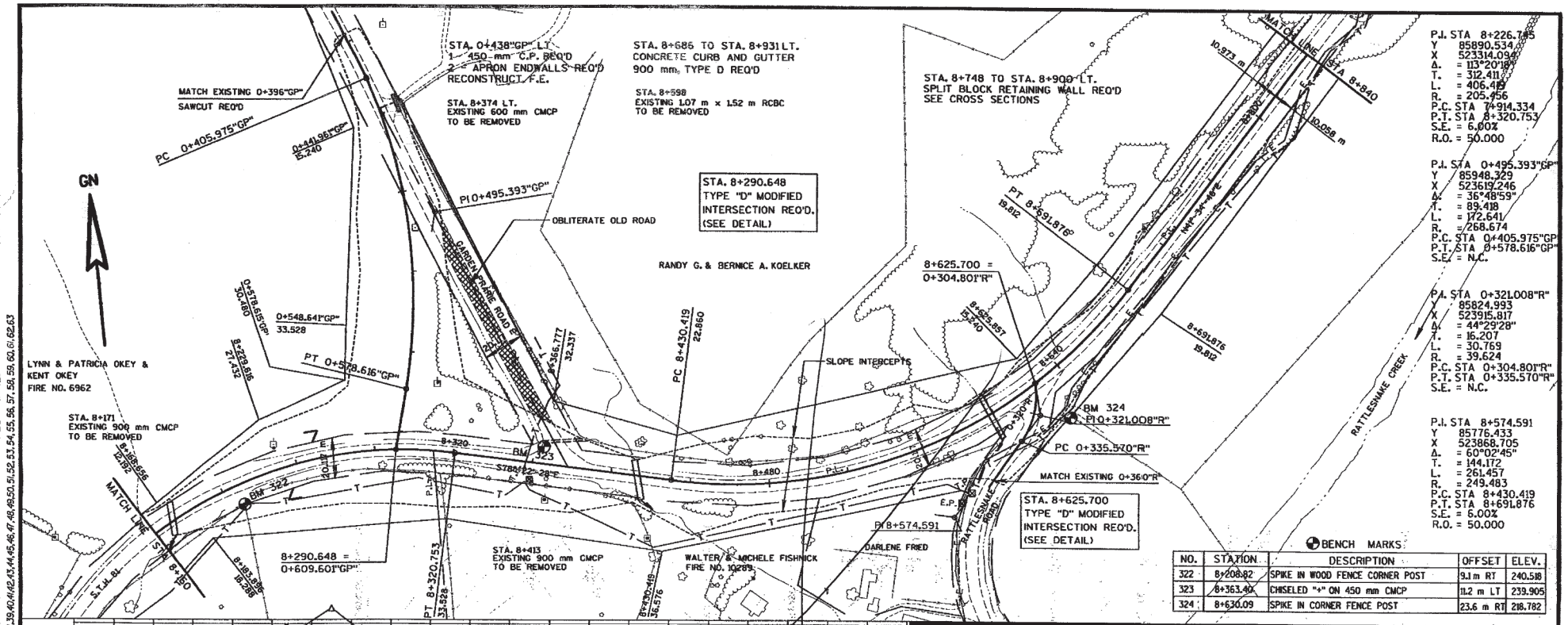
BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
318	7+556.25	BOLT (TOP) CONC. CORNER FENCE POST	9.2 m RT	242.301
319	7+722.22	SPIKE IN BRACE POST	11.8 m RT	236.168
320	7+880.29	CHISELED "+" ON 900 mm CMCP	5.5 m RT	230.688
321	8+054.88	CHISELED "□" NE CORNER BRIDGE	4.7 m RT	230.715



PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.6-A M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63
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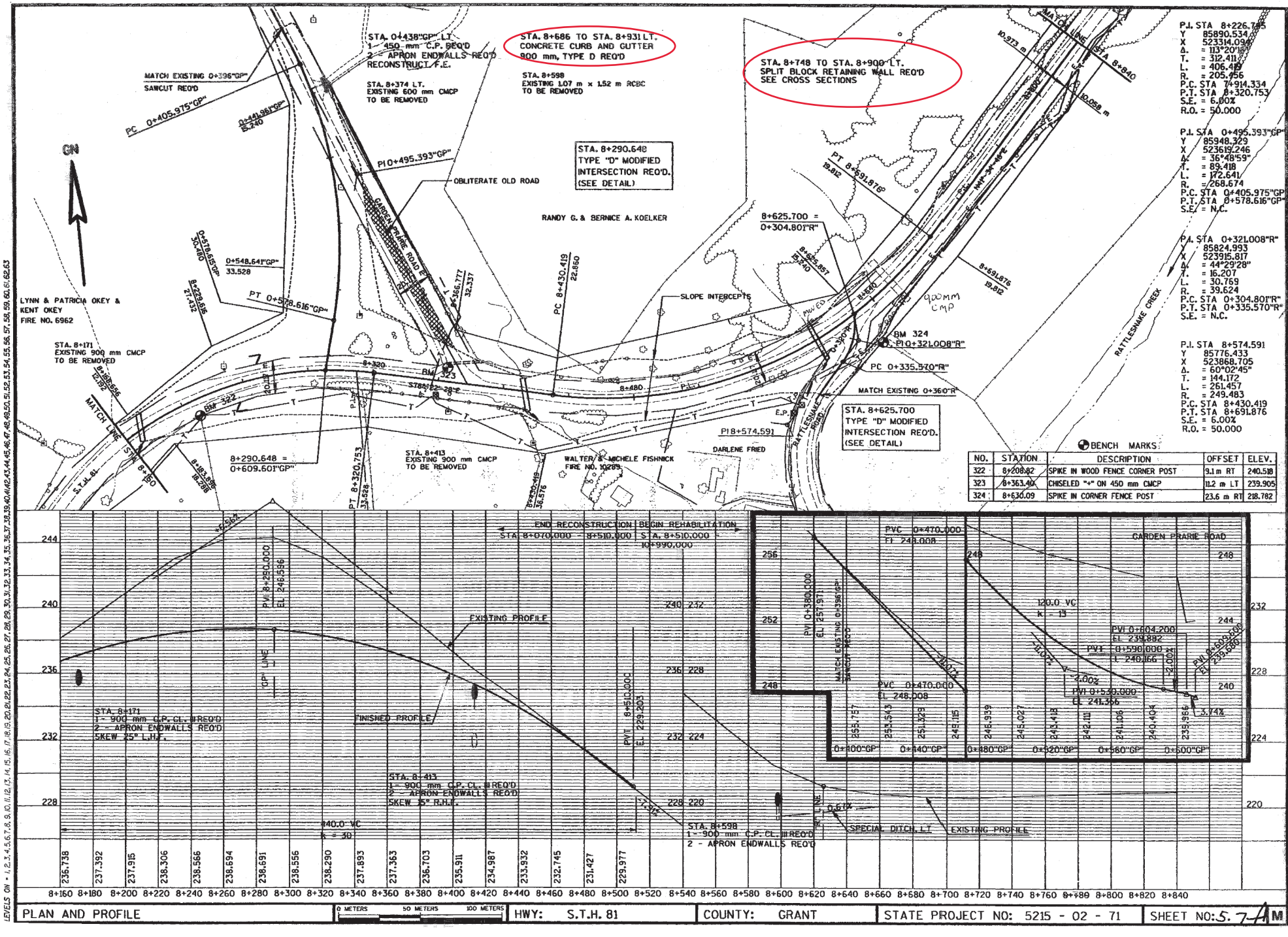


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.7 | M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

FILE NAME: M:\PP\M81PP07.DGN

WisDOT: MSHT40

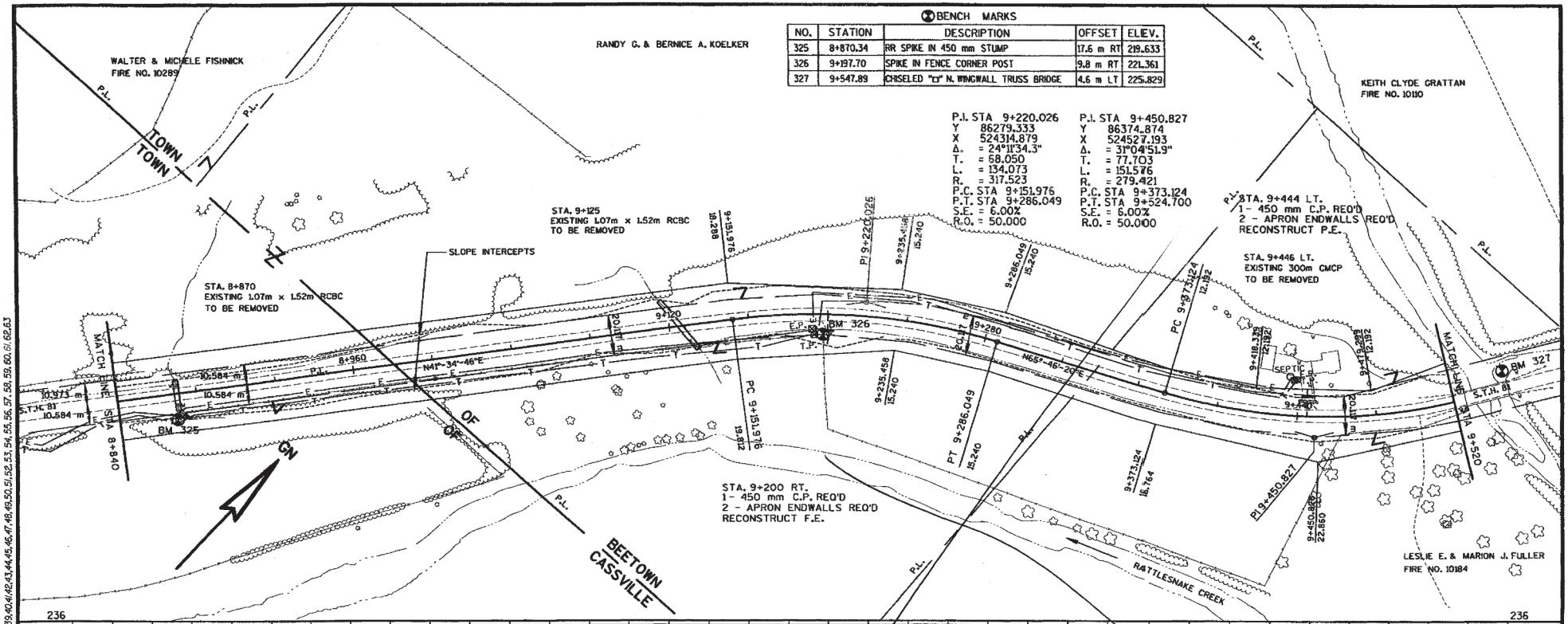

STA. 0+438"GP" LT
1 - 450 mm C.P. REQ'D
2 - APRON ENDWALLS REQ'D
RECONSTRUCT F.E.
STA. 8+686 TO STA. 8+931 LT.
CONCRETE CURB AND GUTTER
900 mm, TYPE D REQ'D
STA. 8+748 TO STA. 8+900 LT.
SPLIT BLOCK RETAINING WALL REQ'D
SEE CROSS SECTIONS
STA. 8+374 LT.
EXISTING 600 mm CMCP
TO BE REMOVED
STA. 8+598
EXISTING 1.07 m x 1.52 m RCBC
TO BE REMOVED
MATCH EXISTING 0+396"GP"
SAWCUT REQ'D
PC 0+405.975"GP"
PI 0+495.393"GP"
OBLITERATE OLD ROAD
STA. 8+290.648
TYPE "D" MODIFIED
INTERSECTION REQ'D.
(SEE DETAIL)
RANDY G. & BERNICE A. KOELKER
8+625.700 =
0+304.801"R"
PT 0+578.616"GP"
PC 8+430.419
22.860
SLOPE INTERCEPTS
900mm
CMP
BM 324
EL. PI 0+321.008"R"
PC 0+335.570"R"
MATCH EXISTING 0+360"R"
STA. 8+625.700
TYPE "D" MODIFIED
INTERSECTION REQ'D.
(SEE DETAIL)
LYNN & PATRICIA OKEY &
KENT OKEY
FIRE NO. 6962
STA. 8+171
EXISTING 900 mm CMCP
TO BE REMOVED
BM 322
BM 323
MATCH LINE
S.T.H. 81
STA. 8+413
EXISTING 900 mm CMCP
TO BE REMOVED
8+290.648 =
0+609.601"GP"
PT 8+320.753
WALTER & MICHELE FISHNICK
FIRE NO. 10289
DARLENE FRIED
PI 8+574.591
RATTLESNAKE CREEK
RATTLESNAKE ROAD
P.I. STA 8+226.765
Y 85890.534
X 523314.094
Δ = 113°20'18"
T. = 312.411
L. = 406.419
R. = 205.956
P.C. STA 7+914.334
P.T. STA 8+320.753
S.E. = 6.00%
R.O. = 50.000
P.I. STA 0+495.393"GP"
Y 85948.329
X 523619.246
Δ = 36°48'59"
T. = 89.418
L. = 172.641
R. = 268.674
P.C. STA 0+405.975"GP"
P.T. STA 0+578.616"GP"
S.E. = N.C.
P.I. STA 0+321.008"R"
Y 85824.993
X 523915.817
Δ = 44°29'28"
T. = 16.207
L. = 30.769
R. = 39.624
P.C. STA 0+304.801"R"
P.T. STA 0+335.570"R"
S.E. = N.C.
P.I. STA 8+574.591
Y 85776.433
X 523868.705
Δ = 60°02'45"
T. = 144.172
L. = 261.457
R. = 249.483
P.C. STA 8+430.419
P.T. STA 8+691.876
S.E. = 6.00%
R.O. = 50.000
BENCH MARKS:
NO. | STATION | DESCRIPTION | OFFSET | ELEV.
322 | 8+208.82 | SPIKE IN WOOD FENCE CORNER POST | 9.1 m RT | 240.518
323 | 8+363.40 | CHISELED "+" ON 450 mm CMCP | 11.2 m LT | 239.905
324 | 8+630.09 | SPIKE IN CORNER FENCE POST | 23.6 m RT | 218.782
END RECONSTRUCTION STA. 8+070.000 - 8+510.000
BEGIN REHABILITATION STA. 8+510.000 - 10+990.000
EXISTING PROFILE
FINISHED PROFILE
PVI 8+290.000
EL 246.536
PVI 8+510.000
EL 229.203
"GP" LINE
STA. 8+171
1 - 900 mm C.P. CL. III REQ'D
2 - APRON ENDWALLS REQ'D
SKEW 25° L.H.F.
STA. 8+413
1 - 900 mm C.P. CL. III REQ'D
2 - APRON ENDWALLS REQ'D
SKEW 35° R.H.F.
140.0 VC
k = 30
STA. 8+598
1 - 900 mm C.P. CL. III REQ'D
2 - APRON ENDWALLS REQ'D
SPECIAL DITCH LT
EXISTING PROFILE
PVC 0+470.000
EL 248.008
PVI 0+530.000
EL 241.366
PVI 0+590.000
EL 240.166
PVI 0+604.200
EL 239.882
PVI 0+650.000
EL 239.030
PVI 0+380.000
EL 257.971
MATCH EXISTING 0+396"GP"
SAWCUT REQ'D
120.0 VC
k = 13
GARDEN PRAIRIE ROAD
0+400"GP"
0+440"GP"
0+480"GP"
0+520"GP"
0+560"GP"
0+600"GP"
236.738
237.392
237.915
238.306
238.566
238.694
238.691
238.556
238.290
237.893
237.363
236.703
235.911
234.987
233.932
232.745
231.427
229.977
8+160 8+180 8+200 8+220 8+240 8+260 8+280 8+300 8+320 8+340 8+360 8+380 8+400 8+420 8+440 8+460 8+480 8+500 8+520 8+540 8+560 8+580 8+600 8+620 8+640 8+660 8+680 8+700 8+720 8+740 8+760 8+780 8+800 8+820 8+840
PLAN AND PROFILE
0 METERS 50 METERS 100 METERS
HWY: S.T.H. 81
COUNTY: GRANT
STATE PROJECT NO: 5215 - 02 - 71
SHEET NO: 5.7-A M
PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR:
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.8 | M

FILE NAME: M:\PP\eM81PP08.DGN

WisDOT: MSHT40

1/26/99-R1

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
325	8+870.34	RR SPIKE IN 450 mm STUMP	17.6 m RT	219.633
326	9+197.70	SPIKE IN FENCE CORNER POST	9.8 m RT	221.361
327	9+547.89	CHISELED "CI" N. WINGWALL TRUSS BRIDGE	4.6 m LT	225.829

WALTER & MICHELE FISHNICK
FIRE NO. 10289

RANDY G. & BERNICE A. KOELKER

KEITH CLYDE GRATTAN
FIRE NO. 10110

LESLIE E. & MARION J. FULLER
FIRE NO. 10184

P.I. STA 9+220.026
Y 86279.333
X 524314.879
Δ = 24°11'34.3"
T. = 68.050
L. = 134.073
R. = 317.523
P.C. STA 9+151.976
P.T. STA 9+286.049
S.E. = 6.00%
R.O. = 50.000

P.I. STA 9+450.827
Y 86374.874
X 524527.193
Δ = 31°04'51.9"
T. = 77.703
L. = 151.576
R. = 279.421
P.C. STA 9+373.124
P.T. STA 9+524.700
S.E. = 6.00%
R.O. = 50.000

STA. 9+125
EXISTING 1.07m x 1.52m RCBC
TO BE REMOVED

STA. 8+870
EXISTING 1.07m x 1.52m RCBC
TO BE REMOVED

SLOPE INTERCEPTS

STA. 9+444 LT.
1 - 450 mm C.P. REQ'D
2 - APRON ENDWALLS REQ'D
RECONSTRUCT P.E.

STA. 9+446 LT.
EXISTING 300m CMCP
TO BE REMOVED

STA. 9+200 RT.
1 - 450 mm C.P. REQ'D
2 - APRON ENDWALLS REQ'D
RECONSTRUCT F.E.

TOWN
TOWN

BEETOWN
CASSVILLE

RATTLESNAKE CREEK

BM 325
BM 326
BM 327

MATCH LINE STA 8+840
MATCH LINE STA 9+520

S.T.H. 81

N41°-34'-46"E
N65°-46'-20"E

9+120
9+280
9+960

9+151.976
9+220.026
9+235.458
9+286.049
9+373.124
9+418.356
9+450.827

SEPTIC

FINISHED PROFILE
EXISTING PROFILE
-0.67%
SPECIAL DITCH, LT.
EW 9+340.000
EL 225.784

STA. 8+870
1 - 1800 mm C.P. CL. III REQ'D
2 APRON ENDWALLS REQ'D.

STA. 9+125
1 - 900 mm C.P. CL. III REQ'D
2 APRON ENDWALLS REQ'D.

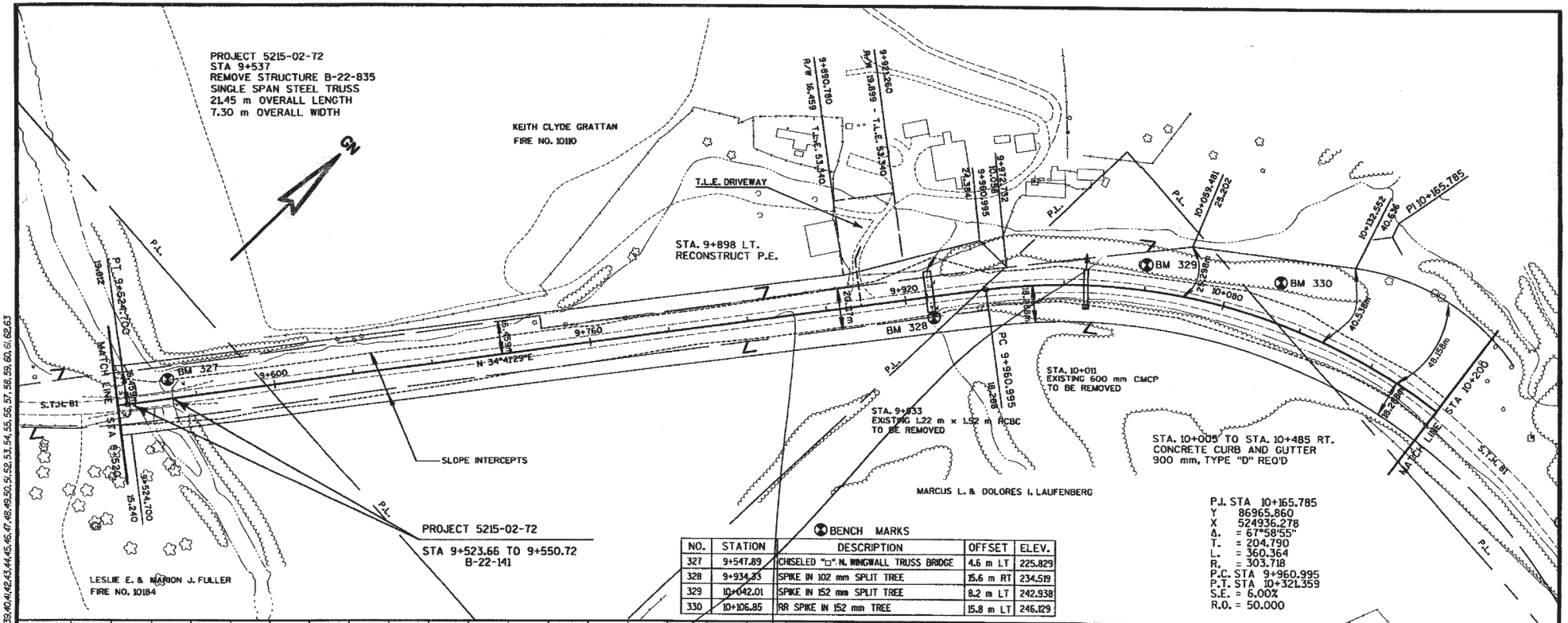
236
232
228
224
220
216

8+840 8+860 8+880 8+900 8+920 8+940 8+960 8+980 9+000 9+020 9+040 9+060 9+080 9+100 9+120 9+140 9+160 9+180 9+200 9+220 9+240 9+260 9+280 9+300 9+320 9+340 9+360 9+380 9+400 9+420 9+440 9+460 9+480 9+500 9+520

0 METERS 50 METERS 100 METERS

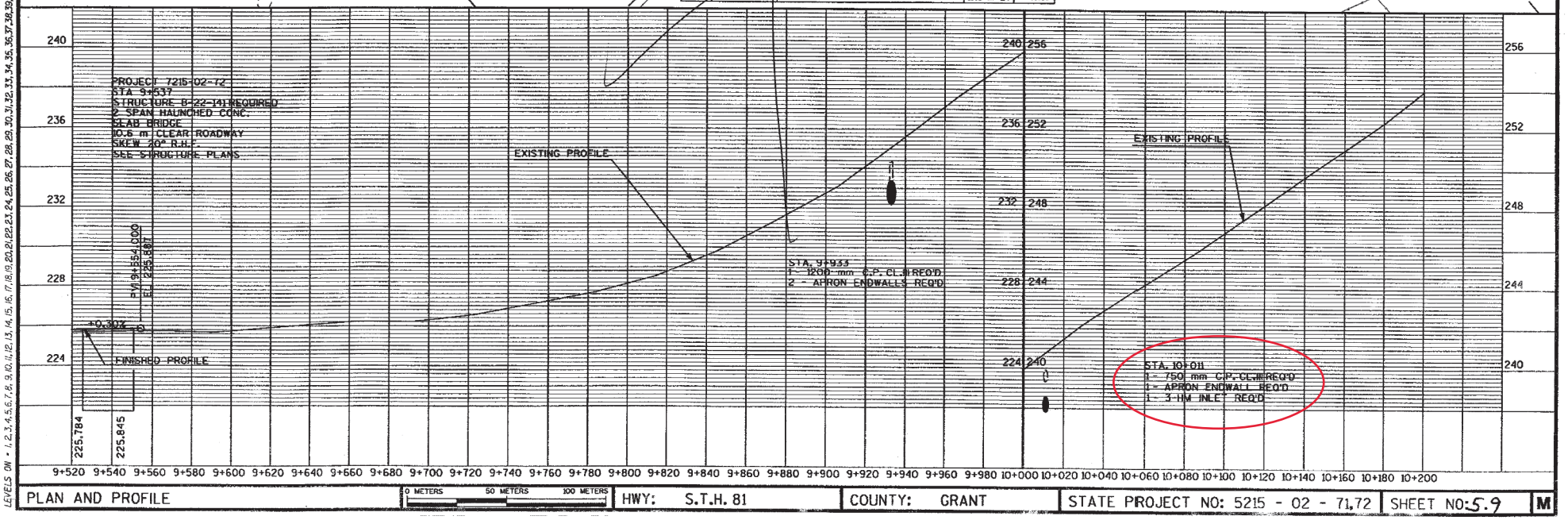
PLAN AND PROFILE	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 5.8-A M

FILE NAME: M:\PP\MB1PP08.DGN



BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
327	9+547.89	CHISELED "□" N. WINGWALL TRUSS BRIDGE	4.6 m LT	225.829
328	9+934.33	SPIKE IN 102 mm SPLIT TREE	15.6 m RT	234.519
329	10+042.01	SPIKE IN 152 mm SPLIT TREE	8.2 m LT	242.938
330	10+106.85	RR SPIKE IN 152 mm TREE	15.8 m LT	246.129

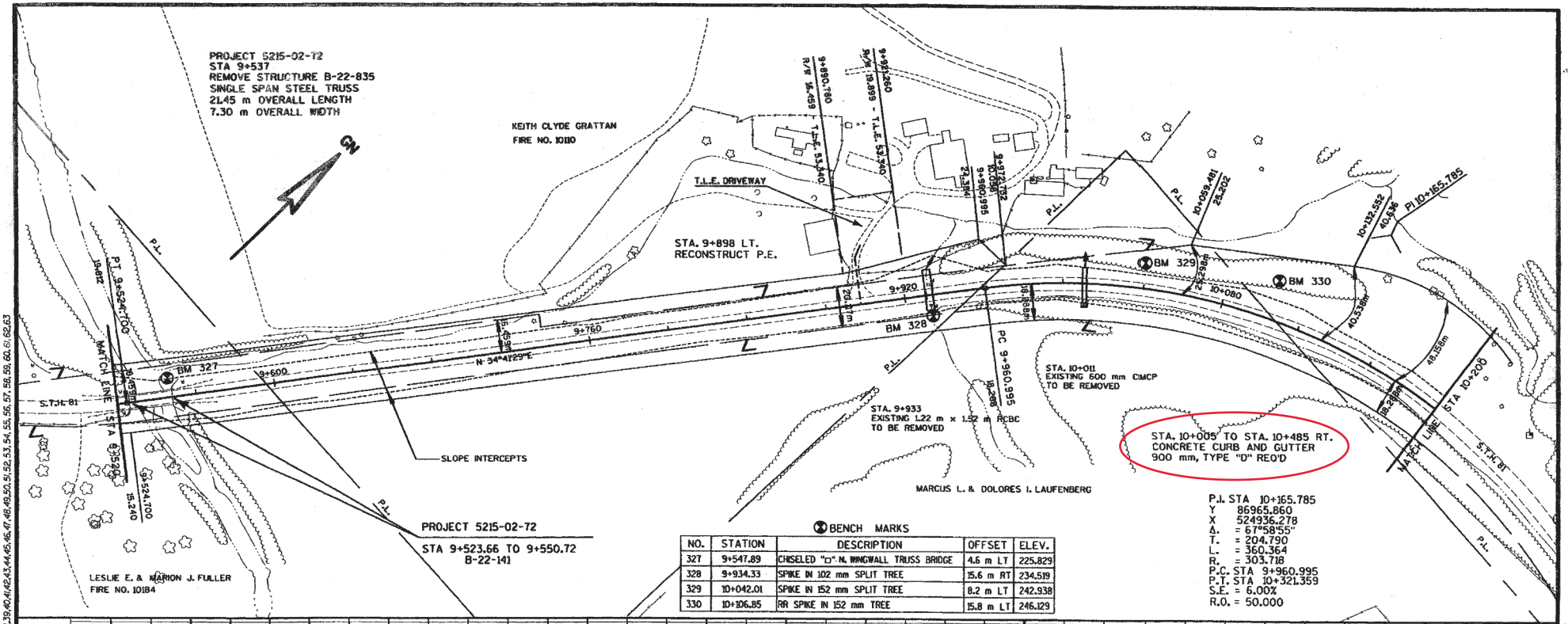


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71,72 | SHEET NO: 5.9 | M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

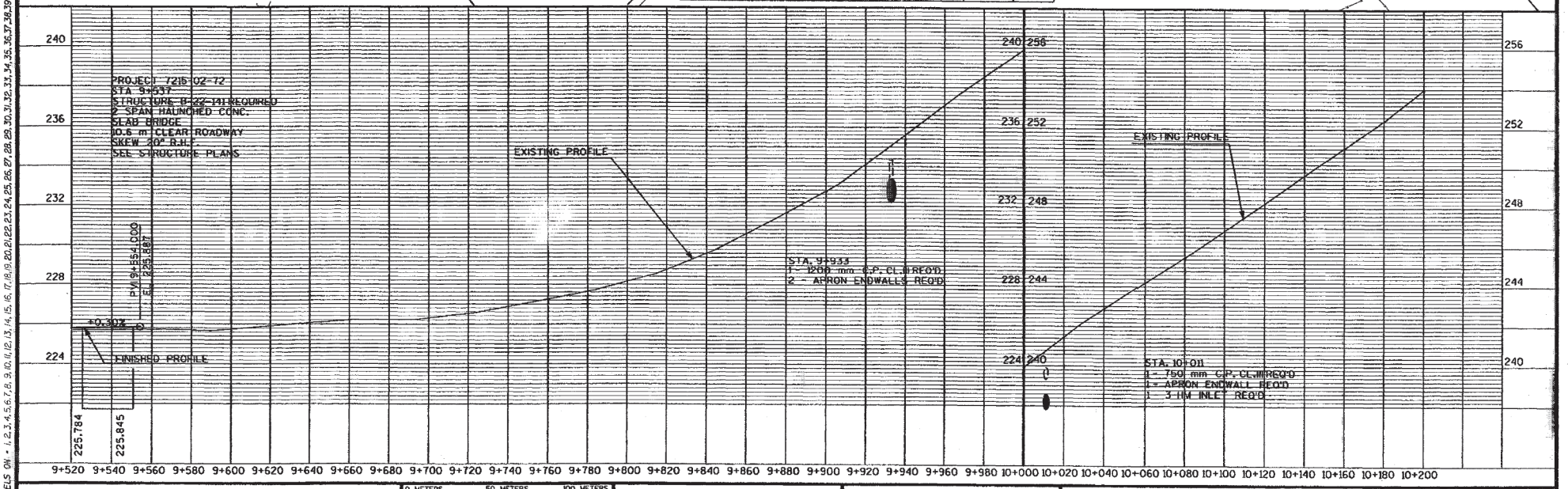
FILE NAME: M:\PP\M81PP09.DGN

WisDOT: MSHT4C



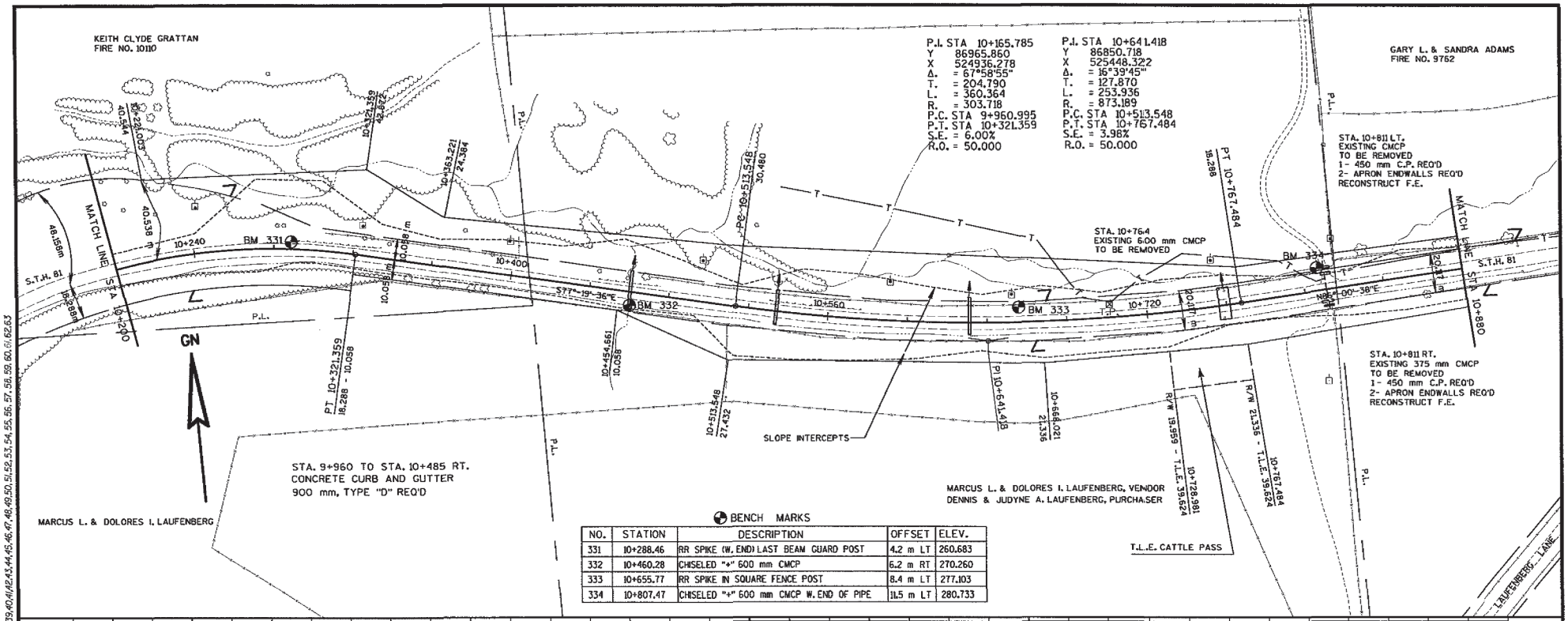
BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
327	9+547.89	CHISELED "□" N. WINGWALL TRUSS BRIDGE	4.6 m LT	225.829
328	9+934.33	SPIKE IN 102 mm SPLIT TREE	15.6 m RT	234.519
329	10+042.01	SPIKE IN 152 mm SPLIT TREE	8.2 m LT	242.938
330	10+106.85	RR SPIKE IN 152 mm TREE	15.8 m LT	246.129



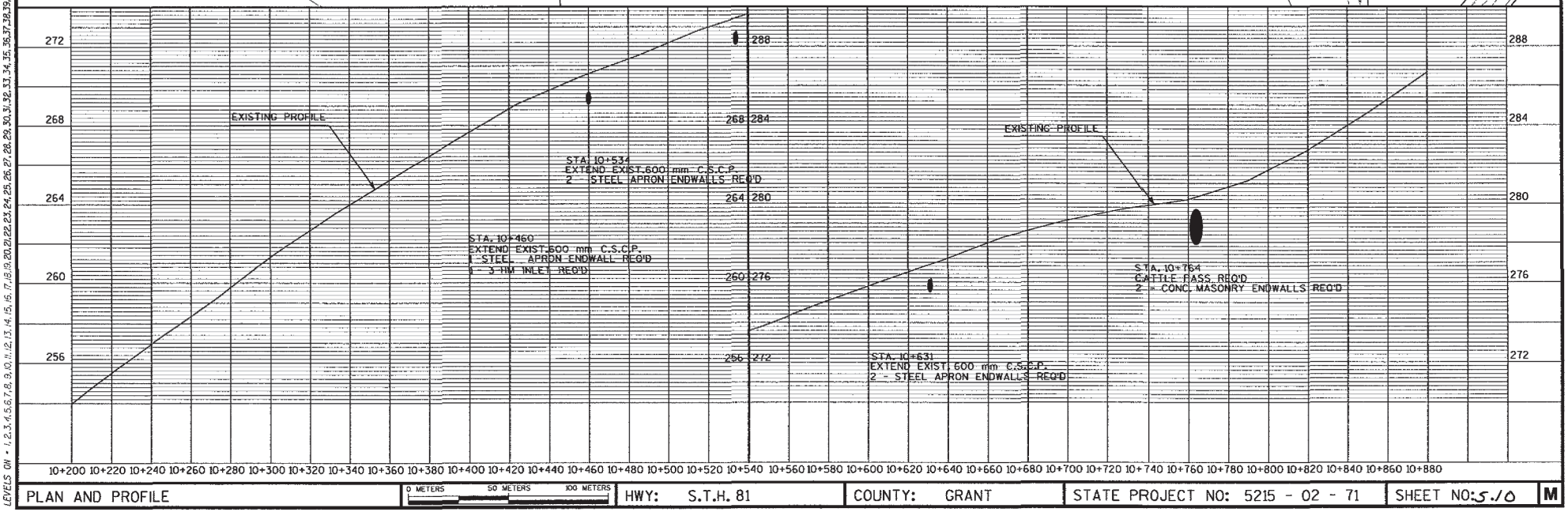
PLAN AND PROFILE	0 METERS 50 METERS 100 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71,72	SHEET NO: 5.2.4 M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63



BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
331	10+288.46	RR SPIKE (W. END) LAST BEAM GUARD POST	4.2 m LT	260.683
332	10+460.28	CHISELED "+" 600 mm CMCP	6.2 m RT	270.260
333	10+655.77	RR SPIKE IN SQUARE FENCE POST	8.4 m LT	277.103
334	10+807.47	CHISELED "+" 600 mm CMCP W. END OF PIPE	11.5 m LT	280.733

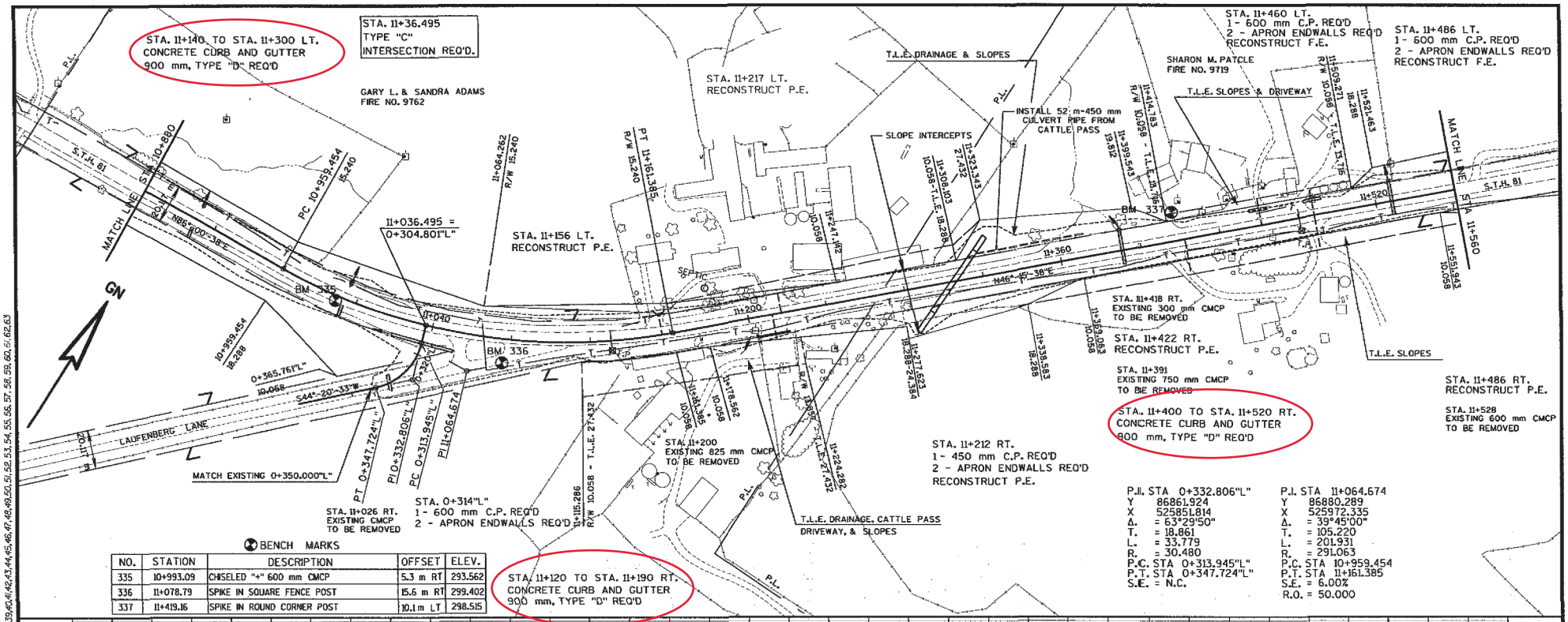


PLAN AND PROFILE	0 METERS 50 METERS 100 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 5.10	M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS GN - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME: M:\PP\M81PP10.DGN

WisDOT: MSHT40



PLAN AND PROFILE | 0 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.11 | M

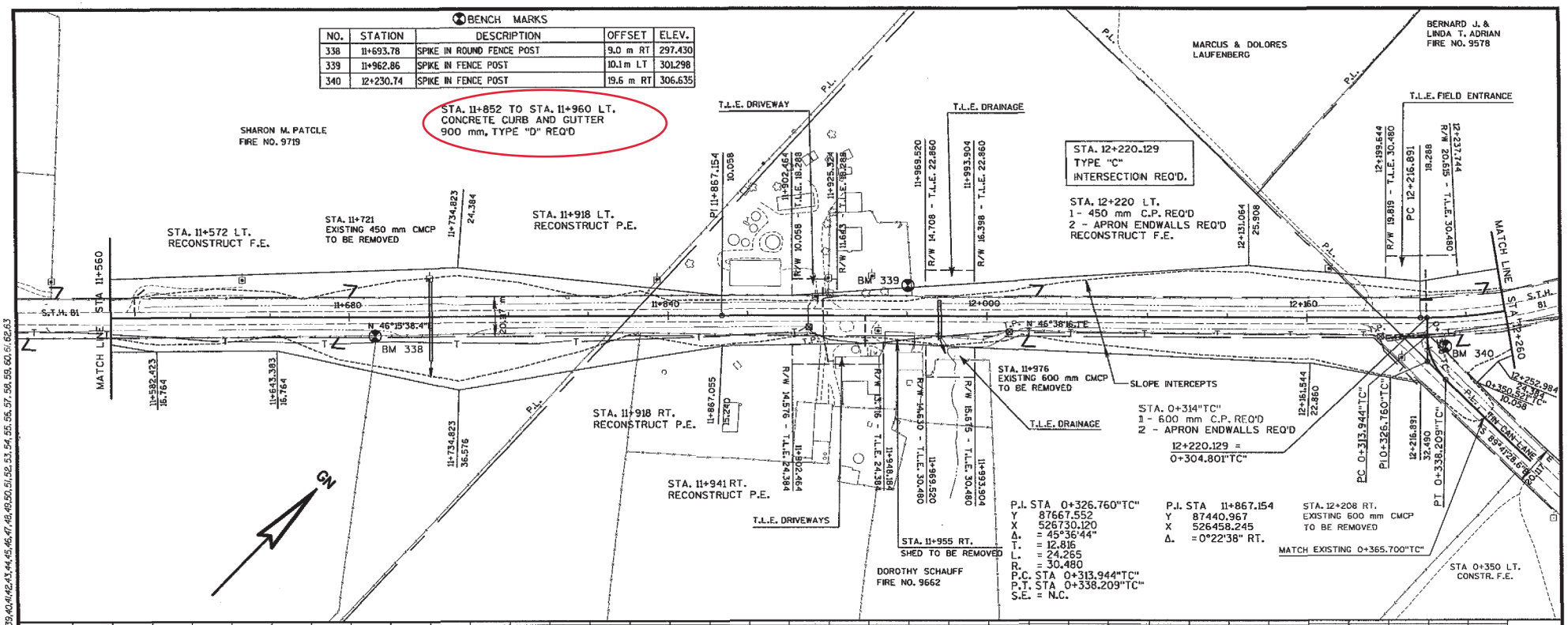
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REV. DATE:
ORIGINATOR:
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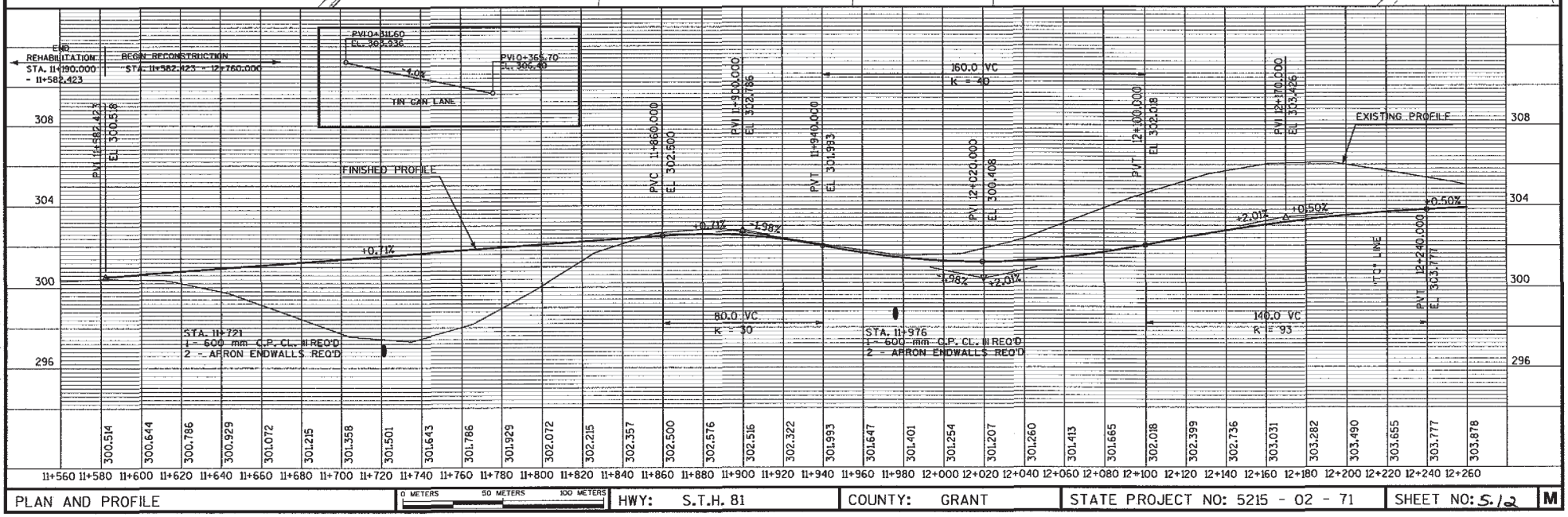
FILE NAME: M:\PP\M81PP11.DGN

WisDOT: MSHT40

BENCH MARKS

NO.	STATION	DESCRIPTION	OFFSET	ELEV.
338	11+693.78	SPIKE IN ROUND FENCE POST	9.0 m RT	297.430
339	11+962.86	SPIKE IN FENCE POST	10.1 m LT	301.298
340	12+230.74	SPIKE IN FENCE POST	19.6 m RT	306.635



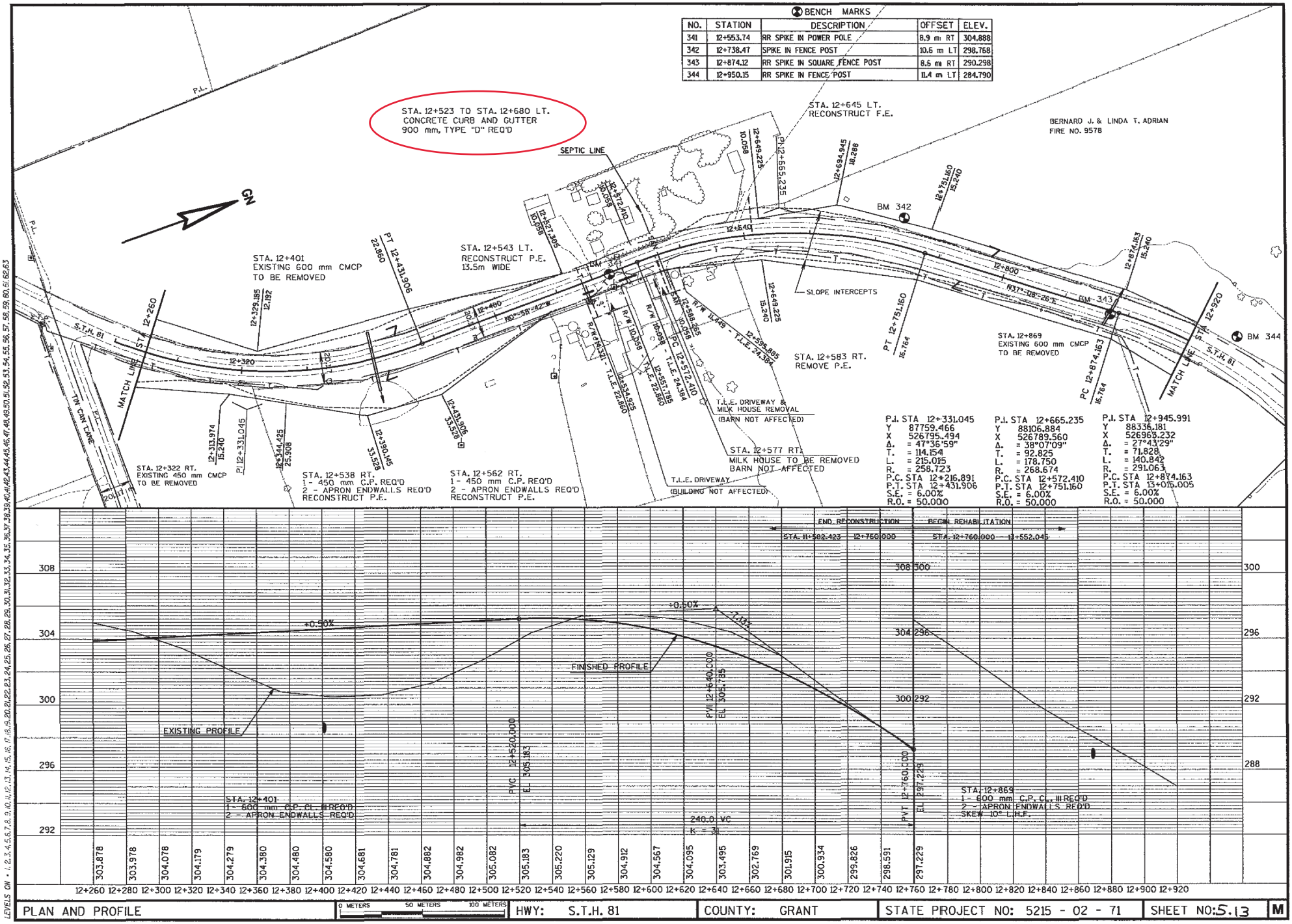


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.12 | M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
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WISDOT: MSHT40

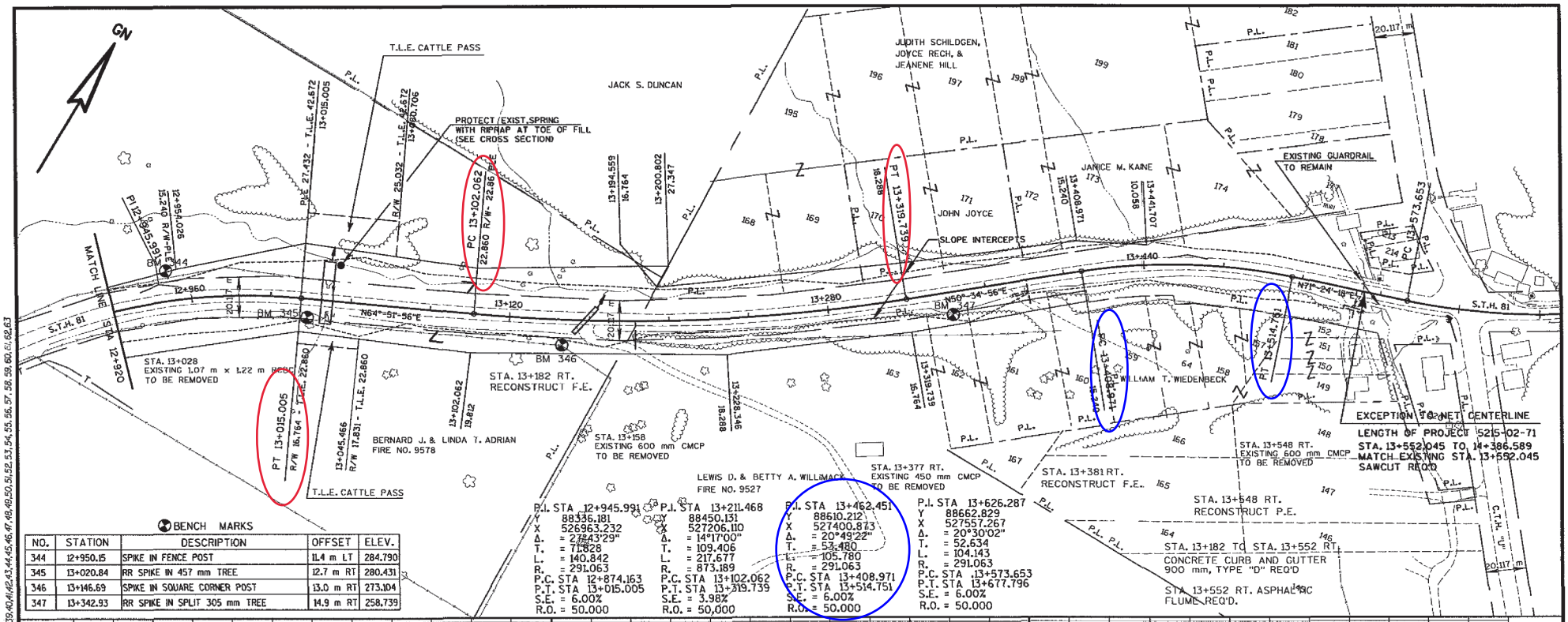


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.13 | M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR: LEVELS GW

FILE NAME: M:\PP\M81PP13.DGN

WisDOT: MSHT40



BENCH MARKS

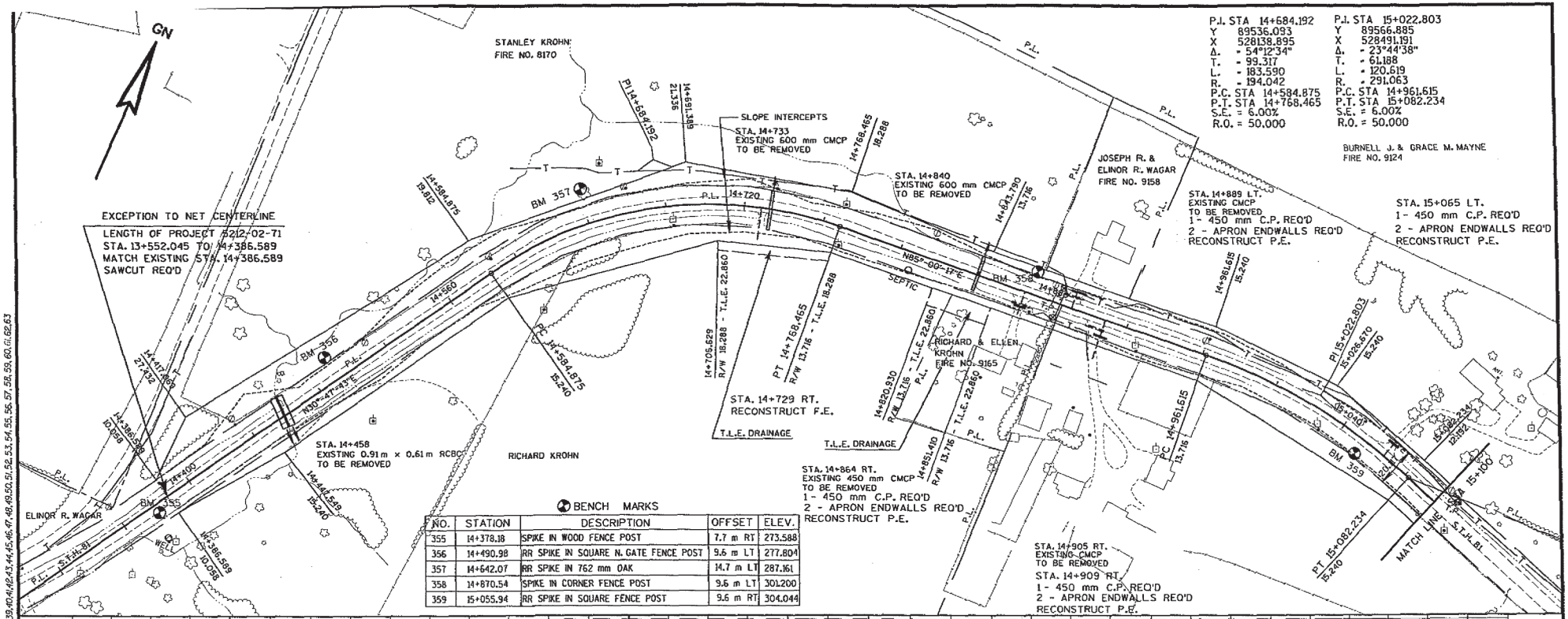
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
344	12+950.15	SPIKE IN FENCE POST	11.4 m LT	284.790
345	13+020.84	RR SPIKE IN 457 mm TREE	12.7 m RT	280.431
346	13+146.69	SPIKE IN SQUARE CORNER POST	13.0 m RT	273.104
347	13+342.93	RR SPIKE IN SPLIT 305 mm TREE	14.9 m RT	258.739

PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.14 | M

PLOT SCALE: PLOT NAME: REV. DATE: ORIGINATOR: LEVELS ON • 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

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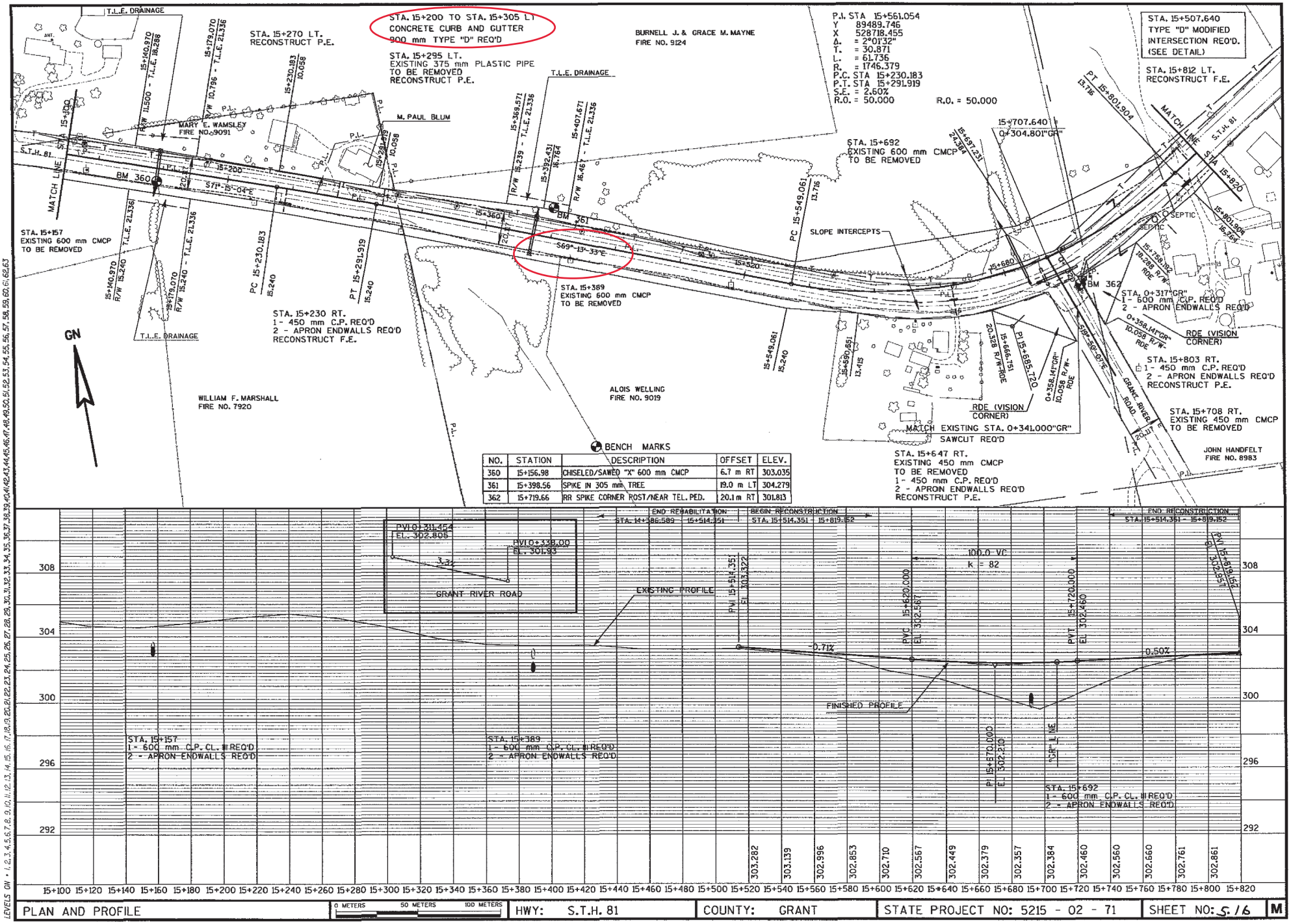


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PLAN AND PROFILE	0 METERS 50 METERS 100 METERS	HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215 - 02 - 71	SHEET NO: 5.15	M

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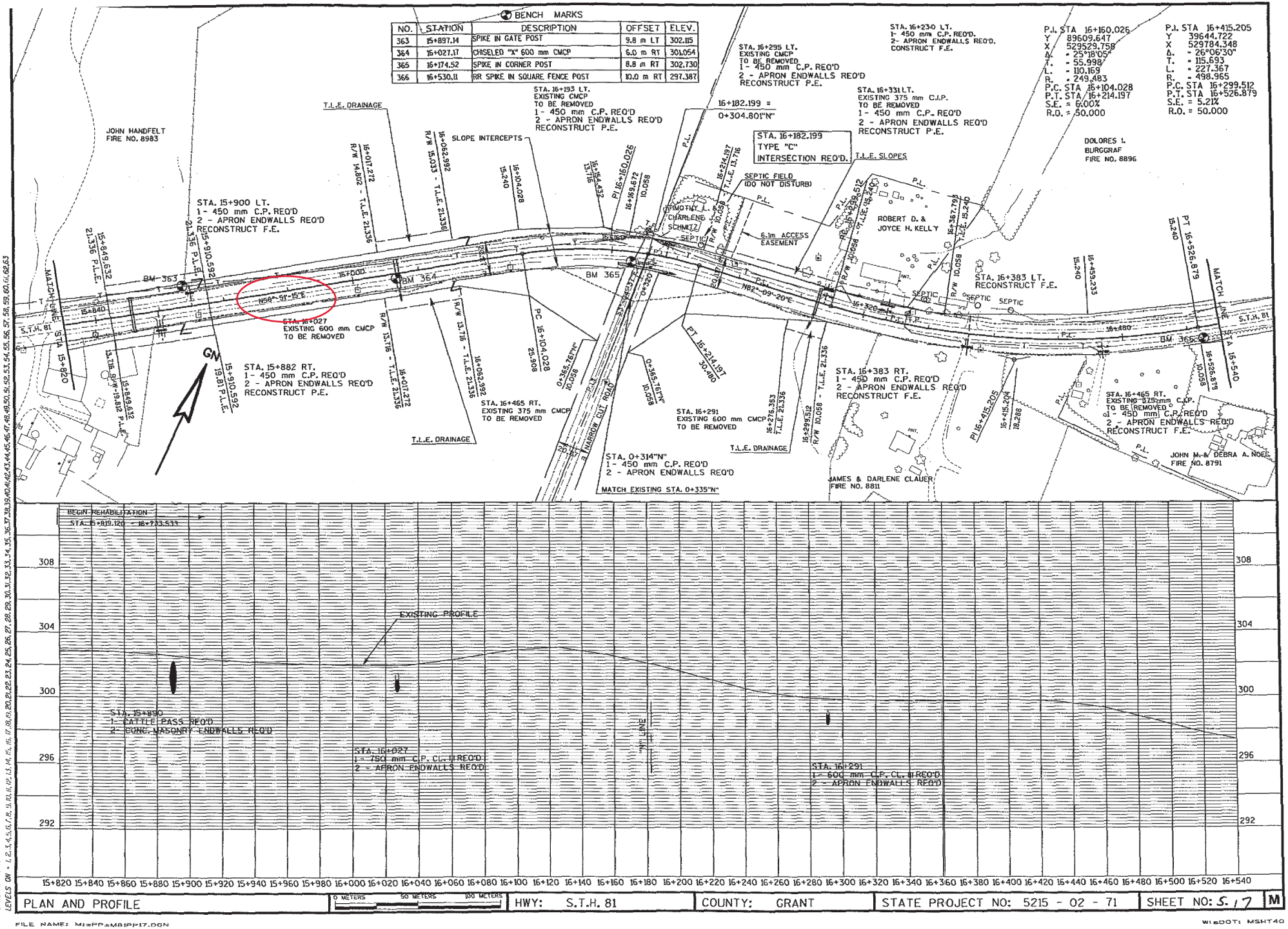


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5/6 | M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

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WisDOT: MSHT40

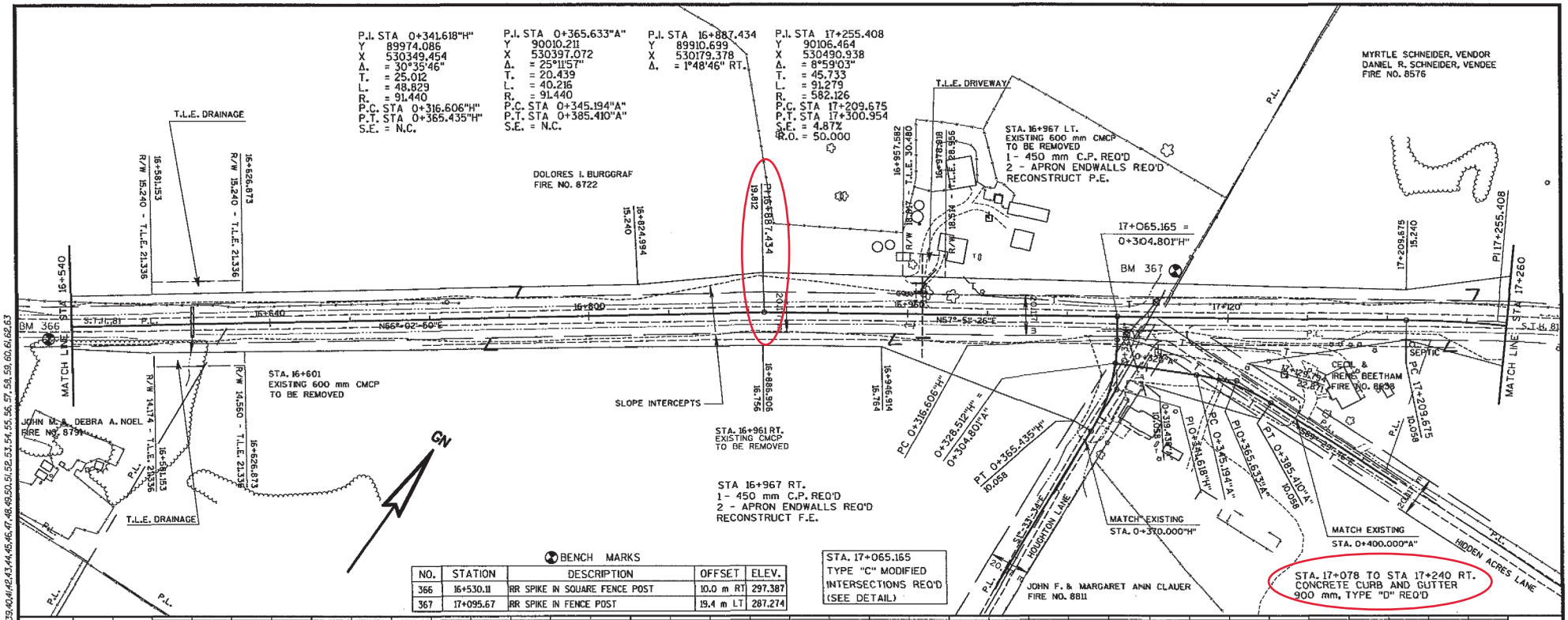


PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
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PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.17 | M

FILE NAME: M:\PP\M81PP17.DGN

WisDOT: MSHT40

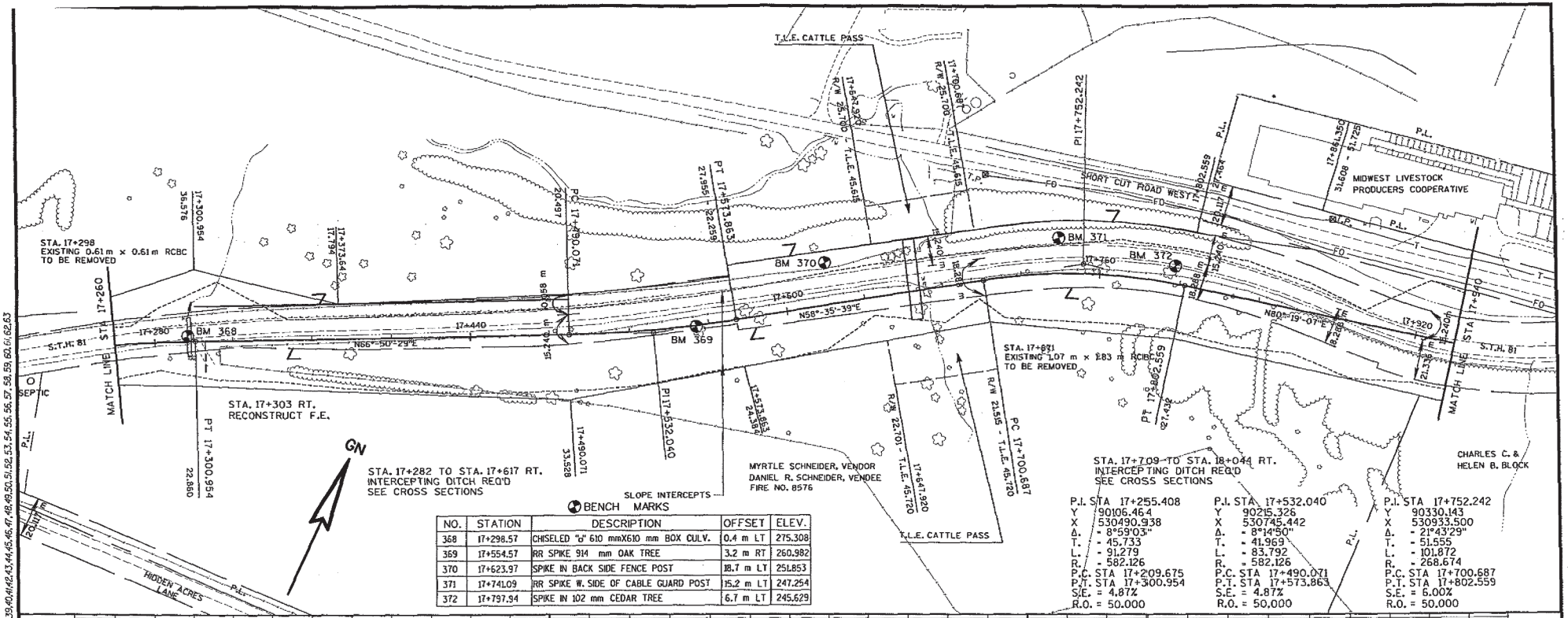


PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
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PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.18 | M

FILE NAME: M:\PP\M81PP18.DGN

WisDOT: MSHT40

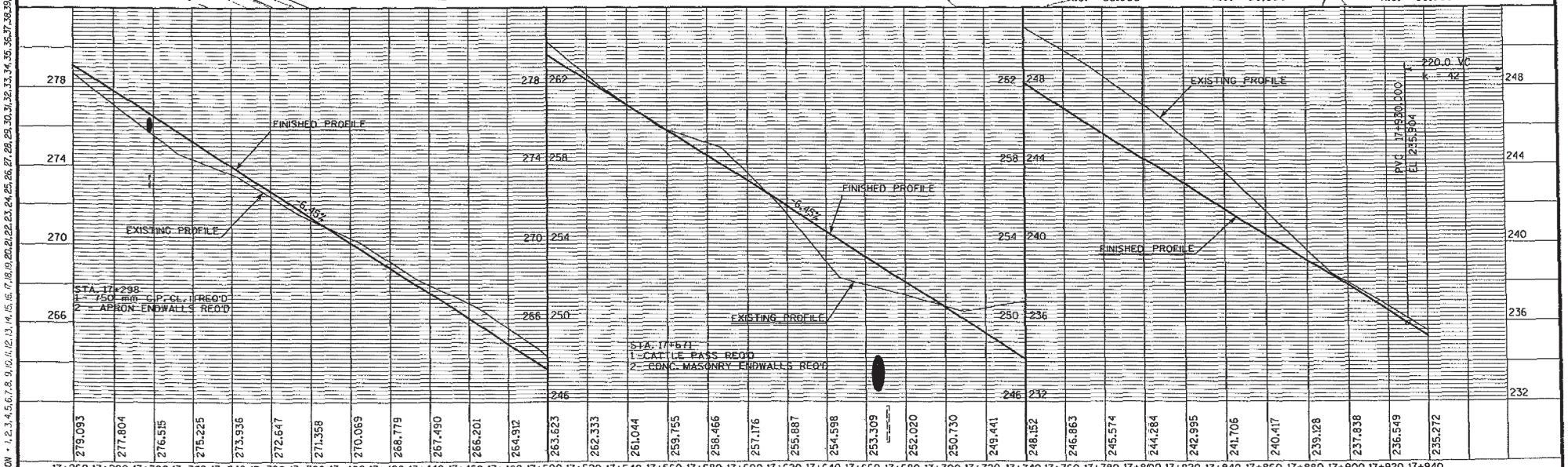


NO.	STATION	DESCRIPTION	OFFSET	ELEV.
368	17+298.57	CHISELED "δ" 610 mmX610 mm BOX CULV.	0.4 m LT	275.308
369	17+554.57	RR SPIKE 914 mm OAK TREE	3.2 m RT	260.982
370	17+623.97	SPIKE IN BACK SIDE FENCE POST	18.7 m LT	251.853
371	17+741.09	RR SPIKE W. SIDE OF CABLE GUARD POST	15.2 m LT	247.254
372	17+797.94	SPIKE IN 102 mm CEDAR TREE	6.7 m LT	245.629

P.I. STA 17+255.408
Y 90106.464
X 530490.938
Δ. = 8°59'03"
T. = 45.733
L. = 91.279
R. = 582.126
P.C. STA 17+209.675
P.T. STA 17+300.954
S.E. = 4.87%
R.O. = 50.000

P.I. STA 17+532.040
Y 90215.326
X 530745.442
Δ. = 8°14'50"
T. = 41.969
L. = 83.792
R. = 582.126
P.C. STA 17+490.071
P.T. STA 17+573.863
S.E. = 4.87%
R.O. = 50.000

P.I. STA 17+752.242
Y 90330.143
X 530933.500
Δ. = 21°43'29"
T. = 51.555
L. = 101.872
R. = 268.674
P.C. STA 17+700.687
P.T. STA 17+802.559
S.E. = 6.00%
R.O. = 50.000

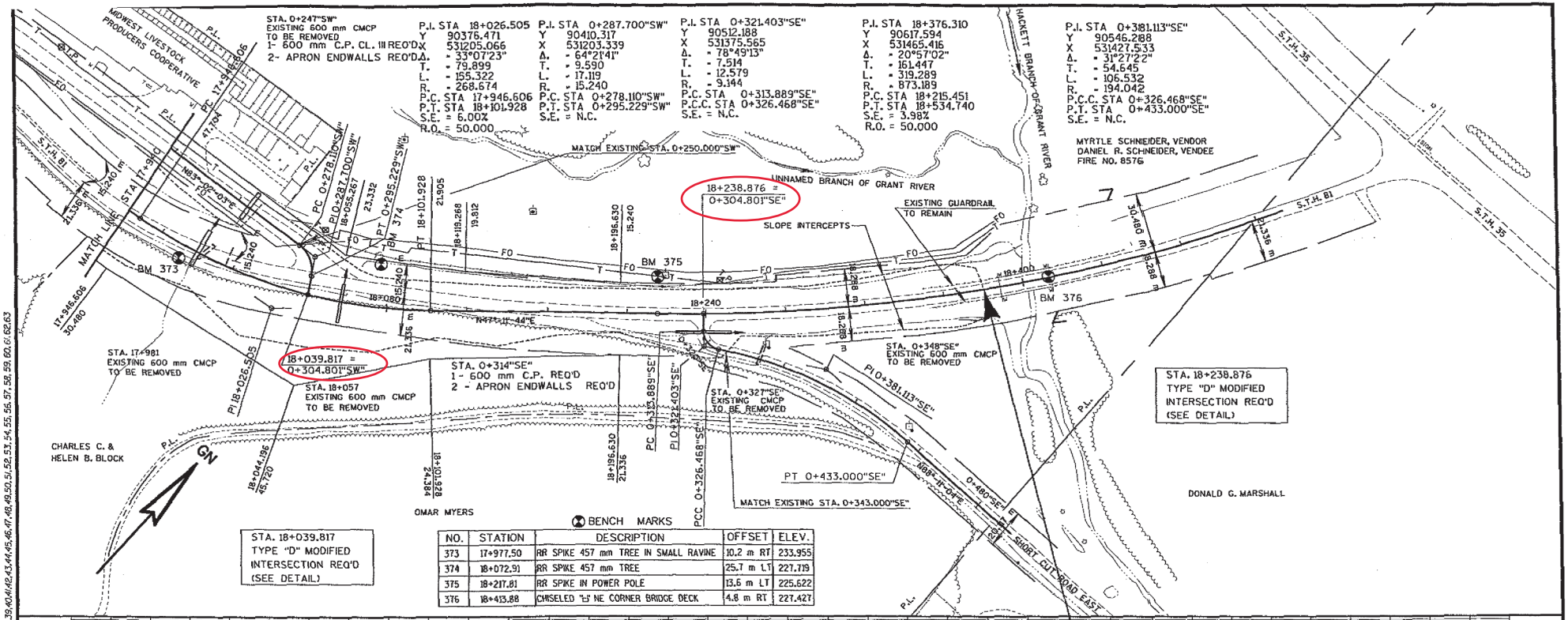


PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.19 M

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME: M:\PP\M81PP19.DGN

WisDOT: MSHT40



PLAN AND PROFILE | 0 METERS 50 METERS 100 METERS | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215 - 02 - 71 | SHEET NO: 5.20 M

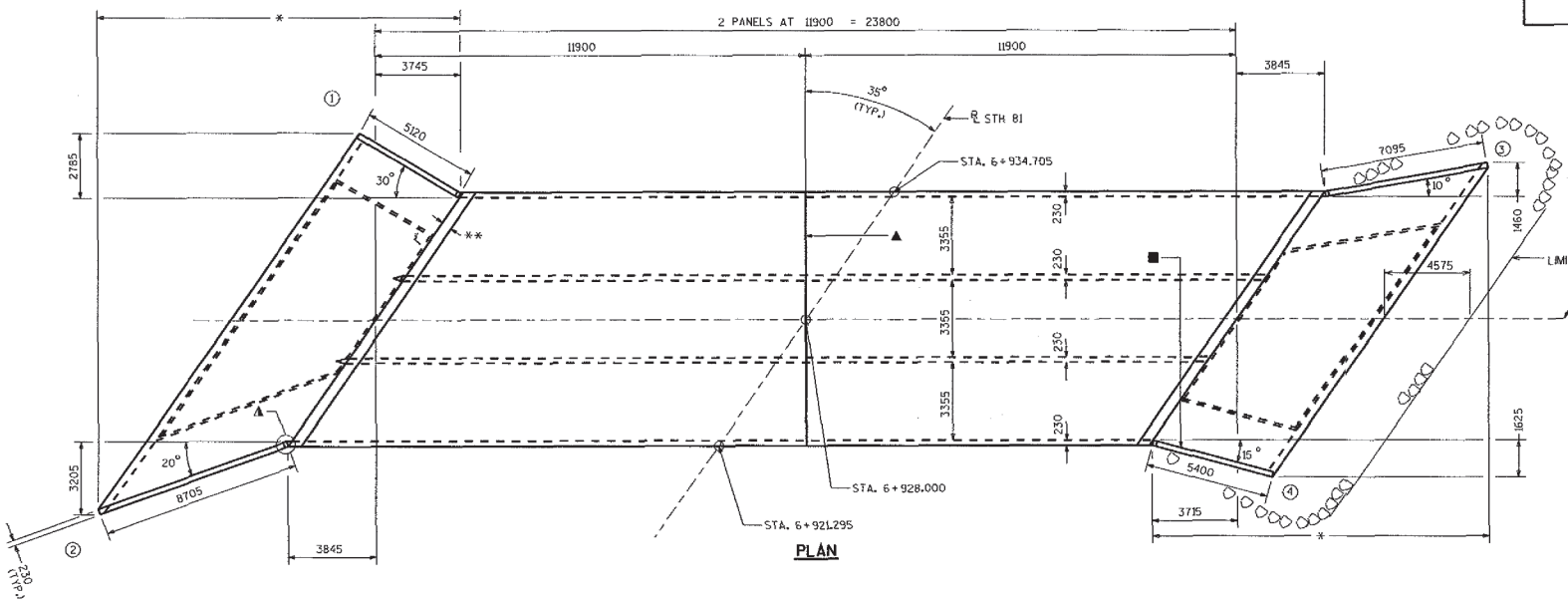
PLOT SCALE:
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REV. DATE:
ORIGINATOR:
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WISDOT: MSHT40

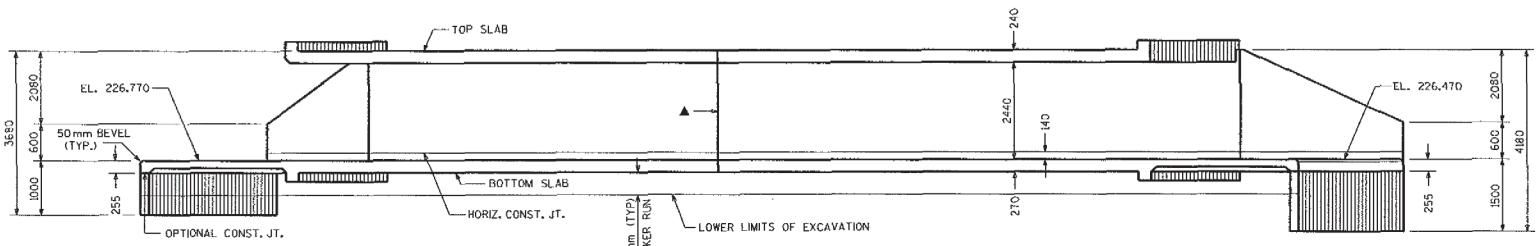
TYPE CODE = Y007

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.1



PLAN

- ▲ SEE CORNER DETAILS
- ■ NAME PLATE LOCATION
- ** 460 (TYP.)
- * BUILD APRON AND END OF BOX LEVEL
- ▲ VERT. CONST. JOINT



INLET

ELEVATION
(INTERIOR WALLS NOT SHOWN)

OUTLET

LIST OF DRAWINGS

1. LAYOUT
2. BOX DETAILS
3. APRON DETAILS
4. DETAILS
5. SUBSURFACE EXPLORATION

BRIDGE OFFICE CONTACT :
JERRY ZIRK (608) 266-5163
FINN HUBBARD (608) 266-8489

DESIGN DATA

LIVELOAD: MS18
EARTHLOAD: DESIGNED FOR 1.5 METERS OF FILL.
STRENGTH DESIGN METHOD:
CONCRETE MASONRY — f'_c = 24 MPa
HIGH STRENGTH BAR STEEL REINFORCEMENT — f_y = 420 MPa

TRAFFIC VOLUME

STH 81
A.D.T. = 900 (2016)
R.D.S. = 90 km/hr

HYDRAULIC DATA

100 YEAR FREQUENCY
Q_{100} = 51.0 m^3/s
VEL. = 3.2 m/s
HW. = EL. 229.24 m
DRAINAGE AREA = 7.5 km^2
OVERTOPPING RDWY. = N.A.

TOTAL ESTIMATED QUANTITIES

BID ITEMS

(X) REMOVING OLD BRIDGE, STA. 6+928.000	1	L.S.
EXCAVATION FOR STRUCTURES, CULVERTS	1	L.S.
BREAKER RUN STONE	180	m^3
CONCRETE MASONRY, CULVERTS	243	m^3
HIGH STRENGTH BAR STEEL REINFORCEMENT, CULVERTS	14060	kg
HEAVY RIPRAP	70	m^3
STRUCTURE BACKFILL	1060	m^3
RUBBERIZED MEMBRANE WATERPROOFING	5	m^2

NON-BID ITEMS

FILLER	19 mm SIZE

(X) 9000mm CL. SPAN R.C. DECK GIR. SUPER. ON R.C. FULL RETAINING ABUT'S. ON SPREAD FTG'S.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 MILLIMETERS CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
ALL STATIONS AND ALL ELEVATIONS ARE IN METERS (m).
THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES SHALL BE THE EXISTING GROUNDLINE.
ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STIRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION OF THE SUBGRADE WITHIN THE LENGTH OF THE CULVERT.
THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.
THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT. MATERIALS AND FABRICATION SHALL BE IN ACCORDANCE WITH PRECAST REINFORCED CONCRETE BOX SECTIONS FOR CULVERTS, STORM DRAINS AND SEWERS AASHTO DESIGNATION M259, AND DIVISION 2 SECTION 27 OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, CURRENT EDITION, EXCEPT THAT THE CONCRETE MIXTURE SHALL CONTAIN NOT LESS THAN 335 KILOGRAMS OF PORTLAND CEMENT, BLENDED CEMENT OR PORTLAND CEMENT PLUS POZZOLANIC ADMIXTURE PER CUBIC METER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-139

STH 81 OVER TRIB. OF RATTLESNAKE CR.

COUNTY: GRANT		TOWN/~~CITY/VILLAGE~~: CASSVILLE	
DESIGN SPEC.: AASHTO 1996		LOAD: MS-18	CONST. SPEC.: 1996
DESIGNED BY COMP.:	DESIGN CKD.: FWG	DRAWN BY: COMP/JHG	PLANS CKD.: ZIRK

APPROVED: H.H. Anderson 10-15-98
STATE BRIDGE ENGINEER — DATE

LAYOUT

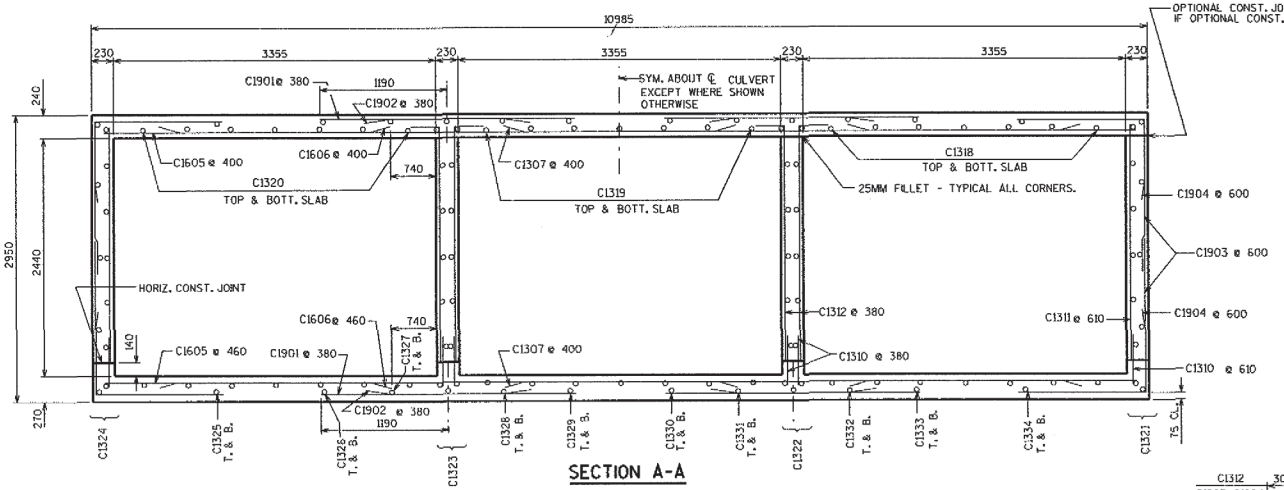
SHEET 1 OF 5

DATE: NOV.'97

LD. 5215-02-00

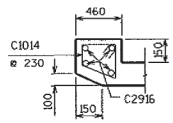
DISTRICT CONTACT MIKE RAMPETSREITER
A22139.DGN
SCALE = 3.84

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.2

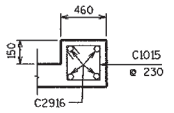


SECTION A-A

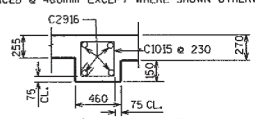
ALL HORIZ. BARS SHOWN IN SECTION A-A ARE SPACED @ 460mm EXCEPT WHERE SHOWN OTHERWISE.



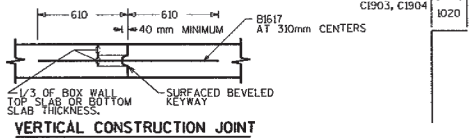
INLET HEADER (TOP)



OUTLET HEADER (TOP)



TYP. HEADER (BOTT)

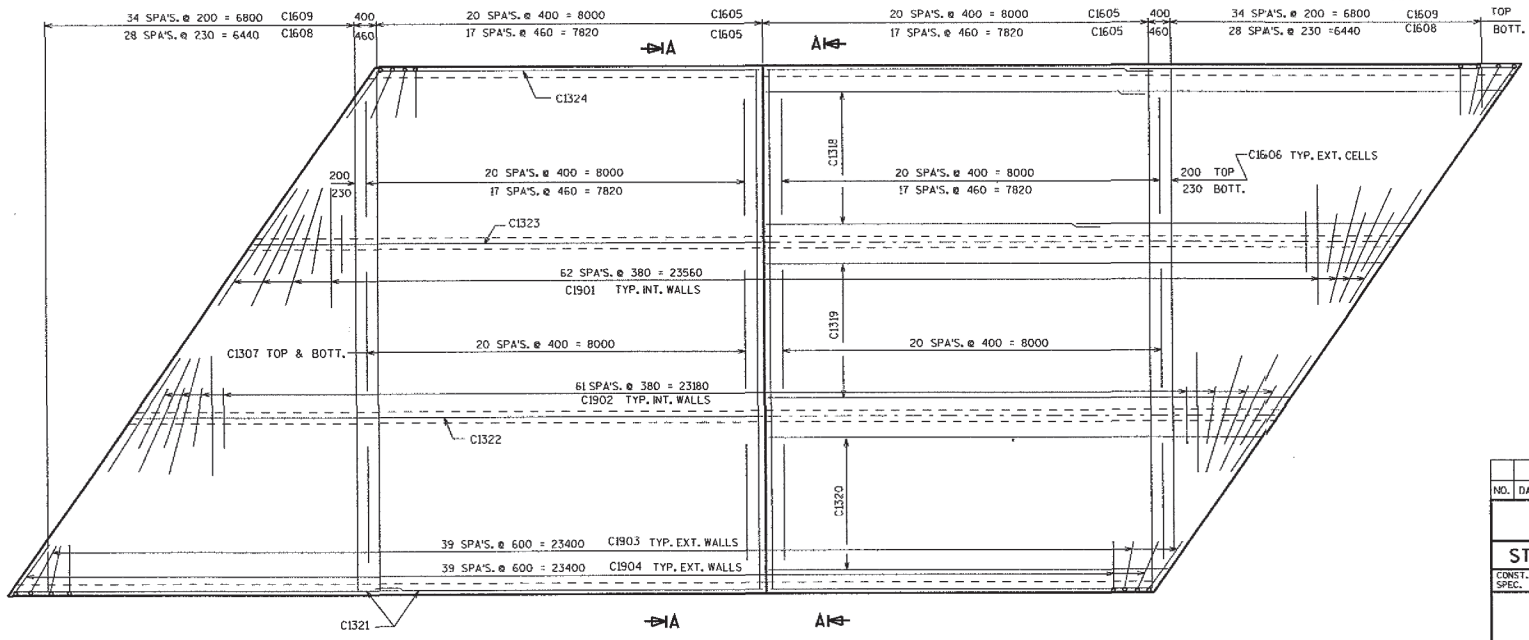


VERTICAL CONSTRUCTION JOINT

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
C1901		252	2490			TOP SLAB & BOTT. SLAB TRANS.
C1902		248	1240			TOP & BOTT. SLAB TRANS. SYM. ABOUT ℄ INT. WALL
C1903		160	2640	X		CORNERS
C1904		160	1960	X		CORNERS
C1605		78	10820			TOP SLAB & BOTT. SLAB TRANS.
C1606		156	2440			TOP SLAB & BOTT. SLAB TRANS.
C1307		84	2180			TOP SLAB & BOTT. SLAB TRANS.
C1608		58	5435		⚠	BOTT. SLAB TRANS.
C1609		70	5680		⚠	TOP SLAB TRANS.
C1310		330	610			WALLS VERT. DOWELS
C1311		78	2490			EXT. WALLS VERT.
C1312		252	2790	X		INT. WALLS VERT.
C1014		58	1250	X		INLET HEADER TOP
C1015		174	1330	X		HEADERS
C2916		16	13300			HEADERS
C1617		110	1220			CONST. JOINT DOWEL
C1318		56	7625		⚠	SLABS HORIZ.
C1319		28	11810		⚠	SLABS HORIZ.
C1320		28	9280		⚠	SLABS HORIZ.
C1321		48	7965			WALLS HORIZ.
C1322		32	12970			WALLS HORIZ.
C1323		32	10460			WALLS HORIZ.
C1324		24	7050			WALLS HORIZ.
C1325		2	8640			SLABS HORIZ.
C1326		2	9630			SLABS HORIZ.
C1327		2	10040			SLABS HORIZ.
C1328		2	10880			SLABS HORIZ.
C1329		2	11290			SLABS HORIZ.
C1330		2	12140			SLABS HORIZ.
C1331		4	6500			SLABS HORIZ.
C1332		4	6920			SLABS HORIZ.
C1333		4	7120			SLABS HORIZ.
C1334		4	7680			SLABS HORIZ.

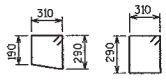
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
C1608	2 SERIES OF 29	835 TO 10035
C1609	2 SERIES OF 35	825 TO 10535
C1318	8 SERIES OF 7	6890 TO 8360
C1319	4 SERIES OF 7	10870 TO 12750
C1320	4 SERIES OF 7	8310 TO 10250

BUNDLE AND TAG EACH SERIES SEPARATELY.



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-139

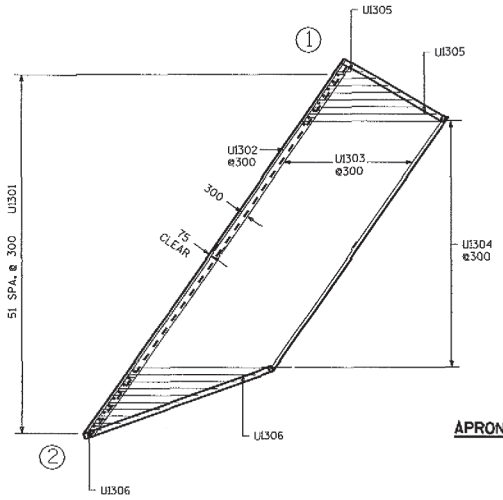
CONST. SPEC.	1996	DRAWN BY	JHG	PLANS CK'D.	ZMK

BOX DETAILS

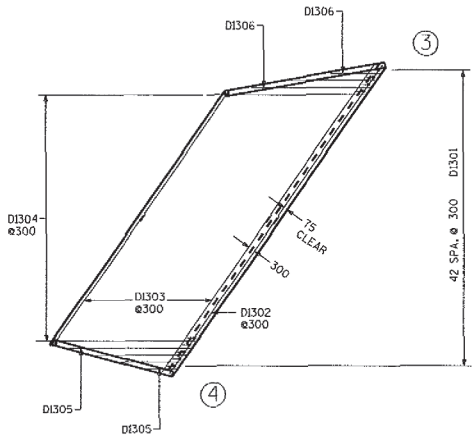
SHEET 2

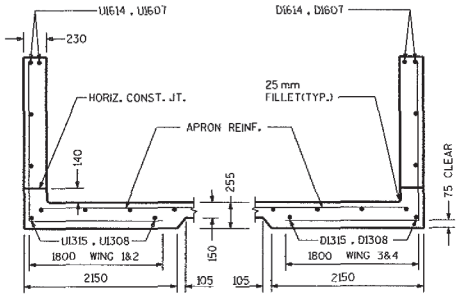
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STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.3

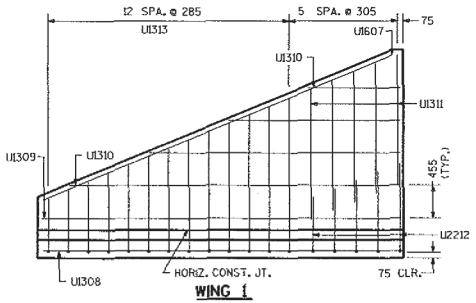


APRON REINF.

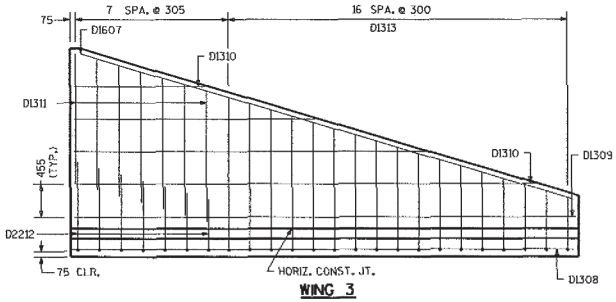




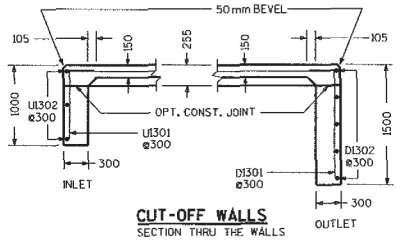
SECTION THRU WINGS
AT RIGHT ANGLES TO WING WALLS



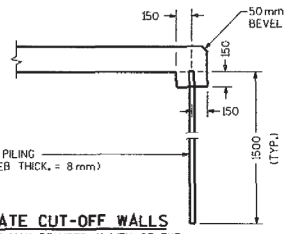
WING 1



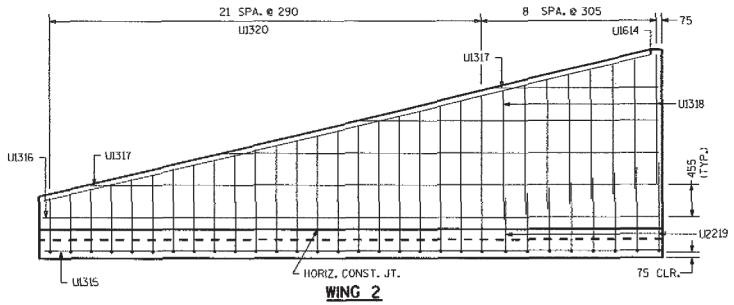
WING 3



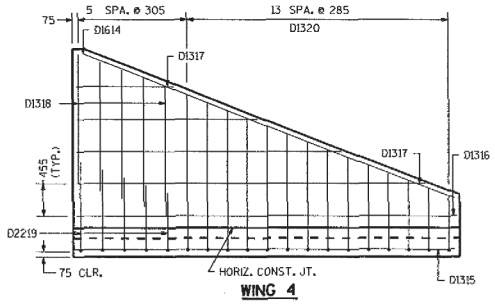
CUT-OFF WALLS
SECTION THRU THE WALLS



ALTERNATE CUT-OFF WALLS
THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC. CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONC. CUT-OFF WALLS.



WING 2



WING 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-139

CONST. SPEC.	1996	DRAWN BY	COMP/JHC	PLANS CK'D.	ZIRK

APRON DETAILS

SHEET 3

BR

STATE PROJECT NUMBER	SHEET NO.
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BILL OF BARS — 2045 Kg

THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF AN L - SHAPED BAR.

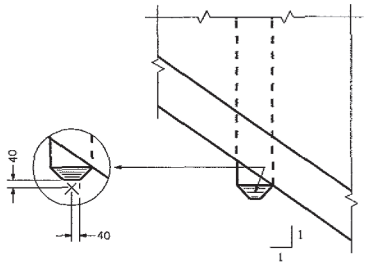
BAR MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U1301	52	1150	300		INLET APRON AND CUTOFF WALL
U1302	6	10200			INLET APRON AND CUTOFF WALL
U1303	32	8410		*	" APRON
U1304	36	6935			" APRON
U1305	7	3410		*	" APRON
U1306	9	3070		*	" APRON
U1607	2	5380			WING 1 -HORIZONTAL
U1308	2	5195			WING " -HORIZONTAL-APRON
U1309	1	5015			WING " -HORIZONTAL
U1310	4	2950		*	WING " -HORIZONTAL
U1311	5	1830			WING " -VERTICAL
U2212	5	2810	1800	*	WING " -VERTICAL
U1313	13	3235	1800	*	WING " -VERTICAL
U1614	2	8795			WING 2 -HORIZONTAL
U1315	2	8780			WING " -HORIZONTAL-APRON
U1316	1	8600			WING " -HORIZONTAL
U1317	4	5110		*	WING " -HORIZONTAL
U1318	8	1830			WING " -VERTICAL
U2219	8	2800	1800	*	WING " -VERTICAL
U1320	22	3250	1800	*	WING " -VERTICAL
D1301	43	1650	300		OUTLET APRON AND CUTOFF WALL
D1302	10	8270			OUTLET APRON AND CUTOFF WALL
D1303	32	7540		*	" APRON
D1304	36	6935			" APRON
D1305	4	3275		*	" APRON
D1306	3	3660		*	" APRON
D1607	2	7245			WING 3 -HORIZONTAL
D1308	2	7170			WING " -HORIZONTAL-APRON
D1309	1	6995			WING " -HORIZONTAL
D1310	4	4145		*	WING " -HORIZONTAL
D1311	7	1830			WING " -VERTICAL
D2212	7	2785	1800	*	WING " -VERTICAL
D1313	17	3230	1800	*	WING " -VERTICAL
D1614	2	5640			WING 4 -HORIZONTAL
D1315	2	5485			WING " -HORIZONTAL-APRON
D1316	1	5295			WING " -HORIZONTAL
D1317	4	3120		*	WING " -HORIZONTAL
D1318	5	1830			WING " -VERTICAL
D2219	5	2825	1800	*	WING " -VERTICAL
D1320	14	3250	1800	*	WING " -VERTICAL

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

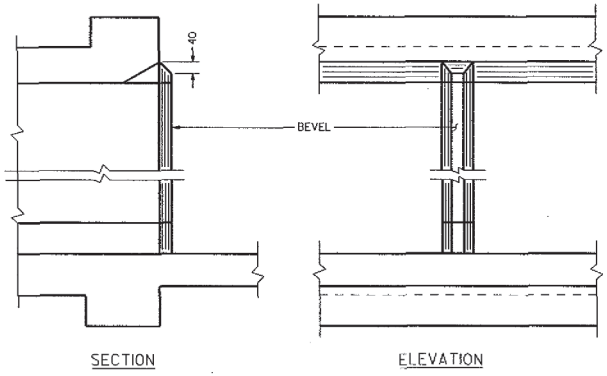
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
U1303	2 SERIES OF 16	6835 TO 9980
U1305	1 SERIES OF 7	1185 TO 5635
U1306	1 SERIES OF 9	575 TO 5565
U1310	1 SERIES OF 4	1290 TO 4615
U2212	1 SERIES OF 5	2570 TO 3050
U1313	1 SERIES OF 13	2500 TO 3970
U1317	1 SERIES OF 4	2265 TO 7960
U2219	1 SERIES OF 8	2550 TO 3050
U1320	1 SERIES OF 22	2500 TO 4000
D1303	2 SERIES OF 16	6810 TO 8270
D1305	1 SERIES OF 4	1250 TO 5305
D1306	1 SERIES OF 3	2140 TO 5180
D1310	1 SERIES OF 4	1830 TO 6460
D2212	1 SERIES OF 7	2525 TO 3050
D1313	1 SERIES OF 17	2500 TO 3960
D1317	1 SERIES OF 4	1365 TO 4875
D2219	1 SERIES OF 5	2600 TO 3050
D1320	1 SERIES OF 14	2500 TO 4000

BUNDLE AND TAG EACH SERIES SEPARATELY.

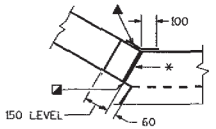


PLAN



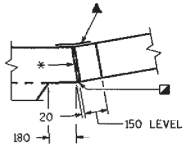
SECTION ELEVATION

INLET NOSE DETAILS

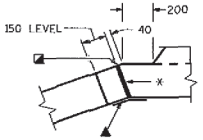


CORNER 1

* 19 mm FILLER TYP. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING. DO NOT RUN ANY STEEL THRU JOINT FILLER.



CORNER 3

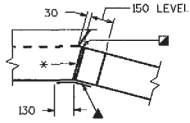


CORNER 2

25 mm BEVEL TYP.

▲ 457 mm RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

CORNER DETAILS



CORNER 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-139

CONST. SPEC.	DRAWN BY	PLANS CK'D.
1996	COMP/JHC	ZIRK

DETAILS

SHEET 4

BR

STATE PROJECT NUMBER	SHEET NO.
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ABBREVIATIONS

F—Fine M—Medium C—Coarse
Wa—Weathered So—Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone, Sand, Peat, Limestone, Gravel, Clay, Igneous Rock

LEGEND OF PROBING

Probing No.
Sta.
Elevation
7 Average Blows Per 305mm
Refusal 95/152

95/152=95 Blows for 152mm Penetration
Probing taken with a 159.1Kg Wt. Falling 457mm on a 51mm O.D. Point.

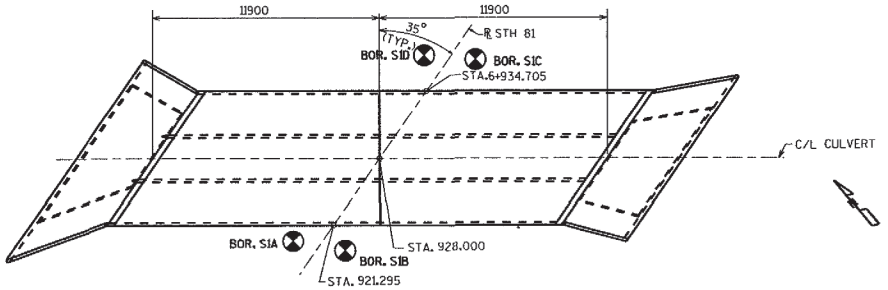
LEGEND OF BORING

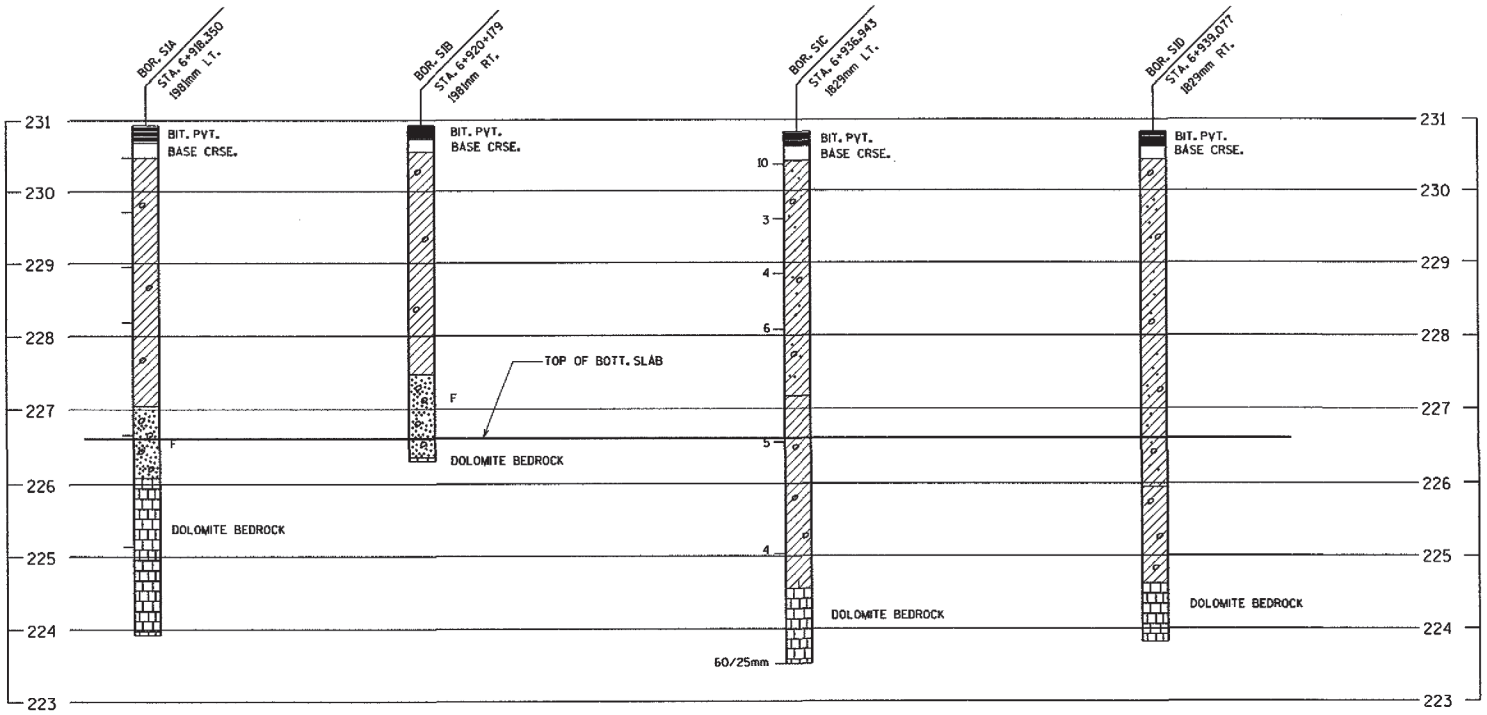
Boring No.
Sta.
Elev.
Unconfined Strength Kg/cm² → 7.7 7
Blows Per 305mm Using 63.6 Kg Wt. Falling 762mm
Wash Sample
Shelby Tube — S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F
Boulders or Cobbles
Sand
Silty Clay
So
Limestone

Unless otherwise specified, the blows per 305mm at the locations indicated are based on driving a 51mm O.D. x 35mm I.D. split spoon sampler with a 63.6Kg hammer having a free fall of 762mm. The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.





NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-139

CONST. SPEC.	DRAWN BY	PLANS CK'D.
1996	JHC	

SUBSURFACE EXPLORATION

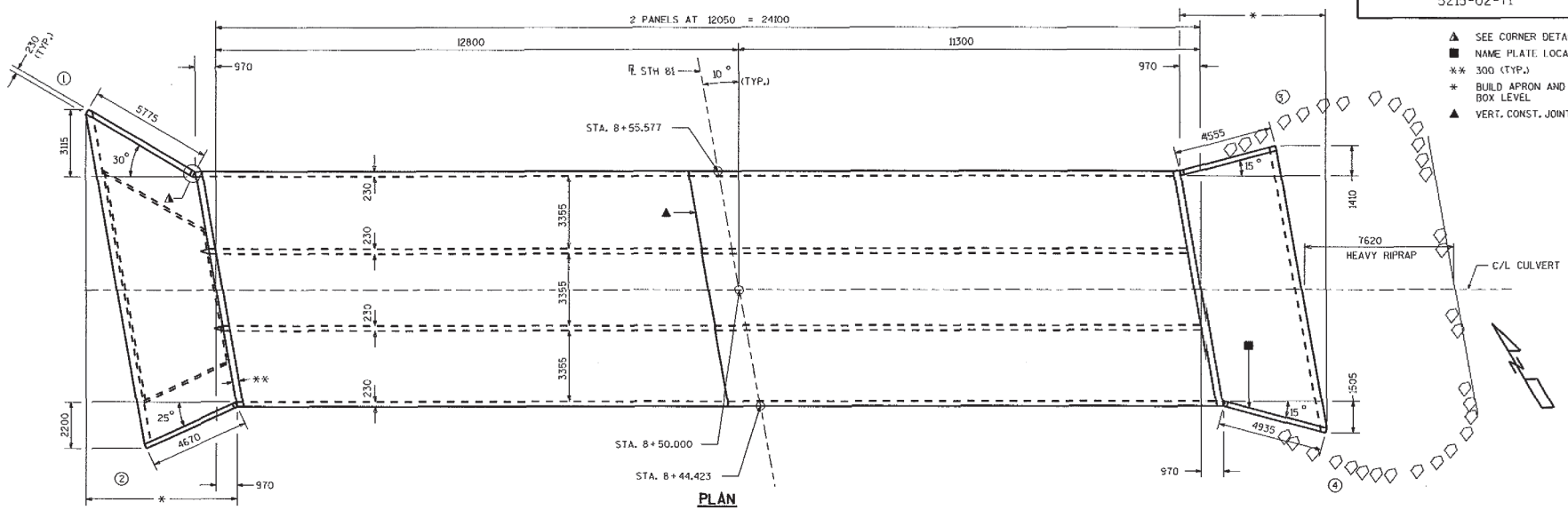
SHEET 5

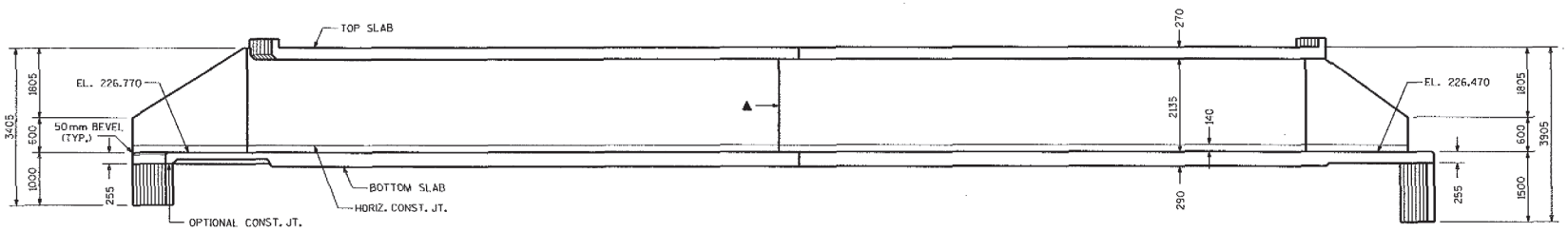
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STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.6

▲ SEE CORNER DETAILS
■ NAME PLATE LOCATION
** 300 (TYP.)
* BUILD APRON AND END OF BOX LEVEL
▲ VERT. CONST. JOINT





INLET — ELEVATION (INTERIOR WALLS NOT SHOWN) — OUTLET

LIST OF DRAWINGS

1. LAYOUT
2. BOX DETAILS
3. APRON DETAILS
4. DETAILS
5. SUBSURFACE EXPLORATION

DESIGN DATA

LIVELOAD: MS18
EARTHLOAD: DESIGNED FOR 2.6 METERS OF FILL.
STRENGTH DESIGN METHOD:
CONCRETE MASONRY — f'_c = 24 MPa
HIGH STRENGTH BAR STEEL REINFORCEMENT — f_y = 420 MPa

TRAFFIC VOLUME

STH 81
A.D.T. = 900 (2016)
R.D.S. = 90 Km/hr

HYDRAULIC DATA

100 YEAR FREQUENCY
Q_{100} = 45.3 m^3/s
VEL. = 3.8 m/s
HW. = EL. 228.63 m
DRAINAGE AREA = 7.8 km^2
OVERTOPPING RDWY. = N.A.

TOTAL ESTIMATED QUANTITIES

BID ITEMS

(X)	REMOVING OLD BRIDGE, STA. 8+50.000	1	L.S.
	EXCAVATION FOR STRUCTURES, CULVERTS	1	L.S.
	CONCRETE MASONRY, CULVERTS	239	m^3
	HIGH STRENGTH BAR STEEL REINFORCEMENT, CULVERTS	12800	kg
	HEAVY RIPRAP	80	m^3
	STRUCTURE BACKFILL	1515	m^3
	RUBBERIZED MEMBRANE WATERPROOFING	5	m^2

NON-BID ITEMS

FILLER	19 mm SIZE	

(X) 7824mm CL. SPAN R.C. DECK GIR. SUPER. ON R.C. FULL RETAINING ABUT'S. ON SPREAD FTG'S.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 MILLIMETERS CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
ALL STATIONS AND ALL ELEVATIONS ARE IN METERS (m).
THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES SHALL BE THE EXISTING GROUNDLINE.
ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION OF THE SUBGRADE WITHIN THE LENGTH OF THE CULVERT.
THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.
THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT. MATERIALS AND FABRICATION SHALL BE IN ACCORDANCE WITH PRECAST REINFORCED CONCRETE BOX SECTIONS FOR CULVERTS, STORM DRAINS AND SEWERS AASHTO DESIGNATION M259, AND DIVISION 2 SECTION 27 OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, CURRENT EDITION, EXCEPT THAT THE CONCRETE MIXTURE SHALL CONTAIN NOT LESS THAN 335 KILOGRAMS OF PORTLAND CEMENT, BLENDED CEMENT OR PORTLAND CEMENT PLUS POZZOLANIC ADMIXTURE PER CUBIC METER.

BRIDGE OFFICE CONTACTS :
FINN HUBBARD (608) 266-8489
JERRY ZIRK (608) 266-5163

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-140

STH 81 OVER FLAT ROCK CREEK

COUNTY GRANT	TOWN ~~CITY, VILLAGE~~ CASSVILLE
DESIGN SPEC. AASHTO 1996	LOAD MS18 / CONST. SPEC. 1996
DESIGNED BY COMP. / DESIGN CK'D. COMP/FWG / DRAWN BY COMP/JHG / PLANS CK'D. ZIRK	
APPROVED STATE BRIDGE ENGINEER — DATE 10-15-98	

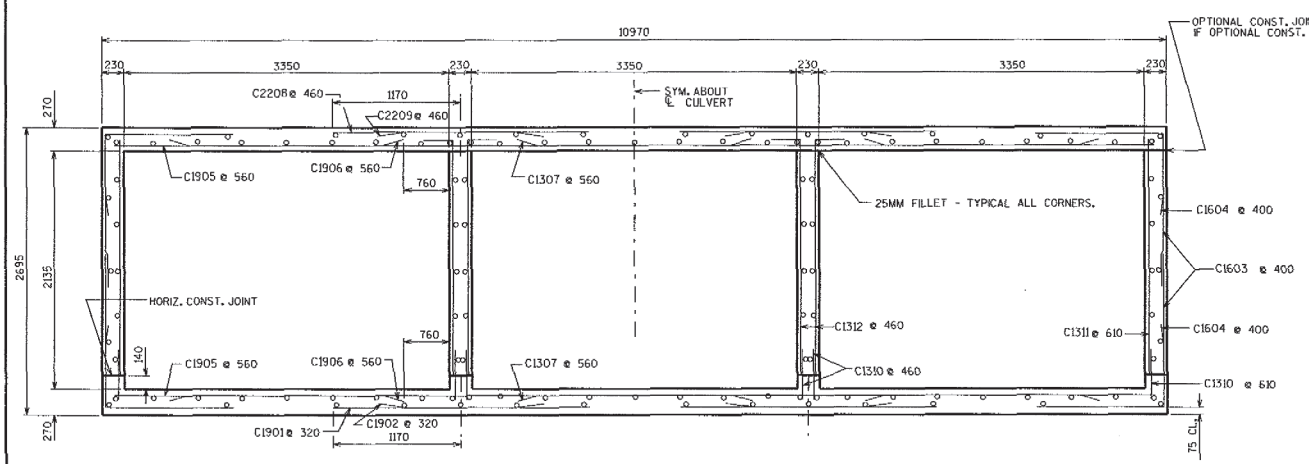
LAYOUT — SHEET 1 OF 5 — DATE: NOV'97

I.D. 5215-02-00

DISTRICT CONTACT MIKE RAMPETSREITER

A22140.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.7



SECTION A-A

ALL HORIZ. BARS SHOWN IN SECTION A-A ARE C1313 BARS.
C1313 SPACING IS 460mm EXCEPT WHERE SHOWN OTHERWISE.

BILL OF BARS

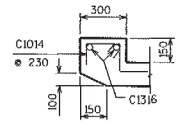
NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
C1901		152	2440			BOTT. SLAB TRANS.
C1902		148	1350			BOTT. SLAB TRANS. SYM. ABOUT ℄ INT. WALL
C1603		248	2310	X		CORNERS
C1604		248	1650	X		CORNERS
C1905		88	11000			TOP SLAB & BOTT. SLAB TRANS.
C1906		176	2540			TOP SLAB & BOTT. SLAB TRANS.
C1307		88	2210			TOP SLAB & BOTT. SLAB TRANS.
C2208		108	2440			TOP SLAB TRANS.
C2209		104	1350			TOP SLAB TRANS. SYM. ABOUT ℄ INT. WALL
C1310		288	610			WALLS VERT. DOWELS
C1311		80	2210			EXT. WALLS VERT.
C1312		208	2510	X		INT. WALLS VERT.
C1313		236	11950			SLABS & WALLS HORIZ.
C1014		48	640	X		INLET HEADER TOP
C1015		48	740	X		HEADERS
C1316		5	11000			HEADERS
C1617		110	1220			CONST. JOINT DOWEL

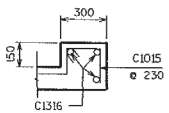
A
C1603 30 SPA'S. @ 400 = 12000
C1604 30 SPA'S. @ 400 = 12000
C1313
TYP. ALL CORNERS
TOP & BOTT 21 SPA'S. @ 560 = 11760 C1905
TOP & BOTT 20 SPA'S. @ 560 = 11200 C1906
TYP. EXT. CELLS
TOP & BOTT 21 SPA'S. @ 560 = 11760 C1307
TOP BOTT. 26 SPA'S. @ 460 = 11960 C2208
37 SPA'S. @ 320 = 11840 C1901
TYP. INT. WALLS
TOP BOTT. 25 SPA'S. @ 460 = 11500 C2209
36 SPA'S. @ 320 = 11520 C1902
A

PANEL PLAN

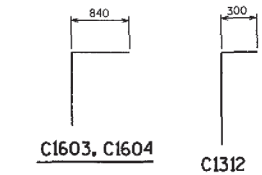
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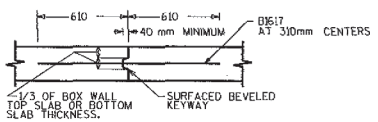
INLET HEADER (TOP)



OUTLET HEADER (TOP)







VERTICAL CONSTRUCTION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-140

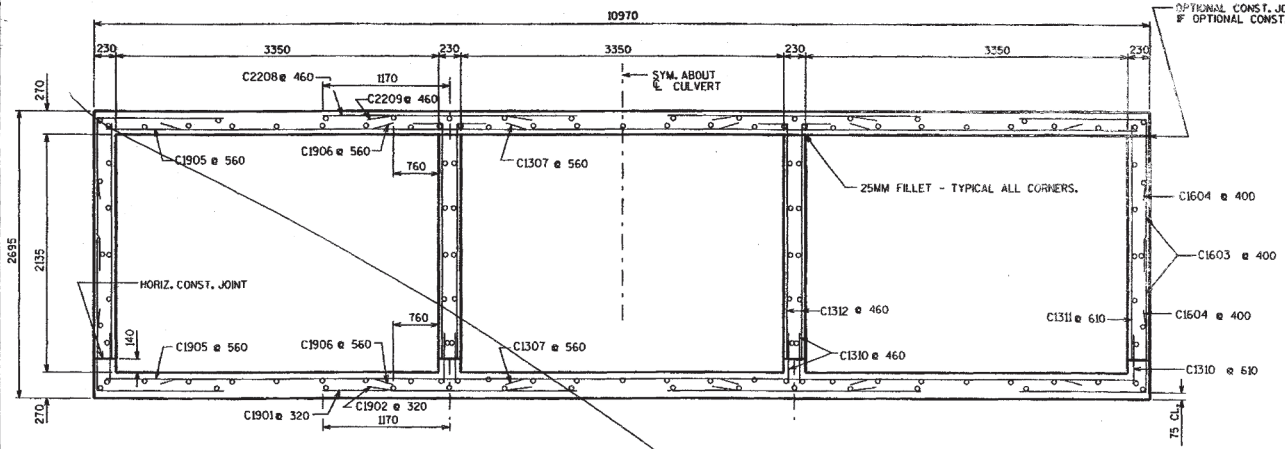
CONST. SPEC.	1996	DRAWN BY	JHG	PLANS CK'D.	ZMK

BOX DETAILS

SHEET 2

FILE= 140BX.DGN
SCALE = 50

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.7



SECTION A-A

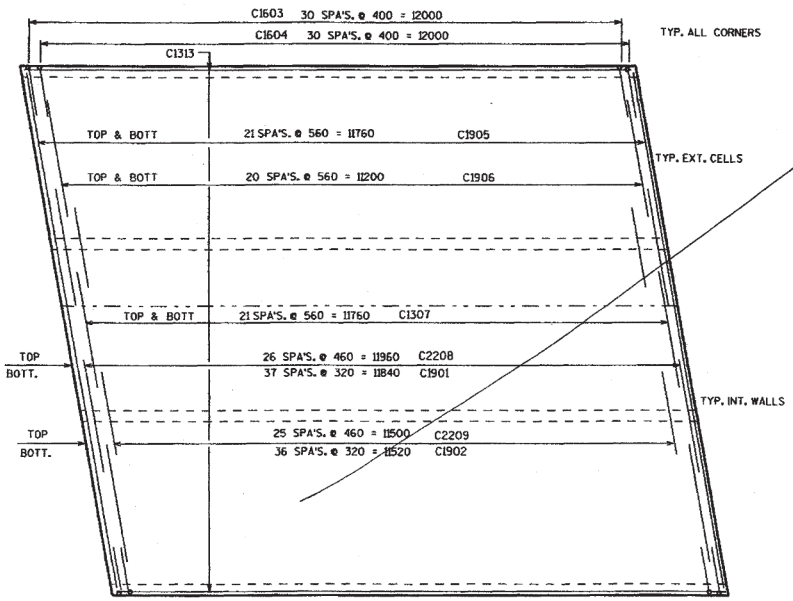
ALL HORIZ. BARS SHOWN IN SECTION A-A ARE C1313 BARS.
C1313 SPACING IS 460mm EXCEPT WHERE SHOWN OTHERWISE.

BILL OF BARS

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
C1901		152	2440			BOTT. SLAB TRANS.
C1902		148	1350			BOTT. SLAB TRANS. SYM. ABOUT ℄ INT. WALL
C1603		248	2310	X		CORNERS
C1604		248	1650	X		CORNERS
C1905		88	11000			TOP SLAB & BOTT. SLAB TRANS.
C1906		176	2540			TOP SLAB & BOTT. SLAB TRANS.
C1307		88	2210			TOP SLAB & BOTT. SLAB TRANS.
C2208		108	2440			TOP SLAB TRANS.
C2209		104	1350			TOP SLAB TRANS. SYM. ABOUT ℄ INT. WALL
C1310		288	610			WALLS VERT. DOWELS
C1311		80	2210			EXT. WALLS VERT.
C1312		208	2510	X		INT. WALLS VERT.
C1313		236	11950			SLABS & WALLS HORIZ.
C1014		48	640	X		INLET HEADER TOP
C1015		48	740	X		HEADERS
C1316		5	11000			HEADERS
C1617		110	1220			CONST. JOINT DOWEL

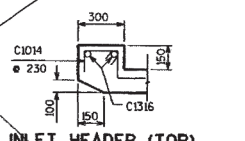
A



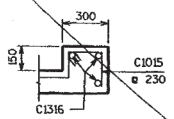
A

PANEL PLAN

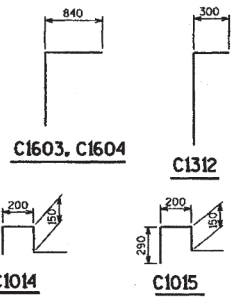
(2 REQ'D)

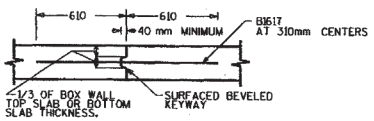


INLET HEADER (TOP)



OUTLET HEADER (TOP)





VERTICAL CONSTRUCTION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-140

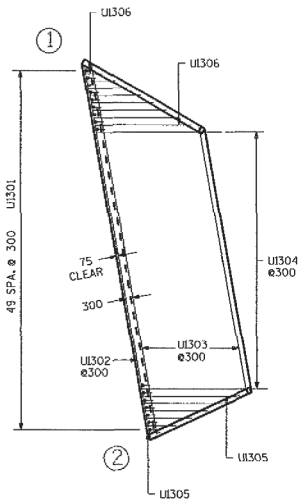
CONST. SPEC.	1996	DRAWN BY	JHG	PLANS CK'D.	ZIMK

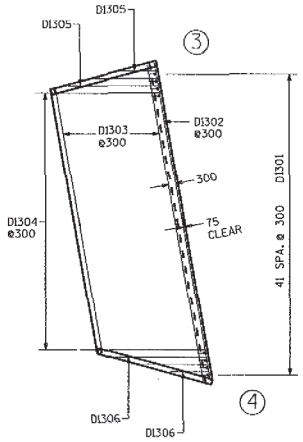
BOX DETAILS

SHEET 2

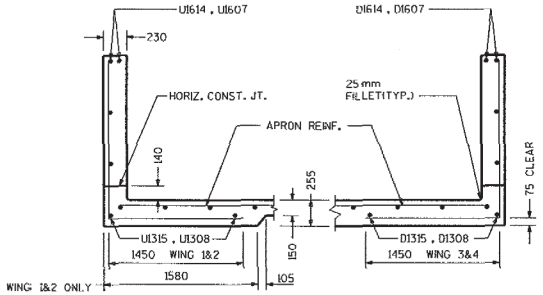
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SCALE = 50

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.8



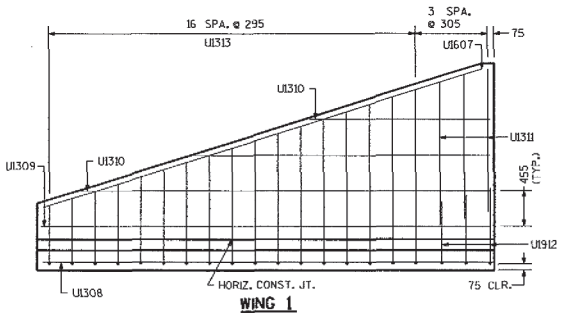


APRON REINF.

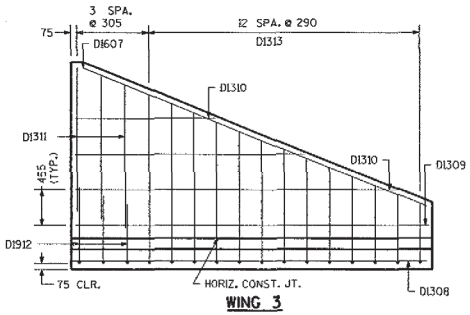


SECTION THRU WINGS

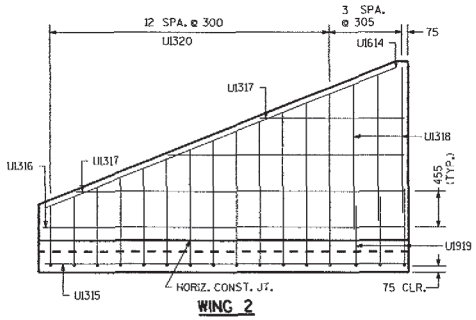
AT RIGHT ANGLES TO WING WALLS



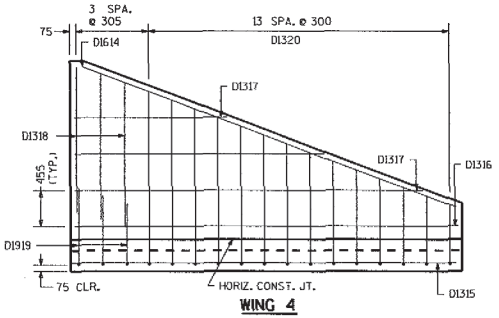
WING 1



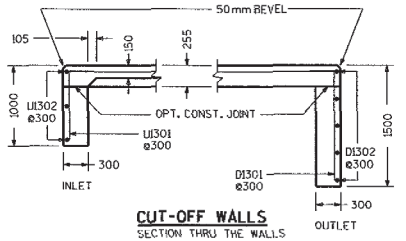
WING 3



WING 2

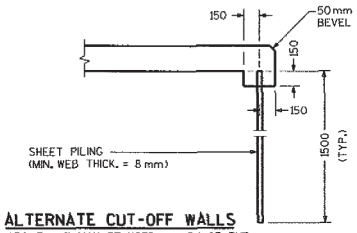


WING 4



CUT-OFF WALLS

SECTION THRU THE WALLS



ALTERNATE CUT-OFF WALLS

THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC. CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONC. CUT-OFF WALLS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-140

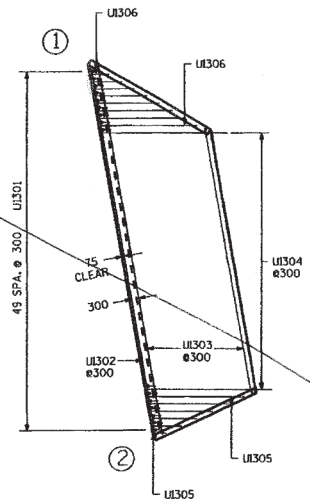
CONST. SPEC.	1996	DRAWN BY COMP/JHG	PLANS CKD. ZIRK

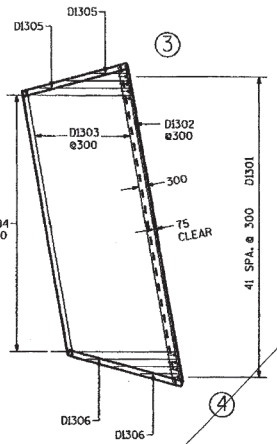
APRON DETAILS

SHEET 3

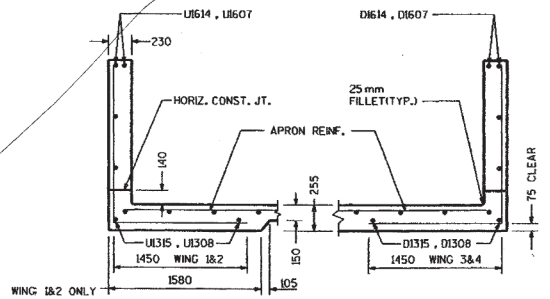
A22140.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.8



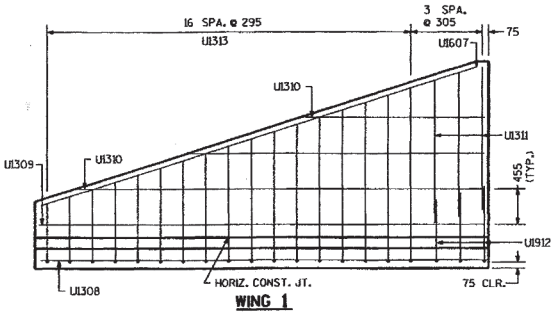


APRON REINF.

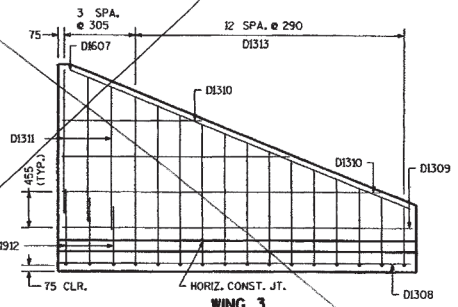


SECTION THRU WINGS

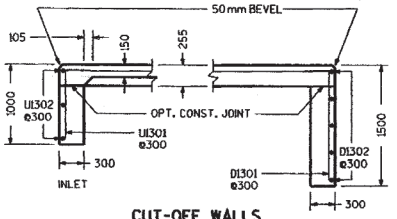
AT RIGHT ANGLES TO WING WALLS



WING 1

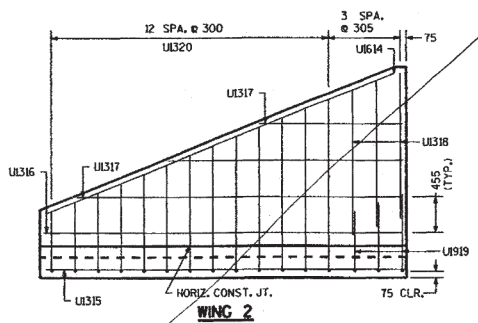


WING 3

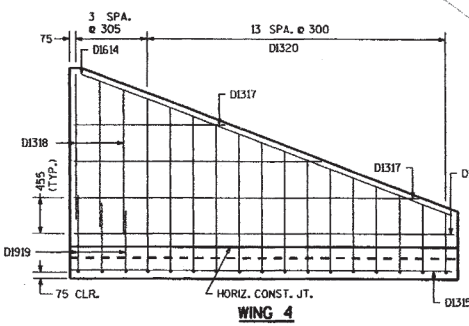


CUT-OFF WALLS

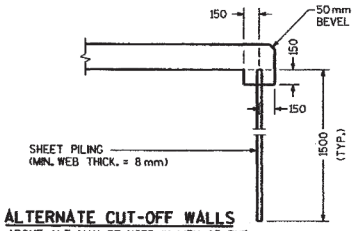
SECTION THRU THE WALLS



WING 2



WING 4



ALTERNATE CUT-OFF WALLS

THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC. CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONC. CUT-OFF WALLS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-140

CONST. SPEC.	1996	DRAWN BY COMP/JHG	PLANS CK'D. ZHK

APRON DETAILS

SHEET 3

A22140.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.9

BILL OF BARS

THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF AN L - SHAPED BAR.

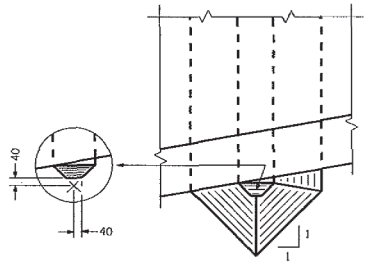
BAR MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U1301	50	1150	300		INLET APRON AND CUTOFF WALL
U1302	6	8000			INLET APRON AND CUTOFF WALL
U1303	28	6865		*	" APRON
U1304	36	5250			" APRON
U1305	6	2240		*	" APRON
U1306	8	2375		*	" APRON
U1607	2	5900			WING 1 -HORIZONTAL
U1308	2	5850			WING " -HORIZONTAL-APRON
U1309	1	5670			WING " -HORIZONTAL
U1310	3	3725		*	WING " -HORIZONTAL
U1311	3	1830			WING " -VERTICAL
U1912	3	2340	1450	*	WING " -VERTICAL
U1313	17	2915	1450	*	WING " -VERTICAL
U1614	2	4860			WING 2 -HORIZONTAL
U1315	2	4745			WING " -HORIZONTAL-APRON
U1316	1	4570			WING " -HORIZONTAL
U1317	3	2985		*	WING " -HORIZONTAL
U1318	3	1830			WING " -VERTICAL
U1919	3	2320	1450	*	WING " -VERTICAL
U1320	13	2885	1450	*	WING " -VERTICAL
D1301	42	1650	300		OUTLET APRON AND CUTOFF WALL
D1302	10	6815			OUTLET APRON AND CUTOFF WALL
D1303	28	6255		*	" APRON
D1304	36	5250			" APRON
D1305	3	2610		*	" APRON
D1306	3	2710		*	" APRON
D1607	2	4755			WING 3 -HORIZONTAL
D1308	2	4635			WING " -HORIZONTAL-APRON
D1309	1	4455			WING " -HORIZONTAL
D1310	3	2910		*	WING " -HORIZONTAL
D1311	3	1830			WING " -VERTICAL
D1912	3	2315	1450	*	WING " -VERTICAL
D1313	13	2880	1450	*	WING " -VERTICAL
D1614	2	5110			WING 4 -HORIZONTAL
D1315	2	5010			WING " -HORIZONTAL-APRON
D1316	1	4835			WING " -HORIZONTAL
D1317	3	3160		*	WING " -HORIZONTAL
D1318	3	1830			WING " -VERTICAL
D1919	3	2325	1450	*	WING " -VERTICAL
D1320	14	2890	1450	*	WING " -VERTICAL

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

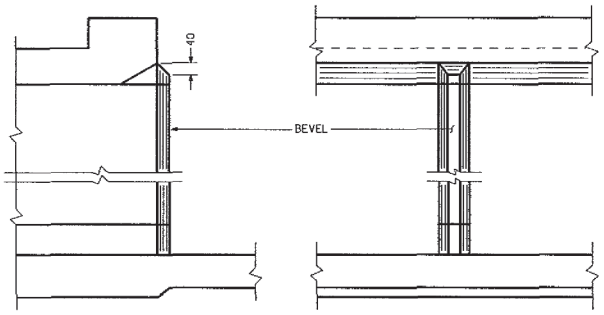
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
U1303	2 SERIES OF 14	5730 TO 8000
U1305	1 SERIES OF 6	470 TO 4010
U1306	1 SERIES OF 8	715 TO 4035
U1310	1 SERIES OF 3	2280 TO 5170
U1912	1 SERIES OF 3	2255 TO 2425
U1313	1 SERIES OF 17	2150 TO 3680
U1317	1 SERIES OF 3	1830 TO 4150
U1919	1 SERIES OF 3	2210 TO 2425
U1320	1 SERIES OF 13	2150 TO 3615
D1303	2 SERIES OF 14	5695 TO 6815
D1305	1 SERIES OF 3	1420 TO 3805
D1306	1 SERIES OF 3	1625 TO 3795
D1310	1 SERIES OF 3	1775 TO 4045
D1912	1 SERIES OF 3	2205 TO 2425
D1313	1 SERIES OF 13	2150 TO 3605
D1317	1 SERIES OF 3	1930 TO 4395
D1919	1 SERIES OF 3	2225 TO 2425
D1320	1 SERIES OF 14	2150 TO 3630

BUNDLE AND TAG EACH SERIES SEPARATELY.

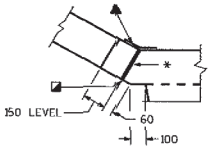


PLAN

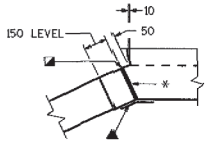


SECTION ELEVATION

INLET NOSE DETAILS



CORNER 1



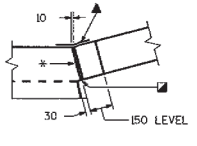
CORNER 2

* 19 mm FILLER TYP. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING. DO NOT RUN ANY STEEL THRU JOINT FILLER.

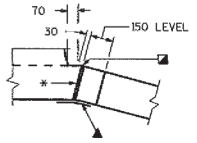
25 mm BEVEL TYP.

▲ 457 mm RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

CORNER DETAILS



CORNER 3



CORNER 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-140

CONST. SPEC.	DRAWN BY	PLANS CK'D.
1996	COMP/JHC	ZARK

DETAILS

SHEET 4

A22140.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.9

BILL OF BARS

THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF AN L - SHAPED BAR.

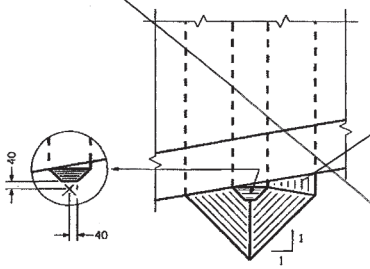
BAR MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U1301	50	1150	300		INLET APRON AND CUTOFF WALL
U1302	6	8000			INLET APRON AND CUTOFF WALL
U1303	28	6865		*	" APRON
U1304	36	5250			" APRON
U1305	6	2240		*	" APRON
U1306	8	2375		*	" APRON
U1607	2	5900			WING 1 -HORIZONTAL
U1308	2	5850			WING " -HORIZONTAL-APRON
U1309	1	5670			WING " -HORIZONTAL
U1310	3	3725		*	WING " -HORIZONTAL
U1311	3	1830			WING " -VERTICAL
U1912	3	2340	1450	*	WING " -VERTICAL
U1313	17	2915	1450	*	WING " -VERTICAL
U1614	2	4860			WING 2 -HORIZONTAL
U1315	2	4745			WING " -HORIZONTAL-APRON
U1316	1	4570			WING " -HORIZONTAL
U1317	3	2985		*	WING " -HORIZONTAL
U1318	3	1830			WING " -VERTICAL
U1919	3	2320	1450	*	WING " -VERTICAL
U1320	13	2885	1450	*	WING " -VERTICAL
D1301	42	1650	300		OUTLET APRON AND CUTOFF WALL
D1302	10	6815			OUTLET APRON AND CUTOFF WALL
D1303	28	6255		*	" APRON
D1304	36	5250			" APRON
D1305	3	2610		*	" APRON
D1306	3	2710		*	" APRON
D1607	2	4755			WING 3 -HORIZONTAL
D1308	2	4635			WING " -HORIZONTAL-APRON
D1309	1	4455			WING " -HORIZONTAL
D1310	3	2910		*	WING " -HORIZONTAL
D1311	3	1830			WING " -VERTICAL
D1912	3	2315	1450	*	WING " -VERTICAL
D1313	13	2880	1450	*	WING " -VERTICAL
D1614	2	5110			WING 4 -HORIZONTAL
D1315	2	5010			WING " -HORIZONTAL-APRON
D1316	1	4835			WING " -HORIZONTAL
D1317	3	3160		*	WING " -HORIZONTAL
D1318	3	1830			WING " -VERTICAL
D1919	3	2325	1450	*	WING " -VERTICAL
D1320	14	2890	1450	*	WING " -VERTICAL

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

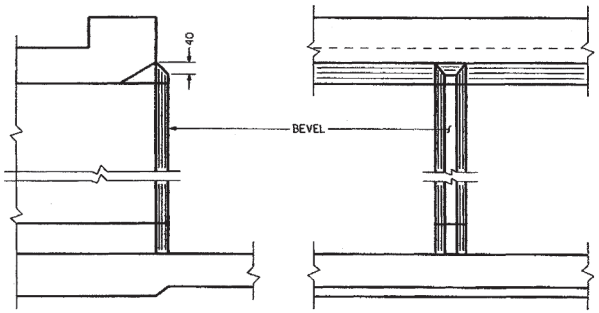
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
U1303	2 SERIES OF 14	5730 TO 8000
U1305	1 SERIES OF 6	470 TO 4010
U1306	1 SERIES OF 8	715 TO 4035
U1310	1 SERIES OF 3	2280 TO 5170
U1912	1 SERIES OF 3	2255 TO 2425
U1313	1 SERIES OF 17	2150 TO 3680
U1317	1 SERIES OF 3	1830 TO 4150
U1919	1 SERIES OF 3	2210 TO 2425
U1320	1 SERIES OF 13	2150 TO 3615
D1303	2 SERIES OF 14	5695 TO 6815
D1305	1 SERIES OF 3	1420 TO 3805
D1306	1 SERIES OF 3	1625 TO 3795
D1310	1 SERIES OF 3	1775 TO 4045
D1912	1 SERIES OF 3	2205 TO 2425
D1313	1 SERIES OF 13	2150 TO 3605
D1317	1 SERIES OF 3	1930 TO 4395
D1919	1 SERIES OF 3	2225 TO 2425
D1320	1 SERIES OF 14	2150 TO 3630

BUNDLE AND TAG EACH SERIES SEPARATELY.

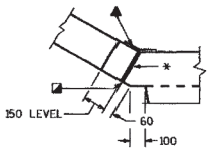


PLAN

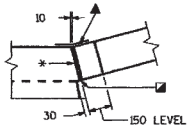


SECTION ELEVATION

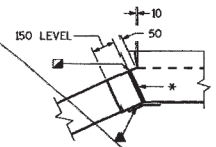
INLET NOSE DETAILS



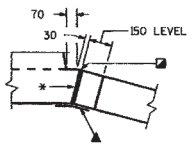
CORNER 1



CORNER 3



CORNER 2



CORNER 4

* 19mm FILLER TYP. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING. DO NOT RUN ANY STEEL THRU JOINT FILLER.

25mm BEVEL TYP.

▲ 457mm RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

CORNER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

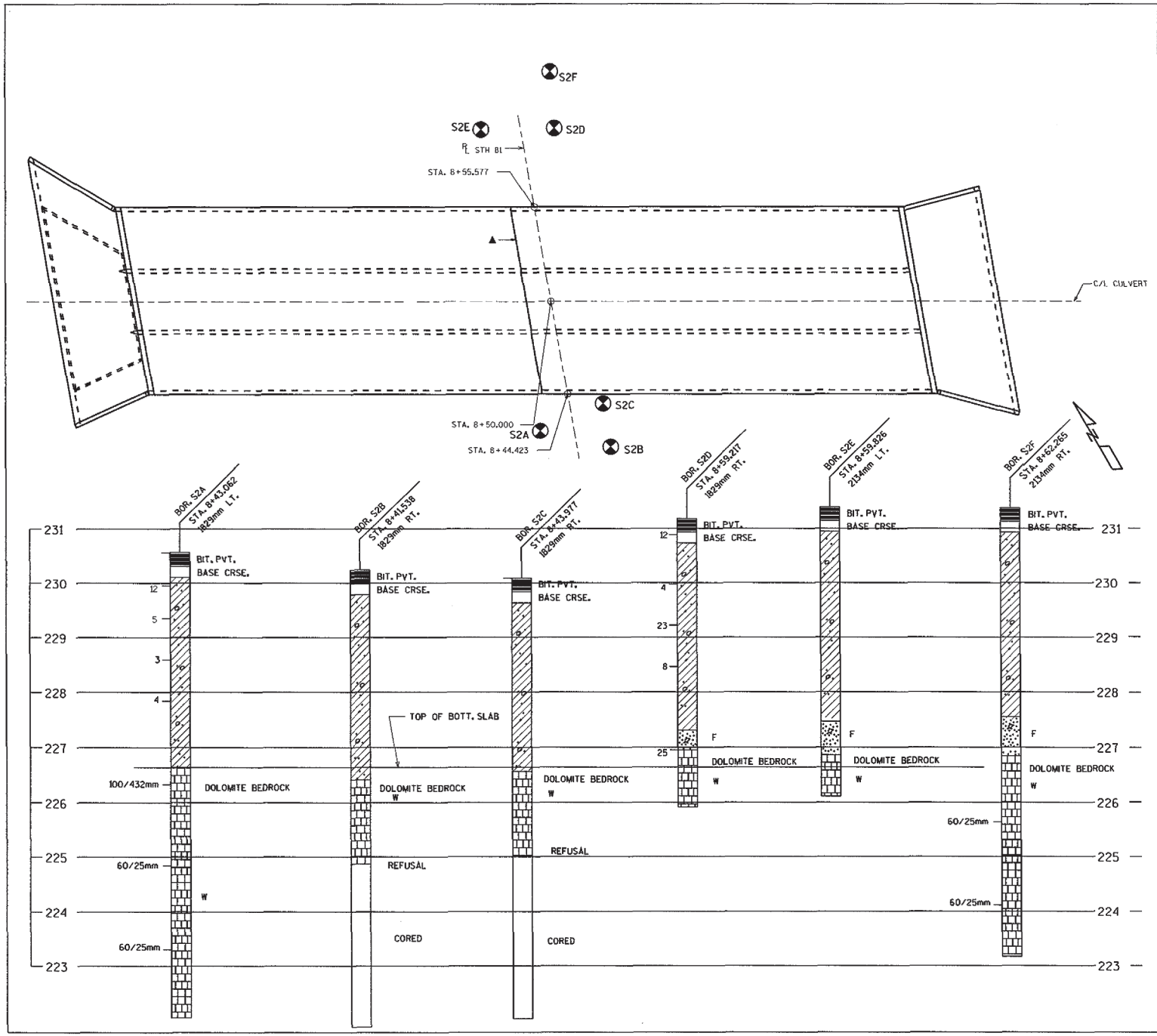
STRUCTURE B-22-140

CONST. SPEC.	DRAWN BY	PLANS CK'D.
1996	COMP/JHS	ZMK

DETAILS

SHEET 4

A22140.DGN



STATE PROJECT NUMBER	SHEET NO.
5215-00-71	8.10

ABBREVIATIONS

F—Fine M—Medium C—Coarse
Ws—Weathered So—Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone, Sand, Peat, Limestone, Gravel, Clay, Igneous Rock

LEGEND OF PROBING

Probing No.
Sta.
Elevation
95/152=95 Blows for 152mm Penetration
Probing taken with a 159.1Kg Wt. Falling 457mm on a 51mm O.D. Point.
7 Average Blows Per 305mm
Refusal 95/152

LEGEND OF BORING

Boring No.
Sta.
Elev.
Unconfined Strength Kg/cm²
7.7 7
Blows Per 305mm Using 63.6 Kg Wt. Falling 762mm
Wash Sample
Shelby Tube — S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F
Boulders or Cobbles
Sand
Silty Clay
So
Limestone

Unless otherwise specified, the blows per 305mm at the locations indicated are based on driving a 51mm O.D. x 35mm I.D. split spoon sampler with a 63.6Kg hammer having a free fall of 762mm. The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-140

CONST. SPEC.	DRAWN BY	PLANS CK'D.
1996	JHG	ZRK

SUBSURFACE EXPLORATION

SHEET 5

FILE= 140S01S
SCALE= 200

STATE PROJECT NUMBER	SHEET NO.
5215-00-71	8.10

ABBREVIATIONS

F—Fine M—Medium C—Coarse
Ws—Weathered So—Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone, Sand, Peat, Limestone, Gravel, Clay, Igneous Rock

LEGEND OF PROBING

Probing No.
Sta.
Elevation
7 Average Blows Per 305mm
Refusal 95/152

95/152=95 Blows for 152mm Penetration
Probing taken with a 159.1Kg Wt.
Falling 457mm on a 51mm O.D. Point.

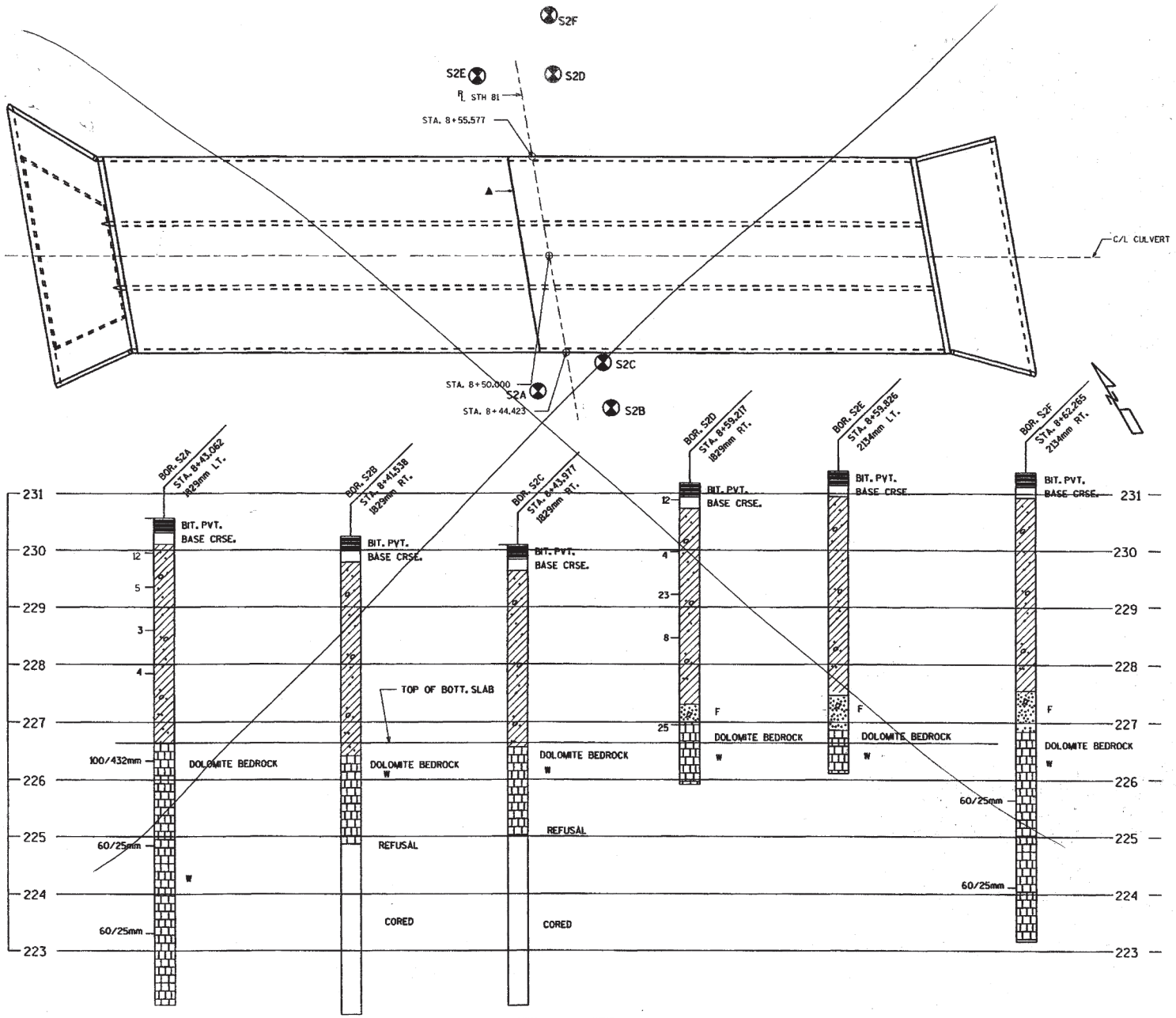
LEGEND OF BORING

Boring No.
Sta.
Elev.
Unconfined Strength Kg/cm²
7.7 7
Sandy Gravel
Blows Per 305mm Using 63.6 Kg Wt. Falling 762mm
Wash Sample
F
Boulders or Cobbles
Sand
Shelby Tube — S.T.
Ground Water Elevation
Silty Clay
No Ground Water Observed Above This Elevation
So
Limestone

Unless otherwise specified, the blows per 305mm at the locations indicated are based on driving a 51mm O.D. x 35mm I.D. split spoon sampler with a 63.6Kg hammer having a free fall of 762mm. The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-140

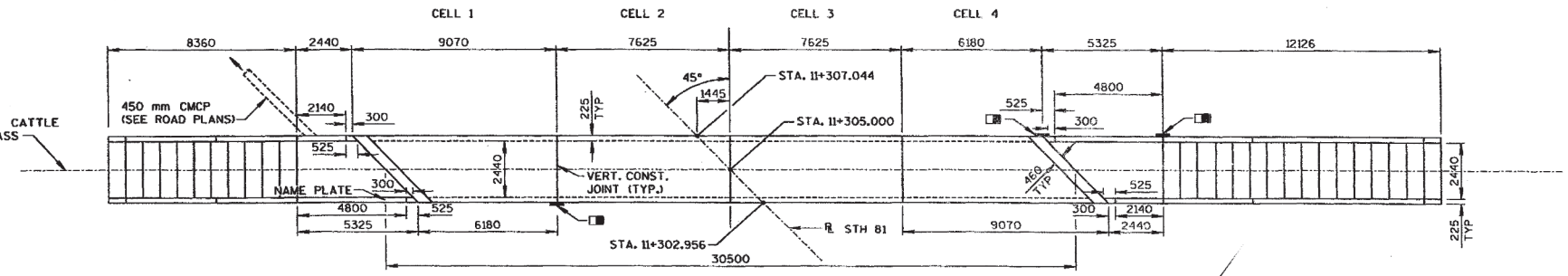
CONST. SPEC.	DRAWN BY	PLANS CK'D.
1996	JHC	ZLK

SUBSURFACE EXPLORATION

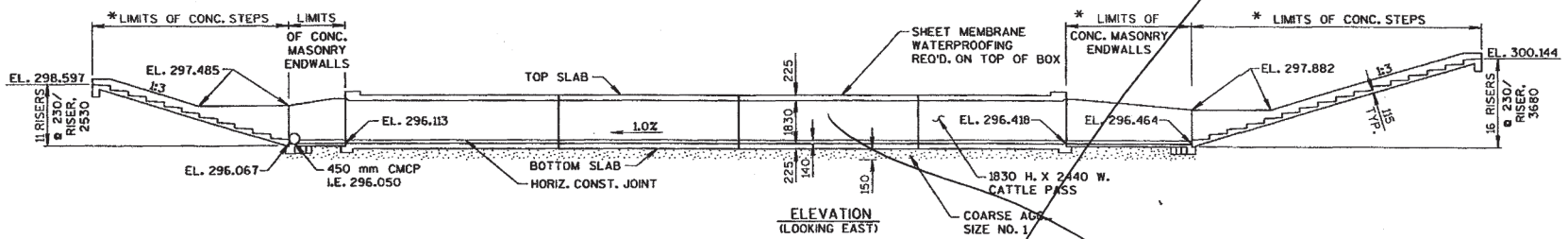
SHEET 5

FILE= 140soils
SCALE= 200

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.11



PLAN



ELEVATION
(LOOKING EAST)

DESIGN DATA

LIVE LOAD:
DESIGN RATING _____ MS18
EARTH LOAD:
DESIGNED FOR 1.0 METERS OF FILL
STRENGTH DESIGN METHOD:
CONCRETE MASONRY _____ f'c = 24 MPa
HIGH STRENGTH BAR STEEL REINFORCEMENT _____ fy = 420 MPa
TRAFFIC DATA:
STH 81
A.D.T. = 900 (2016)
R.D.S. = 90 km/hr

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BAR STEEL REINFORCEMENT SHALL BE INBEDDED 50 mm CLEAR UNLESS SHOWN OR OTHERWISE NOTED.

ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

ALL STATIONS AND ALL ELEVATIONS ARE IN METERS (m).

THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES SHALL BE THE EXISTING GROUNDLINE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION OF THE SUBGRADE WITHIN THE LENGTH OF THE CULVERT, ENDWALLS AND CONCRETE STEPS.

LEGEND

* SEE S.D.D. 8F3-3 DETAILS FOR PIPE CATTLE PASS CONCRETE ENDWALLS AND STEPS FOR ADDITIONAL STEP DIMENSIONS AND STEP/WALL REBAR

457 mm RUBBERIZED MEMBRANE WATEPROOFING SEAL ALL VERTICAL JOINTS ON O.S.F. OF BOX, ENDWALLS AND STEPS.

LIST OF DRAWINGS

1. GENERAL PLAN
2. BOX DETAILS
3. SUBSURFACE EXPLORATION

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	TOTAL
EXCAVATION FOR STRUCTURES, CULVERTS	L.S.	1
CONCRETE MASONRY, CULVERTS	m^3	66
HIGH-STRENGTH BAR STEEL REINFORCEMENT, CULVERTS	kg	5680
CONCRETE MASONRY, ENDWALLS	m^3	9
CONCRETE MASONRY, STEPS	m^2	60
STRUCTURE BACKFILL	m^3	790
RUBBERIZED MEMBRANE WATERPROOFING	m^2	12
SHEET MEMBRANE WATERPROOFING	m^2	95
COARSE AGGREGATE, SIZE NO. 1	m^3	18

BRIDGE OFFICE CONTACT: DAVID GENSON (608)266-8491

WISCONSIN JEFFREY L KNOWLES E-20645 Madison WI PROFESSIONAL ENGINEER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRAND ASSOCIATES
CONSULTING ENGINEERS
Madison, Wisconsin 53715
(608) 251-4843

STRUCTURE C-22-124

S.T.H. 81 OVER CATTLE PASS

COUNTY	TOWN/CITY/VILLAGE	
GRANT	BEETOWN	
DESIGN SPEC. AASHTO '96	LOAD MS18	CONST. SPEC. WISC 1996
DESIGNED BY CHD	DESIGN CK'D. JLK	DRAWN BY DNG	PLANS CK'D. JLK

APPROVED M.J. Anderson 11-10-98
CHIEF BRIDGE DESIGN ENGINEER DATE

GENERAL PLAN

SHEET 1 OF 3

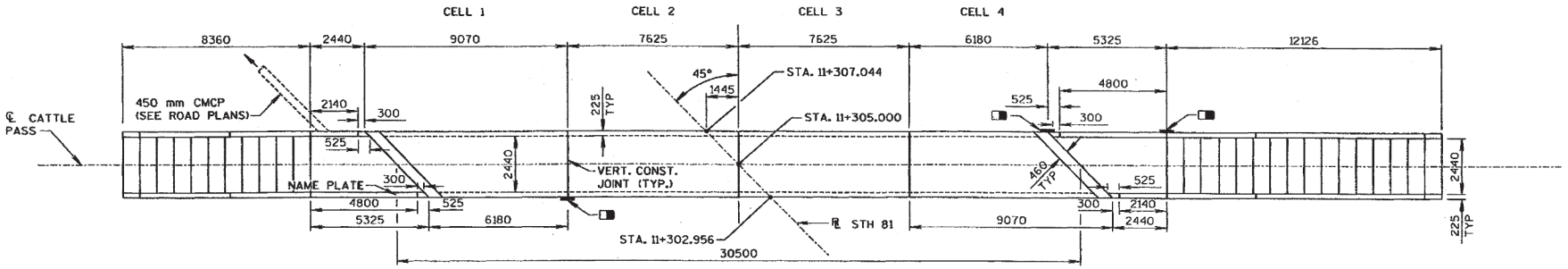
M

PLOT SCALE: ----------
PLOT NAME: ----------
REV. DATE: 9-28-98
ORIGINATOR: DNG
LEVELS ON = 1,2, 4,5,6,7,8, 9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

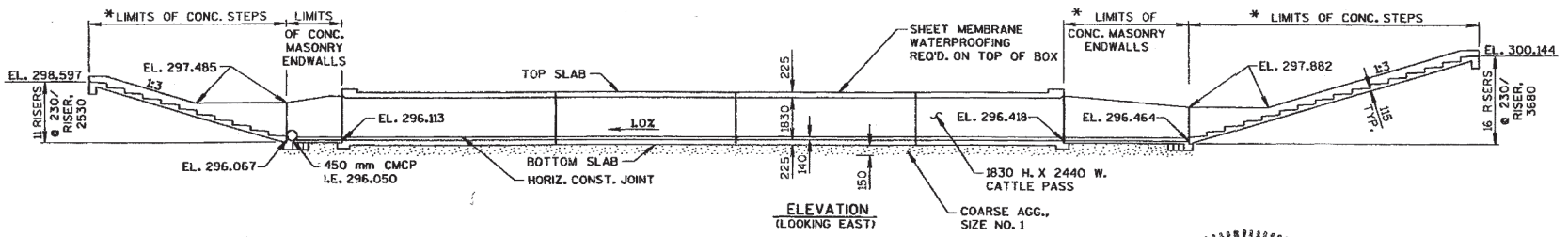
FILE NAME: s:\051--100\089\464\micro&box\genplan.dgn

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.11

1/26/99 – R1



PLAN



ELEVATION
(LOOKING EAST)

DESIGN DATA

LIVE LOAD:
DESIGN RATING ____ MS18
EARTH LOAD:
DESIGNED FOR 1.0 METERS OF FILL
STRENGTH DESIGN METHOD:
CONCRETE MASONRY ____ f'c = 24 MPa
HIGH STRENGTH BAR STEEL REINFORCEMENT ____ fy = 420 MPa
TRAFFIC DATA:
STH 81
A.D.T. = 900 (2016)
R.D.S. = 90 km/hr

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BAR STEEL REINFORCEMENT SHALL BE INBEDDED 50 mm CLEAR UNLESS SHOWN OR OTHERWISE NOTED.

ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

ALL STATIONS AND ALL ELEVATIONS ARE IN METERS (m).

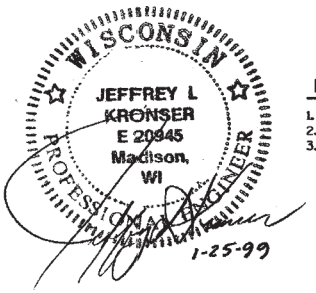
THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES SHALL BE THE EXISTING GROUNDLINE.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION OF THE SUBGRADE WITHIN THE LENGTH OF THE CULVERT, ENDWALLS AND CONCRETE STEPS.

LEGEND

* SEE S.D.D. 8F3-3 DETAILS FOR PIPE CATTLE PASS CONCRETE ENDWALLS AND STEPS FOR ADDITIONAL STEP DIMENSIONS AND STEP/WALL REBAR

457 mm RUBBERIZED MEMBRANE WATEPROOFING SEAL ALL VERTICAL JOINTS ON O.S.F. OF BOX, ENDWALLS AND STEPS.



TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	TOTAL
EXCAVATION FOR STRUCTURES, CULVERTS*	L.S.	1
CONCRETE MASONRY, CULVERTS	m^3	66
HIGH-STRENGTH BAR STEEL REINFORCEMENT, CULVERTS	kg	5680
CONCRETE MASONRY, ENDWALLS	m^3	9
CONCRETE MASONRY, STEPS	m^2	60
STRUCTURE BACKFILL	m^3	790
RUBBERIZED MEMBRANE WATERPROOFING	m^2	12
SHEET MEMBRANE WATERPROOFING	m^2	95
COARSE AGGREGATE, SIZE NO. 1	m^3	18

*EXCAVATION FOR STRUCTURES, CULVERTS INCLUDES AN ESTIMATED 260 m3 OF ROCK EXCAVATION

BRIDGE OFFICE CONTACT: DAVID GENSON (608)266-8491

LIST OF DRAWINGS

1. GENERAL PLAN
2. BOX DETAILS
3. SUBSURFACE EXPLORATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRAND ASSOCIATES
CONSULTING ENGINEERS
Madison, Wisconsin 53715
(608) 251-4843

STRUCTURE C-22-124

S.T.H. 81 OVER CATTLE PASS

COUNTY	TOWN/~~CITY/VILLAGE~~	
GRANT	BEETOWN	
DESIGN SPEC. AASHTO '96	LOAD MS18	CONST. WISC SPEC. 1996
DESIGNED BY CHD / DESIGN CK'D. JLK	DRAWN BY DNG / PLANS CK'D. JLK	

APPROVED ____ CHIEF BRIDGE DESIGN ENGINEER ____ DATE

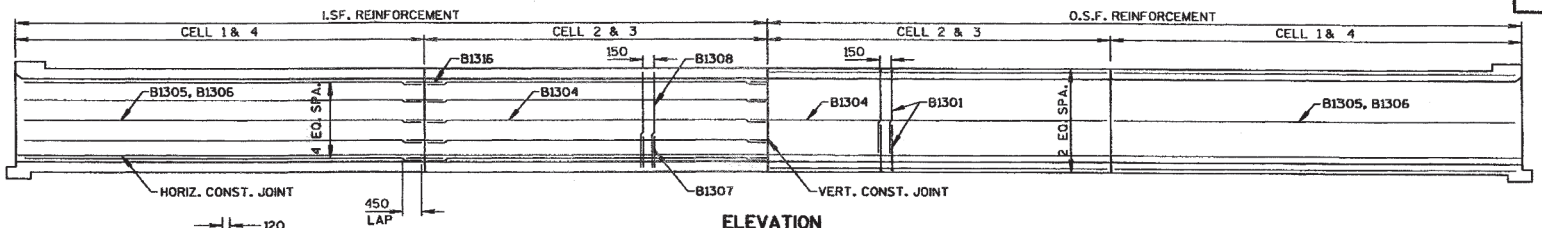
GENERAL PLAN

SHEET 1 OF 3

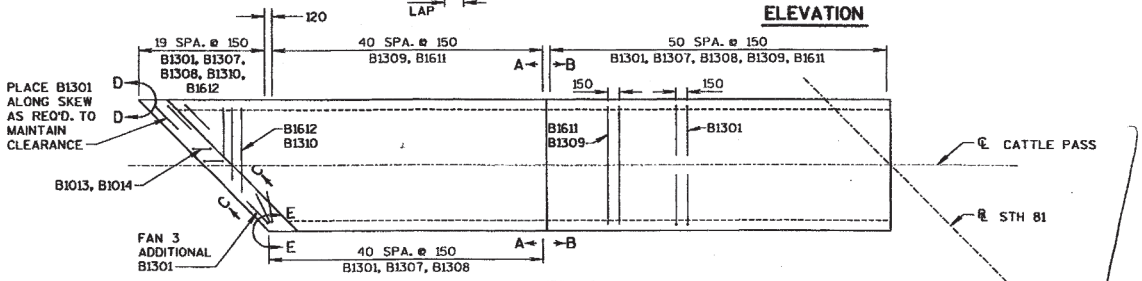
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PLOT SCALE: ....
PLOT NAME: ....
REV. DATE: 9-28-98
ORIGINATOR: DNG
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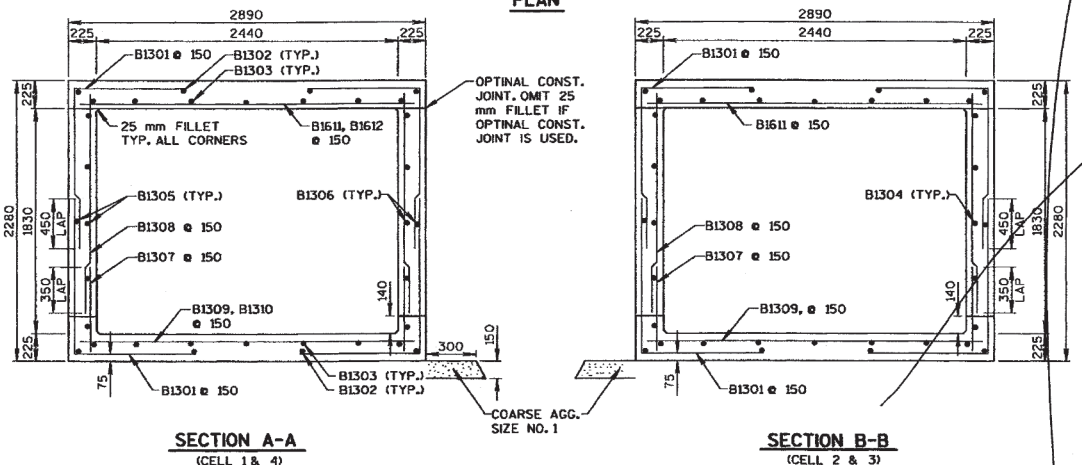
STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.12



ELEVATION



PLAN



SECTION A-A
(CELL 1 & 4)

SECTION B-B
(CELL 2 & 3)

BILL OF BARS
5680 kg

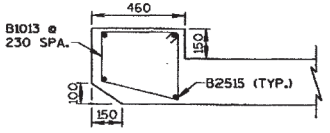
MARK	NO.	LENGTH	BENT	BAR SERIES	LOCATION
B1301	828	2200	X		VERT. - WALLS - O.S.F.
B1302	16	7500		▲	HORIZ. - TOP & BOTT. SLAB - CELLS 1& 4 - O.S.F.
B1303	28	7500		▲	HORIZ. - TOP & BOTT. SLAB - CELLS 1& 4 - I.S.F.
B1304	68	7500			HORIZ. - WALLS/TOP & BOTT. SLAB - CELLS 2 & 3
B1305	12	6300			HORIZ. - WALL - CELLS 1& 4
B1306	12	8950			HORIZ. - WALL - CELLS 1& 4
B1307	408	700			VERT. - DOWELS
B1308	408	1850			VERT. - WALLS I.S.F
B1309	184	2750			HORIZ. - BOTT. SLAB - CELLS 1, 2, 3 & 4
B1310	40	1625		▲	HORIZ. - BOTT. SLAB - CELLS 1& 4
B1611	184	2750			HORIZ. - TOP SLAB - CELLS 1, 2, 3 & 4
B1612	40	1825		▲	HORIZ. - TOP SLAB - CELLS 1& 4
B1013	26	1500	X		HEADER - STIRRUPS - TOP
B1014	26	1450	X		HEADER - STIRRUPS - BOTT.
B2515	16	3950			HEADER - HORIZ. - TOP - & BOTT.
B1316	72	1000			HORIZ. - DOWELS

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

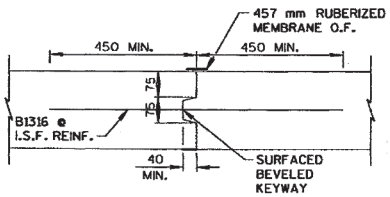
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS, SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BARS SERIES TABLE

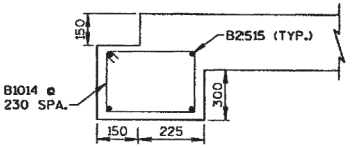
MARK	NO. REQ'D.	LENGTH
B1302	4 SERIES OF 4	6050 TO 8950
B1303	4 SERIES OF 7	6050 TO 8950
B1310	2 SERIES OF 15	650 TO 2600
B1612	2 SERIES OF 15	650 TO 2600



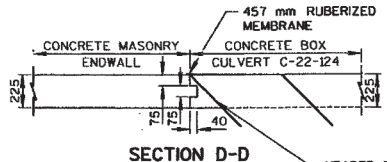
HEADER-TOP



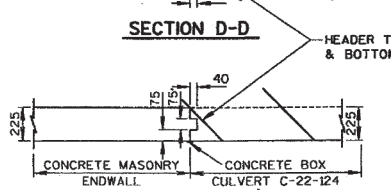
VERT. CONST. JOINT



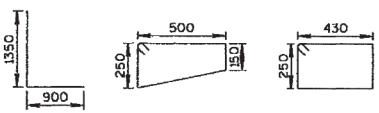
HEADER-BOTTOM
(@ CATTLE PASS & ENDWALL)



SECTION D-D



SECTION E-E



B1301 B1013 B1014

SECTION C-C
HEADER DIMENSIONS ARE NORMAL TO END OF BOX

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE C-22-124

CONST. SPEC.	WISC 1996	DRAWN BY	CDH	PLANS CHECKED	JLK

BOX DETAILS

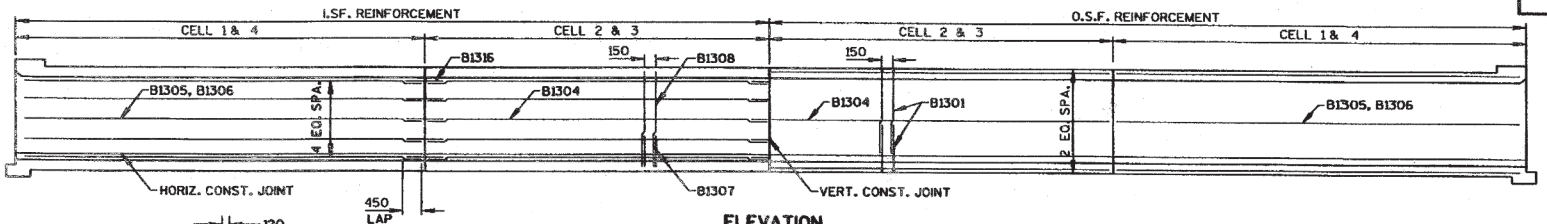
SHEET 2 OF 3

M

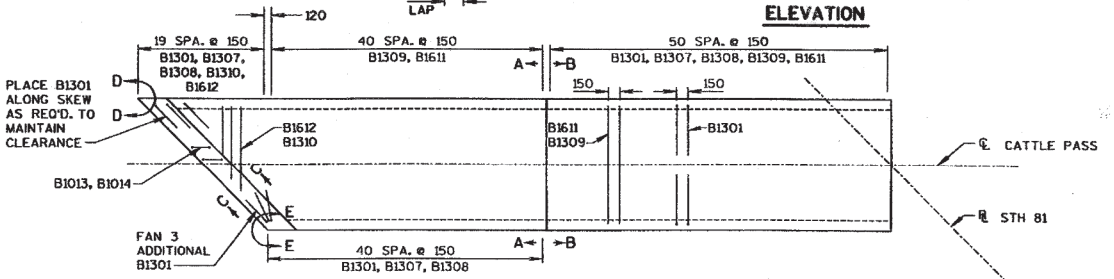
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PLOT NAME: .....
REV. DATE: 9-28-98
ORIGINATOR: DNG
LEVELS ON - 1,

FILE NAME: s:\051--100\089\464\micros\box\detail2.dgn

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.12-A



ELEVATION



PLAN

BILL OF BARS

5680 kg

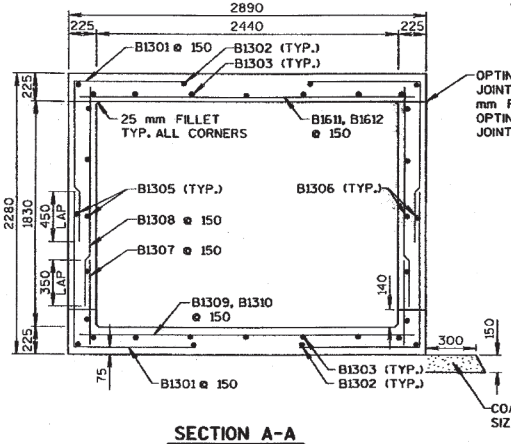
MARK	NO.	LENGTH	BENT	BAR SERIES	LOCATION
B1301	828	2200	X		VERT. - WALLS - O.S.F.
B1302	16	7500		▲	HORIZ. - TOP & BOTT. SLAB - CELLS 1& 4 - O.S.F.
B1303	28	7500		▲	HORIZ. - TOP & BOTT. SLAB - CELLS 1& 4 - I.S.F.
B1304	68	7500			HORIZ. - WALLS/TOP & BOTT. SLAB - CELLS 2 & 3
B1305	12	6300			HORIZ. - WALL - CELLS 1& 4
B1306	12	8950			HORIZ. - WALL - CELLS 1& 4
B1307	408	700			VERT. - DOWELS
B1308	408	1850			VERT. - WALLS I.S.F
B1309	184	2750			HORIZ. - BOTT. SLAB - CELLS 1, 2, 3 & 4
B1310	40	1625		▲	HORIZ. - BOTT. SLAB - CELLS 1& 4
B1611	184	2750			HORIZ. - TOP SLAB - CELLS 1, 2, 3 & 4
B1612	40	1625		▲	HORIZ. - TOP SLAB - CELLS 1& 4
B1013	26	1500	X		HEADER - STIRRUPS - TOP
B1014	26	1450	X		HEADER - STIRRUPS - BOTT.
B2515	16	3950			HEADER - HORIZ. - TOP - & BOTT.
B1316	72	1000			HORIZ. - DOWELS

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

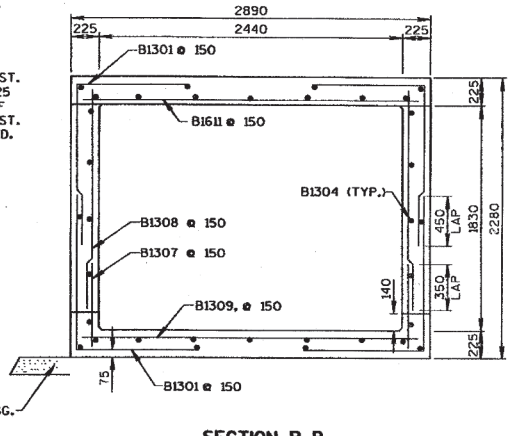
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS, SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BARS SERIES TABLE

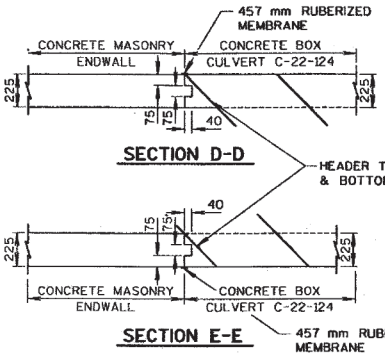
MARK	NO. REQ'D.	LENGTH
B1302	4 SERIES OF 4	6050 TO 8950
B1303	4 SERIES OF 7	6050 TO 8950
B1310	2 SERIES OF 15	650 TO 2600
B1612	2 SERIES OF 15	650 TO 2600



SECTION A-A
(CELL 1& 4)

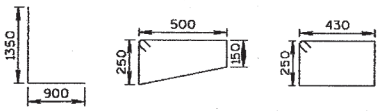


SECTION B-B
(CELL 2 & 3)

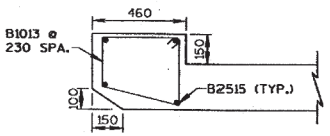


SECTION D-D

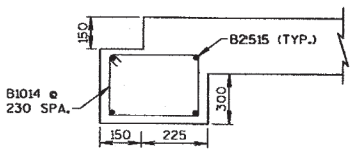
SECTION E-E



B1301 B1013 B1014

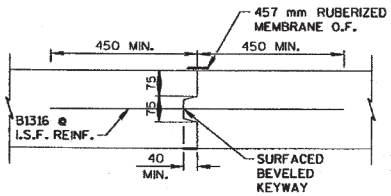


HEADER-TOP



HEADER-BOTTOM
(@ CATTLE PASS & ENDWALL)

SECTION C-C
HEADER DIMENSIONS ARE NORMAL TO END OF BOX



VERT. CONST. JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE C-22-124

CONST. SPEC.	WISC 1996	DRAWN BY	CDH	PLANS CHECKED	JLK

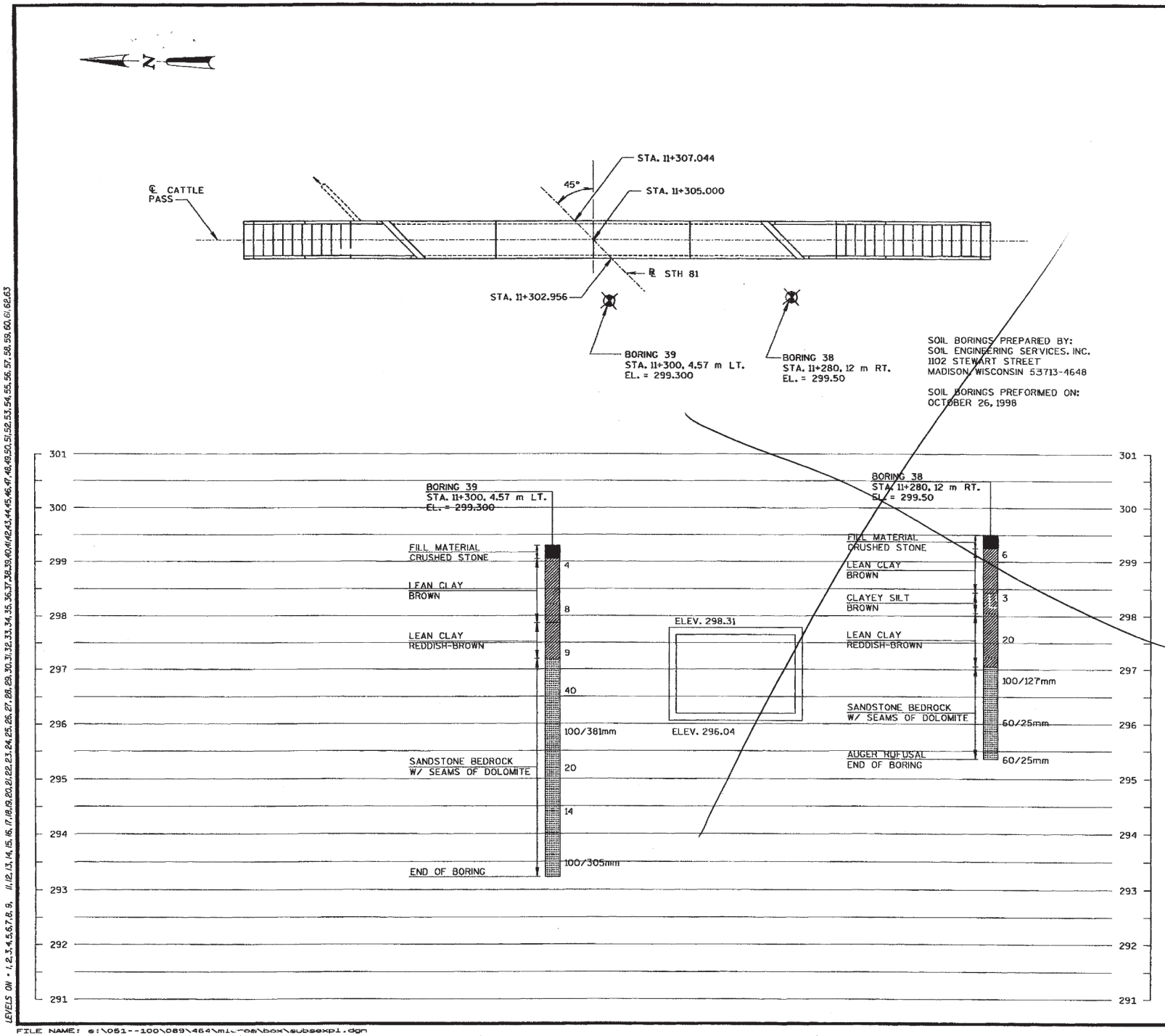
BOX DETAILS

SHEET 2 OF 3

M

PLOT SCALE: .....
PLOT NAME: 59
REV. DATE: 9-28-98
ORIGINATOR: DNG
LEVELS ON - /.

FILE NAME: s:\051--100\089\464\micros\box\details.dgn



STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.13

ABBREVIATIONS

F—Fine M—Medium C—Coarse
Ws—Weathered So—Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone, Sand, Peat, Limestone, Gravel, Clay, Igneous Rock

LEGEND OF PROBING

Probing No.
Sta.
Elevation
7 Average Blows Per 305 mm
Refusal 95/152

95/152 = 95 Blows for 152 mm Penetration
Probing taken with a 158.8 kg wt.
Falling 457 mm on a 51 mm O.D. Point.

LEGEND OF BORING

Boring No.
Elev.
Sta.
Unconfined Strength → 7.7 7
Sandy Gravel
Blows Per 305 mm Using 63.5 kg wt. Falling 760 mm
Wash Sample
F.
Boulders or Cobbles
Sand
Shelby Tube—S.T.
Ground Water Elevation
Silty Clay
No Ground Water Observed Above This Elevation
So
Limestone

The number of blows required to drive a 51-mm, outside diameter, split barrel sampler 305 mm, or a fraction thereof when so noted with a 63.5-kg hammer falling 760 mm is recorded in "blow count" column at the approximate elevation of the sample. The number of blows is the "standard penetration resistance" as defined in ASTM Designation D 1586.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herin represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE C-22-124

CONST. SPEC.	WISC 1996	DRAWN BY	DNG	PLANS CHECKED	JLK

SUBSURFACE EXPLORATION

SHEET 3 OF 3

M

PLOT SCALE:
PLOT NAME:
PLOT DATE: 10 NOV 98
LEVELS ON • 1,2,3,4,5,6,7,8, 9, 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63
ORIGINATOR: DNG

FILE NAME: e:\051--100\089\464\mi-ros\box\subsexpl.dgn

1/26/99-R1

STATE PROJECT NUMBER	SHEET NO.
5215-02-71	8.13-A

ABBREVIATIONS

F—Fine M—Medium C—Coarse
Ws—Weathered So—Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone, Sand, Peat, Limestone, Gravel, Clay, Igneous Rock

LEGEND OF PROBING

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Sta.
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LEGEND OF BORING

Boring No.
Sta.
Elev.
Unconfined Strength → 7.7 7
Blows Per 305 mm Using 63.5 kg wt. Falling 760 mm
Wash Sample
Shelby Tube—S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F.
Boulders or Cobbles
Sand
Silty Clay
So
Limestone

The number of blows required to drive a 51-mm, outside diameter, split barrel sampler 305 mm, or a fraction thereof when so noted with a 63.5-kg hammer falling 760 mm is recorded in "blow count" column at the approximate elevation of the sample. The number of blows is the "standard penetration resistance" as defined in ASTM Designation D 1586.

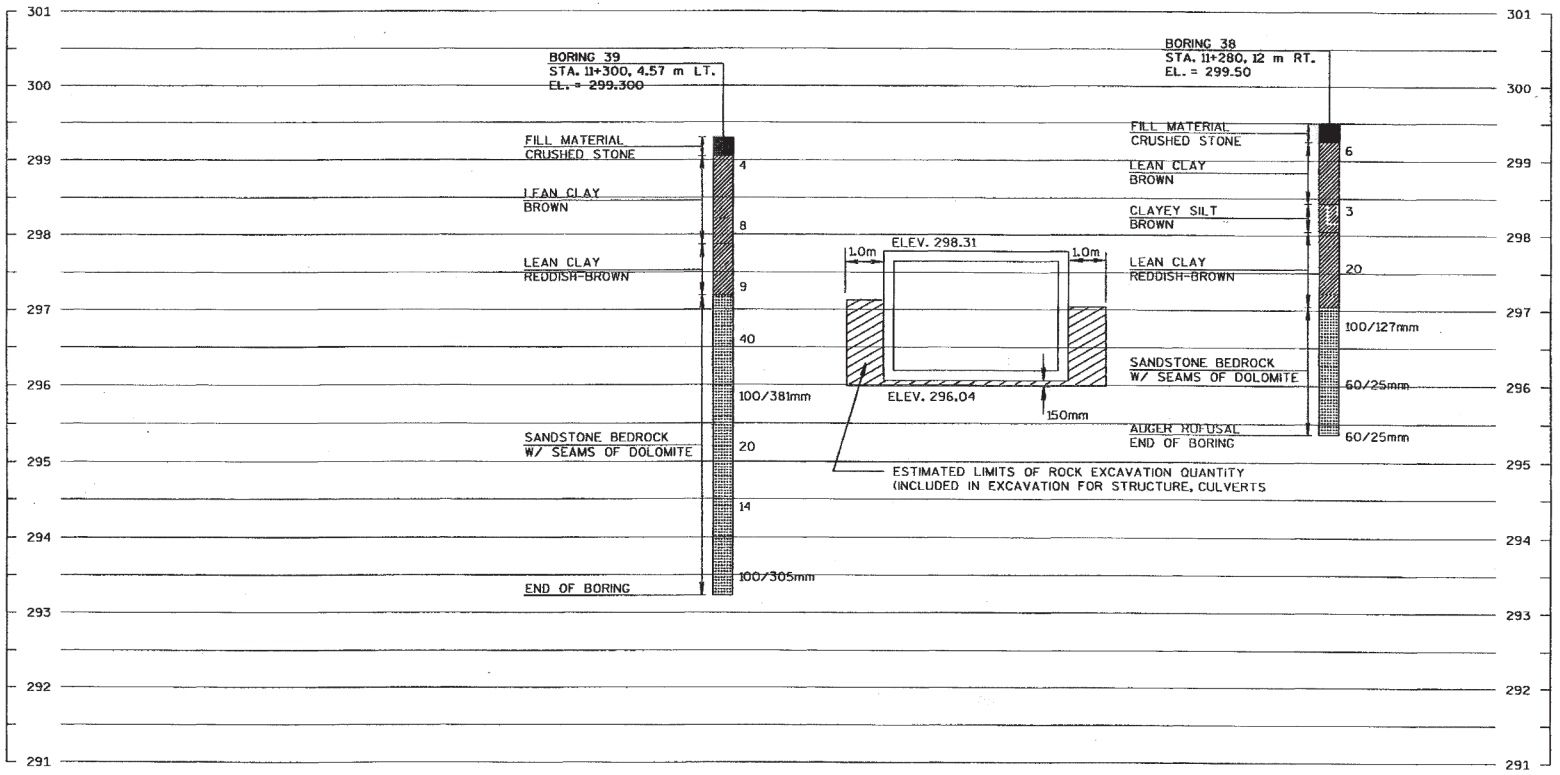
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herin represents the findings of the sub-surface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.



SOIL BORINGS PREPARED BY:
SOIL ENGINEERING SERVICES. INC.
1102 STEWART STREET
MADISON, WISCONSIN 53713-4648

SOIL BORINGS PREFORMED ON:
OCTOBER 26, 1998



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE C-22-124

CONST. SPEC.	WISC 1996	DRAWN BY	DNG	PLANS CHECKED	JLK

SUBSURFACE EXPLORATION

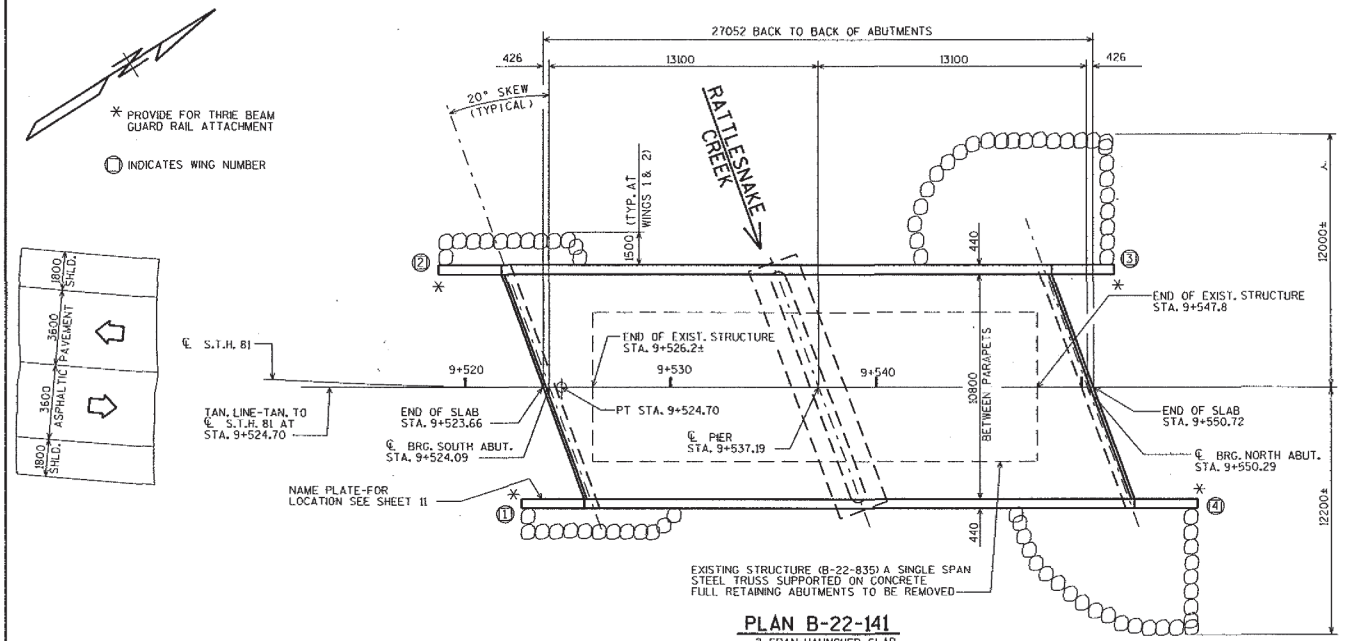
SHEET 3 OF 3

M

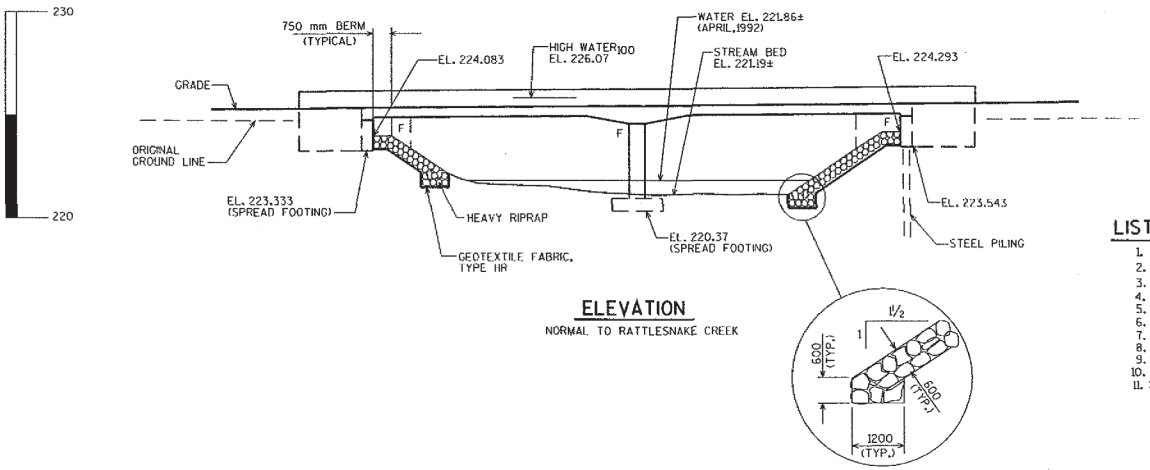
PLOT SCALE:
PLOT NAME:
PLOT DATE: 25 JAN 99
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63
ORIGINATOR: DNG
LEVELS ON -

FILE NAME: s:\051-[illegible]\464\micros\box\subsexpl.dgn

STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.14



PLAN B-22-141
2 SPAN-HAUNCHED SLAB



ELEVATION
NORMAL TO RATTLESNAKE CREEK

DESIGN DATA

LIVE LOAD:

DESIGN RATING: MS-18
INVENTORY RATING: MS-22
OPERATIONAL RATING: MS-37
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-31, GRADE 420 — fy = 420 MPa

FOUNDATION DATA

NORTH ABUTMENT TO BE SUPPORTED ON PREBORED HP 250 X 62 STEEL PILING. DESIGNED FOR A MIN. BRG. VALUE OF 490kN PER PILE. ESTIMATED LENGTH OF 6 m
SOUTH ABUTMENT AND PIER TO BE SUPPORTED ON SPREAD FOOTINGS.
MIN. BRG. PRESSURE REQUIRED AT SOUTH ABUT. = 335 kPa
MIN. BRG. PRESSURE AT PIER = 480 kPa

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} = 283.2 m³/s
Q_{100} = 242.4 m³/s (THRU BRIDGE)
Q_{100} = 40.8 m³/s (OVER BRIDGE)
VEL. = 3.26 m/s
HW. = EL. 226.07
WATERWAY AREA = 74.5 m²
DRAINAGE AREA = 115.8 km²
SCOUR CRITICAL CODE = 5

ROADWAY DESIGN FREQUENCY
60 YEARS
Q_{60} = 243 m³/s
HW. = EL. 225.55

TRAFFIC VOLUME

S.T.H. 81
A.D.T. = 900 (2016)
R.D.S. = 80 km/h

CURVE DATA

P.I. = STA. 9+450.827
Δ = 31°-04'-51.9"
T = 77.703 m
L = 151.576 m
R = 279.421 m
S.E. = 6.00%
R.O. = 50 M
P.C. = STA. 9+373.124
P.T. = STA. 9+524.700

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. PIER
9. SUPERSTRUCTURE
10. SUPERSTRUCTURE DETAILS
11. SLOPED FACE PARAPET "LF"

BRIDGE OFFICE CONTACT :
KENT BAHLER (608) 266-8490
CHRIS FOLTMAN (608) 266-5094

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-141

S.T.H. 81 OVER RATTLESNAKE CREEK

COUNTY	GRANT	~~TOWN/CITY/VILLAGE~~	BEETOWN
DESIGN SPEC.	AASHTO 1996	LOAD	MS-18
CONST. SPEC.	1996		
DESIGNED BY	TWM/SDR	DESIGN CK'D	SDR/DTK
DRAWN BY	C.M.F./B	PLANS CK'D	CF

APPROVED [signature] 10-15-98
CHIEF BRIDGE DESIGN ENGINEER — DATE

GENERAL PLAN

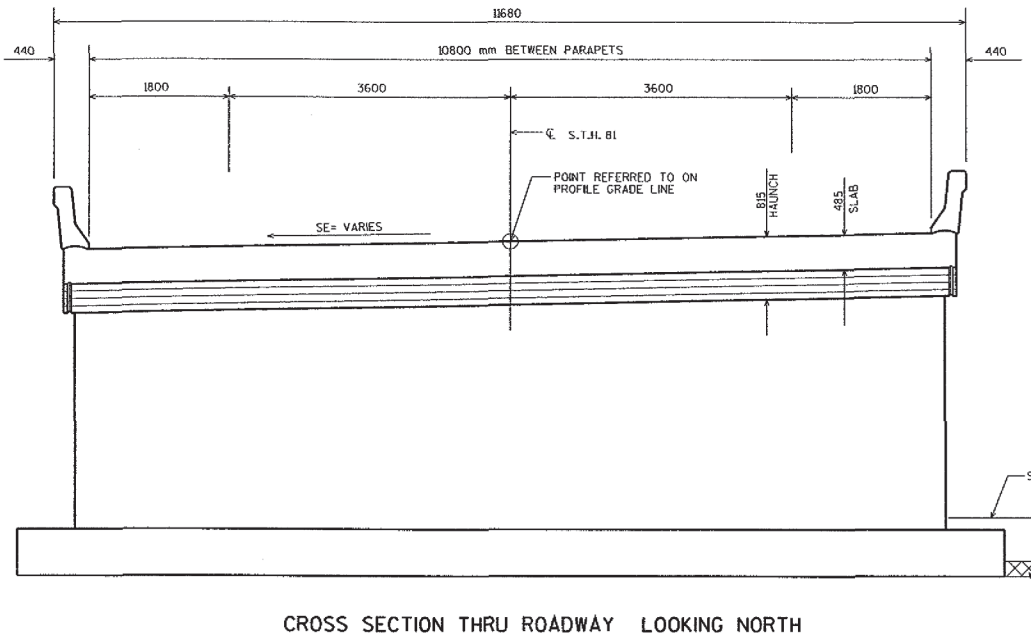
SHEET 1 OF 11

DATE: JULY 97

DISTRICT CONTACT

BR B22141GPM.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.15



CROSS SECTION THRU ROADWAY LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER	TOTALS
REMOVING OLD BRIDGE, STA. 9+537.19	L.S.	——	——	——	——	1
EXCAVATION FOR STRUCTURES, BRIDGES, B-22-141	L.S.	——	——	——	——	1
COFFERDAMS STRUCTURE B-22-141	L.S.	——	——	——	——	1
CONCRETE MASONRY, BRIDGES	m^3	180	31	28	59	298
PROTECTIVE SURFACE TREATMENT	m^2	340	——	——	——	340
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	——	1080	1130	1670	3880
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	19890	230	230	——	20350
STEEL PILING, DELIVERED AND DRIVEN, HP 250 X 62	M	——	——	36	——	36
RUBBERIZED MEMBRANE WATERPROOFING	m^2	——	6	6	——	12
HEAVY RIPRAP	m^3	——	61	142	——	203
GEOTEXTILE FABRIC, TYPE HR	m^2	——	155	288	——	443
PREBORING STEEL PILING	M	——	——	36	——	36
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	——	——	——	4
STRUCTURE BACKFILL	m^3	——	127	114	——	241
NON-BID ITEMS						
FILLER	SIZE	——	——	——	——	13 & 19

GENERAL NOTES

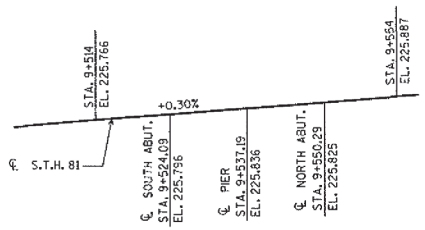
DRAWINGS SHALL NOT BE SCALED.

BAR STEEL SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OR THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP TO THE EXTENT SHOWN ON SHT. 1 AND IN THE ABUTMENT DETAILS.

SLAB FALSE WORK SHALL BE SUPPORTED ON PILES UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.



PROFILE GRADE LINE S.T.H. 81

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

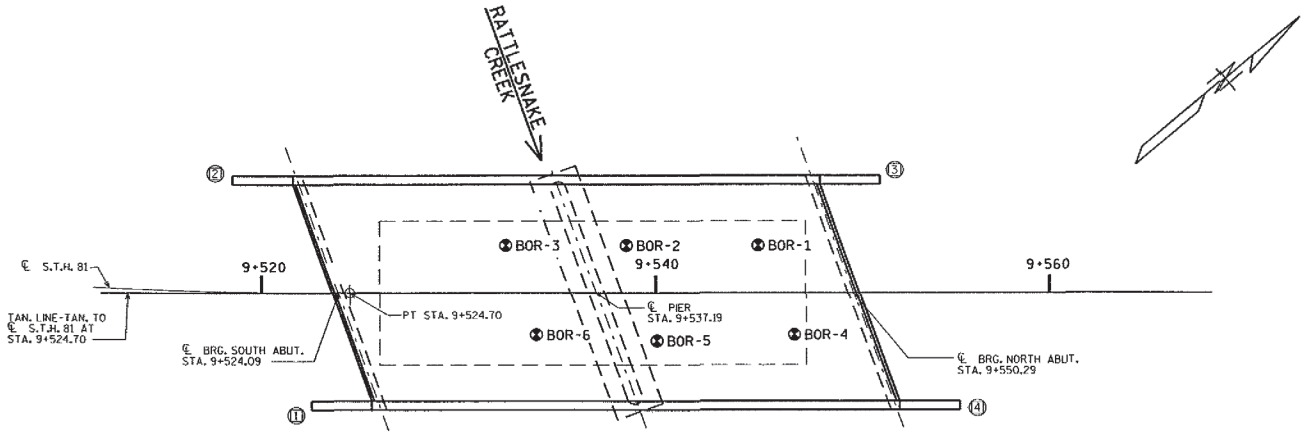
STRUCTURE B-22-141

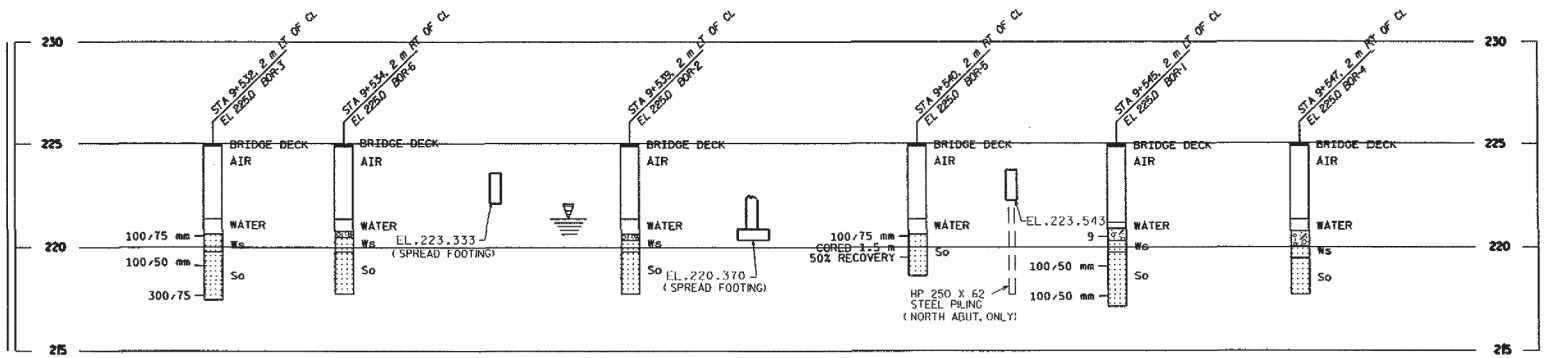
CONST. SPEC. 1996 | DRAWN BY C.M.F. | PLANS CK'D.

CROSS SECTION & QUANTITIES

SHEET 2

BR B22141410PM.DGN





STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.16

ABBREVIATIONS

F—Fine M—Medium C—Coarse
Ws—Weathered So—Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone, Sand, Peat, Limestone, Gravel, Clay, Igneous Rock

LEGEND OF PROBING

Probing No.
Sta.
Elevation
95/152=95 Blows for 152mm Penetration
Probing taken with a 159.1Kg Wt. Falling 457mm on a 51mm O.D. Point.
7 Average Blows Per 305mm
Refusal 95/152

LEGEND OF BORING

Boring No.
Sta.
Elev.
Unconfined Strength Kg/cm²
7.7 7
Blows Per 305mm Using 63.6 Kg Wt. Falling 762mm
Wash Sample
Shelby Tube—S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F
Boulders or Cobbles
Sand
Silty Clay
So Limestone

Unless otherwise specified, the blows per 305mm at the locations indicated are based on driving a 51mm O.D. x 35mm I.D. split spoon sampler with a 63.6Kg hammer having a free fall of 762mm. The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-141

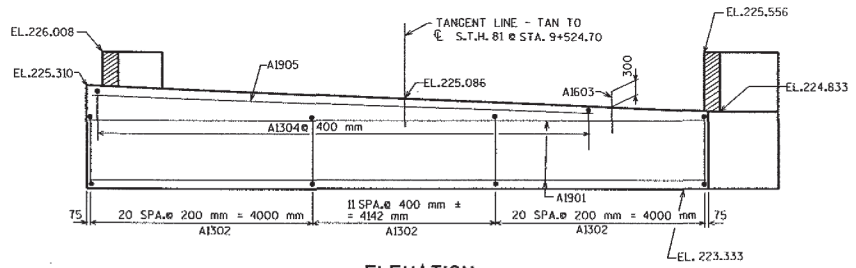
CONST. SPEC.	1996	DRAWN BY	G	PLANS CK'D.	CF

SUBSURFACE EXPLORATION

SHEET 3

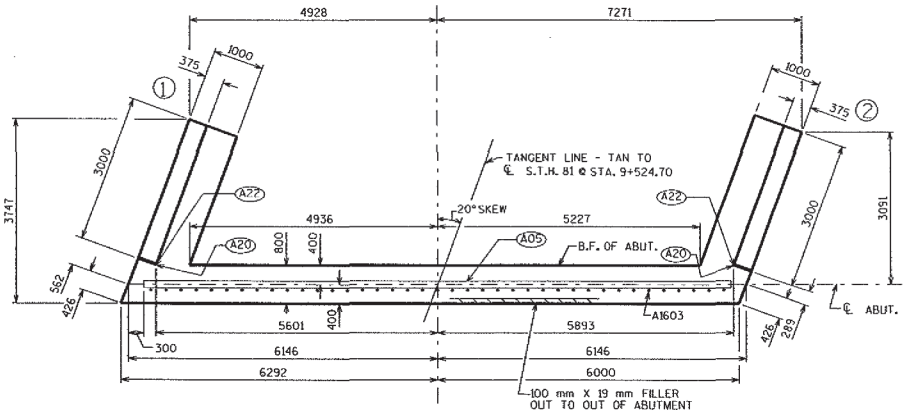
BD B22141SOIL SUR SON

STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.17



ELEVATION

SOUTH ABUT. LOOKING SOUTH

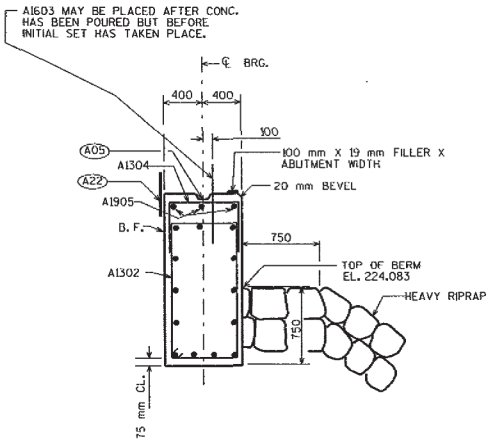


PLAN

(A05) CONSTRUCTION JOINT-FORMED BY SURFACED BEVELED 38 mm x 140 mm

(A20) 13 mm FILLER (INCLUDED IN WING LENGTH): SEAL EXPOSED HORIZ. & VERT. SURFACES OF 13 mm FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (25 mm DEEP AND HOLD 3 mm BELOW SURFACE OF CONCRETE). EXTEND SEALER 75 mm BELOW GUTTER LINE AT INSIDE FACE.

(A22) 457 mm (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



SECTION THRU BODY

NOTE: ALL HORIZ. BODY BARS NOT LABELED ARE A1901.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-141

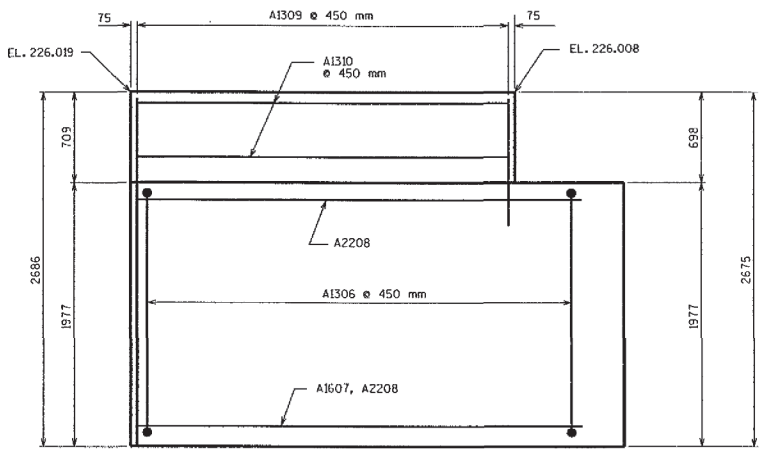
CONST. SPEC.	DRAWN	PLANS CK'D.
1996	BY C.M.F./8	

SOUTH ABUTMENT

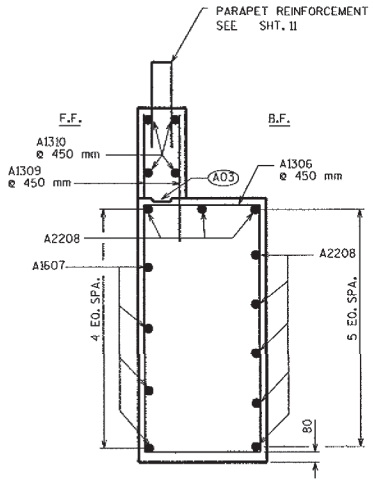
SHEET 4

B22141S1ABUTM.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.18



WING 1 ELEVATION

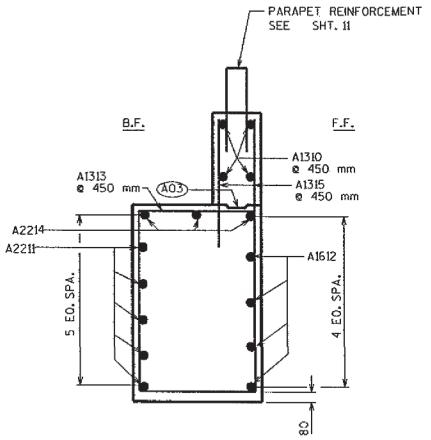


SECTION THRU WING 1

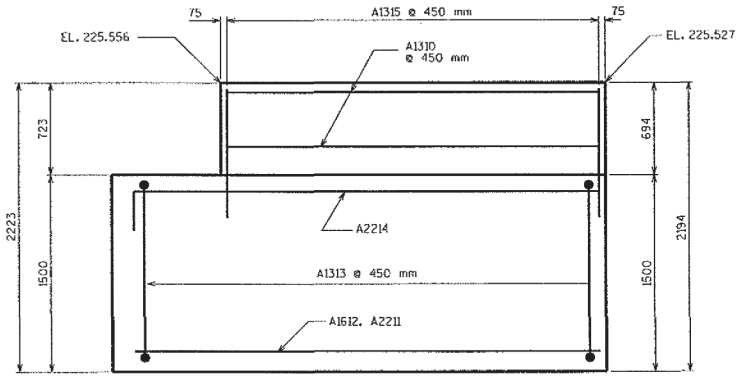
BILL OF BARS

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

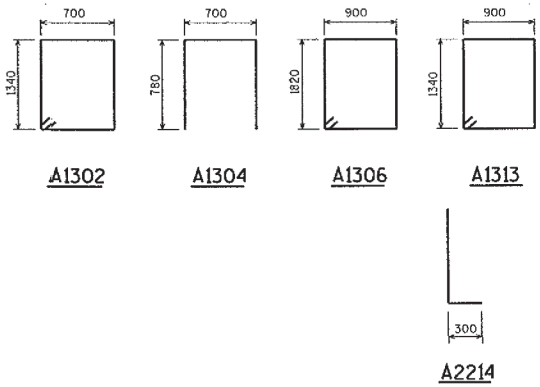
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1901		13	12140			BODY - HORIZ.
A1302		52	4260	X		BODY - STIRRUPS VERT.
A1603		39	600			BODY - VERT.
A1304		23	2200	X		BODY VERT.
A1905		3	10050			BODY HORIZ.
A1306		7	5620	X		WING 1 - STIRRUP VERT.
A1607		4	3400			WING 1 - HORIZ. F.F.
A2208		8	3700			WING 1 - HORIZ. B.F.
A1309		14	1040			WING 1 - VERT
A1310		8	2850			WINGS HORIZ.
A2211		5	3930			WING 2 - HORIZ. B.F.
A1612		4	3400			WING 2 - HORIZ. F.F.
A1313		7	4660	X		WING 2 - STIRRUP VERT.
A2214		3	3930	X		WING 2 HORIZ.
A1315		14	1020			WING 2 - VERT.



SECTION THRU WING 2



WING 2 ELEVATION



A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY SURFACED BEVELED 38 mm x 140 mm. (457 mm R.M.W. @ B.F. & 19 mm "V" GROOVE @ F.F. IF JOINT IS USED).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-141

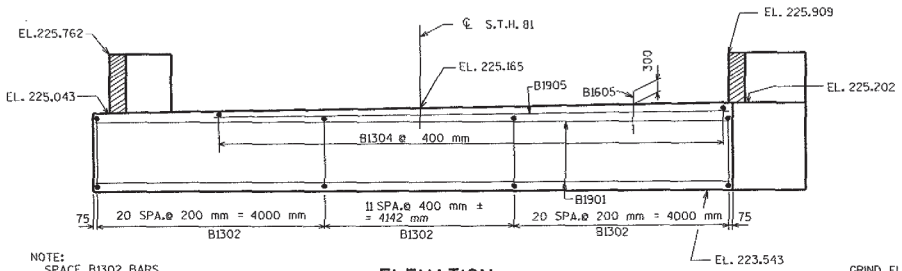
CONST. SPEC.	1996	DRAWN BY	G	PLANS CK'D.	CF

SOUTH ABUTMENT DETAILS

SHEET 5

R2714\14SABUTM.DGN

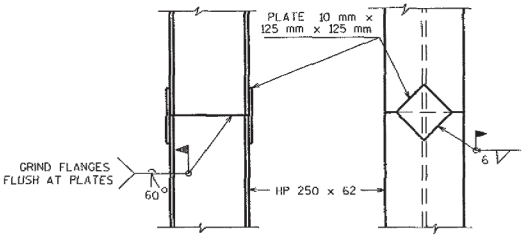
STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.19



NOTE:
SPACE B1302 BARS TO MISS PILES.

ELEVATION

LOOKING NORTH

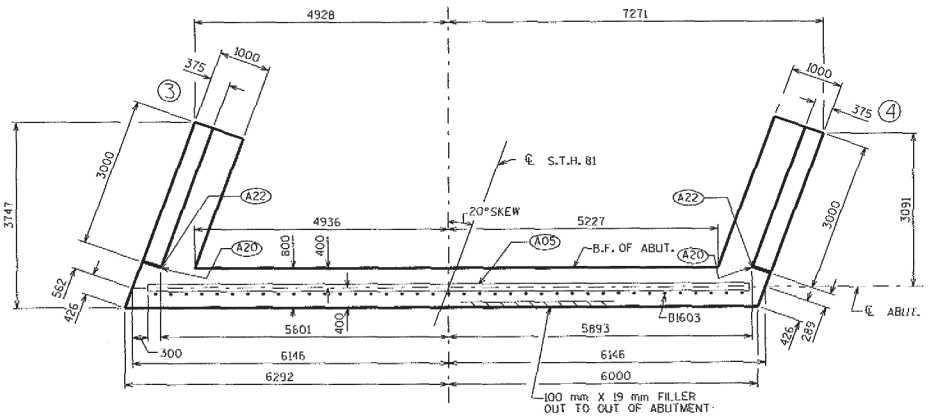


PILE SPLICE DETAIL

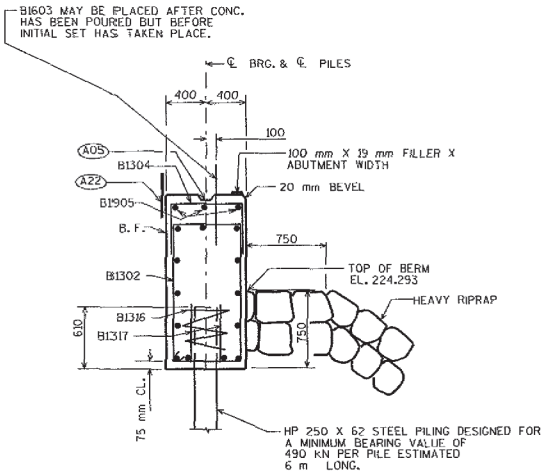
(A05) CONSTRUCTION JOINT-FORMED BY SURFACED BEVELED 38 mm x 140 mm

(A20) 13 mm FILLER (INCLUDED IN WING LENGTH): SEAL EXPOSED HORIZ. & VERT. SURFACES OF 13 mm FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (25 mm DEEP AND HOLD 3 mm BELOW SURFACE OF CONCRETE). EXTEND SEALER 75 mm BELOW GUTTER LINE AT INSIDE FACE.

(A22) 457 mm (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

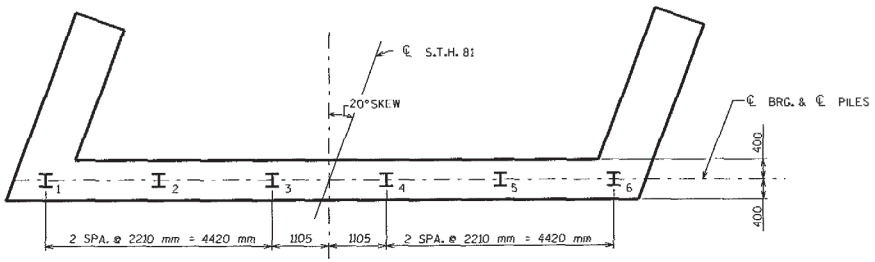


PLAN



SECTION THRU BODY

NOTE: ALL HORIZ. BODY BARS NOT LABELED ARE B1901.



FOOTING AND PILE PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-141

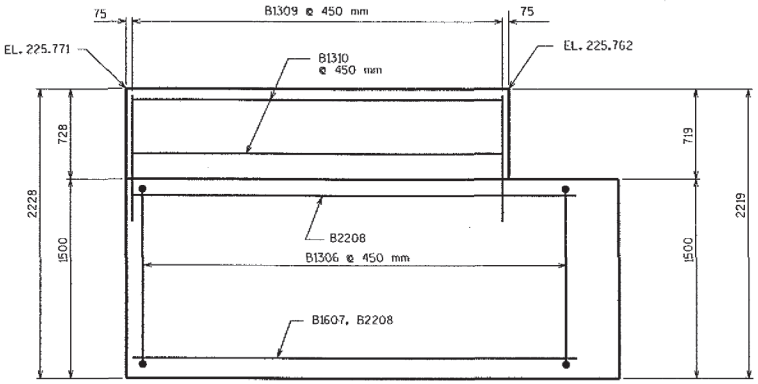
CONST. SPEC.	1996	DRAWN BY	G	PLANS CK'D.	

NORTH ABUTMENT

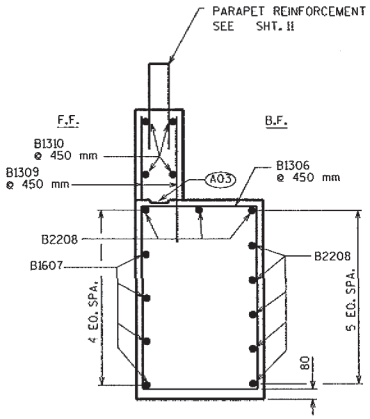
SHEET 6

B22141,14MABUTM.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.20



WING 3 ELEVATION

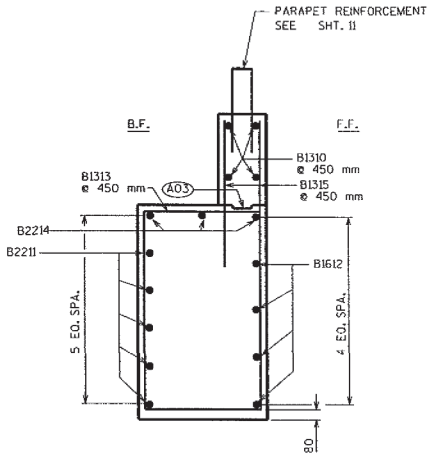


SECTION THRU WING 3

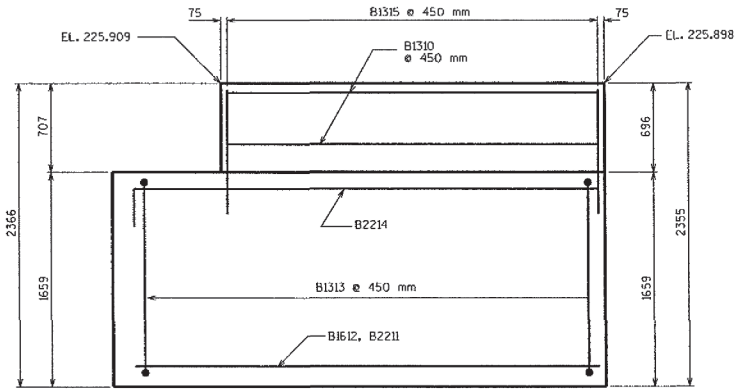
BILL OF BARS

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

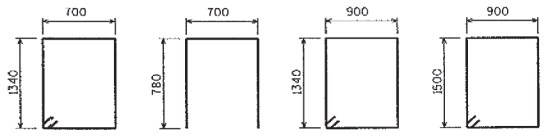
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B1901		13	12140			BODY - HORIZ.
B1302		52	4260	X		BODY - STIRRUPS VERT.
B1603		39	600			BODY - VERT.
B1304		23	2200	X		BODY VERT.
B1905		3	10050			BODY HORIZ.
B1306		7	4660	X		WING 3 - STIRRUP VERT.
B1607		4	3400			WING 3 - HORIZ. F.F.
B2208		8	3700			WING 3 - HORIZ. B.F.
B1309		14	1000			WING 3 - VERT
B1310		8	2850			WINGS HORIZ.
B2211		5	3930			WING 4 - HORIZ. B.F.
B1612		4	3400			WING 4 - HORIZ. F.F.
B1313		7	4980	X		WING 4 - STIRRUP VERT.
B2214		3	3930	X		WING 4 - HORIZ.
B1315		14	1020			WING 4 - VERT.
B1316		6	8600	X		BODY AT PILES
B1317		12	700			BODY AT PILES



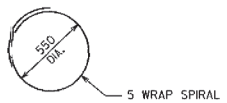
SECTION THRU WING 4



WING 4 ELEVATION



B1302 B1304 B1306 B1313



B1316



B2214

A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY SURFACED BEVELIED 38 mm x 140 mm. (457 mm R.M.W. @ B.F. & 19 mm "V" GROOVE @ F.F. IF JOINT IS USED).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-141

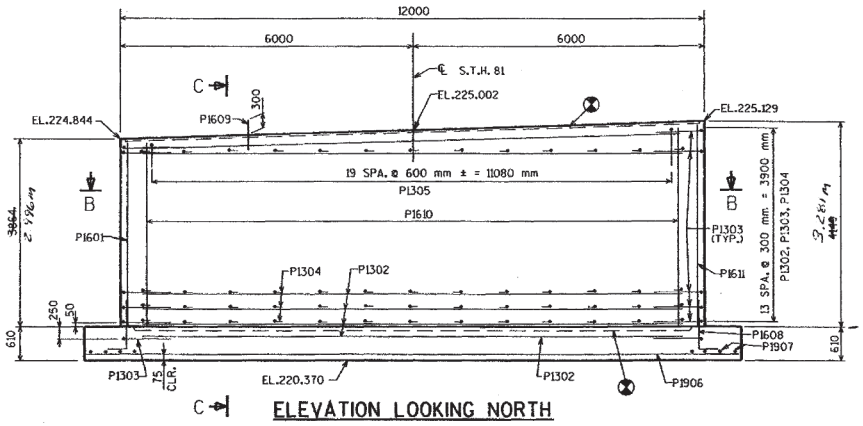
CONST. SPEC. 1996	DRAWN BY G	PLANS CK'D. CF

NORTH ABUTMENT DETAILS

SHEET 7

R2214141A&R1TM.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.21



ELEVATION LOOKING NORTH

NOTE: WE HAD TO RAISE THE ELEVATION OF THE SPREAD FOOTING BECAUSE OF ROCK. WE SHORTENED THE HEIGHT OF PIER TO MAKE UP FOR RAISING THE FOOTING

221.848 ELEV.

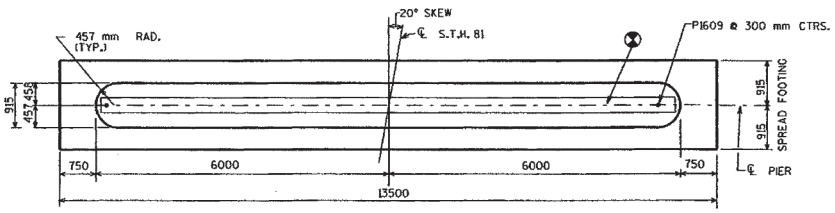
NOTE:
P1609 BARS MAY BE PLACED AFTER CONC. IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 300 mm INTO CONC.

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

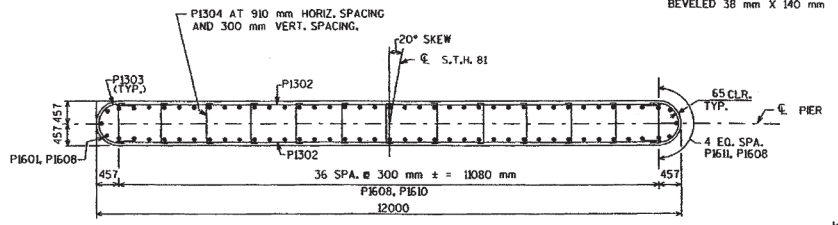
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	BUNDLE	LOCATION
P1601		3	3780				SHAFT VERT.
P1302		30	11070				SHAFT HORIZ. F.F. & B.F.
P1303		30	2440	X			SHAFT HORIZ.
P1304		169	970	X			SHAFT HORIZ.
P1305		20	2110	X			SHAFT TOP VERT.
P1906		7	13340				FOOTING HORIZ.
P1907		45	1680				FOOTING HORIZ.
P1608		80	1240	X			FOOTING VERT.- DOWEL - F.F. & B.F.
P1609		39	600				SHAFT VERT.- TOP
⚠ P1610		74	3940		X		SHAFT VERT. F.F. & B.F.
P1611		3	4110				SHAFT VERT.

⚠ LENGTH SHOWN FOR THIS BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



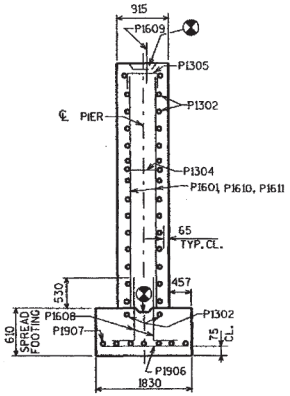
PLAN

⊗ CONST. JT. KEYWAY FORMED BY A SURFACED, BEVELED 38 mm X 140 mm

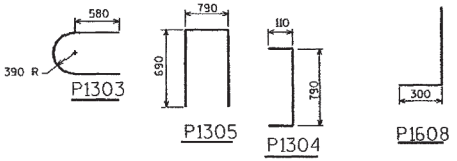


SECTION B-B

NOTE:
SUPPORT PIER ON A SPREAD FOOTING ON SOUND ROCK, WITH A MIN. BEARING OF 480 kPa



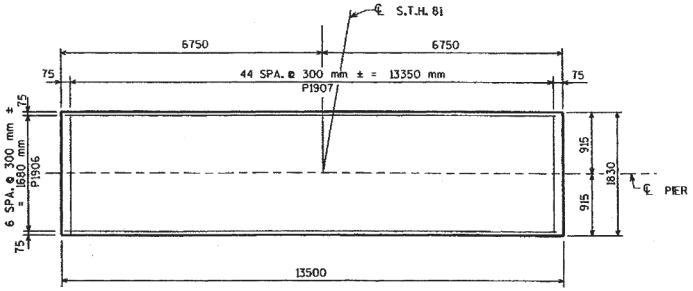
SECTION "C-C"



BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
P1610	2 SERIES OF 37	3760 mm TO 4110 mm

BUNDLE AND TAG EACH SERIES SEPARATELY.



FOOTING PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-141

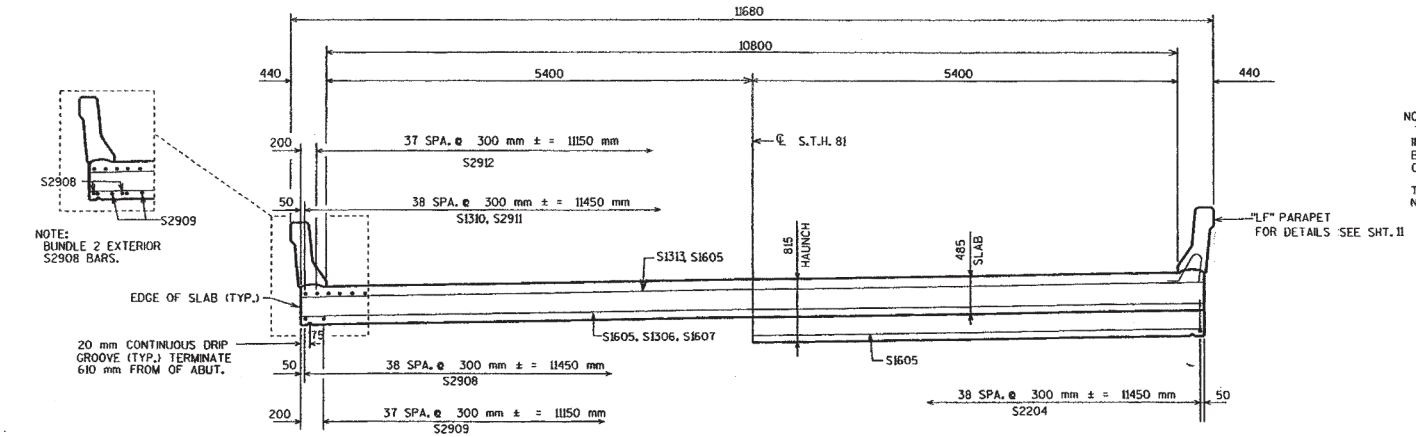
CONST. SPEC.	1996	DRAWN BY C.M.F.	CHKD.

PIER

SHEET 8

D0141BDED1.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.22

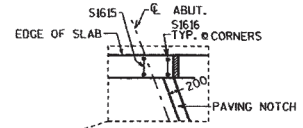


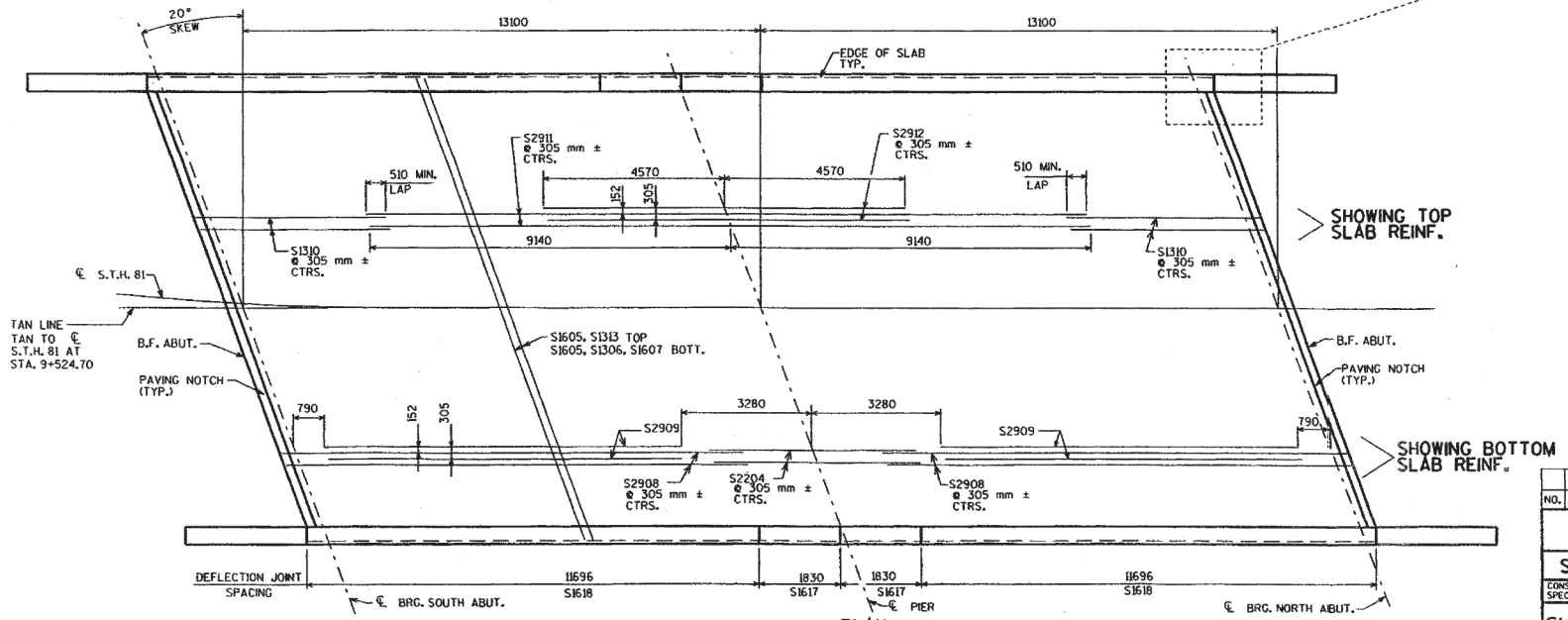
NOTE:
TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATE 900 mm CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATE 1200 mm CENTER.

THE SLAB THICKNESS SHOWN IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO PLUS (+).

CROSS SECTION THRU ROADWAY

(LOOKING NORTH)





PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

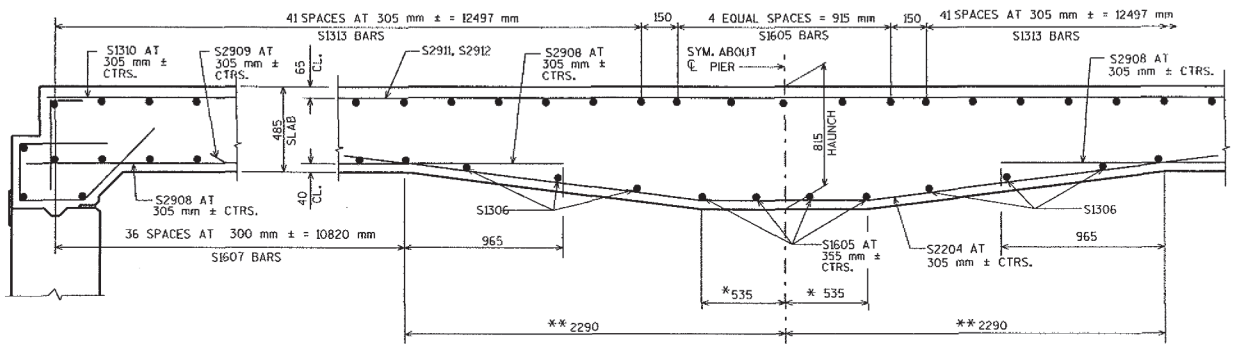
STRUCTURE B-22-141

CONST. SPEC.	DRAWN	PLANS CKD.
1996	BY C.M.F./	CF

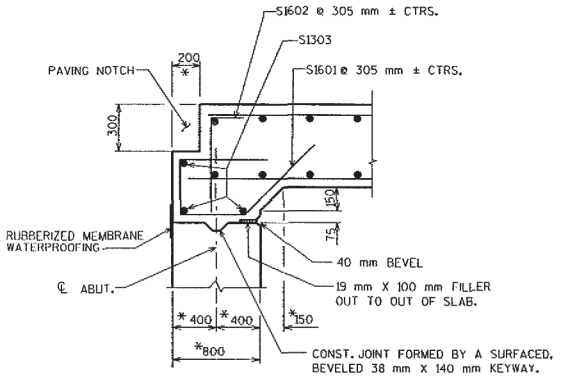
SUPERSTRUCTURE | SHEET 9

BRB22141_14SUP.DGN

STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.23



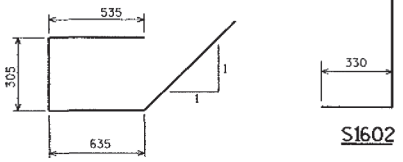
PART LONGITUDINAL SECTION



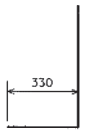
ABUTMENT DETAIL

*THESE DIMENSIONS ARE TAKEN AT RIGHT ANGLES TO ℄ SUBSTRUCTURE UNITS.

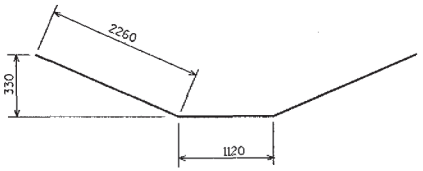
**THESE DIMENSIONS ARE TAKEN ALONG ℄ ROADWAY



S1601



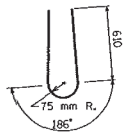
S1602



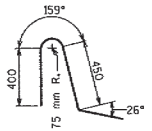
S2204



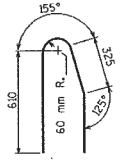
BUNDLING DETAIL



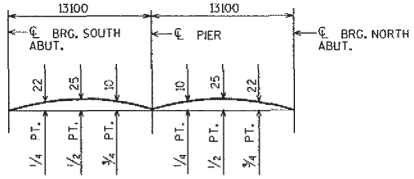
S1614



S1615



S1616



CAMBER DIAGRAM

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION AND FUTURE PLASTIC FLOW. THIS DOES NOT INCLUDE AN ALLOWANCE FOR FORM SETTLEMENT. DEADLOAD DEFLECTION ONLY, EQUALS ¼ OF CAMBER VALUES SHOWN.

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUNDLE	LOCATION
S1601	X	78	2030	X			SLAB @ ABUT. VERT.
S1602	X	78	915	X			SLAB @ ABUT. VERT.
S1303	X	12	6440				ABUT. HORIZ.
S2204	X	39	5590	X			HAUNCH @ PIER
S1605	X	9	12180				HAUNCH @ PIER TRANS.
S1306	X	12	6440				HAUNCH @ PIER TRANS.
S1607	X	74	12180				SLAB BOTT. TRANS.
S2908	X	86	12130			X	SLAB BOTT. LONGIT.
S2909	X	76	9040				SLAB BOTT. LONGIT.
S1310	X	78	4840				SLAB TOP LONGIT.
S2911	X	39	18280				SLAB TOP LONGIT.
S2912	X	38	9140				SLAB TOP LONGIT.
S1313	X	168	6440				SLAB TOP TRANS.
S1614	X	264	1470	X			PARAPET VERT.
S1615	X	264	1350	X			PARAPET VERT.
S1616	X	4	1430	X			PARAPET @ CORNERS OF SLAB VERT.
S1617	X	20	1730				PARAPET HORIZ.
S1618	X	20	11600				PARAPET HORIZ.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

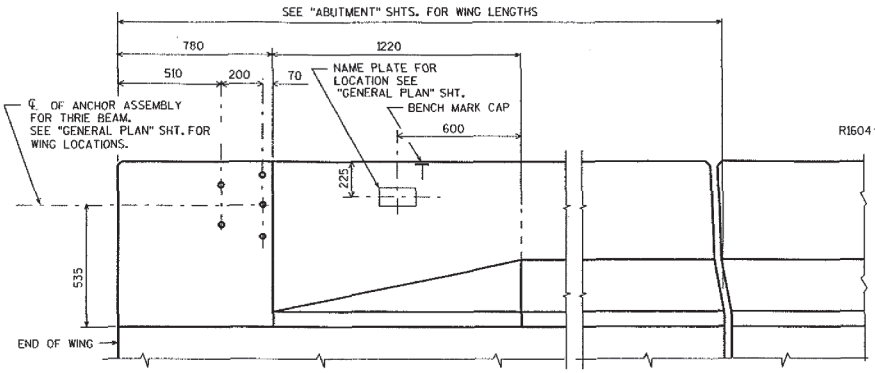
STRUCTURE B-22-141

CONST. SPEC. 1996 | DRAWN BY C.M.F./ | PLANS CK'D.

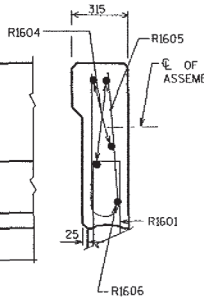
SUPERSTRUCTURE DETAILS

SHEET 10

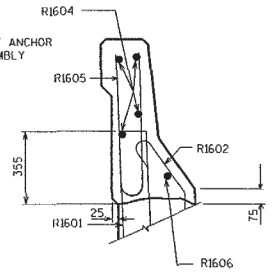
STATE PROJECT NUMBER	SHEET NO.
5215-02-72	8.24



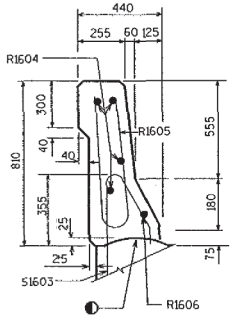
INSIDE ELEVATION



SECTION A



SECTION B

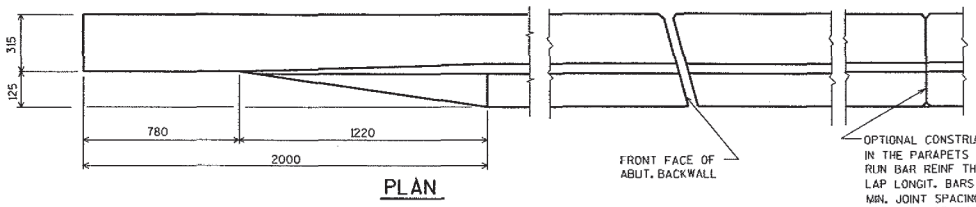


SECTION C

BILL OF BARS

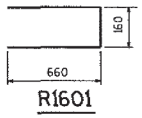
FOR ABUTMENT PARAPETS

BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	LOCATION
R1601	X	28	28	1400	X	PARAPET VERT.
R1602	X	16	16	960	X	PARAPET VERT.
R1603	X	8	8	1430	X	PARAPET VERT.
R1604	X	8	8	2800		PARAPET HORIZ.
R1605	X	36	36	1470	X	PARAPET VERT.
R1606	X	2	2	2810	X	PARAPET HORIZ.

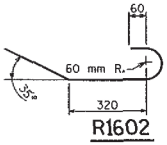


PLAN

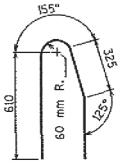
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 550 mm MIN. JOINT SPACING OF 25000 mm DEFINE CONST. JOINT WITH A 20 mm 'V' GROOVE.



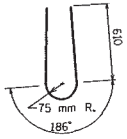
R1601



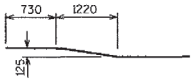
R1602



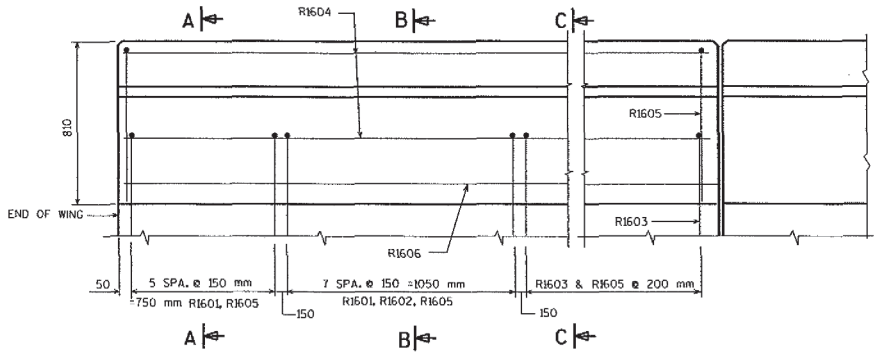
R1603



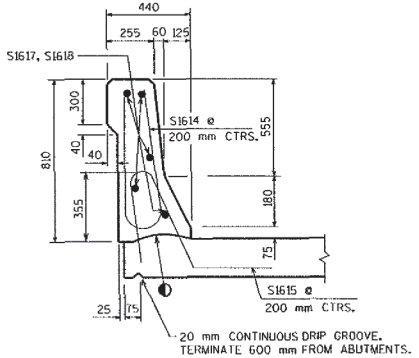
R1605



R1606

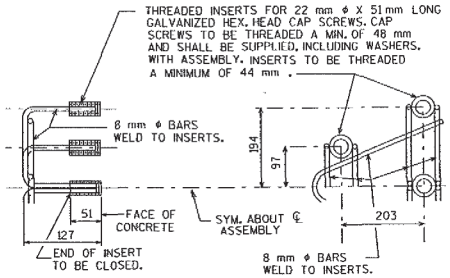


OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-22-141

CONST. SPEC.	1996	DRAWN BY	g	PLANS CK'D.	

SLOPED FACE PARAPET "LF"

SHEET 11

12 4 78 2011 13 M 15

	STATION	DISTANCE m	END AREA CUT m2	END AREA FILL m2	END AREA ROCK m2	INCR VOLUME CUT m3	INCR VOLUME FILL m3	INCR VOLUME ROCK m3	CUM VOLUME CUT m3	CUM VOLUME FILL m3	SHR. FACT.	CUM VOLUME ROCK m3	EXP.FACT.	MASS HAUL
4 +	80.00													
4 +	114.81	34.81	3.46	1.54		60	35		60	35	1.30			25
4 +	145.29	30.48	0.56	7.32		61	176		121	210	1.30			-89
4 +	175.77	30.48	0	23.26		9	606		130	816	1.30			-686
4 +	206.25	30.48	0	39.66		0	1247		130	2063	1.30			-1933
4 +	236.73	30.48	0	38.76		0	1554		130	3616	1.30			-3486
4 +	267.21	30.48	0.46	17.13		7	1107		137	4724	1.30			-4587
4 +	297.69	30.48	14.14	0.05		223	340		360	5064	1.30			-4705
4 +	328.17	30.48	27.88	0		640	1		1000	5065	1.30			-4065
4 +	358.65	30.48	22.73	0		771	0		1771	5065	1.30			-3294
4 +	389.13	30.48	6.01	0.86		438	17		2209	5082	1.30			-2873
4 +	419.61	30.48	0	19.06		92	395		2301	5477	1.30			-3176
4 +	450.09	30.48	0	51.1		0	1390		2301	6867	1.30			-4566
4 +	480.57	30.48	0	77.27		0	2543		2301	9410	1.30			-7109
4 +	511.05	30.48	0	57.48		0	2670		2301	12080	1.30			-9779
4 +	541.53	30.48	4.12	30.13		63	1736		2364	13816	1.30			-11452
4 +	572.01	30.48	1.72	18.24		89	958		2453	14774	1.30			-12321
4 +	602.49	30.48	0.04	26.06		27	878		2479	15651	1.30			-13172
4 +	611.02	8.53	1.57	29.99		7	311		2486	15962	1.30			-13476
4 +	619.86	8.84	3.78	29.71		24	343		2510	16305	1.30			-13796
4 +	632.97	13.11	11.13	16.61		98	395		2608	16700	1.30			-14092
4 +	663.45	30.48	63.07	0		1131	329		3738	17029	1.30			-13291
4 +	693.93	30.48	114.06	0		2699	0	0	6438	17029	1.30	0	1.05	-10591
4 +	724.41	30.48	115.29	0		3495	0	0	9933	17029	1.30	0	1.05	-7096
4 +	754.89	30.48	117.67	0		3550	0	0	13484	17029	1.30	0	1.05	-3545
4 +	785.37	30.48	39.35	0.02		2393	0		15877	17030	1.30	0	1.05	-1153
4 +	815.85	30.48	59.77	0		1511	0		17387	17030	1.30	0	1.05	357
4 +	846.33	30.48	64.27	0		1890	0		19278	17030	1.30	0	1.05	2248
4 +	876.81	30.48	67	0		2001	0	0	21278	17030	1.30	0	1.05	4248
4 +	907.29	30.48	72	0		2118	0	0	23396	17030	1.30	0	1.05	6367
4 +	937.77	30.48	89.1	0		2455	0	0	25852	17030	1.30	0	1.05	8822
4 +	968.25	30.48	92.1	0		2761	0	0	28613	17030	1.30	0	1.05	11583
4 +	998.73	30.48	108	0		3050	0	0	31663	17030	1.30	0	1.05	14633
5 +	29.21	30.48	123.4	0		3527	0	0	35189	17030	1.30	0	1.05	18159
5 +	59.69	30.48	83.8	0		3158	0	0	38347	17030	1.30	0	1.05	21317
5 +	90.17	30.48	61.2	3.3		2210	65	0	40557	17095	1.30	0	1.05	23461
5 +	120.65	30.48	32.1	5.73		1422	179	0	41979	17274	1.30	0	1.05	24704
5 +	151.13	30.48	0.85	7.08		502	254		42481	17528	1.30	0	1.05	24953
5 +	181.61	30.48	1	14.02		28	418		42509	17946	1.30	0	1.05	24563
5 +	188.62	7.01	0.75	8.58		6	103		42515	18049	1.30	0	1.05	24466
5 +	212.09	23.47	18.6	0	6	227	131	72	42742	18180	1.30	72	1.05	24638
5 +	242.57	30.48	27.84	0	16	708	0	338	43450	18180	1.30	410	1.05	25701
5 +	273.05	30.48	37.69	0	16	999	0	480	44449	18180	1.30	890	1.05	27204
5 +	303.53	30.48	79.12	0	0	1780	0	236	46229	18180	1.30	1127	1.05	29232
5 +	334.01	30.48	73.49	0	15	2326	0	226	48555	18180	1.30	1353	1.05	31795
5 +	364.49	30.48	67.13	0	9	2143	0	363	50698	18180	1.30	1716	1.05	34319
5 +	394.97	30.48	65.5	0	44	2021	0	806	52719	18180	1.30	2521	1.05	37187
5 +	425.45	30.48	41.93	0.21	85	1637	4	1966	54356	18184	1.30	4487	1.05	40883
5 +	455.93	30.48	50.62	7.2	55	1410	147	2140	55767	18331	1.30	6627	1.05	44394
5 +	486.41	30.48	35.97	20.39	23	1320	547	1193	57086	18877	1.30	7820	1.05	46420
5 +	516.89	30.48	15.02	89.41		777	2175		57863	21053	1.30	7820	1.05	45021
5 +	547.37	30.48	0	148.74		229	4718		58092	25771	1.30	7820	1.05	40532
5 +	608.33	60.96	0	317.4		0	18470		58092	44241	1.30	7820	1.05	22062
5 +	638.81	30.48	0	319.83		0	12625		58092	56866	1.30	7820	1.05	9437
5 +	669.29	30.48	0	250.36		0	11297		58092	68163	1.30	7820	1.05	-1860
5 +	699.77	30.48	9.62	126.92		147	7475		58239	75637	1.30	7820	1.05	-9188
5 +	730.25	30.48	30.31	0	120	609	2515	1831	58847	78152	1.30	9651	1.05	-9171
5 +	760.73	30.48	31.59	0	332	943	0	6884	59791	78152	1.30	16535	1.05	-999
5 +	791.21	30.48	27.18	0	308	896	0	9748	60686	78152	1.30	26284	1.05	10132
5 +	821.69	30.48	19.14	0	186	706	0	7532	61392	78152	1.30	33816	1.05	18747
5 +	852.17	30.48	114.16	0		2031	0		63424	78152	1.30	33816	1.05	20778
5 +	882.65	30.48	0	86.27		1740	1709		65164	79861	1.30	33816	1.05	20809
5 +	913.13	30.48	4.15	182.37		63	5322		65227	85183	1.30	33816	1.05	15550
5 +	943.61	30.48	0	165.06		63	6883		65290	92067	1.30	33816	1.05	8730
5 +	974.09	30.48	0	137.26		0	5990		65290	98056	1.30	33816	1.05	2740
6 +	4.57	30.48	0	60.9		0	3926		65290	101982	1.30	33816	1.05	-1186
6 +	35.05	30.48	1.54	7.98		23	1365		65314	103347	1.30	33816	1.05	-2527
6 +	65.53	30.48	39.54	0		626	158		65940	103505	1.30	33816	1.05	-2059
6 +	96.01	30.48	253.54	0	2	4467	0	33	70406	103505	1.30	33849	1.05	2442
6 +	126.49	30.48	32.9	0	0	4365	0	33	74772	103505	1.30	33882	1.05	6842

PLOT SCALE:

PLOT NAME: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

REV. DATE:

ORIGINATOR:

LEVELS ON -

EARTHWORK DATA TABLE | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO:9.1 | M

FILE NAME: M:±PP±EARTHDATA1.DGN

WisDOT: MSHT20

STATION	DISTANCE	END AREA			INCR VOLUME			CUM VOLUME					MASS
		CUT	FILL	ROCK	CUT	FILL	ROCK	CUT	FILL	SHR. FACT.	ROCK	EXP.FACT.	HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
6 + 156.97	30.48	153.53	0	30	2841	0	450	77613	103505	1.30	34332	1.05	10156
6 + 187.45	30.48	123.03	0	9	4215	0	594	81827	103505	1.30	34925	1.05	14994
6 + 217.93	30.48	36.28	0	7	2428	0	253	84255	103505	1.30	35179	1.05	17688
6 + 248.41	30.48	60.34	5.17	27	1472	102	527	85728	103607	1.30	35706	1.05	19612
6 + 278.89	30.48	51.9	3.73	90	1711	176	1784	87438	103784	1.30	37490	1.05	23019
6 + 309.37	30.48	27.3	1.36	154	1207	101	3709	88645	103885	1.30	41199	1.05	28020
6 + 339.85	30.48	47.8	0.33	25	1145	33	2716	89790	103918	1.30	43915	1.05	31983
6 + 370.33	30.48	3.39	1.16		780	30		90570	103948	1.30	43915	1.05	32734
6 + 400.81	30.48	2.71	1.37		93	50		90663	103998	1.30	43915	1.05	32776
6 + 431.29	30.48	4.05	8.84		103	202		90766	104200	1.30	43915	1.05	32677
6 + 461.77	30.48	2.22	9.02		96	354		90862	104554	1.30	43915	1.05	32419
6 + 492.25	30.48	0.94	4.08		48	260		90910	104813	1.30	43915	1.05	32207
6 + 522.73	30.48	1.44	0.52		36	91		90946	104905	1.30	43915	1.05	32153
6 + 553.21	30.48	1.24	0.53		41	21		90987	104925	1.30	43915	1.05	32173
6 + 583.69	30.48	1.09	1.07		36	32		91022	104957	1.30	43915	1.05	32176
6 + 614.17	30.48	14.35	1.45		235	50		91258	105007	1.30	43915	1.05	32362
6 + 644.65	30.48	14.67	2.13	1	442	71	13	91700	105078	1.30	43928	1.05	32747
6 + 675.13	30.48	9.55	3.18	6	369	105	97	92069	105183	1.30	44025	1.05	33112
6 + 705.61	30.48	13.28	8.89	4	348	239	150	92417	105422	1.30	44175	1.05	33378
6 + 736.09	30.48	15.29	9.93	6	435	373	152	92852	105795	1.30	44327	1.05	33601
6 + 766.57	30.48	15.14	9.71		464	389		93316	106184	1.30	44327	1.05	33676
6 + 797.05	30.48	0.67	3.73		241	266		93557	106450	1.30	44327	1.05	33650
6 + 827.53	30.48	4.12	1.19		73	97		93630	106548	1.30	44327	1.05	33626
6 + 858.01	30.48	2.31	1.42		98	52		93728	106600	1.30	44327	1.05	33672
6 + 888.49	30.48	0.78	7.67		47	180		93775	106780	1.30	44327	1.05	33539
6 + 949.45	60.96	2.53	14.59		101	882		93876	107662	1.30	44327	1.05	32758
6 + 979.93	30.48	1.6	10.65		63	500		93939	108162	1.30	44327	1.05	32321
7 + 10.41	30.48	3.18	13.37		73	476		94012	108638	1.30	44327	1.05	31918
7 + 40.89	30.48	1.98	10.65		79	476		94091	109114	1.30	44327	1.05	31521
7 + 71.37	30.48	4.97	14.36		106	495		94197	109609	1.30	44327	1.05	31131
7 + 101.85	30.48	14.9	4.53		303	374		94499	109983	1.30	44327	1.05	31060
7 + 132.33	30.48	52.95	0.42		1034	98	0	95533	110081	1.30	44327	1.05	31996
7 + 162.81	30.48	45.37	0		1498	8	0	97032	110090	1.30	44327	1.05	33486
7 + 193.29	30.48	21.23	0		1015	0	0	98047	110090	1.30	44327	1.05	34501
7 + 223.77	30.48	26	0		720	0		98767	110090	1.30	44327	1.05	35220
7 + 254.26	30.48	9.23	13.64		537	270		99303	110360	1.30	44327	1.05	35487
7 + 284.74	30.48	1.4	2.55		162	321		99465	110681	1.30	44327	1.05	35328
7 + 315.22	30.48	9.23	13.64		162	321		99627	111002	1.30	44327	1.05	35170
7 + 345.70	30.48	4.47	1.78		209	306		99836	111307	1.30	44327	1.05	35073
7 + 376.18	30.48	16.3	0.07		317	37		100153	111344	1.30	44327	1.05	35353
7 + 406.66	30.48	0.86	0.62		262	14		100414	111357	1.30	44327	1.05	35601
7 + 437.14	30.48	1.6	0.46		37	21		100452	111379	1.30	44327	1.05	35617
7 + 467.62	30.48	1.39	0.4		46	17		100497	111396	1.30	44327	1.05	35645
7 + 498.10	30.48	1.07	2.44		37	56		100535	111452	1.30	44327	1.05	35626
7 + 528.58	30.48	1	3.74		32	122		100566	111574	1.30	44327	1.05	35535
7 + 559.06	30.48	3.03	2.47		61	123		100628	111698	1.30	44327	1.05	35474
7 + 589.54	30.48	3.32	4.28		97	134		100725	111831	1.30	44327	1.05	35437
7 + 620.02	30.48	4.45	5.59		118	196		100843	112027	1.30	44327	1.05	35360
7 + 650.50	30.48	4.9	6.71		142	244		100985	112270	1.30	44327	1.05	35259
7 + 680.98	30.48	7.96	8.68		196	305		101181	112575	1.30	44327	1.05	35150
7 + 711.46	30.48	10.69	11.92		284	408		101466	112984	1.30	44327	1.05	35026
7 + 741.94	30.48	18.03	9.86		438	432		101903	113415	1.30	44327	1.05	35032
7 + 772.42	30.48	15.76	47.21		515	1131		102418	114546	1.30	44327	1.05	34416
7 + 802.90	30.48	37.28	67.72	2	808	2277	29	103227	116823	1.30	44356	1.05	32978
7 + 833.38	30.48	13.34	57.07	4	771	2472	84	103998	119295	1.30	44440	1.05	31366
7 + 863.86	30.48	4.84	9.6		277	1321		104275	120616	1.30	44440	1.05	30322
7 + 894.34	30.48	12.13	0.43		259	199		104534	120815	1.30	44440	1.05	30382
7 + 924.82	30.48	8.86	0.16		320	12		104854	120826	1.30	44440	1.05	30690
7 + 955.30	30.48	2.71	0.01		176	3		105030	120830	1.30	44440	1.05	30863
7 + 985.78	30.48	10.04	1.32		194	26		105224	120856	1.30	44440	1.05	31031
8 + 16.26	30.48	8.56	5.75		283	140		105508	120996	1.30	44440	1.05	31174
8 + 46.74	30.48	19.86	0.08		433	116		105941	121112	1.30	44440	1.05	31492
8 + 77.22	30.48	6.57	0.06		403	3		106344	121114	1.30	44440	1.05	31892
8 + 107.70	30.48	49.49	0		854	1		107198	121116	1.30	44440	1.05	32745
8 + 138.18	30.48	36.38	0		1309	0		108507	121116	1.30	44440	1.05	34054
8 + 168.66	30.48	26.98	0		966	0		109472	121116	1.30	44440	1.05	35019
8 + 229.62	60.96	162.14	0		5764	0		115237	121116	1.30	44440	1.05	40784
8 + 260.10	30.48	183.74	0	62	5271	0	950	120508	121116	1.30	45390	1.05	47052
8 + 290.58	30.48	375.23	0	96	8519	0	2418	129027	121116	1.30	47808	1.05	58110
8 + 321.06	30.48	269.24	0	62	9822	0	2418	138849	121116	1.30	50226	1.05	70471
8 + 351.54	30.48	125.68	0	44	6019	0	1623	144867	121116	1.30	51849	1.05	78193

PLOT SCALE:

PLOT NAME: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

REV. DATE:

ORIGINATOR:

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

EARTHWORK DATA TABLE | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 9.2 | M

FILE NAME: M:±PP±EARTHDATA2.DGN

WisDOT: MSHT20

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	CUM VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
8 + 382.02	30.48	80.8	0		3147	0		148014	121116	1.30	51849	1.05	81340
8 + 412.50	30.48	13.75	8.73		1441	173		149455	121289	1.30	51849	1.05	82608
8 + 442.98	30.48	21.2	22.96	16	533	628	244	149987	121916	1.30	52093	1.05	82769
8 + 473.46	30.48	37.7	2.15	10	898	497	402	150885	122414	1.30	52496	1.05	83592
8 + 503.94	30.48	10.12	8.24	10	729	206	311	151614	122620	1.30	52806	1.05	84441
8 + 534.42	30.48	13.55	5.8	6	361	278	241	151975	122898	1.30	53047	1.05	84776
8 + 564.90	30.48	18.28	23.99	8	485	590	216	152460	123488	1.30	53264	1.05	84898
8 + 595.38	30.48	0.68	21.43		289	900		152749	124388	1.30	53264	1.05	84288
8 + 625.70	30.32	0.73	61.78		21	1640		152770	126028	1.30	53264	1.05	82669
8 + 656.34	30.64	4.15	6.01		75	1350		152845	127378	1.30	53264	1.05	81394
8 + 686.82	30.48	1.13	3.02		80	179		152925	127557	1.30	53264	1.05	81295
8 + 717.30	30.48	3.2	1.21		66	84		152991	127641	1.30	53264	1.05	81277
8 + 747.78	30.48	1.72	1.75		75	59		153066	127699	1.30	53264	1.05	81294
8 + 778.26	30.48	1.94	0.25		56	40		153122	127739	1.30	53264	1.05	81310
8 + 808.74	30.48	1.37	0.97		50	24		153172	127763	1.30	53264	1.05	81336
8 + 839.22	30.48	2.16	0.48		54	29		153226	127792	1.30	53264	1.05	81361
8 + 869.70	30.48	0.74	7.86		44	165		153270	127957	1.30	53264	1.05	81240
8 + 900.18	30.48	0.81	1.92		24	194		153294	128151	1.30	53264	1.05	81070
8 + 930.66	30.48	1	3.76		28	113		153322	128263	1.30	53264	1.05	80985
8 + 961.14	30.48	0.86	7.88		28	231		153350	128494	1.30	53264	1.05	80783
8 + 991.62	30.48	0.87	12.14		26	397		153376	128891	1.30	53264	1.05	80413
9 + 22.10	30.48	1.09	10.62		30	451		153406	129342	1.30	53264	1.05	79992
9 + 52.58	30.48	0.64	5.6		26	321		153433	129663	1.30	53264	1.05	79697
9 + 83.06	30.48	1.14	1.39		27	138		153460	129801	1.30	53264	1.05	79585
9 + 113.54	30.48	1.07	7.74		34	181		153493	129982	1.30	53264	1.05	79438
9 + 144.02	30.48	2.23	4.79		50	248		153544	130230	1.30	53264	1.05	79240
9 + 174.50	30.48	1.29	5.08		54	196		153597	130426	1.30	53264	1.05	79098
9 + 204.98	30.48	1.21	6.18		38	223		153635	130649	1.30	53264	1.05	78913
9 + 235.46	30.48	1.47	3.93		41	200		153676	130849	1.30	53264	1.05	78754
9 + 265.94	30.48	1.53	4.28		46	163		153722	131012	1.30	53264	1.05	78637
9 + 296.42	30.48	1.35	3.81		44	160		153766	131172	1.30	53264	1.05	78520
9 + 326.90	30.48	0.76	4.49		32	164		153798	131337	1.30	53264	1.05	78388
9 + 357.38	30.48	1.56	3.55		35	159		153833	131496	1.30	53264	1.05	78264
9 + 387.86	30.48	0.88	3.08		37	131		153871	131627	1.30	53264	1.05	78170
9 + 418.34	30.48	0.61	7.47		23	209		153893	131836	1.30	53264	1.05	77984
9 + 448.82	30.48	2.39	7.47		46	296		153939	132132	1.30	53264	1.05	77733
9 + 479.30	30.48	1.79	5.35		64	254		154003	132386	1.30	53264	1.05	77543
9 + 509.78	30.48	4.16	0.57		91	117		154093	132504	1.30	53264	1.05	77517
9 + 523.00	13.22	4.16	0.57		55	10		154148	132513	1.30	53264	1.05	77562
B-61-141		0											
9 + 551.00		0.68	0.09										
9 + 570.74	19.74	0.68	0.09		13	2		154162	132516	1.30	53264	1.05	77573
9 + 601.22	30.48	1.11	1.13		27	24		154189	132540	1.30	53264	1.05	77576
9 + 631.70	30.48	0.82	4.05		29	103		154219	132643	1.30	53264	1.05	77503
9 + 662.18	30.48	0.98	3.78		27	155		154246	132798	1.30	53264	1.05	77375
9 + 692.66	30.48	1.36	3.47		36	144		154282	132941	1.30	53264	1.05	77267
9 + 723.14	30.48	1.35	1.44		41	97		154323	133039	1.30	53264	1.05	77211
9 + 753.62	30.48	0.9	2.01		34	68		154357	133107	1.30	53264	1.05	77177
9 + 784.10	30.48	0.7	2.48		24	89		154382	133196	1.30	53264	1.05	77112
9 + 814.58	30.48	0.9	1.55		24	80		154406	133276	1.30	53264	1.05	77057
9 + 845.06	30.48	0.7	1.91		24	69		154430	133344	1.30	53264	1.05	77013
9 + 875.54	30.48	0.91	2.59		25	89		154455	133434	1.30	53264	1.05	76948
9 + 906.02	30.48	2.21	2.87		48	108		154502	133542	1.30	53264	1.05	76888
9 + 936.50	30.48	1.24	13.73		53	329		154555	133871	1.30	53264	1.05	76611
9 + 966.98	30.48	0.91	1.31		33	298		154588	134169	1.30	53264	1.05	76346
9 + 997.46	30.48	1.21	1.31		32	52		154620	134220	1.30	53264	1.05	76327
10 + 27.94	30.48	0.72	3.87		29	103		154649	134323	1.30	53264	1.05	76253
10 + 58.42	30.48	0.71	5.37		22	183		154671	134506	1.30	53264	1.05	76092
10 + 88.90	30.48	0.76	5.53		22	216		154694	134722	1.30	53264	1.05	75898
10 + 119.38	30.48	1.21	5.27		30	214		154724	134936	1.30	53264	1.05	75715
10 + 149.86	30.48	1.18	0.9		36	122		154760	135058	1.30	53264	1.05	75629
10 + 180.34	30.48	1.4	0.56		39	29		154799	135087	1.30	53264	1.05	75639
10 + 210.82	30.48	1.07	1.33		38	37		154837	135125	1.30	53264	1.05	75639
10 + 241.30	30.48	0.94	3.5		31	96		154868	135220	1.30	53264	1.05	75574
10 + 271.78	30.48	1.06	84.91		30	1752		154898	136972	1.30	53264	1.05	73853
10 + 302.26	30.48	0.68	92.55		27	3516		154925	140488	1.30	53264	1.05	70364
10 + 332.74	30.48	0.94	12.39		25	2079		154949	142567	1.30	53264	1.05	68309
10 + 363.22	30.48	1.31	2.93		34	304		154984	142870	1.30	53264	1.05	68040
10 + 393.70	30.48	1.22	9.22		39	241		155022	143111	1.30	53264	1.05	67838

PLOT SCALE:

PLOT NAME: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

REV. DATE:

ORIGINATOR:

LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,39,40,41,42,43,44,45,46,47

EARTHWORK DATA TABLE | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 9.3 M

FILE NAME: M:±PP±EARTHDATA3.DGN

WISDOT: MSHT20

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	CUM VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
10 + 424.18	30.48	1.15	15.26		36	485		155058	143596	1.30	53264	1.05	67389
10 + 454.66	30.48	0.95	38.24		32	1060		155090	144656	1.30	53264	1.05	66361
10 + 485.14	30.48	0.78	13.96		26	1034		155117	145690	1.30	53264	1.05	65353
10 + 515.62	30.48	17.47	1.02		278	297		155395	145987	1.30	53264	1.05	65335
10 + 546.10	30.48	14.89	31.83		493	651		155888	146638	1.30	53264	1.05	65177
10 + 576.58	30.48	11.12	18.69		396	1001		156284	147639	1.30	53264	1.05	64573
10 + 607.06	30.48	10.83	8.72		335	543		156619	148182	1.30	53264	1.05	64364
10 + 637.54	30.48	6.29	3.21		261	236		156880	148418	1.30	53264	1.05	64389
10 + 668.02	30.48	10.75	8.56		260	233		157140	148651	1.30	53264	1.05	64415
10 + 698.50	30.48	8.35	2.89		291	227		157431	148878	1.30	53264	1.05	64479
10 + 728.98	30.48	10.03	6.8		280	192		157711	149070	1.30	53264	1.05	64567
10 + 759.46	30.48	1.14	7.03		170	274		157881	149344	1.30	53264	1.05	64464
10 + 789.94	30.48	1.33	1.61		38	171		157919	149515	1.30	53264	1.05	64330
10 + 820.42	30.48	7.01	0.1		127	34		158046	149549	1.30	53264	1.05	64423
10 + 850.90	30.48	12.18	6.66		292	134		158338	149683	1.30	53264	1.05	64582
10 + 881.38	30.48	10.89	1.96		352	171		158690	149854	1.30	53264	1.05	64763
10 + 911.86	30.48	2.37	2.7		202	92		158892	149946	1.30	53264	1.05	64872
10 + 942.34	30.48	10.06	0.54		189	64		159081	150010	1.30	53264	1.05	64998
10 + 972.82	30.48	5.28	0.77		234	26		159315	150036	1.30	53264	1.05	65206
11 + 3.30	30.48	1.75	7.49		107	164		159422	150200	1.30	53264	1.05	65149
11 + 33.78	30.48	6.51	0.89		126	166		159548	150366	1.30	53264	1.05	65109
11 + 36.50	2.71	2.34	7.06		12	14		159560	150380	1.30	53264	1.05	65107
11 + 64.26	27.77	18.14	0		284	127		159844	150508	1.30	53264	1.05	65264
11 + 94.74	30.48	24.5	0		650	0		160494	150508	1.30	53264	1.05	65914
11 + 125.22	30.48	17.17	2.25		635	45		161129	150552	1.30	53264	1.05	66504
11 + 155.70	30.48	8.48	0.45		391	53		161520	150606	1.30	53264	1.05	66841
11 + 186.18	30.48	2.35	12.02		165	247		161685	150853	1.30	53264	1.05	66759
11 + 216.66	30.48	1.69	11.48		62	466		161747	151318	1.30	53264	1.05	66355
11 + 247.14	30.48	0.8	0.69		38	241		161785	151559	1.30	53264	1.05	66152
11 + 277.62	30.48	5.39	0.6		94	26		161879	151585	1.30	53264	1.05	66221
11 + 308.10	30.48	79.07	0.33		1287	18		163166	151603	1.30	53264	1.05	67490
11 + 338.58	30.48	7.15	0.38		1314	14		164480	151617	1.30	53264	1.05	68790
11 + 369.06	30.48	2.02	7.5		140	156		164620	151774	1.30	53264	1.05	68773
11 + 399.54	30.48	0.83	7.78		43	303		164663	152076	1.30	53264	1.05	68514
11 + 430.02	30.48	0.8	0.89		25	172		164688	152248	1.30	53264	1.05	68367
11 + 460.50	30.48	1.68	0.05		38	19		164726	152267	1.30	53264	1.05	68386
11 + 490.98	30.48	1.68	0.47		51	10		164777	152277	1.30	53264	1.05	68427
11 + 521.46	30.48	0.5	9.72		33	202		164811	152479	1.30	53264	1.05	68259
11 + 551.94	30.48	0.6	4.54		17	283		164827	152761	1.30	53264	1.05	67993
11 + 582.42	30.48	11.92	1.2		191	114		165018	152875	1.30	53264	1.05	68070
11 + 612.90	30.48	11.71	2.71		360	77		165378	152953	1.30	53264	1.05	68353
11 + 643.38	30.48	2.67	15.97		219	370		165597	153323	1.30	53264	1.05	68202
11 + 673.86	30.48	0	55.58		41	1418		165638	154740	1.30	53264	1.05	66825
11 + 704.34	30.48	0	130.01		0	3677		165638	158417	1.30	53264	1.05	63148
11 + 734.82	30.48	0	171.7		0	5977		165638	164395	1.30	53264	1.05	57170
11 + 765.30	30.48	0	102.67		0	5436		165638	169831	1.30	53264	1.05	51734
11 + 795.78	30.48	0	45.04		0	2926		165638	172757	1.30	53264	1.05	48808
11 + 826.26	30.48	2.28	8.02		35	1051		165673	173808	1.30	53264	1.05	47791
11 + 856.74	30.48	13.84	1.26		246	184		165918	173992	1.30	53264	1.05	47853
11 + 887.22	30.48	11.17	0.73		381	39		166300	174031	1.30	53264	1.05	48195
11 + 917.70	30.48	4.97	6.72		246	148		166546	174179	1.30	53264	1.05	48293
11 + 948.18	30.48	3.92	4.44		135	221		166681	174400	1.30	53264	1.05	48208
11 + 978.66	30.48	3.49	26.09		113	605		166794	175005	1.30	53264	1.05	47716
12 + 9.14	30.48	10.08	1.94		207	555		167001	175560	1.30	53264	1.05	47367
12 + 39.62	30.48	35.89	0		701	38		167701	175599	1.30	53264	1.05	48029
12 + 70.10	30.48	67.61	0		1577	0		169279	175599	1.30	53264	1.05	49607
12 + 100.58	30.48	102.21	0		2588	0		171867	175599	1.30	53264	1.05	52195
12 + 131.06	30.48	118.32	0		3361	0		175228	175599	1.30	53264	1.05	55556
12 + 161.54	30.48	99.44	0		3319	0		178546	175599	1.30	53264	1.05	58874
12 + 192.02	30.48	97.18	0		2996	0		181543	175599	1.30	53264	1.05	61871
12 + 222.50	30.48	85.3	0		2781	0		184324	175599	1.30	53264	1.05	64652
12 + 252.99	30.48	42.43	0		1947	0		186271	175599	1.30	53264	1.05	66599
12 + 283.47	30.48	10.59	0.1		808	2		187079	175601	1.30	53264	1.05	67405
12 + 313.95	30.48	0.73	7.93		173	159		187251	175760	1.30	53264	1.05	67418
12 + 344.43	30.48	0	55.43		11	1255		187262	177015	1.30	53264	1.05	66174
12 + 374.91	30.48	0	103.73		0	3153		187262	180168	1.30	53264	1.05	63021
12 + 405.39	30.48	0	178.42		0	5590		187262	185758	1.30	53264	1.05	57431
12 + 435.87	30.48	0	141.75		0	6343		187262	192102	1.30	53264	1.05	51087
12 + 466.35	30.48	0	98.37		0	4757		187262	196859	1.30	53264	1.05	46330

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR:

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

EARTHWORK DATA TABLE		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 9.4	M

FILE NAME: M:\PP\EARTHDATA4.DGN

WisDOT: MSHT20

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	CUM VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
12 + 496.83	30.48	0	45.66		0	2854		187262	199712	1.30	53264	1.05	43477
12 + 527.31	30.48	0	11.75		0	1137		187262	200850	1.30	53264	1.05	42339
12 + 557.79	30.48	6.25	0.12		95	235		187357	201085	1.30	53264	1.05	42199
12 + 588.27	30.48	11.62	0.16		272	6		187630	201091	1.30	53264	1.05	42466
12 + 618.75	30.48	21.44	0		504	3		188134	201094	1.30	53264	1.05	42967
12 + 649.23	30.48	25.24	0		711	0		188845	201094	1.30	53264	1.05	43678
12 + 679.71	30.48	28.48	0		819	0		189664	201094	1.30	53264	1.05	44497
12 + 710.19	30.48	18.24	0		712	0		190376	201094	1.30	53264	1.05	45209
12 + 740.67	30.48	7.34	3.46		390	69		190766	201162	1.30	53264	1.05	45530
12 + 771.15	30.48	3.69	6		168	187		190934	201350	1.30	53264	1.05	45511
12 + 801.63	30.48	1.75	4.2		83	202		191017	201552	1.30	53264	1.05	45392
12 + 832.11	30.48	4.04	2.46		88	132		191105	201684	1.30	53264	1.05	45348
12 + 862.59	30.48	1.88	2.5		90	98		191195	201782	1.30	53264	1.05	45340
12 + 893.07	30.48	5.4	1.96		111	88		191306	201870	1.30	53264	1.05	45363
12 + 923.55	30.48	11.3	1.78		255	74		191560	201944	1.30	53264	1.05	45543
12 + 954.03	30.48	13.69	0.79		381	51		191941	201995	1.30	53264	1.05	45873
12 + 984.51	30.48	9.33	9.18		351	198		192292	202193	1.30	53264	1.05	46026
13 + 14.99	30.48	3.03	18.44		188	547		192481	202740	1.30	53264	1.05	45667
13 + 45.47	30.48	10.08	25.95		200	879		192680	203620	1.30	53264	1.05	44988
13 + 75.95	30.48	0.7	26.02		164	1030		192845	204649	1.30	53264	1.05	44122
13 + 106.43	30.48	0.68	17.15		21	855		192866	205504	1.30	53264	1.05	43288
13 + 136.91	30.48	0.92	13.71		24	611		192890	206116	1.30	53264	1.05	42701
13 + 167.39	30.48	8.52	12.81		144	525		193034	206641	1.30	53264	1.05	42319
13 + 197.87	30.48	0.91	13.04		144	512		193178	207153	1.30	53264	1.05	41951
13 + 228.35	30.48	0.99	5.33		29	364		193207	207517	1.30	53264	1.05	41616
13 + 258.83	30.48	0.8	10.4		27	312		193234	207829	1.30	53264	1.05	41332
13 + 289.31	30.48	0.8	2.12		24	248		193258	208077	1.30	53264	1.05	41108
13 + 319.79	30.48	0.66	6.91		22	179		193280	208256	1.30	53264	1.05	40951
13 + 350.27	30.48	1.21	13.75		28	409		193309	208665	1.30	53264	1.05	40571
13 + 380.75	30.48	1.19	3.25		37	337		193346	209002	1.30	53264	1.05	40270
13 + 411.23	30.48	0.9	4.57		32	155		193377	209157	1.30	53264	1.05	40147
13 + 441.71	30.48	1.52	2.34		37	137		193414	209294	1.30	53264	1.05	40047
13 + 472.19	30.48	7.42	0.06		136	48		193551	209341	1.30	53264	1.05	40136
13 + 502.67	30.48	13.61	0.03		320	2		193871	209343	1.30	53264	1.05	40455
13 + 533.15	30.48	2.01	1.42		238	29		194109	209372	1.30	53264	1.05	40664
13 + 552.00	18.85	0			19	17		194128	209389	1.30	53264	1.05	40666
14 + 387.00		0	0.27										
14 + 417.07	30.07	1.33	1.14		20	28		194148	209417	1.30	53264	1.05	40658
14 + 447.55	30.48	15.36	1.13		254	45		194402	209462	1.30	53264	1.05	40867
14 + 478.03	30.48	1.63	0.61		259	34		194661	209496	1.30	53264	1.05	41092
14 + 508.51	30.48	4.31	1.04		91	33		194752	209529	1.30	53264	1.05	41150
14 + 538.99	30.48	1.42	5.9		87	137		194839	209667	1.30	53264	1.05	41099
14 + 569.47	30.48	1.42	13.53		43	385		194882	210051	1.30	53264	1.05	40758
14 + 599.95	30.48	6.56	7.72	2	122	421	32	195004	210472	1.30	53296	1.05	40492
14 + 630.43	30.48	9.2	1.48	1	240	182	41	195244	210655	1.30	53337	1.05	40593
14 + 660.91	30.48	9.9	1.89	1	291	67	24	195535	210722	1.30	53361	1.05	40843
14 + 691.39	30.48	5.7	2.75		238	92		195773	210813	1.30	53361	1.05	40989
14 + 721.87	30.48	6.75	3.38		190	121		195963	210935	1.30	53361	1.05	41067
14 + 752.35	30.48	3.44	0.43		155	75		196118	211010	1.30	53361	1.05	41137
14 + 782.83	30.48	3.44	2.82		105	64		196223	211075	1.30	53361	1.05	41177
14 + 813.31	30.48	1.83	8.73		80	229		196303	211304	1.30	53361	1.05	41029
14 + 843.79	30.48	0.86	3.55		41	243		196344	211547	1.30	53361	1.05	40827
14 + 874.27	30.48	2.66	0.25		54	75		196398	211622	1.30	53361	1.05	40805
14 + 904.75	30.48	4.63	0.16		111	8		196509	211630	1.30	53361	1.05	40908
14 + 935.23	30.48	9.16	0.48		210	13		196719	211643	1.30	53361	1.05	41105
14 + 965.71	30.48	7.25	0.46		250	19		196969	211662	1.30	53361	1.05	41337
14 + 996.19	30.48	1.92	0.48		140	19		197109	211680	1.30	53361	1.05	41458
15 + 26.67	30.48	1.08	0.93		46	28		197155	211708	1.30	53361	1.05	41476
15 + 57.15	30.48	0.92	1.16		30	41		197185	211750	1.30	53361	1.05	41465
15 + 87.63	30.48	0.84	1.38		27	50		197212	211800	1.30	53361	1.05	41441
15 + 118.11	30.48	2.02	1.51		44	57		197256	211857	1.30	53361	1.05	41428
15 + 148.59	30.48	1.96	2.07		61	71		197316	211928	1.30	53361	1.05	41417
15 + 179.07	30.48	1.59	1.65		54	74		197370	212002	1.30	53361	1.05	41398
15 + 209.55	30.48	0.77	1.35		36	59		197406	212061	1.30	53361	1.05	41374
15 + 240.03	30.48	1.38	1.17		33	50		197439	212111	1.30	53361	1.05	41357
15 + 270.51	30.48	4.03	0.64		82	36		197522	212147	1.30	53361	1.05	41404
15 + 300.99	30.48	0.84	1.04		74	33		197596	212180	1.30	53361	1.05	41445
15 + 331.47	30.48	1.69	2.15		39	63		197634	212243	1.30	53361	1.05	41420

PLOT SCALE:

PLOT NAME: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

REV. DATE:

ORIGINATOR:

LEVELS ON

EARTHWORK DATA TABLE | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 9.5 | M

FILE NAME: M:*PP*EARTHDATA5.DGN

WisDOT: MSHT20

1/26/99 – R1

STATION	DISTANCE	END AREA			INCR VOLUME			CUM VOLUME					MASS
		CUT	FILL	ROCK	CUT	FILL	ROCK	CUT	FILL	SHR. FACT.	ROCK	EXP.FAICT.	HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
12 + 496.83	30.48	0	45.66		0	2854		187262	199712	1.30	53264	1.05	43477
12 + 527.31	30.48	0	11.75		0	1137		187262	200850	1.30	53264	1.05	42339
12 + 557.79	30.48	6.25	0.12		95	235		187357	201085	1.30	53264	1.05	42199
12 + 588.27	30.48	11.62	0.16		272	6		187630	201091	1.30	53264	1.05	42466
12 + 618.75	30.48	21.44	0		504	3		188134	201094	1.30	53264	1.05	42967
12 + 649.23	30.48	25.24	0		711	0		188845	201094	1.30	53264	1.05	43678
12 + 679.71	30.48	28.48	0		819	0		189664	201094	1.30	53264	1.05	44497
12 + 710.19	30.48	18.24	0		712	0		190376	201094	1.30	53264	1.05	45209
12 + 740.67	30.48	7.34	3.46		390	69		190766	201162	1.30	53264	1.05	45530
12 + 771.15	30.48	3.69	6		168	187		190934	201350	1.30	53264	1.05	45511
12 + 801.63	30.48	1.75	4.2		83	202		191017	201552	1.30	53264	1.05	45392
12 + 832.11	30.48	4.04	2.46		88	132		191105	201684	1.30	53264	1.05	45348
12 + 862.59	30.48	1.88	2.5		90	98		191195	201782	1.30	53264	1.05	45340
12 + 893.07	30.48	5.4	1.96		111	88		191306	201870	1.30	53264	1.05	45363
12 + 923.55	30.48	11.3	1.78		255	74		191560	201944	1.30	53264	1.05	45543
12 + 954.03	30.48	13.69	0.79		381	51		191941	201995	1.30	53264	1.05	45873
12 + 984.51	30.48	9.33	9.18		351	198		192292	202193	1.30	53264	1.05	46026
13 + 14.99	30.48	3.03	18.44		188	547		192481	202740	1.30	53264	1.05	45667
13 + 45.47	30.48	10.08	25.95		200	879		192680	203620	1.30	53264	1.05	44988
13 + 75.95	30.48	0.7	26.02		164	1030		192845	204649	1.30	53264	1.05	44122
13 + 106.43	30.48	0.68	17.15		21	855		192866	205504	1.30	53264	1.05	43288
13 + 136.91	30.48	0.92	13.71		24	611		192890	206116	1.30	53264	1.05	42701
13 + 167.39	30.48	8.52	12.81		144	525		193034	206641	1.30	53264	1.05	42319
13 + 197.87	30.48	0.91	13.04		144	512		193178	207153	1.30	53264	1.05	41951
13 + 228.35	30.48	0.99	5.33		29	364		193207	207517	1.30	53264	1.05	41616
13 + 258.83	30.48	0.8	10.4		27	312		193234	207829	1.30	53264	1.05	41332
13 + 289.31	30.48	0.8	2.12		24	248		193258	208077	1.30	53264	1.05	41108
13 + 319.79	30.48	0.66	6.91		22	179		193280	208256	1.30	53264	1.05	40951
13 + 350.27	30.48	1.21	13.75		28	409		193309	208665	1.30	53264	1.05	40571
13 + 380.75	30.48	1.19	3.25		37	337		193346	209002	1.30	53264	1.05	40270
13 + 411.23	30.48	0.9	4.57		32	155		193377	209157	1.30	53264	1.05	40147
13 + 441.71	30.48	1.52	2.34		37	137		193414	209294	1.30	53264	1.05	40047
13 + 472.19	30.48	0.76	0.06	7	35	48	101	193449	209341	1.30	53365	1.05	40141
13 + 502.67	30.48	1.91	0.03	12	41	2	280	193490	209343	1.30	53645	1.05	40474
13 + 533.15	30.48	2.01	1.42		60	29		193549	209372	1.30	53645	1.05	40505
13 + 552.00	18.85	0			19	17		193568	209389	1.30	53645	1.05	40506
14 + 387.00		0	0.27										
14 + 417.07	30.07	1.33	1.14		20	28		193588	209417	1.30	53645	1.05	40499
14 + 447.55	30.48	15.36	1.13		254	45		193843	209462	1.30	53645	1.05	40708
14 + 478.03	30.48	1.63	0.61		259	34		194102	209496	1.30	53645	1.05	40933
14 + 508.51	30.48	4.31	1.04		91	33		194192	209529	1.30	53645	1.05	40990
14 + 538.99	30.48	1.42	5.9		87	137		194280	209667	1.30	53645	1.05	40940
14 + 569.47	30.48	1.42	13.53		43	385		194323	210051	1.30	53645	1.05	40599
14 + 599.95	30.48	6.56	7.72	2	122	421	32	194444	210472	1.30	53677	1.05	40333
14 + 630.43	30.48	9.2	1.48	1	240	182	41	194685	210655	1.30	53718	1.05	40434
14 + 660.91	30.48	9.9	1.89	1	291	67	24	194976	210722	1.30	53743	1.05	40684
14 + 691.39	30.48	5.7	2.75		238	92		195213	210813	1.30	53743	1.05	40830
14 + 721.87	30.48	6.75	3.38		190	121		195403	210935	1.30	53743	1.05	40898
14 + 752.35	30.48	3.44	0.43		155	75		195558	211010	1.30	53743	1.05	40978
14 + 782.83	30.48	3.44	2.82		105	64		195663	211075	1.30	53743	1.05	41018
14 + 813.31	30.48	1.83	8.73		80	229		195744	211304	1.30	53743	1.05	40870
14 + 843.79	30.48	0.86	3.55		41	243		195785	211547	1.30	53743	1.05	40667
14 + 874.27	30.48	2.66	0.25		54	75		195838	211622	1.30	53743	1.05	40646
14 + 904.75	30.48	4.63	0.16		111	8		195949	211630	1.30	53743	1.05	40749
14 + 935.23	30.48	9.16	0.48		210	13		196160	211643	1.30	53743	1.05	40946
14 + 965.71	30.48	7.25	0.46		250	19		196410	211662	1.30	53743	1.05	41178
14 + 996.19	30.48	1.92	0.48		140	19		196549	211680	1.30	53743	1.05	41299
15 + 26.67	30.48	1.08	0.93		46	28		196595	211708	1.30	53743	1.05	41317
15 + 57.15	30.48	0.92	1.16		30	41		196626	211750	1.30	53743	1.05	41306
15 + 87.63	30.48	0.84	1.38		27	50		196652	211800	1.30	53743	1.05	41282
15 + 118.11	30.48	2.02	1.51		44	57		196696	211857	1.30	53743	1.05	41268
15 + 148.59	30.48	1.96	2.07		61	71		196757	211928	1.30	53743	1.05	41258
15 + 179.07	30.48	1.59	1.65		54	74		196811	212002	1.30	53743	1.05	41239
15 + 209.55	30.48	0.77	1.35		36	59		196847	212061	1.30	53743	1.05	41215
15 + 240.03	30.48	1.38	1.17		33	50		196879	212111	1.30	53743	1.05	41198
15 + 270.51	30.48	4.03	0.64		82	36		196962	212147	1.30	53743	1.05	41245
15 + 300.99	30.48	0.84	1.04		74	33		197036	212180	1.30	53743	1.05	41285
15 + 331.47	30.48	1.69	2.15		39	63		197075	212243	1.30	53743	1.05	41261

PLOT SCALE:

PLOT NAME:

LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

REV. DATE:

ORIGINATOR:

EARTHWORK DATA TABLE | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 9.5-A M

FILE NAME: M:\PP\EARTHDATA5.DGN

WisDOT: MSHT20

PLOT SCALE:

PLOT NAME: 13,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

REV. DATE:

ORIGINATOR: LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
15 + 361.95	30.48	1.71	3.41		52	110		197686	212354	1.30	53361	1.05	41362
15 + 392.43	30.48	1.02	4.08		42	148		197728	212502	1.30	53361	1.05	41255
15 + 422.91	30.48	2.94	1.89		60	118		197788	212620	1.30	53361	1.05	41197
15 + 453.39	30.48	2.79	0.99		87	57		197875	212677	1.30	53361	1.05	41227
15 + 483.87	30.48	3.53	0.69		96	33		197972	212711	1.30	53361	1.05	41290
15 + 514.35	30.48	3.4	2.68		106	67		198077	212777	1.30	53361	1.05	41329
15 + 544.83	30.48	3.67	4.05		108	133		198185	212911	1.30	53361	1.05	41304
15 + 575.31	30.48	4.93	1.48		131	110		198316	213020	1.30	53361	1.05	41325
15 + 605.79	30.48	4.8	2.07		148	70		198464	213091	1.30	53361	1.05	41403
15 + 636.27	30.48	0	10.67		73	252		198538	213343	1.30	53361	1.05	41224
15 + 666.75	30.48	3.97	31.49		61	835		198598	214178	1.30	53361	1.05	40449
15 + 697.23	30.48	5.1	57.18		138	1757		198736	215935	1.30	53361	1.05	38831
15 + 727.71	30.48	0	24.19		78	1612		198814	217547	1.30	53361	1.05	37296
15 + 758.19	30.48	0	8.04		0	639		198814	218186	1.30	53361	1.05	36658
15 + 788.67	30.48	5.35	0.98		82	179		198896	218364	1.30	53361	1.05	36560
15 + 819.15	30.48	9.11	0.41		220	28		199116	218392	1.30	53361	1.05	36753
15 + 849.63	30.48	5.81	0.38		227	16		199343	218408	1.30	53361	1.05	36965
15 + 880.11	30.48	2.75	0.59		130	19		199474	218427	1.30	53361	1.05	37076
15 + 899.92	19.81	0.6	2.06		33	34		199507	218461	1.30	53361	1.05	37075
15 + 910.59	10.67	0.92	0.75		8	19		199515	218480	1.30	53361	1.05	37064
15 + 941.07	30.48	1.34	0.29		34	21		199550	218501	1.30	53361	1.05	37078
15 + 971.55	30.48	3.93	0.36		80	13		199630	218514	1.30	53361	1.05	37145
16 + 2.03	30.48	2.28	0.54		95	18		199724	218532	1.30	53361	1.05	37222
16 + 32.51	30.48	1.39	4.07		56	91		199780	218623	1.30	53361	1.05	37187
16 + 62.99	30.48	1.74	0.77		48	96		199828	218719	1.30	53361	1.05	37138
16 + 93.47	30.48	4.2	0.8		91	31		199919	218750	1.30	53361	1.05	37198
16 + 123.95	30.48	2.81	0.94		107	34		200025	218785	1.30	53361	1.05	37270
16 + 154.43	30.48	3.63	0.49		98	28		200124	218813	1.30	53361	1.05	37340
16 + 184.91	30.48	4.11	1.28		118	35		200242	218848	1.30	53361	1.05	37423
16 + 215.39	30.48	1.61	1.28		87	51		200329	218899	1.30	53361	1.05	37459
16 + 245.87	30.48	1.22	0.67		43	39		200372	218937	1.30	53361	1.05	37464
16 + 276.35	30.48	2.04	2.06		50	54		200422	218991	1.30	53361	1.05	37459
16 + 306.83	30.48	2.9	1.35		75	68		200497	219059	1.30	53361	1.05	37467
16 + 337.31	30.48	3.19	1.34		93	53		200590	219112	1.30	53361	1.05	37507
16 + 367.79	30.48	1.74	1.56		75	57		200665	219170	1.30	53361	1.05	37524
16 + 398.27	30.48	0.75	1.56		38	62		200703	219232	1.30	53361	1.05	37500
16 + 428.75	30.48	2.29	0.92		46	49		200749	219281	1.30	53361	1.05	37498
16 + 459.23	30.48	1.97	0.65		65	31		200814	219312	1.30	53361	1.05	37531
16 + 489.71	30.48	1.07	1.57		46	44		200860	219356	1.30	53361	1.05	37534
16 + 520.19	30.48	0.69	1.34		27	58		200887	219413	1.30	53361	1.05	37503
16 + 550.67	30.48	1.98	1.87		41	64		200928	219477	1.30	53361	1.05	37480
16 + 581.15	30.48	2.73	1.31		72	63		201000	219540	1.30	53361	1.05	37489
16 + 611.63	30.48	3.53	0.47		95	35		201095	219575	1.30	53361	1.05	37549
16 + 642.11	30.48	2.82	0.1		97	11		201192	219587	1.30	53361	1.05	37635
16 + 672.59	30.48	2.28	0.02		78	2		201270	219589	1.30	53361	1.05	37710
16 + 703.07	30.48	2.97	0.27		80	6		201350	219595	1.30	53361	1.05	37784
16 + 733.55	30.48	7.9	0.17		166	9		201515	219603	1.30	53361	1.05	37941
16 + 764.03	30.48	4.87	0.99		195	23		201710	219626	1.30	53361	1.05	38113
16 + 794.51	30.48	2.82	3.31		117	85		201827	219712	1.30	53361	1.05	38145
16 + 824.99	30.48	1.25	7.41		62	212		201889	219924	1.30	53361	1.05	37994
16 + 855.47	30.48	1.07	15.07		35	445		201924	220369	1.30	53361	1.05	37584
16 + 885.95	30.48	0	26.23		16	818		201941	221188	1.30	53361	1.05	36782
16 + 916.43	30.48	0	25.5		0	1025		201941	222212	1.30	53361	1.05	35758
16 + 946.91	30.48	0	23.4		0	969		201941	223181	1.30	53361	1.05	34789
16 + 977.39	30.48	0	25.09		0	961		201941	224142	1.30	53361	1.05	33828
17 + 7.87	30.48	0	21.72		0	927		201941	225069	1.30	53361	1.05	32901
17 + 38.35	30.48	0	11.71		0	662		201941	225732	1.30	53361	1.05	32238
17 + 68.83	30.48	2	1.13		30	254		201971	225986	1.30	53361	1.05	32014
17 + 99.31	30.48	11.54	0		206	22		202178	226008	1.30	53361	1.05	32198
17 + 129.79	30.48	36.78	0		736	0		202914	226008	1.30	53361	1.05	32935
17 + 160.27	30.48	24.59	0		935	0		203849	226008	1.30	53361	1.05	33870
17 + 190.75	30.48	5.49	0.57		458	11		204308	226020	1.30	53361	1.05	34317
17 + 221.23	30.48	2.09	2.3		116	57		204423	226077	1.30	53361	1.05	34376
17 + 251.72	30.48	20.88	2.31		350	91		204773	226168	1.30	53361	1.05	34635
17 + 282.20	30.48	5.89	12.08		408	285		205181	226453	1.30	53361	1.05	34757
17 + 312.68	30.48	9.51	29.03		235	814		205416	227267	1.30	53361	1.05	34178
17 + 343.16	30.48	27.48	6.41		564	702		205980	227970	1.30	53361	1.05	34039
17 + 373.64	30.48	41.2	6.31		1047	252		207026	228222	1.30	53361	1.05	34834
17 + 404.12	30.48	54.58	6.11		1460	246		208486	228468	1.30	53361	1.05	36048

EARTHWORK DATA TABLE | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 9.6 | M

FILE NAME: M:±PP±EARTHDATA6.DGN

WISDOT: MSHT20

1/26/99 - R1

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	CUM VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
15 + 361.95	30.48	1.71	3.41		52	110		197127	212354	1.30	53743	1.05	41203
15 + 392.43	30.48	1.02	4.08		42	148		197168	212502	1.30	53743	1.05	41096
15 + 422.91	30.48	2.94	1.89		60	118		197228	212620	1.30	53743	1.05	41038
15 + 453.39	30.48	2.79	0.99		87	57		197316	212677	1.30	53743	1.05	41068
15 + 483.87	30.48	3.53	0.69		96	33		197412	212711	1.30	53743	1.05	41131
15 + 514.35	30.48	3.4	2.68		106	67		197518	212777	1.30	53743	1.05	41170
15 + 544.83	30.48	3.67	4.05		108	133		197625	212911	1.30	53743	1.05	41144
15 + 575.31	30.48	4.93	1.48		131	110		197757	213020	1.30	53743	1.05	41166
15 + 605.79	30.48	4.8	2.07		148	70		197905	213091	1.30	53743	1.05	41244
15 + 636.27	30.48	0	10.67		73	252		197978	213343	1.30	53743	1.05	41065
15 + 666.75	30.48	3.97	31.49		61	835		198038	214178	1.30	53743	1.05	40290
15 + 697.23	30.48	5.1	57.18		138	1757		198177	215935	1.30	53743	1.05	38671
15 + 727.71	30.48	0	24.19		78	1612		198254	217547	1.30	53743	1.05	37137
15 + 758.19	30.48	0	8.04		0	639		198254	218186	1.30	53743	1.05	36498
15 + 788.67	30.48	5.35	0.98		82	179		198336	218364	1.30	53743	1.05	36401
15 + 819.15	30.48	9.11	0.41		220	28		198556	218392	1.30	53743	1.05	36594
15 + 849.63	30.48	5.81	0.38		227	16		198784	218408	1.30	53743	1.05	36806
15 + 880.11	30.48	2.75	0.59		130	19		198914	218427	1.30	53743	1.05	36917
15 + 899.92	19.81	0.6	2.06		33	34		198947	218461	1.30	53743	1.05	36916
15 + 910.59	10.67	0.92	0.75		8	19		198955	218480	1.30	53743	1.05	36905
15 + 941.07	30.48	1.34	0.29		34	21		198990	218501	1.30	53743	1.05	36918
15 + 971.55	30.48	3.93	0.36		80	13		199070	218514	1.30	53743	1.05	36986
16 + 2.03	30.48	2.28	0.54		95	18		199165	218532	1.30	53743	1.05	37063
16 + 32.51	30.48	1.39	4.07		56	91		199221	218623	1.30	53743	1.05	37027
16 + 62.99	30.48	1.74	0.77		48	96		199268	218719	1.30	53743	1.05	36979
16 + 93.47	30.48	4.2	0.8		91	31		199359	218750	1.30	53743	1.05	37039
16 + 123.95	30.48	2.81	0.94		107	34		199466	218785	1.30	53743	1.05	37111
16 + 154.43	30.48	3.63	0.49		98	28		199564	218813	1.30	53743	1.05	37181
16 + 184.91	30.48	4.11	1.28		118	35		199682	218848	1.30	53743	1.05	37264
16 + 215.39	30.48	1.61	1.28		87	51		199769	218899	1.30	53743	1.05	37300
16 + 245.87	30.48	1.22	0.67		43	39		199812	218937	1.30	53743	1.05	37305
16 + 276.35	30.48	2.04	2.06		50	54		199862	218991	1.30	53743	1.05	37300
16 + 306.83	30.48	2.9	1.35		75	68		199937	219059	1.30	53743	1.05	37308
16 + 337.31	30.48	3.19	1.34		93	53		200030	219112	1.30	53743	1.05	37347
16 + 367.79	30.48	1.74	1.56		75	57		200105	219170	1.30	53743	1.05	37365
16 + 398.27	30.48	0.75	1.56		38	62		200143	219232	1.30	53743	1.05	37341
16 + 428.75	30.48	2.29	0.92		46	49		200189	219281	1.30	53743	1.05	37338
16 + 459.23	30.48	1.97	0.65		65	31		200254	219312	1.30	53743	1.05	37372
16 + 489.71	30.48	1.07	1.57		46	44		200301	219356	1.30	53743	1.05	37375
16 + 520.19	30.48	0.69	1.34		27	58		200328	219413	1.30	53743	1.05	37344
16 + 550.67	30.48	1.98	1.87		41	64		200368	219477	1.30	53743	1.05	37321
16 + 581.15	30.48	2.73	1.31		72	63		200440	219540	1.30	53743	1.05	37330
16 + 611.63	30.48	3.53	0.47		95	35		200535	219575	1.30	53743	1.05	37390
16 + 642.11	30.48	2.82	0.1		97	11		200632	219587	1.30	53743	1.05	37475
16 + 672.59	30.48	2.28	0.02		78	2		200710	219589	1.30	53743	1.05	37551
16 + 703.07	30.48	2.97	0.27		80	6		200790	219595	1.30	53743	1.05	37625
16 + 733.55	30.48	7.9	0.17		166	9		200956	219603	1.30	53743	1.05	37782
16 + 764.03	30.48	4.87	0.99		195	23		201150	219626	1.30	53743	1.05	37953
16 + 794.51	30.48	2.82	3.31		117	85		201267	219712	1.30	53743	1.05	37985
16 + 824.99	30.48	1.25	7.41		62	212		201329	219924	1.30	53743	1.05	37835
16 + 855.47	30.48	1.07	15.07		35	445		201365	220369	1.30	53743	1.05	37425
16 + 885.95	30.48	0	26.23		16	818		201381	221188	1.30	53743	1.05	36623
16 + 916.43	30.48	0	25.5		0	1025		201381	222212	1.30	53743	1.05	35598
16 + 946.91	30.48	0	23.4		0	969		201381	223181	1.30	53743	1.05	34629
16 + 977.39	30.48	0	25.09		0	961		201381	224142	1.30	53743	1.05	33669
17 + 7.87	30.48	0	21.72		0	927		201381	225069	1.30	53743	1.05	32741
17 + 38.35	30.48	0	11.71		0	662		201381	225732	1.30	53743	1.05	32079
17 + 68.83	30.48	2	1.13		30	254		201412	225986	1.30	53743	1.05	31855
17 + 99.31	30.48	11.54	0		206	22		201618	226008	1.30	53743	1.05	32039
17 + 129.79	30.48	36.78	0		736	0		202354	226008	1.30	53743	1.05	32776
17 + 160.27	30.48	24.59	0		935	0		203290	226008	1.30	53743	1.05	33711
17 + 190.75	30.48	5.49	0.57		458	11		203748	226020	1.30	53743	1.05	34158
17 + 221.23	30.48	2.09	2.3		116	57		203864	226077	1.30	53743	1.05	34217
17 + 251.72	30.48	20.88	2.31		350	91		204214	226168	1.30	53743	1.05	34475
17 + 282.20	30.48	5.89	12.08		408	285		204622	226453	1.30	53743	1.05	34598
17 + 312.68	30.48	9.51	29.03		235	814		204856	227267	1.30	53743	1.05	34018
17 + 343.16	30.48	27.48	6.41		564	702		205420	227970	1.30	53743	1.05	33880
17 + 373.64	30.48	41.2	6.31		1047	252		206467	228222	1.30	53743	1.05	34675
17 + 404.12	30.48	54.58	6.11		1460	246		207926	228468	1.30	53743	1.05	35888

PLOT SCALE:

PLOT NAME: 45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

REV. DATE:

ORIGINATOR:
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,

EARTHWORK DATA TABLE | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 9.6A M

FILE NAME: M:±PP±EARTHDATA6.DGN

WISDOT: MSHT20

1/26/99-R1

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	CUM VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
17 + 434.60	30.48	68.58	8.36	1	1877	287	8	209803	228754	1.30	53750	1.05	37487
17 + 465.08	30.48	60.84	12.58	5	1972	415	76	211776	229169	1.30	53826	1.05	39124
17 + 495.56	30.48	59.99	13.79	1	1841	522	78	213617	229692	1.30	53904	1.05	40525
17 + 526.04	30.48	43.08	14.62	2	1571	563	38	215188	230255	1.30	53942	1.05	41573
17 + 556.52	30.48	23.96	11.48		1022	517		216210	230772	1.30	53942	1.05	42077
17 + 587.00	30.48	45.16	15.32		1053	531		217263	231303	1.30	53942	1.05	42600
17 + 617.48	30.48	23.97	19.2		1054	684		218317	231986	1.30	53942	1.05	42969
17 + 647.96	30.48	0	39.93		365	1171		218682	233158	1.30	53942	1.05	42163
17 + 678.44	30.48	0	126.17		0	3291		218682	236449	1.30	53942	1.05	38872
17 + 708.92	30.48	34.4	15.67		524	2810		219206	239259	1.30	53942	1.05	36586
17 + 739.40	30.48	38.58	6.17	34	1112	433	516	220318	239692	1.30	54458	1.05	37808
17 + 769.88	30.48	43	2.19	45	1243	166	1208	221562	239857	1.30	55666	1.05	40154
17 + 800.36	30.48	61.45	1.08	32	1592	65	1173	223153	239922	1.30	56839	1.05	42912
17 + 830.84	30.48	59.77	0.22	24	1847	26	841	225001	239948	1.30	57680	1.05	45617
17 + 861.32	30.48	38.83	0.25	21	1503	9	675	226503	239957	1.30	58355	1.05	47819
17 + 891.80	30.48	42.75	0		1243	5		227747	239962	1.30	58355	1.05	49057
17 + 922.28	30.48	30.41	55.46		1115	1099		228862	241061	1.30	58355	1.05	49074
17 + 952.76	30.48	34.59	17.82		991	1452		229852	242513	1.30	58355	1.05	48612
17 + 983.24	30.48	17.02	0.14		787	356		230639	242868	1.30	58355	1.05	49043
18 + 13.72	30.48	93.23	0		1680	3		232319	242871	1.30	58355	1.05	50721
18 + 44.20	30.48	54.05	0	48	2245	0	724	234564	242871	1.30	59079	1.05	53726
18 + 74.68	30.48	42.84	0.18	49	1477	4	1474	236040	242875	1.30	60553	1.05	56746
18 + 105.16	30.48	16.7	0.06	22	907	5	1085	236948	242880	1.30	61638	1.05	58788
18 + 135.64	30.48	18.64	0.82		539	17		237486	242897	1.30	61638	1.05	59309
18 + 166.12	30.48	3.92	0.33		344	23		237830	242920	1.30	61638	1.05	59630
18 + 196.60	30.48	4.47	0.8		128	22		237958	242942	1.30	61638	1.05	59735
18 + 227.08	30.48	4.89	1.03		143	36		238101	242978	1.30	61638	1.05	59842
18 + 257.56	30.48	7.19	5.45		184	128		238285	243107	1.30	61638	1.05	59897
18 + 288.04	30.48	6.19	8.1		204	268		238489	243375	1.30	61638	1.05	59833
18 + 318.52	30.48	6.73	9.64		197	351		238685	243727	1.30	61638	1.05	59678
18 + 349.00	30.48	6.29	13.91		198	467		238884	244193	1.30	61638	1.05	59410
18 + 380.00	31.00	4.27	26.08		164	806		239048	244999	1.30	61638	1.05	58768

CTH Y/SETTLEMENT RD.

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	CUM VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
0 + 540.00													
0 + 548.64	8.64	5.97	0		26	0		239048	244999	1.30	61638	1.05	58768
0 + 563.27	14.63	10.27	0		119	0		239166	244999	1.30	61638	1.05	58887
0 + 579.12	15.85	12.83	0		183	0		239349	244999	1.30	61638	1.05	59070
0 + 593.75	14.63	13.01	0		189	0		239538	244999	1.30	61638	1.05	59259
0 + 602.76	9.01	13.01	0		117	0		239656	244999	1.30	61638	1.05	59376
0 + 616.44		30.71	0										
0 + 617.83	1.39	30.71	0		43	0		239698	244999	1.30	61638	1.05	59419
0 + 640.08	22.25	18.92	0		552	0		240250	244999	1.30	61638	1.05	59971
0 + 670.56	30.48	0.96	0.01		303	0		240553	244999	1.30	61638	1.05	60274
0 + 701.04	30.48	0.4	1.25		21	25		240574	245024	1.30	61638	1.05	60270
0 + 731.52	30.48	0.26	1.04		10	45		240584	245070	1.30	61638	1.05	60235
0 + 762.00	30.48	3.8	0.71		62	35		240646	245104	1.30	61638	1.05	60262
0 + 792.48	30.48	5.08	0.21		135	18		240781	245123	1.30	61638	1.05	60379
0 + 822.96	30.48	4.51	0.2		146	8		240928	245131	1.30	61638	1.05	60517
0 + 853.44	30.48	0	0		69	4		240996	245135	1.30	61638	1.05	60582

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR:

LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

EARTHWORK DATA TABLE		HWY: S.T.H. 81	COUNTY: GRANT	STATE PROJECT NO: 5215-02-71	SHEET NO: 9.7	M

FILE NAME: M:±PP±EARTHDATA7.DGN

WISDOT: MSHT20

1/26/99-R1

GARDEN PRAIRIE RD.

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	CUM VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
0 + 396.00		5.25	1.31										
0 + 426.72	30.72	12.89	0		279	26		241275	245157	1.30	61638	1.05	60838
0 + 438.30	11.58	22.09	0		203	0		241478	245157	1.30	61638	1.05	61041
0 + 457.20	18.90	42	0		606	0		242083	245157	1.30	61256	1.05	61245
0 + 487.68	30.48	111.27	0		2336	0		244419	245157	1.30	61256	1.05	63581
0 + 518.16	30.48	168.85	0	2	4269	0	33	248688	245157	1.30	61289	1.05	67884
0 + 548.64	30.48	173.05	0	52	5211	0	826	253899	245157	1.30	62115	1.05	73962
0 + 579.12	30.48	301.13	0	44	7227	0	1470	261125	245157	1.30	63585	1.05	82732
0 + 598.32	19.20	194.32	0	65	4757	0	1049	265882	245157	1.30	64634	1.05	88591
0 + 602.76	4.44	183.97	0		839	0	144	266721	245157	1.30	64777	1.05	89581

HOUGHTON LA.

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM.VOLUME CUT	CUM.VOLUME FILL	SHR. FACT.	CUM.VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
0 + 335.28		0	10.5										
0 + 342.90	7.62	0	8.56		0	94		266721	245251	1.30	64777	1.05	89486
0 + 356.92	14.02	0	6.68		0	139		266721	245390	1.30	64777	1.05	89347
0 + 365.76	8.84	0	5.08		0	68		266721	245458	1.30	64777	1.05	89279
0 + 370.00	4.24				0	14		266721	245472	1.30	64777	1.05	89265

HIDDEN ACRES RD.

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	CUM VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
0 + 324.61		0.85	3.17										
0 + 335.28	10.67	1.81	2.12		14	37		266735	245508	1.30	64777	1.05	89243
0 + 349.00	13.72	3.14	0.27		34	21		266769	245530	1.30	64777	1.05	89255
0 + 358.14	9.14	3.9	0		32	2		266801	245531	1.30	64777	1.05	89286
0 + 365.76	7.62	3.77	0		29	0		266831	245531	1.30	64777	1.05	89315
0 + 396.24	30.48	2.99	0.04		103	1		266934	245532	1.30	64777	1.05	89418
0 + 400.00	3.76				6	0		266939	245532	1.30	64777	1.05	89423

TEMP BYPASS RD.

STATION	DISTANCE	END AREA CUT	END AREA FILL	END AREA ROCK	INCR VOLUME CUT	INCR VOLUME FILL	INCR VOLUME ROCK	CUM VOLUME CUT	CUM VOLUME FILL	SHR. FACT.	CUM VOLUME ROCK	EXP.FACT.	MASS HAUL
	m	m2	m2	m2	m3	m3	m3	m3	m3		m3		
7 + 955.40													
7 + 985.78	30.38		9.1		0	180		0	180	1.30	64777	1.05	67836
8 + 16.26	30.48		7.8		0	335		0	515	1.30	64777	1.05	67501
8 + 46.74	30.48		14.4		0	440		0	954	1.30	64777	1.05	67062
8 + 77.22	30.48		1.2		0	309		0	1263	1.30	64777	1.05	66752
8 + 107.70	30.48		6		0	143		0	1406	1.30	64777	1.05	66610
8 + 138.18	30.48		0.6		0	131		0	1537	1.30	64777	1.05	66479
8 170.00	31.82				0	12		0	1549	1.30	64777	1.05	66467

PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

EARTHWORK DATA TABLE | HWY: S.T.H. 81 | COUNTY: GRANT | STATE PROJECT NO: 5215-02-71 | SHEET NO: 9.8 | M

FILE NAME: M:±PP±EARTHDATA8.DGN

WISDOT: MSHT20