PROJECT ID: 1412-02-70, 1412-03-71
WITH: 1410-04-70
DESIGN ID: 1412-02-00/1412-03-01
COUNTY: WASHINGTON

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (includes erosion control plans)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 151



N

DESIGN DESIGNATION

A.D.T.	(2002)	=	11,500
A.D.T.	(2022)	=	16,600
D.H.V.	(2022)	=	1960
D.D.		=	58-42
T. (ADT)		=	15.3%
DESIGN SPEED		=	35 mph
ESALS		=	8,008,100

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1412-02-70	———	———
1412-03-71	STP2005184	1

MAIN STREET, ALLENTON

ROCK RIVER TO USH 41

STH 33

WASHINGTON COUNTY

STATE PROJECT NUMBER
1412-02-70

MAIN STREET, ALLENTON

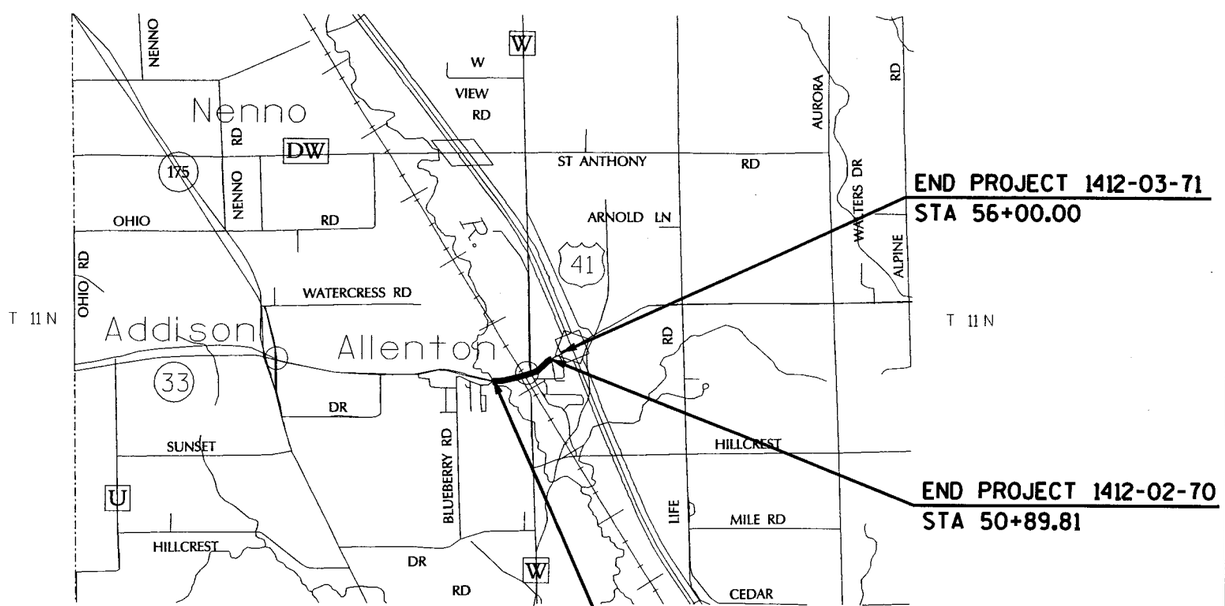
ROCK RIVER TO USH 41

NON-HIGHWAY

WASHINGTON COUNTY

STATE PROJECT NUMBER
1412-03-71

ASBUILT



LAYOUT
SCALE 0 ½ MI.

TOTAL NET LENGTH OF CENTERLINE = 0.435 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Washington County, NAD 83 (1991). Elevations shown on this plan are referenced to the National Geodetic Vertical Datum of 1929.

ORIGINAL PLANS PREPARED BY

EMCS
1300 W. Canal Street, Suite 200
Milwaukee, WI 53233
414.347.1607 FAX 414.347.1347

WISCONSIN PROFESSIONAL ENGINEER
MICHAEL C. McCARTHY
E-29197
MENOMONEE FALLS, WI

9/28/04 (Date) Michael C. McCarthy (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS
Designer	EMCS
Project Manager	MOHAMMAD HOSSAIN
District Examiner	MOHAMMAD HOSSAIN
District Supervisor	AZIZ ALEIOW
C.O. Examiner	C. BUJANOWSKI

APPROVED FOR DISTRICT OFFICE
DATE: 9/30/04 (Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

TEMPORARY STORAGE OF EQUIPMENT OR MATERIALS IN WETLANDS WILL NOT BE PERMITTED.

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND ALL UTILITIES IN THE VICINITY OF THE PROJECT TO LOCATE THEIR FACILITIES PRIOR TO BEGINNING WORK.

ALL RADII DIMENSIONS TO CURB AND GUTTER SHOWN ON THE PLAN ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

FINISHED GRADES AS SHOWN ON CROSS-SECTIONS INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED.

PIPE ELEVATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

THE ORIGINAL GROUND AT THE SLOPE INTERCEPT IN CUT AND FILL SECTIONS SHALL BE ROUNDED 2 FEET EITHER SIDE OF THE SLOPE INTERCEPTS.

FILL EXPANSION FACTOR IS SHOWN IN THE EARTHWORK SUMMARY.

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 EXCAVATION COMMON. THE EXACT LIMITS AND LOCATIONS OF EBS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH GRANULAR BACKFILL. (INCIDENTAL TO REMOVAL ITEMS.)

ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY (EXCEPT FOR PAVED, SIDEWALK, DRIVEWAY, OR CABC AREAS) SHALL BE COVERED WITH TOPSOIL, FERTILIZED AND SODDED AS NOTED ON THE PLAN OR AS DETERMINED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SODDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY CONSTRUCTION OPERATIONS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS. AREAS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE UNLESS OTHERWISE AGREED UPON BY THE ENGINEER.

THE EXISTING DRIVEWAYS AND FIELD ENTRANCES SHALL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER AND AT THE LOCATION AS DETERMINED BY THE ENGINEER.

PLACE HMA PAVEMENT IN ACCORDANCE WITH THE FOLLOWING:

6" HMA PAVEMENT TYPE E-0.3 OR E-3: LOWER LAYER - 3.5 INCHES, 19.0 MM, PG64-22
UPPER LAYER - 2.5 INCHES, 12.5 MM, PG64-28

3.5" HMA PAVEMENT TYPE E-0.3: LOWER LAYER - 1.75 INCHES, 12.5 MM, PG64-22
UPPER LAYER - 1.75 INCHES, 12.5 MM, PG64-28

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

STANDARD DETAIL DRAWINGS

8A5-16a	INLET COVERS TYPE A, H, A-S, & H-S
8A5-16b	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
8A5-16d	INLET COVER, TYPE Z MANHOLE COVERS, TYPE K, J, J-S, L & M
8A6-4	CATCH BASINS, TYPE 1 & 2
8B7-3	MANHOLES TYPE 2 & 3
8D1-13	CONCRETE CURB, CONCRETE CURB & GUTTER AND PAVEMENT TIES
8D5-9a	CURB RAMPS TYPES 1, 2 AND 3
8D5-9b	CURB RAMPS TYPE 1-A
8D15-3b	EDGEDRAIN AND CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, NO. 1 OR NO. 2
8E8-3	TYPICAL INSTALLATIONS OF EROSION BALES/TEMPORARY DITCH CHECKS
8E9-5	SILT FENCE
8E10-2	INLET PROTECTION TYPE A, B, C AND D
8F1-11	APRON ENDWALLS FOR CULVERT PIPE
8F2-1	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
8F4-5	JOINT TIES FOR CONCRETE PIPE
9A1-12a	AT GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE
9B2-7	CONDUIT
10HL1-1	ELECTRICAL HANDHOLE WIRING
10HL2-1	IDENTIFICATION PLAQUES LIGHT POLES
10HL5-1	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
10HL17-2a	POLES, TYPE 7 & 7BR ALUMINUM - 35' - 10" SHAFT
10HL18-2a	LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP
13B1-7	PAVEMENT DETAILS FOR RAILROAD APPROACH
13B2-4	CONCRETE PAVEMENT APPROACH SLAB
13C1-11	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND PAVEMENT TIES
13C13-4	URBAN DOWELED CONCRETE PAVEMENT
14A2-1	TREE PLANTING DETAIL
15A3-1	MARKER POST, FLEXIBLE, FOR CULVERT END
15C2-4a	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C2-4b	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C3-1	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C7-6a	PAVEMENT MARKING SYMBOLS
15C8-9a	PAVEMENT MARKING (MAINLINE)
15C8-10e	PAVEMENT MARKING (ISLAND, STOP LINE & CROSS WALK)
15C9-6	PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS
15C12-2	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C13-1	TUBULAR STEEL SIGN POSTS
15D20-1	TRAFFIC CONTROL, SINGLE LANE CLOSURES, NON-FREEWAY/EXPRESSWAY
15D32-2	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION
16A1-6	LANDMARK REFERENCE MONUMENTS AND COVERS

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING DETAILS
EROSION CONTROL
STORM SEWER AND UTILITIES
PLANTING
SIGNING AND PAVEMENT MARKING
LIGHTING
TRAFFIC CONTROL AND CONSTRUCTION STAGING
ALIGNMENT
CONTROL POINT TIES

OTHER AGENCIES

WISCONSIN DNR

MAUREEN MILLMANN
2300 N. MARTIN LUTHER KING DR.
MILWAUKEE, WI 53212
(414) 263-8613

CANADIAN NATIONAL-MIDWEST DIVISION

GREG GUTHRIE
17641 S. ASHLAND AVENUE
HOMEWOOD, IL 60430
(708) 332-5422
RAILROAD

UTILITIES

WE ENERGIES

PAUL OSMANSKI
5400 N. GREEN BAY AVE.
MILWAUKEE, WI 53209
(414) 540-5708
GAS

TONY SPAETH
920 S. INDIANA AVE.
WEST BEND, WI 53095
(262) 338-7665
ELECTRIC

RAY JACHIMIEC
231 W. MICHIGAN STREET
MILWAUKEE, WI 53290-0001
(414) 221-4847
STREET LIGHTING

ADDISON SANITARY DIST #1

TOM GURECKI
127 FIRST STREET
PO BOX 293
ALLENTON, WI 53002
(262) 629-5761
SANITARY/WATER

VERIZON NORTH INC.

KATHY SCHROEDER
VERIZON OPERATIONS CENTER
104 W. MULBERRY STREET
NORMAL, IL 61761
(309) 454-5253
TELEPHONE/FIBER OPTIC

CHARTER COMMUNICATIONS

TOM HARYCKI
2312 CONTINENTAL DRIVE
WEST BEND, WI 53095
(262) 306-8987 EXT. 206
CABLE TELEVISION

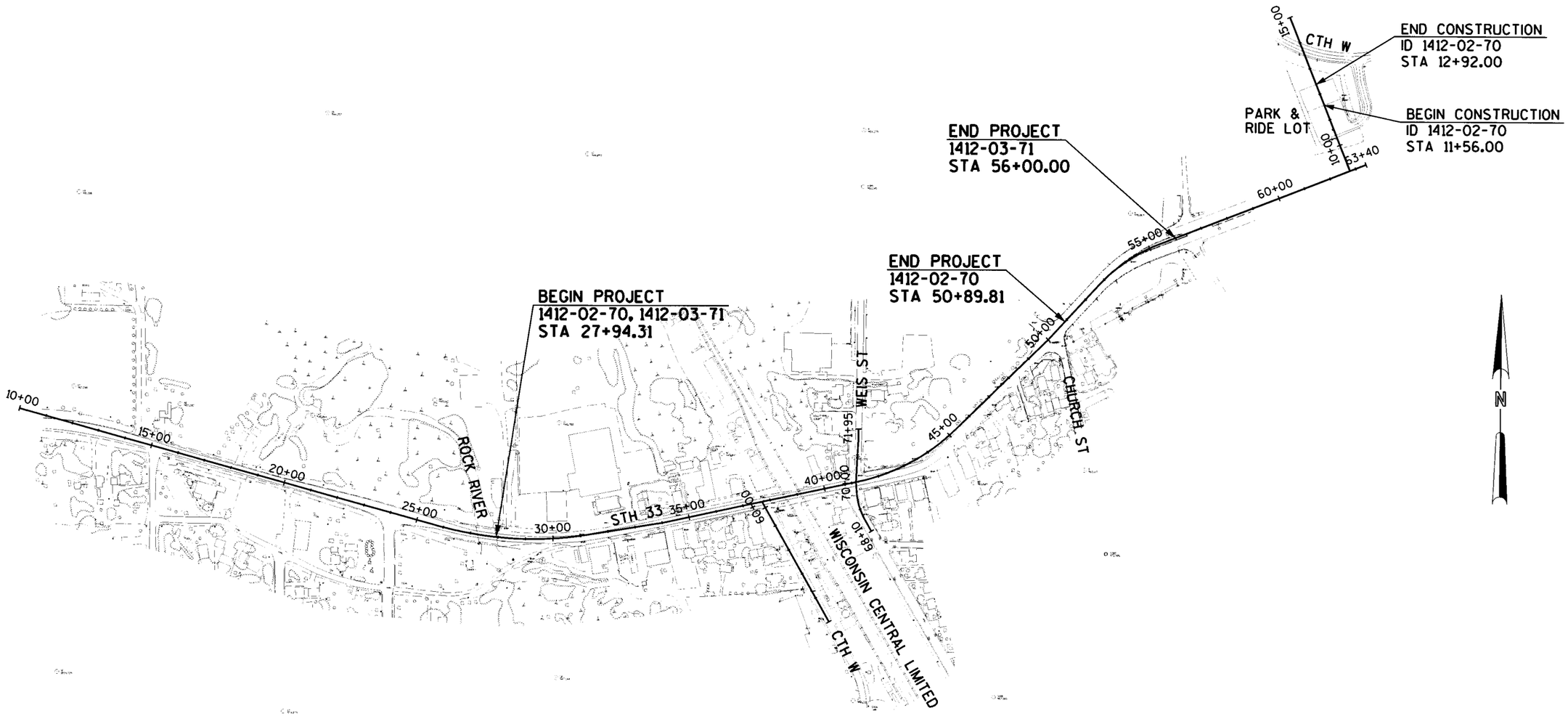
WISCONSIN DOT

CHARLES LANDEY
141 NW BARSTOW ST
PO BOX 798
WAUKESHA, WI 53187
(262) 521-5346
PARK & RIDE LOT LIGHTING

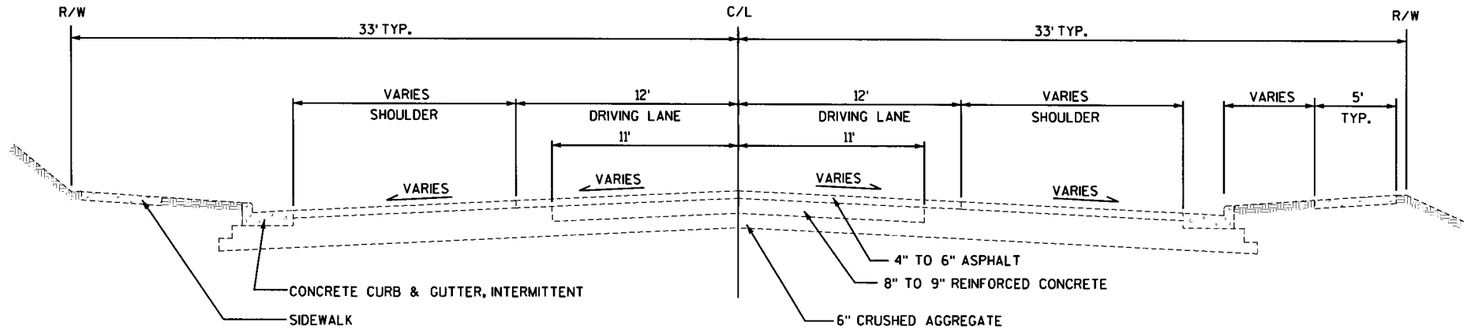
DIGGERS HOTLINE

Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

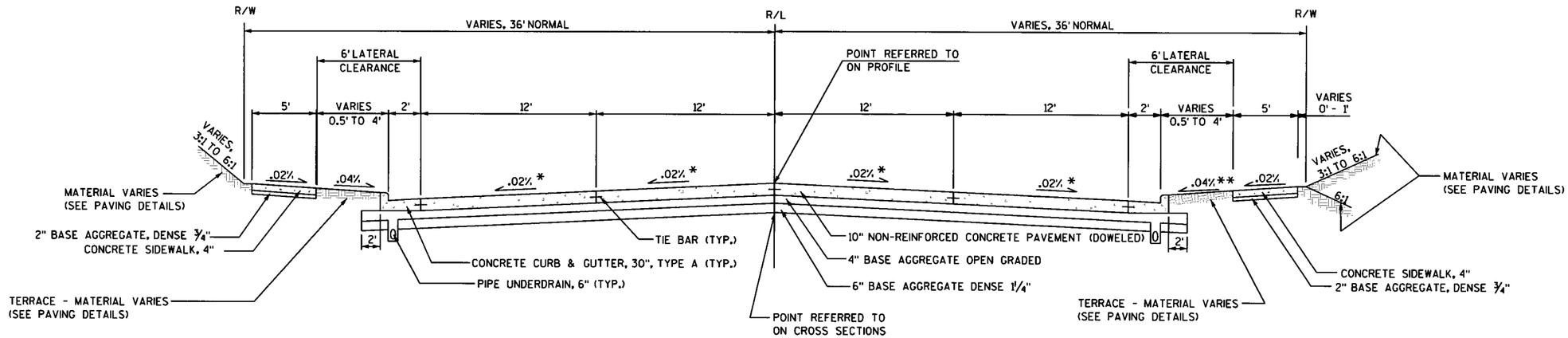
2



PROJECT NO: 1412-02-70/1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PROJECT OVERVIEW	SHEET 3	E



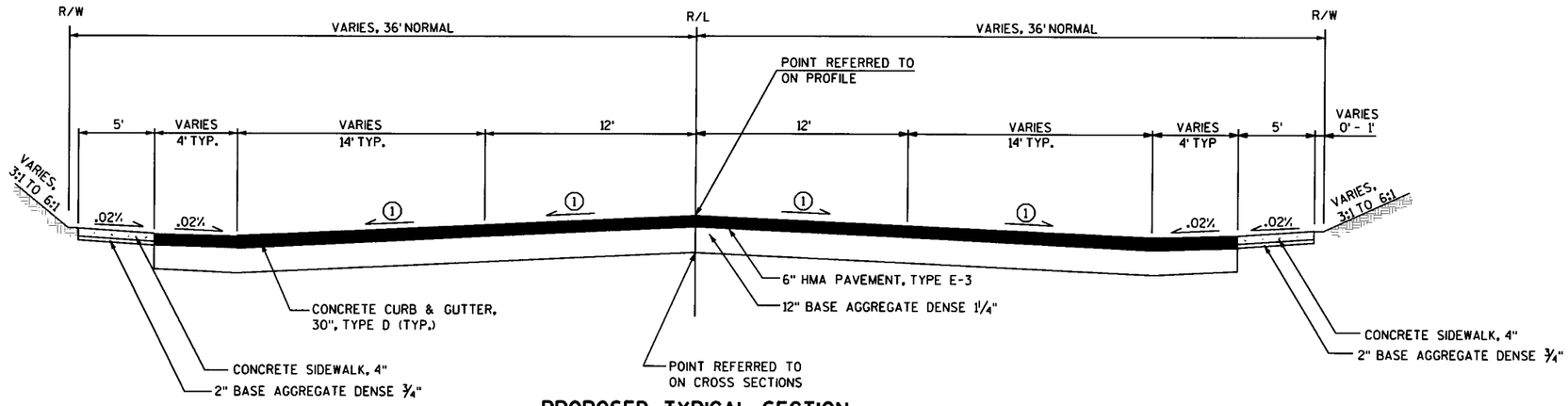
EXISTING TYPICAL SECTION
STH 33



* SEE ALSO CROSS-SLOPE TABLES ON PAVING DETAILS

** 0.02% STA. 42+50 TO 45+00 RT

PROPOSED TYPICAL SECTION
STH 33
STA. 27+94.31 TO 38+24.38
STA. 39+43.94 TO 50+54.75

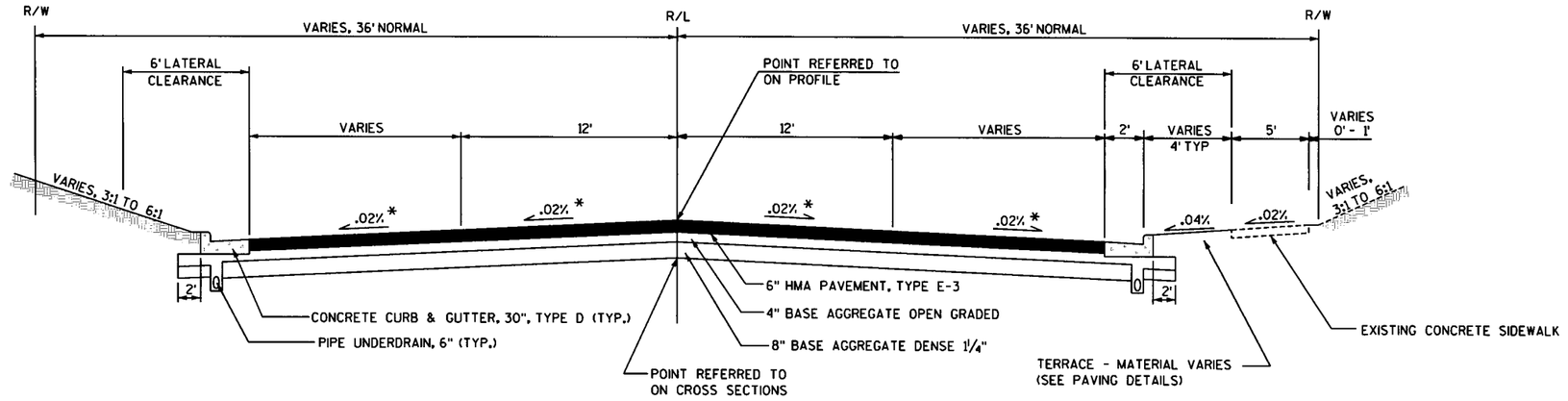


① SEE ALSO CROSS-SLOPE TABLES ON PAVING DETAILS

PROPOSED TYPICAL SECTION
STH 33
STA. 38+24.38 TO 39+43.94

PROJECT NO: 1412-02-70/1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	TYPICAL SECTION	SHEET 1	E

2

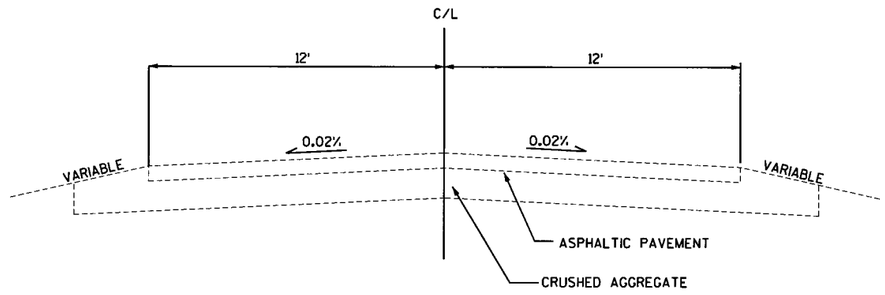


PROPOSED TYPICAL SECTION

STH 33

STA. 50+54.75 TO 50+89.81

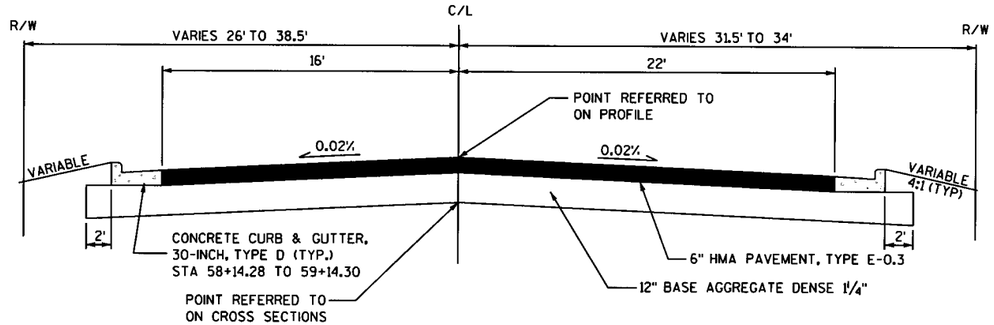
* SEE ALSO CROSS-SLOPE TABLES ON PAVING DETAILS



EXISTING TYPICAL SECTION

CTH W

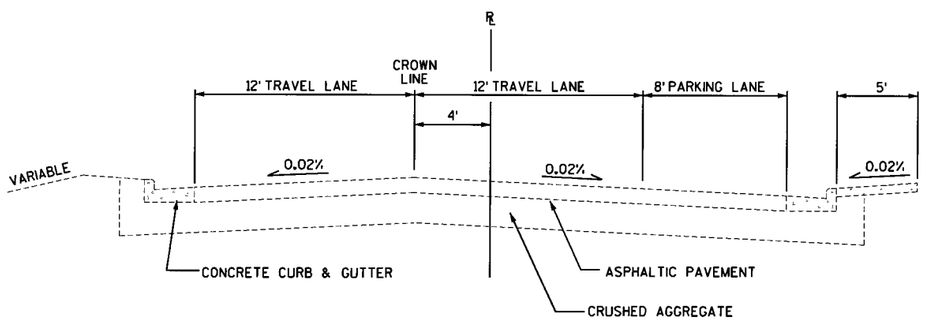
STA 58+14 TO 60+00



PROPOSED TYPICAL SECTION

CTH W

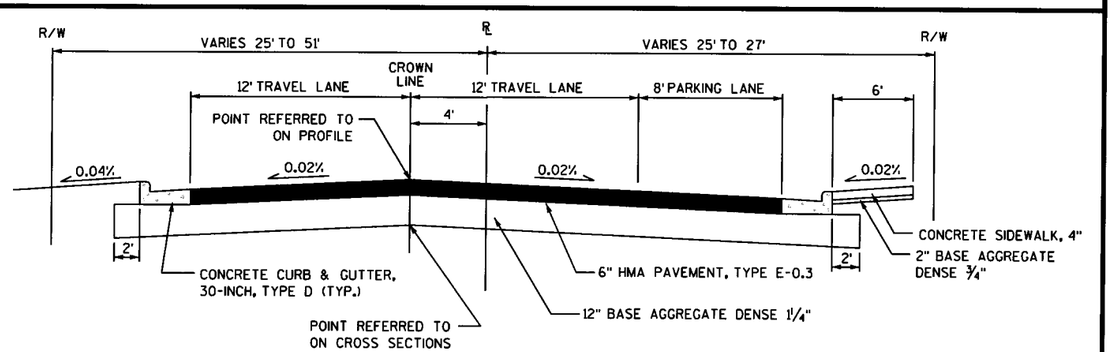
STA 57+14.08 TO 59+58.20



EXISTING TYPICAL SECTION

WEIS STREET

STA 68+10 TO 70+00

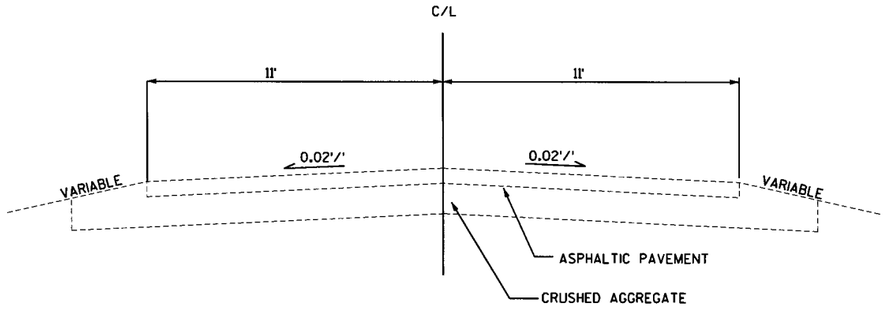


PROPOSED TYPICAL SECTION

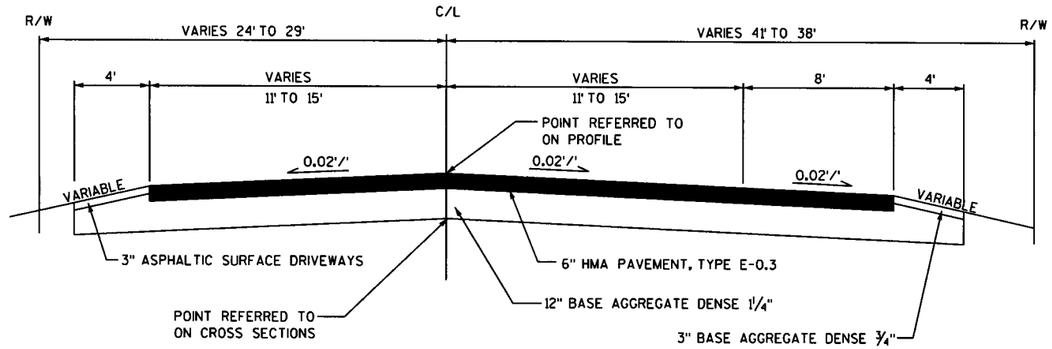
WEIS STREET

STA 68+10.00 TO 69+63.13

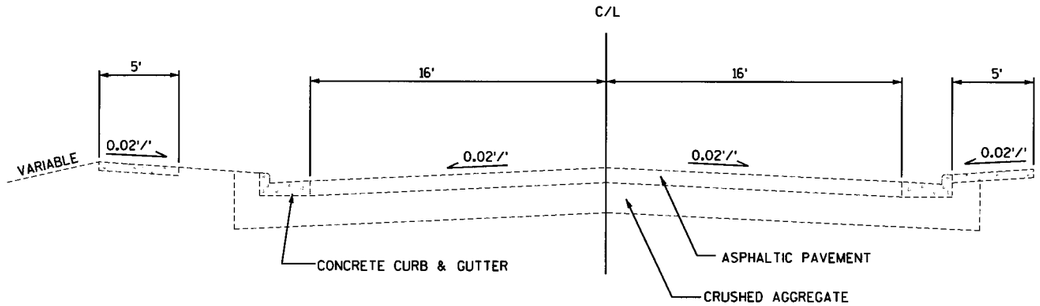
PROJECT NO: 1412-02-70/1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	TYPICAL SECTION	SHEET 5	E



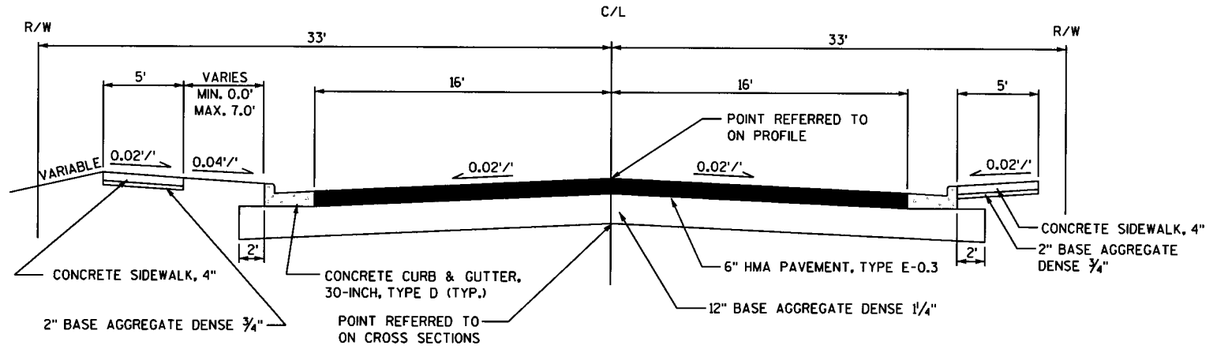
EXISTING TYPICAL SECTION
WEIS STREET
STA 70+00 TO 71+52



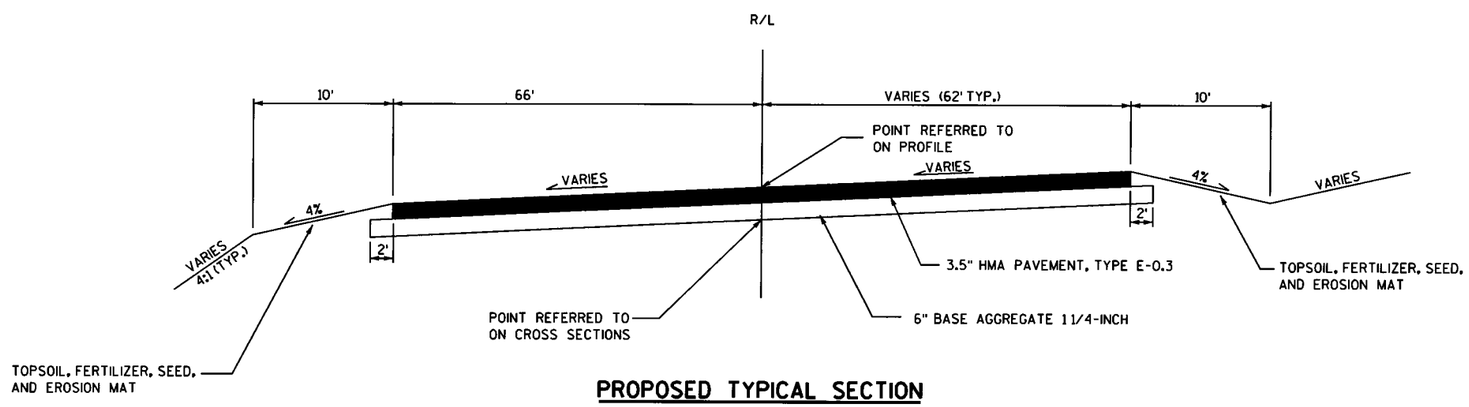
PROPOSED TYPICAL SECTION
WEIS STREET
STA 70+38.33 TO 71+52.07



EXISTING TYPICAL SECTION
CHURCH STREET
STA 79+02 TO 80+71



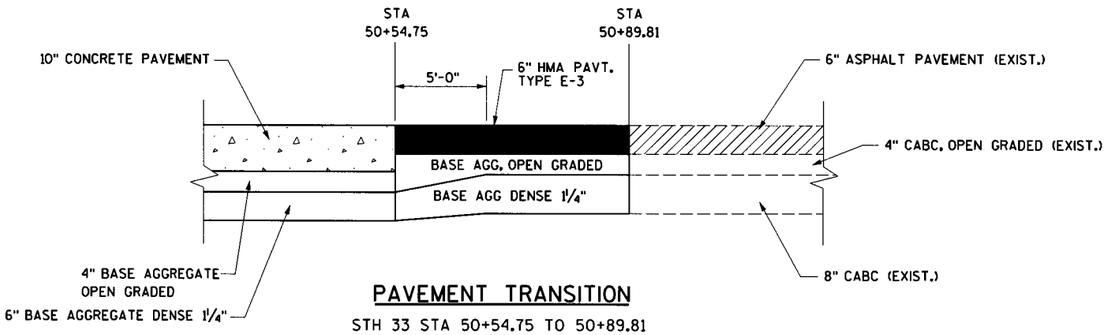
PROPOSED TYPICAL SECTION
CHURCH STREET
STA 79+02.23 TO 79+57.57
STA 80+45.80 TO 80+80.75



PROPOSED TYPICAL SECTION
PARK AND RIDE
STA 11+56 TO 12+92

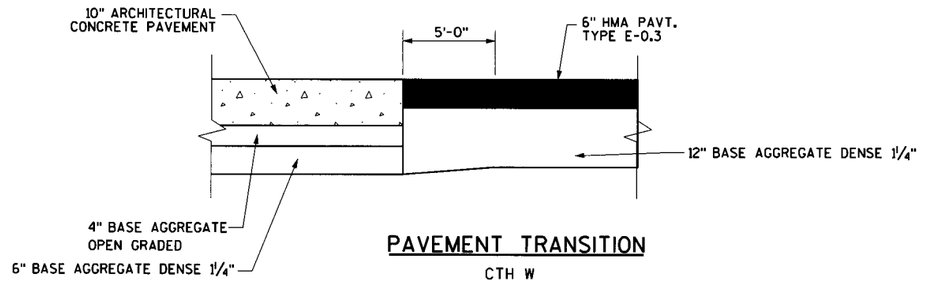
PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	TYPICAL SECTION	SHEET 6	E

2



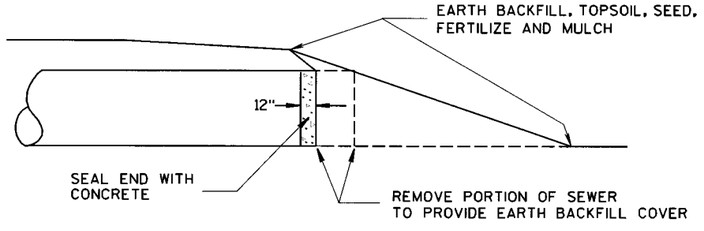
PAVEMENT TRANSITION

STH 33 STA 50+54.75 TO 50+89.81

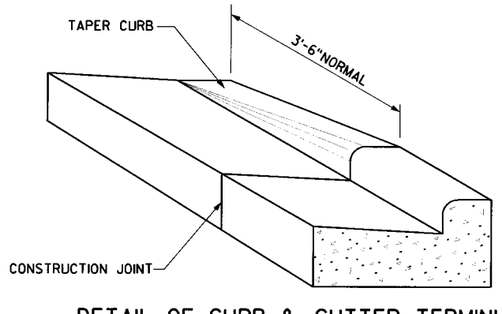


PAVEMENT TRANSITION

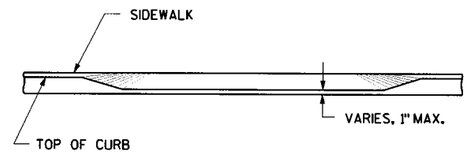
CTH W
WEIS ST
CHURCH ST



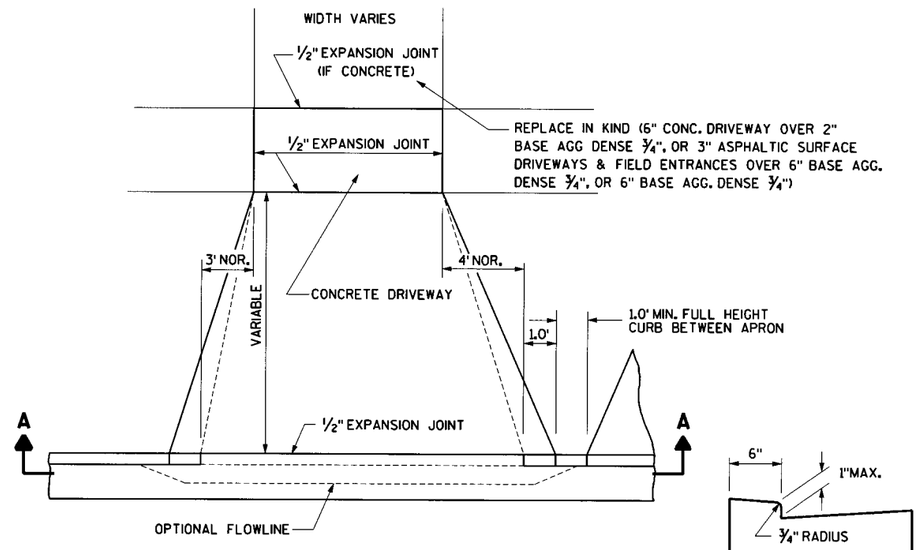
ABANDONING SEWER DETAIL



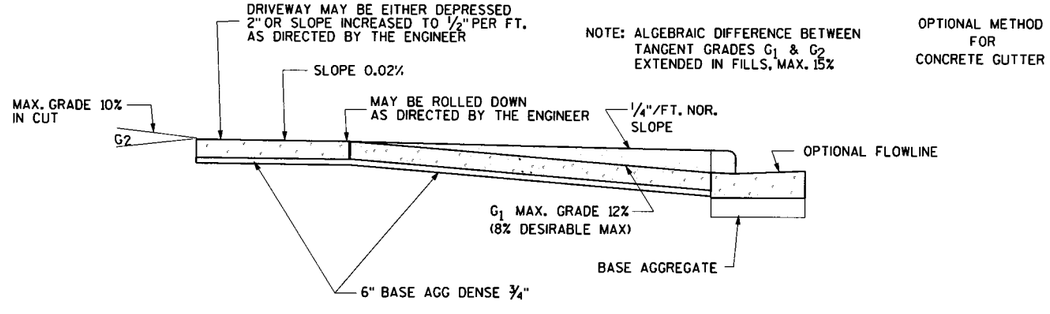
DETAIL OF CURB & GUTTER TERMINI



SECTION A-A



PLAN

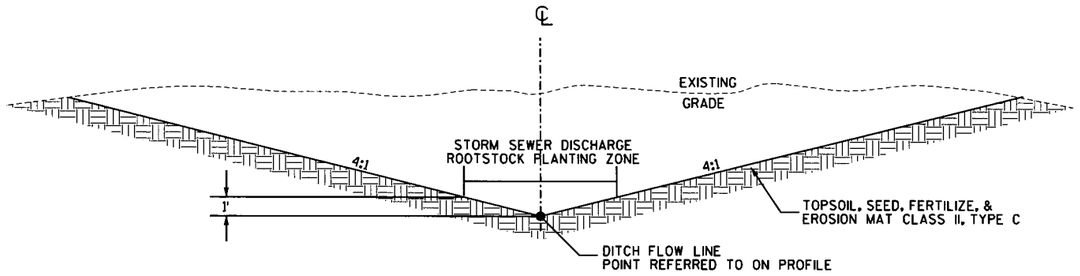


PROFILE

URBAN DRIVEWAY DETAIL

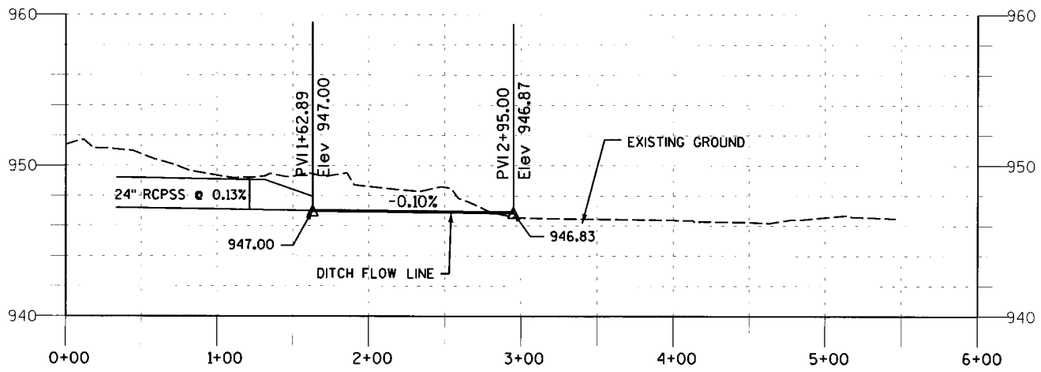
PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 7	E

FILL NAME : p:\ ... plot scale 0.0100.pcd
PLOT DATE : 09 18 2012
PLOT BY : ...user... PLOT NAME :
PLOT SCALE : ...
WISDOT/CADDS SHEET 42



TYPICAL DITCH SECTION

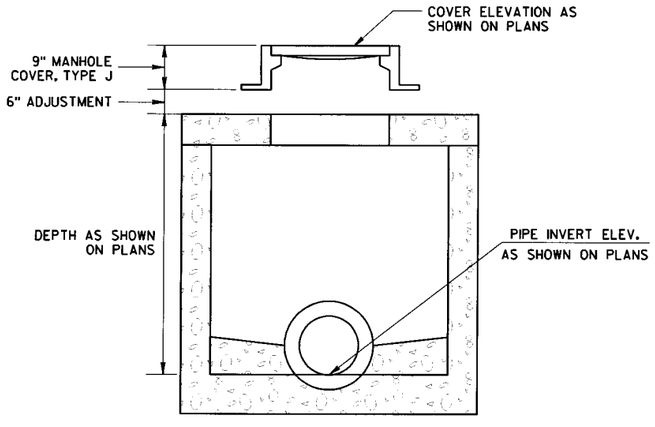
STA 39+40 (FROM STORM SEWER DISCHARGE TO THE NORTHWEST FOR APPROX 130')



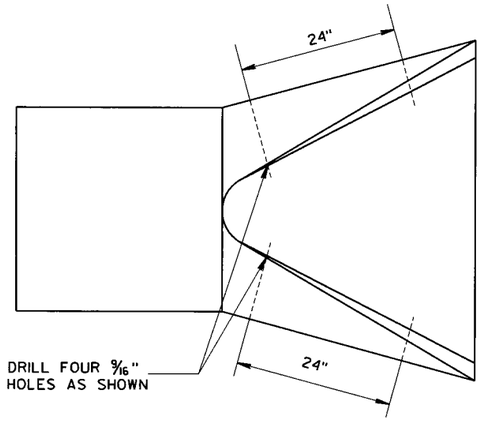
PROFILE

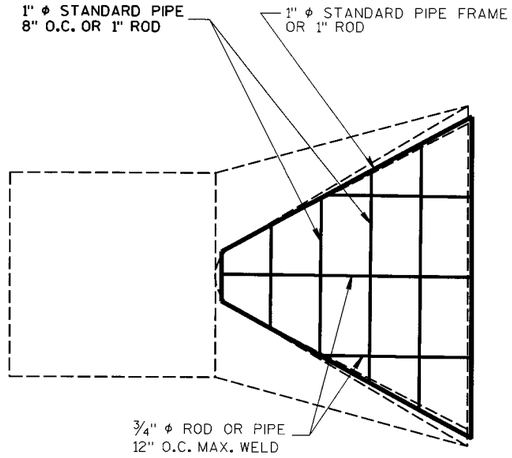
SWALE DETAIL

STH 33 STA 39+40 LT

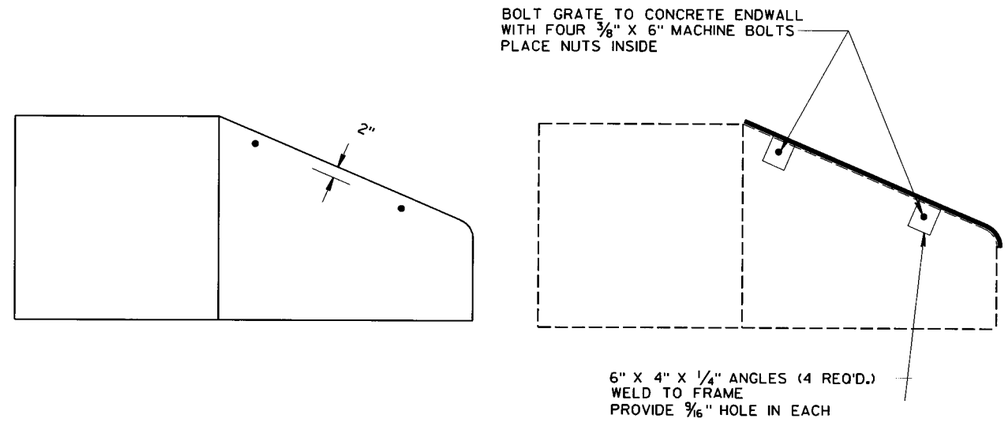


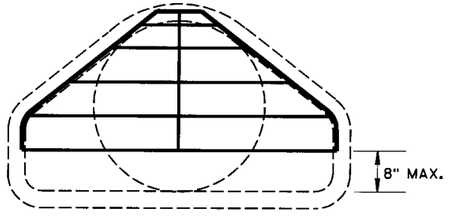
DETAIL FOR ELEVATIONS OF MANHOLES AND MANHOLE COVERS





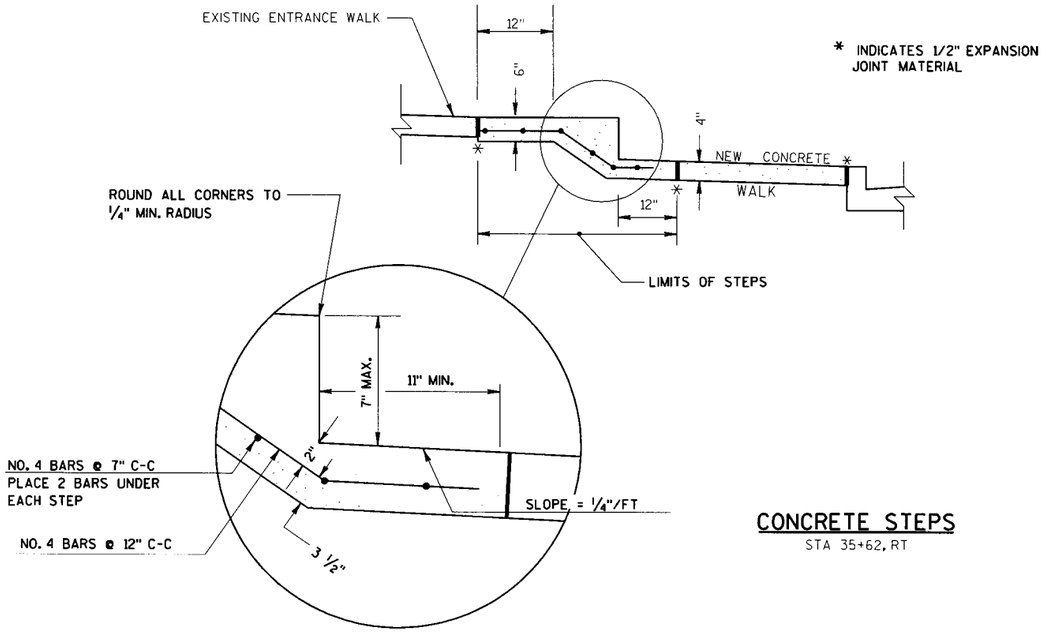
AT EACH PIPE





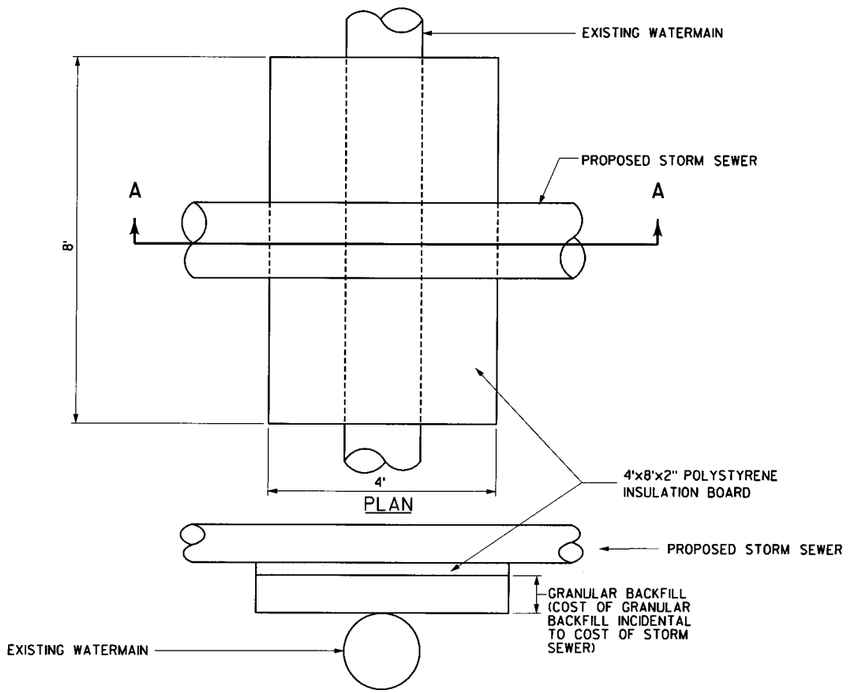
PIPE GRATE DETAIL

STA 29+62, 63'RT
STA 39+06, 155'LT



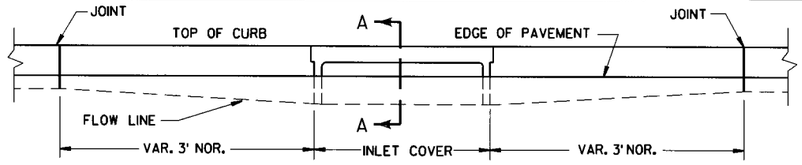
CONCRETE STEPS

STA 35+62, RT

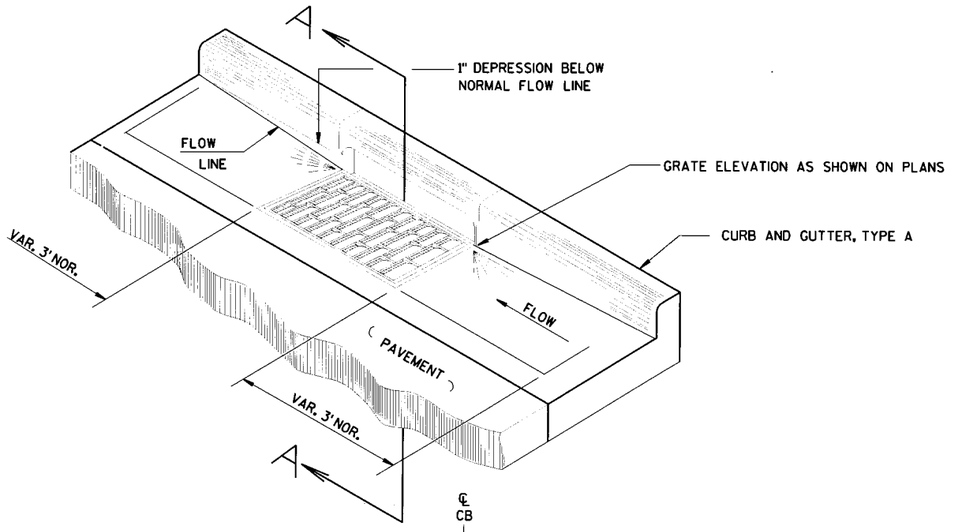


SECTION A-A

WATERMAIN INSULATION



ELEVATION



NOTE
DETAILS NOT SHOWN SHALL CONFORM TO STANDARD DETAIL DRAWING FOR CATCH BASINS TYPE 1

SECTION A-A
TYPE 1 CATCH BASIN

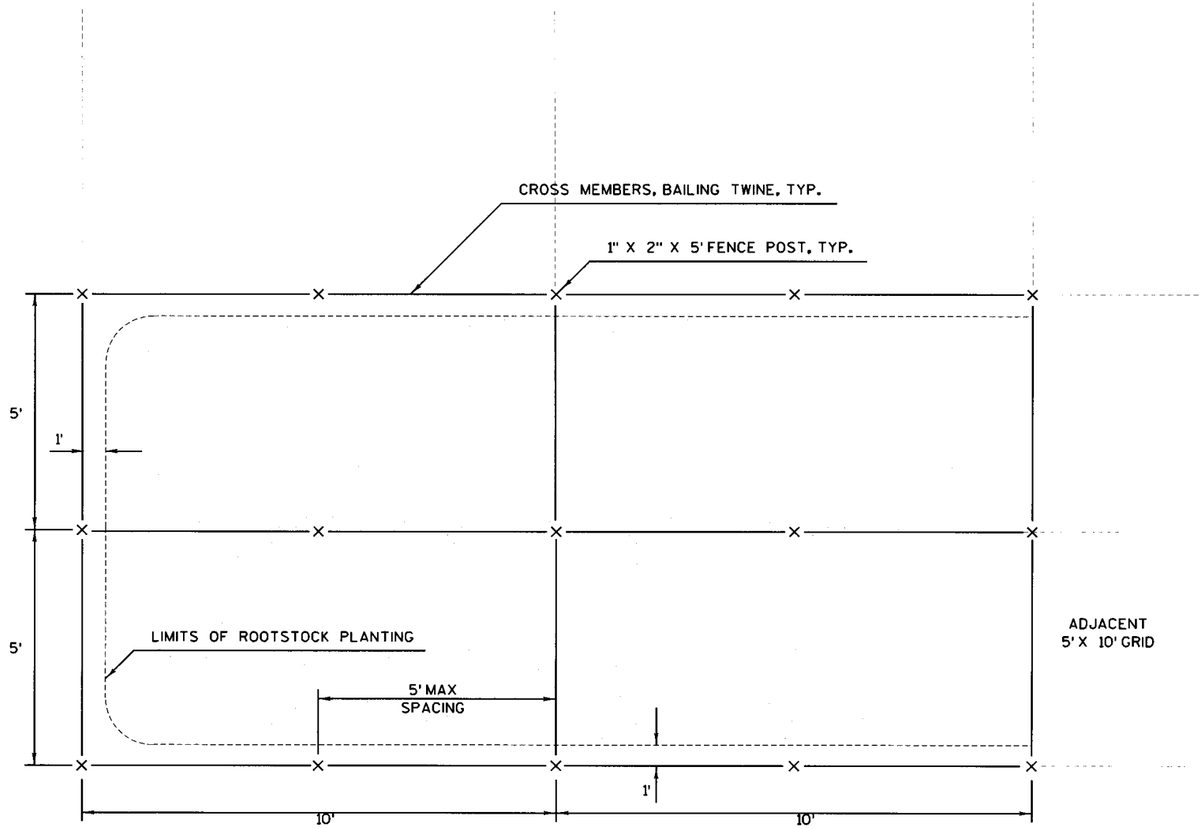
DETAIL FOR ELEVATIONS OF CATCH BASIN AND INLET COVERS

(TYPE 1H OR 1HS CATCH BASIN SHOWN)

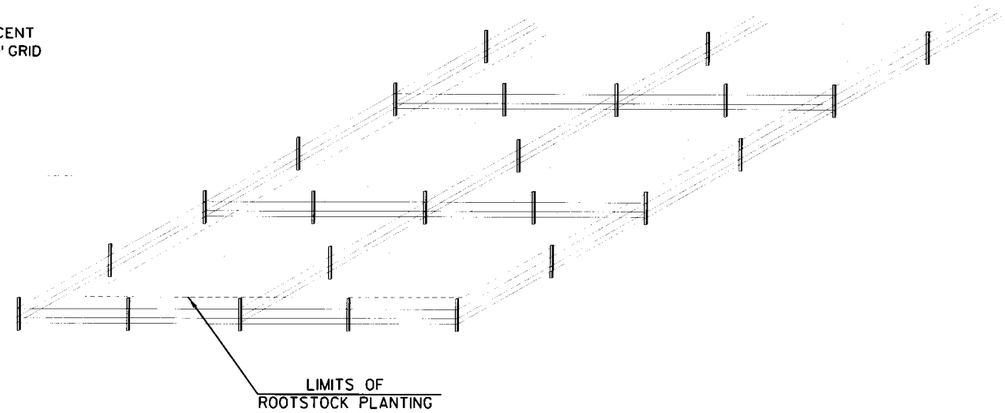
2

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 9	E

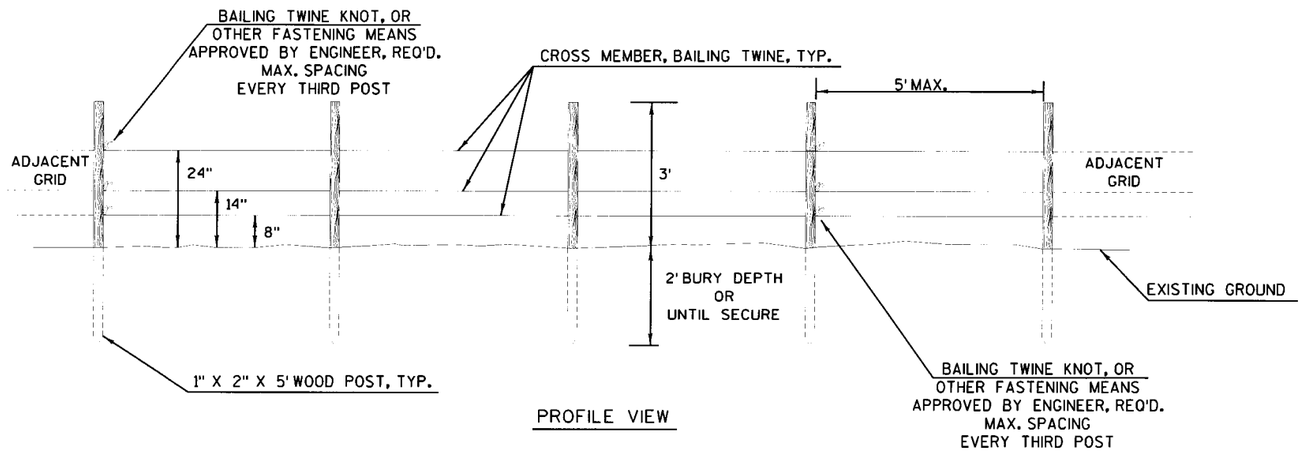
2



PLAN VIEW



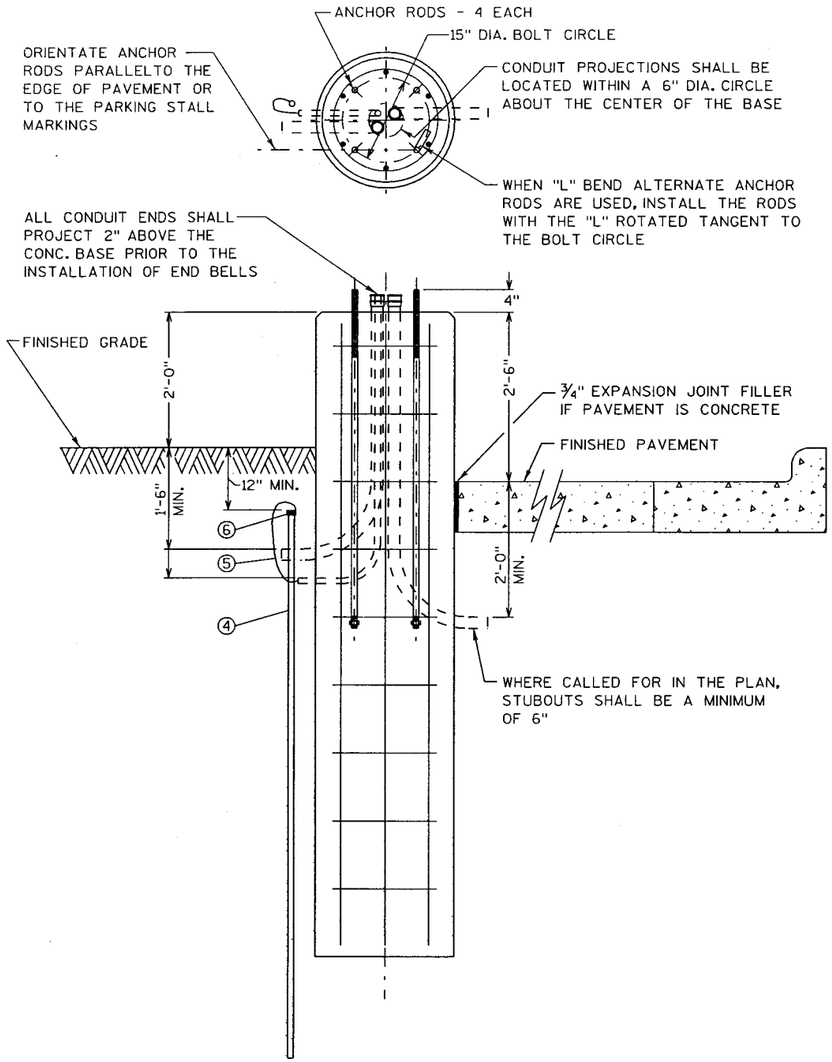
ISOMETRIC VIEW

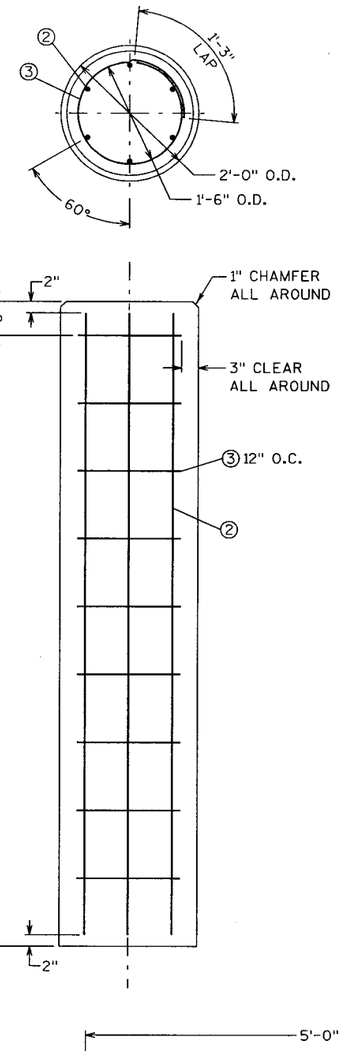


PROFILE VIEW

ROOTSTOCK PROTECTION

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 10	E





CONCRETE BASE, TYPE 7, SPECIAL

(1" ANCHOR RODS, 15" BOLT CIRCLE, 4" PROJECTION)

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF SECTION 654 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.

CONCRETE BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

FORMING SHALL BE LIMITED TO 6" BELOW THE EXISTING GRADE. UNLESS LOOSE SOIL OR FILL IS ENCOUNTERED. FORMING SHALL BE STRIPPED AFTER CONCRETE HAS SET.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL OR FILL, THE FORM SHALL BE STRIPPED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE STRIPPED CONCRETE BASE IN LAYERS OF 6" OR LESS.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

THE NUMBER, SIZE, AND LOCATION OF LINE AND LOAD SIDE CONDUITS WILL BE SHOWN IN THE PLANS. NOTE, SOME BASES MAY HAVE MORE THAN ONE LOAD SIDE CONDUIT REQUIRED (SEE THE PLAN). ALL BASES SHALL HAVE A 1" CONDUIT FOR THE EQUIPMENT GROUNDING CONDUCTOR.

CONDUIT ENDS PROJECTING ABOVE THE BASE SHALL BE SUITABLY PLUGGED BEFORE THE CONCRETE IS POURED, TO PREVENT DEBRIS CONTAMINATION OF THE RACEWAY.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE (STUBOUTS) SHALL BE PLUGGED.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH A MINIMUM OF 6'-6" OF SLACK MEASURED FROM THE TOP OF THE CONCRETE BASE TO THE END OF THE CONDUCTOR. THE SLACK SHALL BE NEATLY TIED IN A COIL THAT FITS INSIDE THE ANCHOR BOLT CIRCLE UNTIL THE LIGHT POLE IS INSTALLED. GREAT CARE SHALL BE EXERCISED TO AVOID DAMAGE TO THE CONDUCTOR.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24". THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18". THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36". THE MAXIMUM DEPTH MAY ONLY BE EXCEEDED WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL NOT BE WELDED TO THE BAR STEEL REINF. HOWEVER, TIE WIRES MAY BE USED.

BAR STEEL REINF. SHALL BE "COATED HIGH STRENGTH BAR STEEL".

① STAINLESS STEEL MESH (RAT SCREEN) AND 3/4 " STAINLESS STEEL BANDING

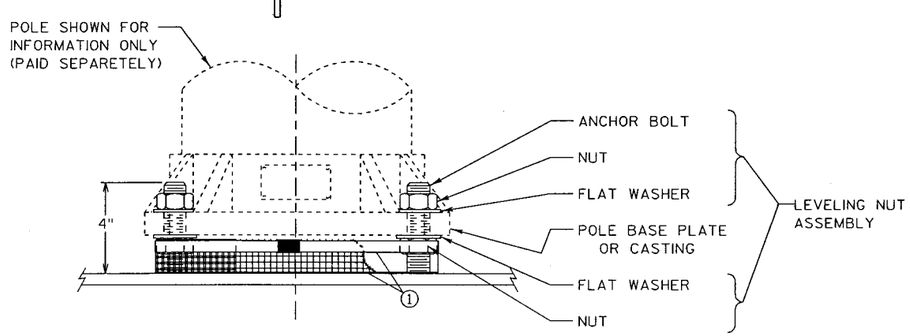
② NO. 6 BAR STEEL REINF., 9'-2" LONG (6 EACH)

③ NO. 4 BAR STEEL REINF., 6'-0" LONG (9 EACH)

④ 5/8 " x 8'-0" COPPER CLAD EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) TOP OF ROD 12" MIN. BELOW FINISHED GRADE OR FINISHED PAVEMENT.

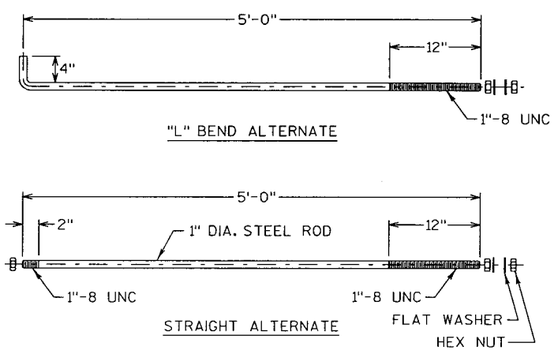
⑤ EQUIPMENT GROUNDING CONDUCTOR

⑥ EXOTHERMIC WELD



RAT SCREEN & LEVELING NUT DETAIL

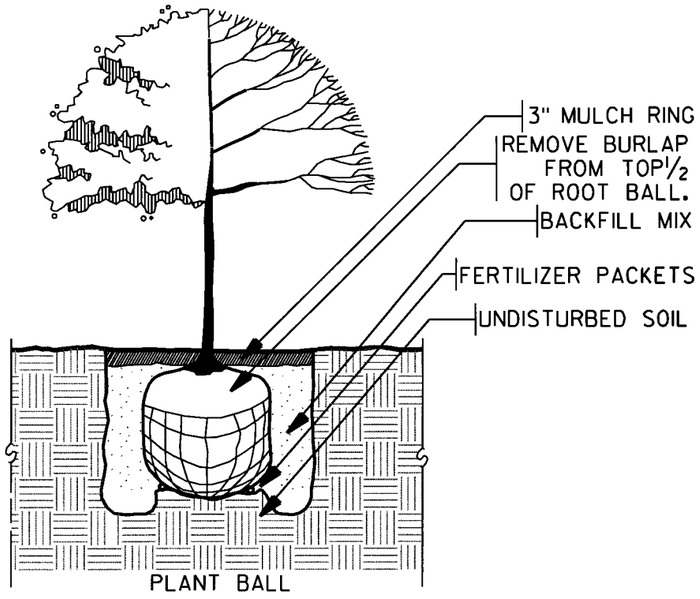
(RAT SCREEN AND BANDING INCIDENTAL TO POLE, LEVELING NUT ASSEMBLIES INCIDENTAL TO CONCRETE BASE)



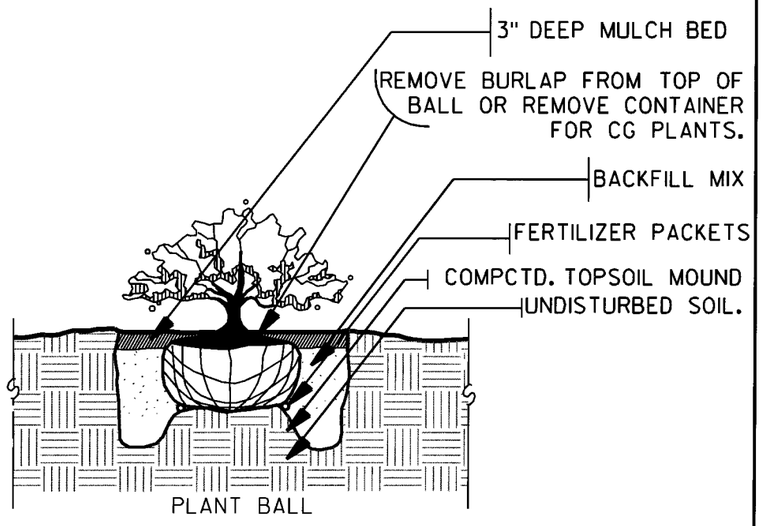
ANCHOR ROD ASSEMBLY DETAIL

(INCIDENTAL TO CONCRETE BASE - 4 EACH PER BASE)

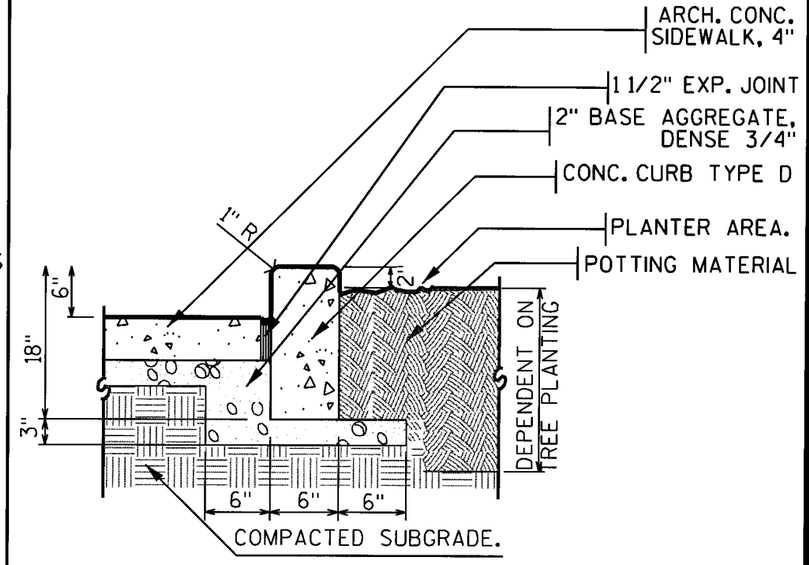
PROJECT NO: 1412-02-70	HWY: STH 33 PARK & RIDE	COUNTY: WASHINGTON	CONCRETE BASE, TYPE 7, SPECIAL	SHEET 11	E



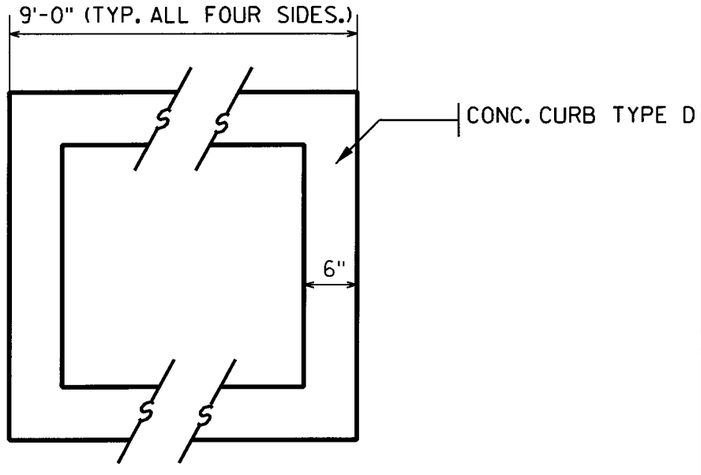
DECIDUOUS TREE — **DETAIL 1**
NOT TO SCALE



SHRUB IN PLANTING BED — **DETAIL 2**
NOT TO SCALE

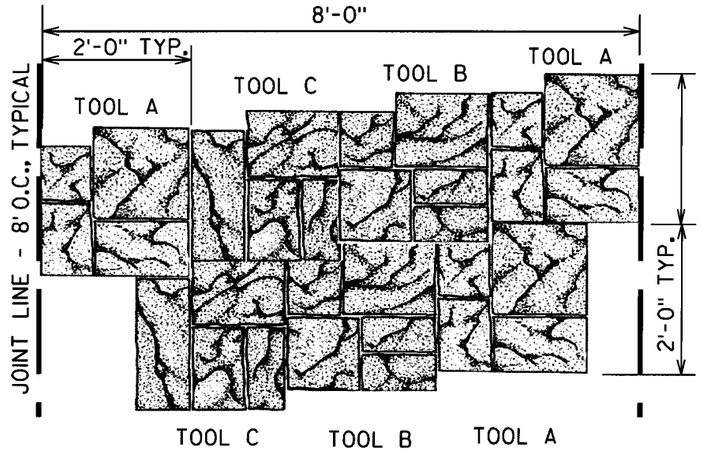


CONCRETE PLANTER - SECTION VIEW — **DETAIL 3**
NOT TO SCALE



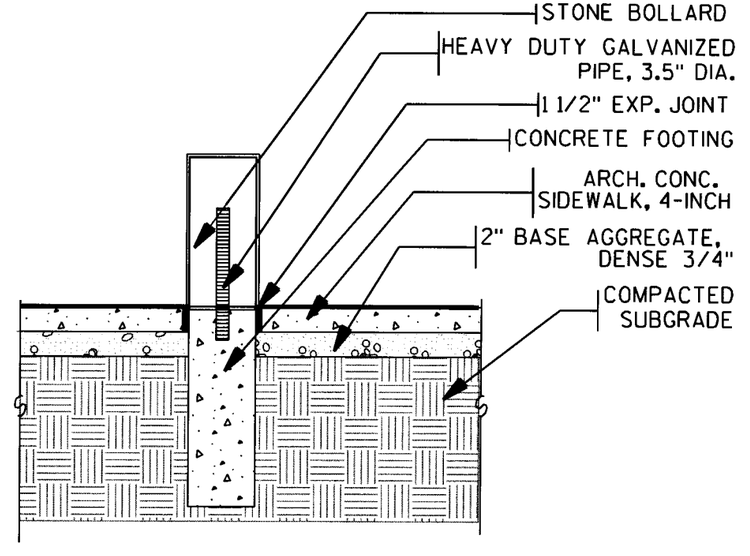
CONCRETE PLANTER - PLAN VIEW — **DETAIL 3**
NOT TO SCALE

ASHLAR SLATE
(English Slate Texture with Medium Broom Finish)



PLAN VIEW

DECORATIVE CONCRETE PATTERN — **DETAIL 4**
NOT TO SCALE



STONE BOLLARD — **DETAIL 5**
NOT TO SCALE

PROJECT NO: 1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	CONSTRUCTION DETAILS	SHEET 12	E

2

44+00

43+00

+00

9'-6"

25'-6"

20'-3"

40'-3" TYP.

20'-0"

9' x 9' CURB PLANTER WALL,
SEE CONSTRUCTION DETAILS

ARCH. CONCRETE SIDEWALK, 4-INCH
IN RUST BROWN AND BRICK RED,
ASHLAR SLATE PATTERN (TYPICAL):
SEE CONSTRUCTION DETAILS

STONE BOLLARD, TYP. FOR 25
SEE CONSTRUCTION DETAILS

N

PROJECT NO: 1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PLAZA DETAIL	SHEET 13	E

FILE NAME : O:\ACTIVE PROJECTS\ 2003-44 ALLENTON\CAD\ 01 REF\ SHEET5.DGN PLOT DATE : 25 JUNE, 2004 PLOT BY : RLF PLOT NAME : PLOT SCALE : 1"=20'

WISDOT/CADDS SHEET 42

2

LEGEND

XXX SAW EXISTING PAVEMENT

AAA SAW CONCRETE PAVEMENT

1. TYPE 1 CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
1A. TYPE 1-A CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
2. TYPE 2 CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
3. CONCRETE PAVEMENT APPROACH SLAB
4. CONCRETE CURB & GUTTER TYPE A
5. CONCRETE CURB & GUTTER TYPE D
6. CONCRETE SIDEWALK 4-INCH
7. CONCRETE DRIVEWAY 6-INCH
8. BASE AGGREGATE 3/4-INCH
9. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
10. ARCHITECTURAL CONCRETE SIDEWALK 4-INCH
11. ARCHITECTURAL CONCRETE PAVEMENT 10-INCH
12. CONCRETE STEPS
13. SOD LAWN
14. CONCRETE CURB TYPE D SPECIAL
15. TOPSOIL, SEED, FERTLIZER, & MULCH

BEGIN PROJECT
1412-02-70
STA 27+94.31

NOTES:
GRADES ARE AT EVEN 25'INTERVALS (WHEN NOT REFERENCED TO A SPECIFIC STATION OR RADIUS POINT) AND ARE REFERENCED TO THE JOINT LINE OR CURB & GUTTER FLANGE AS APPROPRIATE.

STATION	CROSS-SLOPE LEFT (FT/FT)	CROSS-SLOPE RIGHT (FT/FT)
28+00	-0.041	0.041
28+25	-0.039	0.036
28+50	-0.038	0.031
28+75	-0.036	0.026
29+00	-0.034	0.021
29+25	-0.032	0.016
29+50	-0.031	0.011
29+75	-0.029	0.005
30+00	-0.027	0.000
30+25	-0.025	-0.005
30+50	-0.024	-0.010
30+75	-0.022	-0.015
31+00	-0.020	-0.020

STH 33 SUPERELEVATION TRANSITION
CURVE 2 - STA 27+94.31 TO 31+00.00

MATCH LINE STA. 33+15

TO BE REMOVED BY OTHERS

PROJECT NO: 1412-02-70/1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PAVING DETAIL	SHEET 19

PLOT DATE : 09.28.2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....plotscale.....## WISDOT/CADDS

FILE NAME : p: 3556 plan paving 021201.pdd.dgn

RAILROAD DECIDED TO REMOVE SECOND CROSSING SO CONCRETE PAVEMENT WAS EXTENDED TO 25-FEET FROM MAIN TRACK.

2

LEGEND
- SAW EXISTING PAVEMENT
- SAW CONCRETE PAVEMENT
- REMOVING SIDEWALK

BETWEEN TRACKS

DETAIL A

ADD 12' DRIVEWAY

NOTE
SEE DETAIL A FOR SIDEWALK AT RAILROAD CROSSING

WORK BY OTHERS

MATCH LINE STA. 39+00

RAILROAD GATE BY OTHERS

SAWCUT WALL AT R/W

MATCH EXISTING 57+14.08 CTH W

Second track removed 50

NOTES:
GRADES ARE AT EVEN 25'INTERVALS (WHEN NOT REFERENCED TO A SPECIFIC STATION OR RADIUS POINT) AND ARE REFERENCED TO THE JOINT LINE OR CURB & GUTTER FLANGE AS APPROPRIATE.

1. TYPE 1 CURB RAMP REO'D W/ DETECTABLE WARNING FIELD
1A. TYPE 1-A CURB RAMP REO'D W/ DETECTABLE WARNING FIELD
2. TYPE 2 CURB RAMP REO'D W/ DETECTABLE WARNING FIELD
3. CONCRETE PAVEMENT APPROACH SLAB
4. CONCRETE CURB & GUTTER TYPE A
5. CONCRETE CURB & GUTTER TYPE D
6. CONCRETE SIDEWALK 4-INCH
7. CONCRETE DRIVEWAY 6-INCH
8. BASE AGGREGATE 3/4-INCH
9. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
10. ARCHITECTURAL CONCRETE SIDEWALK 4-INCH
11. ARCHITECTURAL CONCRETE PAVEMENT 10-INCH
12. CONCRETE STEPS
13. SOD LAWN
14. CONCRETE CURB TYPE D SPECIAL
15. TOPSOIL, SEED, FERTLIZER, & MULCH

STATION	CROSS-SLOPE LEFT (FT/FT)	CROSS-SLOPE RIGHT (FT/FT)
37+25	-0.020	-0.020
37+50	-0.015	-0.015
37+75	-0.012	-0.007
38+00	-0.010	-0.005
38+25	-0.006	-0.003
38+50	-0.005	-0.001
38+75	+0.001	-0.001
39+00	+0.001	-0.002

PROJECT NO: 1412-02-70/1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PAVING DETAIL	SHEET 15	E

2

SWALE FLOWLINE		
STATION	OFFSET, RIGHT	ELEVATION
42+50	40'	953.17
42+75	45'	953.11
43+00	50'	953.06
43+25	53'	953.01
43+37	55'	952.98
43+50	66'	953.10
43+90	54'	953.33
44+00	52'	953.50
44+25	51'	953.63

CROSS-SLOPE		
STATION	LEFT (FT/FT)	RIGHT (FT/FT)
39+00	+0.001	-0.002
39+25	-0.008	+0.002
39+50	-0.020	-0.010
39+75	-0.020	-0.020

NOTE
SEE DETAIL A (PREVIOUS SHEET)
FOR SIDEWALK AT RAILROAD CROSSINGS

LEGEND
- SAW EXISTING PAVEMENT
- SAW CONCRETE PAVEMENT
- REMOVING SIDEWALK
- PROPOSED DRAINAGE PATTERN

** NOTE: STA. 42+25 - STA. 44+60:
SLOPE TERRACE AT 0.02'/' SIDEWALK
ELEVATIONS SHOWN ARE BACK OF WALK

NOTES:
GRADES ARE AT EVEN 25' INTERVALS (WHEN NOT REFERENCED TO A SPECIFIC STATION OR RADIUS POINT) AND ARE REFERENCED TO THE JOINT LINE OR CURB & GUTTER FLANGE AS APPROPRIATE.

1. TYPE 1 CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
1A. TYPE 1-A CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
2. TYPE 2 CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
3. CONCRETE PAVEMENT APPROACH SLAB
4. CONCRETE CURB & GUTTER TYPE A
5. CONCRETE CURB & GUTTER TYPE D
6. CONCRETE SIDEWALK 4-INCH
7. CONCRETE DRIVEWAY 6-INCH
8. BASE AGGREGATE 3/4-INCH
9. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
10. ARCHITECTURAL CONCRETE SIDEWALK 4-INCH
11. ARCHITECTURAL CONCRETE PAVEMENT 10-INCH
12. CONCRETE STEPS
13. SOD LAWN
14. CONCRETE CURB TYPE D SPECIAL
15. TOPSOIL, SEED, FERTLIZER, & MULCH

STATION	SWALE FLOWLINE	
	OFFSET RIGHT	ELEVATION
44+75	48'	954.12
45+00	47'	953.95

LEGEND

- SAW EXISTING PAVEMENT
- SAW CONCRETE PAVEMENT
- REMOVING SIDEWALK

** NOTE: STA. 44+60 - STA. 45+25:
SLOPE TERRACE AT 0.02'/' SIDEWALK
ELEVATIONS SHOWN ARE BACK OF WALK

NOTES:
GRADES ARE AT EVEN 25' INTERVALS (WHEN NOT REFERENCED TO A SPECIFIC STATION OR RADIUS POINT) AND ARE REFERENCED TO THE JOINT LINE OR CURB & GUTTER FLANGE AS APPROPRIATE.

1. TYPE 1 CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
1A. TYPE 1-A CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
2. TYPE 2 CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
3. CONCRETE PAVEMENT APPROACH SLAB
4. CONCRETE CURB & GUTTER TYPE A
5. CONCRETE CURB & GUTTER TYPE D
6. CONCRETE SIDEWALK 4-INCH
7. CONCRETE DRIVEWAY 6-INCH
8. BASE AGGREGATE 3/4-INCH
9. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
10. ARCHITECTURAL CONCRETE SIDEWALK 4-INCH
11. ARCHITECTURAL CONCRETE PAVEMENT 10-INCH
12. CONCRETE STEPS
13. SOD LAWN
14. CONCRETE CURB TYPE D SPECIAL
15. TOPSOIL, SEED, FERTLIZER, & MULCH

EXTENDED TERRACE COLORED CONCRETE

CHURCH ST

STH 33

MATCH LINE STA. 48+89.03

CONCRETE PLANTERS SEE CONSTRUCTION DETAILS

1412-02-70/1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PAVING DETAIL	SHEET 17 E

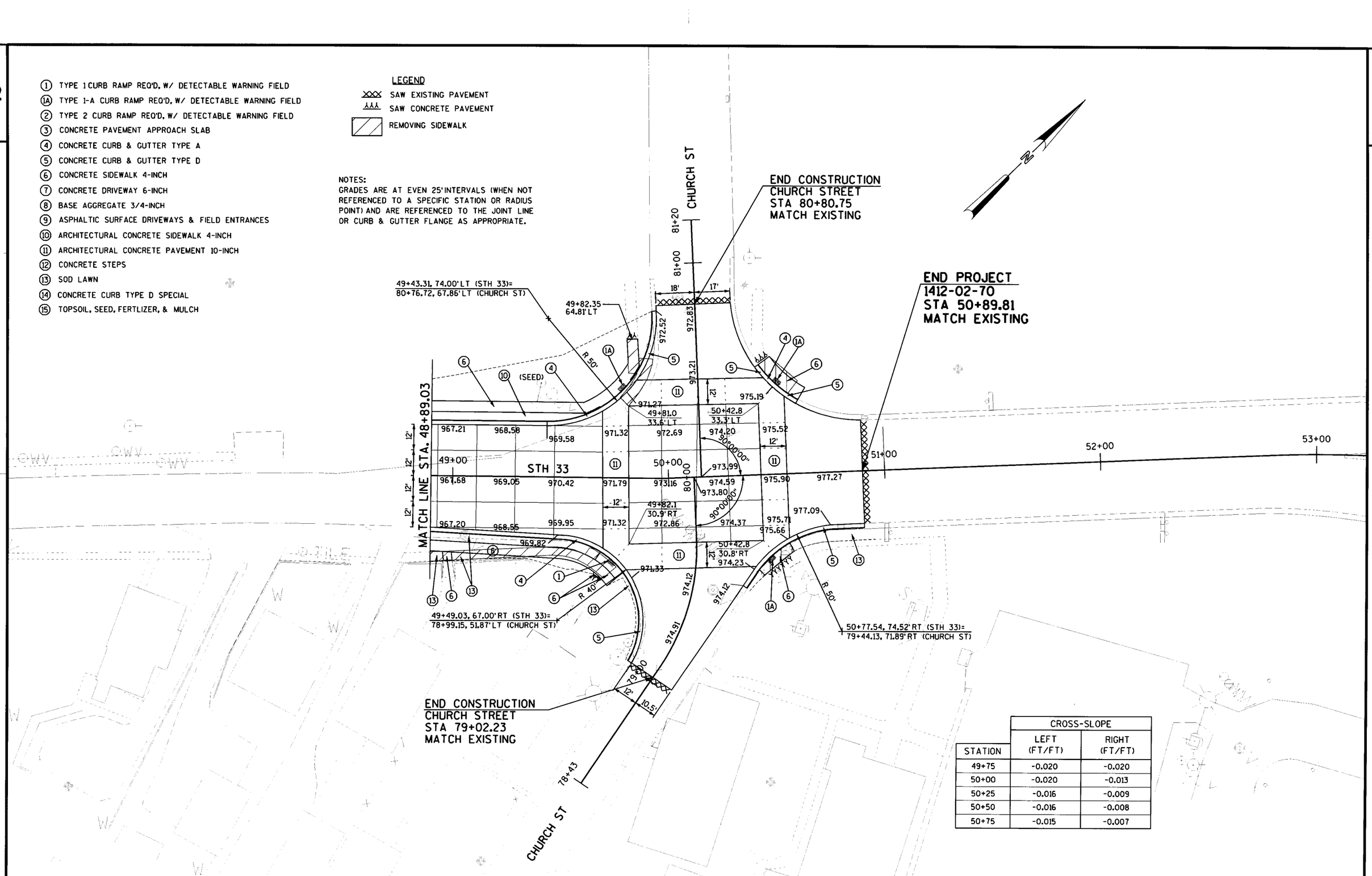
PLOT DATE : 09 28 2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....plotscale.....##

2

(1) TYPE 1 CURB RAMP REQ'D, W/ DETECTABLE WARNING FIELD
(1A) TYPE 1-A CURB RAMP REQ'D, W/ DETECTABLE WARNING FIELD
(2) TYPE 2 CURB RAMP REQ'D, W/ DETECTABLE WARNING FIELD
(3) CONCRETE PAVEMENT APPROACH SLAB
(4) CONCRETE CURB & GUTTER TYPE A
(5) CONCRETE CURB & GUTTER TYPE D
(6) CONCRETE SIDEWALK 4-INCH
(7) CONCRETE DRIVEWAY 6-INCH
(8) BASE AGGREGATE 3/4-INCH
(9) ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
(10) ARCHITECTURAL CONCRETE SIDEWALK 4-INCH
(11) ARCHITECTURAL CONCRETE PAVEMENT 10-INCH
(12) CONCRETE STEPS
(13) SOD LAWN
(14) CONCRETE CURB TYPE D SPECIAL
(15) TOPSOIL, SEED, FERTLIZER, & MULCH

LEGEND
SAW EXISTING PAVEMENT
SAW CONCRETE PAVEMENT
REMOVING SIDEWALK

NOTES:
GRADES ARE AT EVEN 25'INTERVALS (WHEN NOT REFERENCED TO A SPECIFIC STATION OR RADIUS POINT) AND ARE REFERENCED TO THE JOINT LINE OR CURB & GUTTER FLANGE AS APPROPRIATE.

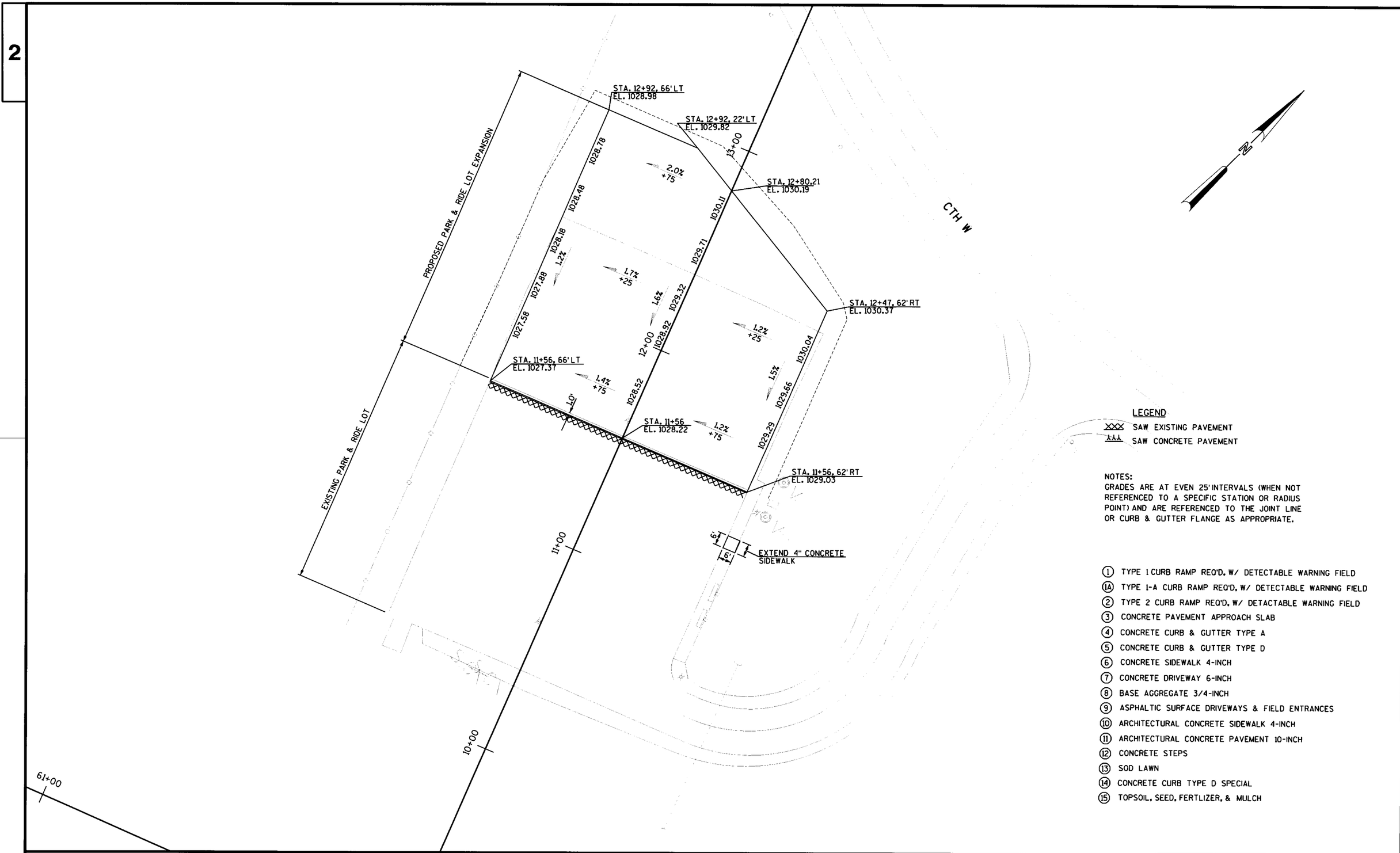


STATION	CROSS-SLOPE LEFT (FT/FT)	CROSS-SLOPE RIGHT (FT/FT)
49+75	-0.020	-0.020
50+00	-0.020	-0.013
50+25	-0.016	-0.009
50+50	-0.016	-0.008
50+75	-0.015	-0.007

PROJECT NO: 1412-02-70/1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PAVING DETAIL	SHEET 18	E

FILE NAME : c:\...\...\...

2



LEGEND

XXX SAW EXISTING PAVEMENT

AAA SAW CONCRETE PAVEMENT

NOTES:
GRADES ARE AT EVEN 25' INTERVALS (WHEN NOT REFERENCED TO A SPECIFIC STATION OR RADIUS POINT) AND ARE REFERENCED TO THE JOINT LINE OR CURB & GUTTER FLANGE AS APPROPRIATE.

1. TYPE 1 CURB RAMP REQ'D, W/ DETECTABLE WARNING FIELD
1A. TYPE 1-A CURB RAMP REQ'D, W/ DETECTABLE WARNING FIELD
2. TYPE 2 CURB RAMP REQ'D, W/ DETACTABLE WARNING FIELD
3. CONCRETE PAVEMENT APPROACH SLAB
4. CONCRETE CURB & GUTTER TYPE A
5. CONCRETE CURB & GUTTER TYPE D
6. CONCRETE SIDEWALK 4-INCH
7. CONCRETE DRIVEWAY 6-INCH
8. BASE AGGREGATE 3/4-INCH
9. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
10. ARCHITECTURAL CONCRETE SIDEWALK 4-INCH
11. ARCHITECTURAL CONCRETE PAVEMENT 10-INCH
12. CONCRETE STEPS
13. SOD LAWN
14. CONCRETE CURB TYPE D SPECIAL
15. TOPSOIL, SEED, FERTLIZER, & MULCH

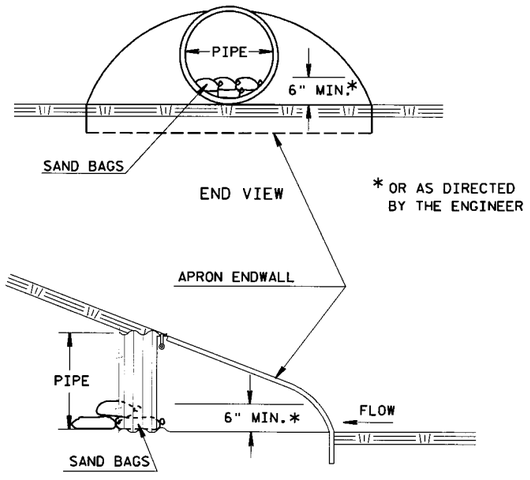
PROJECT NO: 1412-02-70/1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PAVING DETAIL	SHEET 19	E

2

RUNOFF COEFFICIENT TABLE

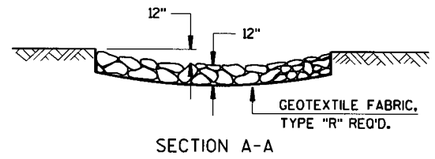
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 = 8.8 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 6.1 ACRES

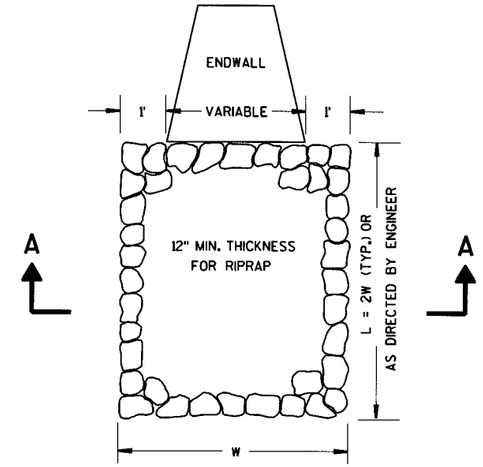


SIDE VIEW

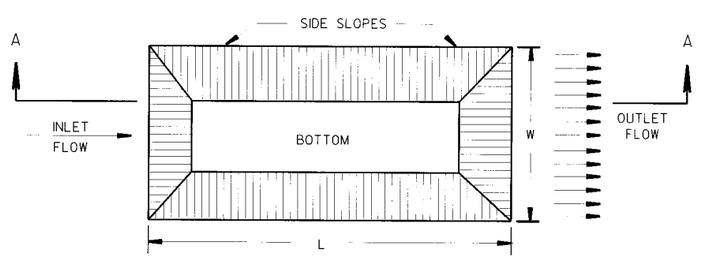
CULVERT PIPE DITCH CHECK



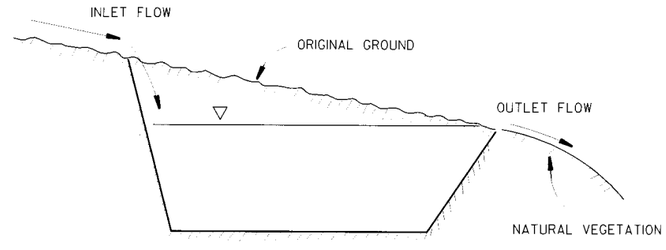
SECTION A-A



RIPRAP TREATMENT AT CULVERTS



PLAN VIEW



SECTION A-A

TEMPORARY SEDIMENT TRAP

NOTES

EXCAVATION AND BACKFILL FOR SEDIMENT TRAP TO BE PAID FOR UNDER "EXCAVATION COMMON" ITEM. (EXACT DIMENSIONS TO BE AS DIRECTED BY THE ENGINEER.)

CLEANING OF SEDIMENT TRAPS, WHEN DIRECTED BY THE ENGINEER, IS PAID FOR UNDER THE ITEM OF "CLEANING SEDIMENT BASINS."

LEGEND

- RIPRAP
- CULVERT PIPE DITCH CHECK
- SILT FENCE
- (AB) INLET PROTECTION TYPE A, THEN TYPE B (SEE NOTE)
- (AC) INLET PROTECTION TYPE A, THEN TYPE C (SEE NOTE)
- (AD) INLET PROTECTION TYPE A, THEN TYPE D (SEE NOTE)
- (C) INLET PROTECTION TYPE C
- PROPOSED DRAINAGE PATTERN
- [TST] TEMPORARY SEDIMENT TRAP
- EROSION BALES
- DITCH CHECK
- TURBIDITY BARRIER

NOTE

PLACE INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED, THEN PLACE RESPECTIVE INLET PROTECTION TYPE.

PLACE SILT FENCE ON SAME DAY AS REMOVAL OF EXISTING ASPHALT IN PARKING LOT

BEGIN PROJECT
1412-02-70
STA 27+94.31

STH 33

WEIS ST

CTH W

POOL

VOLLEYBALL COURT

ATHLETIC FIELD

SIGN

FILLER CAPS

CANOPY

SCALE

30+00

35+00

40+00

70+00

71+95

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 2/	E

2

LEGEND

- RIPRAP
- CULVERT PIPE DITCH CHECK
- SILT FENCE
- (AB) INLET PROTECTION TYPE A, THEN TYPE B (SEE NOTE)
- (AC) INLET PROTECTION TYPE A, THEN TYPE C (SEE NOTE)
- (AD) INLET PROTECTION TYPE A, THEN TYPE D (SEE NOTE)
- (C) INLET PROTECTION TYPE C
- PROPOSED DRAINAGE PATTERN
- TST TEMPORARY SEDIMENT TRAP
- EROSION BALES
- DITCH CHECK
- TURBIDITY BARRIER

NOTE

PLACE INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED, THEN PLACE RESPECTIVE INLET PROTECTION TYPE.

N

71+95

81+20

50+00

80+00

55+00

45+00

STH 33

CHURCH ST

78+43

END PROJECT
1412-02-70
STA 50+89.81

END CONSTRUCTION
1412-02-70
STA 50+99.81

USE EROSION BALES AND SILT FENCE AS NECESSARY DURING CONSTRUCTION FOR EROSION CONTROL.

960

950

940

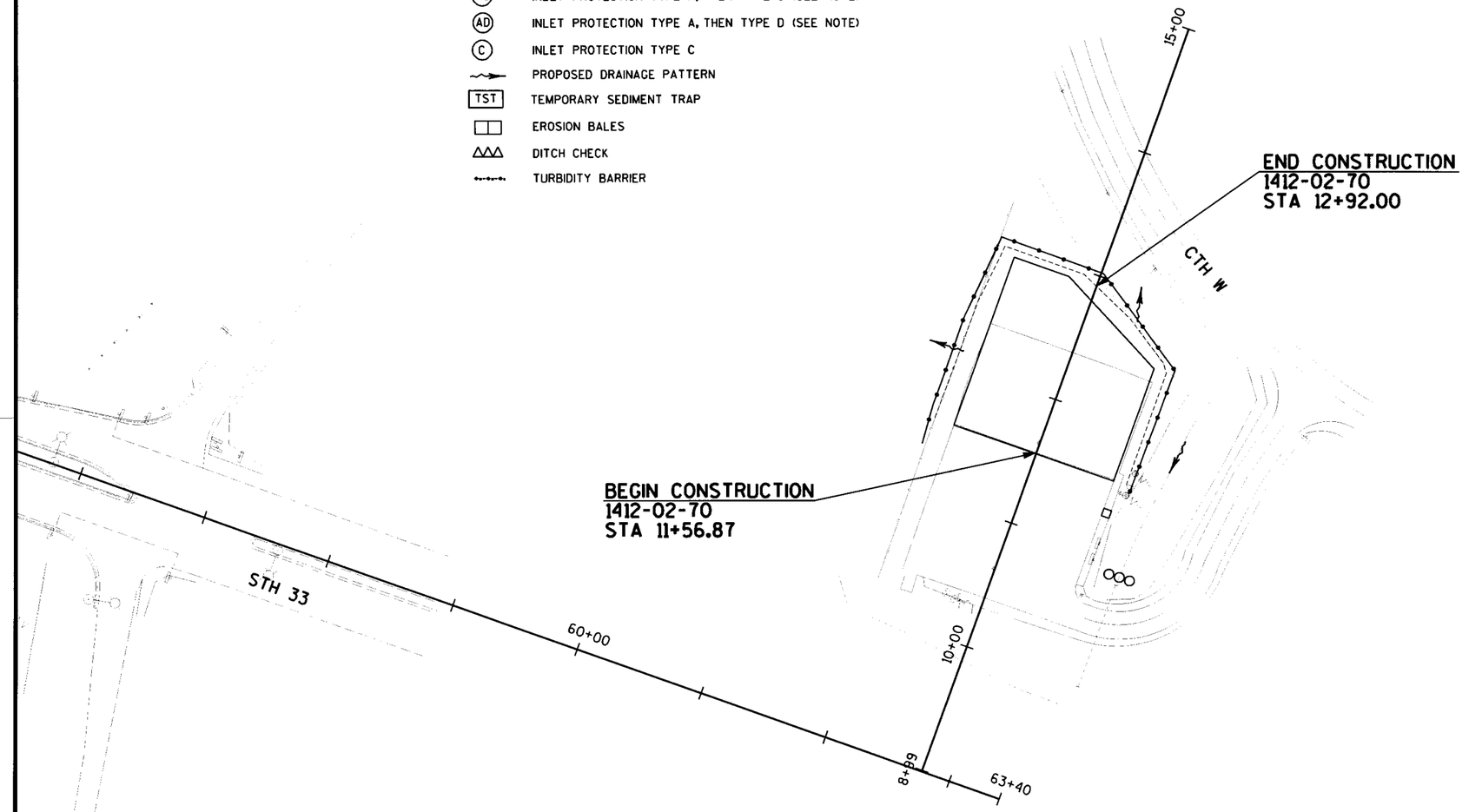
PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 22	E

LEGEND

- RIPRAP
- CULVERT PIPE DITCH CHECK
- SILT FENCE
- (AB) INLET PROTECTION TYPE A, THEN TYPE B (SEE NOTE)
- (AC) INLET PROTECTION TYPE A, THEN TYPE C (SEE NOTE)
- (AD) INLET PROTECTION TYPE A, THEN TYPE D (SEE NOTE)
- (C) INLET PROTECTION TYPE C
- PROPOSED DRAINAGE PATTERN
- TST TEMPORARY SEDIMENT TRAP
- EROSION BALES
- DITCH CHECK
- TURBIDITY BARRIER

NOTE

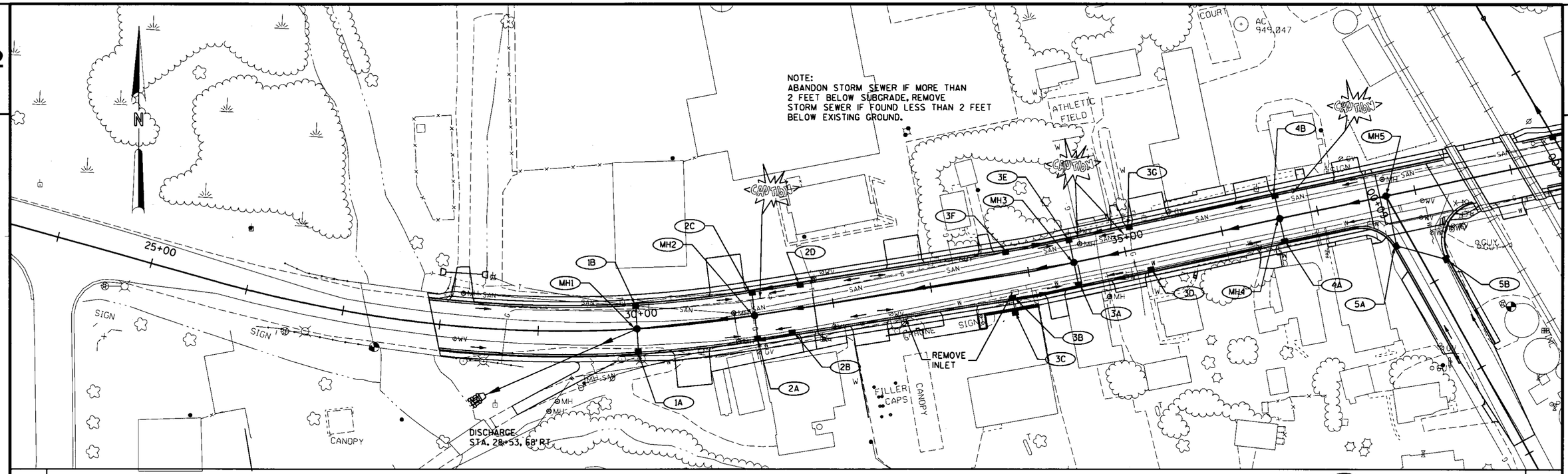
PLACE INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED, THEN PLACE RESPECTIVE INLET PROTECTION TYPE.

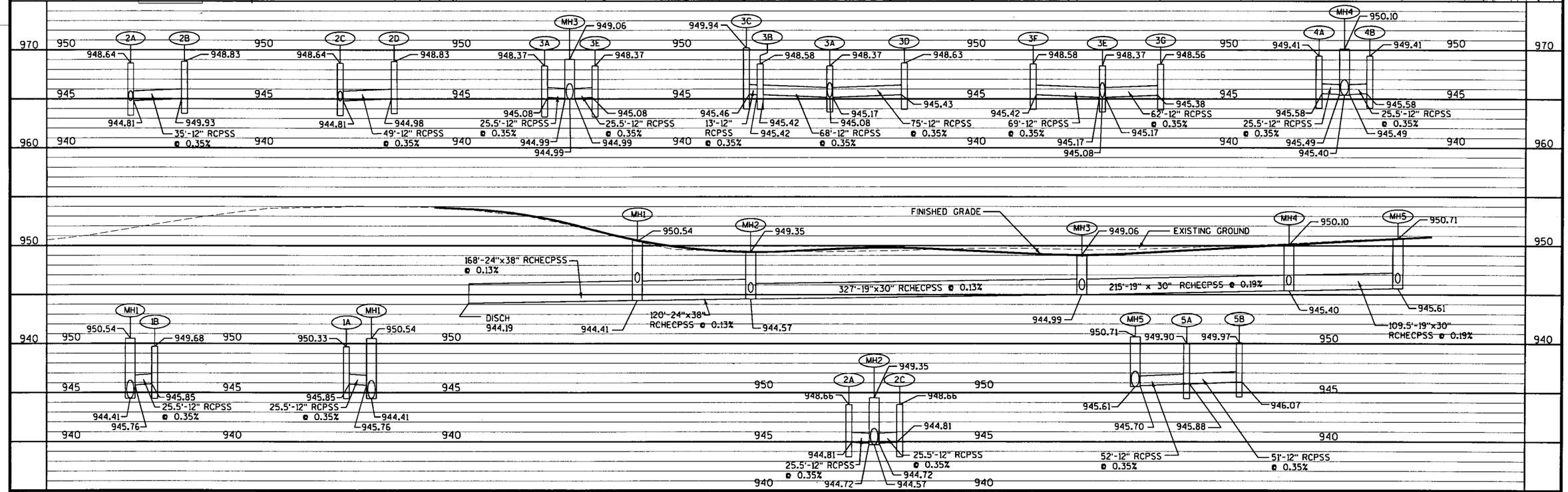


PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	EROSION CONTROL	SHEET 23	E

2

NOTE:
ABANDON STORM SEWER IF MORE THAN 2 FEET BELOW SUBGRADE, REMOVE STORM SEWER IF FOUND LESS THAN 2 FEET BELOW EXISTING GROUND.





PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	STORM SEWER/UTILITIES	SHEET 21	E

2

DISCHARGE STA. 39+40. 15.5' LT

WEIS STREET

NOTES
ABANDON STORM SEWER IF MORE THAN 2 FEET BELOW SUBGRADE, REMOVE STORM SEWER IF FOUND LESS THAN 2 FEET BELOW SUBGRADE.

REMOVE INLET

CAUTION

CONNECT PIPE UNDERDRAIN TO DOWNSPOUT

REMOVE PIPE UNDERDRAIN (INCIDENTAL TO EXCAVATION COMMON)

CHURCH STREET

81+20

50+00

45+00

REMOVE PIPE UNDERDRAIN

ADJUST INLET

ADJUST INLET

CHURCH STREET

N

MH6 6B 6C

MH7 7A 7B

MH8 8A 8B 8C 8D 8E

MH9 9A 9B 9C

MH10 10A 10B

952.21
951.52
951.26
952.95
952.17
952.36
948.34
948.22
947.72
947.29
947.26
947.19
953.59
953.26
953.33
949.40
949.10
948.99
949.25
948.40
948.96
953.95
952.98
950.30
949.80
949.60
950.23
955.34
954.65
955.03
950.89
950.82
950.32
950.73
961.59
960.90
957.07
956.98
955.02

90'-6" PIPE UNDERDRAIN UNPERFORATED @ 4.17%

953.5 (FIELD VERIFY)

30'-18" RCPSS @ 0.35%

33.3'-12" RCPSS @ 0.35%

32.9'-12" RCPSS @ 0.35%

43.5'-12" RCPSS @ 0.35%

7.5'-18" RCPSS @ 0.35%

57'-12" RCPSS @ 0.35%

119'-12" RCPSS @ 0.53%

20'-12" RCPSS @ 0.35%

25.5'-18" RCPSS @ 0.35%

25.5'-12" RCPSS @ 0.35%

25.5'-12" RCPSS @ 0.35%

25.5'-24" RCPSS @ 0.13%

164'-24" RCPSS @ 0.26%

234.5'-24" RCPSS @ 0.29%

202.5'-24" RCPSS @ 0.51%

187'-24" RCPSS @ 3.0%

FINISHED GRADE

EXISTING GROUND

955 950 945 980 970 960 950 940

HWY: STH 33 | COUNTY: WASHINGTON | STORM SEWER/UTILITIES | SHEET 25 E

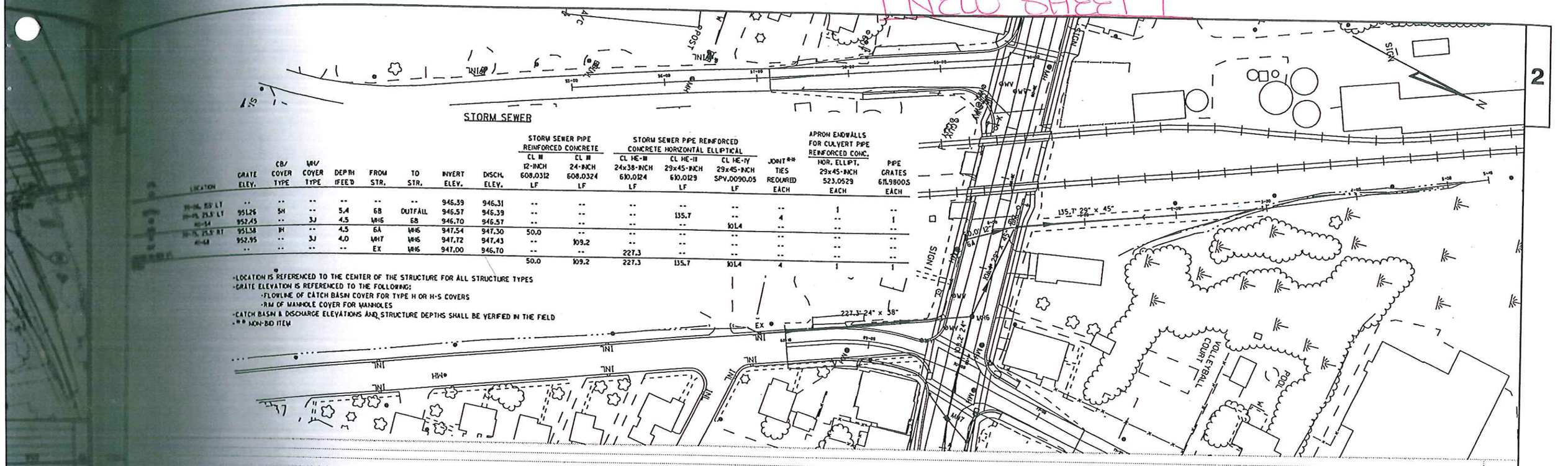
PLOT DATE : 12/20/2004 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 41

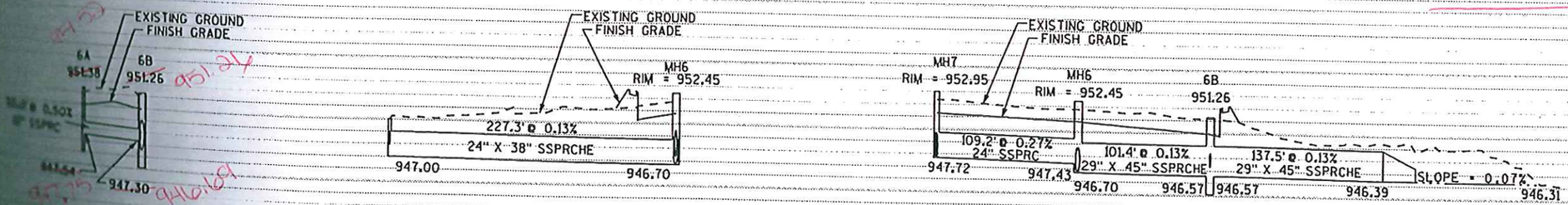
NEW SHEET

STORM SEWER

LOCATION	GRATE ELEV.	CB/ COVER TYPE	MH/ COVER TYPE	DEPTH (FEET)	FROM STR.	TO STR.	INVERT ELEV.	DISCH. ELEV.	STORM SEWER PIPE REINFORCED CONCRETE CL III 12-INCH 608.0312 LF	STORM SEWER PIPE REINFORCED CONCRETE CL III 24-INCH 608.0324 LF	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CL HE-III 24x38-INCH 610.0124 LF	CL HE-II 29x45-INCH 610.0129 LF	CL HE-IV 29x45-INCH SPV.0090.05 LF	JOINT** TIES REQUIRED EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONC. HOR. ELLIPT. 29x45-INCH 523.0529 EACH	PIPE GRATES 611.9800S EACH
[illegible]	..	..	..	..	..	..	946.39	946.31	..	..	..	..	..	..	..	..
[illegible]	951.26	SH	..	5.4	6B	OUTFALL	946.57	946.39	..	..	..	135.7	..	4	..	1	..
10-54	952.45	..	3J	4.5	MH6	6B	946.70	946.57	..	..	..	..	101.4	..	..	1	..
[illegible]	951.38	IH	..	4.5	6A	MH6	947.54	947.30	50.0	..	..	..	..	..	..	..	..
6-48	952.95	..	3J	4.0	MH7	MH6	947.72	947.43	..	109.2	..	..	..	..	..	..	..
..	..	..	..	..	EX	MH6	947.00	946.70	..	..	227.3	..	..	..	..	..	..
									50.0	109.2	227.3	135.7	101.4	4	1	1

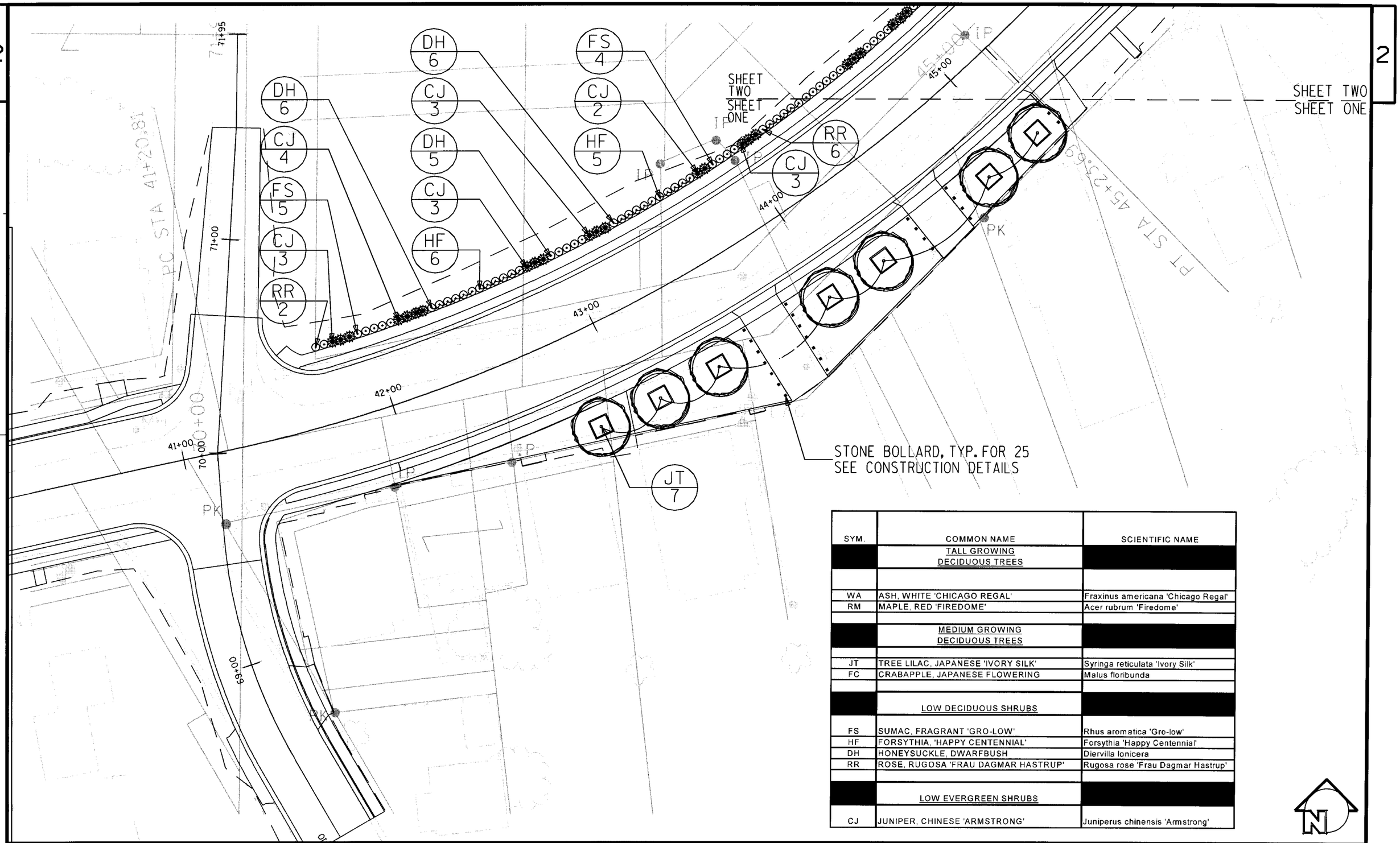
- LOCATION IS REFERENCED TO THE CENTER OF THE STRUCTURE FOR ALL STRUCTURE TYPES
- GRATE ELEVATION IS REFERENCED TO THE FOLLOWING:
  - FLOWLINE OF CATCH BASIN COVER FOR TYPE H OR H-S COVERS
  - RIM OF MANHOLE COVER FOR MANHOLES
- CATCH BASIN & DISCHARGE ELEVATIONS AND STRUCTURE DEPTHS SHALL BE VERIFIED IN THE FIELD
- ** NON-BID ITEM





CHANGES TO SELECT PART OF THE STORM SEWER

2



SYM.	COMMON NAME	SCIENTIFIC NAME
	TALL GROWING DECIDUOUS TREES	
WA	ASH, WHITE 'CHICAGO REGAL'	Fraxinus americana 'Chicago Regal'
RM	MAPLE, RED 'FIREDOME'	Acer rubrum 'Firedome'
	MEDIUM GROWING DECIDUOUS TREES	
JT	TREE LILAC, JAPANESE 'IVORY SILK'	Syringa reticulata 'Ivory Silk'
FC	CRABAPPLE, JAPANESE FLOWERING	Malus floribunda
	LOW DECIDUOUS SHRUBS	
FS	SUMAC, FRAGRANT 'GRO-LOW'	Rhus aromatica 'Gro-low'
HF	FORSYTHIA, 'HAPPY CENTENNIAL'	Forsythia 'Happy Centennial'
DH	HONEYSUCKLE, DWARFBUSH	Diervilla lonicera
RR	ROSE, RUGOSA 'FRAU DAGMAR HASTRUP'	Rugosa rose 'Frau Dagmar Hastrup'
	LOW EVERGREEN SHRUBS	
CJ	JUNIPER, CHINESE 'ARMSTRONG'	Juniperus chinensis 'Armstrong'

N

PROJECT NO: 1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PLANTING PLAN	SHEET 26	E

SHEET THREE
SHEET TWO

SHEET THREE
SHEET TWO

50+00.08

49+00

48+00

47+00

46+00

45+00

79+00

78+43

CHURCH STREET

RM 4

WA 3

FS 6

CJ 3

HF 4

FS 4

CJ 3

DH 4

CJ 3

RR 6

SHEET TWO
SHEET ONE

SHEET TWO
SHEET ONE

SYM.	COMMON NAME	SCIENTIFIC NAME
	TALL GROWING DECIDUOUS TREES	
WA	ASH, WHITE 'CHICAGO REGAL'	Fraxinus americana 'Chicago Regal'
RM	MAPLE, RED 'FIREDOME'	Acer rubrum 'Firedome'
	MEDIUM GROWING DECIDUOUS TREES	
JT	TREE LILAC, JAPANESE 'IVORY SILK'	Syringa reticulata 'Ivory Silk'
FC	CRABAPPLE, JAPANESE FLOWERING	Malus floribunda
	LOW DECIDUOUS SHRUBS	
FS	SUMAC, FRAGRANT 'GRO-LOW'	Rhus aromatica 'Gro-low'
HF	FORSYTHIA, 'HAPPY CENTENNIAL'	Forsythia 'Happy Centennial'
DH	HONEYSUCKLE, DWARFBUSH	Diervilla lonicera
RR	ROSE, RUGOSA 'FRAU DAGMAR HASTRUP'	Rugosa rose 'Frau Dagmar Hastrup'
	LOW EVERGREEN SHRUBS	
CJ	JUNIPER, CHINESE 'ARMSTRONG'	Juniperus chinensis 'Armstrong'

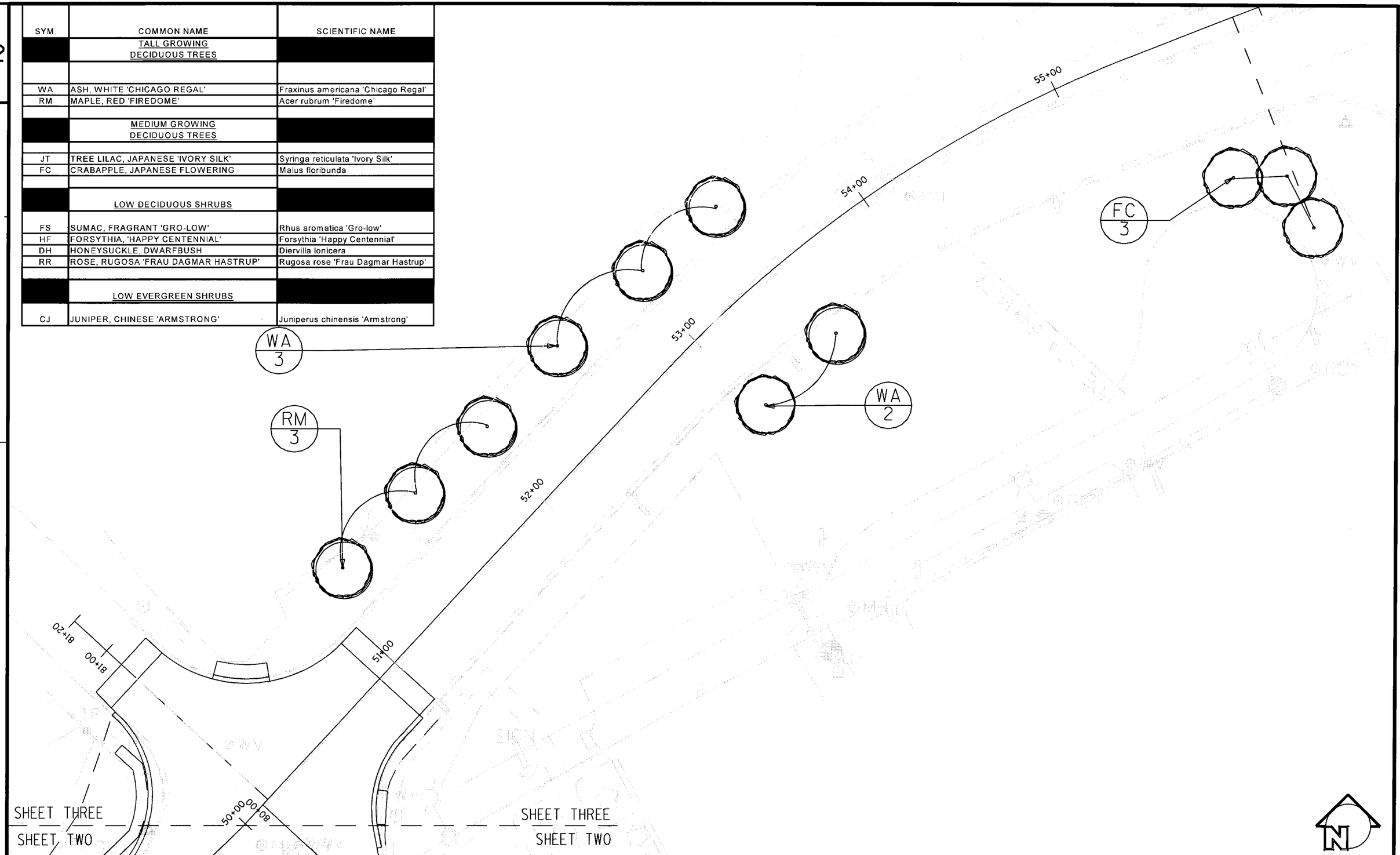
N

PROJECT NO: 1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PLANTING PLAN	SHEET 27	E

FILE NAME : O:\ ACTIVE PROJECTS\ 2003-44 ALLENTON\ CAD\ 01 REF\ SHEET2.DGN PLOT DATE : 25 JUNE. 2004 PLOT BY : RLF PLOT NAME : PLOT SCALE : 1"=40'

WISDOT/CADDS SHEET 42

SYM.	COMMON NAME	SCIENTIFIC NAME
	TALL GROWING DECIDUOUS TREES	
WA	ASH, WHITE 'CHICAGO REGAL'	Fraxinus americana 'Chicago Regal'
RM	MAPLE, RED 'FIREDOME'	Acer rubrum 'Firedome'
	MEDIUM GROWING DECIDUOUS TREES	
JT	TREE LILAC, JAPANESE 'IVORY SILK'	Syringa reticulata 'Ivory Silk'
FC	CRABAPPLE, JAPANESE FLOWERING	Malus floribunda
	LOW DECIDUOUS SHRUBS	
FS	SUMAC, FRAGRANT 'GRO-LOW'	Rhus aromatica 'Gro-low'
HF	FORSYTHIA, 'HAPPY CENTENNIAL'	Forsythia 'Happy Centennial'
DH	HONEYSUCKLE, DWARFBUSH	Diervilla lonicera
RR	ROSE, RUGOSA 'FRAU DAGMAR HASTRUP'	Rugosa rose 'Frau Dagmar Hastrup'
	LOW EVERGREEN SHRUBS	
CJ	JUNIPER, CHINESE 'ARMSTRONG'	Juniperus chinensis 'Armstrong'



PROJECT NO: 1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PLANTING PLAN	SHEET 28	E

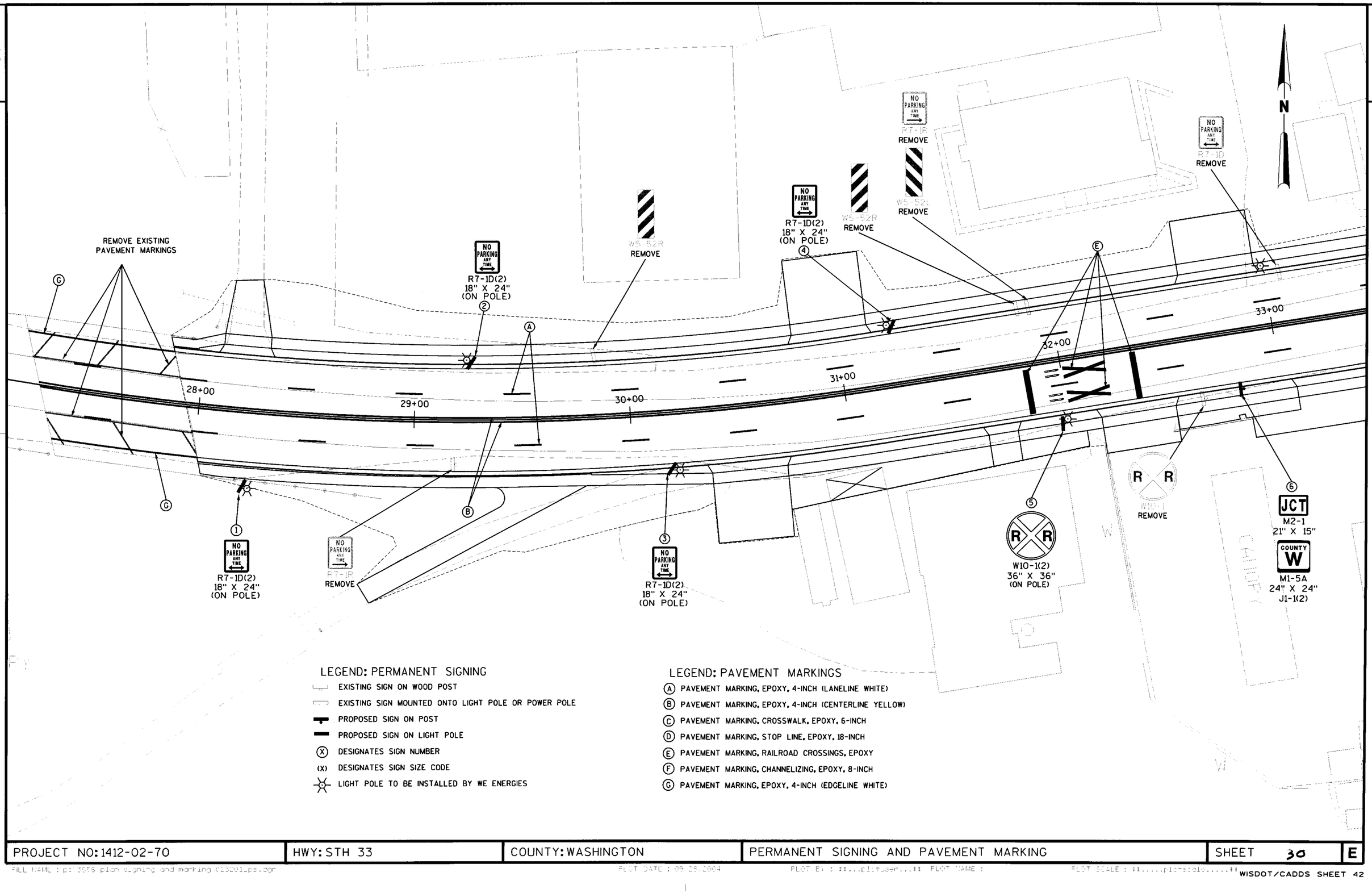
PLANT QUANTITIES

SYM.	COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	SITE PLANTING PLAN SHEET			
				SHT 1	SHT 2	SHT 3	TOTALS
	LARGE DECIDUOUS TREES						
WA	ASH, WHITE 'CHICAGO REGAL'	Fraxinus americana 'Chicago Regal'	2 1/2" CAL. B&B	0	3	5	8
RM	MAPLE, RED 'FIREDOME'	Acer rubrum 'Firedome'	2 1/2" CAL. B&B	0	4	3	7
	MEDIUM DECIDUOUS TREES						
CP	TREE LILAC, JAPANESE 'IVORY SILK'	Syringa reticulata 'Ivory Silk'	2" CAL. B&B	7	0	0	7
FC	CRABAPPLE, JAPANESE FLOWERING	Malus floribunda	2" CAL. B&B	0	0	3	3
	LOW DECIDUOUS SHRUBS						
FS	SUMAC, FRAGRANT 'GRO-LOW'	Rhus aromatica 'Gro-low'	3 GAL. CG	9	10	0	19
HF	FORSYTHIA, 'HAPPY CENTENNIAL'	Forsythia 'Happy Centennial'	3 GAL. CG	11	4	0	15
DH	HONEYSUCKLE, DWARFBUSH	Diervilla lonicera	3 GAL. CG	17	4	0	21
RR	ROSE, RUGOSA 'FRAU DAGMAR HASTRUP'	Rugosa rose 'Frau Dagmar Hastrup'	3 GAL. CG	8	6	0	14
	LOW EVERGREEN SHRUBS						
CJ	JUNIPER, CHINESE 'ARMSTRONG'	Juniperus chinensis 'Armstrong'	3 GAL. CG	18	9	0	27

PLANT DATA CHART

SYM.	COMMON NAME	SCIENTIFIC NAME	TYPE	AVERAGE MATURE HEIGHT	SIZE WHEN PLANTED	ROOT ZONE COND.	MINIMUM BALL OR POT SIZE		MINIMUM HOLE SIZE		BRACE OR GUY	FERT. UNITS REQ'D.	RODENT PROTEC. REQ'D.	MULCH RING DIAM.
							DIAM.	DEPTH	DIAM.	DEPTH				
	TALL GROWING DECIDUOUS TREES													
WA	ASH, WHITE 'CHICAGO REGAL'	Fraxinus americana 'Chicago Regal'	1	75'	2 1/2" CAL.	B&B	28"	19"	52"	19"	NO	3	YES	52"
RM	MAPLE, RED 'FIREDOME'	Acer rubrum 'Firedome'	1	75'	2 1/2" CAL.	B&B	28"	19"	52"	19"	NO	3	YES	52"
	MEDIUM GROWING DECIDUOUS TREES													
JT	TREE LILAC, JAPANESE 'IVORY SILK'	Syringa reticulata 'Ivory Silk'	3	25'	2" CAL.	B&B	24"	12"	48"	12"	NO	3	YES	46"
FC	CRABAPPLE, JAPANESE FLOWERING	Malus floribunda	3	20'	2" CAL.	B&B	24"	12"	48"	12"	NO	3	YES	46"
	LOW DECIDUOUS SHRUBS													
FS	SUMAC, FRAGRANT 'GRO-LOW'	Rhus aromatica 'Gro-low'	3	3'	3 GAL.	CG	-	-	36"	9"	NO	2	YES	BED
HF	FORSYTHIA, 'HAPPY CENTENNIAL'	Forsythia 'Happy Centennial'	2	3'	3 GAL.	CG	-	-	36"	9"	NO	2	YES	BED
DH	HONEYSUCKLE, DWARFBUSH	Diervilla lonicera	2	3'	3 GAL.	CG	-	-	36"	9"	NO	2	YES	BED
RR	ROSE, RUGOSA 'FRAU DAGMAR HASTRUP'	Rugosa rose 'Frau Dagmar Hastrup'	3	3'	3 GAL.	CG	-	-	36"	9"	NO	2	YES	BED
	LOW EVERGREEN SHRUBS													
CJ	JUNIPER, CHINESE 'ARMSTRONG'	Juniperus chinensis 'Armstrong'	4	3'	3 GAL.	CG	-	-	38"	11"	NO	2	YES	BED

2



LEGEND: PERMANENT SIGNING

- EXISTING SIGN ON WOOD POST
- EXISTING SIGN MOUNTED ONTO LIGHT POLE OR POWER POLE
- PROPOSED SIGN ON POST
- PROPOSED SIGN ON LIGHT POLE
- (X) DESIGNATES SIGN NUMBER
- (X) DESIGNATES SIGN SIZE CODE
- LIGHT POLE TO BE INSTALLED BY WE ENERGIES

LEGEND: PAVEMENT MARKINGS

- (A) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE WHITE)
- (B) PAVEMENT MARKING, EPOXY, 4-INCH (CENTERLINE YELLOW)
- (C) PAVEMENT MARKING, CROSSWALK, EPOXY, 6-INCH
- (D) PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
- (E) PAVEMENT MARKING, RAILROAD CROSSINGS, EPOXY
- (F) PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH
- (G) PAVEMENT MARKING, EPOXY, 4-INCH (EDGELINE WHITE)

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 30	E

LEGEND: PAVEMENT MARKINGS

- (A) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE WHITE)
- (B) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE YELLOW)
- (C) PAVEMENT MARKING, CROSSWALK, EPOXY, 6-INCH
- (D) PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
- (E) PAVEMENT MARKING, RAILROAD CROSSINGS, EPOXY
- (F) PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH
- (G) PAVEMENT MARKING, EPOXY, 4-INCH (EDGELINE WHITE)

ATHLETIC FIELD

SPEED LIMIT 30 R2-1(2) 24" X 30" REMOVE AND REPLACE

R7-1L REMOVE

NO PARKING ANY TIME R7-1D(2) 18" X 24" (ON POLE) (9)

NO PASSING ZONE W14-3 REMOVE

WEST M3-4 ~~21" X 15"~~ 24"X12"

33 M1-6 24" X 24" J4-1(2) (10)

NO PARKING ANY TIME R7-1D(2) 18" X 24" (ON POLE) (12)

N

W11-2 30" X 30"

W16-7L 24" X 12" (ON POLE) (15)(16)

COUNTY W M1-5A

M6-1 J13-1 REMOVE

W11-2 30" X 30"

W16-7L 24" X 12" (17)(18)

~~21"X12"~~

SOUTH M3-3 ~~21" X 15"~~

COUNTY W M1-5A 24" X 24"

M6-1 21" X 21" J3-2(2) (14)

COUNTY W M1-5A

M6-1

33 M1-6

M6-1 REMOVE

80+00

39+00

38+00

37+00

36+00

35+00

34+00

RAILROAD ST. MOVE SIGN

STOP R1-1(3) 36" X 36" REMOVE AND REPLACE (19)

33 M1-6 24" X 24" (20)

COUNTY W M1-5A 24" X 24"

M6-4 21" X 21" J13-2(2)

M6-1 21" X 21"

00+65

58+00

W10-4R 30" X 30" (21)

NO PARKING ANY TIME R7-1D 18" X 24" REMOVE

NO PARKING ANY TIME R7-1D(2) 18" X 24" (11)

COUNTY W M1-5A

NORTH M3-1 ~~21" X 15"~~

SOUTH M3-3 ~~21" X 15"~~ 24"X12"

M6-6 J13-1

COUNTY W M1-5A 24" X 24"

COUNTY W M1-5A 24" X 24"

NO PARKING ANY TIME R7-1R REMOVE

M6-1 21" X 21" J3-2(2)

M6-1 21" X 21"

JCT

COUNTY W REMOVE

NO PASSING ZONE W14-3 REMOVE

NO PARKING ANY TIME R7-1D(2) 18" X 24" (ON POLE) (7)

LEGEND: PERMANENT SIGNING

- EXISTING SIGN ON WOOD POST
- EXISTING SIGN MOUNTED ONTO LIGHT POLE OR POWER POLE
- PROPOSED SIGN ON POST
- PROPOSED SIGN ON LIGHT POLE
- (X) DESIGNATES SIGN NUMBER
- (X) DESIGNATES SIGN SIZE CODE
- LIGHT POLE TO BE INSTALLED BY WE ENERGIES

1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 31 E

PLOT DATE : 09 08 2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##...plotscal...

2

SOUTH
M3-3
21" X 15" 24"x12"

COUNTY W
M1-5A
24" X 24"

M5-1L
21" X 21"
J2-1(2)

SPEED LIMIT 30
R2-1(2)
24" X 30"
REMOVE AND REPLACE

W10-1(2)
36" X 36"

33
M1-6

M6-4
REMOVE

STOP
R1-1(3)
36" X 36"
REMOVE AND REPLACE

33
M1-6
24" X 24"

M6-4
21" X 21"
J13-1(2)

WEIS ST

ADD WEIGHT LIMIT SIGN PROVIDED BY TOWN TO LIGHT POLE

W11-2
30" X 30"

W16-7L
24" X 12"

NO PARKING ANY TIME
R7-1D(2)
18" X 24"
(ON POLE)

R R
W10-1(2)

SPEED LIMIT 30
R2-1(2)
REMOVE

N

00+00
39+00
40+00
41+00
42+00
43+00
44+00
70+00
71+00
69+00
68+00
STH 33
WEIS ST

SPEED LIMIT 30
R2-1(2)
24" X 30"
REMOVE AND REPLACE
(ON POLE)

NO TRUCK PARKING
REMOVE

NO PARKING ANY TIME
R7-1D(2)
18" X 24"

W11-2
30" X 30"

W16-7L
24" X 12"

NO TRUCK PARKING

NO PARKING THIS SIDE OF STREET
MOVE EXISTING SIGN

WEIGHT LIMIT 6 TONS
R12-1
MOVE EXISTING SIGN

SPEED LIMIT 25
R2-1(2)
SIGN TO REMAIN

WEIS ST.
MOVE SIGN

STOP
R1-1(3)
36" X 36"
REMOVE AND REPLACE

NO PARKING HERE TO CORNER
MOVE EXISTING SIGN

NO PARKING ANY TIME
R7-1D(2)
18" X 24"
(ON POLE)

33
M1-6
24" X 24"

M6-4
21" X 21"
J13-1(2)

EAST
M3-2
21" X 15"

NORTH
M3-1
21" X 15"

33
M1-6
24" X 24"

COUNTY W
M1-5A
24" X 24"
J4-2(2)

24"x12"

LEGEND: PAVEMENT MARKINGS

- (A) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE WHITE)
- (B) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE YELLOW)
- (C) PAVEMENT MARKING, CROSSWALK, EPOXY, 6-INCH
- (D) PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
- (E) PAVEMENT MARKING, RAILROAD CROSSINGS, EPOXY
- (F) PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH

LEGEND: PERMANENT SIGNING

- EXISTING SIGN ON WOOD POST
- EXISTING SIGN MOUNTED ONTO LIGHT POLE OR POWER POLE
- PROPOSED SIGN ON POST
- PROPOSED SIGN ON LIGHT POLE
- (X) DESIGNATES SIGN NUMBER
- (X) DESIGNATES SIGN SIZE CODE
- LIGHT POLE TO BE INSTALLED BY WE ENERGIES

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 32

FILE NAME : c: 3658 plan signing and marking 021203_pe.dgn
PLOT DATE : 09 28 2004
PLOT BY : ##...plotuser...## PLOT NAME :
PLOT SCALE : ##.....plotscale.....##
WISDOT/CADDS SHEET

2

LEGEND: PERMANENT SIGNING

- EXISTING SIGN ON WOOD POST
- EXISTING SIGN MOUNTED ONTO LIGHT POLE OR POWER POLE
- PROPOSED SIGN ON POST
- PROPOSED SIGN ON LIGHT POLE
- (X) DESIGNATES SIGN NUMBER
- (X) DESIGNATES SIGN SIZE CODE
- LIGHT POLE TO BE INSTALLED BY WE ENERGIES

LEGEND: PAVEMENT MARKINGS

- (A) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE WHITE)
- (B) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE YELLOW)
- (C) PAVEMENT MARKING, CROSSWALK, EPOXY, 6-INCH
- (D) PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
- (E) PAVEMENT MARKING, RAILROAD CROSSINGS, EPOXY
- (F) PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH

N

CHURCH ST

W10-1(2)
36" X 36"
(38)

R7-1D(2)
18" X 24"
(40)

R2-1(2)
24" X 30"
(41)

R7-1D(2)
18" X 24"
(ON POLE)
(43)

W1-1R
30 M.P.H.
W13-1
REMOVE

46+00

47+00

48+00

49+00

50+00

81+20

81+00

80+00

79+00

78+43

(E)

(B)

(A)

(39)
R2-1(2)
24" X 30"
REMOVE AND
REPLACE

JCT
M2-1
41
M1-4
24" X 24"
J1-1(2)
REMOVE

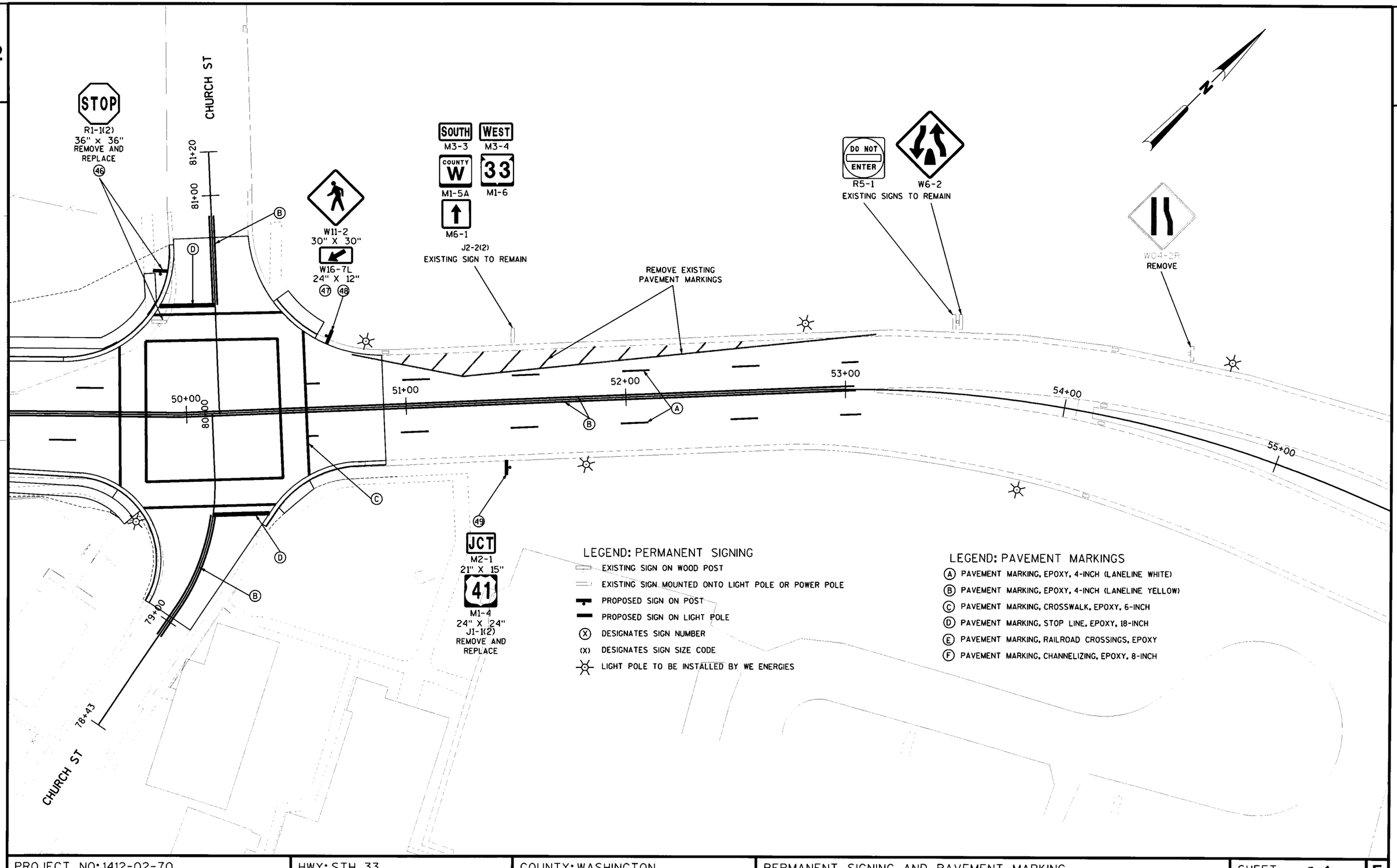
(42)
R7-1D(2)
18" X 24"
(ON POLE)

(44) (45)
W11-2
30" X 30"
W16-7L
24" X 12"

CHURCH ST

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 33	E

2



LEGEND: PERMANENT SIGNING

- EXISTING SIGN ON WOOD POST
- EXISTING SIGN MOUNTED ONTO LIGHT POLE OR POWER POLE
- PROPOSED SIGN ON POST
- PROPOSED SIGN ON LIGHT POLE
- (X) DESIGNATES SIGN NUMBER
- (X) DESIGNATES SIGN SIZE CODE
- LIGHT POLE TO BE INSTALLED BY WE ENERGIES

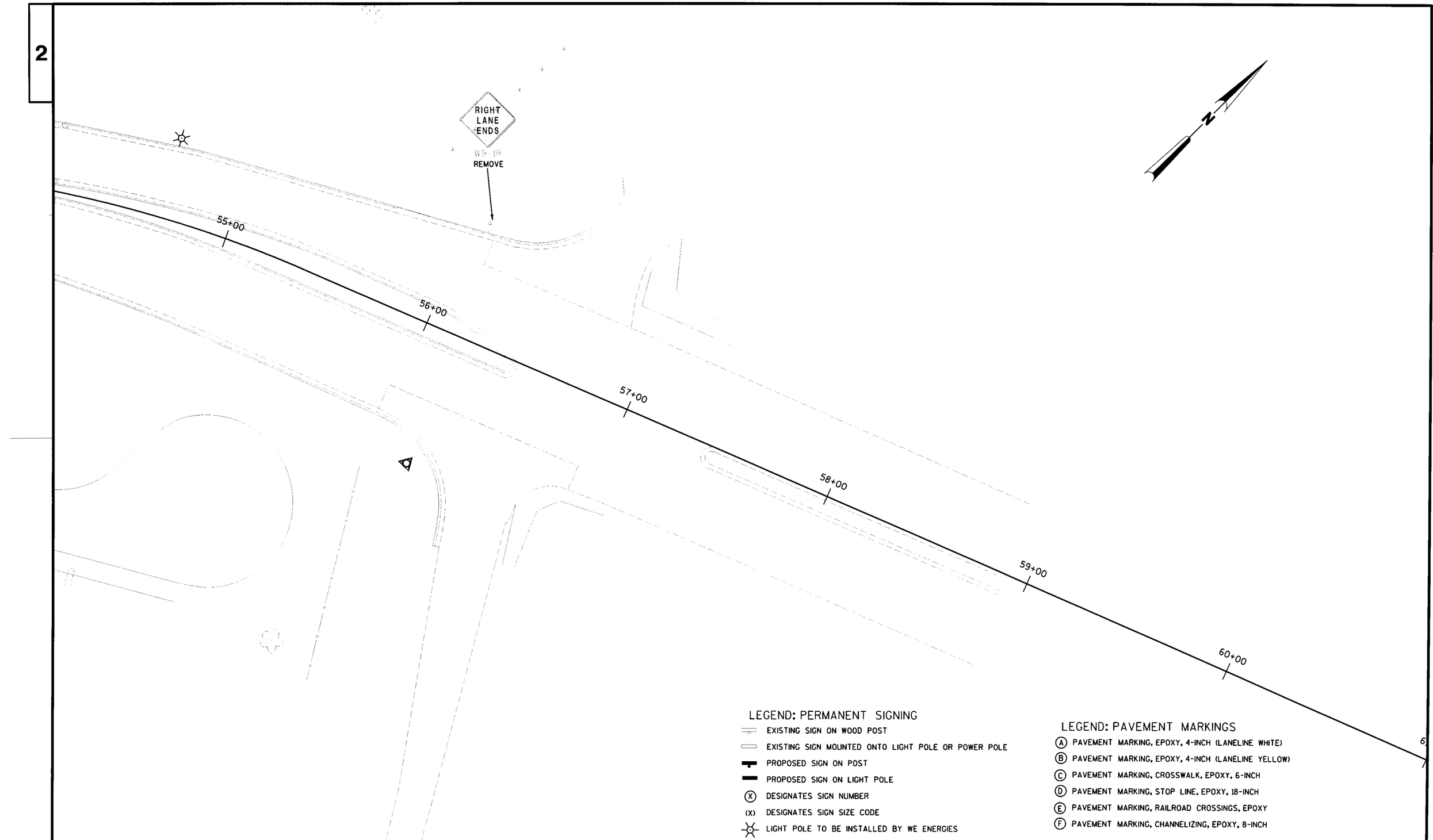
LEGEND: PAVEMENT MARKINGS

- (A) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE WHITE)
- (B) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE YELLOW)
- (C) PAVEMENT MARKING, CROSSWALK, EPOXY, 6-INCH
- (D) PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
- (E) PAVEMENT MARKING, RAILROAD CROSSINGS, EPOXY
- (F) PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 34	E

FILE NAME : p:\3556\plan\signing and marking 023095_ps.dgn PLOT DATE : 09.23.2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....plotscale.....##

2



LEGEND: PERMANENT SIGNING

- EXISTING SIGN ON WOOD POST
- EXISTING SIGN MOUNTED ONTO LIGHT POLE OR POWER POLE
- PROPOSED SIGN ON POST
- PROPOSED SIGN ON LIGHT POLE
- (X) DESIGNATES SIGN NUMBER
- (X) DESIGNATES SIGN SIZE CODE
- LIGHT POLE TO BE INSTALLED BY WE ENERGIES

LEGEND: PAVEMENT MARKINGS

- (A) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE WHITE)
- (B) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE YELLOW)
- (C) PAVEMENT MARKING, CROSSWALK, EPOXY, 6-INCH
- (D) PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
- (E) PAVEMENT MARKING, RAILROAD CROSSINGS, EPOXY
- (F) PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 35	E

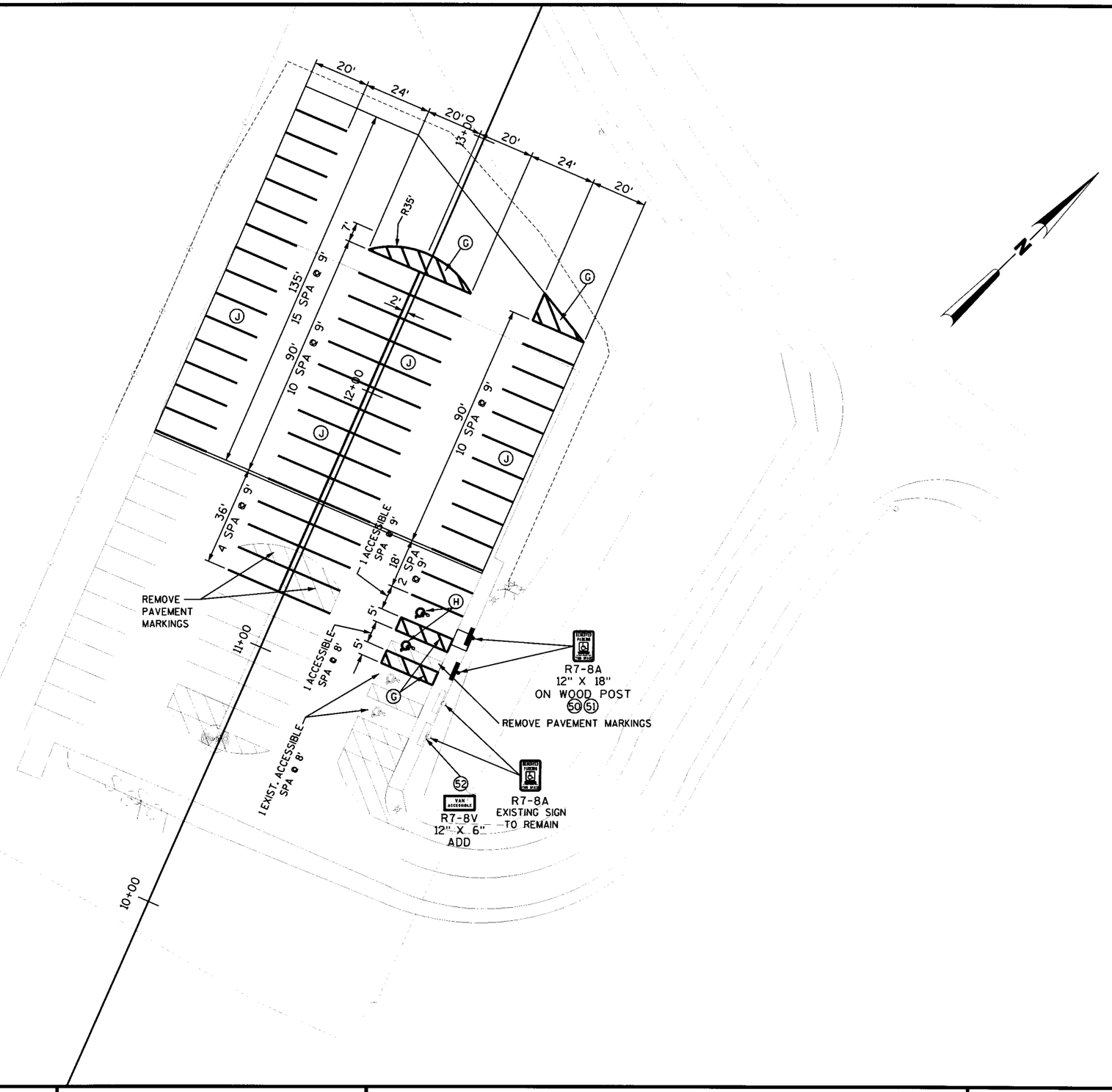
2

LEGEND: PERMANENT SIGNING

- EXISTING SIGN ON WOOD POST
- EXISTING SIGN MOUNTED ONTO LIGHT POLE OR POWER POLE
- PROPOSED SIGN ON POST
- PROPOSED SIGN ON LIGHT POLE
- (X) DESIGNATES SIGN NUMBER
- (X) DESIGNATES SIGN SIZE CODE
- LIGHT POLE TO BE INSTALLED BY WE ENERGIES

LEGEND: PAVEMENT MARKINGS

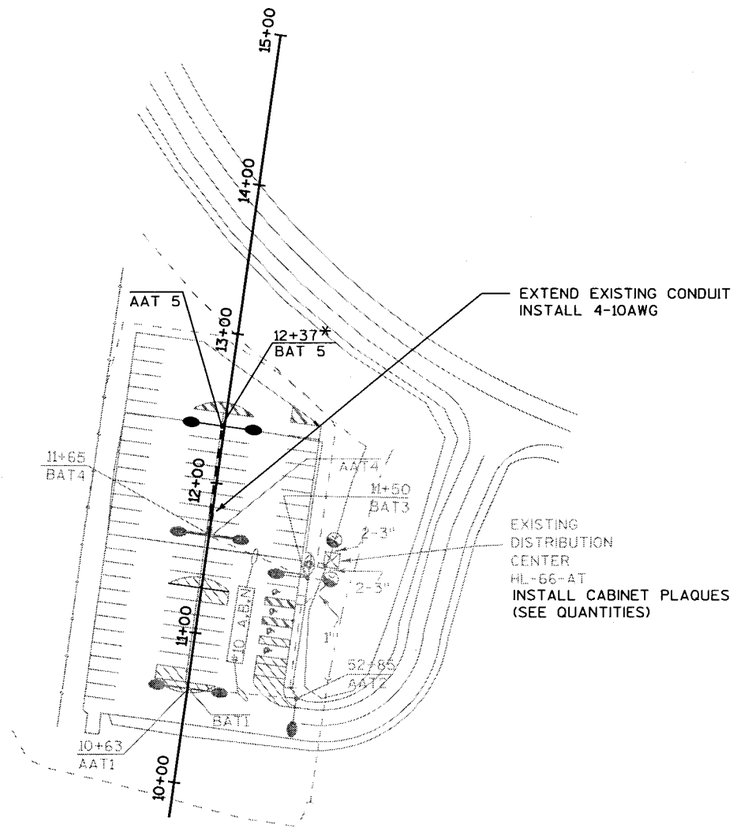
- (A) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE WHITE)
- (B) PAVEMENT MARKING, EPOXY, 4-INCH (LANELINE YELLOW)
- (C) PAVEMENT MARKING, CROSSWALK, EPOXY, 6-INCH
- (D) PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH
- (E) PAVEMENT MARKING, RAILROAD CROSSINGS, EPOXY
- (F) PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH
- (G) PAVEMENT MARKING, PARKING STALL, EPOXY (4-INCH WHITE, DIAGONALS 5'C-C)
- (H) PAVEMENT MARKING, SYMBOLS, EPOXY (HANDICAP)
- (J) PAVEMENT MARKING, PARKING STALL, EPOXY (4-INCH WHITE)



PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 36	E

LIGHTING PLAN LEGEND

◉	PHOTO CELL POLE
◔	PULL BOX (600 mm [24"] UNLESS OTHERWISE NOTED)
- - - - -	CONDUIT (50 mm [2"] UNLESS OTHERWISE NOTED)
●—	LIGHT POLE, ARM MOUNTED LUMINAIRE
=⇉	CONDUIT STUBOUT
N	NEUTRAL
GND	GROUND
MV	MERCURY VAPOR
HPS	HIGH PRESSURE SODIUM





HL-66-AT
A RED B BLACK
120/240 VAC 3 WIRE ISOLATED NEUTRAL

* ENGINEER TO STAKE ON PARKING STALL CORNER.

DISTRIBUTION CENTER HL-66-AT

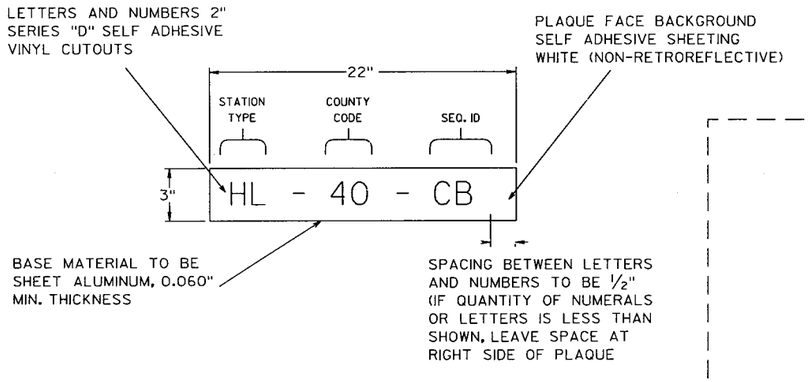
STH 33
PARK & RIDE
WASHINGTON COUNTY

06/15/04 D.J. Landy

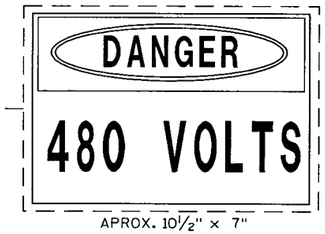
PROJECT NO: 1412-02-70	HWY: STH 33 PARK & RIDE	COUNTY: WASHINGTON	PARK & RIDE LIGHTING PLAN	SHEET 37	E

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.



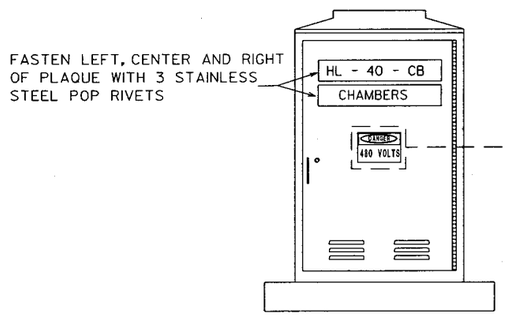
DISTRIBUTION CENTER IDENTIFICATION PLAQUE



APROX. 10 1/2" × 7" (INCIDENTAL)

CHAMBERS

MNEMONIC
(SEE MISC. QTYS.)
(NO. OF CHARACTERS VARIES THIRD PLAQUE MAY BE NECESSARY)



NOTES:
1. TWO OR MORE PLAQUES PER CABINET REQUIRED

DISTRIBUTION CENTER IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS
(TYPICAL ALL CONTROL CABINETS)

STATE PROJECT NUMBER: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	LIGHTING DETAIL	SCALE, FEET	SHEET NO: 38	E

LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,59,60,61,62,63
FILE NAME : \\wke31fp1\CADDS\projects\d2_1_14120270\plan\DISTDETAILS.dgn DATE : 14-JUN-2004 12:45 PLOT BY : DOTBGW PLOT NAME : ORG DATE : Originator : Dist PLOT SCALE : 8.000000:1.000000
WISDOT/CADDS SHEET 42

2

LEGEND

- BARRICADE TYPE III WITH WARNING LIGHT (TYPE A)
- BARRICADE TYPE III WITH SIGN & WARNING LIGHT (TYPE A)
- TRAFFIC CONTROL SIGN
- FLAGS, ORANGE, 16" × 16"

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

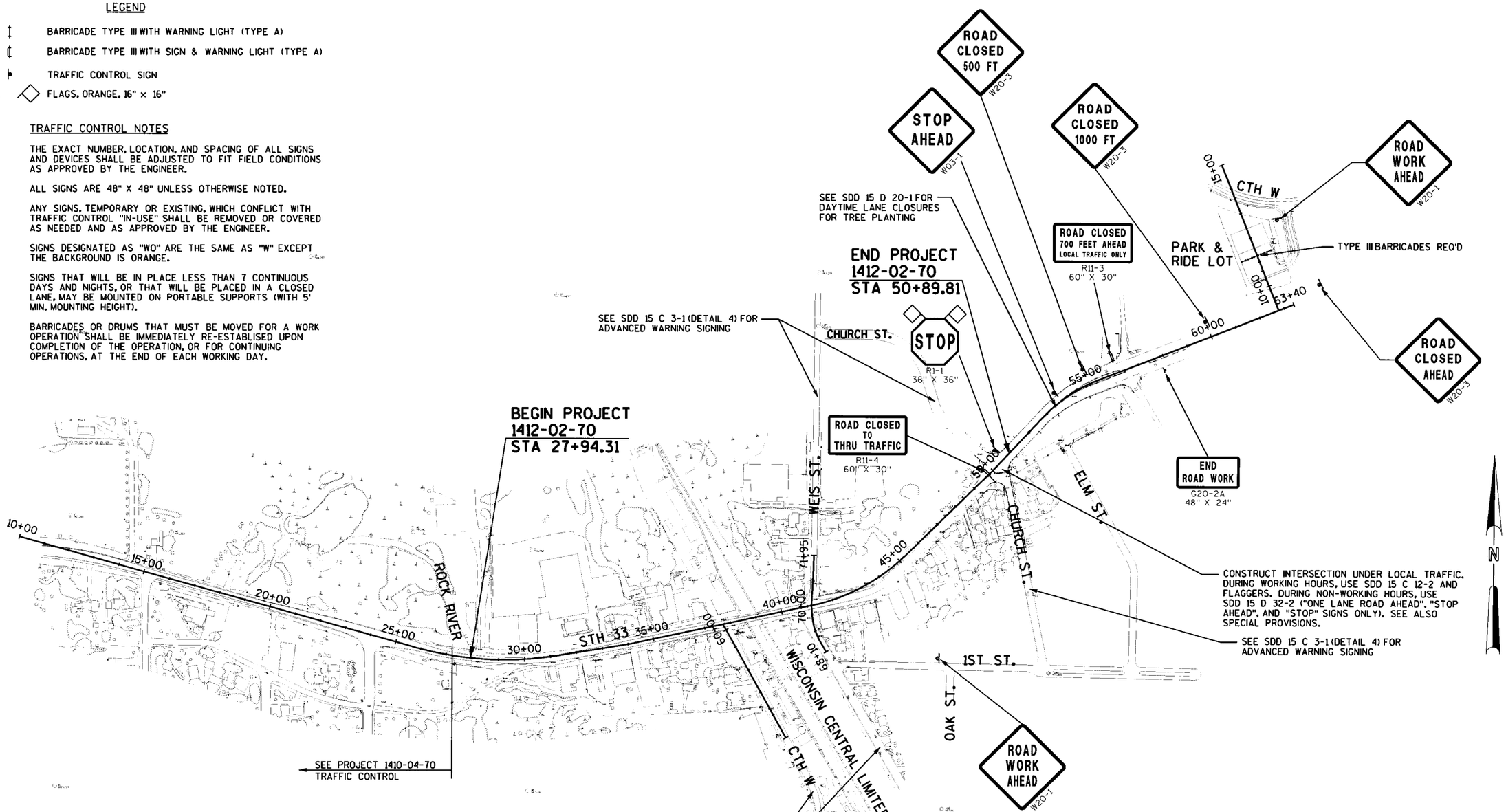
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS (WITH 5' MIN. MOUNTING HEIGHT).

BARRICADES OR DRUMS THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.



STANDARD DETAIL DRAWINGS

15 C 3-1	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15 C 12-2	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15 D 20-1	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15 D 32-2	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

NOTE

SEE ALSO PROJECT 1410-04-70 DETOUR PLAN FOR ADDITIONAL SIGNING.

2

BEGIN PROJECT
STA 27+94.31
X=318,935.05
Y=183,300.00

PC STA 25+64.51
PCC STA 27+85.30
PT STA 31+16.53
PISTA 34+04.44
X=319,540.41
Y=183,353.69
PISTA 26+75.12
PISTA 29+52.00
PISTA 35+00.09
PISTA 40+00.54
PISTA 45+00.08
PISTA 50+00.08
PISTA 55+00.08
PISTA 60+00.08
PISTA 63+40.00
PISTA 58+00.00
PISTA 53+00.46
PISTA 49+97.22
X= 320,929.09
Y= 184,024.48
PISTA 43+27.74
PISTA 54+11.47
PISTA 15+00.00

S74°20'08"E
CURVE 1
CURVE 2
N80°49'40"E
STH 33
CTH W
N29°03'17"W
N77°49'39"E
N04°16'42"W
N00°46'30"E
N03°11'21"E
N45°35'50"E
CURVE 3
CURVE 4
CURVE 5
CURVE 6
N30°19'20"W
N21°33'34"W
N68°36'54"E
N47°24'07"W
N42°35'53"E
N11°07'06"W
N.55°21'05"W

STA 37+70.49 STH 33=
STA 60+00 CTH W
X=319,898.24
Y=183,430.87

STA 41+16.02 STH 33=
STA 70+00.54 WEIS ST
X= 320,236.00
Y= 183,503.73

PC STA 41+20.81
PISTA 71+52.07
PT STA 45+23.69
PT STA 69+64.86
PC STA 68+51.22
PISTA 70+00.54
PISTA 69+09.04
PC STA 52+79.10
PT STA 55+39.27

WEIS ST
CHURCH ST
MATCHLINE
END PROJECT
STA 50+89.81
PARK & RIDE LOT

T 11 N
16 15
16 15
R 18 E
SECTION CORNER
X= 320,245.83
Y= 183,296.13

N

CURVE 1
PI = 26+75.12
X = 318,816.26
Y = 183,314.22
PC = 25+64.51
PCC = 27+85.29
Delta = 8°49'52.17"
D = 4°00'0.00"
T = 110.609
L = 220.780
R = 1,432.39
SE = 4.1%

CURVE 2
PI = 29+52.00
X = 319,091.62
Y = 183,281.22
PCC = 27+85.29
PT = 31+16.53
Delta = 16°00'20.07"
D = 4°49'55.74"
T = 166.70
L = 331.23
R = 1,185.72
SE = 4.1%
(SEE PAVING DETAILS)

CURVE 3
PI = 43+27.74
X = 320,442.95
Y = 183,548.37
PC = 41+20.81
PT = 45+23.69
DELTA = 32°13'49.13"
D = 8°00'00.00"
T = 206.92
L = 402.88
R = 716.20
SE = NC

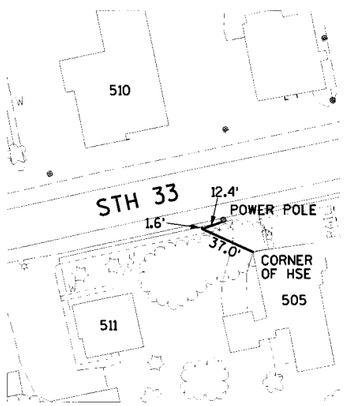
CURVE 4
PI = 54+11.47
X = 321,209.48
Y = 184,329.42
PC = 52+79.10
PT = 55+39.27
DELTA = 26°01'00.12"
D = 9°59'59.86"
T = 132.37
L = 260.17
R = 572.96
SE = NC

CURVE 5
PI = 69+09.04
X = 320,242.97
Y = 183,410.49
PC = 68+51.22
PT = 69+64.86
DELTA = 26°02'38.00"
D = 22°55'05.92"
T = 57.82
L = 113.64
R = 250.00
SE = NC

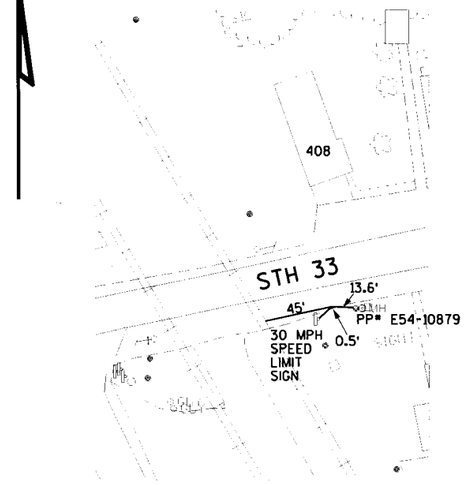
CURVE 6
PI = 79+40.26
X = 320,984.52
Y = 183,993.24
PC = 79+07.49
PT = 79+70.82
DELTA = 36°17'00.88"
D = 57°17'44.81"
T = 32.77
L = 63.33
R = 100.00
SE = N/A (SEE PAVING DETAILS)

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	ALIGNMENT	SHEET 40	E

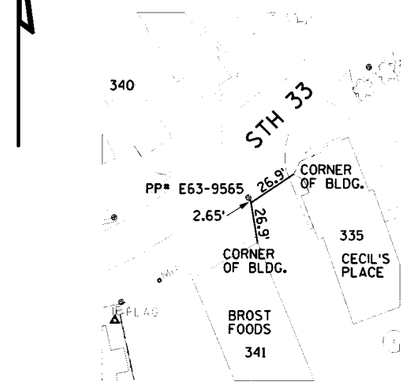
2



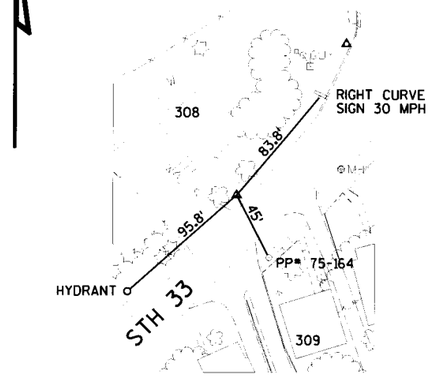
CONTROL POINT 103
(MAG NAIL IN SIDEWALK)
N=183,372.874
E=319,754.989



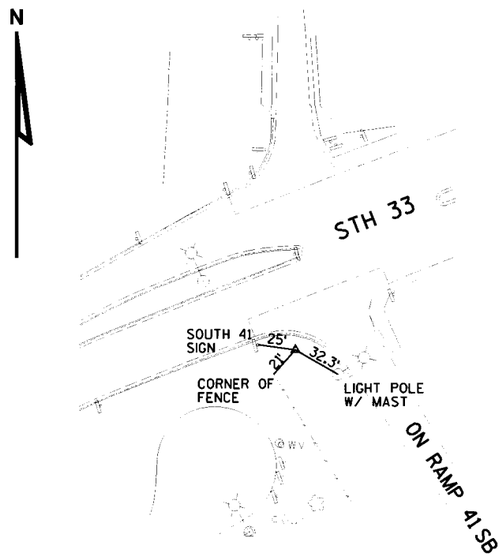
CONTROL POINT 111
(MAG NAIL IN SHOULDER)
N=183,444.747
E=320,097.942



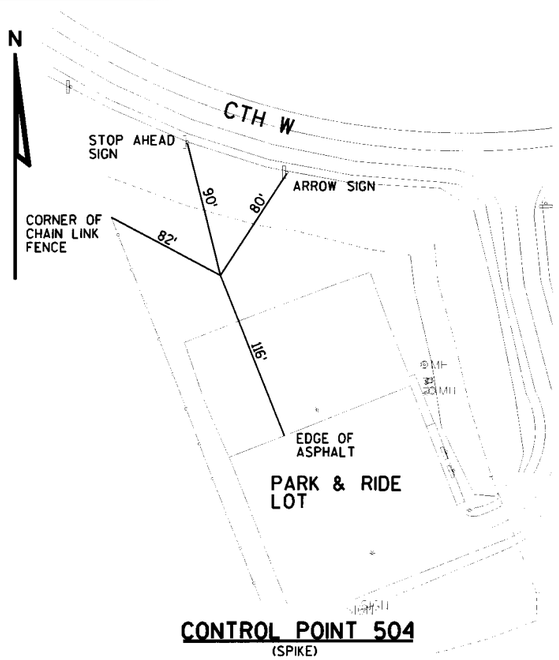
CONTROL POINT 112
(MAG NAIL)
N=183,595.927
E=320,568.046



CONTROL POINT 114
(MAG NAIL IN SHOULDER)
N=183,923.365
E=320,814.796



CONTROL POINT 503
(SPIKE)
N=184,347.409
E=321,428.579



CONTROL POINT 504
(SPIKE)
N=184,984.650
E=321,858.930

NOTES:

1. TIE POINTS ARE TO NEAREST FACE, NEAREST CORNER, CENTER OF MANHOLE, OR TOP NUT OF FIRE HYDRANT.

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CONTROL POINT TIES	SHEET 41	E

DATE 28DEC04

E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1412-02-70 QUANTITY	1412-03-71 QUANTITY
0010	201.0105	CLEARING	STA	7.000	7.000	
0020	201.0120	CLEARING	ID	108.000	108.000	
0030	201.0205	GRUBBING	STA	7.000	7.000	
0040	201.0220	GRUBBING	ID	108.000	108.000	
0050	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	1.000	1.000	
0110	204.0100	REMOVING PAVEMENT	SY	5,210.000	5,210.000	
0140	204.0150	REMOVING CURB & GUTTER	LF	770.000	770.000	
0150	204.0155	REMOVING CONCRETE SIDEWALK	SY	1,060.000	1,060.000	
0160	204.0165	REMOVING GUARDRAIL	LF	115.000	115.000	
0180	204.0185	REMOVING MASONRY	CY	0.500	0.500	
0200	204.0245	REMOVING STORM SEWER (SIZE) 01. 8-INCH	LF	115.000	115.000	
0210	204.0245	REMOVING STORM SEWER (SIZE) 02. 12-INCH	LF	63.000	63.000	
0230	204.0245	REMOVING STORM SEWER (SIZE) 04. 24-INCH	LF	64.000	64.000	
0240	204.0245	REMOVING STORM SEWER (SIZE) 05. 12X27-INCH	LF	171.000	171.000	
0250	204.0260	ABANDONING INLETS	EACH	5.000	5.000	
0270	204.0280	SEALING PIPES	EACH	2.000	2.000	
0280	205.0100	EXCAVATION COMMON	CY	13,519.000	13,519.000	
0350	213.0100	FINISHING ROADWAY (PROJECT) 01. 1412-02-70	EACH	1.000	1.000	
0370	301.0100.S	QMP BASE AGGREGATE	TON	10,780.000	10,780.000	
0380	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	321.000	321.000	
0390	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	7,640.000	7,640.000	
0400	310.0110	BASE AGGREGATE OPEN GRADED	TON	2,875.000	2,875.000	
0410	311.0110	BREAKER RUN	TON	5,000.000	5,000.000	
0430	415.0100	CONCRETE PAVEMENT 10-INCH	SY	11,150.000	11,150.000	
0440	415.2000.S	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	2,500.000	2,500.000	
0450	415.3000.S	QMP CONCRETE PAVEMENT	DAY	25.000	25.000	
0460	416.0050	CONCRETE PAVEMENT APPROACH SLAB	SY	125.000	125.000	
0470	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	958.000	958.000	
0490	455.0115	ASPHALTIC MATERIAL PG64-22	TON	47.000	47.000	
0500	455.0120	ASPHALTIC MATERIAL PG64-28	TON	37.000	37.000	
0510	455.0605	TACK COAT	GAL	123.000	123.000	
0520	460.1100	HMA PAVEMENT TYPE E-0.3	TON	970.000	970.000	
0530	460.1103	HMA PAVEMENT TYPE E-3	TON	390.000	390.000	
0560	460.3000	QMP HMA MIXTURE	TON	1,360.000	1,360.000	
0570	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	198.000	198.000	
0650	521.0130	CULVERT PIPE CORRUGATED STEEL 30-INCH	LF	49.000	49.000	
0680	521.1030	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH	EACH	2.000	2.000	
0750	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	1.000	1.000	
0810	523.0524	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 24X38-INCH	EACH	1.000	1.000	
0840	601.0110	CONCRETE CURB TYPE D	LF	252.000		252.000
0850	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	4,040.000	4,040.000	
0860	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	845.000	845.000	
0890	602.0405	CONCRETE SIDEWALK 4-INCH	SF	20,560.000	20,560.000	
0910	602.0510	CURB RAMP DETECTABLE WARNING FIELD WHITE	SF	120.000	120.000	
0920	602.1500	CONCRETE STEPS	SF	10.000	10.000	
0950	606.0100	RIPRAP LIGHT	CY	18.000	18.000	
0970	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	770.200	770.200	

DATE 28DEC04

E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1412-02-70 QUANTITY	1412-03-71 QUANTITY
0980	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	55.500	55.500	
0990	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	926.000	926.000	
1000	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	325.000	325.000	
1010	608.0424	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	80.500	80.500	
1020	610.0119	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 19X30-INCH	LF	109.500	109.500	
1030	610.0124	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 24X38-INCH	LF	120.000	120.000	
1050	611.0101	CATCH BASINS TYPE 1	EACH	32.000	32.000	
1060	611.0210	MANHOLES TYPE 3	EACH	10.000	10.000	
1090	611.0530	MANHOLE COVERS TYPE J	EACH	10.000	10.000	
1100	611.0612	INLET COVERS TYPE C	EACH	4.000	4.000	
1110	611.0624	INLET COVERS TYPE H	EACH	22.000	22.000	
1130	611.0639	INLET COVERS TYPE H-S	EACH	6.000	6.000	
1150	611.8110	ADJUSTING MANHOLE COVERS	EACH	14.000	14.000	
1160	611.8115	ADJUSTING INLET COVERS	EACH	2.000	2.000	
1170	611.9800.S	PIPE GRATES	EACH	2.000	2.000	
1180	612.0106	PIPE UNDERDRAIN 6-INCH	LF	3,814.000	3,814.000	
1190	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	88.000	88.000	
1210	612.0902.S	INSULATION BOARD POLYSTYRENE (INCH) 01. 2-INCH	SY	500.000	500.000	
1250	614.0620.S	MARKER POSTS CULVERT END FLEXIBLE	EACH	2.000	2.000	
1270	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1412-02-70	EACH	1.000	1.000	
1280	619.1000	MOBILIZATION	EACH	0.280	0.230	0.050
1290	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	4.000	4.000	
1300	623.0200	DUST CONTROL SURFACE TREATMENT	SY	53,880.000	53,880.000	
1310	624.0100	WATER	MGAL	75.000	75.000	
1320	625.0100	TOPSOIL	SY	5,805.000	5,805.000	
1340	627.0200	MULCHING	SY	3,010.000	3,010.000	
1350	628.1105	EROSION BALES DELIVERED	EACH	600.000	600.000	
1360	628.1110	EROSION BALES INSTALLED	EACH	600.000	600.000	
1370	628.1505	SILT FENCE DELIVERED	LF	3,710.000	3,710.000	
1380	628.1510	SILT FENCE INSTALLED	LF	3,710.000	3,710.000	
1390	628.1520	SILT FENCE MAINTENANCE	LF	3,710.000	3,710.000	
1400	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000	
1410	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	4.000	4.000	
1430	628.2035	EROSION MAT DELIVERED CLASS II TYPE C	SY	295.000	295.000	
1450	628.3035	EROSION MAT INSTALLED CLASS II TYPE C	SY	295.000	295.000	
1470	628.6005	TURBIDITY BARRIERS	SY	60.000	60.000	
1480	628.7005	INLET PROTECTION TYPE A	EACH	34.000	34.000	
1490	628.7010	INLET PROTECTION TYPE B	EACH	4.000	4.000	
1500	628.7015	INLET PROTECTION TYPE C	EACH	31.000	31.000	
1510	628.7020	INLET PROTECTION TYPE D	EACH	4.000	4.000	
1520	628.7505	TEMPORARY DITCH CHECKS DELIVERED	LF	30.000	30.000	
1530	628.7510	TEMPORARY DITCH CHECKS INSTALLED	LF	30.000	30.000	
1540	628.7550	CULVERT PIPE DITCH CHECKS	EACH	2.000	2.000	
1550	629.0210	FERTILIZER TYPE B	CWT	3.000	3.000	
1570	630.0140	SEEDING MIXTURE NO. 40	LB	57.000	57.000	

DATE 28DEC04

E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1412-02-70 QUANTITY	1412-03-71 QUANTITY
1580	630.0160	SEEDING MIXTURE NO. 60	LB	6.000	6.000	
1600	630.0200	SEEDING TEMPORARY	LB	86.000	86.000	
1630	631.0300	SOD WATER	MGAL	96.000	96.000	
1640	631.1000	SOD LAWN	SY	2,795.000	2,795.000	
1650	632.0101	TREES (SPECIES) (ROOT) (SIZE) 01. WHITE ASH CHICAGO REGAL B&B 2 1/2-INCH CALIPER	EACH	9.000		9.000
1660	632.0101	TREES (SPECIES) (ROOT) (SIZE) 02. RED MAPLE FIREDOME B&B 2 1/2-INCH CALIPER	EACH	10.000		10.000
1670	632.0101	TREES (SPECIES) (ROOT) (SIZE) 03. LILAC JAPANESE IVORY SILK B&B 2-INCH CALIPER	EACH	7.000		7.000
1680	632.0101	TREES (SPECIES) (ROOT) (SIZE) 04. JAPANESE FLOWERING CRABAPPLE B&B 2-INCH CALIPER	EACH	3.000		3.000
1690	632.0201	SHRUBS (SPECIES) (ROOT) (SIZE) 01. FRAGRANT SUMAC GRO-LOW CG 3-GALLON	EACH	19.000		19.000
1700	632.0201	SHRUBS (SPECIES) (ROOT) (SIZE) 02. FORSYTHIA HAPPY CENTENNIAL CG 3-GALLON	EACH	15.000		15.000
1710	632.0201	SHRUBS (SPECIES) (ROOT) (SIZE) 03. DWARFBUSH HONEYSUCKLE CG 3-GALLON	EACH	21.000		21.000
1720	632.0201	SHRUBS (SPECIES) (ROOT) (SIZE) 04. RUGOSA ROSE FRAU DAGMAR HASTRUP CG 3-GALLON	EACH	14.000		14.000
1730	632.0201	SHRUBS (SPECIES) (ROOT) (SIZE) 05. CHINESE JUNIPER ARMSTRONG CG 3-GALLON	EACH	27.000		27.000
1750	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	2.000	2.000	
1780	634.0812	POSTS TUBULAR STEEL 2X2-INCH X 12-FT	EACH	11.000	11.000	
1790	634.0814	POSTS TUBULAR STEEL 2X2-INCH X 14-FT	EACH	16.000	16.000	
1800	634.0816	POSTS TUBULAR STEEL 2X2-INCH X 16-FT	EACH	3.000	3.000	
1810	637.0202	SIGNS REFLECTIVE TYPE II	SF	284.610	284.610	
1820	638.2102	MOVING SIGNS TYPE II	EACH	6.000	6.000	
1830	638.2602	REMOVING SIGNS TYPE II	EACH	42.000	42.000	
1840	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	14.000	14.000	
1850	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	3.000	3.000	
1860	642.5400	FIELD OFFICE TYPE D (PROJECT) 01. 1410-04-70 & 1412-02-70	EACH	0.340	0.340	
1880	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1412-02-70	EACH	1.000	1.000	
1890	643.0300	TRAFFIC CONTROL DRUMS	DAYS	3,700.000	3,700.000	
1900	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAYS	3,150.000	3,150.000	
1930	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAYS	5,280.000	5,280.000	
1940	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAYS	3,270.000	3,270.000	
1950	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAYS	50.000	50.000	
1960	643.0900	TRAFFIC CONTROL SIGNS	DAYS	4,710.000	4,710.000	
2010	645.0112	GEOTEXTILE FABRIC TYPE DF SCHEDULE B	SY	2,664.000	2,664.000	
2020	645.0130	GEOTEXTILE FABRIC TYPE R	SY	49.000	49.000	
2040	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	7,805.000	7,805.000	
2050	646.0226	PAVEMENT MARKING CHANNELIZING EPOXY 8-INCH	LF	135.000	135.000	
2070	646.0600	REMOVING PAVEMENT MARKINGS	LF	995.000	995.000	
2080	647.0110	PAVEMENT MARKING RAILROAD CROSSINGS EPOXY	EACH	4.000	4.000	
2100	647.0256	PAVEMENT MARKING SYMBOLS EPOXY	EACH	2.000	2.000	
2120	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	122.000	122.000	
2130	647.0656	PAVEMENT MARKING PARKING STALL EPOXY	LF	1,570.000	1,570.000	
2150	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	1,085.000	1,085.000	
2190	650.4000	CONSTRUCTION STAKING STORM SEWER SYSTEM	EACH	45.000	45.000	
2200	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	2,900.000	2,900.000	

DATE 28DEC04

E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1412-02-70 QUANTITY	1412-03-71 QUANTITY
2210	650.5000	CONSTRUCTION STAKING BASE	LF	720.000	720.000	
2220	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	895.000	895.000	
2230	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	1.000	1.000	
2240	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	2,140.000	2,140.000	
2250	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	70.000	70.000	
2290	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	300.000	300.000	
2300	655.0615	ELECTRICAL WIRE LIGHTING 10 AWG	LF	328.000	328.000	
2310	657.0330	POLES TYPE 7-TD2	EACH	1.000	1.000	
2320	657.0635	LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 10-FT	EACH	2.000	2.000	
2330	659.0115	LUMINAIRES UTILITY HPS 150 WATTS	EACH	2.000	2.000	
2340	659.0802	PLAQUES SEQUENCE IDENTIFICATION	EACH	2.000	2.000	
2350	690.0100	SAWING EXISTING PAVEMENT	LF	1,568.000	1,568.000	
2360	690.0200	SAWING CONCRETE PAVEMENT FULL DEPTH	LF	58.000	58.000	
2370	SPV.0055	SPECIAL 01. MONTHLY MOBILE TELEPHONE EXPENSES	DOL	3,200.000	3,200.000	
2430	SPV.0060	SPECIAL 06. CONCRETE BASES TYPE 7 SPECIAL	EACH	1.000	1.000	
2440	SPV.0060	SPECIAL 07. BOLLARDS	EACH	25.000		25.000
2450	SPV.0060	SPECIAL 08. ADJUSTING WATERVALVES	EACH	6.000	6.000	
2460	SPV.0060	SPECIAL 09. ROOTSTOCK	EACH	100.000	100.000	
2480	SPV.0090	SPECIAL 01. CONCRETE CURB TYPE D SPECIAL	LF	90.000	90.000	
2490	SPV.0090	SPECIAL 02. ROOTSTOCK PROTECTION	LF	560.000	560.000	
2520	SPV.0090	SPECIAL 05. STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30	LF	542.000	542.000	
2550	SPV.0165	SPECIAL 01. ARCHITECTURAL CONCRETE PAVEMENT 10-INCH	SF	7,210.000		7,210.000
2560	SPV.0165	SPECIAL 02. ARCHITECTURAL CONCRETE SIDEWALK 4-INCH	SF	16,030.000		16,030.000
2570	SPV.0170	SPECIAL 01. TEST ROLLING	STA	33.000	33.000	

CLEARING AND GRUBBING

LOCATION	CLEARING 201.0105 STA	201.0120 ID	GRUBBING 201.0205 STA	201.0220 ID
STH 33				
33+00 - 35+00, LT	2	--	2	--
35+00 - 37+00, RT	2	--	2	--
43+65, LT	--	18	--	18
45+45, LT	--	18	--	18
45+45, RT	--	18	--	18
45+60, LT	--	12	--	12
45+65, RT	--	12	--	12
46+00 - 48+00	2	--	2	--
48+36, LT	--	12	--	12
48+61, LT	--	18	--	18
49+00 - 50+00, LT	1	--	1	--
TOTAL	7	108	7	108

REMOVING SMALL PIPE CULVERTS

LOCATION	203.0100 EACH
STH 33	
28+18, LT (30-INCH)	1
TOTAL	1

REMOVING GUARDRAIL

LOCATION	204.0165 LF
STH 33	
27+93 - 28+06, LT	30
28+19 - 28+89, RT	85
TOTAL	115

REMOVING PAVEMENT

LOCATION	REMOVING PAVEMENT 204.0100 SY
STH 33	
27+94 - 38+00	2,460
39+67 - 50+90	2,750
TOTAL	5,210

REMOVING MASONRY

LOCATION	204.0185 CY
STH 33	
29+60, 70' RT	0.5
TOTAL	0.5

REMOVING CURB AND GUTTER

LOCATION	REMOVING CURB AND GUTTER 204.0150 LF
STH 33	
27+86 - 28+11	35
44+10 - 45+15, LT	105
49+20 - 50+90	290
STH 33 SUBTOTAL	430
WEIS STREET	
SOUTH	340
WEIS STREET SUBTOTAL	340
TOTAL	770

REMOVING SIDEWALK

LOCATION	REMOVING CONCRETE SIDEWALK 204.0155 SY
STH 33	
27+86 - 28+11, LT	6
34+55 - 37+00, LT	135
35+20 - 37+55, RT	160
39+80 - 40+55, LT	50
41+23, RT	8
41+20 - 43+44, RT	130
41+40 - 44+05, LT	200
44+75 - 49+00, RT	215
45+85 - 46+85, LT	30
49+75 - 48+55, LT	40
50+40 - 50+55, RT	7
STH 33 SUBTOTAL	975
WEIS STREET	
68+10 - 69+53, RT	85
WEIS STREET SUBTOTAL	85
TOTAL	1,060

CONCRETE PAVEMENT

LOCATION	CONCRETE PAVEMENT 10-INCH 415.0100 SY	OMP CONCRETE URBAN 415.3000.S DAY	CONC. PAVEMENT APPROACH SLAB 416.0050 SY	INCENTIVE STRENGTH CONC. PAVEMENT 415.2000.S DOL
STH 33				
27+94.13 - 28+17.16	--	--	125	--
28+17.16 - 38+24.38	5340	12	--	1200
39+43.94 - 50+57.16	5810	13	--	1300
TOTAL	11,150	25	125	2,500

EXCAVATION COMMON

LOCATION	EXCAVATION* COMMON 205.0100 CY	FILL (EXP.) CY	WASTE CY
STH 33			
27+94 - 50+89	8242	2223	6019
39+40, LT, DRAINAGE SWALE	62	0	62
STH 33 SUBTOTAL	8304	2223	6081
CTH W			
57+14 - 59+50	744	0	744
CTH W SUBTOTAL	744	0	744
WEIS STREET			
68+10 - 69+39	328	11	317
70+78 - 71+52	159	3	156
WEIS STREET SUBTOTAL	487	14	473
PARK AND RIDE	484	44	440
PARK AND RIDE SUBTOTAL	484	44	440
UNDISTRIBUTED EBS			
27+94 - 45+00	3500	0	3500
TOTAL	13,519	2,281	11,238

EXPANSION FACTOR = 1.25

REMOVING STORM SEWER

LOCATION	ABANDONING INLETS 206.0260 EACH	REMOVING STORM SEWER 8-INCH 204.0245.01 LF	12-INCH 204.0245.02 LF	24-INCH 204.0245.03 LF	12X27-INCH 204.0245.04 LF	SEALING PIPES 204.0280 EACH
STH 33						
32+68, RT	1	--	--	--	--	--
33+84, RT	1	--	--	--	--	--
40+63, RT	1	--	--	--	--	--
41+27, RT	1	--	--	--	--	--
41+55, LT	1	--	--	--	--	--
32+68 - 33+84	--	115	--	--	--	--
40+63 - 41+27	--	--	--	64	--	--
41+27 - 41+55	--	--	63	--	--	--
32+68, 25' RT	--	--	--	--	--	1
STH 33 SUBTOTAL	5	115	63	64	0	1
WEIS STREET						
69+64 - 68+10	--	--	--	--	171	--
68+10, 18' LT	--	--	--	--	--	1
WEIS STREET SUBTOTAL	0	0	0	0	171	1
TOTAL	5	115	63	64	171	2

BASE AGGREGATE

LOCATION	DENSE * 3/4-INCH 305.0110 TON	DENSE 1 1/4-INCH 305.0120 TON	OPEN * GRADED 310.0110 TON	QMP BASE * AGGREGATE 301.0100.S TON	BREAKER RUN 311.0110 TON
STH 33					
27+93.87 - 38+50.71	110	2,290	1,220	3,620	--
38+61.24 - 39+07.13	5	110	60	175	--
39+43.94 - 50+89.81	140	3,020	1,370	4,530	--
STH 33 SUBTOTAL	255	5,420	2,650	8,325	0
CTH W					
57+14.08 - 58+14.30	--	790	--	790	--
CTH W SUBTOTAL	0	790	0	790	0
WEIS STREET					
68+10.00 - 69+48.19	10	470	--	480	--
70+64.35 - 71+52.07	--	340	--	340	--
WEIS STREET SUBTOTAL	10	810	0	820	0
PARK AND RIDE	--	620	--	620	--
PARK AND RIDE SUBTOTAL	0	620	0	620	0
UNDISTRIBUTED (EBS AREAS)	--	--	--	--	5,000
TOTAL	265	7,640	2,650	10,555	5,000

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

DRIVEWAY ITEMS

LOCATION	BASE * AGGREGATE DENSE 3/4-INCH 305.0110 TON	CONCRETE DRIVEWAY 6-INCH 416.0160 SY	ASPHALTIC SURFACE * DRIVEWAYS AND FIELD ENTRANCES 465.0120 TON
STH 33			
28+18, LT	2	22	8
30+53, RT	4	36	--
30+97, LT	5	36	19
31+70, RT	1	15	2
32+33, RT	2	36	8
32+78, LT	3	36	13
33+24, RT	4	36	14
33+60, LT	1	25	--
34+23, RT	1	19	6
34+95, RT	1	33	--
34+98, LT	1	13	--
35+31, LT	3	36	11
36+38, RT	1	48	--
36+39, LT	2	36	--
37+37, LT	1	28	--
38+94, RT	2	25	--
39+48, RT	1	10	--
39+84, LT	1	58	--
40+42, LT	1	13	--
43+69, RT	1	113	--
44+56, RT	3	76	--
45+30, RT	2	17	--
46+55, RT	2	17	--
47+96, RT	3	33	--
48+71, RT	2	13	9
STH 33 SUBTOTAL	50	830	90
CTH W			
57+55, LT	1	--	2
58+55, RT	2	--	8
58+74, LT	1	98	--
CTH W SUBTOTAL	3	98	8
WEIS STREET			
68+57, LT	2	15	8
68+76, RT	1	15	2
WEIS STREET SUBTOTAL	3	30	10
TOTAL	56	958	108

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ASPHALTIC PAVEMENT ITEMS

LOCATION	ASPHALTIC MATERIAL PG64-22 455.0115 TON	ASPHALTIC MATERIAL PG64-28 455.0120 TON	TACK COAT 455.0605 GAL	HMA PAVEMENT TYPE E-0.3 460.1100 TON	HMA PAVEMENT TYPE E-3 460.1103 TON	OMP HMA MIXTURE 460.3000 TON	ASPHALTIC SURFACE * DRIVEWAYS AND FIELD ENTRANCES 465.0120 TON
STH 33							
28+77 - 34+12	--	--	--	--	--	--	50
38+24.38 - 38+50.71	2	1	4	--	50	50	--
38+61.24 - 39+07.13	4	3	8	--	100	100	7
39+17.65 - 39+43.94	2	1	4	--	50	50	--
43+43 - 44+74	--	--	--	--	--	--	3
49+80.77 - 50+89.81	7	5	15	--	190	190	--
STH 33 SUBTOTAL	15	10	31	0	390	390	60
CTH W							
57+14.08 - 58+14.30	11	8	24	320	--	320	10
CTH W SUBTOTAL	11	8	24	320	0	320	10
WEIS STREET							
68+10.00 - 69+48.19	6	5	14	180	--	180	--
70+64.35 - 71+52.07	5	4	11	140	--	140	20
WEIS STREET SUBTOTAL	11	9	25	320	0	320	20
PARK AND RIDE	10	10	43	330	--	330	--
PARK AND RIDE SUBTOTAL	10	10	43	330	0	330	0
TOTAL	47	37	123	970	390	1,360	90

* ADDITIONAL QUANTITY LISTED ELSEWHERE

PIPE UNDERDRAIN

LOCATION	OUTFALL STATION	PIPE UNDERDRAIN 6-INCH 612.0106 LF	GEOTEXTILE FABRIC TYPE DF SCHEDULE B 645.0112 SY	BASE * AGGREGATE OPEN GRADED 310.0110 TON	OMP BASE * AGGREGATE 301.0100.S TON	REMARKS
STH 33						
27+86 - 30+00, LT	30+00	209	146	12	12	DISCHARGE TO 1B
30+00 - 31+15, RT	31+15	117	82	7	7	DISCHARGE TO 2A
30+00 - 31+15, LT	31+15	114	80	7	7	DISCHARGE TO 2C
31+70 - 31+15, RT	31+15	55	39	3	3	DISCHARGE TO 2A
31+70 - 31+15, LT	31+15	55	39	3	3	DISCHARGE TO 2C
32+50 - 31+70, RT	31+70	80	56	5	5	DISCHARGE TO 2B
32+50 - 31+70, LT	31+70	80	56	5	5	DISCHARGE TO 2D
32+50 - 33+80, RT	33+80	130	91	8	8	DISCHARGE TO 3B
32+50 - 33+80, LT	33+80	130	91	8	8	DISCHARGE TO 3F
33+80 - 34+50, RT	34+50	71	50	4	4	DISCHARGE TO 3A
33+80 - 34+50, LT	34+50	69	48	4	4	DISCHARGE TO 3E
35+09 - 34+50, LT	34+50	59	41	3	3	DISCHARGE TO 3E
35+25 - 34+50, RT	34+50	75	53	4	4	DISCHARGE TO 3A
36+61 - 35+25, RT	35+25	136	95	8	8	DISCHARGE TO 3D
36+61 - 35+09, LT	35+09	152	106	9	9	DISCHARGE TO 3G
38+23 - 36+61, RT	36+61	166	116	10	10	DISCHARGE TO 4A
38+16 - 36+61, LT	36+61	155	108	9	9	DISCHARGE TO 4B
39+36 - 39+49, LT	39+49	12	9	1	1	DISCHARGE TO 6B
39+52 - 40+04, RT	40+04	52	37	3	3	DISCHARGE TO 6A
40+04 - 39+49, LT	39+49	56	39	3	3	DISCHARGE TO 6B
40+90 - 40+04, RT	40+04	91	64	5	5	DISCHARGE TO 6A
41+08 - 40+04, LT	40+04	108	75	6	6	DISCHARGE TO 6C
44+00 - 41+46, RT	41+46	263	183	16	16	DISCHARGE TO 7A
44+00 - 41+90, LT	41+90	203	141	12	12	DISCHARGE TO 7B
46+00 - 44+00, RT	44+00	205	143	12	12	DISCHARGE TO 8A
46+00 - 44+00, LT	44+00	196	137	12	12	DISCHARGE TO 8B
46+20 - 46+00, RT	46+00	20	14	1	1	DISCHARGE TO 9A
47+87 - 46+20, RT	46+20	167	116	10	10	DISCHARGE TO 9B
47+87 - 46+00, LT	46+00	187	130	11	11	DISCHARGE TO 9C
49+79 - 47+87, RT	47+87	197	137	12	12	DISCHARGE TO 10A
49+84 - 47+87, LT	47+87	204	142	12	12	DISCHARGE TO 10B
TOTAL		3,814	2,664	225	225	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

CULVERTS

LOCATION	CULVERT PIPE CORRUGATED STEEL 30-INCH 521.0130 LF	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH 521.1030 EACH	MARKER POSTS CULVERT END FLEXIBLE 614.0620.S EACH
STH 33			
28+18, LT	49	2	2
TOTAL	49	2	2

RIPRAP

LOCATION	RIPRAP LIGHT 606.0100 C.Y.	GEOTEXTILE FABRIC, TYPE R 645.0130 S.Y.
STH 33		
27+95, 54' LT	4	11
28+46, 70' RT	7	20
39+06, 160' LT	3	8
UNDISTRIBUTED	4	10
TOTAL	18	49

CONCRETE SIDEWALK

LOCATION	CONCRETE SIDEWALK 4-INCH 602.0405 SF	CONCRETE STEPS 602.1500 SF
STH 33		
28+17 - 39+20	9210	10
39+20 - 50+89	10840	--
STH 33 SUBTOTAL	20050	10
WEIS STREET		
68+10 - 69+48	510	--
WEIS STREET SUBTOTAL	510	0
TOTAL	20560	10

CURB AND GUTTER

LOCATION	CONCRETE CURB AND GUTTER 30-INCH TYPE A 601.0409 LF	CONCRETE CURB AND GUTTER 30-INCH TYPE D 601.0411 LF
STH 33		
27+94 - 38+24	2015	40
39+44 - 50+89	2025	210
STH 33 SUBTOTAL	4040	250
WEIS STREET		
68+10 - 69+39	--	305
70+38 - 70+65	--	50
WEIS STREET SUBTOTAL	0	305
CTH W		
57+14 - 59+60	--	290
CTH W SUBTOTAL	0	290
TOTAL	4040	845

ADJUSTING INLETS

LOCATION	ADJUSTING INLET COVERS 611.8115 EACH
STH 33	
49+84, 84'RT	1
50+79, 26'RT	1
TOTAL	2

WATER

LOCATION	624.0100 MGAL
STH 33	60
CTH W	5
WEIS STREET	5
PARK AND RIDE	5
TOTAL	75

PIPE UNDERDRAIN

LOCATION	OUTFALL STATION	PIPE UNDERDRAIN UNPERFORATED 6-INCH 612.0206 LF	REMARKS
STH 33			
42+57, 43.5'RT	43+40, 46.1'RT	88	DISCHARGE TO 8C, CONNECT TO DOWNSPOUT
TOTAL		88	

LANDMARK REFERENCE MONUMENTS

LOCATION	621.0100 EACH
STH 33	
29+52.00, PI	1
34+04.44, PI	1
43+27.74, PI	1
49+97.22, PI	1
TOTAL	4

DETECTABLE WARNING FIELDS

LOCATION	DETECTABLE WARNING FIELDS WHITE 602.0510 SF
STH 33	
37+59, LT	8
37+59, RT	8
38+33, RT	8
38+39, LT	8
38+60, RT	8
39+08, LT	8
39+30, RT	8
40+81, RT	8
40+99, LT	8
41+37, RT	8
41+61, LT	8
49+73, RT	8
49+75, LT	8
50+48, RT	8
50+53, LT	8
TOTAL	120

DUST CONTROL SURFACE TREATMENT

LOCATION	623.0200 SY
STH 33	
27+94 - 38+51	20,800
38+61 - 39+07	860
39+44 - 50+90	25,030
STH 33 SUBTOTAL	46,690
CTH W	
57+14 - 58+14	1,800
CTH W SUBTOTAL	1,800
WEIS STREET	
68+10 - 69+48	580
70+64 - 71+52	1,230
WEIS STREET SUBTOTAL	1,810
PARK AND RIDE	3,580
PARK AND RIDE SUBTOTAL	3,580
TOTAL	53,880

STORM SEWER

STR. NO	LOCATION	GRATE ELEV.	CB/ COVER TYPE	MH/ COVER TYPE	DEPTH (FEET)	FROM STR.	TO STR.	INVERT ELEV.	DISCH. ELEV.	STORM SEWER PIPE REINFORCED CONC. CL III 12-INCH 608.0312 LF	CL III 18-INCH 608.0318 LF	CL III 24-INCH 608.0324 LF	CL IV 12-INCH 608.0412 LF	CL IV 24-INCH 608.0424 LF	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CL HE-III 19x30-INCH 610.0119 LF	CL HE-III 22x34-INCH 610.0122 LF	CL HE-IV 19x30-INCH SPV.0090.02 LF	JOINT** TIES REQUIRED EACH	APRON ENDWALLS FOR CULVER PIPE REINFORCED CONC. 24-INCH 522.1024 EACH	HOR. ELLIPT. 19x30-INCH 523.0519 EACH	PIPE GRATES 611.9800.S EACH
MH1	30+00	950.54	--	3J	4.9	MH1	OUTFALL	944.41	944.19	--	--	--	--	--	--	168.0	--	--	--	--	--
1A	30+00, 25.5' RT	950.33	1H	--	5.1	1A	MH1	945.85	945.76	25.5	--	--	--	--	--	--	--	4	--	1	1
1B	30+00, 25.5' LT	949.68	1H	--	4.5	1B	MH1	945.85	945.76	25.5	--	--	--	--	--	--	--	--	--	--	--
MH2	31+20	949.35	--	3J	3.5	MH2	MH1	944.57	944.41	--	--	--	--	--	--	120.0	--	--	--	--	--
2A	31+20, 25.5' RT	948.66	1HS	--	4.5	2A	MH2	944.81	944.72	25.5	--	--	--	--	--	--	--	--	--	--	--
2B	31+55, 25.5' RT	948.76	1H	--	4.5	2B	2A	944.93	944.81	35.0	--	--	--	--	--	--	--	--	--	--	--
2C	31+21, 25.5' LT	948.66	1HS	--	4.5	2C	MH2	944.81	944.72	25.5	--	--	--	--	--	--	--	--	--	--	--
2D	31+70, 25.5' LT	948.83	1H	--	4.5	2D	2C	944.98	944.81	49.0	--	--	--	--	--	--	--	--	--	--	--
MH3	34+47	949.06	--	3J	2.8	MH3	MH2	944.99	944.57	--	--	--	--	--	--	--	327.0	--	--	--	--
3A	34+47, 25.5' RT	948.37	1HS	--	4.0	3A	MH3	945.08	944.99	--	--	--	25.5	--	--	--	--	--	--	--	--
3B	33+80, 25.5' RT	948.58	1H	--	3.8	3B	3A	945.42	945.17	--	--	--	68.0	--	--	--	--	--	--	--	--
3C	33+80, 38.5' RT	949.94	1C	--	3.6	3C	3B	945.46	945.42	13.0	--	--	--	--	--	--	--	--	--	--	--
3D	35+22, 25.5' RT	948.63	1H	--	3.9	3D	3A	945.43	945.17	--	--	--	75.0	--	--	--	--	--	--	--	--
3E	34+47, 25.5' LT	948.37	1HS	--	4.0	3E	MH3	945.08	944.99	--	--	--	25.5	--	--	--	--	--	--	--	--
3F	33+80, 25.5' LT	948.58	1H	--	3.8	3F	3E	945.42	945.17	--	--	--	69.0	--	--	--	--	--	--	--	--
3G	35+09, 25.5' LT	948.56	1H	--	3.9	3G	3E	945.38	945.17	--	--	--	62.0	--	--	--	--	--	--	--	--
MH4	36+61	950.10	--	3J	3.5	MH4	MH3	945.40	944.99	--	--	--	--	--	--	--	215.0	--	--	--	--
4A	36+61, 25.5' RT	949.41	1H	--	4.5	4A	MH4	945.58	945.49	25.5	--	--	--	--	--	--	--	--	--	--	--
4B	36+61, 25.5' LT	949.41	1H	--	4.5	4B	MH4	945.58	945.49	25.5	--	--	--	--	--	--	--	--	--	--	--
MH5	37+50.5	950.71	--	3J	5.8	MH5	MH4	945.61	945.40	--	--	--	--	--	109.5	--	--	--	--	--	--
5A	59+50, 17.5' LT	949.90	1HS	--	4.7	5A	MH5	945.88	945.70	52.0	--	--	--	--	--	--	--	--	--	--	--
5B	59+14, 23.5' RT	949.97	1HS	--	4.6	5B	5A	946.07	945.88	51.0	--	--	--	--	--	--	--	--	--	--	--
6B	39+49, 25.5' LT	951.26	1H	--	5.2	6B	OUTFALL	946.69	946.51	--	--	138.0	--	--	--	--	--	4	1	--	1
6C	40+04, 25.5' LT	951.52	1H	--	5.4	6C	6B	946.76	946.69	--	--	--	--	55.0	--	--	--	4	--	--	--
MH6	40+04	952.21	--	3J	4.2	MH6	6C	946.79	946.76	--	--	--	--	25.5	--	--	--	--	--	--	--
6A	40+04, 25.5' RT	951.52	1H	--	4.7	6A	MH6	947.46	947.36	27.5	--	--	--	--	--	--	--	--	--	--	--
MH7	41+68	952.95	--	3J	4.5	MH7	MH6	947.22	946.79	--	--	164.0	--	--	--	--	--	--	--	--	--
7A	41+46, 25.5' RT	952.17	1H	--	4.5	7A	MH7	948.34	948.22	33.3	--	--	--	--	--	--	--	--	--	--	--
7B	41+90, 25.5' LT	952.36	1H	--	4.7	7B	MH7	948.34	948.22	32.9	--	--	--	--	--	--	--	--	--	--	--
MH8	44+00, 18' RT	953.59	--	3J	3.9	MH8	MH7	948.40	947.22	--	--	234.5	--	--	--	--	--	--	--	--	--
8A	44+00, 25.5' RT	953.26	1H	--	4.9	8A	MH8	948.99	948.96	7.5	--	--	--	--	--	--	--	--	--	--	--
8B	44+00, 25.5' LT	953.26	1H	--	4.5	8B	MH8	949.40	949.25	43.5	--	--	--	--	--	--	--	--	--	--	--
8C	43+37, 55.0' RT	952.98	1C	--	3.8	8C	8D	949.80	949.60	57.0	--	--	--	--	--	--	--	--	--	--	--
8D	43+90, 53.0' RT	953.33	1C	--	4.9	8D	8A	949.10	948.99	--	30.0	--	--	--	--	--	--	--	--	--	--
8E	54+00, 47.0' RT	953.95	1C	--	4.4	8E	8D	950.23	949.60	119.0	--	--	--	--	--	--	--	--	--	--	--
MH9	46+00	955.34	--	3J	4.7	MH9	MH8	949.41	948.40	--	--	202.5	--	--	--	--	--	--	--	--	--
9A	46+00, 25.5' RT	954.65	1H	--	5.0	9A	MH9	950.32	950.23	--	25.5	--	--	--	--	--	--	--	--	--	--
9B	46+20, 25.5' RT	955.03	1H	--	4.8	9B	9A	950.89	950.82	20.0	--	--	--	--	--	--	--	--	--	--	--
9C	46+00, 25.5' LT	954.65	1H	--	4.5	9C	MH9	950.82	950.73	25.5	--	--	--	--	--	--	--	--	--	--	--
MH10	47+87	961.59	--	3J	5.3	MH10	MH9	955.02	949.41	--	--	187.0	--	--	--	--	--	--	--	--	--
10A	47+87, 25.5' RT	960.90	1H	--	4.5	10A	MH10	957.07	956.98	25.5	--	--	--	--	--	--	--	--	--	--	--
10B	47+87, 25.5' LT	960.90	1H	--	4.5	10B	MH10	957.07	956.98	25.5	--	--	--	--	--	--	--	--	--	--	--
TOTALS										770.2	55.5	926.0	325.0	80.5	109.5	120.0	542.0	12	1	1	2

-LOCATION IS REFERENCED TO THE CENTER OF THE STRUCTURE FOR ALL STRUCTURE TYPES
-GRATE ELEVATION IS REFERENCED TO THE FOLLOWING:
-FLOWLINE OF CATCH BASIN COVER FOR TYPE H OR H-S COVERS
-RIM OF MANHOLE COVER FOR MANHOLES
-CATCH BASIN & DISCHARGE ELEVATIONS AND STRUCTURE DEPTHS SHALL BE VERIFIED IN THE FIELD
-** NON-BID ITEM

CATCH BASINS AND MANHOLES

LOCATION	CATCH BASINS TYPE 1 611.0101 EACH	MANHOLES TYPE 3 611.0210 EACH	MANHOLE COVERS TYPE J 611.0530 EACH	INLET COVERS TYPE C 611.0612 EACH	INLET COVERS TYPE H 611.0624 EACH	INLET COVERS TYPE H-S 611.0639 EACH
STH 33						
29+00 - 37+00	17	5	5	1	10	6
39+00 - 40+00	15	5	5	3	12	--
TOTAL	32	10	10	4	22	6

INSULATION BOARD POLYSTYRENE 2-INCH

LOCATION	612.0902.S.01 SY
STH 33	
UNDISTRIBUTED	500
TOTAL	500

EROSION MAT

LOCATION	CLASS II TYPE C DELIVERED 628.2035 SY	CLASS II TYPE C INSTALLED 628.3035 EACH
STH 33		
DRAINAGE SWALE	235	235
UNDISTRIBUTED	60	60
TOTAL	295	295

EROSION CONTROL

LOCATION	EROSION BALES DELIVERED 628.1105 EACH	EROSION BALES INSTALLED 628.1110 EACH	SILT FENCE DELIVERED 628.1505 LF	SILT FENCE INSTALLED 628.1510 LF	SILT FENCE MAINTENANCE 628.1520 LF	TURBIDITY BARRIERS 628.6005 LF	DITCH CHECK DELIVERED 628.7505 LF	DITCH CHECK INSTALLED 628.7510 LF	CULVERT PIPE DITCH CHECK 628.7550 EACH
STH 33									
	--	--	--	--	--	50	--	--	--
30+00 - 39+49	200	200	790	790	790	--	--	--	--
39+49 - 47+87	280	280	1210	1210	1210	--	--	--	--
28+55, LT	--	--	--	--	--	--	--	--	1
DRAINAGE SWALE	--	--	530	530	530	--	20	20	--
PARK AND RIDE	--	--	440	440	440	--	--	--	1
UNDISTRIBUTED	120	120	740	740	740	10	10	10	--
TOTAL	600	600	3710	3710	3710	60	30	30	2

EROSION CONTROL

LOCATION	MOBILIZATIONS, EROSION CONTROL 628.1905 EACH	MOBILIZATIONS, EMERGENCY EROSION CONTROL 628.1910 EACH
STH 33		
27+94.31 - 49+94.15	2	4
TOTAL	2	4

PERMANENT SIGNING

SIGN NO	SIGN CODE	SIGN SIZE INCHES	SIGNS REFLECTIVE TYPE II 637.0202 SF	POSTS WOOD 4X6-INCH X 14 FT 634.0614 EACH	POSTS TUBULAR STEEL 2X2-INCH 12 FT 634.0812 EACH	14 FT 634.0814 EACH	16 FT 634.0816 EACH	REMARKS
1	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
2	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
3	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
4	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
5	W10-1	36 X 36	7.07	--	--	--	--	MOUNT ON LIGHT POLE
6	J1-1			--	--	1	--	
	M2-1	21 X 15	2.19	--	--	--	--	
	M1-5A	24 X 24	4.00	--	--	--	--	
7	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
8	R2-1	24 X 30	5.00	--	1	--	--	
9	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
10	J4-1			--	--	1	--	
	M3-4	21 X 15	2.19	--	--	--	--	
	M1-6	24 X 24	4.00	--	--	--	--	
11	R7-1D	18 X 24	3.00	--	1	--	--	
12	R7-1D	18 X 24	3.00	--	1	--	--	
13	J3-2			--	--	--	1	
	M3-1	21 X 15	2.19	--	--	--	--	
	M3-3	21 X 15	2.19	--	--	--	--	
	M1-5A	24 X 24	4.00	--	--	--	--	
	M1-5A	24 X 24	4.00	--	--	--	--	
	M6-1	21 X 21	3.06	--	--	--	--	
	M6-1	21 X 21	3.06	--	--	--	--	
14	J3-2			--	--	--	1	
	M3-4	21 X 15	2.19	--	--	--	--	
	M3-3	21 X 15	2.19	--	--	--	--	
	M1-6	24 X 24	4.00	--	--	--	--	
	M1-5A	24 X 24	4.00	--	--	--	--	
	M6-1	21 X 21	3.06	--	--	--	--	
	M6-1	21 X 21	3.06	--	--	--	--	
15	W11-2	30 X 30	6.25	--	--	--	--	MOUNT ON LIGHT POLE
16	W16-7L	24 X 12	2.00	--	--	--	--	MOUNT BELOW 15
17	W11-2	30 X 30	6.25	--	--	1	--	
18	W16-7L	24 X 12	2.00	--	--	--	--	MOUNT BELOW 17
19	R1-1	36 X 36	7.46	--	--	1	--	
20	J13-2			--	--	1	--	
	M1-6	24 X 24	4.00	--	--	--	--	
	M1-5A	24 X 24	4.00	--	--	--	--	
	M6-4	21 X 21	3.06	--	--	--	--	
	M6-1	21 X 21	3.06	--	--	--	--	
21	W10-4R	30 X 30	6.25	--	--	1	--	
22	R2-1	24 X 30	5.00	--	1	--	--	
23	J2-1			--	--	--	1	
	M3-3	21 X 15	2.19	--	--	--	--	
	M1-5A	24 X 24	4.00	--	--	--	--	
	M5-1L	21 X 21	3.06	--	--	--	--	
24	W10-1	36 X 36	7.07	--	--	1	--	
25	R1-1	36 X 36	7.46	--	1	--	--	
26	R2-1	24 X 30	5.00	--	--	--	--	MOUNT ON LIGHT POLE
27	R7-1D	18 X 24	3.00	--	1	--	--	

PERMANENT SIGNING

SIGN NO	SIGN CODE	SIGN SIZE INCHES	SIGNS REFLECTIVE TYPE II 637.0202 SF	POSTS WOOD 4X6-INCH X 14 FT 634.0614 EACH	POSTS TUBULAR STEEL 2X2-INCH 12 FT 634.0812 EACH	14 FT 634.0814 EACH	16 FT 634.0816 EACH	REMARKS
28	W11-2	30 X 30	6.25	--	--	1	--	
29	W16-7L	24 X 12	2.00	--	--	--	--	MOUNT BELOW 28
30	J13-1			--	--	1	--	
	M1-6	24 X 24	4.00	--	--	--	--	
	M6-4	24 X 24	4.00	--	--	--	--	
31	W11-2	30 X 30	6.25	--	--	1	--	
32	W16-7L	24 X 12	2.00	--	--	--	--	MOUNT BELOW 31
33	R1-1	36 X 36	7.46	--	1	--	--	
34	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
35	J13-1			--	--	1	--	
	M1-6	24 X 24	4.00	--	--	--	--	
	M6-4	24 X 24	4.00	--	--	--	--	
36	J4-2			--	--	1	--	
	M3-2	21 X 15	2.19	--	--	--	--	
	M3-1	21 X 15	2.19	--	--	--	--	
	M1-6	24 X 24	4.00	--	--	--	--	
	M1-5A	24 X 24	4.00	--	--	--	--	
37	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
38	W10-1	36 X 36	7.07	--	--	1	--	
39	R2-1	24 X 30	5.00	--	1	--	--	
40	R7-1D	18 X 24	3.00	--	1	--	--	
41	R2-1	24 X 30	5.00	--	1	--	--	
42	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
43	R7-1D	18 X 24	3.00	--	--	--	--	MOUNT ON LIGHT POLE
44	W11-2	30 X 30	6.25	--	--	1	--	
45	W16-7L	24 X 12	2.00	--	--	--	--	MOUNT BELOW 44
46	R1-1	36 X 36	7.46	--	1	--	--	
47	W11-2	30 X 30	6.25	--	--	1	--	
48	W16-7L	24 X 12	2.00	--	--	--	--	MOUNT BELOW 47
49	J1-1			--	--	1	--	
	M2-1	21 X 15	2.19	--	--	--	--	
	M1-4	24 X 24	4.00	--	--	--	--	
50	R7-8A	12 X 18	1.50	1	--	--	--	
51	R7-8A	12 X 18	1.50	1	--	--	--	
52	R7-8V	12 X 6	0.50	--	--	--	--	MOUNT BELOW EXISTING SIGN
TOTAL			284.61	2	11	16	3	

INLET PROTECTION

LOCATION	TYPE A 628.7005 EACH	TYPE B 628.7010 EACH	TYPE C 628.7015 EACH	TYPE D 628.7020 EACH
STH 33				
30+00 - 39+49	17	1	12	4
39+49 - 47+87	17	3	19	--
TOTAL	34	4	31	4

MOVING SIGNS AND SMALL SIGN SUPPORTS

APPROX. STATION	DIRECTION FROM EXISTING ROADWAY	MOVING SIGNS TYPE II 638.2102 EACH	MOVING SMALL SIGN SUPPORTS 638.4000 EACH	REMARKS
STH 33				
38+15	RT	1	--	MAIN STREET/RAILROAD STREET (ABOVE STOP SIGN)
41+15	RT	1	--	MAIN STREET/WEIS STREET (ABOVE STOP SIGN)
WEIS STREET				
69+90	LT	1	1	WEIGHT LIMIT 6 TONS
69+30	RT	1	1	NO PARKING HERE TO CORNER
69+30	LT	2	1	NO TRUCK PARKING/NO PARKING THIS SIDE OF STREET
TOTALS		6	3	

REMOVING SIGNS AND SMALL SIGN SUPPORTS

APPROX. STATION	DIRECTION FROM EXISTING ROADWAY	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
STH 33				
29+20	RT	1	1	NO PARKING ANY TIME
29+85	LT	1	--	CLEARANCE STRIPPER (ON POLE)
31+90	LT	3	--	NO PARKING / (2) CLEARANCE STRIPER (ON POLE)
32+60	RT	1	1	RAILROAD CROSSING
33+05	LT	1	--	NO PARKING ANY TIME (ON POLE)
33+70	RT	3	--	JCT / CTH W / NO PASSING (ON POLE)
33+80	LT	2	1	SPEED LIMIT 30 MPH / NO PARKING
34+50	LT	1	--	NO PARKING (ON POLE)
35+20	LT	1	--	NO PASSING (ON POLE)
36+30	RT	1	--	NO PARKING (ON POLE)
37+45	RT	3	--	CTH W / AHEAD,RT / NO PARKING (ON POLE)
37+45	RT	2	--	CTH W / LT (ON POLE)
38+15	RT	1	1	STOP
38+15	LT	4	1	CTH W / RT / STH 33 / RT
39+30	LT	1	1	SPEED LIMIT 30 MPH
39+60	RT	2	1	SPEED LIMIT 30 MPH / NO TRUCK PARKING
41+10	LT	3	1	STH 33 / LT,RT / STOP
41+15	RT	1	1	STOP
43+70	LT	2	--	RAILROAD XING / SPEED LIMIT 30 MPH (ON POLE)
45+55	RT	1	--	SPEED LIMIT 30 MPH (ON POLE)
46+60	RT	2	1	JCT / USH 41
49+40	LT	2	1	RIGHT TURN / ADVISORY LIMIT 30 MPH
49+90	LT	1	1	STOP
54+00	LT	1	1	MERGE RIGHT
57+00	LT	1	1	RIGHT LANE ENDS
TOTALS		42	14	

REMOVING PAVEMENT MARKINGS

LOCATION	646.0600 LF
STH 33	
27+25 - 27+94	260
50+75 - 53+15	335
STH 33 SUBTOTAL	595
CHURCH STREET	
79+00 - 79+50	130
CHURCH STREET SUBTOTAL	130
PARK AND RIDE	270
PARK AND RIDE SUBTOTAL	270
TOTAL	995

RESTORATION ITEMS

LOCATION	TOPSOIL 625.0100 SY	MULCHING 627.0200 SY	FERTILIZER TYPE B 629.0210 CWT	SEED MIX NO. 40 630.0140 LBS	SEED MIX NO. 60 630.0160 LBS	SEED TEMPORARY 630.0200 LBS	SOD WATER 631.0300 MGAL	SOD LAWN 631.1000 SY
STH 33								
27+94 - 39+00	1500	--	--	--	--	--	50	1,500
39+00 - 50+81	2500	1800	1.1	35	--	50	25	700
DRAINAGE SWALE	--	--	0.3	--	6		--	--
STH 33 SUBTOTAL	4000	1800	1.4	35	6	50	75	2200
CTH W								
57+14 - 59+14	35	35	0.1	1	--	1	--	--
CTH W SUBTOTAL	35	35	0.1	1	0	1	0	0
WEIS STREET								
68+10 - 69+47	120	85	0.1	2	--	2	1	35
70+65 - 71+52	30	30	0.1	1	--	1	--	--
WEIS STREET SUBTOTAL	150	115	0.2	3	0	3	1	35
PARK AND RIDE								
11+57 - 12+92	460	460	0.3	8	--	12	--	--
PARK AND RIDE SUBTOTAL	460	460	0.3	8	0	12	0	0
UNDISTRIBUTED	1160	600	1.0	10	0	20	20	560
TOTAL	5805	3010	3	57	6	86	96	2795

TRAFFIC CONTROL

STAGE	LOCATION	DAYS	DRUMS 643.0300 NO.	DRUMS 643.0300 DAYS	BARR., TYPE III 643.0420 NO.	BARR., TYPE III 643.0420 DAYS	WARNING LIGHTS TYPE A 643.0705 NO.	WARNING LIGHTS TYPE A 643.0705 DAYS	WARNING LIGHTS TYPE C 643.0715 NO.	WARNING LIGHTS TYPE C 643.0715 DAYS	ARROW BOARDS 643.0800 NO.	ARROW BOARDS 643.0800 DAYS	SIGNS 643.0900 NO.	SIGNS 643.0900 DAYS
STH 33														
1	49+00 - 61+00	137	--	--	10	1,370	18	2,470	--	--	--	--	9	1,230
2A	49+00 - 61+00	17	35	600	13	220	22	370	31	530	1	20	10	170
2B	49+00 - 61+00	17	32	540	10	170	20	340	28	480	1	20	10	170
PLANTINGS	40+00 - 59+00	8	48	380	1	10	2	20	10	80	1	10	5	40
STH 33 SUBTOTAL				1,520		1,770		3,200		1,090		50		1,610
CTH W		171	--	--	2	340	3	510	--	--	--	--	3	510
CTH W SUBTOTAL				0		340		510		0		0		510
WEIS STREET														
	68+10 - 71+52	171	--	--	4	680	6	1,030	--	--	--	--	7	1,200
	1ST STREET	171	--	--	--	--	--	--	--	--	--	--	1	170
WEIS STREET SUBTOTAL				0		680		1,030		0		0		1,370
CHURCH STREET														
1	78+43 - 83+00	137	12	1,640	1	140	2	270	12	1,640	--	--	7	960
2A	78+43 - 83+01	17	12	200	1	20	2	30	12	200	--	--	7	120
2B	78+43 - 83+00	17	20	340	--	--	--	--	20	340	--	--	6	100
CHURCH STREET SUBTOTAL				2,180		160		300		2,180		0		1,180
PARK AND RIDE		40	--	--	5	200	6	240	--	--	--	--	1	40
PARK AND RIDE SUBTOTAL				0		200		240		0		0		40
				3,700		3,150		5,280		3,270		50		4,710

PAVEMENT MARKING

LOCATION	4-INCH, EPOXY 646.0106 SOLID YELLOW LF	4-INCH, EPOXY 646.0106 SOLID WHITE LF	4-INCH, EPOXY 646.0106 SKIPS WHITE LF	CHANNELIZING EPOXY 8-INCH 646.0226 LF	RAILROAD CROSSINGS, EPOXY 647.0110 EACH	STOP LINE, 18-INCH, EPOXY 647.0566 LF	CROSSWALK, 6-INCH, EPOXY 647.0766 LF	SYMBOLS EPOXY 647.0256 EACH	PARKING STALL EPOXY 647.0656 LF
STH 33									
27+90 - 53+00	5,100	230	1,275	--	4	--	580	--	--
STH 33 SUBTOTAL	5,100	230	1,275	0	4	0	580	0	0
CTH W									
57+14 - 59+14	480	--	--	135	--	35	110	--	--
CTH W SUBTOTAL	480	0	0	135	0	35	110	0	0
WEIS STREET									
68+10 - 69+48	215	--	--	--	--	20	80	--	--
70+64 - 71+52	300	--	--	--	--	17	75	--	--
WEIS STREET SUBTOTAL	515	0	0	0	0	37	155	0	0
CHURCH STREET									
78+92 - 80+00	125	--	--	--	--	25	120	--	--
80+00 - 80+91	80	--	--	--	--	25	120	--	--
CHURCH STREET SUBTOTAL	205	0	0	0	0	50	240	0	0
PARK AND RIDE	--	--	--	--	--	--	--	2	1,570
PARK AND RIDE SUBTOTAL	0	0	0	0	0	0	0	2	1,570
TOTALS	6,300	230	1,275	135	4	122	1,085	2	1,570
	4-INCH TOTAL		7,805						

CONCRETE CURB TYPE D SPECIAL

LOCATION	SPV.0090.01 LF
STH 33	
33+42 - 34+07 RT	90
STH 33 SUBTOTAL	90
TOTAL	90

TEST ROLLING

LOCATION	SPV.0170.01 STA
STH 33	
28+17 - 38+50	11
38+61 - 39+06	1
39+18 - 50+90	12
STH 33 SUBTOTAL	24
CTH W	
57+14 - 59+59	3
CTH W SUBTOTAL	3
WEIS STREET	
68+10 - 69+63	2
70+38 - 71+52	2
WEIS STREET SUBTOTAL	4
PARK AND RIDE	2
PARK AND RIDE SUBTOTAL	2
TOTAL	33

SAWING EXISTING PAVEMENT

LOCATION	SAWING EXISTING PAVEMENT 690.0100 LF	SAWING CONC. PAVEMENT FULL DEPTH 690.0200 LF	REMARKS
STH 33			
28+18, LT	13	--	DRIVEWAY
28+60 - 32+96, LT	460	--	
28+79, RT	12	--	DRIVEWAY
31+12 - 32+08, RT	96	--	
32+33, RT	40	2	DRIVEWAY
32+84 - 34+04, RT	130	2	DRIVEWAY
34+23, RT	30	--	DRIVEWAY
35+16, RT	--	1	MASONRY WALL
35+31, LT	42	--	DRIVEWAY
35+64, RT	--	4	SIDEWALK
36+38, RT	--	14	DRIVEWAY
37+79, LT	25	--	DRIVEWAY
39+84, LT	28	--	DRIVEWAY
43+45 - 44+74, RT	145	--	
45+69, RT	--	4	SIDEWALK
47+58, RT	--	4	SIDEWALK
48+71, RT	9	--	DRIVEWAY
48+99, RT	--	4	SIDEWALK
49+82, LT	--	4	SIDEWALK
50+47, LT	--	5	SIDEWALK
50+50, RT	--	14	SIDEWALK
50+89	48	--	
STH 33 SUBTOTAL	1078	58	
CTH W			
57+14	24	--	
58+31 - 59+61	135	--	
CTH W SUBTOTAL	159	0	
WEIS STREET			
68+10	36	--	
70+390 - 71+53	152	--	
68+57, LT	58	--	DRIVEWAY
68+76, RT	29	--	DRIVEWAY
WEIS STREET SUBTOTAL	275	0	
CHURCH STREET			
70+03	22	--	
80+81	34	--	
CHURCH STREET SUBTOTAL	56	0	
TOTAL	1568	58	

CONSTRUCTION STAKING

LOCATION	STORM SEWER SYSTEM 650.4000 EACH	SUBGRADE 650.4500 LF	BASE 650.5000 LF	CURB & GUTTER 650.5500 LF	PIPE CULVERTS 650.6000 EACH	CONCRETE PAVEMENT 650.7000 LF
STH 33						
27+93.88 - 38+50.71	23	1060	--	--	--	--
27+93.88 - 50+89.81	--	--	--	--	--	--
38+61.24 - 39+07.13	--	45	45	--	--	--
39+17.65 - 50+89.81	22	1170	--	--	--	--
38+24.38 - 38+50.71	--	--	25	40	--	--
39+17.65 - 39+43.94	--	--	25	40	--	--
27+93.88 - 38+24.38	--	--	--	--	--	1030
39+43.94 - 50+89.81	--	--	--	170	--	1110
27+85 - 28+45, RT	--	--	--	--	1	--
STH 33 SUBTOTAL	45	2275	95	250	1	2140
CTH W						
57+14.08 - 59+14.30	--	245	245	290	--	--
CTH W SUBTOTAL	0	245	245	290	0	0
WEIS STREET						
68+10.00 - 69+48.19	--	130	130	305	--	--
70+38.33 - 71+52.07	--	115	115	50	--	--
WEIS STREET SUBTOTAL	0	245	245	355	0	0
PARK AND RIDE						
11+57.00 - 12+92.00	--	135	135	--	--	--
PARK AND RIDE SUBTOTAL	0	135	135	0	0	0
TOTAL	45	2900	720	895	1	2140

ROOTSTOCK

LOCATION	ROOTSTOCK SPV.0060.09 EACH	ROOTSTOCK PROTECTION SPV.0090.02 LF
STH 33		
DRAINAGE SWALE	100	560
TOTAL	100	560

3

3

CATEGORY 0020

LIGHTING BRANCH CIRCUIT WIRE QUANTITIES - ISOLATED NEUTRAL SYSTEM

655.0615 ELECTRICAL WIRE LIGHTING 10 AWG

SYSTEM	NETWORK	LOCATION TO LOCATION	DISTANCE	655.0615 10 AWG L.F.
HL-67-AT	A/B/N/G	AAT4/BAT4 TO AAT5/BAT5	72	328
		TOTAL		328

CATEGORY 0020

LIGHT POLE QUANTITIES BASED ON 6-INCH ARM CLAMPS - 120 VAC
CABINET PLAQUES FOR EXISTING CABINET

655.0610 ELECTRICAL WIRE LIGHTING 12 AWG (POLE WIRE)
657.0330 POLES TYPE 7-TD2
657.0635 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 10-FT
659.0115 LUMINAIRES UTILITY HPS 150 WATTS
659.0802 PLAQUES SEQUENCE IDENTIFICATION
SPV.0060.01 CONCRETE BASES TYPE 7 SPECIAL

SYSTEM	PROPOSED SEQUENCE I.D.	LOCATION	BREAKAWAY STATUS FOR INFO.	BOLT PROJECTION	655.0610 WIRE 12 AWG TYPE L.F.	657.0330 POLES 7-TD2 EACH	657.0635 ARMS 10-FT EACH	659.0115 LUMIN. 150 HPS EACH	659.0802 PLAQUES EACH	SPV.0060.01 BASES 7-SPECIAL EACH
HL-66-AT	HL-67-AT	CABINET			0	0	0	0	1	0
HL-66-AT	ALLENTON	CABINET			0	0	0	0	1	0
HL-66-AT	AAT5/BAT5	12+37 C/L•	ANCHOR	4-INCH	300	1	2	2	2	1
	TOTALS				300	1	2	2	2	1

• ENGINEER TO STAKE ON PARKING STALL CORNER

CATEGORY 0020

LIGHTING BRANCH CIRCUIT CONDUIT

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH

SYSTEM	LOCATION TO LOCATION	652.0225 2-INCH L.F.
HL-66-AT	EXISTING STUBOUT TO AAT5/BAT5	70
	TOTAL	70

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PARK AND RIDE LIGHTING QUANTITIES	SHEET 52	E

3

3

ADJUSTING UTILITIES

LOCATION	ADJUSTING MANHOLE COVERS 611.8110 EACH	ADJUSTING WATERVALVES SPV.0060.08 EACH
STH 33		
28+21, 34' LT	1	--
29+46, 54' RT	1	--
31+00, 5' LT	1	--
31+01, 24' RT	1	--
34+56, 17' LT	1	--
37+70, 17' LT	1	--
39+87, 32' RT	1	--
40+81, 18' LT	1	--
41+31, 22' LT	1	--
43+73, 66' RT	1	--
46+91, 31' RT	1	--
47+50, LT±	--	1
49+06, 28' RT	1	--
49+84, 84' RT	--	--
49+98, 12' RT	1	--
50+03, 21' RT	--	1
50+09, 25' RT	--	1
50+14, 27' RT	--	1
50+19, 53' RT	1	--
50+22, 30' LT	--	1
50+52, 38' RT	--	1
50+79, 26' RT	--	--
TOTAL	14	6

TREES

ASH, WHITE 'CHICAGO REGAL'
B&B, 2 1/2-INCH CALIPER

STATION	LOCATION	632.0101.01 EACH
46+02.76	L 37.58	1
46+41.33	L 37.59	1
46+80.30	L 38.77	1
52+55.53	R 104.12	1
52+56.14	L 100.07	1
53+02.37	R 46.54	1
53+05.80	L 45.74	1
53+47.18	L 86.55	1
53+51.42	R 40.48	1
	TOTAL	9

MAPLE, RED 'FIREDOME'
B&B, 2 1/2-INCH CALIPER

STATION	LOCATION	632.0101.02 EACH
47+20.15	L 37.97	1
47+60.74	L38.28	1
48+00.00	L 38.44	1
48+42.13	L 41.05	1
51+14.64	R 55.08	1
51+16.92	L 57.56	1
51+59.54	R 52.80	1
51+62.32	L 53.38	1
52+05.40	R 51.56	1
52+07.07	L 48.47	1
	TOTAL	10

LILAC, JAPANESE 'IVORY SILK'
B&B, 2-INCH CALIPER

STATION	LOCATION	632.0101.03 EACH
42+82.32	R 45.15	1
43+12.36	R 45.90	1
43+40.93	R 45.12	1
43+97.29	R 44.57	1
44+25.90	R 45.27	1
44+84.68	R 45.63	1
45+13.12	R 58.49	1
	TOTAL	7

CRABAPPLE, JAPANESE FLOWERING
B&B, 2-INCH CALIPER

STATION	LOCATION	632.0101.04 EACH
55+61.18	R 68.32	1
55+84.36	R 75.95	1
55+87.48	R 102.32	1
	TOTAL	3

SHRUBS

SUMAC, FRAGRANT 'GRO-LOW'
CG, 3-GALLON

STATION	LOCATION	632.0201.01 EACH	REMARKS
41+59.14 - 42+12.10	L 37.41	5	SPACE 4'-0" O.C.
43+86.89 - 44+0.00	L 36.38	4	SPACE 4'-0" O.C.
45+11.83 - 45+24.50	L 36.90	4	SPACE 4'-0" O.C.
45+56.97 - 45+77.02	L 36.90	6	SPACE 4'-0" O.C.
	TOTAL	19	

FORSYTHIA, 'HAPPY CENTENNIAL'
CG, 3-GALLON

STATION	LOCATION	632.0201.02 EACH	REMARKS
42+58.46 - 42+79.91	L 36.90	6	SPACE 4'-0" O.C.
43+56.66 - 43+74.31	L 36.85	5	SPACE 4'-0" O.C.
45+28.46 - 45+40.68	L 37.00	4	SPACE 4'-0" O.C.
	TOTAL	15	

HONEYSUCKLE, DWARFBUSH
CG, 3-GALLON

STATION	LOCATION	632.0201.03 EACH	REMARKS
42+33.00 - 42+54.20	L 37.11	6	SPACE 4'-0" O.C.
42+97.28 - 43+13.12	L 37.44	5	SPACE 4'-0" O.C.
43+30.76 - 43+52.65	L 37.79	6	SPACE 4'-0" O.C.
44+81.73 - 44+94.26	L 36.82	4	SPACE 4'-0" O.C.
	TOTAL	21	

ROSE, RUGOSA 'FRAU DAGMAR HASTRUP'
CG, 3-GALLON

STATION	LOCATION	632.0201.04 EACH	REMARKS
41+73.58 - 41+77.73	L 36.32	2	SPACE 4'-0" O.C.
44+17.00 - 44+39.05	L 37.11	6	SPACE 4'-0" O.C.
44+42.68 - 44+64.33	L 36.92	6	SPACE 4'-0" O.C.
	TOTAL	14	

JUNIPER, CHINESE 'ARMSTRONG'
CG, 3-GALLON

STATION	LOCATION	632.0201.05 EACH	REMARKS
41+81.29 - 41+91.14	L 36.93	3	SPACE 4'-6" O.C.
42+16.22 - 42+29.10	L 37.21	4	SPACE 4'-6" O.C.
42+83.93 - 42+92.18	L 36.66	3	SPACE 4'-6" O.C.
43+17.60 - 43+26.63	L 37.35	3	SPACE 4'-6" O.C.
43+78.73 - 43+82.87	L 36.77	2	SPACE 4'-6" O.C.
44+3.76 - 44+12.60	L 36.62	3	SPACE 4'-6" O.C.
44+68.59 - 44+77.35	L 36.46	3	SPACE 4'-6" O.C.
44+97.48 - 45+6.53	L 37.55	3	SPACE 4'-6" O.C.
45+43.48 - 45+52.59	L 37.88	3	SPACE 4'-6" O.C.
	TOTAL	27	

BOLLARDS

LOCATION	SPV.0060.07 EACH
STH 33 - DRIVEWAYS	
43+59 RT	7
43+79 RT	7
44+46 RT	4
44+66 RT	4
45+22 RT	3
STH 33 SUBTOTAL	25
TOTAL	25

CONCRETE CURB
TYPE D

LOCATION	601.0110 LF
STH 33 - PLANTERS	
42+93 RT	36
43+20 RT	36
43+46 RT	36
43+99 RT	36
44+26 RT	36
44+84 RT	36
45+07 RT	36
STH 33 SUBTOTAL	252
TOTAL	252

ARCHITECTURAL CONCRETE

LOCATION	ARCHITECTURAL CONCRETE PAVEMENT 10-INCH SPV.0165.01 SF	ARCHITECTURAL CONCRETE SIDEWALK 4-INCH SPV.0165.02 SF
STH 33		
27+94 - 38+60	1480	5040
38+60 - 42+00	2480	1370
42+00 - 50+90	3250	9620
STH 33 SUBTOTAL	7210	16030
TOTAL	7210	16030

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
1412-02-20	4.0	
CONSTRUCTION PROJECT NUMBER 1412-02-70		

PLAT OF RIGHT OF WAY REQUIRED FOR

MAIN STREET

(ROCK RIVER TO USH 41)

STH 33 WASHINGTON COUNTY

The most current Right of Way information should be viewed in DOTView using the Real Estate project ID. The plat information contained in this as-built plan may not be the final record.

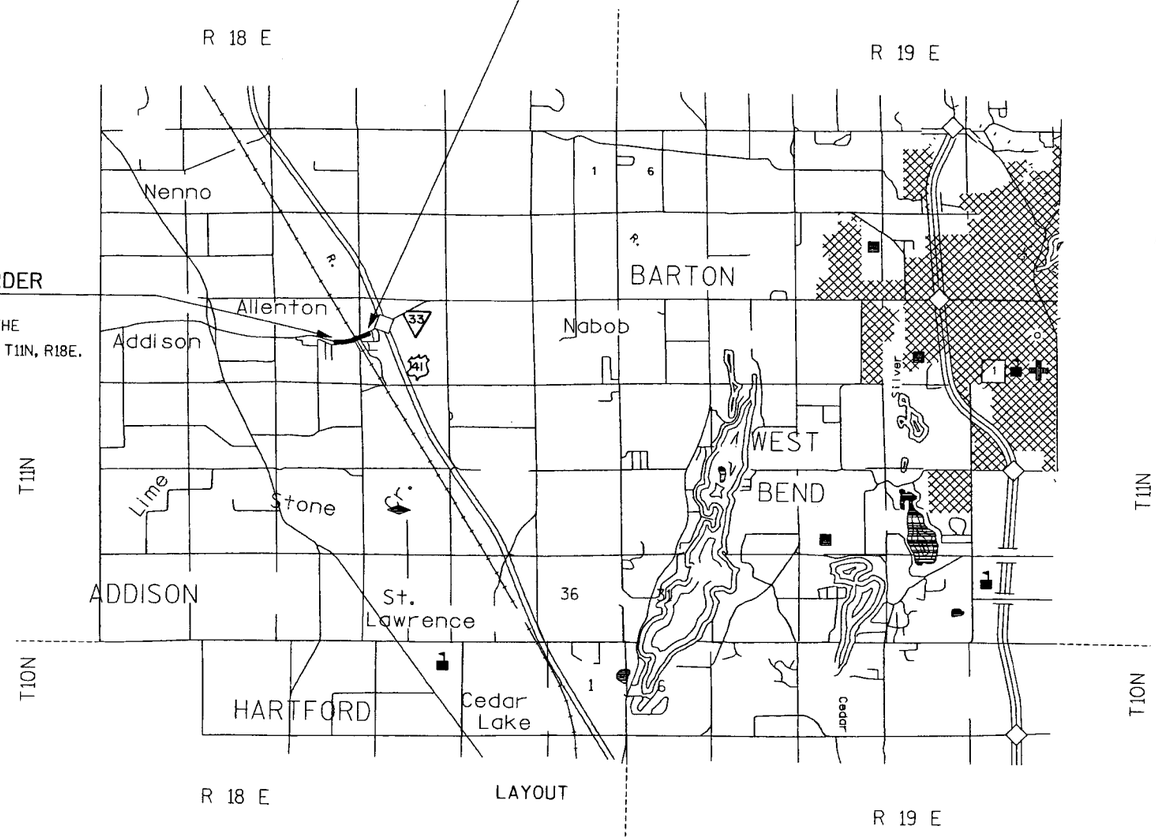
CONVENTIONAL SIGNS AND ABBREVIATIONS

AC.	ACRES
AC. REM.	ACRES REMAINING
A.P.	ACCESS POINT
B.	BARN
BLDG.	BUILDING
C/L	CENTERLINE
CO.	COMPANY
CORP.	CORPORATION
C.T.H.	COUNTY TRUNK HIGHWAY
D.	DEED
E.	EAST
ET. AL.	AND OTHERS
G.	GARAGE
GN	GRID NORTH
H.	HOUSE
INC.	INCORPORATED
L.C.	LAND CONTRACT
N	NORTH
PED.	PEDESTAL
R/W MON.	R/W MONUMENT
P.L.	PROPERTY LINE
P.L.E.	PERMANENT LIMITED EASEMENT
R.	RANGE
RD.	ROAD
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
S.	SHED
S/L	SECTION LINE
S.T.H.	STATE TRUNK HIGHWAY
T.	TOWN
TEMP.	TEMPORARY
T.L.E.	TEMPORARY LIMITED EASEMENT
VOL.	VOLUME
W.	WEST
WIS.	WISCONSIN

- STATE LINE
- COUNTY LINE
- TOWN OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- PROPOSED OR NEW R/W LINE
- EXISTING R/W LINE
- LOT LINE
- PROPERTY LINE (P.I. + 58.1)
- NO ACCESS (By Previous Acquisition or Covenant)
- NO ACCESS (By Acquisition)
- NO ACCESS (By Statutory Authority)
- LIMITED EASEMENT (Temporary or Permanent)
- CORPORATE LIMITS
- SECTION CORNER
- SURVEY LINE
- RIGHT OF WAY POINT
- (Type) RIGHT OF WAY MONUMENT (Type)
- TRIANGULATION POINT OR HORIZONTAL CONTROL STATION
- BENCH MARK

END RELOCATION ORDER
STATION 49+93.14
680.35'E. OF AND 725.50'N OF THE
W 1/4 CORNER OF SECTION 15, T11N, R18E.

BEGIN RELOCATION ORDER
STATION 27+85.29
1319.73' W. OF AND 4.93'N OF THE
EAST1/4CORNER OF SECTION 16, T11N, R18E.



R 18 E LAYOUT R 19 E

0 1 MI.

SCALE

TOTAL NET LENGTH OF CENTERLINE 0.418 MI.

NOTES

COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), "WASHINGTON COUNTY, BASED ON WEST BEND, FOND DU LAC GPS AND DODGE COUNTY GPS, 167S AND 169S." ALL PLAT DISTANCES ARE GROUND LENGTH.

RIGHT OF WAY MONUMENTS ARE TYPE II AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TRANFER, BY WISCONSIN DOT SURVEY.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

WISCONSIN
CRAIG W. RILEY
S-2264
MILWAUKEE, WIS.
LAND SURVEYOR

Craig W. Riley
02-28-01

EMCS DCOJO 20-HMD
205 West Highland Avenue, Suite 501,
Milwaukee, WI 53203
(414) 347-1607 FAX (414)347-1347

REVISION DATE
APR.16,2004

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR DISTRICT OFFICE:

DATE: March 2, 2004

03/01/01 01:38:46 PM P:\3556\RWPLAT\PLT\TITLE.DGN

WISDOT/CADDS SHEET 50

1412-02-20 55 4.0

SCHEDULE OF LANDS & INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

NOTE:
ALL NUMBERS IN ACRES, UNLESS SPECIFIED.

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL AREA	NEW	R/W AREA EXISTING	TOTAL	TOTAL AREA REMAINING	TLE AREA	PLE AREA	PARCEL NUMBER
1	4.3	TOWN OF ADDISON	TLE	11.470	-	-	-	11.470	0.039		1
2	4.3	33 ALLENTON JOINT VENTURE	FEE, TLE	18.870	0.086	0.170	0.256	18.614	0.203		2
3	4.3	MICHAEL F. AND KATHERN M. CLEARY	FEE, TLE	0.476	0.015	0.106	0.121	0.355	0.032		3
4	4.3	DOUGLAS L. AND LORI L. DOLGE	FEE, TLE	0.280	0.004	0.041	0.045	0.235	0.022		4
5 CP	4.3	CARMEL RENTALS, LLC	FEE, TLE	0.486	0.007	0.081	0.088	0.398	0.044		5
6	4.3	RONALD AND BONNIE FRIEDL	FEE, TLE	0.504	0.009	0.104	0.113	0.391	0.041		6
7 CP	4.3	FARMERS INC. OF ALLENTON	FEE, TLE	2.278	0.009	0.096	0.105	2.173	0.041		7
8	4.3	THERJA CORP.	FEE, TLE	0.833	0.003	0.053	0.056	0.777	0.017		8
9	4.3	JOHN E. KASTEN	TLE	0.756	-	-	-	0.756	0.013		9
10	4.3	BREUER & BREUER, LLC	FEE, TLE	0.744	0.002	-	0.002	0.742	0.063		10
11 CP	4.3	ALLENTON METAL FINISHING CORP.	FEE, TLE	0.711	0.003	-	0.003	0.708	0.033		11
12 CP	4.3	SHARON TEUFEL, DAVID TEUFEL & LARRY TEUFEL	FEE, TLE	0.366	0.006	0.073	0.079	0.287	0.017		12
13	4.3	FRANCIS E. & MARY L. DINGER	FEE, TLE	0.583	0.008	0.092	0.100	0.483	0.037		13
14 CP	4.3	JOSEPH C. & MARLENE M. REINDERS	FEE, TLE	0.305	0.003	0.049	0.052	0.253	0.017		14
15 CP	4.3	FARMERS INC. OF ALLENTON	FEE, TLE	1.985	0.079	0.244	0.323	1.662	0.010		15
16	4.4	HUBERT J. & DOROTHY M. KONRATH	FEE	0.813	0.530	0.283	0.813	-	-		16
17	4.4	DONALD D. & DIANE M. HEESEN	FEE	0.055	0.055	-	0.055	-	-		17
18	4.4	TERRY L. BIRCH	FEE	0.194	0.149	0.045	0.194	-	-		18
19	4.4	GERALD L. ZEDLER	FEE	0.407	0.349	0.058	0.407	-	-		19
20	4.4	GERALD R. & SANDRA BRADT	FEE	0.357	0.312	0.045	0.357	-	-		20
21 CP	4.4	WILLIAM B. & JOANNE E. STRONG	FEE	0.131	0.101	0.030	0.131	-	-		21
22	4.4	RICK A. BRUSKIEWICZ & FRANK E. VERHUNCE	FEE	0.366	0.310	0.056	0.366	-	-		22
23	4.4	FRANK E. VERHUNCE, JR. & RICK A. BRUSKIEWICZ	FEE	0.232	0.186	0.046	0.232	-	-		23
24	4.4	HOWARD GUNDRUM	FEE	0.244	0.194	0.050	0.244	-	-		24
25	4.4	LORETTA BOHN	FEE	0.345	0.256	0.089	0.345	-	-		25
26	4.3, 4.4	JENCROSS, L.L.C.	FEE, TLE	0.240	0.022	0.065	0.087	0.153	0.021		26
27 CP	4.4	DANIEL R. RITGER VENDOR, HARCON PROPERTIES, LLC VENDEE	TLE	0.116	-	-	-	0.116	0.013		27
28	4.4	ROBERT P. & HELEN M. TRUDEAU	TLE	0.327	-	-	-	0.327	0.011		28
29	4.4	KURT D. & HEATHER J. MUELLER	TLE	0.380	-	-	-	0.380	0.008		29
30		REMOVED									30
31	4.4	THOMAS M. & LORRAINE M. HEFTER	TLE	0.316	-	-	-	0.316	0.003		31
32	4.4	RICK A. BRUSKIEWICZ & FRANK E. VERHUNCE	TLE	0.165	-	-	-	0.165	0.003		32
33 CP	4.4	JOSEPH M. KEDINGER	TLE	0.524	-	-	-	0.524	0.014		33
34	4.4	NEAL R. AND JILL M. BROETZMANN	TLE	0.309	-	-	-	0.309	0.010		34
35	4.4	DAVID R. & MARY T. RASCH	TLE	0.305	-	-	-	0.305	0.021		35
36 CP	4.4	ROY G. & DIANNE D. KONRATH	FEE	0.275	0.225	0.050	0.275	-			36
37	4.3, 4.4	WISCONSIN CENTRAL, LTD	HE, PLE, TLE	VAST	0.011 HE	0.269	0.280	VAST	0.146	0.121	37
38	4.4	BARTON PRODUCTS CORPORATION	TLE	10.965	-	-	-	10.965	0.019		38
61	4.3, 4.4	SANITARY DISTRICT NO. 1	CONVEYANCE OF RIGHTS								61
137 CP	4.3	WISCONSIN CENTRAL, LTD	HE	VAST	0.083 HE	-	0.083	VAST	-		137

4

REVISION DATE: APR. 16, 2004

DATE MARCH 2, 2001

SCALE, FEET
0 N/A

HWY: STH 33

COUNTY: WASHINGTON

CONSTRUCTION PROJECT NUMBER 1412-02-70

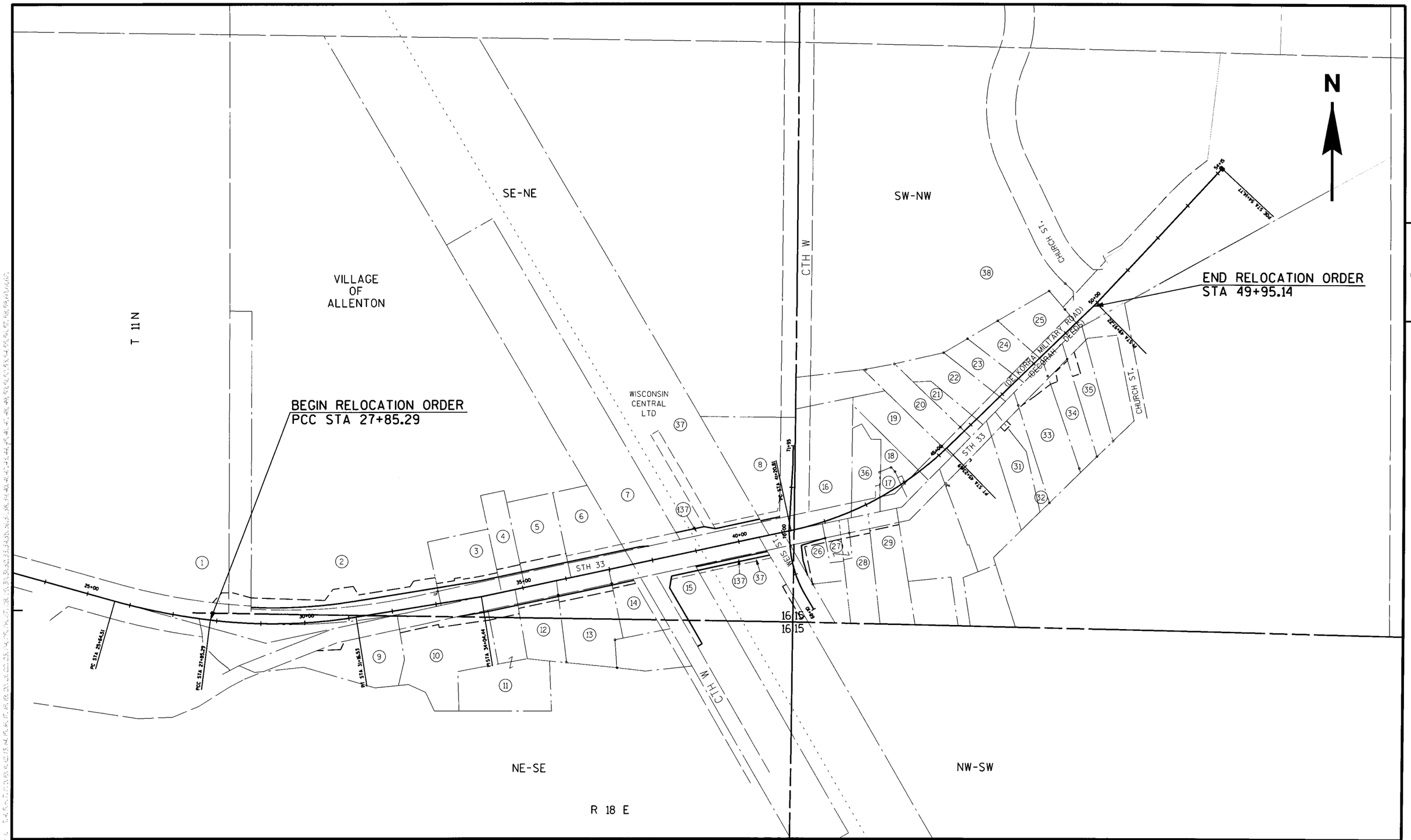
STATE R/W PROJECT NUMBER 1412-02-20

PS&E SHEET NO: 56

PLAT SHEET NO: 4.1

E

FILL NAME : L: 3956 PWPLAT PLT SCHEDULE.DGN PLOT DATE : 9 29 2004 PLOT BY : ##...slittuser...## PLOT NAME : GPS DATE : Originator : Dist PLOT SCALE : ##.....slittscale.....##
WISDOT/CADDS SHEET 60



4

REVISION DATE APR. 16, 2004	DATE MARCH 2, 2001	SCALE, FEET 0 100 200	HWY: STH 33	CONSTRUCTION PROJECT NUMBER 1412-02-70	PS&E SHEET NO: 57
	GRID FACTOR N/A		COUNTY: WASHINGTON	STATE R/W PROJECT NUMBER 1412-02-20	PLAT SHEET NO: 4.2 E

FILE NAME : e:\356A_SWPLAT\PLT LAYOUT.DGN PLOT DATE : 9/05/2004 PLOT BY : ##...pwtucker...## PLOT NAME : ORG DATE : Orig=date : Plot PLOT SCALE : ##.....plot-scale.....##

POINT NO.	COORDINATES	
	NORTHING	EASTING
5000	183,329.69	319,017.87
5001	183,343.34	319,250.46
5002	183,389.08	319,533.74
5003	183,467.44	319,897.04
5004	183,469.03	319,918.62
5006	183,722.69	319,922.11
5007	183,732.72	319,939.42
5009	183,524.05	320,173.70
5010	183,526.78	320,172.12
5011	183,536.01	320,214.92
5012	183,309.16	319,490.49
5013	183,320.14	319,555.63
5014	183,391.17	319,884.90
5015	183,373.63	319,966.07
5016	183,400.43	319,970.52
5017	183,456.44	320,187.48
5100	183,244.70	320,037.70
5101	183,240.08	320,029.78
5102	183,390.76	319,878.07
5103	183,381.46	319,834.97
5104	183,380.44	319,835.18

HWY	
STH 33	STATE R-O-W PLAT #1410-02-20, MAP OF THE SURVEY OF THE VILLAGE OF ALLENTON
CTH W	MAP OF THE SURVEY OF THE VILLAGE OF ALLENTON

VILLAGE OF ALLENTON

PARCEL A
ASSESSORS PLAT

PI 34+04.44
N= 183,353.69
E= 319,540.41

CURVE 4		CURVE 8	
PI	29+52.00	PI	43+27.74
N	183,281.22	N	183,548.37
E	319,091.62	E	320,442.95
△	16°00'20"	△	32°13'49"
D	4°49'56"	D	8°00'00"
T	166.70'	T	206.93'
L	331.23'	L	402.88'
R	1185.72'	R	716.20'
LC	330.15'	LC	397.59'
CB	N88°49'50"E	CB	N61°42'44"E
PC	27+85.30	PC	41+20.81
PT	31+16.53	PT	45+23.69

STRUCTURES LYING WITHIN TLE FOR PARCELS 4, 5, 6, 8, 9, 11, 13, 14 WILL NOT BE AFFECTED BY CONSTRUCTION OPERATIONS.

SW-NE

SE-NE

NE-SE

T 11 N R 18 E — 16 16 16 16

MONUMENT
N 183,335.95
E 317,689.85

1/16TH LINE

CONCRETE MON. W/ BRASS CAP
N 185,937.09
E 320,268.94

T 11 N R 18 E — 9 10 16 15

1 TOWN OF ADDISON

2 33 ALLENTON JOINT VENTURE

3 CLEARY

4 DOLGE

5 CARMEL RENTALS, LLC

6 FRIEDL

7 FARMERS INC. OF ALLENTON

8 THERJA CORP.

9 KASTEN

10 BREUER & BREUER L.L.C

11 ALLENTON METAL FINISHING CORP.

12 TEUFEL

13 DINGER

14 REINDERS

15 FARMERS INC. OF ALLENTON

26

37 WISCONSIN CENTRAL LTD

37 PLE, TLE

37 HE

137 HE

61 SANITARY DISTRICT NO. 1
SANITARY SEWER- PARCEL 1
UNDERGROUND WATER MAIN- PARCELS 15 AND 37

*1410-02-20

ALONG EXISTING R/W
L=86.71'
LC=86.69'
LCB=S84°58'15"E
R=1392.39'

ALONG PROPOSED R/W
L=233.39'
LC=232.99'
LCB=N86°38'54"E
R=1149.80'

ALONG EXISTING R/W
L=237.76'
LC=237.47'
LCB=N88°21'45"E
R=1399.39'

TLE-SLOPES AND DRIVEWAY

SLOPE INTERCEPTS

ASSESSOR'S PLAT

MAP OF THE SURVEY OF THE VILLAGE OF ALLENTON BLOCK 4

MAP OF THE SURVEY OF THE VILLAGE OF ALLENTON BLOCK 5

LOT 1 BLOCK 3 ORIG. PLAT

LOT 2

LOT 1

LOT 1-BLOCK 5

BOWLING ALLEY

BLDG CLINIC

BLDG KAMCO

APT. 8' BLDG

BLDG AT 35.40'

PHONE BOOTH

HYD

SILO

CANOE

VOLLEYBALL COURT

TLE-SLOPES AND DRIVEWAY LOT 1-BLOCK 5

5' ACCESS EASE V.861,P.415

PLE-DRAINAGE

TLE-SLOPES AND DRIVEWAY

TLE-SLOPES

TLE-SLOPES AND DRIVEWAY

LOE KORRA MILITARY ROAD DECORAH DEEDS

STH 33

WEIS ST.

CTH W

EXISTING REFERENCE LINE *1410-02-20

PCC STA 27+85.29

PI STA 29+52.00

PC STA 31+16.53

PT STA 41+20.81

CURVE 4

CURVE 8

MATCHLINE SEE SHEET 4.4

TO EXISTING ℄

R/L FOR WEIS ST.

BEGIN RELOCATION ORDER
STA 27+85.29=
STA 6+56.53
PROJECT #1412-02-20
N= 183,301.06
E= 318,926.10

EXISTING PI 29+11.65, 44.49°-
PI 7+90.74 "1410-02-20"
N=183,248.24
E=319,051.55

THE REFERENCE LINE OF STH33 IS THE CENTERLINE OF A 48 FOOT PAVEMENT SECTION IN A TYPICAL FINISHED SECTION.

THE REFERENCE LINE OF WEIS STREET THE CENTERLINE OF A 32 FOOT PAVEMENT SECTION IN A TYPICAL FINISHED SECTION.

STONE MONUMENT
N 183,296.13
E 320,245.83

4

REVISION DATE APR. 16, 2004	DATE MARCH 2, 2001	SCALE, FEET 0 50 100	HWY: STH 33	CONSTRUCTION PROJECT NUMBER 1412-02-70	PS&E SHEET NO: 58
	GRID FACTOR N/A		COUNTY: WASHINGTON	STATE R/W PROJECT NUMBER 1412-02-20	PLAT SHEET NO: 4.3 E

FILE NAME : D:\5506 PWPLAT PLT PLAT01.DGN PLOT DATE : 8 19 2004 PLOT BY : ##...plotuser...## PLOT NAME : ORG DATE : Originator : Dist PLOT SCALE : ##.....plotscale.....##

HWY	
STH 33	PROJECT NO. 1107-02-25, DEEDS
CHURCH ST	ASSESSORS PLAT, CSM 4923
CTH W	BY STATUTE (66')

CONCRETE MON. W/ BRASS CAP
N 185,937.09
E 320,268.94

T 11 N R 9 10 16 15 18 E

CTH W

VILLAGE OF ALLENTON

SANITARY DISTRICT NO. 1
V. 342 P. 669 DOC* 253502- PARCELS 20, 22, 23, 24, 25 AND 38
V. 487 P. 507 DOC* 317406- PARCELS16, 18, 19 AND 38
V. 487 P. 508 DOC* 317407- PARCEL16
V. 360 P. 11 - PARCEL 26
UNDERGROUND WATER MAIN- PARCELS 24 AND 25

SW-NW

BARTON PRODUCTS CORPORATION
LOT 1
CSM 4923
V.34 P.19

LOT 3
CSM 4923
V.34 P.19

STATE R-O-W PLAT *1107-02-25

EXISTING C/L CHURCH ST.

PI 54+14.77=
45+57.21 *1107-02-25"
N 184,331.89
E 321,211.72

END RELOCATION ORDER
STA 49+95.14
N= 184,021.63
E= 320,926.18

PI STA 49+91.22

20' SANITARY SEWER EASE
V. 342 P. 669

GTE FIBER 16.5' OPTIC EASEMENT V.1696 P.32

NO ACCESS *1107-02-25

CHURCH

BLDG

STRONG

BOHN

GUNDRUM

VERHUNCE

BRUSKIEWICZ

BRADT

ZEDLER

RASCH

BROETZMANN

KEDINGER

HEFTER

BRUSKIEWICZ

LOT 1
BLOCK 2
ORIGINAL PLAT

SANITARY SEWER EASE
V. 487 P. 507 & 508

BLDG
HARDWARE HANK

KONRATH

BIRCH

HEESEN

WOLF

CECILS PLACE
BAR

MAIN STREET MART

LOT 1
BLOCK 1

ALLENTON INN

POST OFFICE

TRUDEAU

MUELLER

LOT 2

BLOCK 1
LOT 3
ORIGINAL PLAT

LOT 4

ASSESSORS PLAT

ACCESS EASE V.606 P.596

ACCESS EASE V.1606 P.577

ACCESS EASE V.451 P.561

SLOPE INTERCEPTS

EXISTING P.I. STA 43+66.98 OFF 44.50' RT N 183558.79 E 320491.26

MATCHLINE SEE SHEET 4.3

MATCHLINE SEE SHEET 4.3

210.12' TO EXISTING C/L STH33

WEIS ST.

CHURCH ST.

STH 33

STONE MONUMENT
N 183,296.13
E 320,245.83

CURVE 8

PI	43+27.74
N	183,548.37
E	320,442.95
Δ	32°13'49"
D	8°00'00"
T	206.93'
L	402.88'
R	716.20'
LC	397.59'
CB	N61°42'44"E
PC	41+20.81
PT	45+23.69

THE REFERENCE LINE OF STH33 IS THE CENTERLINE OF A 48 FOOT PAVEMENT SECTION IN A TYPICAL FINISHED SECTION.

THE REFERENCE LINE OF WEIS STREET THE CENTERLINE OF A 32 FOOT PAVEMENT SECTION IN A TYPICAL FINISHED SECTION.

POINT NO.	COORDINATES	
	NORTHING	EASTING
5018	183,788.64	320,283.14
5020	183,823.63	320,451.33
5021	183,872.26	320,401.67
5022	183,885.46	320,472.45
5023	183,911.21	320,583.29
5024	183,984.28	320,705.63
5025	184,052.32	320,822.13
5026	184,015.43	320,853.28
5027	183,403.72	320,278.16
5028	183,471.33	320,263.11
5029	183,484.45	320,303.15

STRUCTURES LYING WITHIN TLE FOR PARCELS 26, 27, 28, 31, 32, 33, 34, 35, WILL NOT BE AFFECTED BY CONSTRUCTION OPERATIONS.

TLE DRIVEWAYS

TLE SLOPES &DRIVEWAY

DRAINAGE SWALE

NOTE: BLDG 1.0'EASTOF & PARALLEL TO NEW R/W LINE

N

4

REVISION DATE APR. 15, 2004	DATE MARCH 2, 2001	SCALE, FEET 0 50 100	HWY: STH 33	CONSTRUCTION PROJECT NUMBER 1412-02-70	PS&E SHEET NO: 69
	GRID FACTOR N/A		COUNTY: WASHINGTON	STATE R/W PROJECT NUMBER 1412-02-20	PLAT SHEET NO: 4.4 E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	27+38, 31' RT	BRASS MON. SW CORNER STH 33 & ROCK RIVER BRIDGE	955.77
2	38+70, 137' RT	CHISELED BOX N. SIDE CONCRETE BASE GRAIN SILO	953.88

BEGIN PROJECT
1412-02-70, 1412-03-71
STA 27+94.31

BEGIN CONSTRUCTION
1412-02-70
STA 57+14.08 CTH W

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PLAN AND PROFILE - STH 33	SHEET 60 E

FILE NAME : P:\3556\PLAN\Plan & Profile\050101_pp.dgn PLOT DATE : 12/20/2004 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
3	52+38.0, 142.1' RT	FLAG BOLT HYD. SW COR 33/ELM	989.25

END CONSTRUCTION
1412-02-70
STA 71+52.07 WEIS ST.

BEGIN CONSTRUCTION
1412-02-70
STA 68+10.00 WEIS ST.

END CONSTRUCTION
CHURCH STREET
STA 80+80.75

BEGIN CONSTRUCTION
CHURCH STREET
STA 79+02.22

END PROJECT
1412-02-70
STA 50+89.81

REMOVE P.E.
INSIDE EXISTING R/W

SLOPE INTERCEPT

WEIS STREET

CHURCH ST

STH 33

N 45°35'50" E

N 42°35'53" E

N 30°19'20" W

N 03°11'12" E

PI STA 71+52.07

PI STA 45+23.69

PI STA 49+97.22

45+00

50+00

81+20

VENCROSS LCC

RITGER

TRUDEAU

MUELLER

WOLF

HEFTER

WESTPHAL

PROETZMANN

RASCH

MONRATH

FARMERS INC. ALLENTON

THERJA CORP

CAUTION

R/W

TLE

PLE

HE

SAN

FO

IP

MH

WV

SIGN

PVI 39+07.42
Elev 951.80

PVI 39+17.51
Elev 951.80

PVI 40+85.00
Elev 952.60

PVC 45+20.36
Elev 954.46

PVI 46+70.36
Elev 955.10

PVT 48+20.36
Elev 965.32

PVI 50+89.81
Elev 978.08

L = 300'
K = 59

0.00%

0.48%

0.43%

5.18%

FINISHED GRADE

EXISTING GROUND

| | | |

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
4	62+75, 165' LT	CHISELED BOX S. LIGHT POLE BASE	1029.26

R/W

R/W

55+00

USH 41 SB OFF RAMP

END PROJECT
1412-03-71
STA. 56+00.00

STH 33

USH 41 SB ON RAMP

60+00

N 68°36'54" E

BEGIN CONSTRUCTION
1412-02-70
STA 11+56

PARK &
RIDE LOT

8+89 N 21°33'34" W 10+00

63+40

CTH W

END CONSTRUCTION
1412-02-70
STA 12+92.00

N

5

5

1040

1030

1020

1010

PVI 11+56.00
Elev 1028.22

L.S.%

PVI 12+85.00
Elev 1030.27

1027.2

1028.2

1028.8

1028.92

1029.7

1029.71

1030.9

11+00

12+00

13+00

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PLAN AND PROFILE - PARK & RIDE LOT	SHEET 62	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	38+70, 137' RT	CHISELED BOX N. SIDE CONC. BASE GRAIN SILO	953.88

BEGIN CONSTRUCTION
CTH W
STA 57+14.08

STH 33
CTH W
N 29°03'17" W
N 77°49'39" E
SLOPE INTERCEPT
R/W
FENCE
TLE
HE
PLE
SIGN
CAUTION
ATHLETIC FIELD
VOLLEYBALL COURT
GULLICKSON
DINGER
REINDERS
FARMERS MC ALLENTON
50+00
0+00
5+00
5+46

EXISTING GROUND
FINISHED GRADE
PVI 57+14.08 Elev 951.45
PVI 58+15.00 Elev 951.26
PVI 59+45.35 Elev 950.43
-0.19%
-0.64%
0.51%

55+00	56+00	57+00	58+00	59+00	60+00
951.3	951.7	951.7	951.5	951.4 951.38	951.2 951.29
951.2 951.04	951.1 950.72	950.8 950.45	950.74		

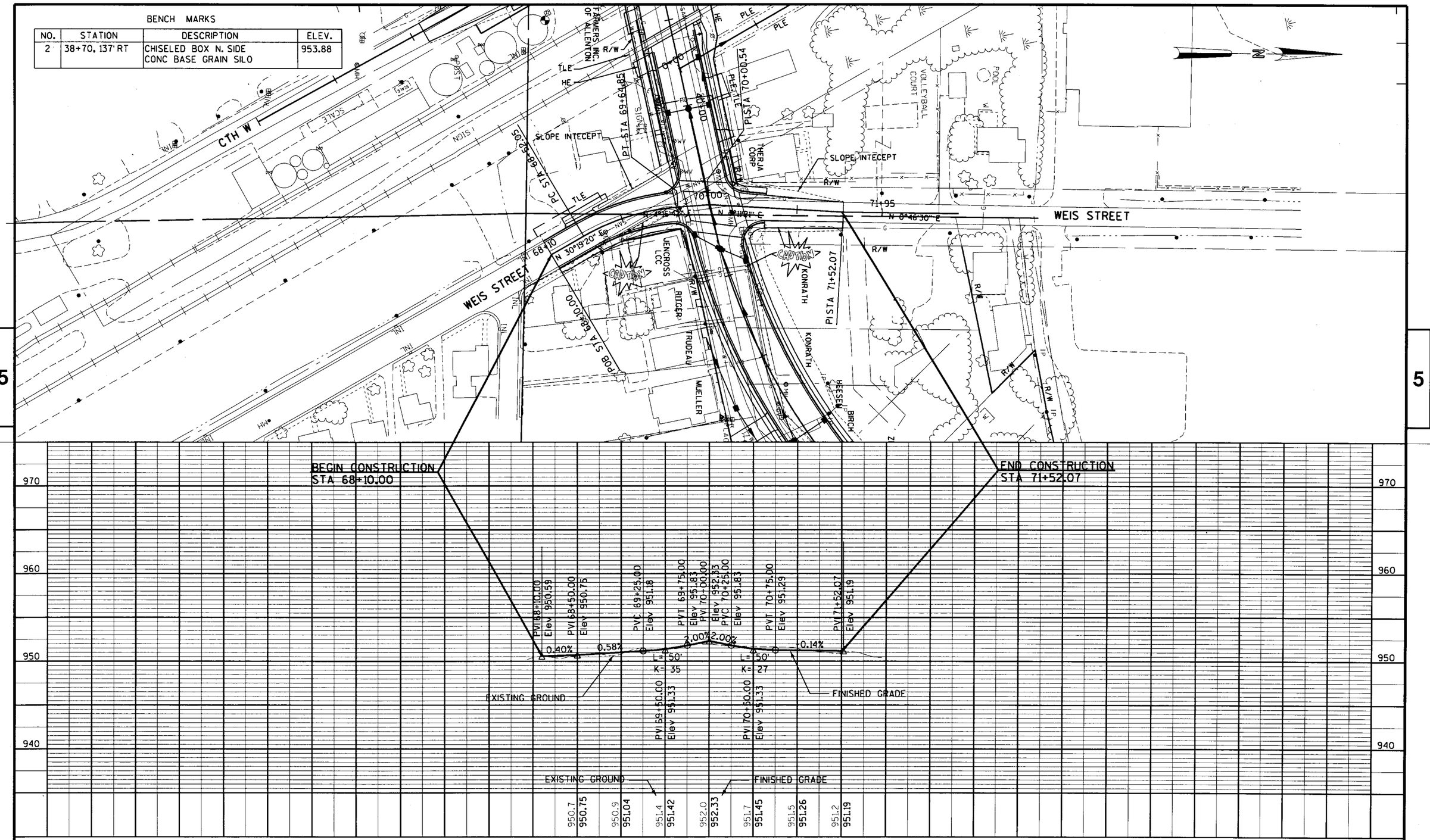
970 960 950 940

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PLAN AND PROFILE - CTH W	SHEET 63	E

FILE NAME : P:\3556\PLAN\Plan & Profile\050104_pp.dgn PLOT DATE : 12/20/2004 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	38+70, 137' RT	CHISELED BOX N. SIDE CONC BASE GRAIN SILO	953.88

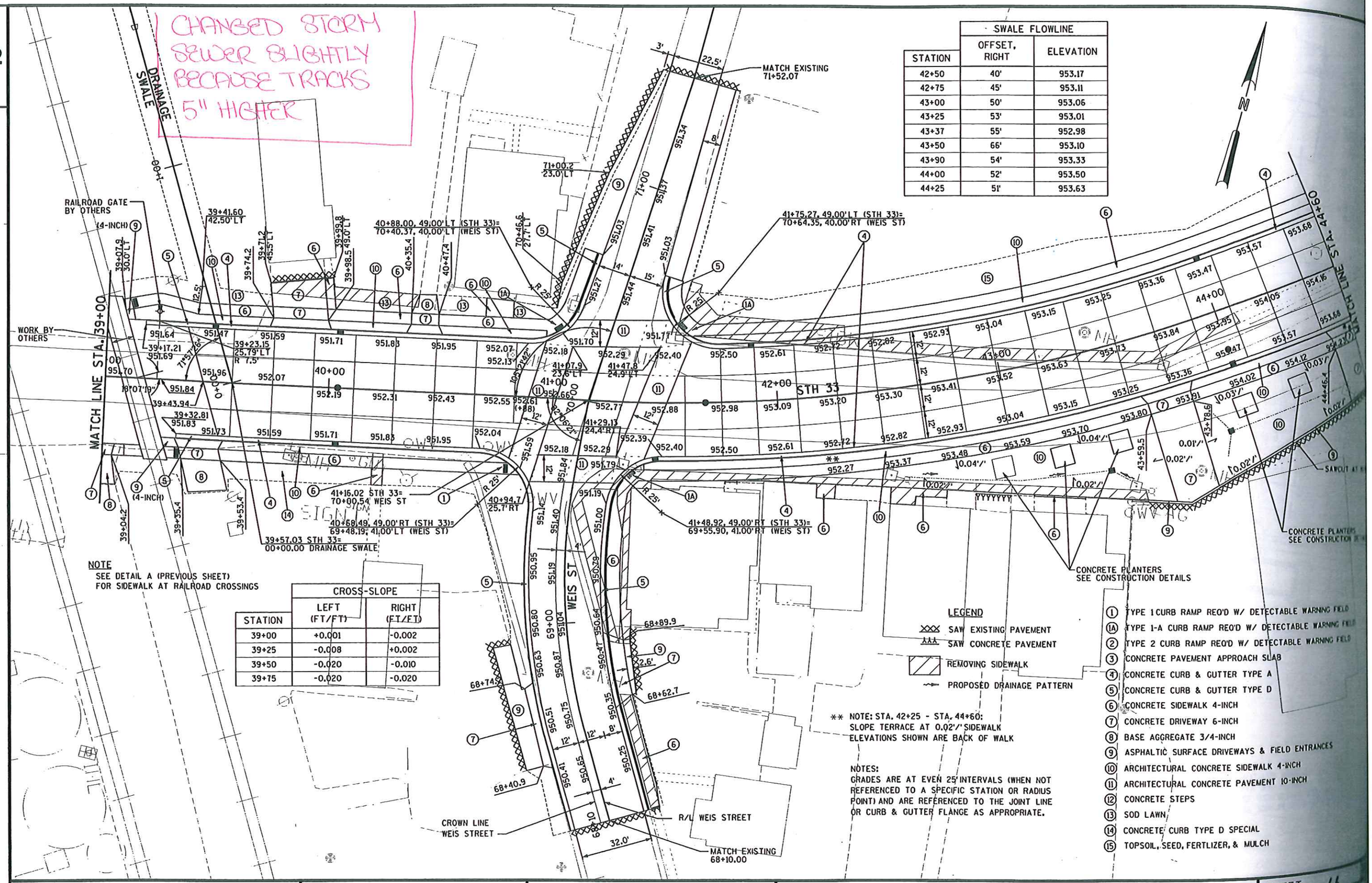


PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	PLAN AND PROFILE - WEIS STREET	SHEET 64	E

2

CHANGED STORM SEWER SLIGHTLY BECAUSE TRACKS 5" HIGHER

STATION	SWALE FLOWLINE OFFSET, RIGHT	SWALE FLOWLINE ELEVATION
42+50	40'	953.17
42+75	45'	953.11
43+00	50'	953.06
43+25	53'	953.01
43+37	55'	952.98
43+50	66'	953.10
43+90	54'	953.33
44+00	52'	953.50
44+25	51'	953.63



CROSS-SLOPE		
STATION	LEFT (FT/FT)	RIGHT (FT/FT)
39+00	+0.001	-0.002
39+25	-0.008	+0.002
39+50	-0.020	-0.010
39+75	-0.020	-0.020

NOTE
SEE DETAIL A (PREVIOUS SHEET) FOR SIDEWALK AT RAILROAD CROSSINGS

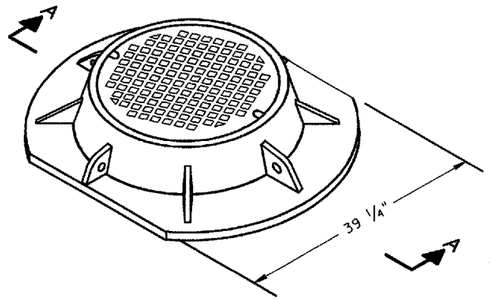
LEGEND
- SAW EXISTING PAVEMENT
- SAW CONCRETE PAVEMENT
- REMOVING SIDEWALK
- PROPOSED DRAINAGE PATTERN

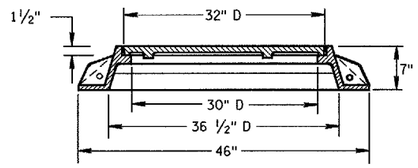
** NOTE: STA. 42+25 - STA. 44+60: SLOPE TERRACE AT 0.02'/' SIDEWALK ELEVATIONS SHOWN ARE BACK OF WALK

NOTES:
GRADES ARE AT EVEN 25' INTERVALS (WHEN NOT REFERENCED TO A SPECIFIC STATION OR RADIUS POINT) AND ARE REFERENCED TO THE JOINT LINE OR CURB & GUTTER FLANGE AS APPROPRIATE.

1. TYPE 1 CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
1A. TYPE 1-A CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
2. TYPE 2 CURB RAMP REQ'D W/ DETECTABLE WARNING FIELD
3. CONCRETE PAVEMENT APPROACH SLAB
4. CONCRETE CURB & GUTTER TYPE A
5. CONCRETE CURB & GUTTER TYPE D
6. CONCRETE SIDEWALK 4-INCH
7. CONCRETE DRIVEWAY 6-INCH
8. BASE AGGREGATE 3/4-INCH
9. ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
10. ARCHITECTURAL CONCRETE SIDEWALK 4-INCH
11. ARCHITECTURAL CONCRETE PAVEMENT 10-INCH
12. CONCRETE STEPS
13. SOD LAWN
14. CONCRETE CURB TYPE D SPECIAL
15. TOPSOIL, SEED, FERTLIZER, & MULCH

PROJECT NO: 1412-02-70/1412-03-71	HWY: STH 33	COUNTY: WASHINGTON	PAVING DETAIL	SHEET 66



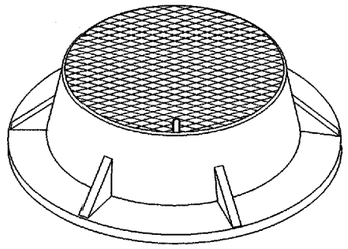


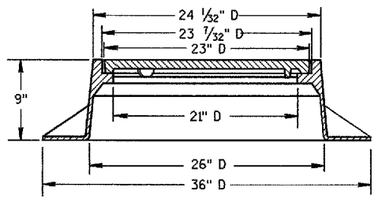
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 415 LBS.)

FRAME.....210 LBS.
LID.....205 LBS.

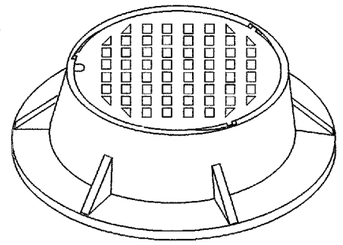


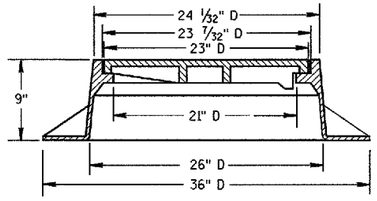


TYPE "J"

(APPROXIMATE WEIGHT 250 LBS.)

FRAME.....135 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 245 LBS.)

FRAME.....145 LBS.
LID.....100 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

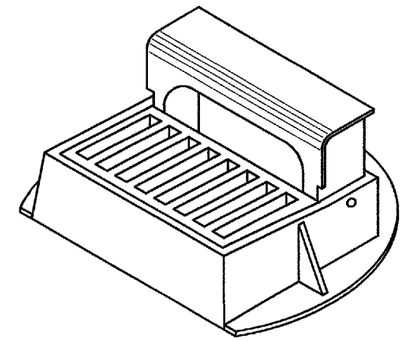
GENERAL NOTES

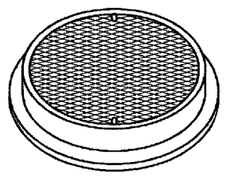
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

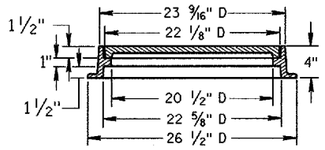
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



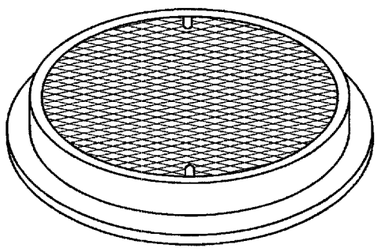


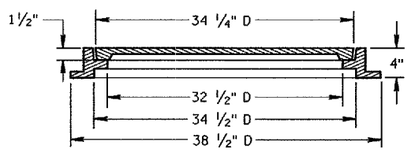


TYPE "L"

(APPROXIMATE WEIGHT 145 LBS.)

FRAME.....75*
LID.....70*

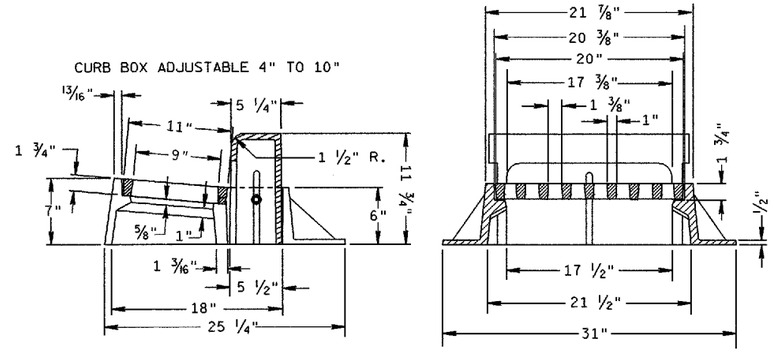




TYPE "M"

(APPROXIMATE WEIGHT 385 LBS.)

FRAME.....125*
LID.....260*



INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 340 LBS.)

FRAME.....198 LBS.
GRATE.....50 LBS.
CURB BOX.....92 LBS.

INLET COVER, TYPE Z
MANHOLE COVERS, TYPE
K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/04/99
DATE

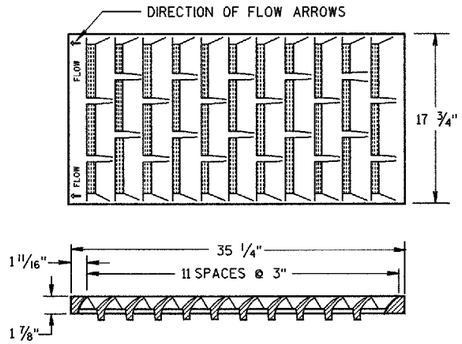
Roy L. Thomas
CHIEF ROADWAY DEVELOPMENT ENGINEER

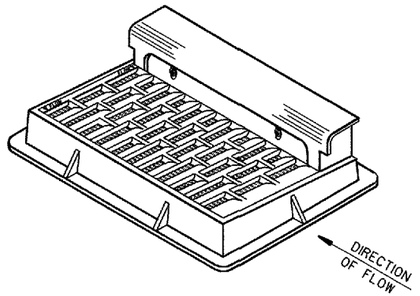
FHWA

S.D.D. 8 A 5-16d

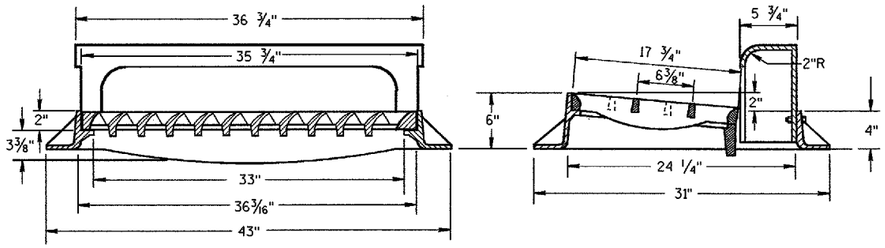
S.D.D. 8 A 5-16d

NOTE:
GRATE IS REVERSIBLE.





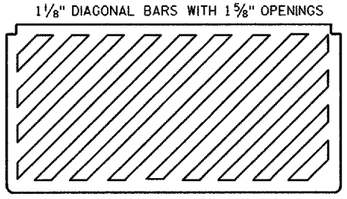
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



TYPE "H"

(APPROXIMATE WEIGHT 422 LBS.)
FRAME..... 175 LBS.
GRATE..... 138 LBS.
CURB BOX..... 109 LBS.

1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 172 LBS.)
GRATE..... 172 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

S.D.D. 8 A 5-16a

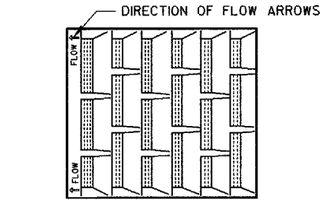
GENERAL NOTES

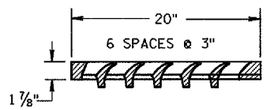
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

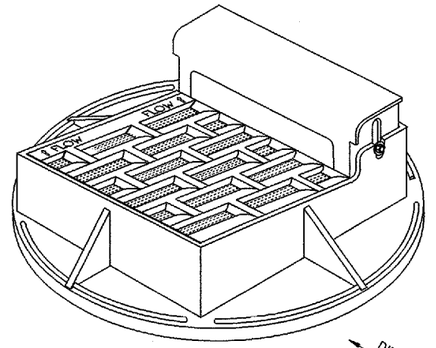
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

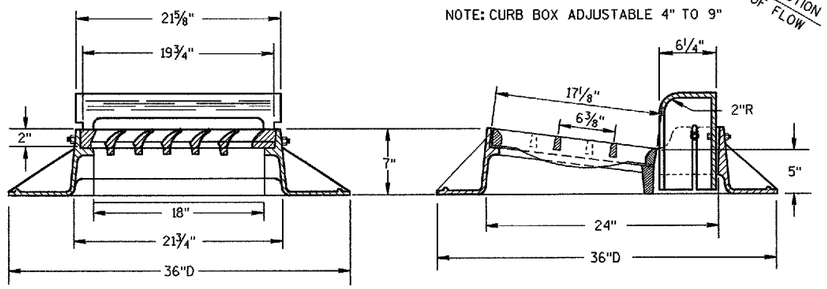






NOTE: CURB BOX ADJUSTABLE 4" TO 9"

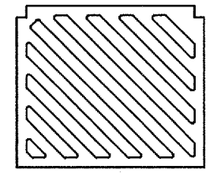
NOTE:
GRATE IS REVERSIBLE.



TYPE "A"

(APPROXIMATE WEIGHT 325 LBS.)
FRAME..... 157 LBS.
GRATE..... 84 LBS.
CURB BOX..... 84 LBS.

1" DIAGONAL BARS WITH 1 1/2" OPENINGS



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8"
GRATE..... 84 LBS.

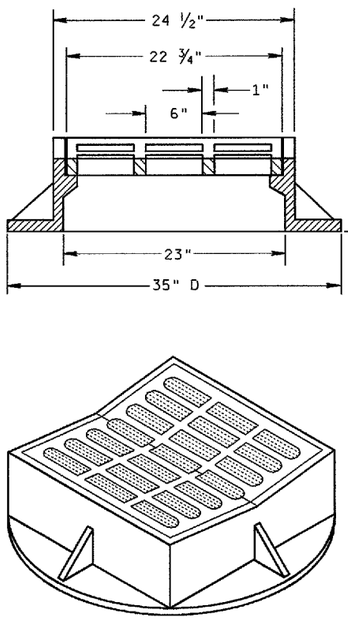
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

INLET COVERS
TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/04/99
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

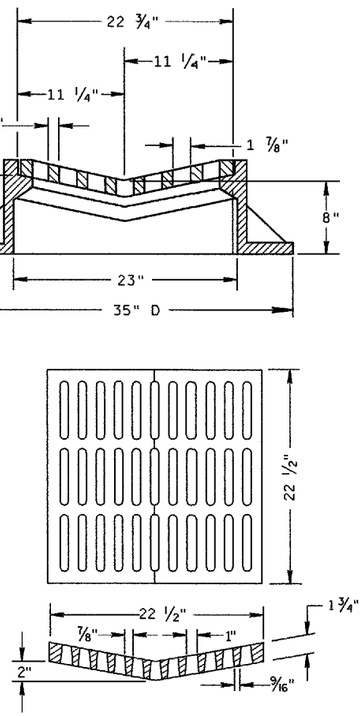
S.D.D. 8 A 5-16a



TYPE "B"

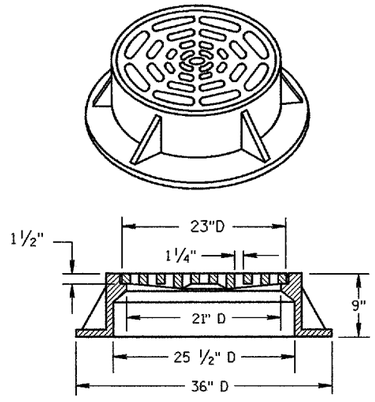
(APPROXIMATE WEIGHT 395 LBS.)

FRAME..... 285 LBS.
GRATE..... 110 LBS.



ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 125 LBS.)
GRATE.....125 LBS.
USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 340 LBS.)

FRAME..... 235 LBS.
GRATE..... 105 LBS.

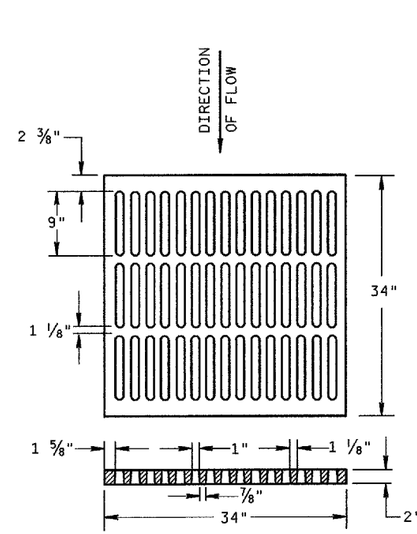
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

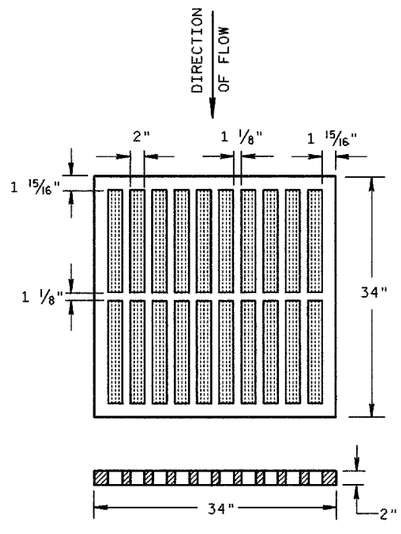
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



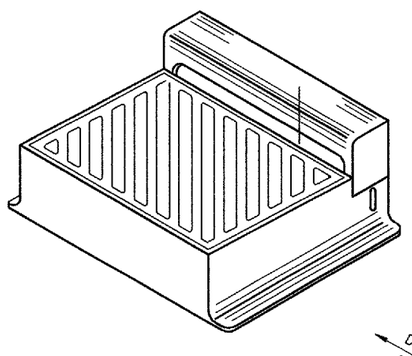
ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 365 LBS.)
GRATE.....365 LBS.
USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

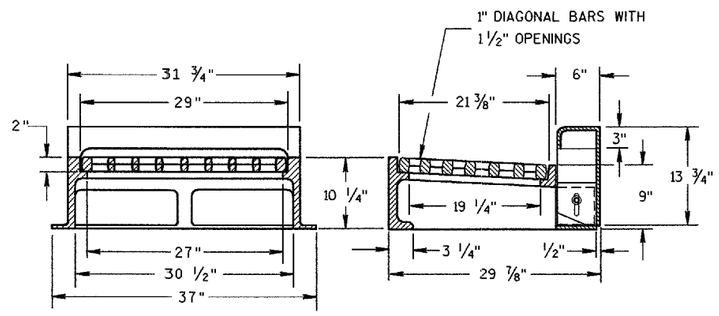


TYPE "MS"

(APPROXIMATE GRATE WEIGHT 270 LBS.)
GRATE.....270 LBS.
USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 670 LBS.)

FRAME..... 360 LBS.
GRATE..... 160 LBS.
CURB BOX..... 150 LBS.

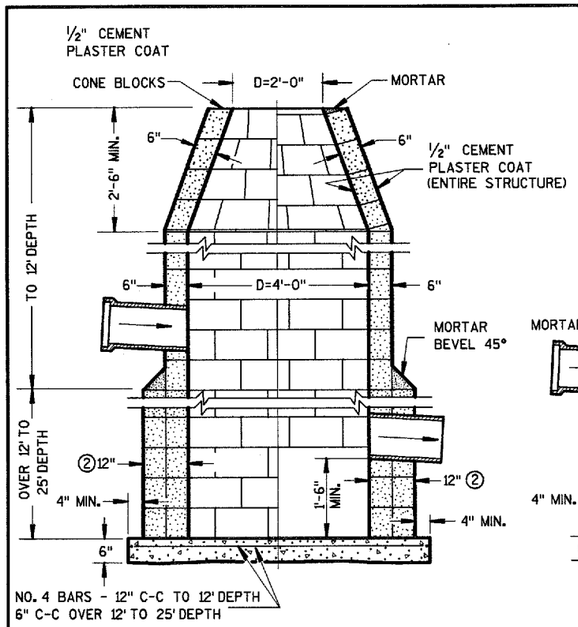
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

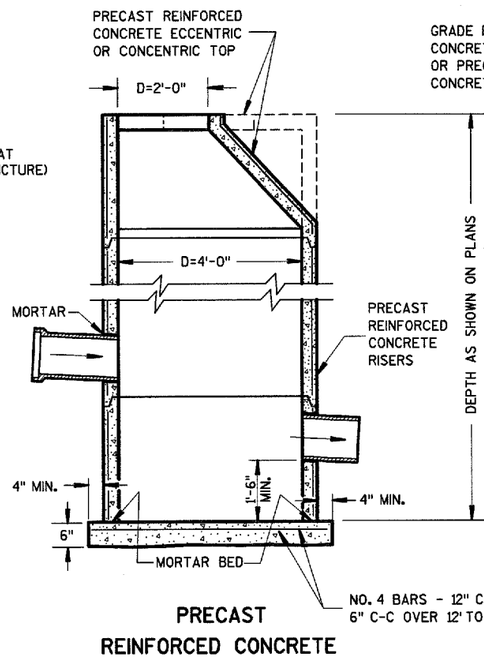
APPROVED 10/04/99 (DATE)
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

S.D.D. 8 A 5-16b

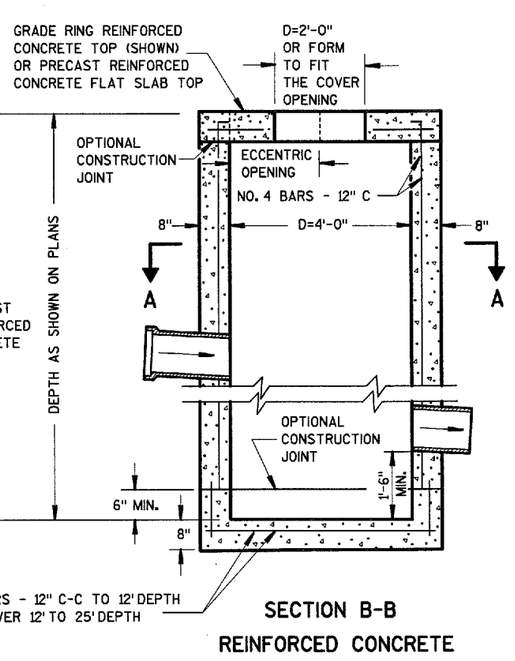
S.D.D. 8 A 5-16b



CONCRETE BLOCK

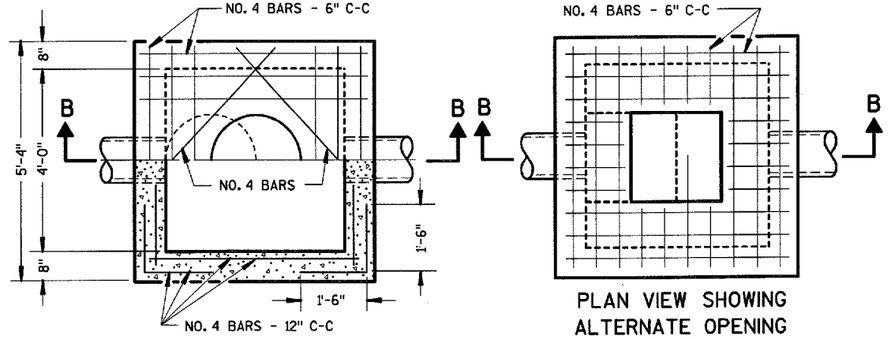


PRECAST REINFORCED CONCRETE



SECTION B-B
REINFORCED CONCRETE

CATCH BASINS, TYPE 1



HALF SECTION A-A

PLAN VIEW SHOWING ALTERNATE OPENING

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

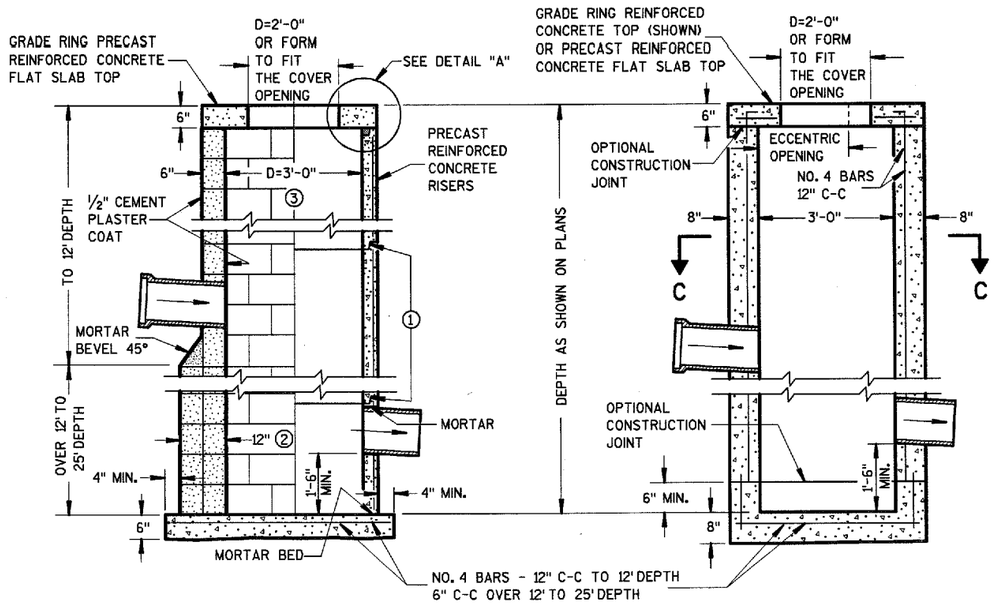
THE "PRECAST REINFORCED CONCRETE FLAT SLAB TOP" OPTION IS REQUIRED ON CATCH BASINS, TYPE 1 WHEN 2' X 3' OPENING INLET COVERS ARE REQUIRED.

① PRECAST REINFORCED CONCRETE RISERS SHALL BE PLACED WITH THE TONGUE DOWN WHEN GRADE RINGS ARE USED FOR THE SLAB TOP.

② 2 COURSES 6" BLOCK.

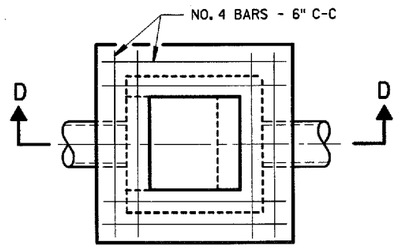
③ WHEN THE CONNECTING PIPES ARE 24" OR LARGER THE PRECAST CATCH BASIN MAY BE INCREASED TO 42" DIA.

CATCH BASINS, TYPE 2

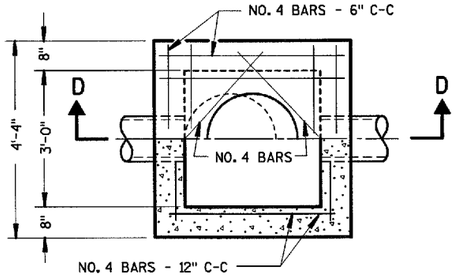


CONCRETE BLOCK — PRECAST REINFORCED CONCRETE

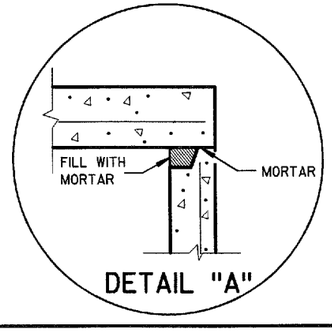
SECTION D-D
REINFORCED CONCRETE



PLAN VIEW SHOWING ALTERNATE OPENING



HALF SECTION C-C



DETAIL "A"

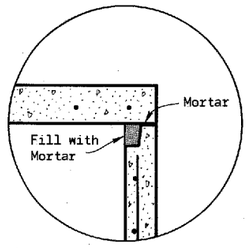
CATCH BASINS TYPE 1 & 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

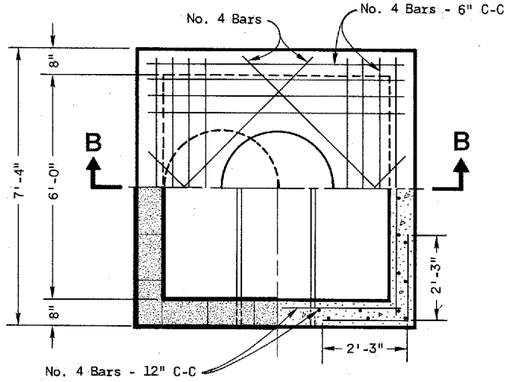
APPROVED 06/09/99 DATE
Tony A. Thomas
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

S.D.D. 8 A 6-4

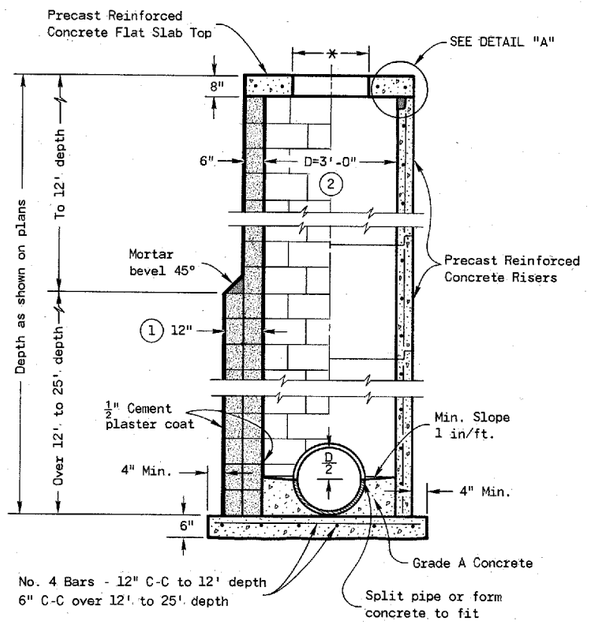
S.D.D. 8 A 6-4



DETAIL "A"

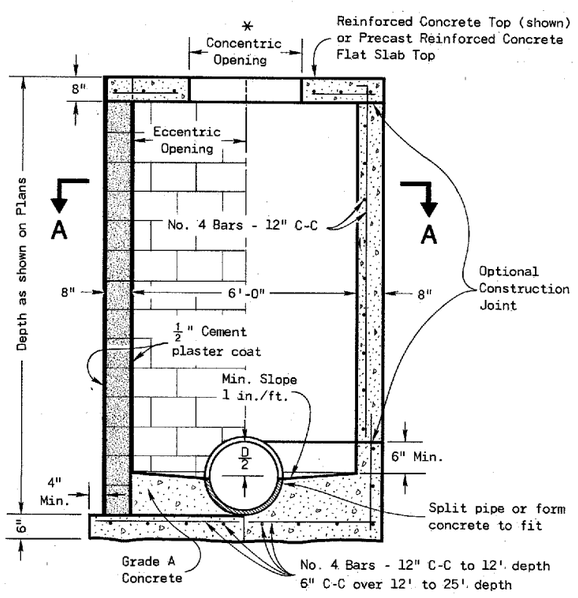


HALF SECTION A-A



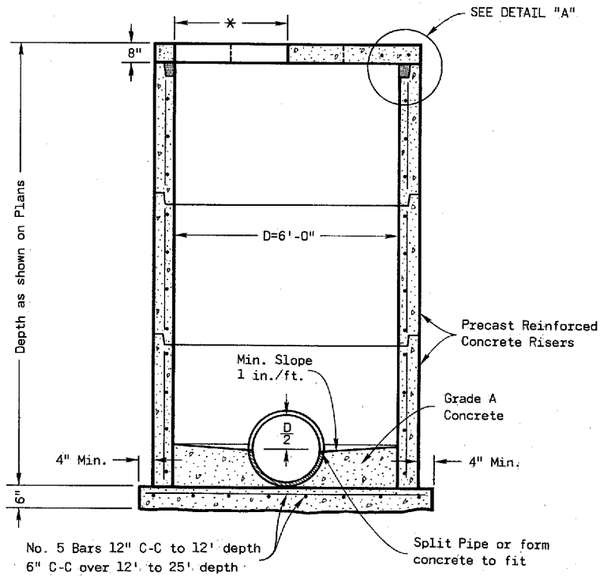
CONCRETE BLOCK | 2 PRECAST REINFORCED CONCRETE

MANHOLES TYPE 2



SECTION B-B

CONCRETE BLOCK | REINFORCED CONCRETE



PRECAST REINFORCED CONCRETE

MANHOLES TYPE 3

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Detailed drawings for proposed alternate designs for underground drainage structures shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

All drainage structures are designated on the plans as "Manholes 1-C", "Catch Basins 1-B", "Inlets 3-H", etc. The first digit designates the masonry portion of the structure , and the following letter designates the type of cover to be used to comprise the complete unit.

Precast Reinforced Bases shall be placed on a bed of material at least 6" in depth, which meets the requirements for Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Steps meeting the following requirements shall be installed in all structures over 5 feet in depth: 16 inch C-C maximum spacing; project a minimum clear distance of 4 inches from the wall at the point of embedment; minimum length of 10 inches; minimum wall embedment of 3 inches; and capable of supporting a concentrated load of 300 lbs. Ferrous metal steps not painted or treated to resist corrosion shall have a minimum cross sectional dimension of 1 inch.

Solid Aluminum steps shall have a minimum cross sectional dimension of 0.75 inch. Aluminum surfaces to be embedded in concrete shall be given one coat of suitable quality paint, such as zinc chromate primer conforming to federal specification TT-P-645 or equivalent. Steps of approved Polypropylene plastic coated reinforcement bar are acceptable.

All bar steel reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers shall be placed with tongue down.

All precast inlet units shall conform to the pertinent requirements of AASHTO Designation M 199.

* Use 2'-0" diameter opening with type "C", "L", and "J" covers, or 3'-0" diameter with type "K" and "M" covers.

(1) 2 courses 6" block.

(2) When connecting pipes are 24" or larger the Precast Manholes may be increased to 42" diameter.

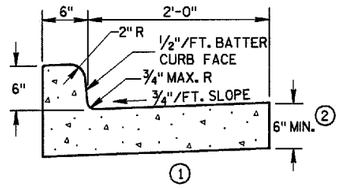
MANHOLES TYPE 2 & 3

State of Wisconsin
Department of Transportation

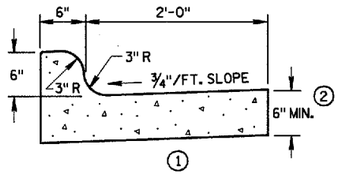
APPROVED 4-13-82 DATE
CHIEF DESIGN ENGINEER
FHWA

S.D.D. 8 B 7-3

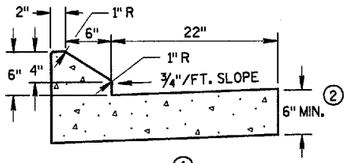
S.D.D. 8 B 7-3



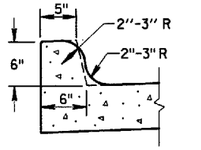
1
TYPES A & D



1
TYPES K & L

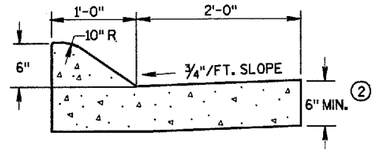


1
TYPES G & J

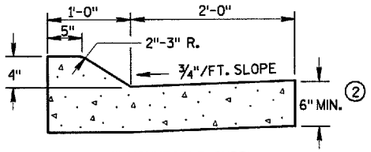


OPTIONAL CURB SHAPE
1
FOR TYPES K & L

CONCRETE CURB & GUTTER 30"



(6" MOUNTABLE CURB)



(4" MOUNTABLE CURB)

1
TYPES A & D

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

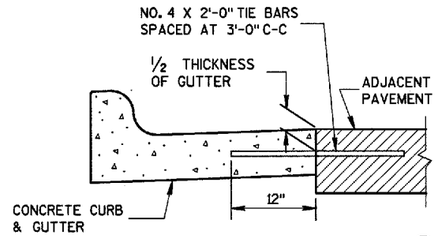
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

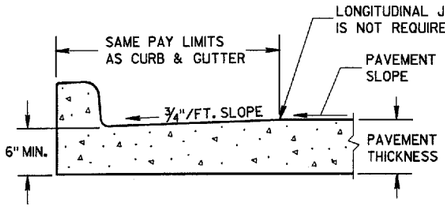
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G AND K.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

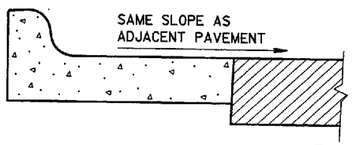
(3) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



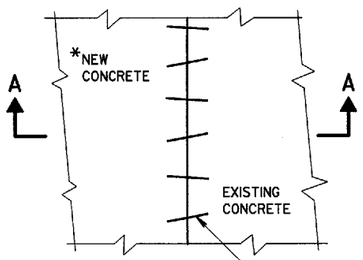
1
TYPICAL TIE BAR LOCATION



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

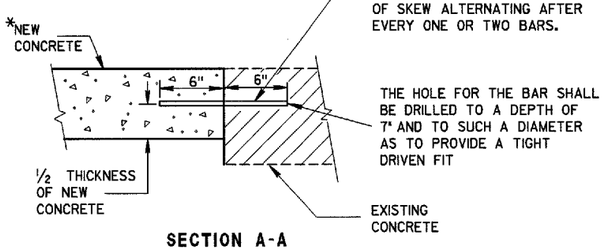


3
REVERSE SLOPE GUTTER
(TYPICAL FOR ALL CURB & GUTTER TYPES)



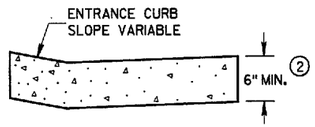
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

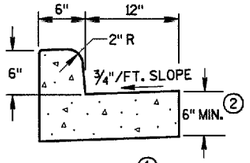


SECTION A-A

PAVEMENT TIES

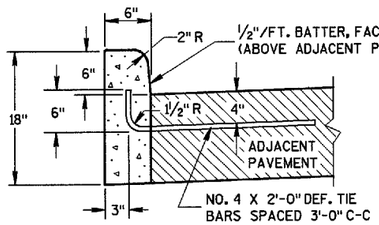


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

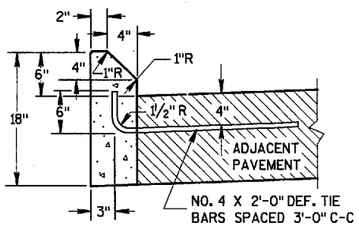


1
TYPES A & D

CONCRETE CURB & GUTTER 18"



1
TYPES A & D



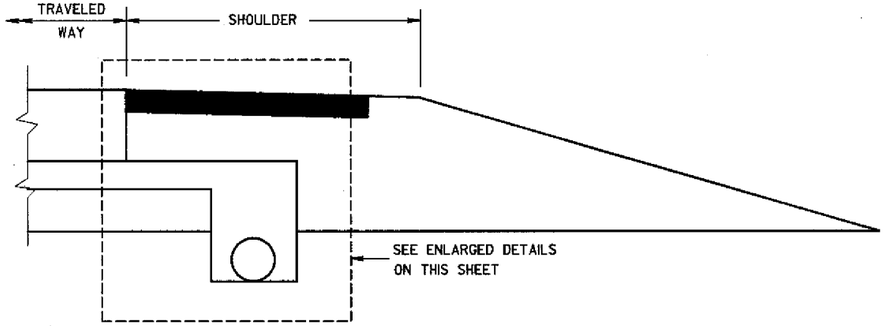
1
TYPES G & J

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND PAVEMENT TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 04/16/99 DATE	Roy L. Amundson CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 D 1-13

S.D.D. 8 D 1-13



RURAL CROSS SECTION

NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

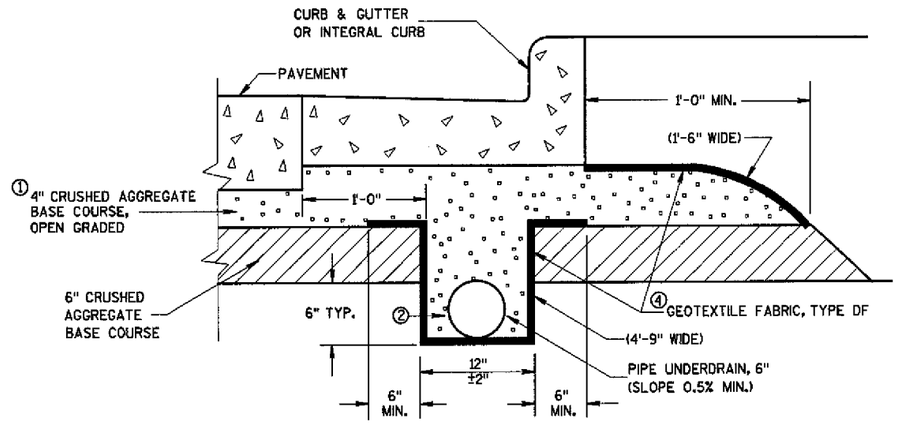
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

① THE GRADATION OF THE OPEN GRADED BASE COURSE SHALL BE EITHER NO. 1 OR NO. 2 AS SPECIFIED ELSEWHERE IN THE CONTRACT.

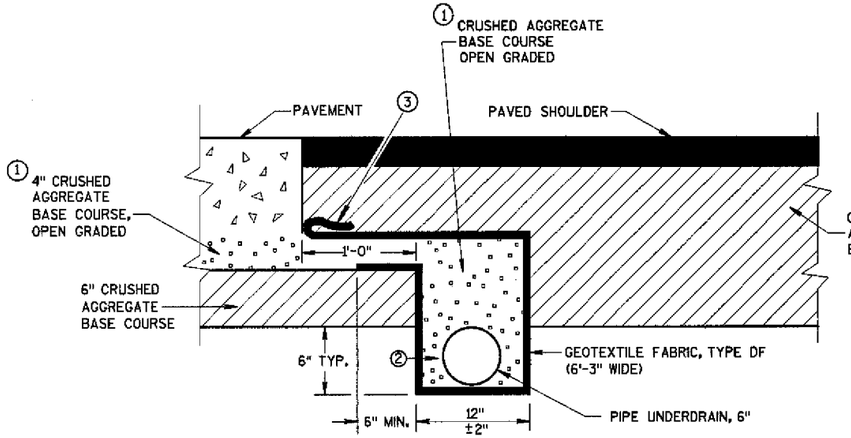
② TRENCH BACKFILL WILL BE PAID FOR AS CRUSHED AGGREGATE BASE COURSE, OPEN GRADED NO. 1 OR NO. 2 AS SPECIFIED.

③ FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.

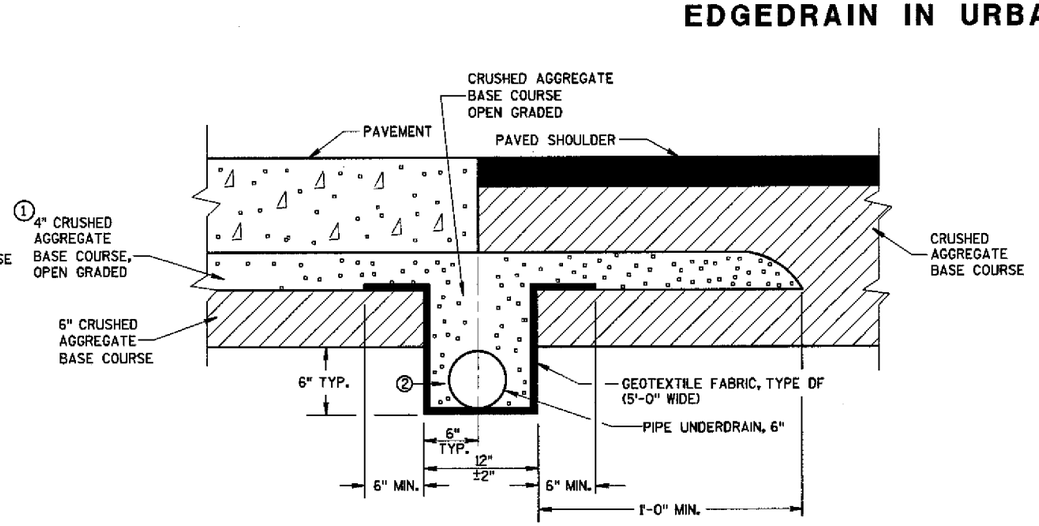
④ TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATE

EDGEDRAIN IN RURAL ROADWAY

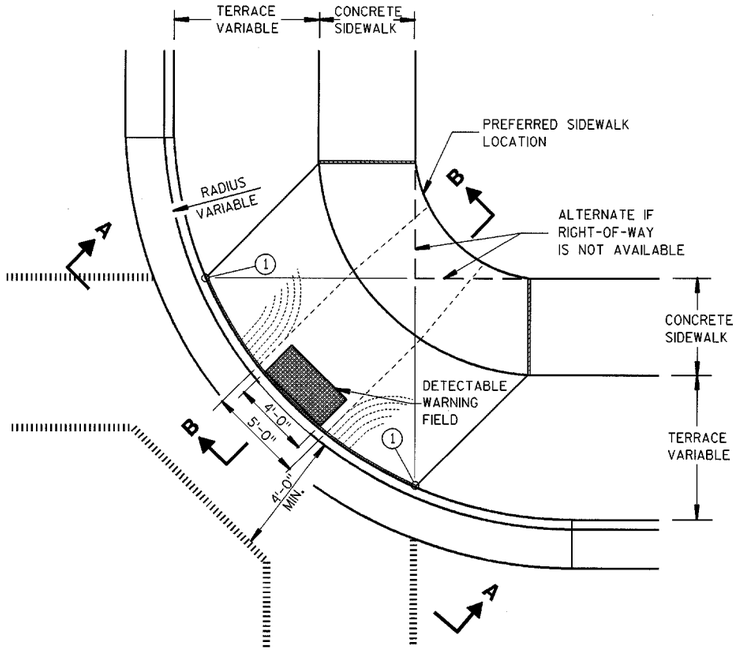
EDGEDRAIN AND CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, NO.1 OR NO. 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

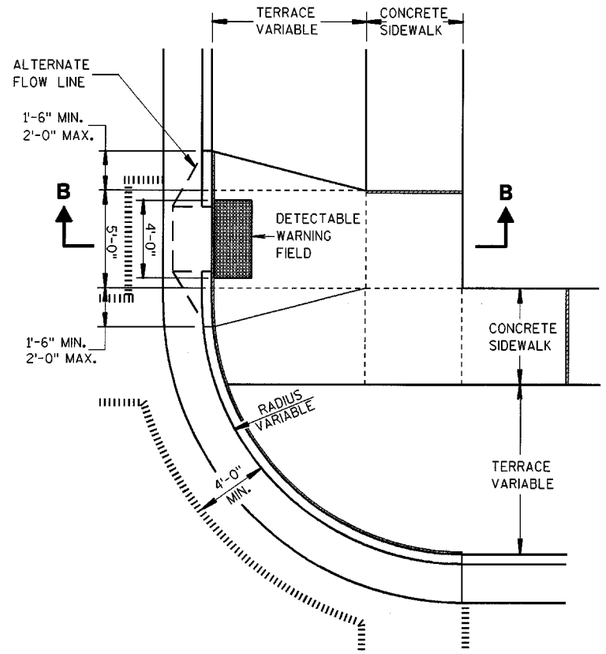
APPROVED 01/15/99 (DATE) — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

S.D.D. 8 D 15-3b

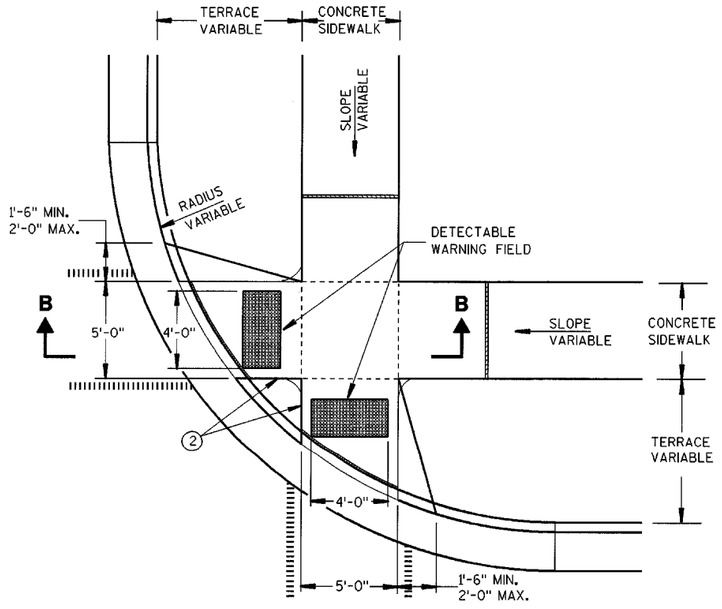
S.D.D. 8 D 15-3b



PLAN VIEW
TYPE 1 RAMP
(CENTER OF CORNER RADIUS)



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". ALL OTHER CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

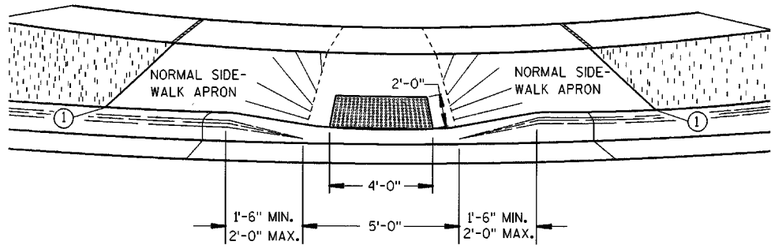
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

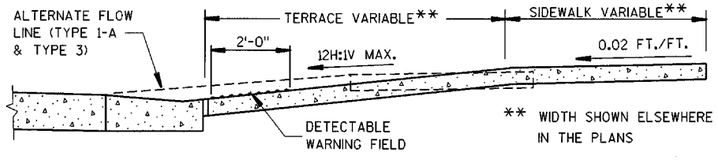
(2) WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



VIEW A-A



SECTION B-B

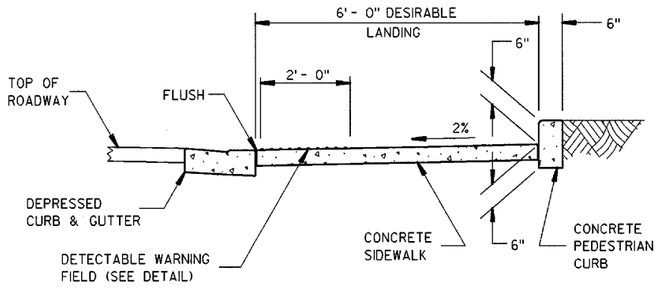
CURB RAMPS
TYPES 1, 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

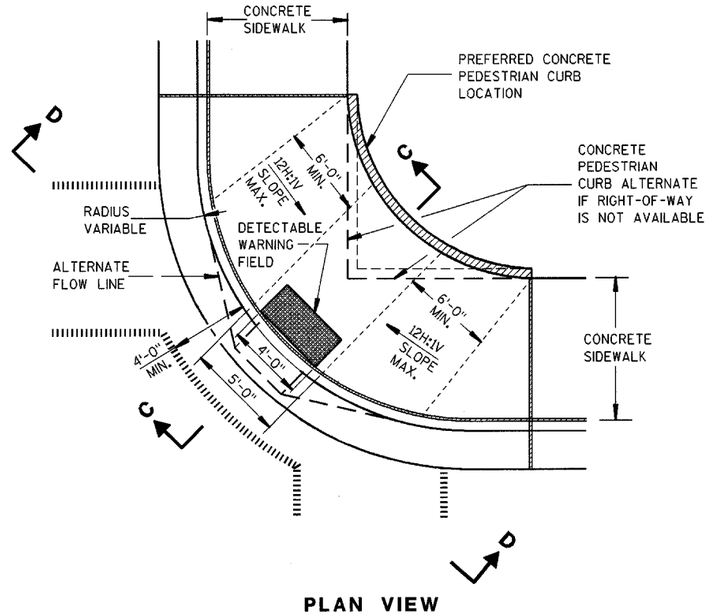
6

S.D.D. 8 D 5-9a

S.D.D. 8 D 5-9a



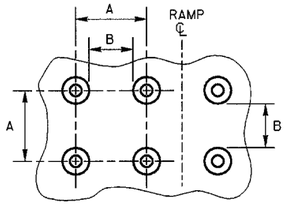
SECTION C-C



PLAN VIEW

TYPE 1-A RAMP

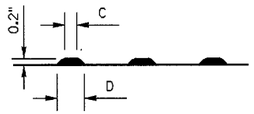
(NO TERRACE)



PLAN VIEW

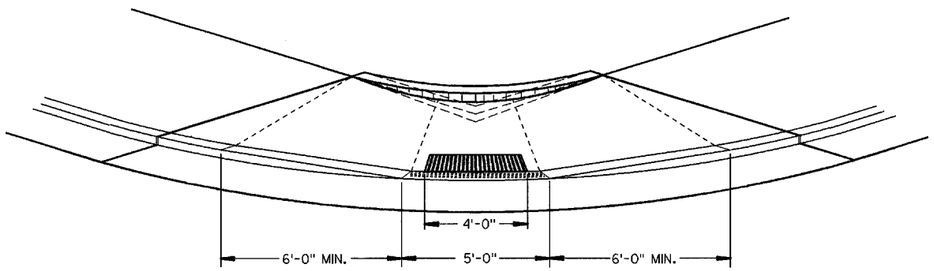
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

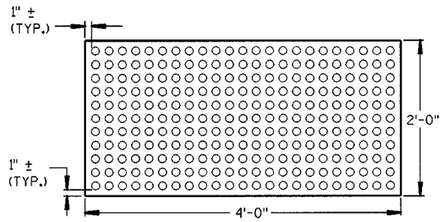
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



VIEW D-D

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

6

CURB RAMPS
TYPE 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

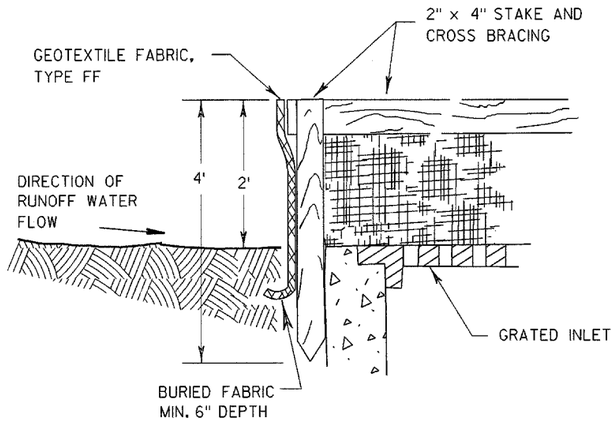
APPROVED 6/25/03
DATE

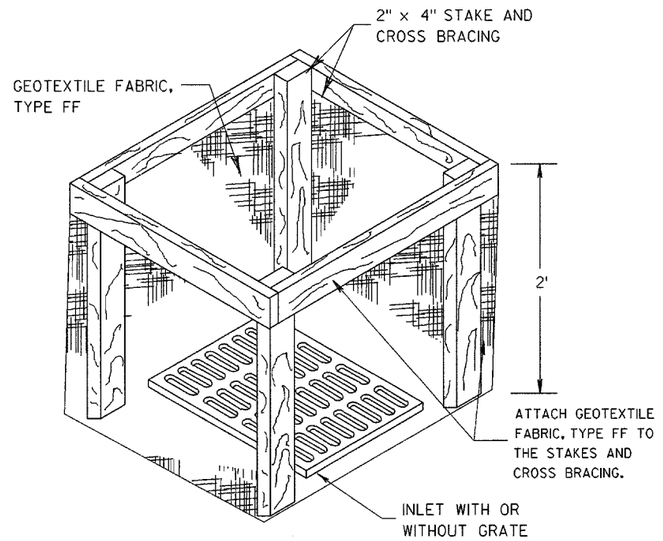
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

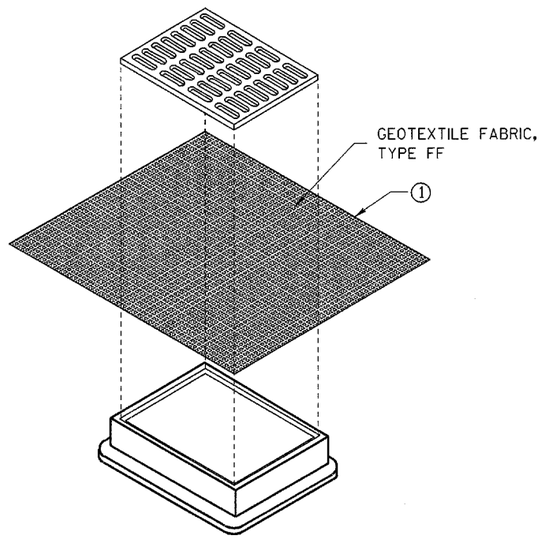
S.D.D. 8 D 5-9b

S.D.D. 8 D 5-9b



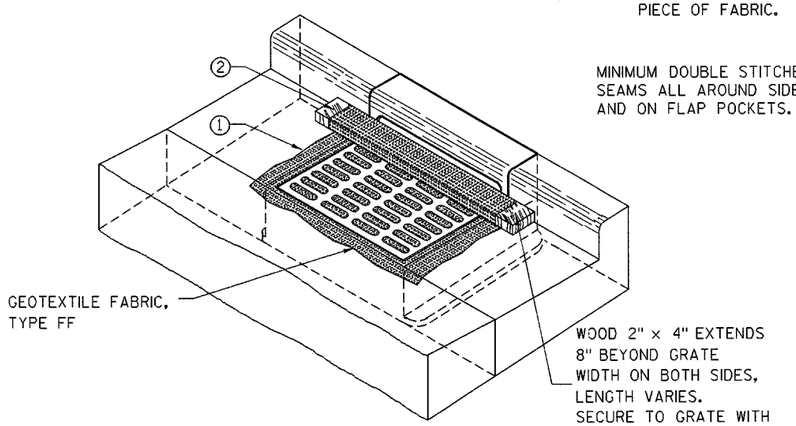


INLET PROTECTION, TYPE A

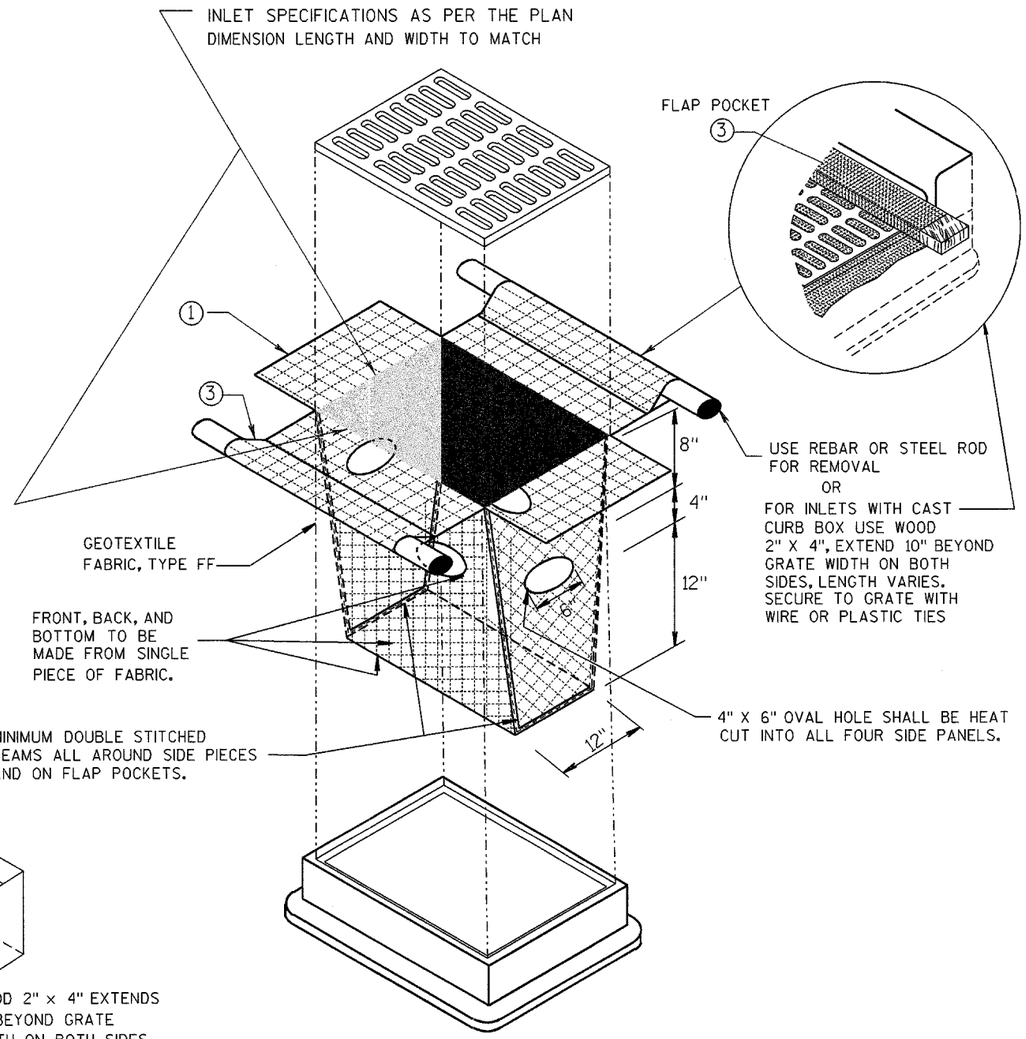


INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE

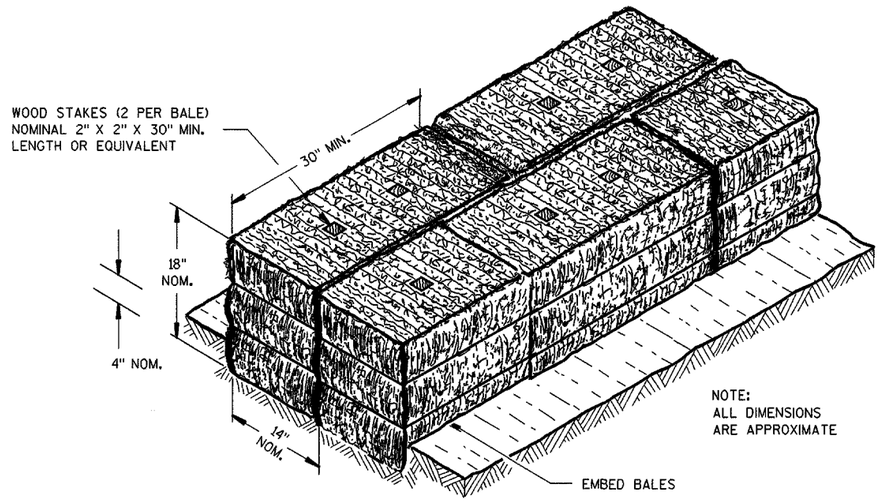
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

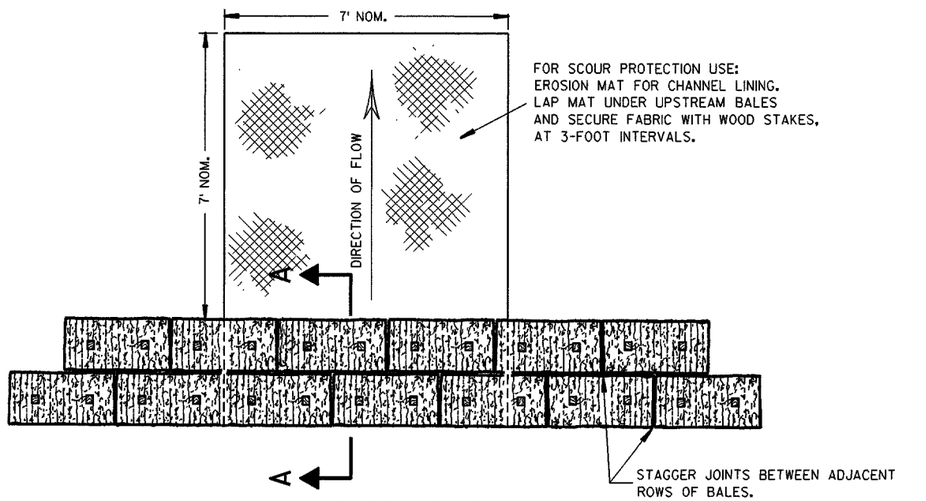
6

S.D.D. 8 E 10-2

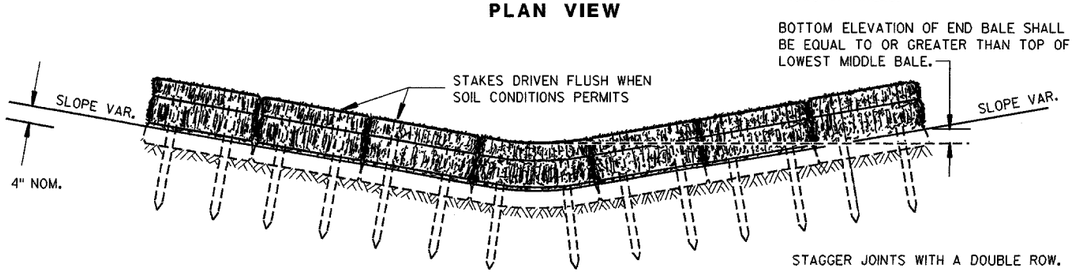
S.D.D. 8 E 10-2



SECTION A-A



PLAN VIEW



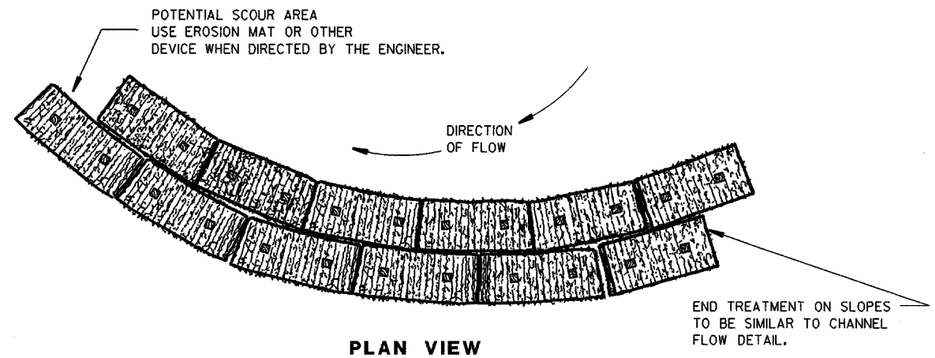
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

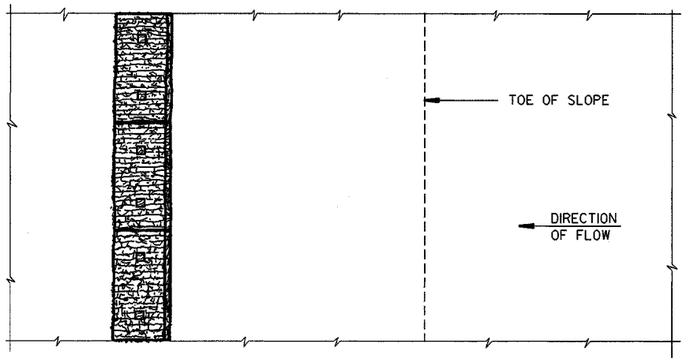
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

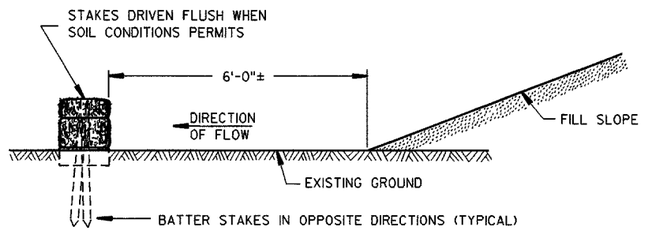


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

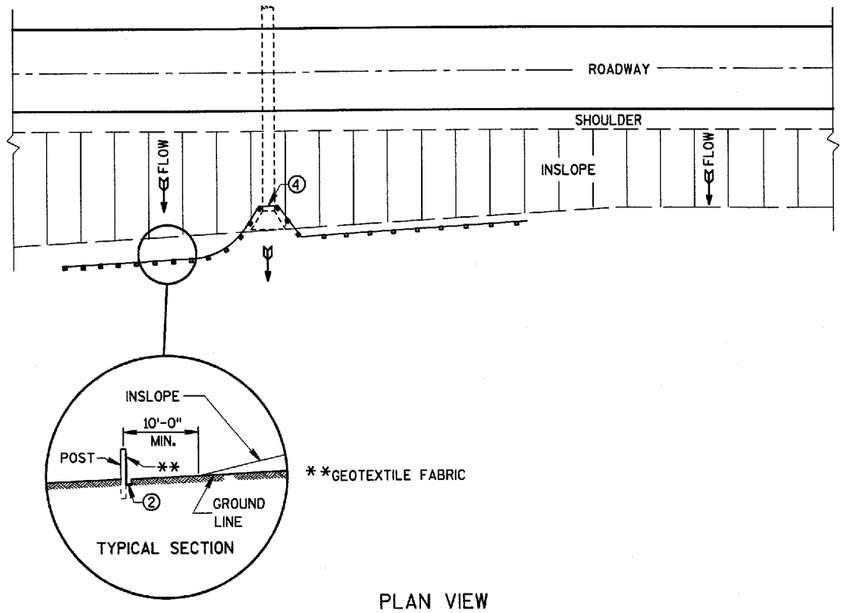
APPROVED
6/4/02
DATE

CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

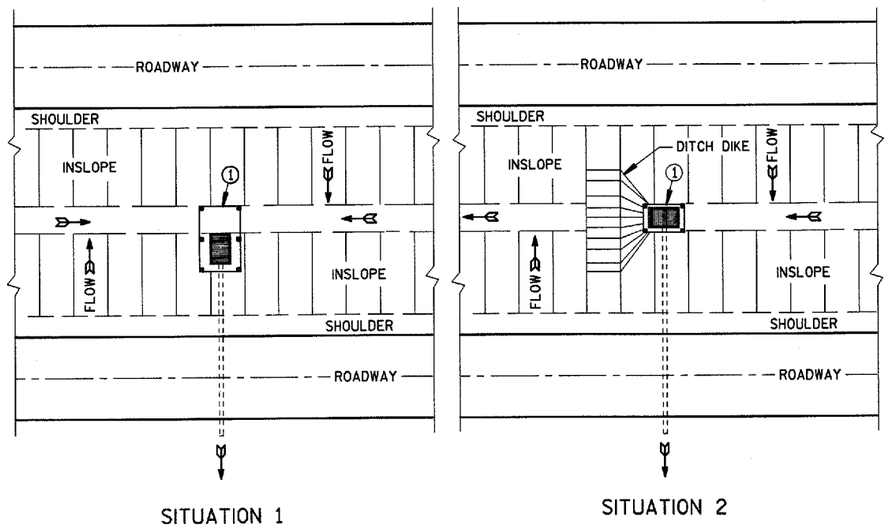
S.D.D. 8 E 8-3

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

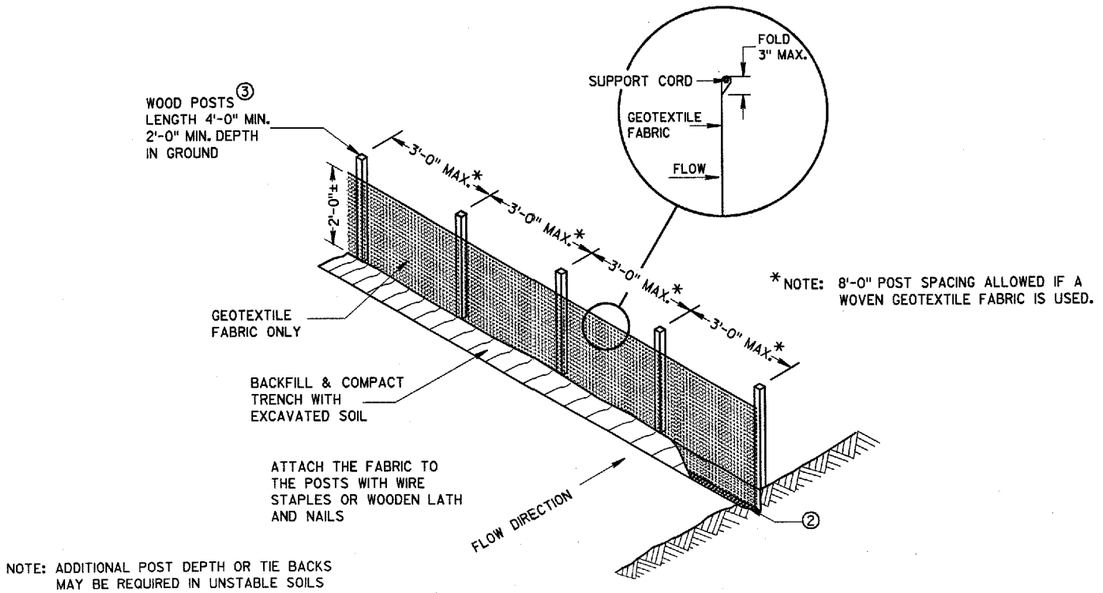
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

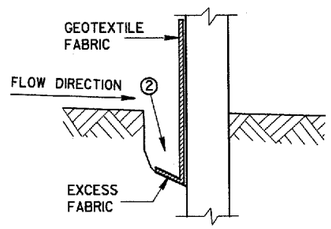
② TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

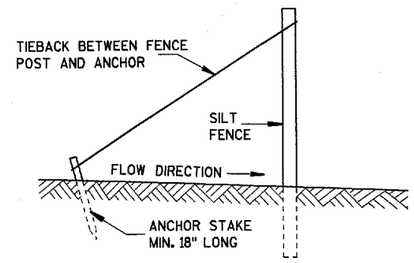
④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.



SILT FENCE



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 03/06/00 DATE

Doug L. Thiessen
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

S.D.D. 8 E 9-5

S.D.D. 8 E 9-5

METAL APRON ENDWALLS

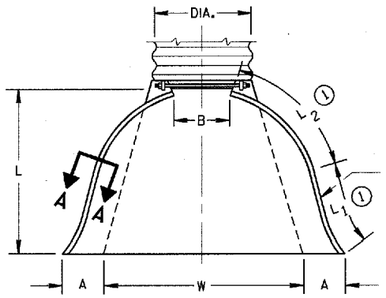
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

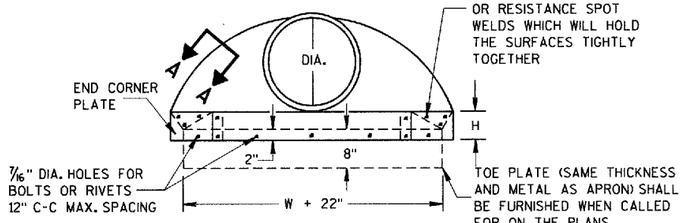
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

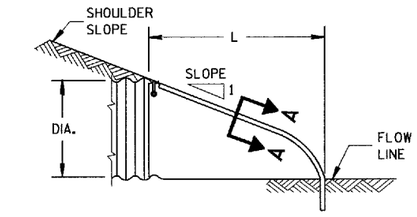
*MINIMUM
**MAXIMUM



PLAN VIEW

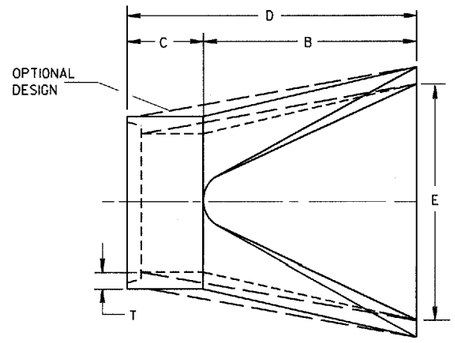


END VIEW

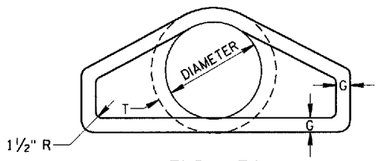


SIDE ELEVATION

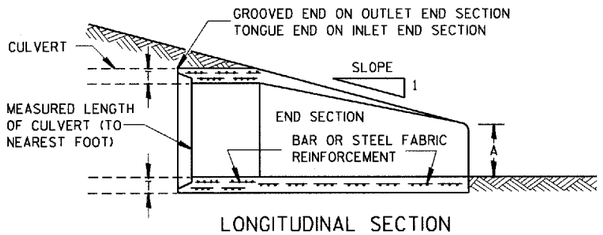
METAL ENDWALLS



PLAN

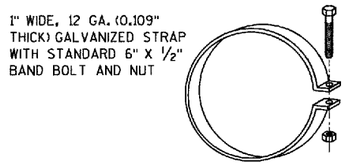


END VIEW



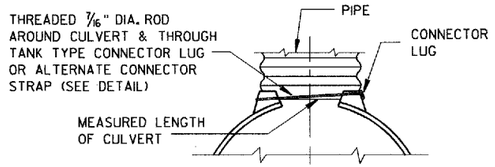
LONGITUDINAL SECTION

CONCRETE ENDWALLS

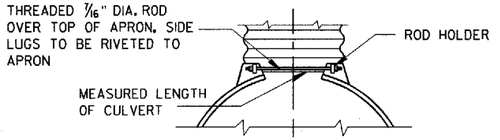


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

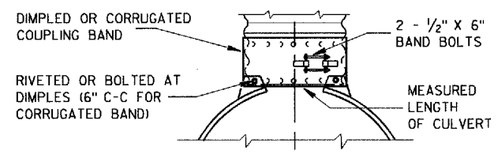


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

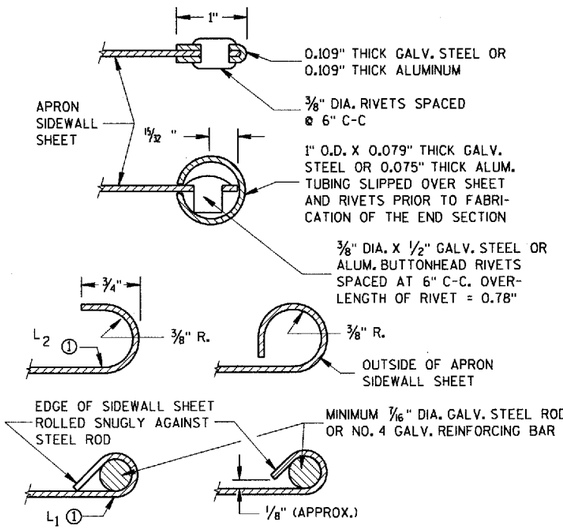
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

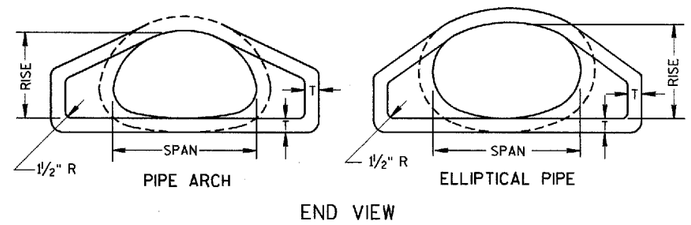
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

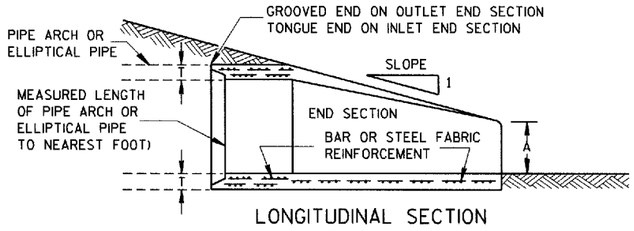
APPROVED 11/30/94 DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

S.D.D. 8 F 1-11

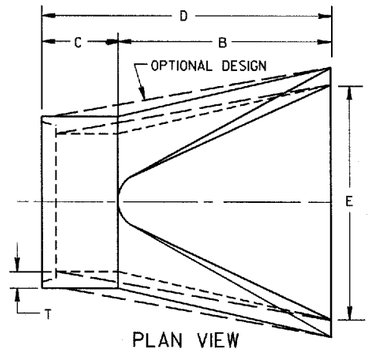
S.D.D. 8 F 1-11



END VIEW

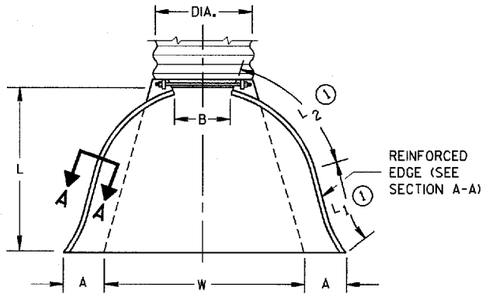


LONGITUDINAL SECTION

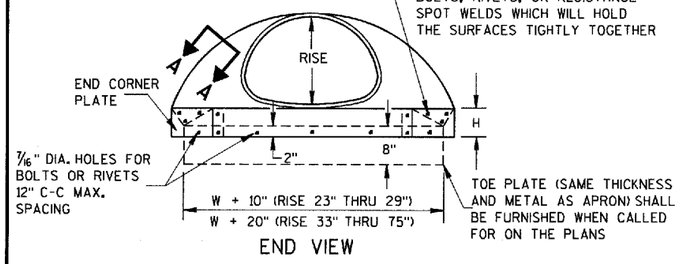


PLAN VIEW

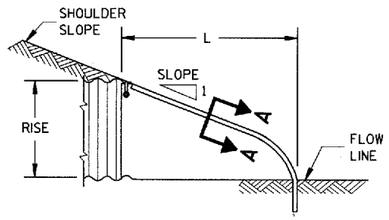
CONCRETE ENDWALLS



PLAN VIEW

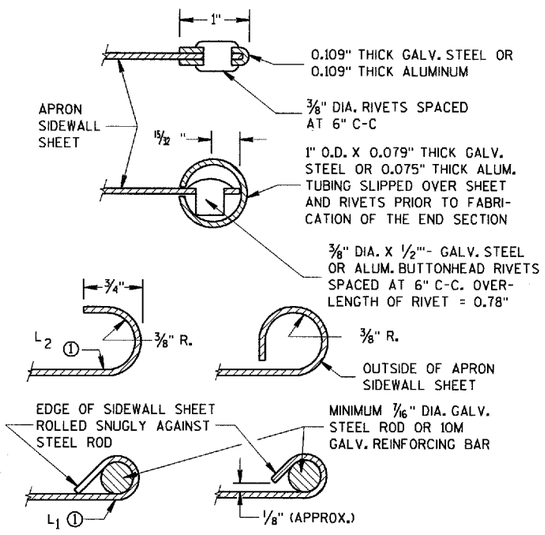


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- ⅔" X ½" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1½")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1½")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

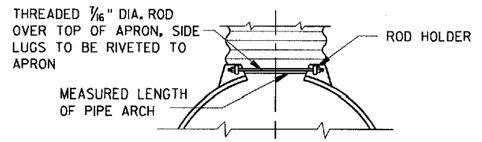
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15⅜	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

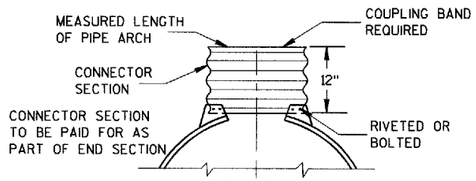
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

** NOMINAL SIZE



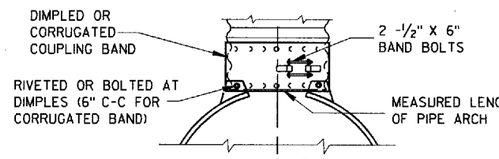
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

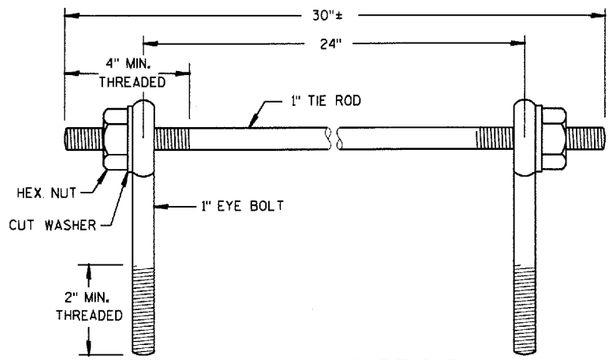
APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

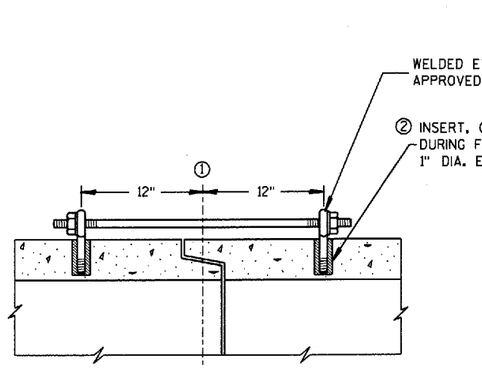
APPROVED
11/30/94 DATE
Roy D. Thompson CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

S.D.D. 8 F 2-1

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

CONCRETE CULVERT PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED ON THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES. UNLESS OTHERWISE STATED IN THE CONTRACT THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE CULVERT PIPE AS INDICTED ON THE PLANS AND BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO CILVERT PIPE, REINFORCED CONCRETE CULVERT PIPE, OR REINFORCED CONCRETE PIPE CATTLE PASS.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

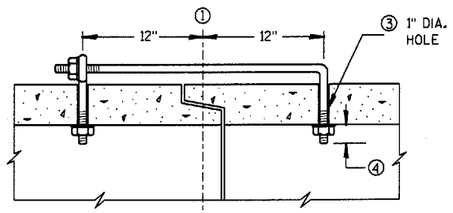
③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12" FROM ℄ OF TONGUE AND GROOVE.

④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2".

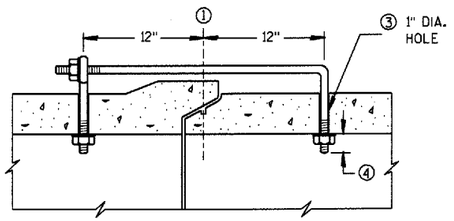
⑤ ROD DIAMETER + 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(TONGUE & GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

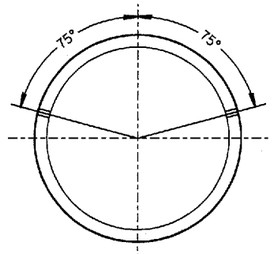
EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

ADJUSTABLE TIE ROD TABLE

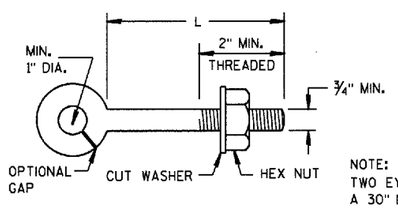
PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



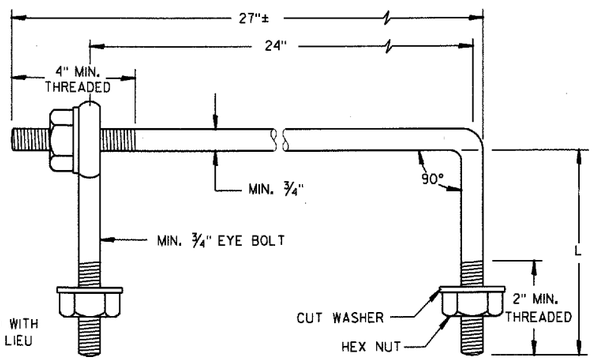
PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



EYE BOLT

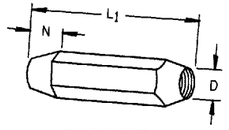
NOTE:
TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



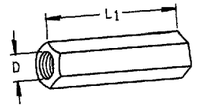
EYE BOLT AND TIE ROD

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)



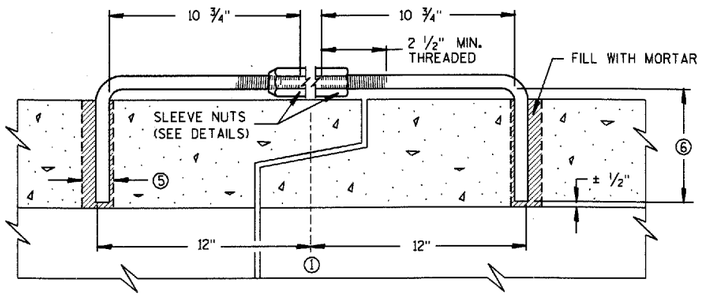
TAPERED



PLAIN

RIGHT AND LEFT THREADS

SLEEVE NUTS



LONGITUDINAL SECTION

(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)

JOINT TIES FOR CONCRETE PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

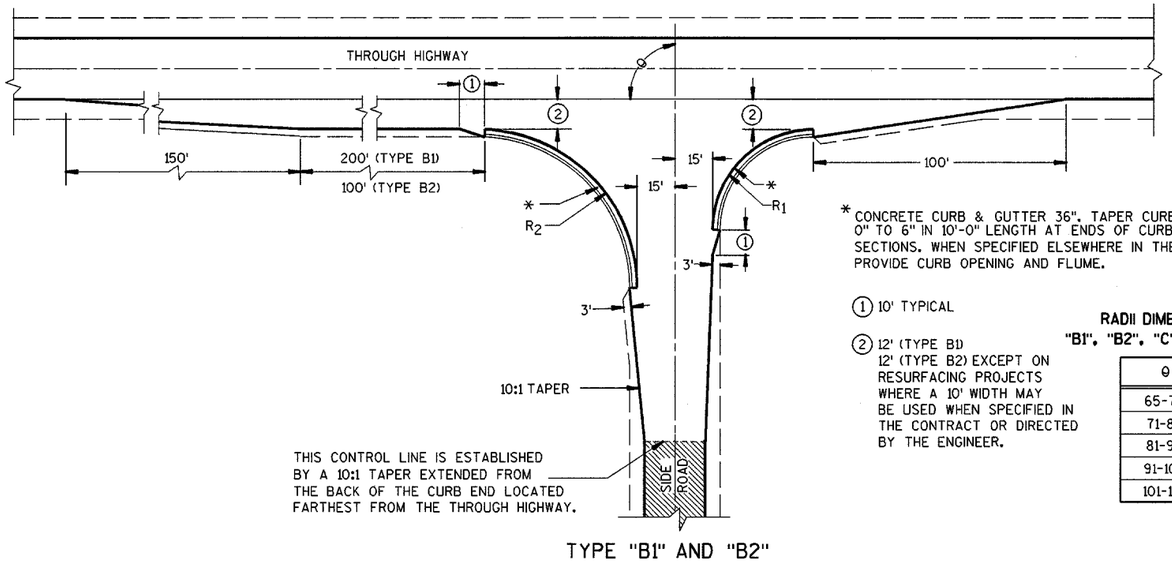
APPROVED 9/19/92 DATE

STATE DESIGN ENGINEER FOR HWYS

FHWA

S.D.D. 8 F 4-5

S.D.D. 8 F 4-5



TYPE "B1" AND "B2"

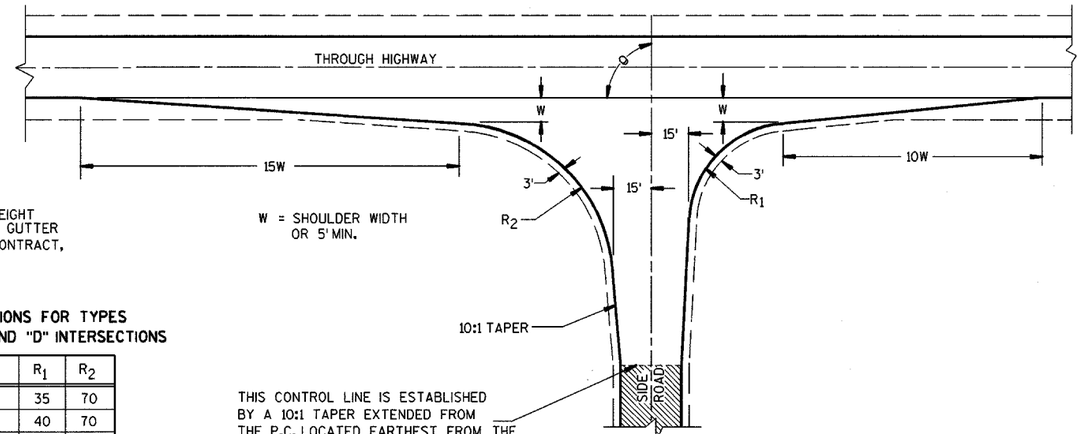
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

(1) 10' TYPICAL

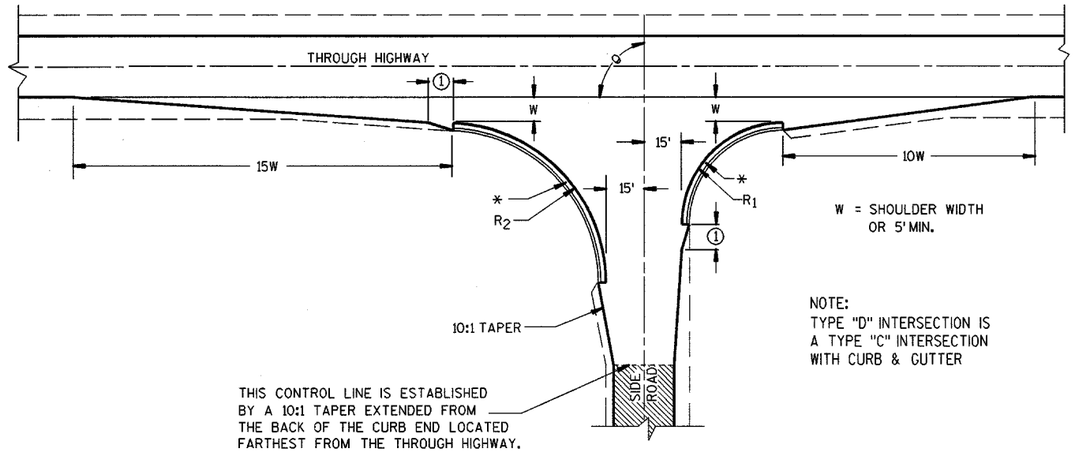
(2) 12' (TYPE B1)
12' (TYPE B2) EXCEPT ON RESURFACING PROJECTS WHERE A 10' WIDTH MAY BE USED WHEN SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

NOTE:
TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB & GUTTER

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

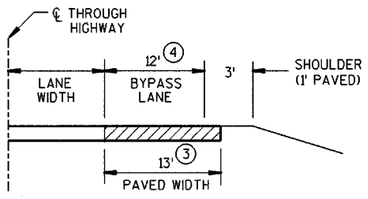
SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

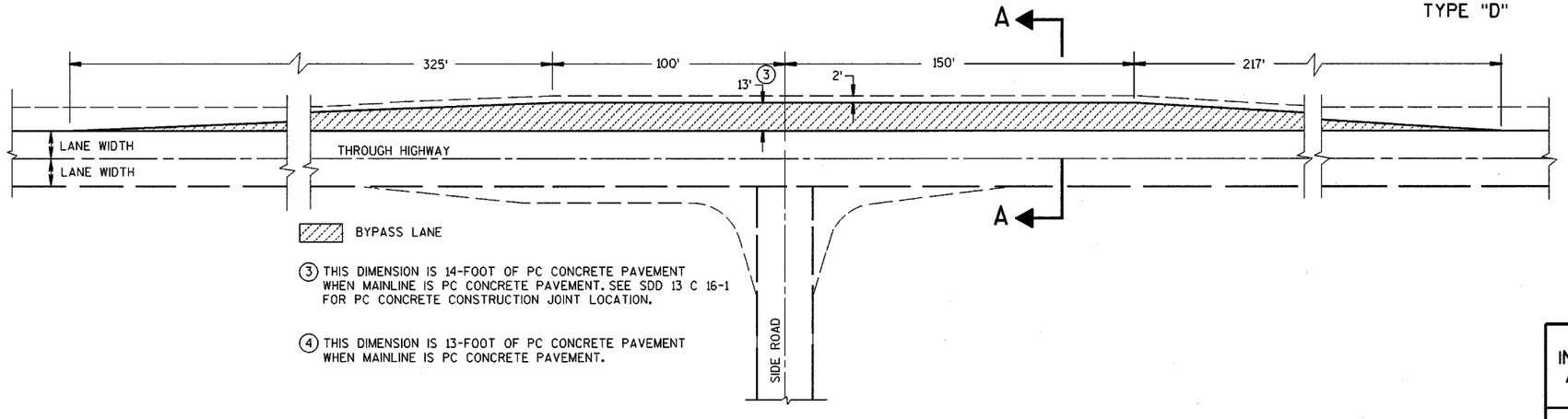
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

▨ EXISTING SURFACE



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



(3) THIS DIMENSION IS 14-FOOT OF PC CONCRETE PAVEMENT WHEN MAINLINE IS PC CONCRETE PAVEMENT. SEE SDD 13 C 16-1 FOR PC CONCRETE CONSTRUCTION JOINT LOCATION.

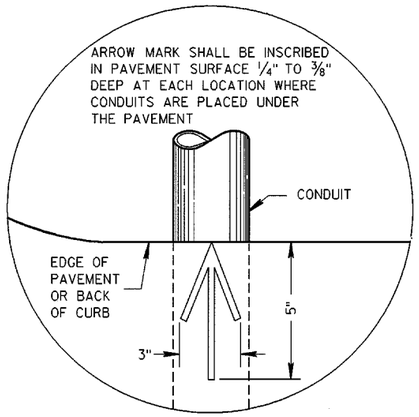
(4) THIS DIMENSION IS 13-FOOT OF PC CONCRETE PAVEMENT WHEN MAINLINE IS PC CONCRETE PAVEMENT.

TEE INTERSECTION BYPASS LANE DETAIL

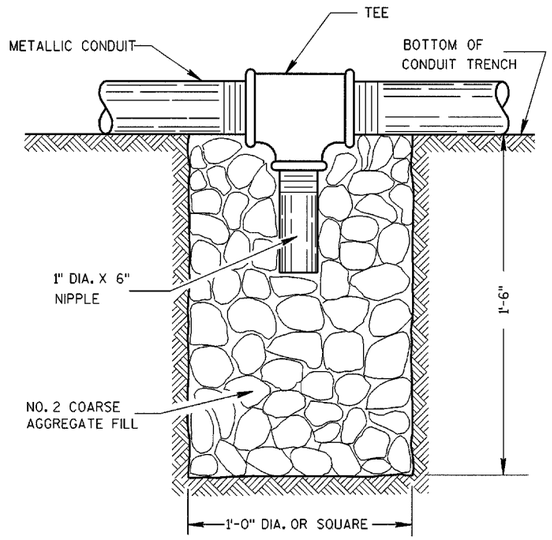
AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 9 A 1-12a

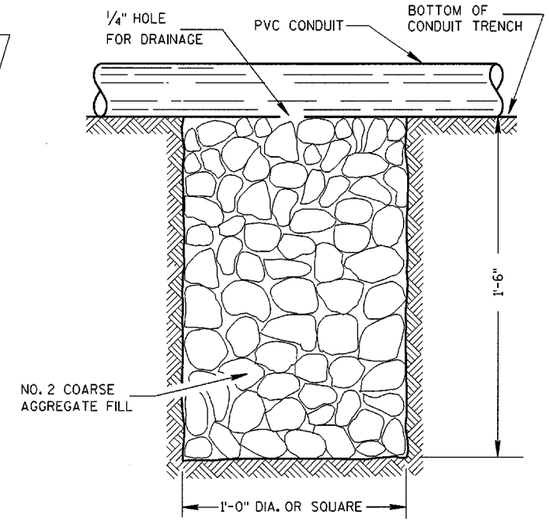


PLAN VIEW
ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

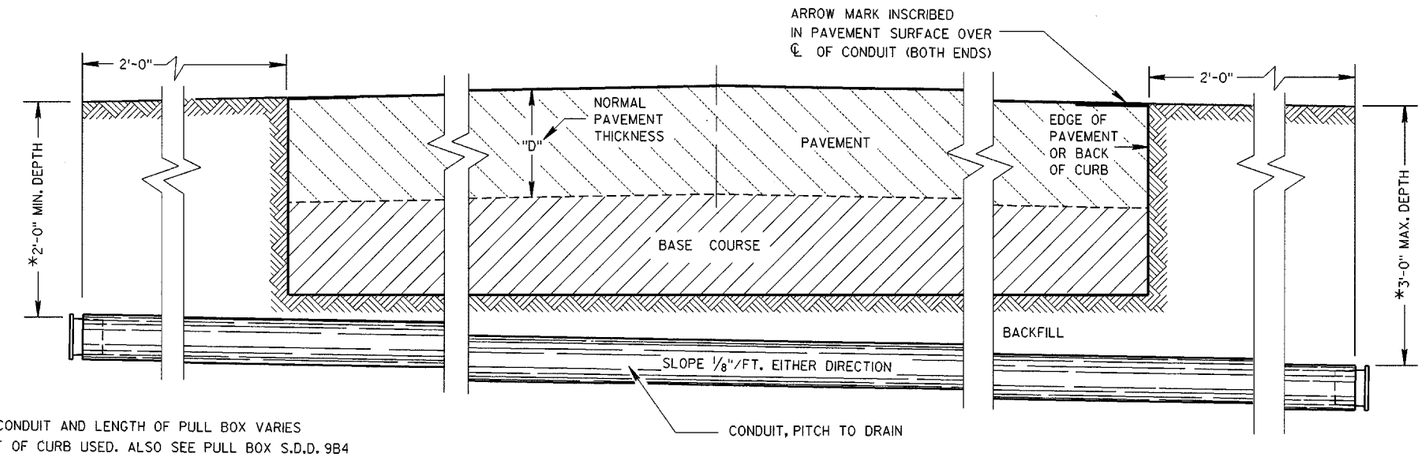
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

6

CONDUIT

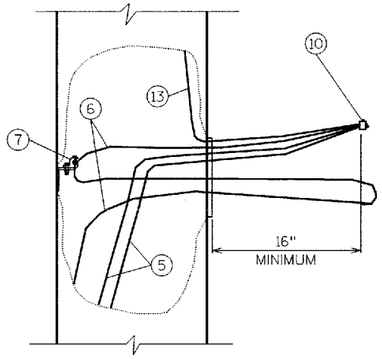
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/23/03
DATE
STATE ELECTRICAL ENGINEER FOR HIGHWAYS
FHWA

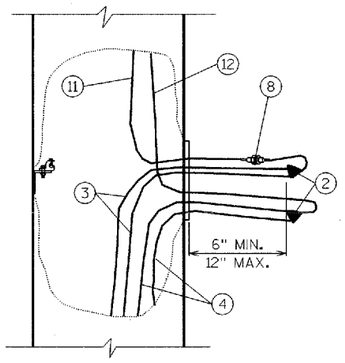
S.D.D. 9 B 2-7

S.D.D. 9 B 2-7

REVISION DATE: 11-14-96
IPLOT PEN TABLE: SSOLID.PEN OR BSOLID.PEN
FILE NAME: IOHL1.DGN
ORIGINATOR: D2 ELECTRICAL OPERATIONS UNIT G.E.

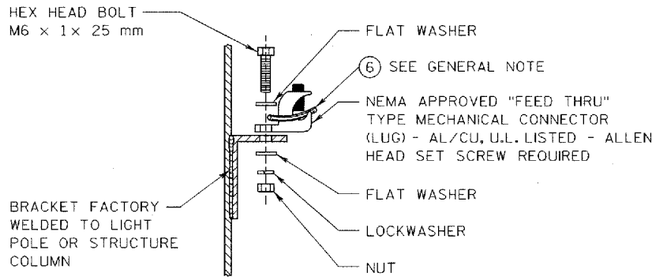


EQUIPMENT GROUNDING
CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK
(AND GROUNDED NEUTRAL SLACK
IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



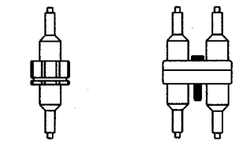
HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS
SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



1 POLE (1P) 2 POLE (2P)

FUSE ASSEMBLIES

GENERAL NOTES:

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

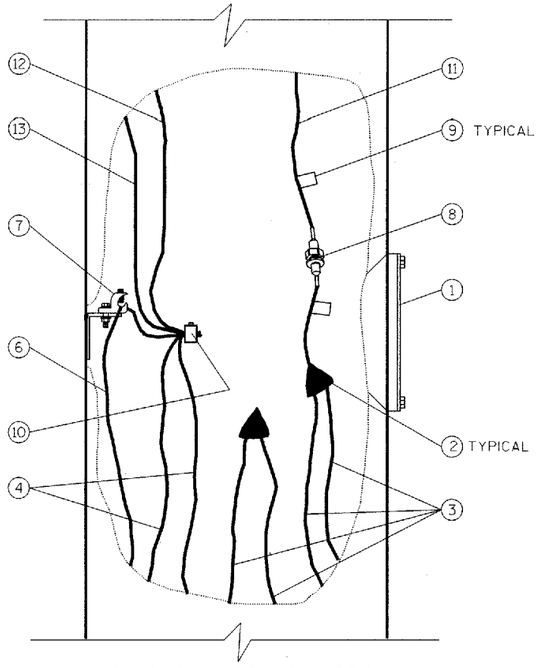
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

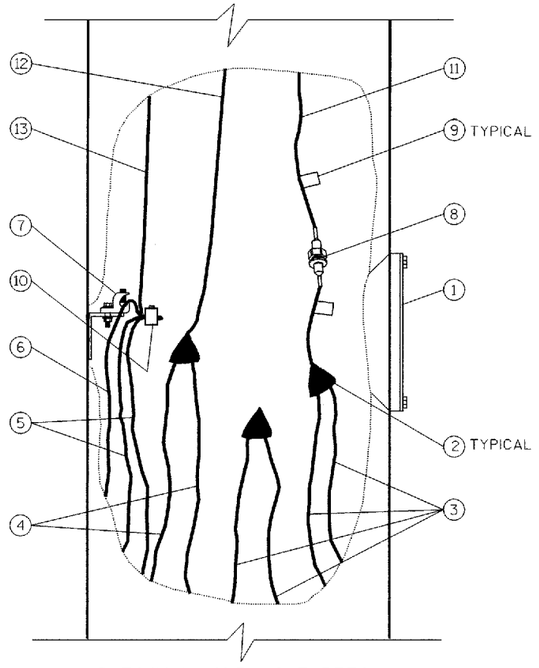
THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

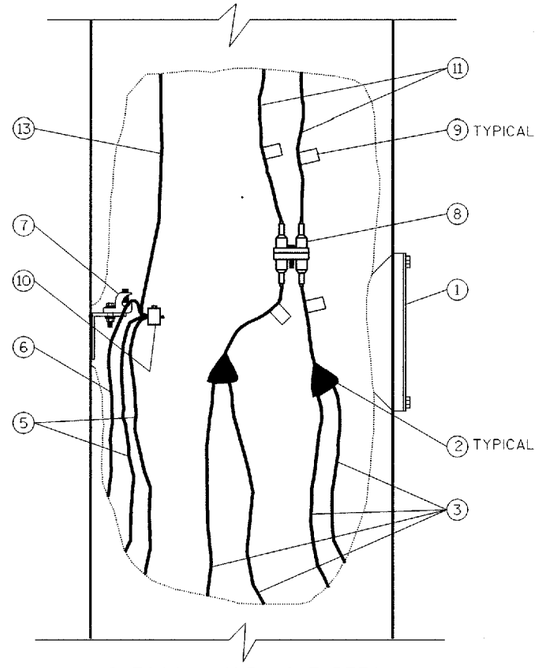
CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



CUTAWAY HAND HOLE DETAIL
GROUNDED NEUTRAL SYSTEMS
1-Φ



CUTAWAY HAND HOLE DETAIL
ISOLATED NEUTRAL SYSTEMS
1-Φ SHOWN; 3-Φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HAND HOLE DETAIL
PHASE-TO-PHASE SYSTEMS
1-Φ SHOWN; 3-Φ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/14/96
DATE
STATE ELECTRICAL ENGINEER FOR HWYS
FHWA

S.D.D. 10 HL 1-1

S.D.D. 10 HL 1-1

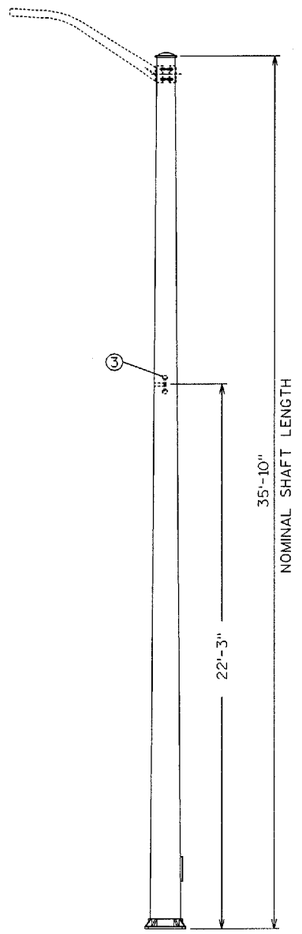
REVISION DATE: 4-22-99

IPLOT PEN TABLE:

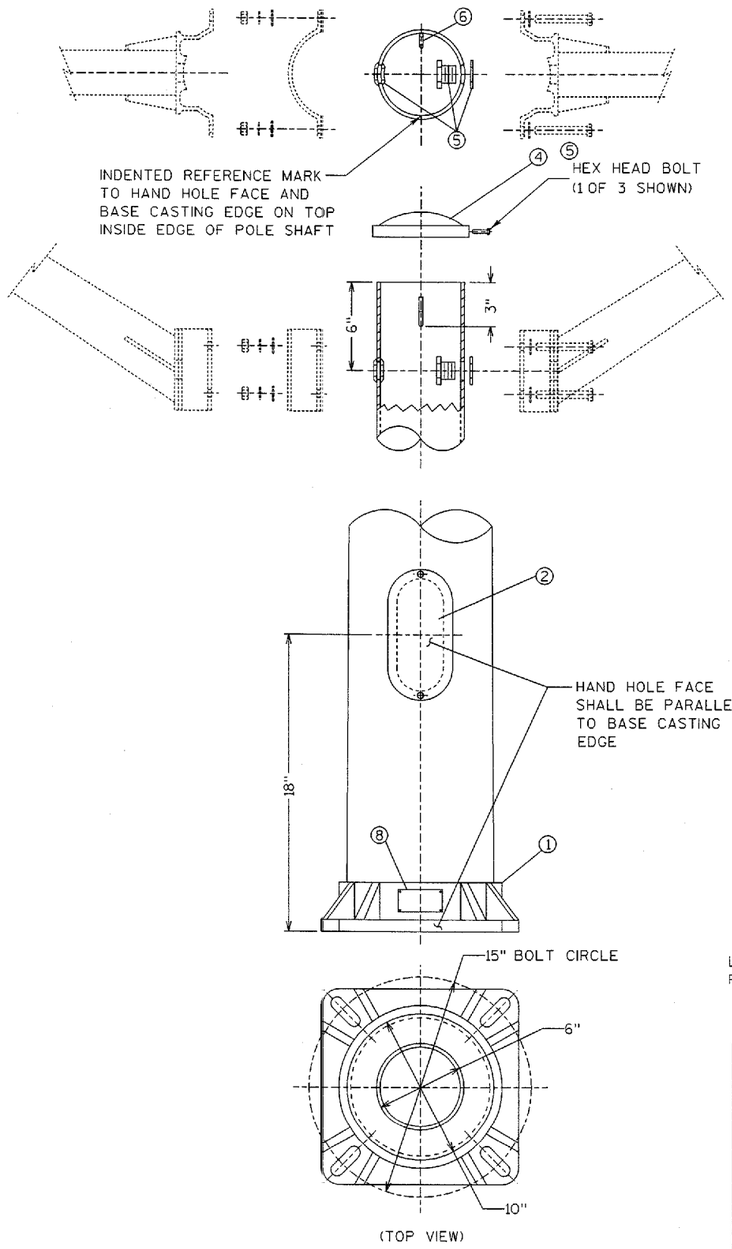
FILE NAME:

ORIGINATOR:

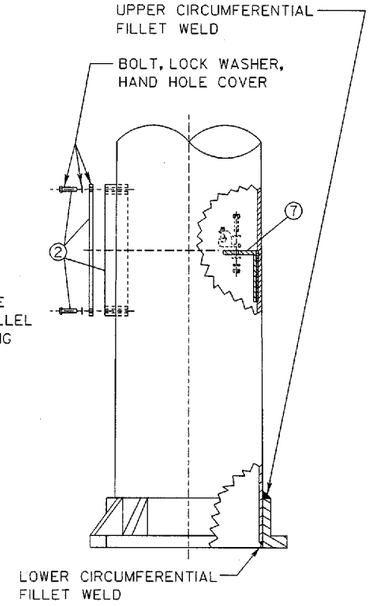
S.D.D. 10 HL 17-2a



POLE, TYPE 7



(TOP VIEW)



POLES COVERED BY THIS DRAWING	
TYPE 7	NATURAL FINISH, SLOTTED FOR 1" ANCHOR RODS
TYPE 7BR	DARK BROWN ANODIZED, SLOTTED FOR 1" ANCHOR RODS

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SLOTTED ANCHOR ROD HOLES FOR 1"-8 UNC ANCHOR RODS (4 EACH, 15" BOLT CIRCLE), SHALL BE PROVIDED IN BASE CASTING.

POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM. EXCEPT THAT BASE CASTINGS SHALL BE CONSTRUCTED OF 356-T6 ALUMINUM. THE SHAFT SHALL BE ROUND AND UNIFORMLY TAPERED FROM A 10" O.D. BUTT TO A 6" O.D. TOP.

HEAT TREATMENT OF WELDMENTS IN STRUCTURAL AREAS (e.g. BASE CASTING, HAND HOLE, BRACKET FOR GROUNDING LUG) REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE ARMS AND CLAMP ASSEMBLIES SHOWN FOR INFORMATION ONLY (PAID SEPARATELY).

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A.

① SHOE BASE.

② 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY SECURED BY TWO (2) 1/4" X 3/4" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

HANDHOLE SHALL BE 90 DEGREES FROM LUMINAIRE ARMS OF TWIN LUMINAIRE POLES; 180 DEGREES FROM LUMINAIRE ARM OF SINGLE LUMINAIRE POLES; 0 DEGREES FROM LUMINAIRE ARM FOR STRUCTURE MOUNTED POLES.

③ INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

④ FURNISH AND INSTRALL CAST OR METALLIC (ALUMINUM ALLOY) POLE CAP. FASTEN CAP WITH THREE 1/4" X 3/4" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

⑤ 1 3/8" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.

⑥ FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.

⑦ FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE. (LUG AND HARDWARE PAID UNDER SEPARATE ITEMS; SHOWN FOR INFORMATION ONLY). PROVIDE HOLE IN BRACKET FOR 1/4" X 3/4" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

⑧ MANUFACTURER'S PLATE SHOWING WISDOT POLE TYPE, MANUFACTURER, AND DATE.

POLE TYPE (NOM. SHAFT LENGTH)	TYPICAL APPLICATION	ARM & LUMINAIRE LOADS (MAX.)	ADDITIONAL (MAX.) LOADS
TYPE 7 & 7BR (35'-10")	ARTERIALS	TWIN ARMS UP TO 10 FT. (SINGLE MEMBER)	UP TO 20 SQ. FT. ON TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN, PLUS 1-3 SECTION, 1-5 SECTION, AND 2-PED. TRAFFIC HEAD
	FREEWAY	SINGLE ARM, UP TO 20 FT. TRUSS TYPE	UP TO 20 SQ. FT. OF TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN

POLES, TYPES 7 & 7BR ALUMINUM - 35'-10" SHAFT

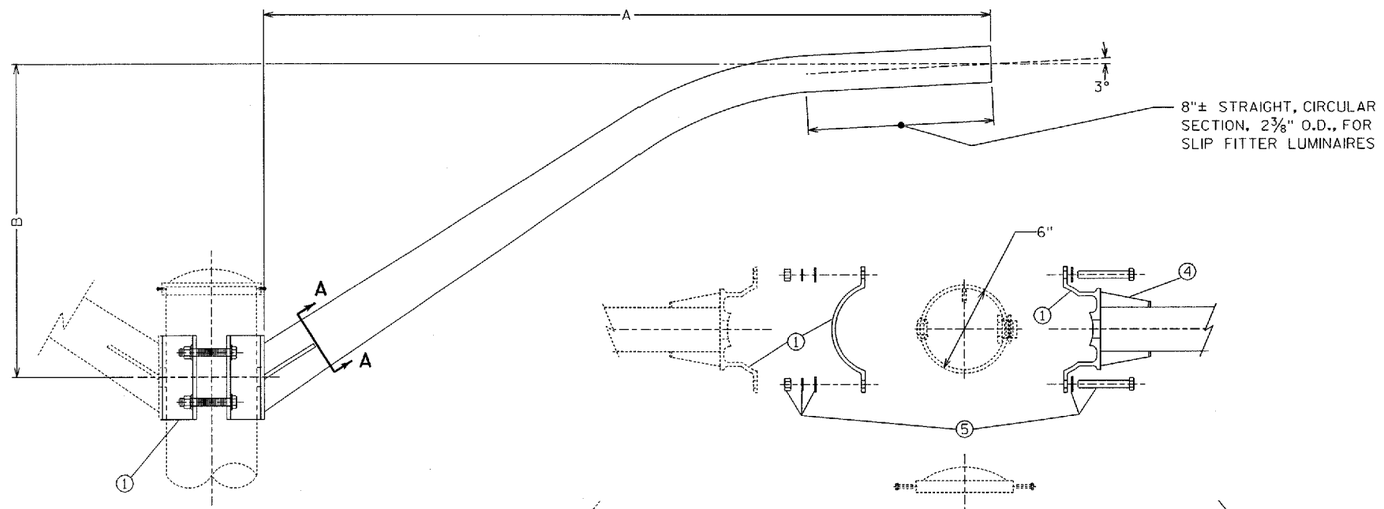
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 1/11/00 DATE
FHWA

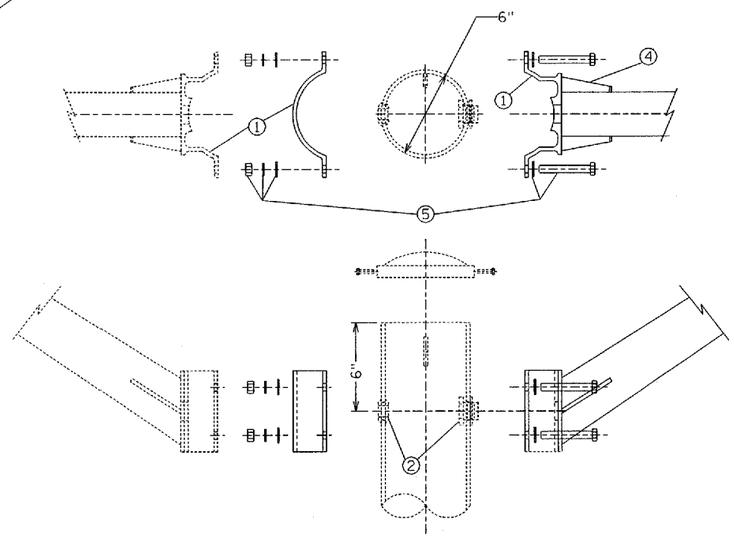
STATE ELECTRICAL ENGINEER FOR HWYS

S.D.D. 10 HL 17-2a

REVISION DATE: 5-12-99
IPLOT PEN TABLE:
FILE NAME:
ORIGINATOR:



LUMINAIRE ARMS, SINGLE MEMBER, 6-INCH
CLAMP - FOR POLES, TYPE 7,A OR E
VARIOUS LENGTHS (SEE TABLE)



CLAMP ASSEMBLY
SINGLE MEMBER CLAMP SHOWN

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
SINGLE MEMBER	4.0	2.0
SINGLE MEMBER	8.0	3.0
SINGLE MEMBER	10.0	3.0
SINGLE MEMBER	15.0	3.0

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINARE ARM. PROVIDE HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY.

③ STIFFENER

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, SINGLE MEMBER
6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1/11/00
DATE

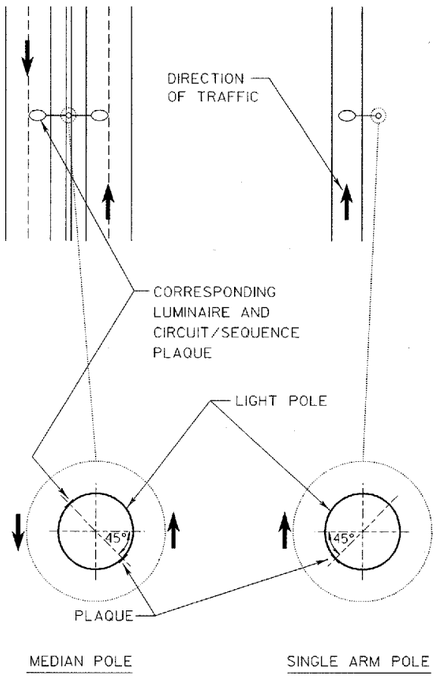
STATE ELECTRICAL ENGINEER FOR HWYS

FHWA

S.D.D. 10 HL 18-2a

S.D.D. 10 HL 18-2a

REVISION DATE: 11-14-96
PLOT PEN TABLE: SSOLID.PEN OR BSOLID.PEN
FILE NAME: I0HL21.DGN
ORIGINATOR: D2 ELECTRICAL OPERATIONS UNIT G.E.



MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES:

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

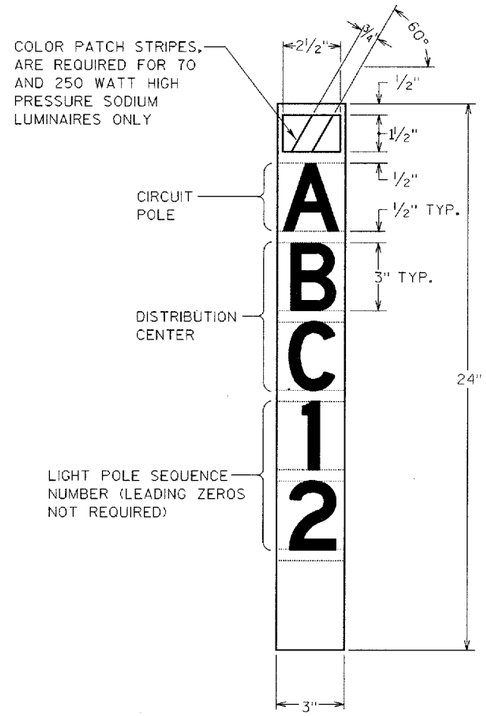
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS LUMINAIRES

1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE WITH WHITE STRIPE
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN
70 WATT - BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

IDENTIFICATION PLAQUES
LIGHT POLES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/14/96
DATE
STATE ELECTRICAL ENGINEER FOR HWYS
FHWA

S.D.D. 10 HL 2-1

S.D.D. 10 HL 2-1

REVISION DATE: 11-14-96
IPLOT PEN TABLE: SSOLID.PEN OR BSOLID.PEN
FILE NAME: IOHL51.DGN
ORIGINATOR: D2 ELECTRICAL OPERATIONS UNIT G.E.

GENERAL NOTES:

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

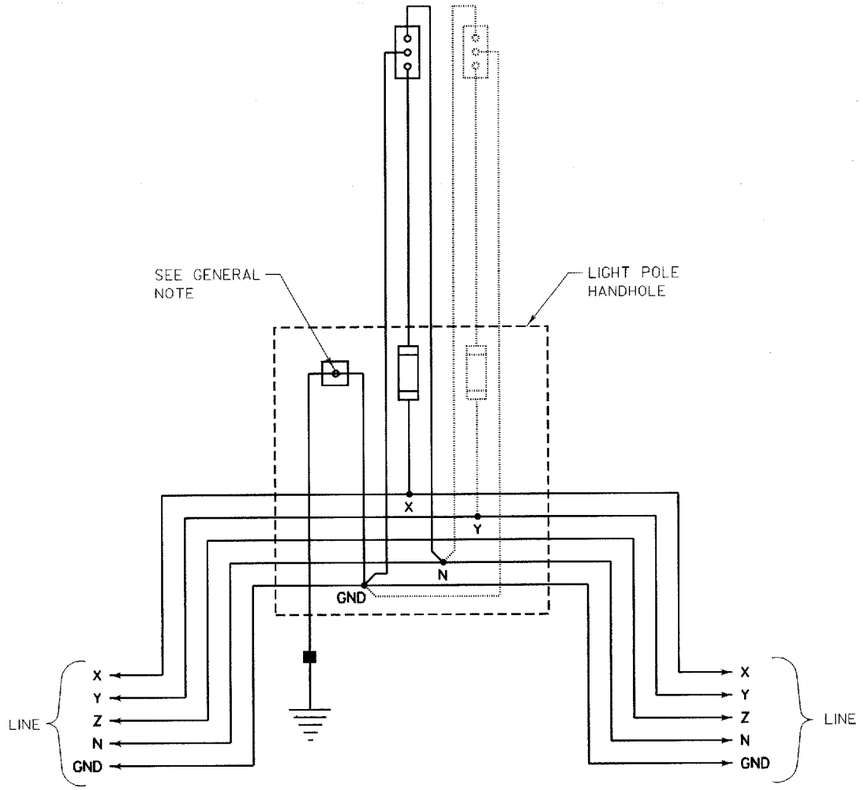
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

HANDHOLE FUSE SCHEDULES

LINE VOLTAGE ϕ-GROUND	BALLAST WATTAGE	
	70-200 W	250-400 W
120 VAC	5 A	10 A
240 VAC	5 A	5 A
277 VAC	5 A	5 A
480 VAC	3 A	5 A

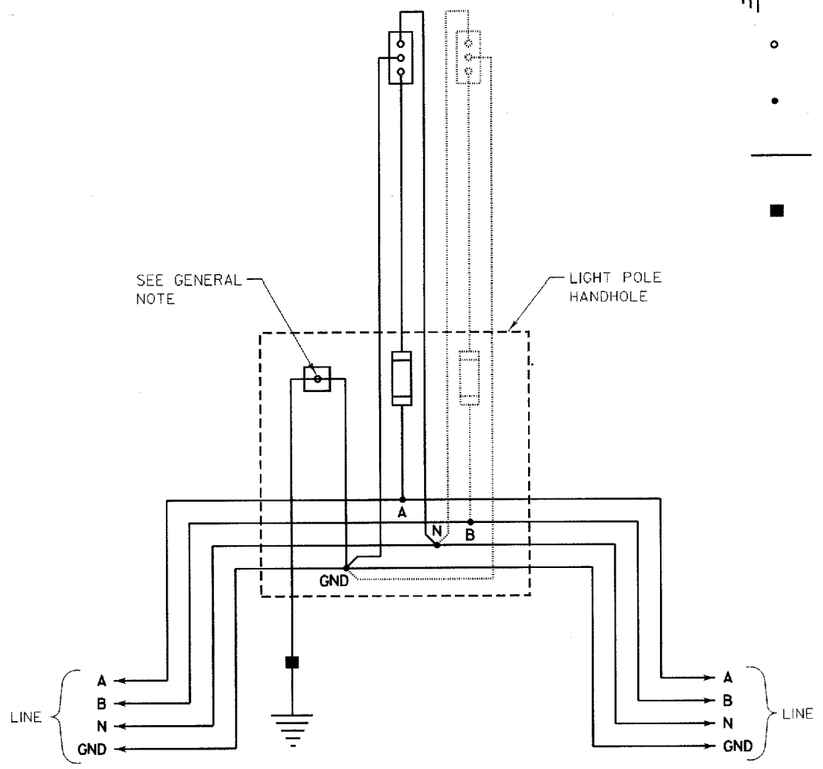
LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
3-ϕ 208Y/120VAC OR 480Y/277VAC 4 WIRE



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
1-ϕ 120/240VAC OR 240/480VAC 3 WIRE

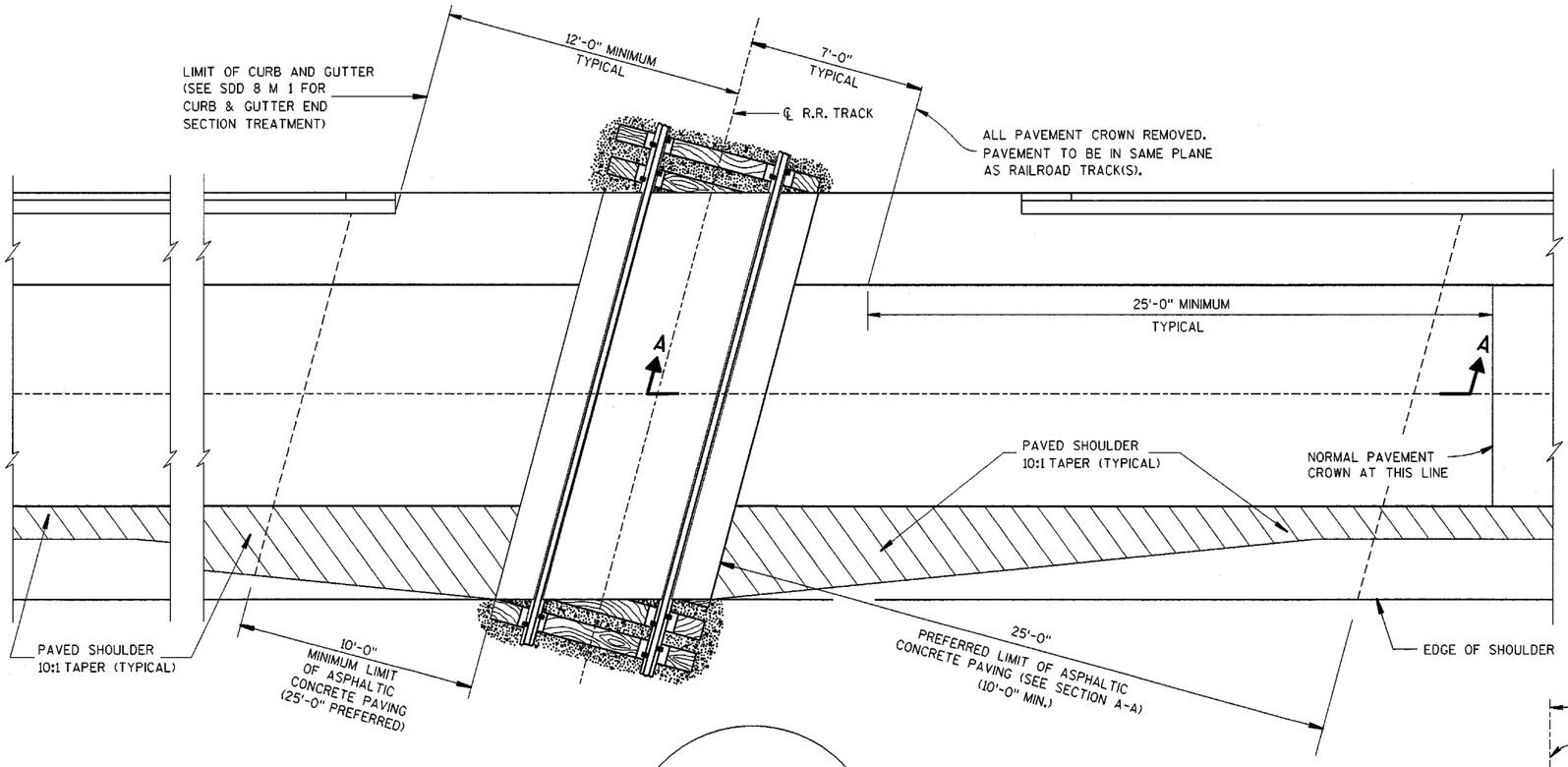
ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/14/96
DATE
STATE ELECTRICAL ENGINEER FOR HWYS
FHWA

S.D.D. 10 HL 5-1

S.D.D. 10 HL 5-1



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

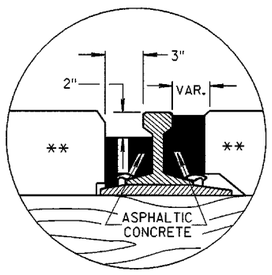
TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

ASPHALTIC CONCRETE APPROACHES AND ASPHALTIC CONCRETE CROSSING SURFACES ** TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

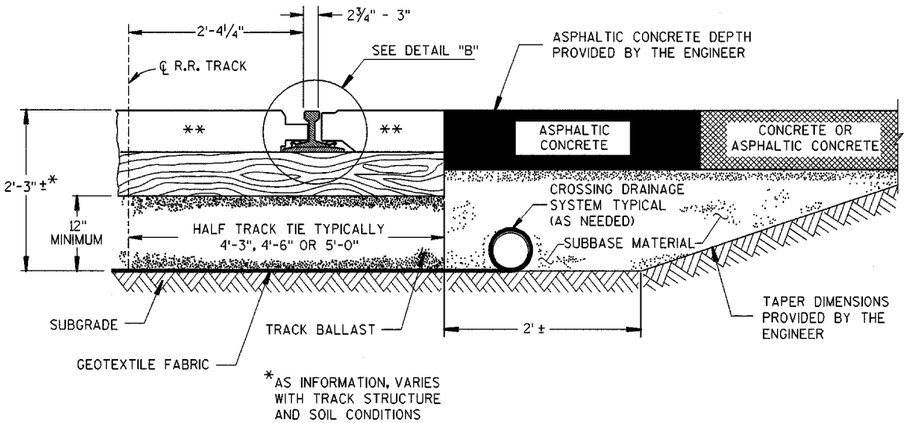
ASPHALTIC CONCRETE FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. ASPHALTIC FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

ASPHALTIC CONCRETE PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

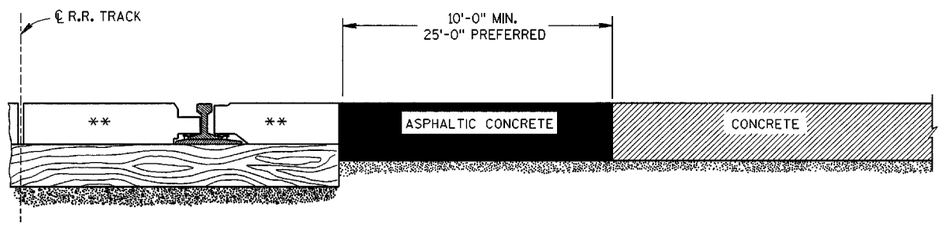
** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, ASPHALTIC CONCRETE OR A COMBINATION OF SUCH MATERIALS.



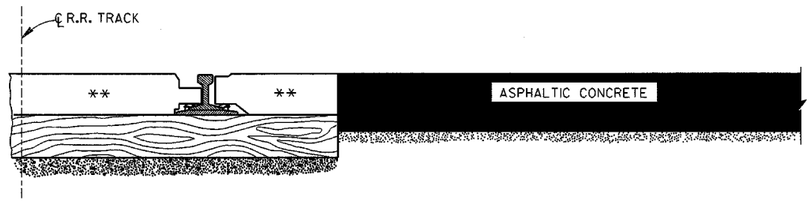
DETAIL B
ASPHALTIC CONCRETE
FLANGEWAY AND FIELD FILLERS



TYPICAL HALF SECTION



SECTION A-A
CONCRETE PAVEMENT APPROACH



SECTION A-A
ASPHALTIC CONCRETE
PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

PAVEMENT DETAILS FOR RAILROAD APPROACH

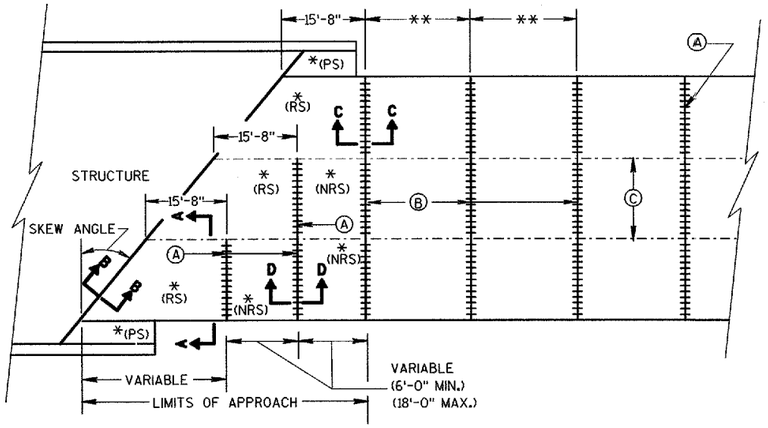
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
06-16-03 (DATE)
CHIEF, RAILROAD ENGINEERING & SAFETY SECTION
FHWA

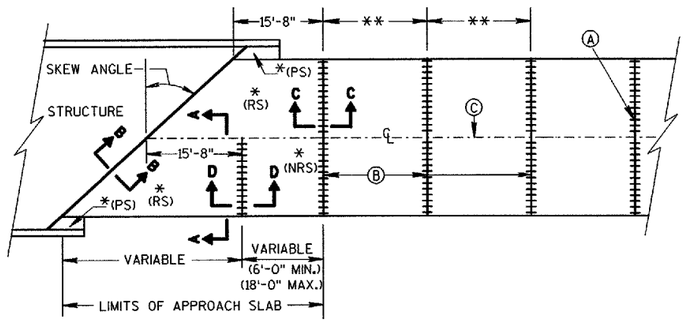
6

S.D.D. 13 B 1-7

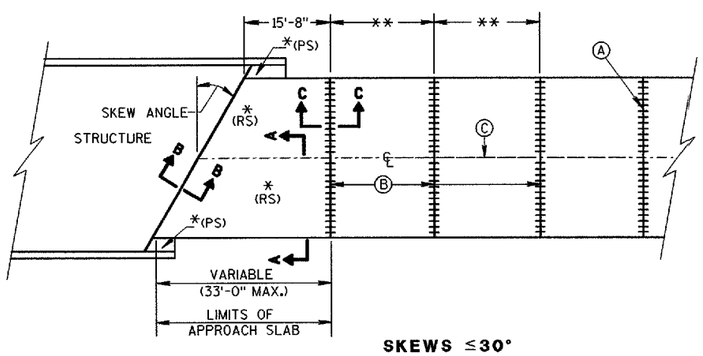
S.D.D. 13 B 1-7



SKEWED PAVEMENT
MORE THAN 2 LANES



SKEWS >30°
(PAVEMENT WIDTH ≤30')



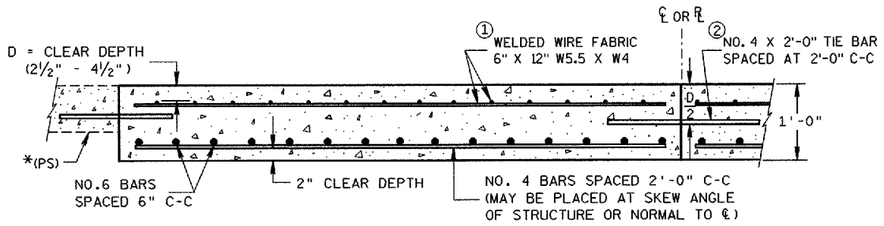
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

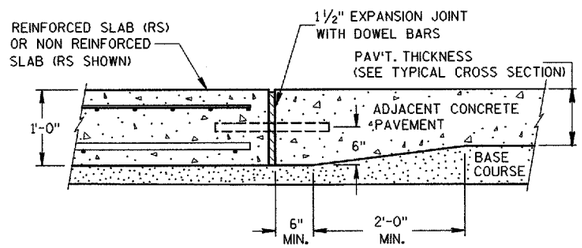
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C11 & SDD 13C12)

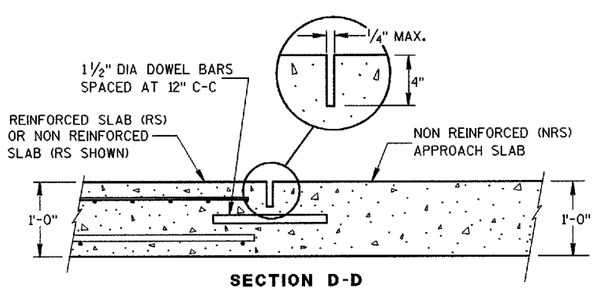
(A) STANDARD CONTRACTION JOINT NORMAL OR SKEWED TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL OR SKEWED TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

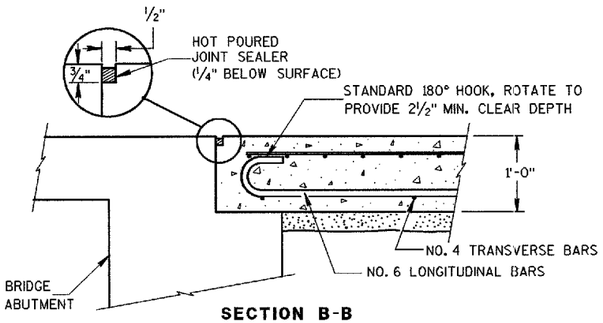
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

DOWEL BARS ARE NOT REQUIRED WHEN THE APPROACH SLAB ABUTS AN ASPHALT PAVEMENT OVER BASE COURSE.

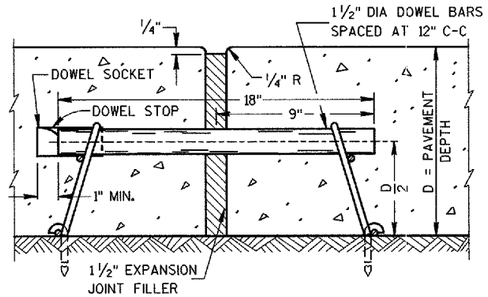
SPLICING OF NO. 6 BARS IN THE APPROACH SLAB IS PERMITTED FOR SKEWED STRUCTURES ONLY. SPLICES SHALL BE STAGGERED, WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP SHALL BE 20 INCHS.

① NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS MAY BE USED FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② TIE BARS BETWEEN REINFORCED SLABS MAY BE OMITTED WHERE SLAB REINFORCEMENT EXTEND ACCROSS THE CENTERLINE OR REFERENCE LINE.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT

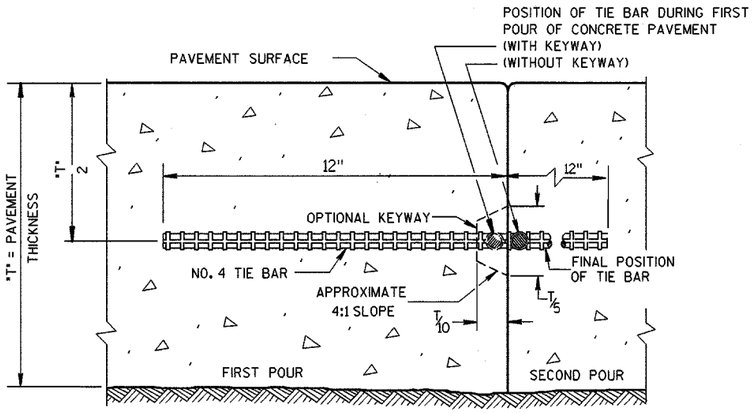
CONCRETE PAVEMENT
APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

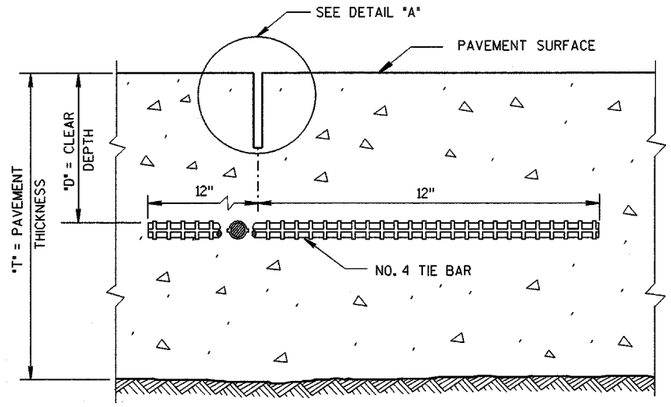
APPROVED
10-14-99
DATE
CHIEF PAVEMENTS & RESEARCH ENGINEER
FHWA

S.D.D. 13 B 2-4

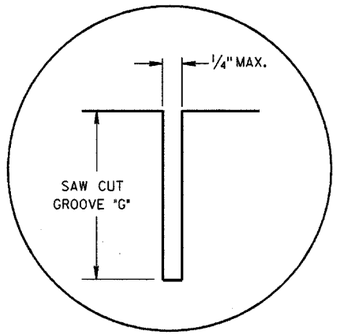
S.D.D. 13 B 2-4



CONSTRUCTION JOINT



SAWED JOINT



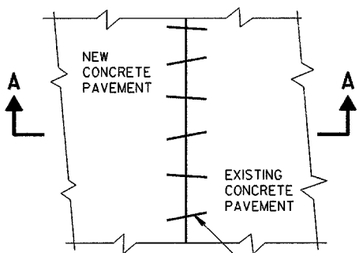
DETAIL "A"

GENERAL NOTES

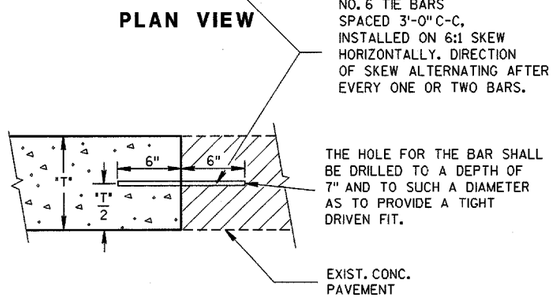
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

LONGITUDINAL JOINTS SHALL NOT BE SEALED OR FILLED.

TIE BAR SPACINGS ARE VALID ONLY FOR PAVEMENT WIDTHS IN THE TABLE. FOR WIDER PAVEMENTS, TIED CONCRETE SHOULDERS OR RAMPS, THE TIE BAR SPACING SHALL BE AS SHOWN ON THE PLANS.

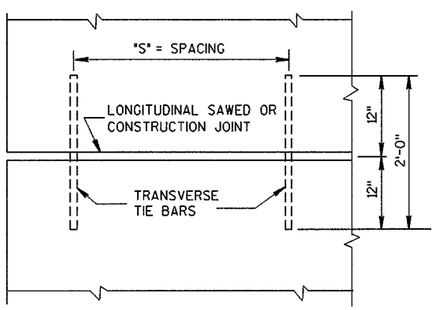


PLAN VIEW



SECTION A-A
PAVEMENT TIES

PAVEMENT THICKNESS "T"	CLEAR DEPTH "D"	SAW CUT GROOVE "G"	MAXIMUM TIE BAR SPACING "S"	
			PAVEMENT WIDTH	
			24' OR 26'	30'
6, 6 1/2"	3"±1/2"	2"	48"	42"
7, 7 1/2"	3 1/4"±1"	2 1/4"	45"	36"
8, 8 1/2"	3 3/4"±1"	2 1/2"	39"	30"
9, 9 1/2"	4 1/4"±1"	3"	33"	27"
10, 10 1/2"	4 3/4"±1"	3 1/4"	30"	24"
11, 11 1/2"	5 1/4"±1"	3 3/4"	27"	21"
12"	5 3/4"±1"	4	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

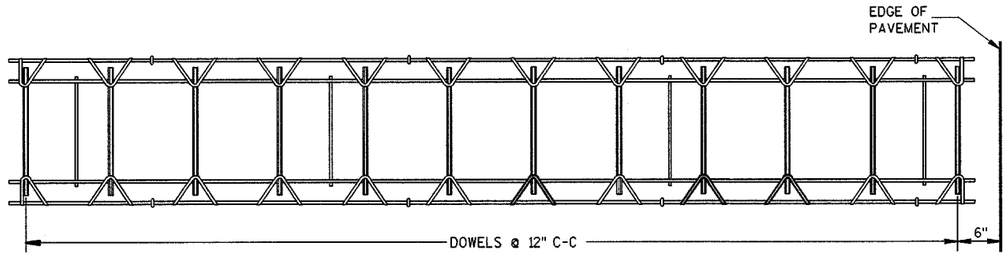
CONCRETE PAVEMENT LONGITUDINAL JOINTS AND PAVEMENT TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

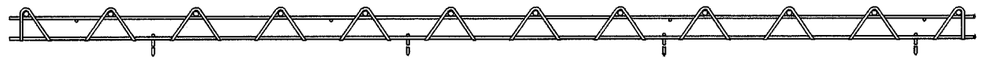
APPROVED
6/6/02 DATE
Bill Duckett PAVEMENT ENGINEER
FHWA

S.D.D. 13 C 1-11

S.D.D. 13 C 1-11



PLAN VIEW

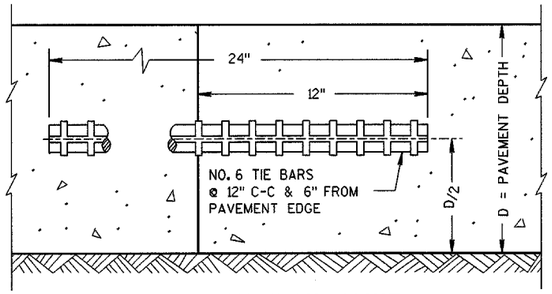


SIDE VIEW

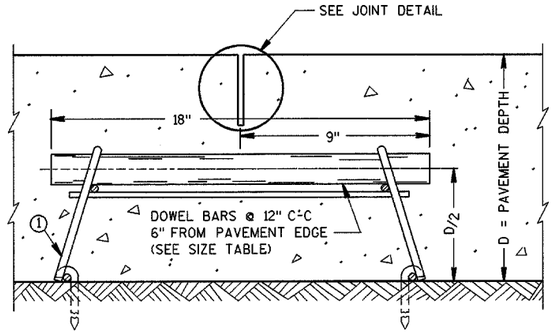
CONTRACTION JOINT DOWEL ASSEMBLY ①

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6",6 ½"	1¼"	12'
7",7 ½"	1¼"	14'
8",8 ½"	1¼"	15'
9",9 ½"	1¼"	15'
10" & ABOVE	1½"	18'



CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

CONTRACTION JOINTS

CONTRACTION JOINTS SHALL BE NORMAL TO THE CENTERLINE. THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS SHALL BE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CONTRACTION JOINTS SHALL NOT BE SEALED OR FILLED.

DOWEL BARS SHALL BE INSTALLED PARALLEL TO THE PAVEMENT CENTERLINE AND SURFACE.

CONSTRUCTION JOINTS

CONSTRUCTION JOINTS SHALL BE A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGNED EITHER PARALLEL TO CONTRACTION JOINTS OR AT 90° TO THE CENTERLINE.

TIE BARS MAY BE INSERTED THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

① ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY MAY BE USED WHEN APPROVED BY THE ENGINEER. MECHANICAL DOWEL BAR IMPLANTERS MAY BE USED INSTEAD OF DOWEL ASSEMBLIES.

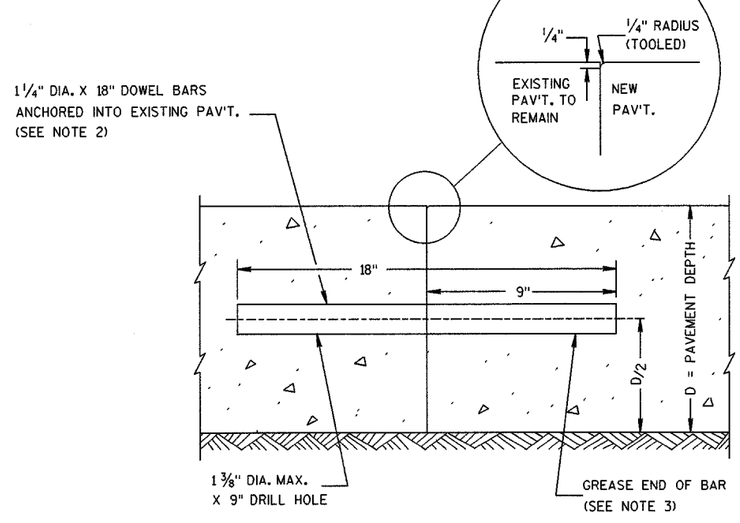
② DOWEL BARS SHALL BE ANCHORED INTO DRILL HOLES WITH AN APPROVED EPOXY GROUT.

③ THE FREE END OF DOWEL BARS SHALL RECEIVE A THIN UNIFORM COATING OF BOND BREAKING GREASE.

④ DOWEL BARS INSTALLED BY DRILLING SHALL BE SPACED 1'-3" ON CENTER. THE GROUPING OF DOWEL BARS SHALL BE CENTERED INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

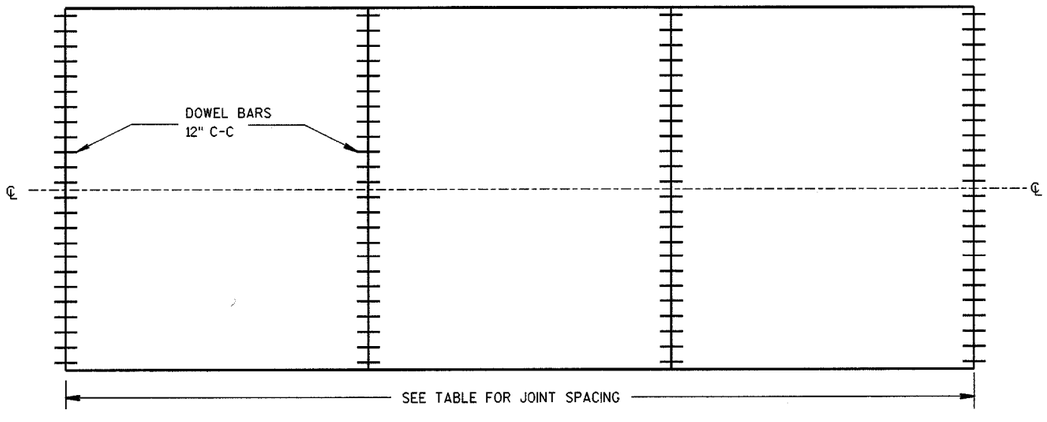
BETWEEN THE EDGES OF PAVEMENTS WITHOUT LONGITUDINAL JOINTS OR BETWEEN THE EDGE OF PAVEMENT AND NEAREST LONGITUDINAL JOINT OR BETWEEN TWO ADJACENT LONGITUDINAL JOINTS.

THE CLEAR DISTANCE FROM THE EDGE OF PAVEMENT OR LONGITUDINAL JOINT TO THE NEAR EDGE OF DOWEL BAR NEAREST THAT EDGE OR JOINT SHALL BE A MINIMUM OF 6 INCHES AND A MAXIMUM OF 14 INCHES.

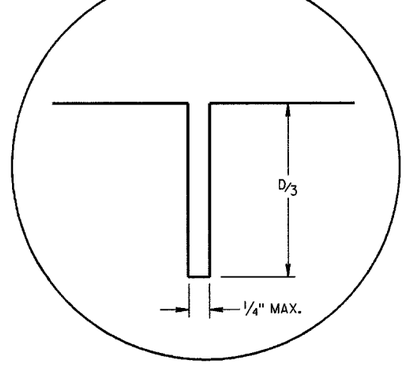


TRANSVERSE CONTRACTION JOINTS ABUTTING EXISTING PAVEMENT

④ DOWEL BAR DETAIL



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

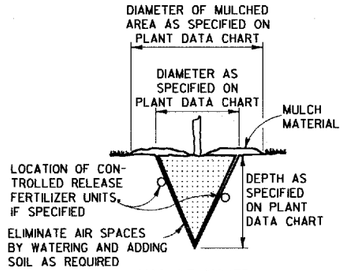
URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

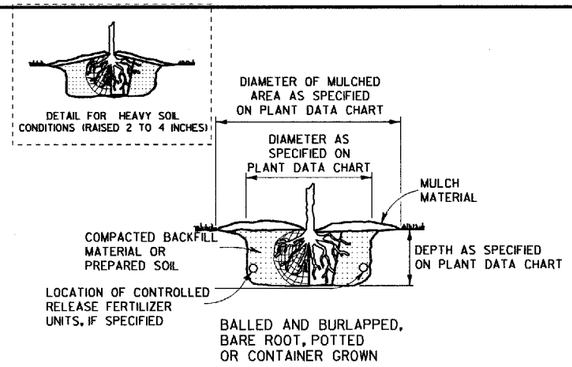
APPROVED
6/6/02 DATE
Bill Duckett PAVEMENT ENGINEER
FHWA

S.D.D. 13 C 13-4

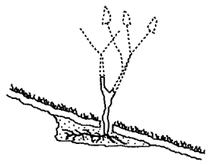
S.D.D. 13 C 13-4



MACHINE MOVED

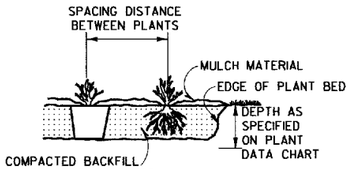


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



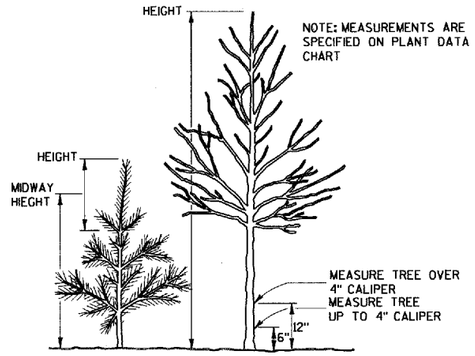
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING

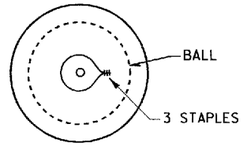


PREPARED BED (BARE ROOT AND POTTED)

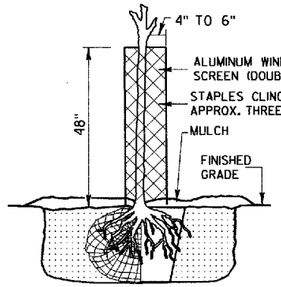
PLANTING



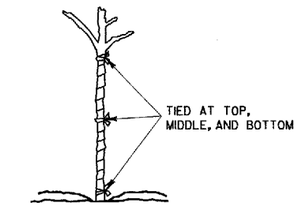
MEASURING



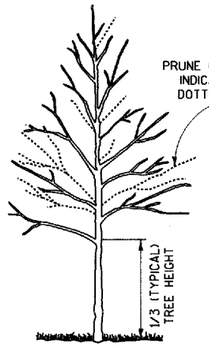
TOP VIEW



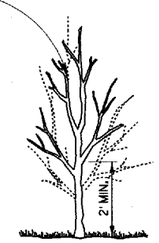
RODENT PROTECTION



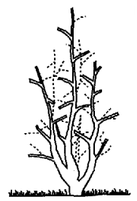
WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)



SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)



MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

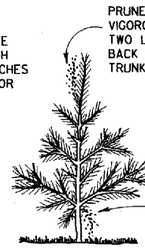
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES



SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

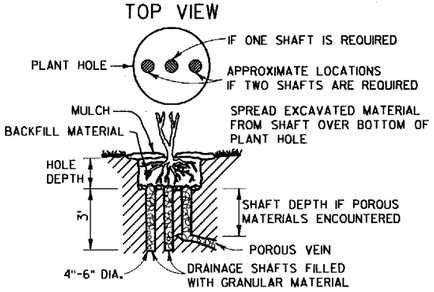


SUMAC



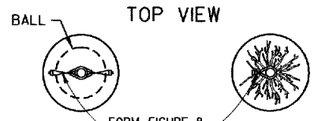
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

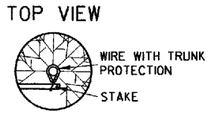
PRUNING

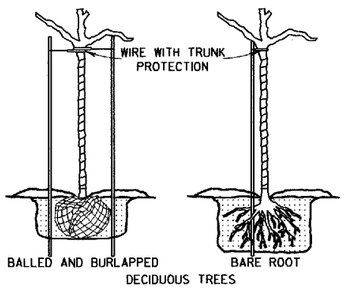


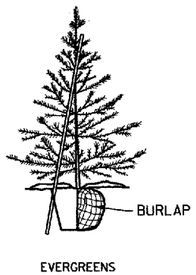
NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

DRAINING



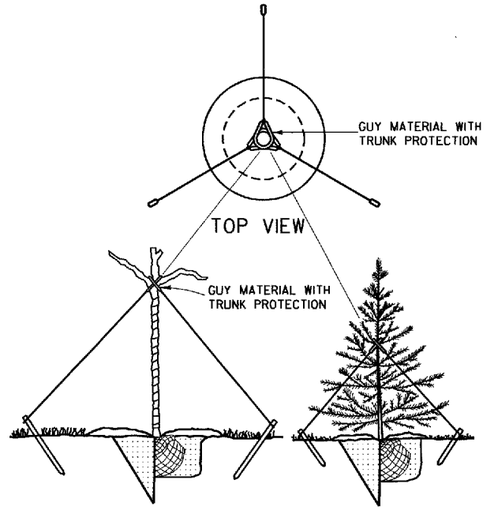




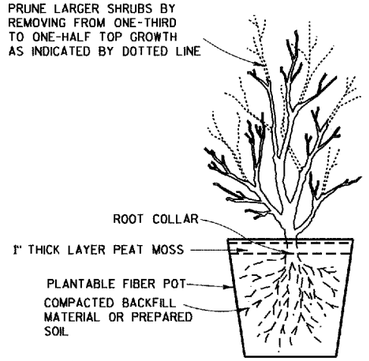


NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING



POTTING

NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94
DATE

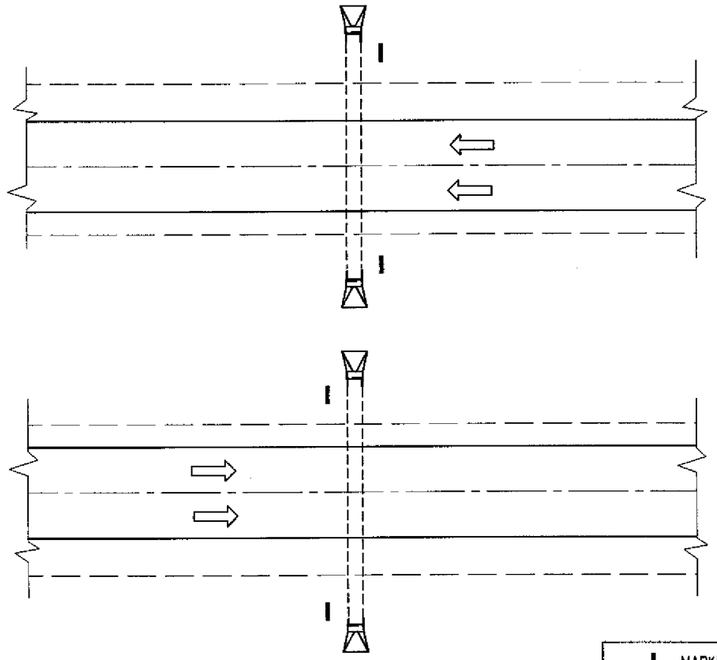
Roy L. Thuemmler
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

S.D.D. 14 A 2-1

S.D.D. 14 A 2-1

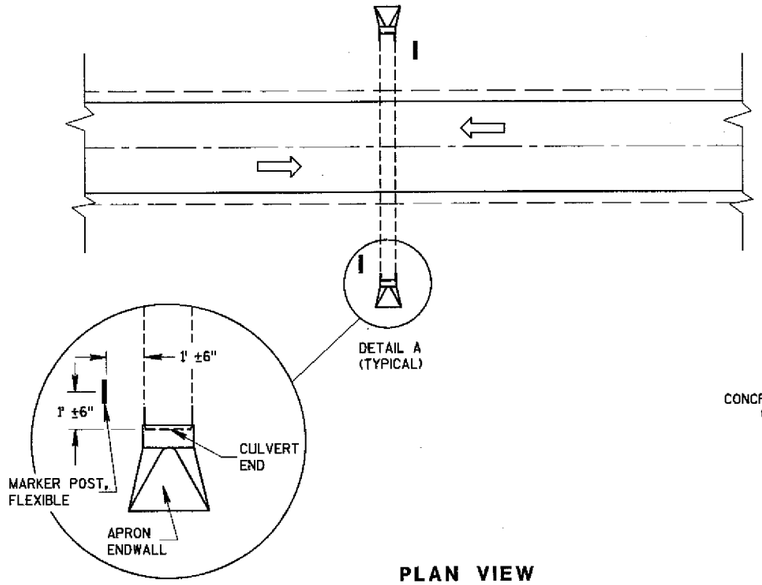
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

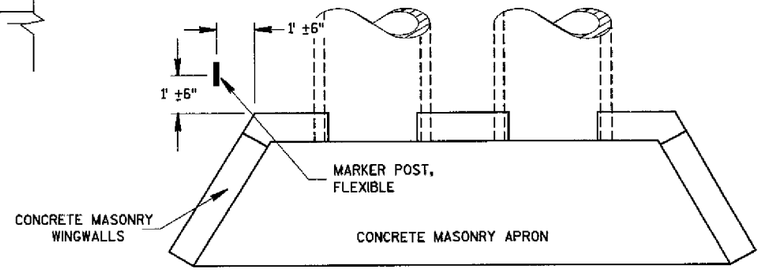
PLAN VIEW

UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

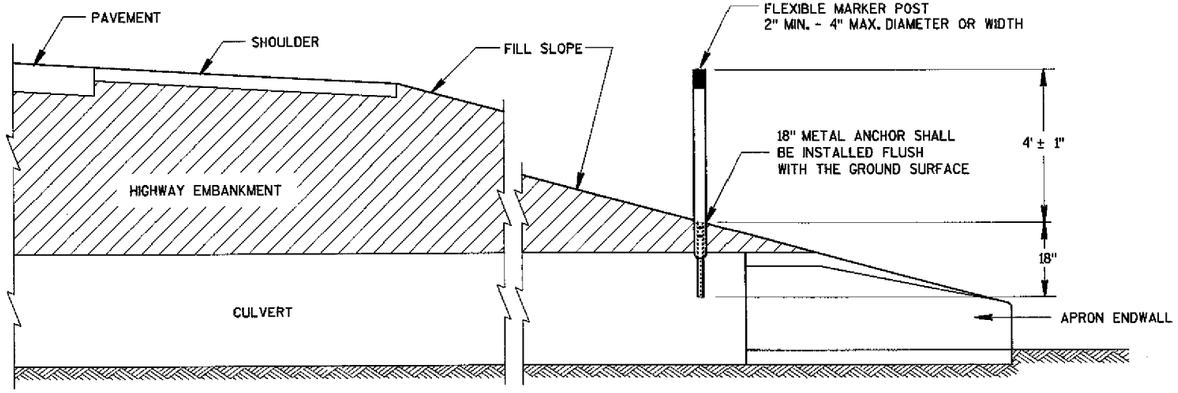
DIRECTION OF TRAFFIC FLOW

FLEXIBLE MARKER POST LOCATION



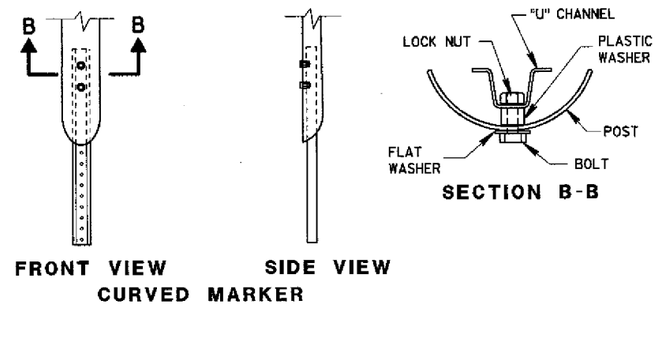
PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH



CROSS SECTION

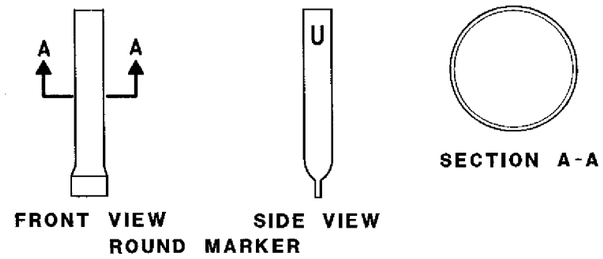
FLEXIBLE MARKER POST



FRONT VIEW — SIDE VIEW

CURVED MARKER

SECTION B-B

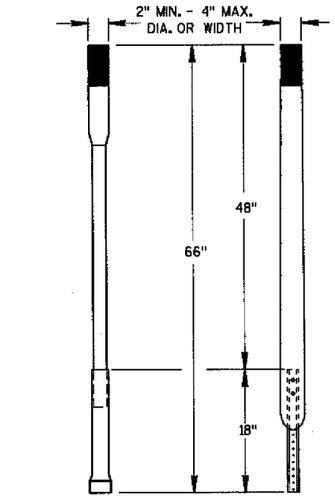


FRONT VIEW — SIDE VIEW

ROUND MARKER

SECTION A-A

FLEXIBLE MARKER POST ANCHORS



ALTERNATE 1 — ALTERNATE 2

FLEXIBLE MARKER POST

MARKER POST, FLEXIBLE, FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 10/01/98
DATE

CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

S.D.D. 15 A 3-1

S.D.D. 15 A 3-1

TWO-LANE ROADWAY

SYMBOLS

WORK AREA

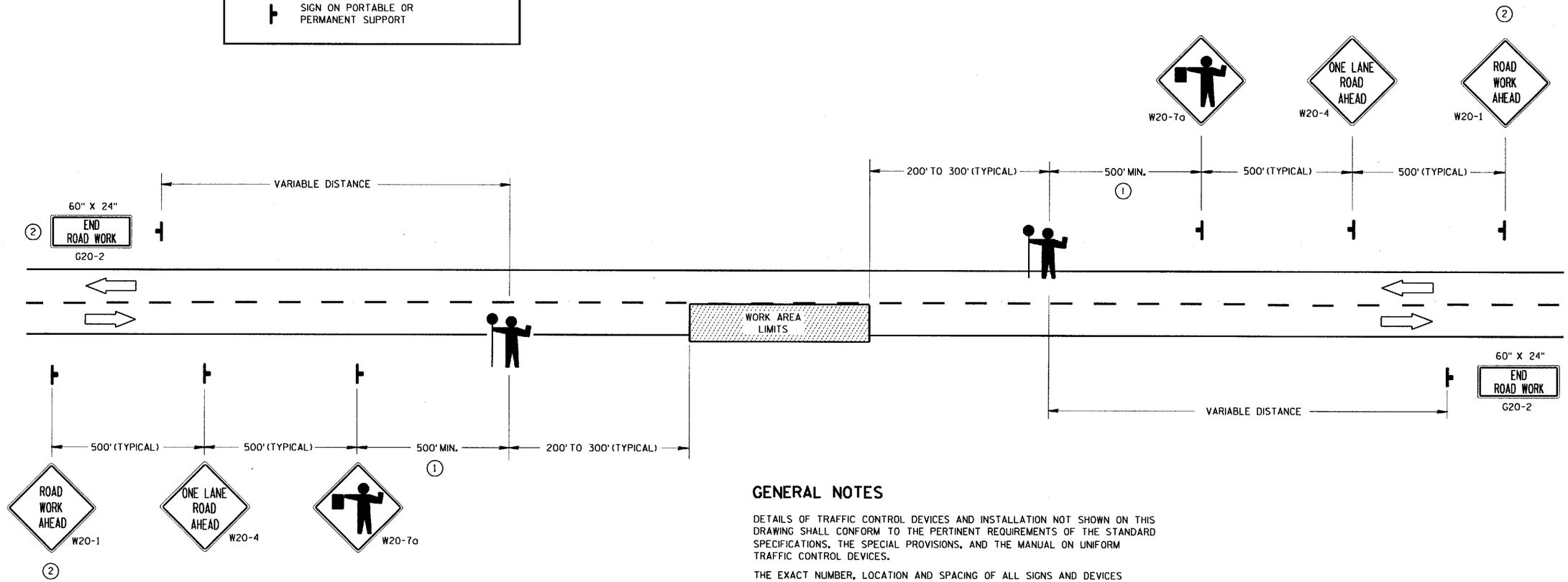
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT



W20-7b

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS DIRECTED BY THE ENGINEER.

② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/17/94
DATE
Peter T. Rusch
STATE TRAFFIC ENGINEER FOR HWYS

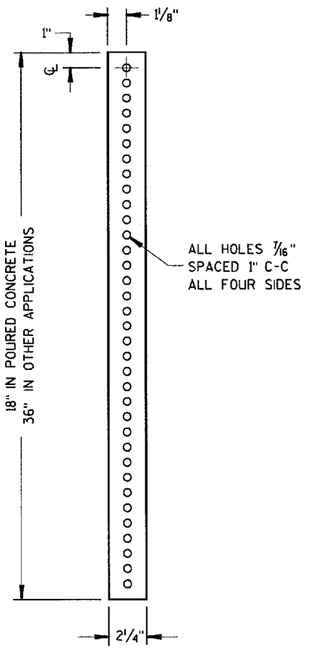
FHWA

S.D.D. 15 C 12-2

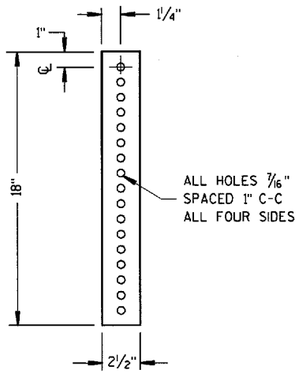
S.D.D. 15 C 12-2

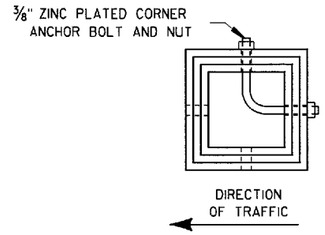
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH

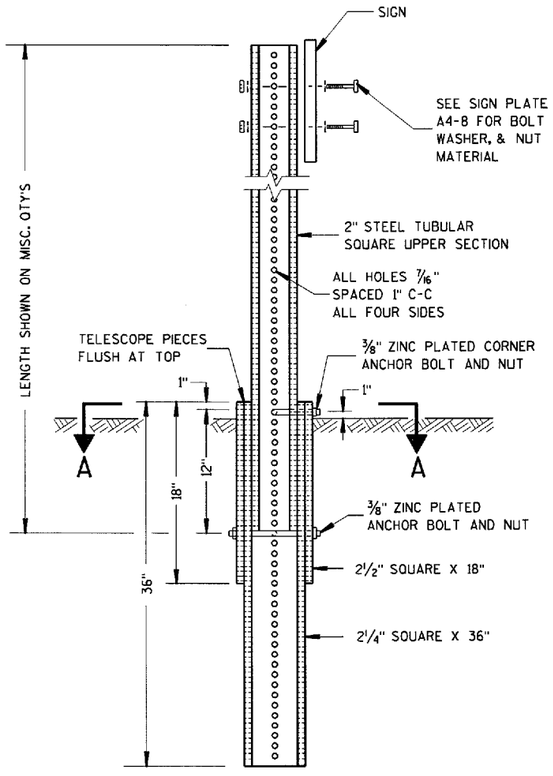


2 1/2 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



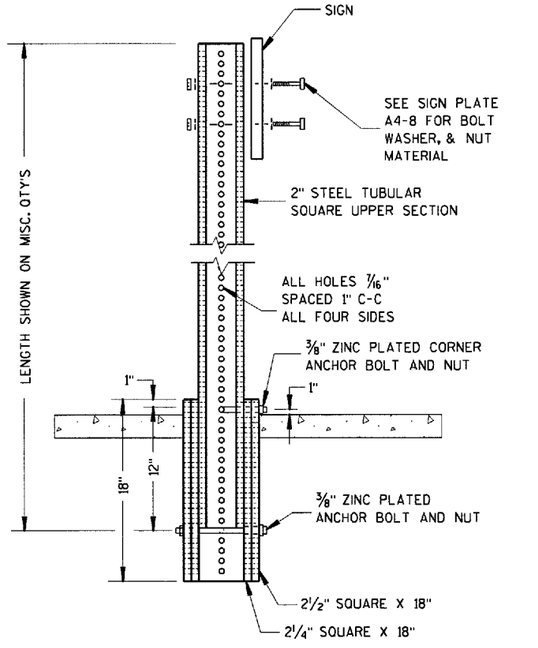


SECTION A-A



DETAIL OF TUBULAR STEEL SIGN POST
(IN OTHER INSTALLATIONS)

NOTE:
BOTH THE ANCHOR SECTION AND OUTER SLEEVE SHALL BE LEFT A MAXIMUM OF 2" ABOVE THE SURFACE.



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE)

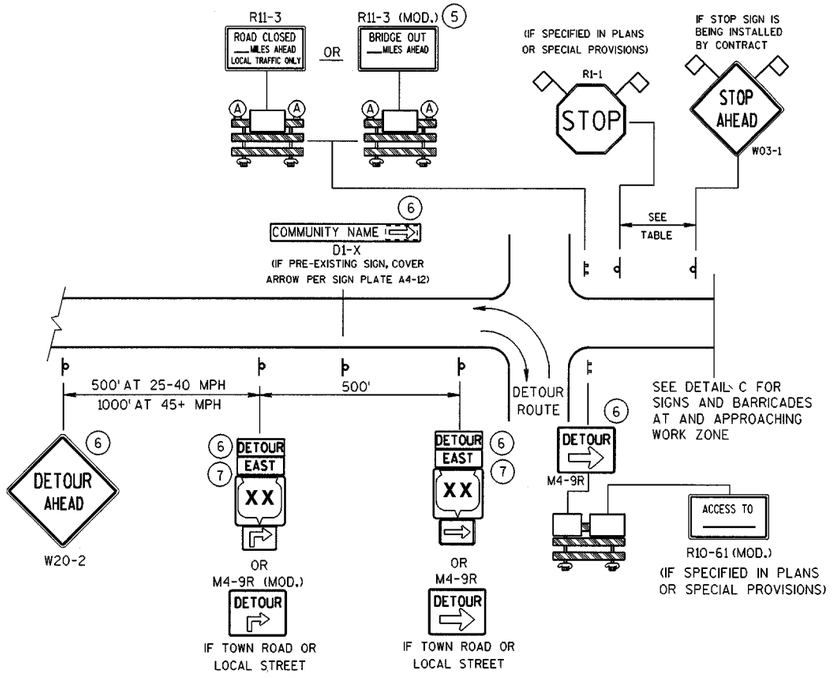
TUBULAR STEEL SIGN POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-01
DATE
Charles J. Sprang
CHIEF SIGNS AND MARKING ENGINEER
FHWA

S.D.D. 15 C 13-1

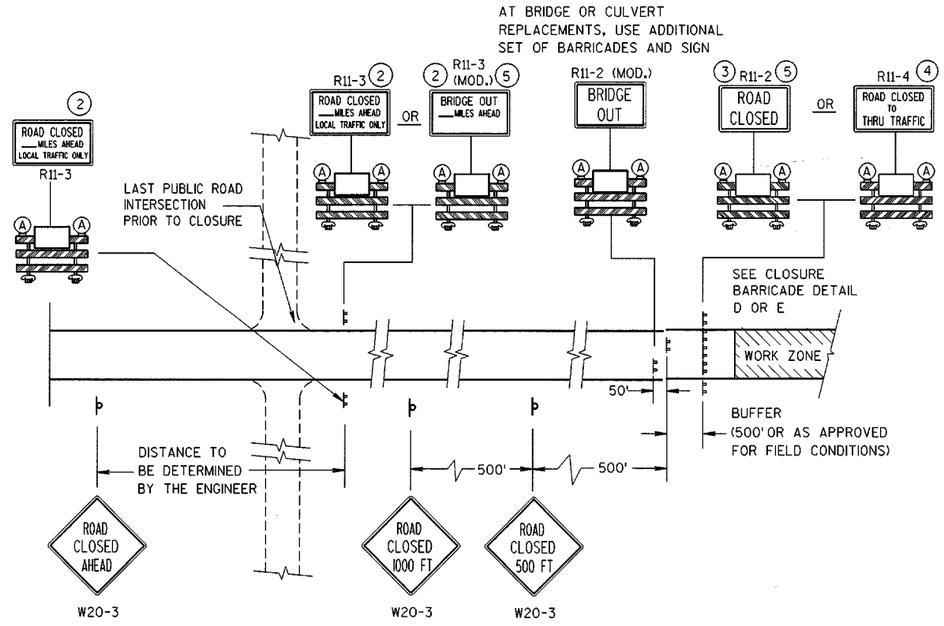
S.D.D. 15 C 13-1



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

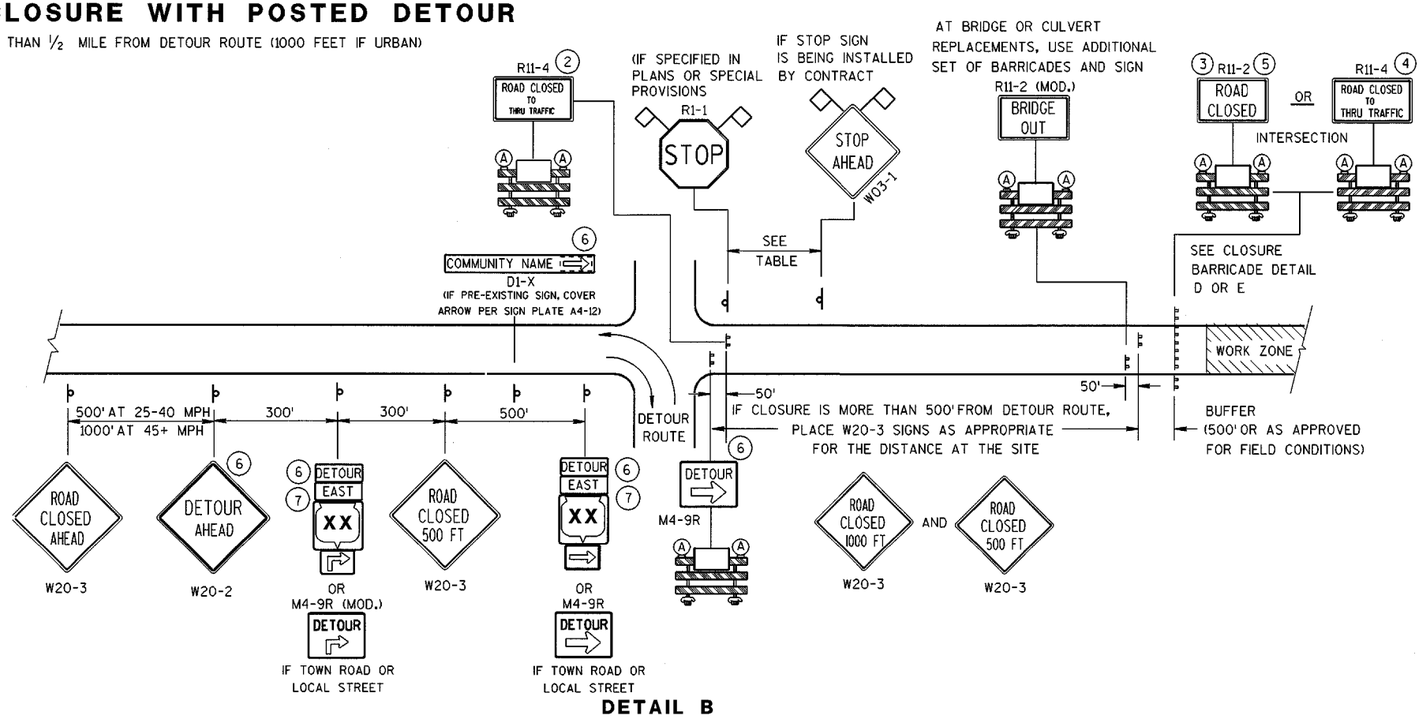


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4
- COUNTY XX — M1-5A
- XX — M1-6
- MO5-1 OR MO6-1
- FLAGS, 16" X 16" MIN., (ORANGE)

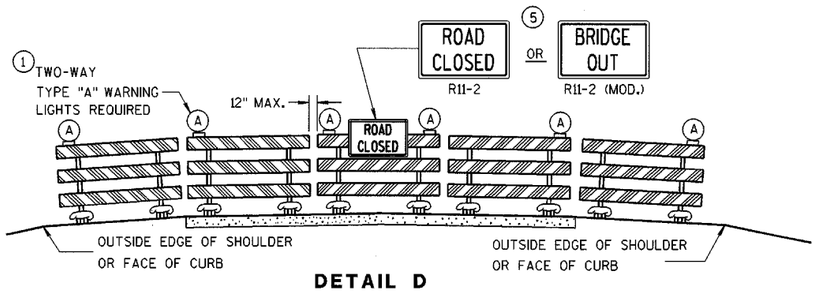
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 2-4a

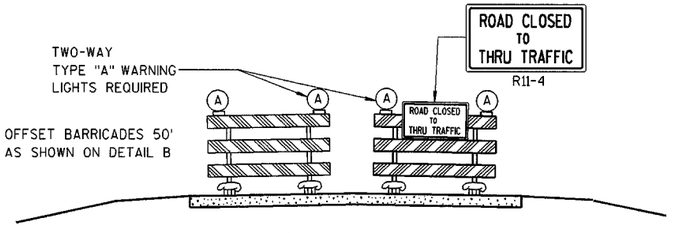
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

6

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

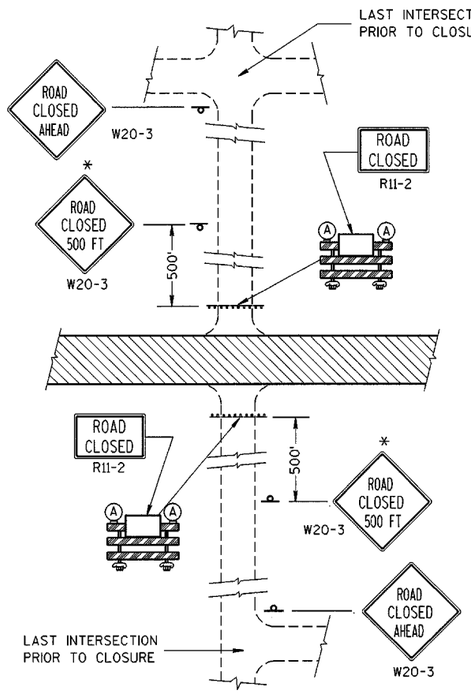
APPROVED
9/16/03
DATE

Thomas N. Notbohm for
CHIEF SIGNS AND MARKING ENGINEER

FHWA

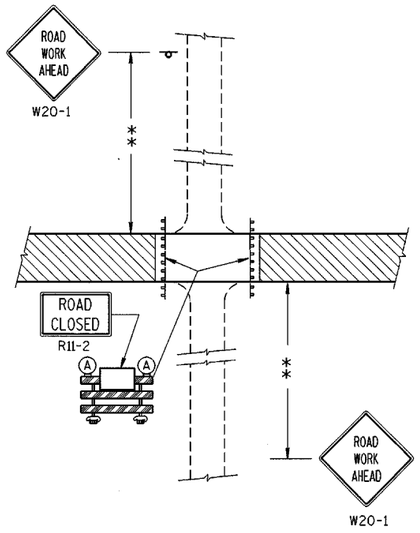
S.D.D. 15 C 2-4b

S.D.D. 15 C 2-4b



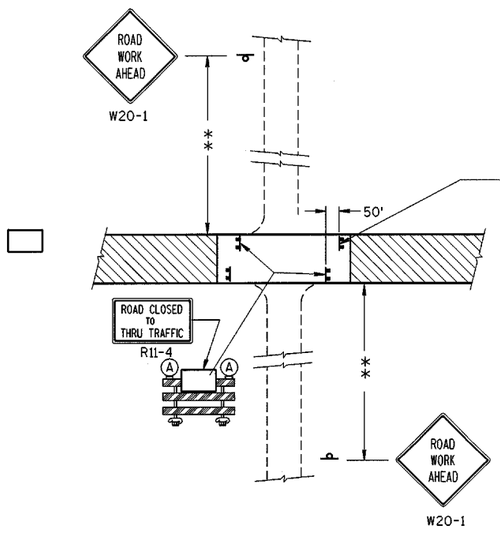
DETAIL 1

(NO ACCESS TO PROJECT)



DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).

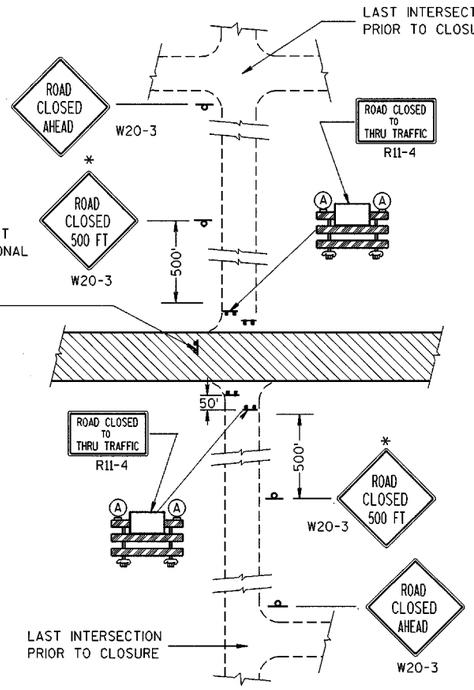


DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).

FOR BRIDGE OR CULVERT REPLACEMENT, USE ADDITIONAL SIGN ON BARRICADE

BRIDGE OUT
XX MILES AHEAD
R11-3 (MOD.)



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- POST MOUNTED WARNING SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/16/03 DATE
Thomas N. Notbohm for CHIEF SIGNS AND MARKING ENGINEER
FHWA

6

S.D.D. 15 C 3-1

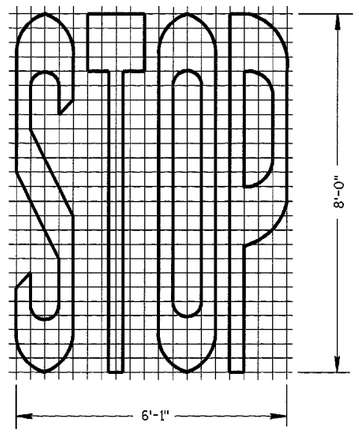
S.D.D. 15 C 3-1

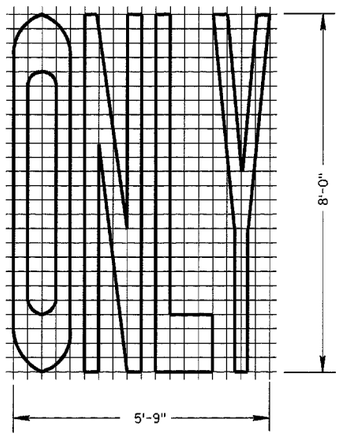
GENERAL NOTES

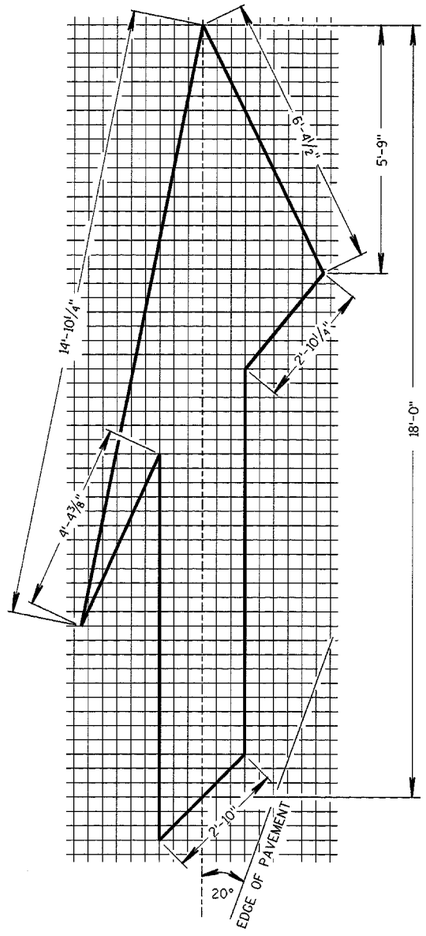
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED.

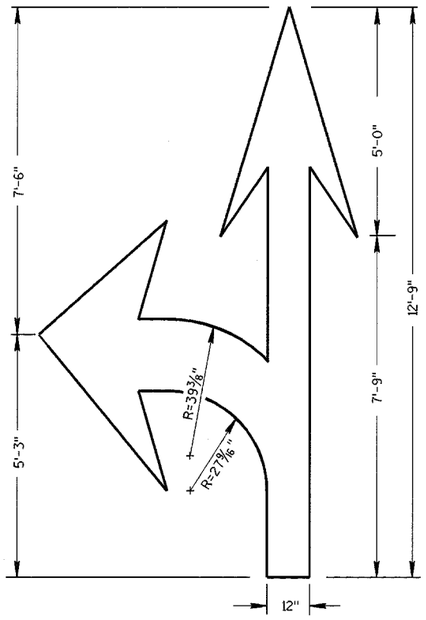
A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.



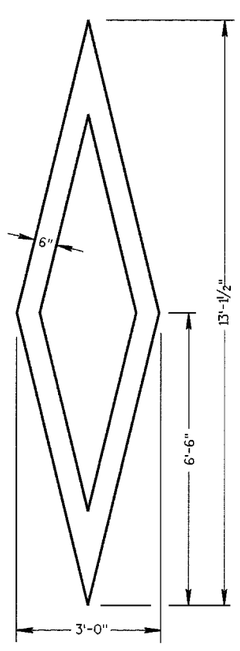




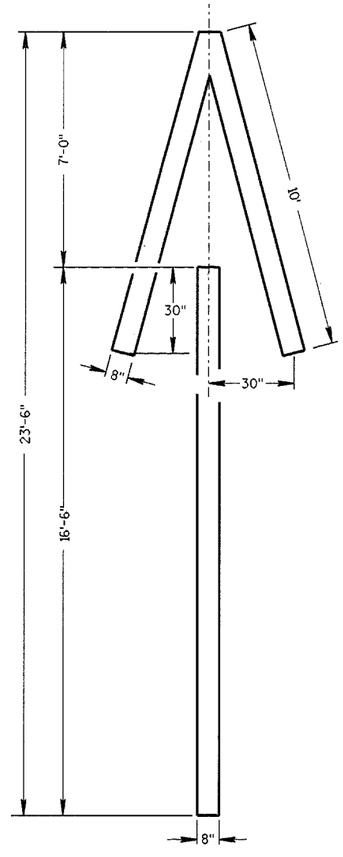
TYPE 5 LANE DROP ARROW



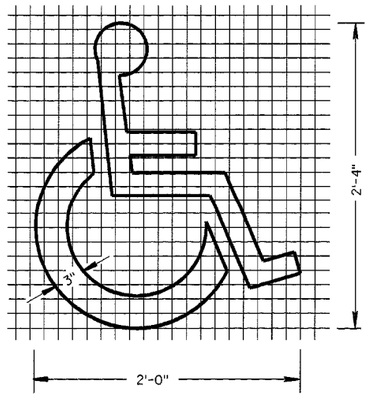
TYPE 3

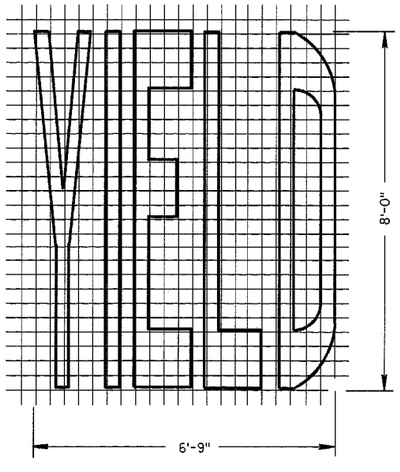


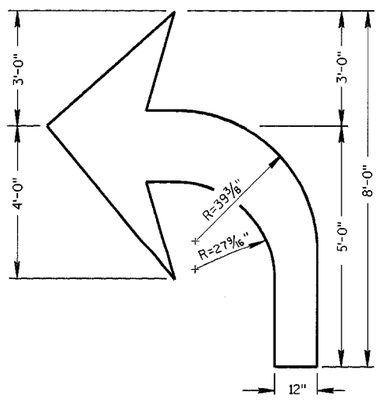
PREFERENTIAL LANE SYMBOL



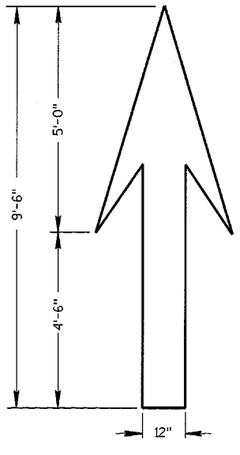
TYPE 4







TYPE 2



TYPE 1

PAVEMENT MARKING SYMBOLS

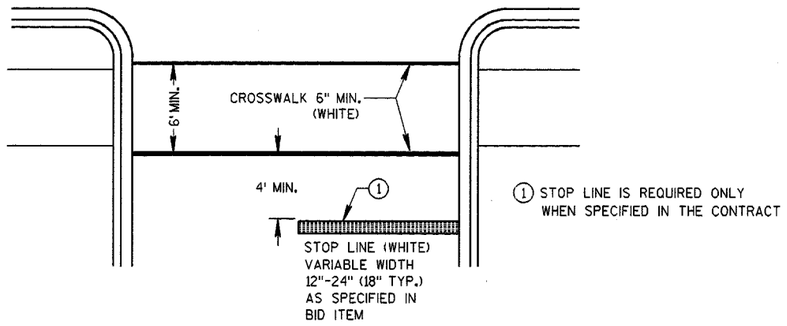
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3-18-03 DATE
Deborah S. Kyle for
CHIEF SIGNS AND MARKING ENGINEER
FHWA

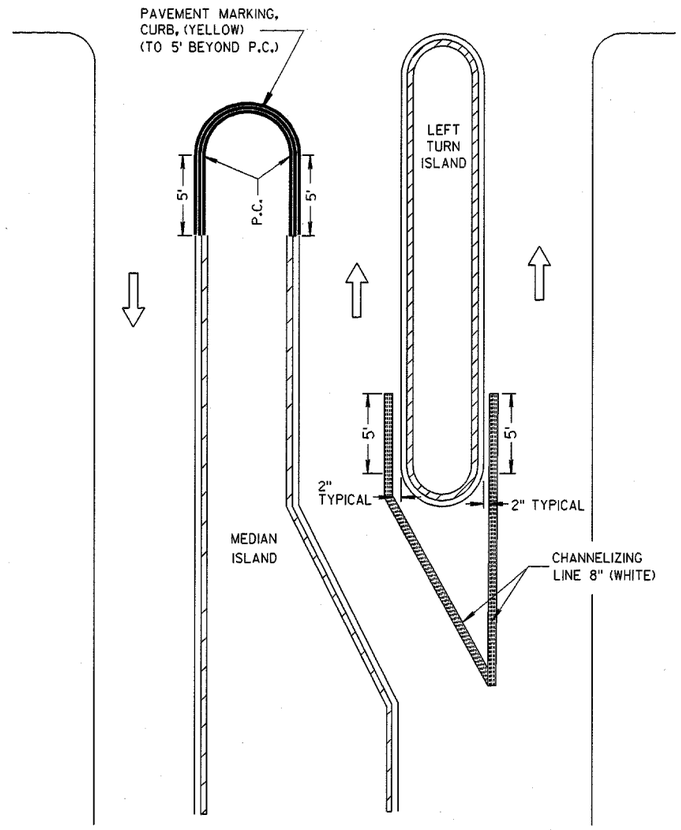
6

S.D.D. 15 C 7-6a

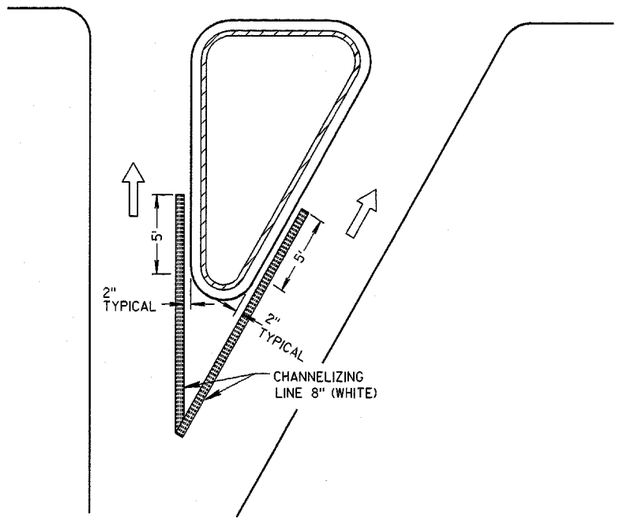
S.D.D. 15 C 7-6a



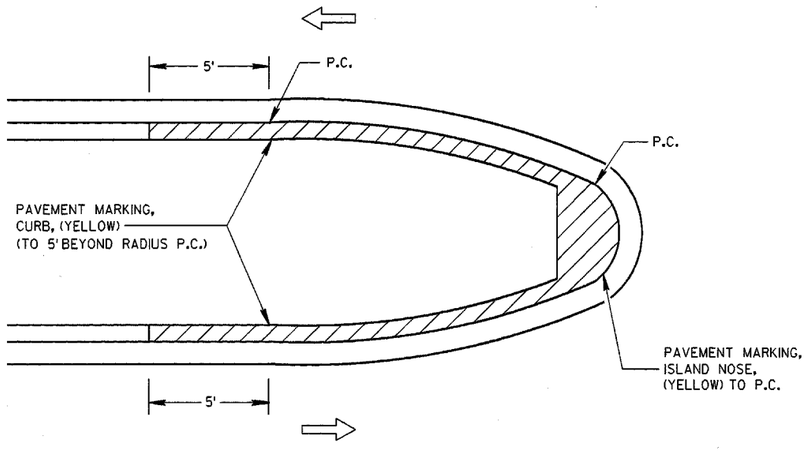
STOP LINE AND CROSSWALK



LEFT TURN & MEDIAN ISLAND



RIGHT TURN ISLAND



MEDIAN ISLAND WITH SLOPED NOSE

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS, STOP LINE & CROSS WALK)

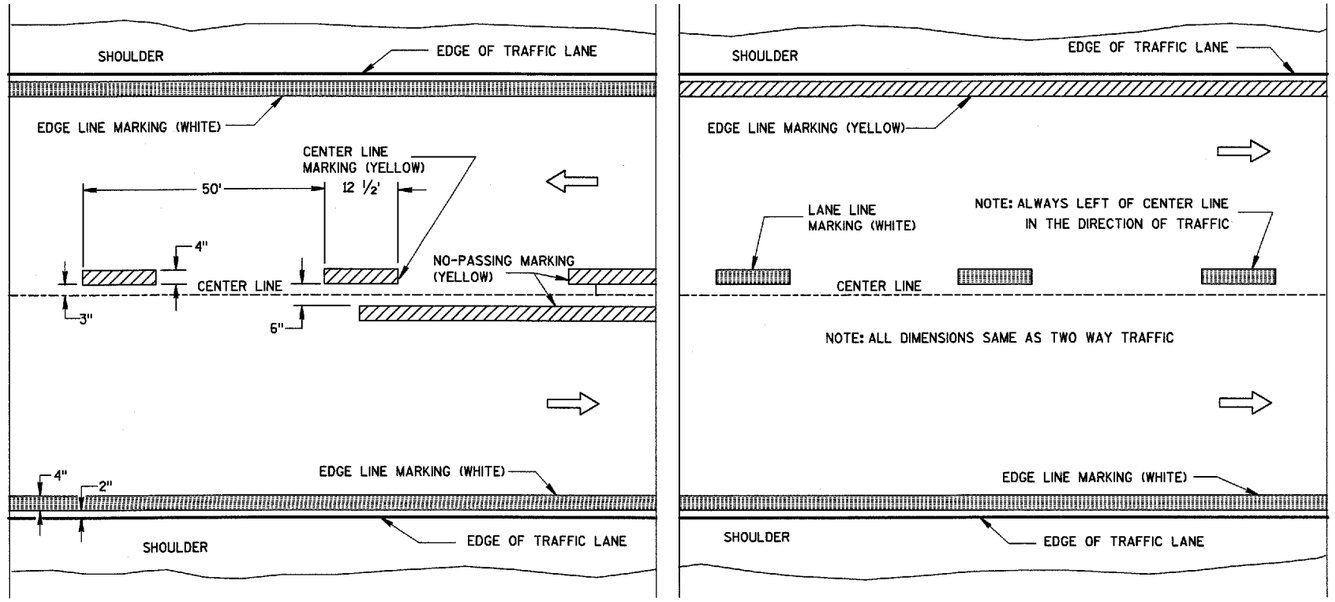
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1-16-03 DATE
Deborah K. Kozal for
CHIEF SIGNS AND MARKING ENGINEER
FHWA

6

S.D.D. 15 C 8-10e

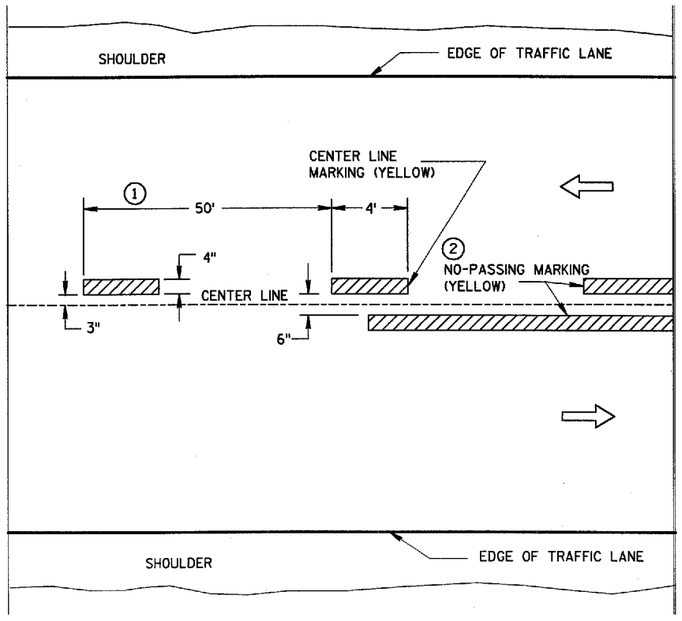
S.D.D. 15 C 8-10e



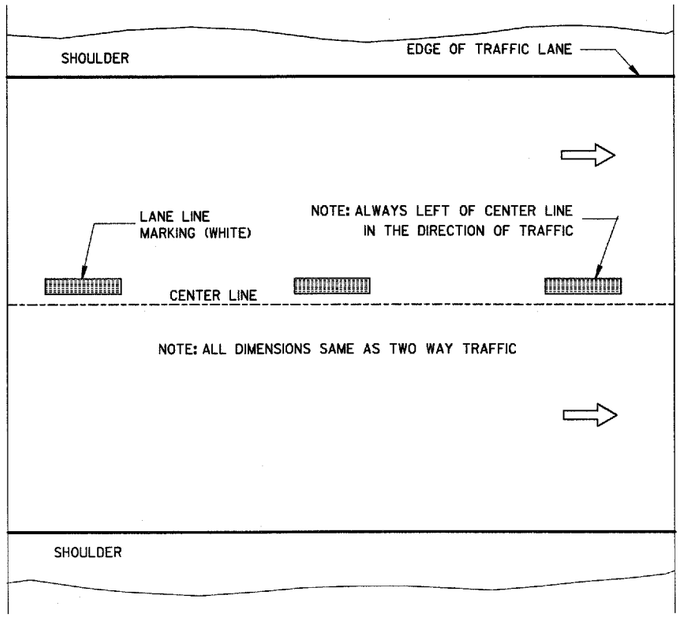
TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.

② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

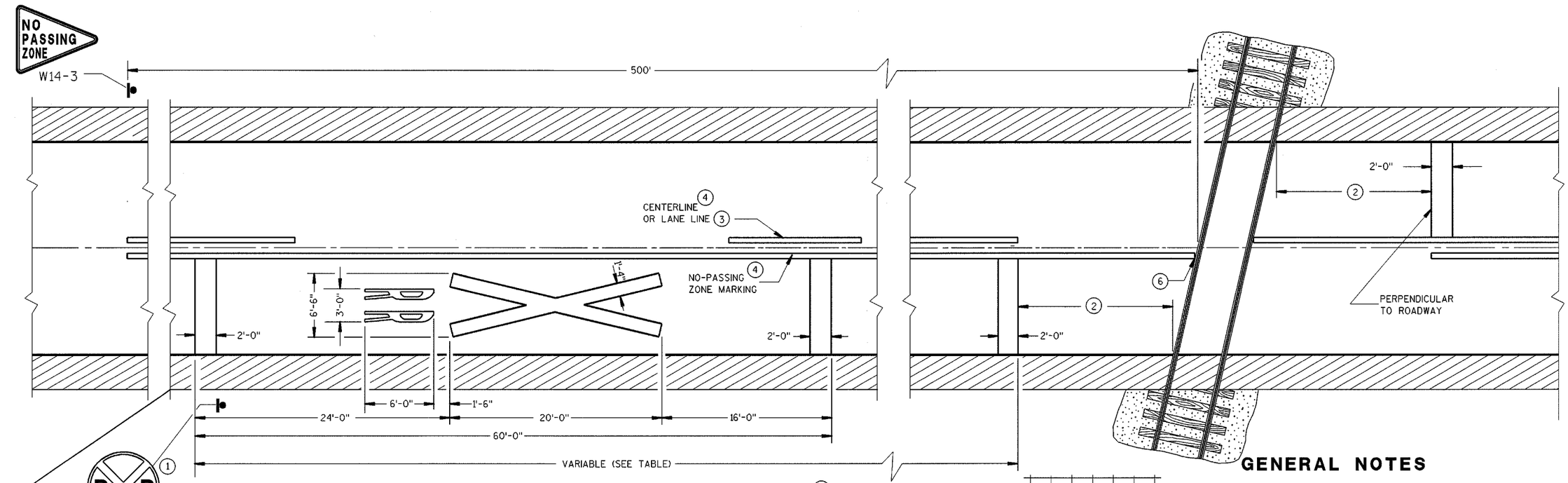
PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

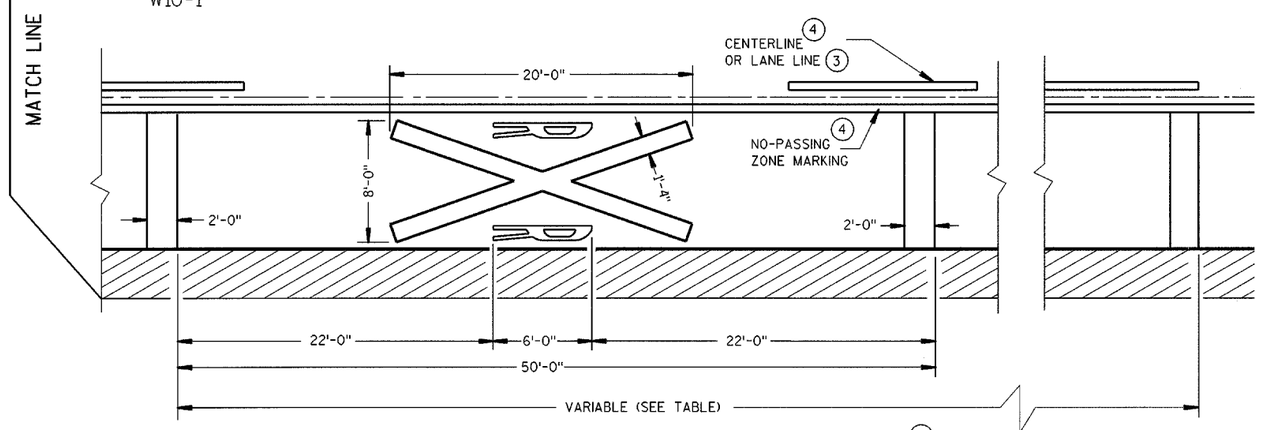
APPROVED
2-17-00
DATE
Charles I. Spang
CHIEF SIGNS AND MARKING ENGINEER
FHWA

S.D.D. 15 C 8-9a

S.D.D. 15 C 8-9a



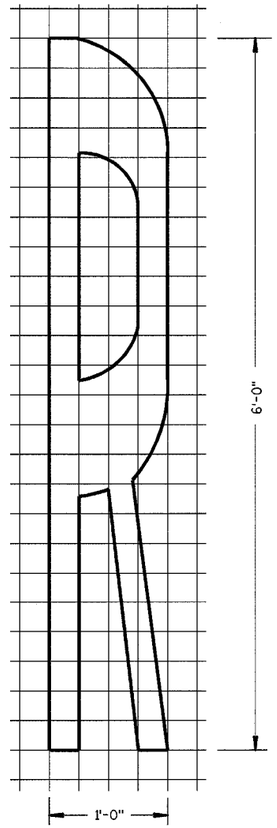
PREFERRED PAVEMENT MARKING (3)



ALTERNATE PAVEMENT MARKING (3)

(5)

Posted Speed (M.P.H.)	Variable Dimension (Feet)
25	150
30	200
35	250
40	300
45	400
50	550
55	750
60	1000
65	1000



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A THREE-LANE ROADWAY SHOULD BE MARKED WITH A CENTERLINE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE. ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" (ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION).

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

(1) A PORTION OF THE PAVEMENT MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE WARNING SIGN (W10-1).

(2) MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.

(3) REFLECTIVE WHITE.

(4) REFLECTIVE YELLOW 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(5) TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(6) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

6

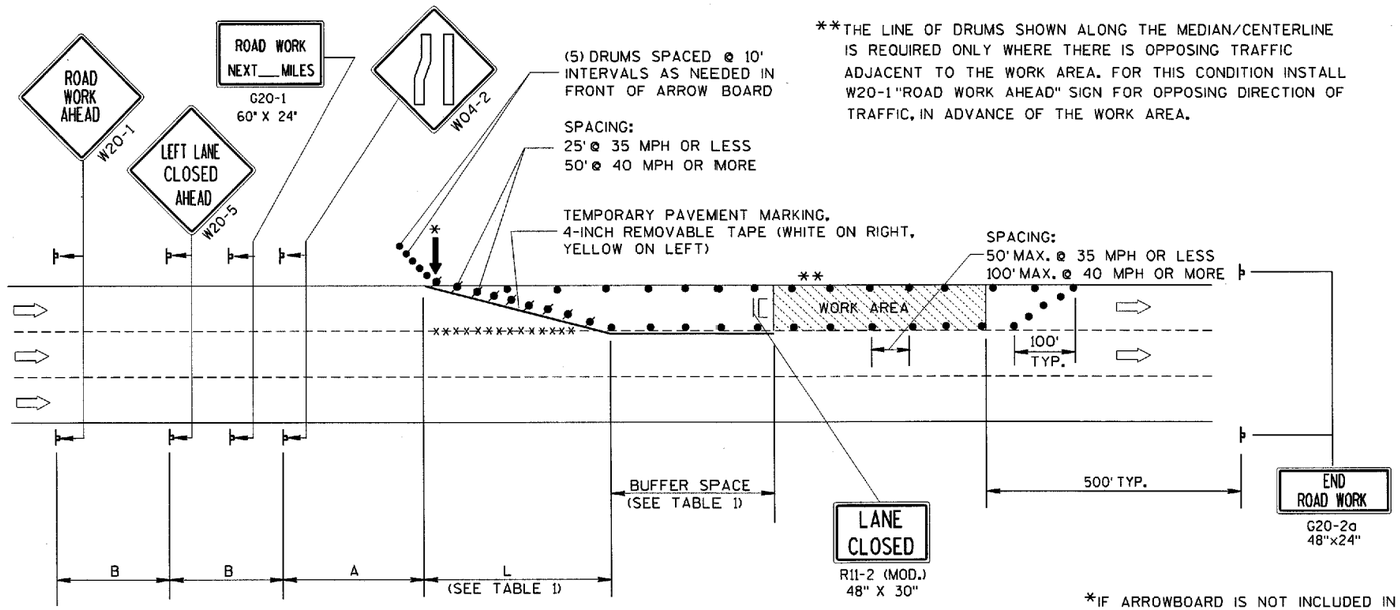
SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-6-03 (DATE) Deborah T. Kopal for (CHIEF SIGNS AND MARKING ENGINEER)
FHWA

S.D.D. 15 C 9-6

S.D.D. 15 C 9-6



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

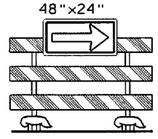


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- xxxx REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00
DATE

Charles J. Sprang
CHIEF SIGNS AND MARKING ENGINEER

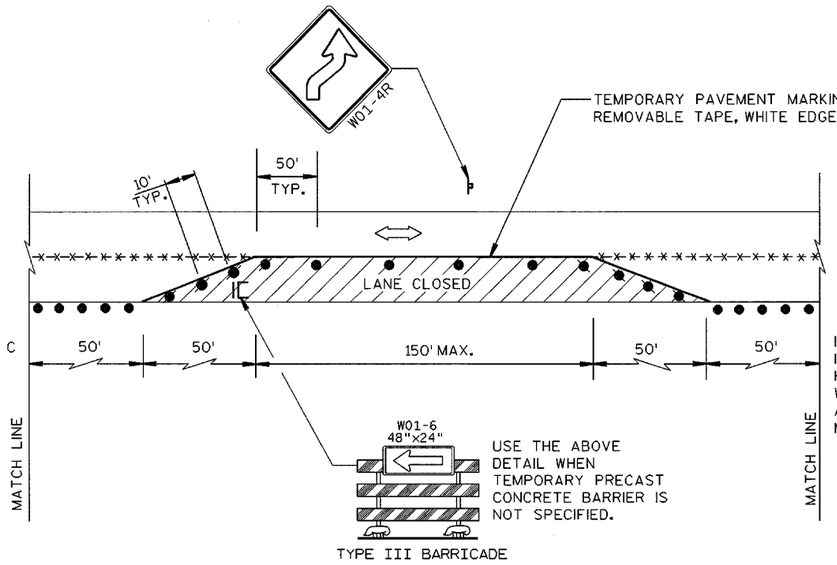
FHWA

S.D.D. 15 D 20-1

S.D.D. 15 D 20-1

LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH SIGN
- TEMPORARY PRECAST CONCRETE BARRIER
- FLAGS, 16"×16" MIN., ORANGE
- DRUM
- DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC FLOW



TYPE III BARRICADE



INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

GENERAL NOTES :

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

NON-OPERATIONAL EQUIPMENT OR MATERIAL SHALL BE LOCATED BEHIND THE PRECAST CONCRETE BARRIER AND ALLOW SIGHT FOR STOPPED VEHICLES TO SEE APPROACHING TRAFFIC THROUGH THE WORK ZONE.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

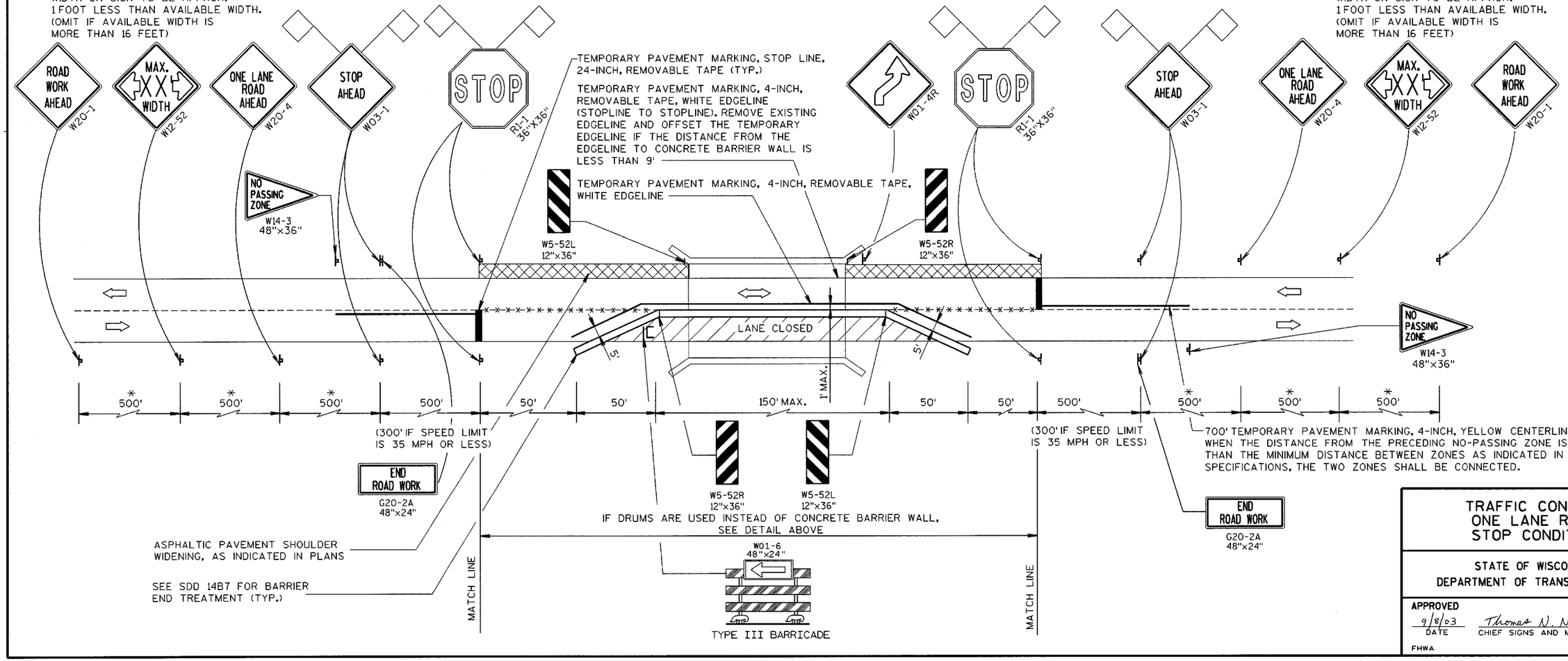
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

* 500' SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350' TYPICAL SPACING. FOR 25-30 MPH, USE 200' TYPICAL SPACING.



TYPE III BARRICADE

TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

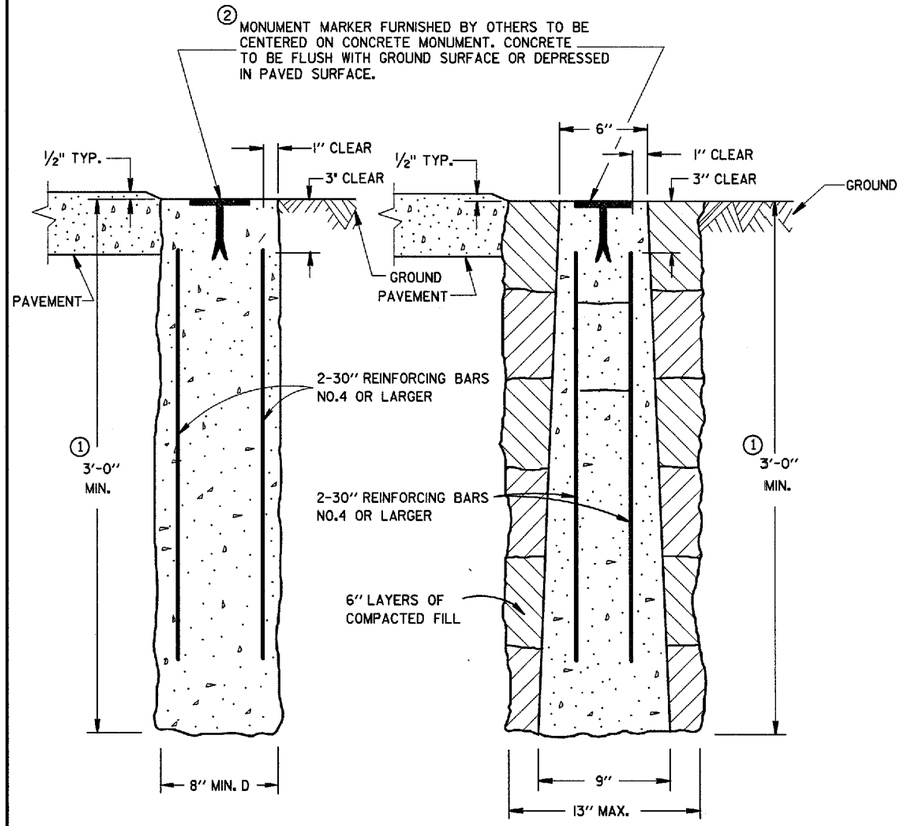
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/8/03 DATE
Thomas W. Notbohm for
CHIEF SIGNS AND MARKING ENGINEER
FHWA

6

S.D.D. 15 D 32-2

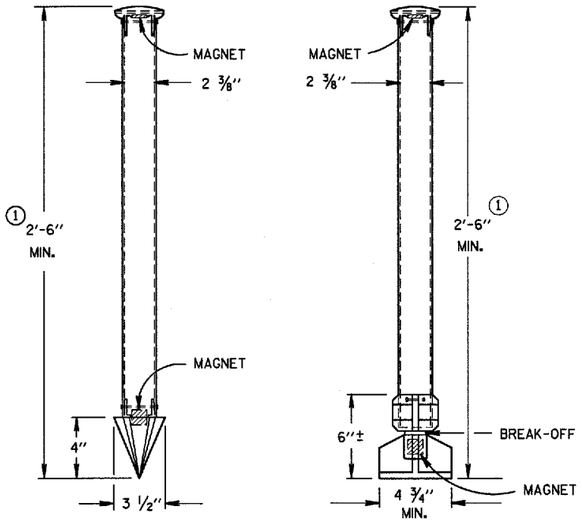
S.D.D. 15 D 32-2



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C

DRIVE-IN MONUMENT

TYPE D

BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

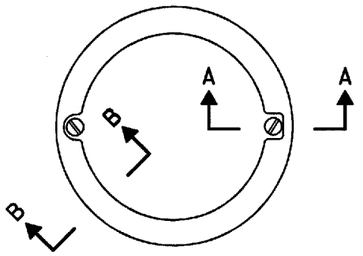
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

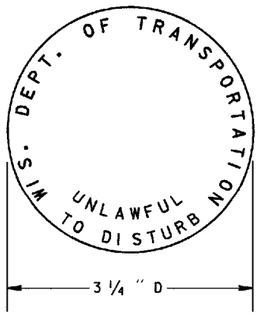
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

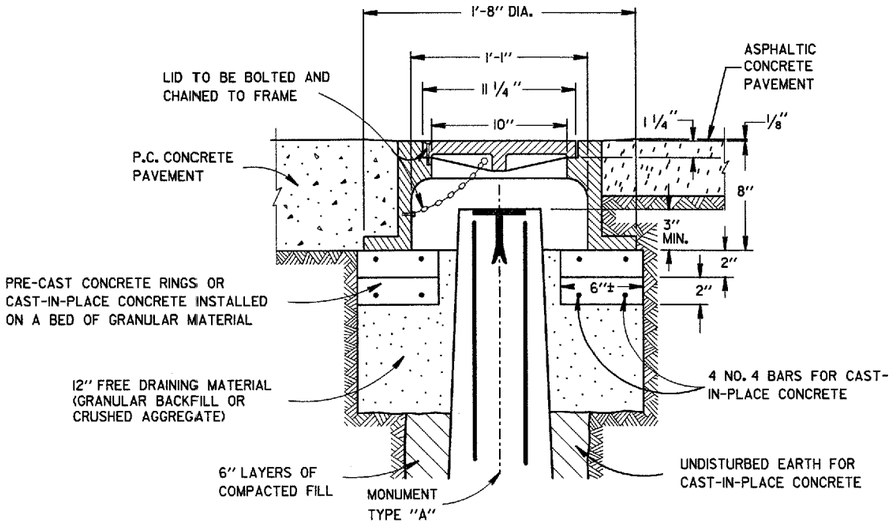


TOP VIEW



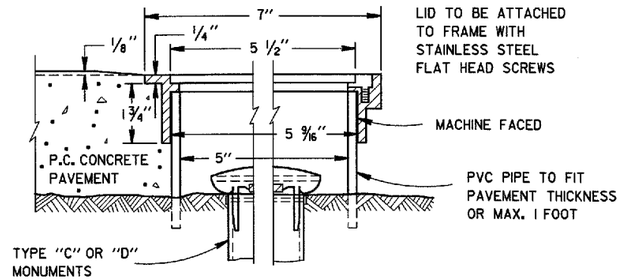
② WIS DOT MONUMENT MARKER LOGO

FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 9/22/99 DATE

Roger L. Trinastich
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

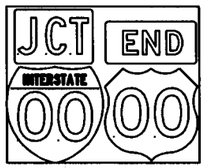
S.D.D. 16 A 1-6

S.D.D. 16 A 1-6

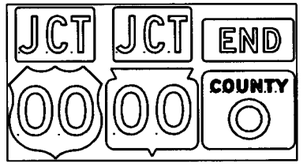
TYPICAL ASSEMBLIES



J1-1



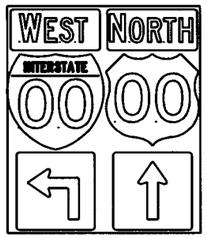
J1-2



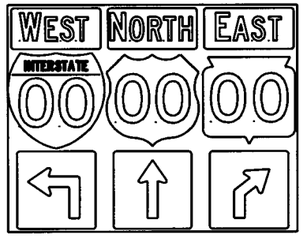
J1-3



J2-1



J2-2



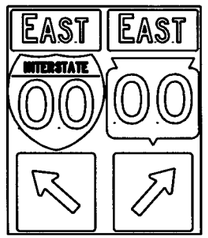
J2-3



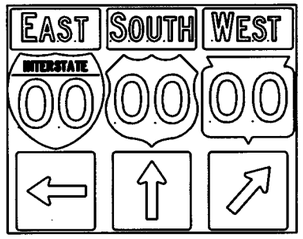
JV



J3-1



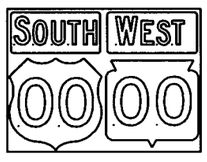
J3-2



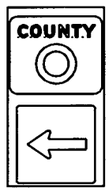
J3-3



J4-1



J4-2



J13-1



J12-1



J32-1



J33-1



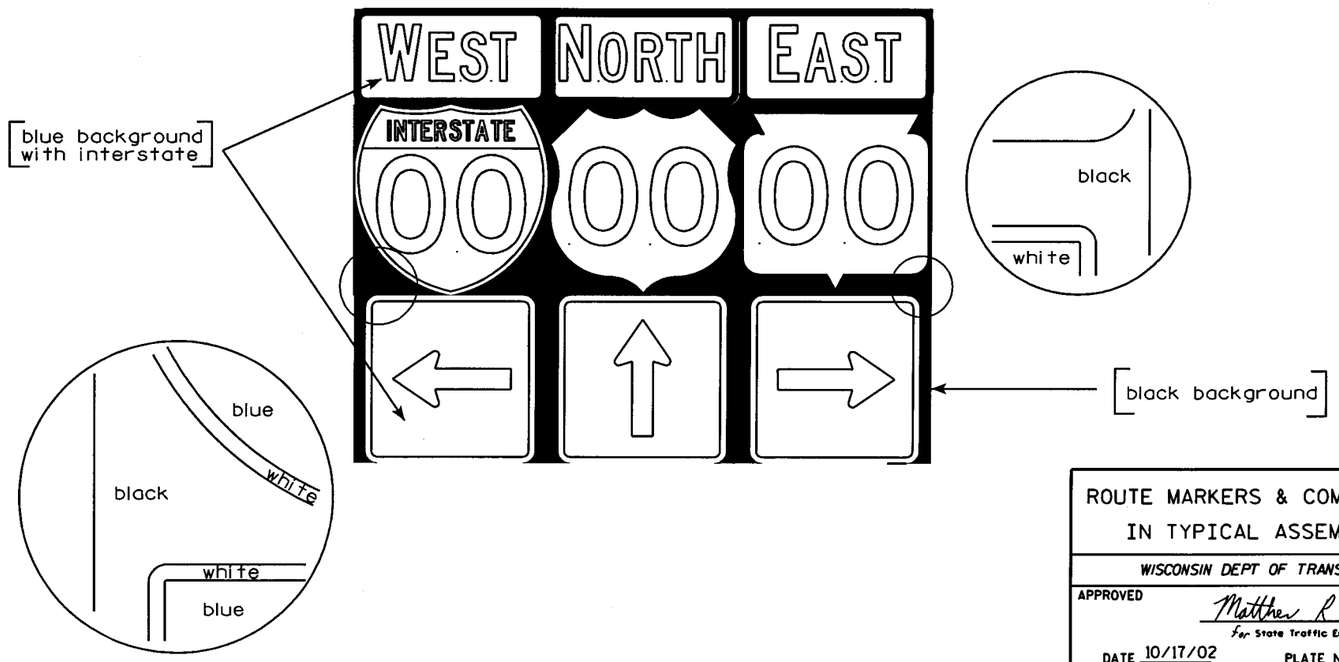
J23-1



J22-1

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square since base material is plywood.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/17/02 PLATE NO. A2-1S.3

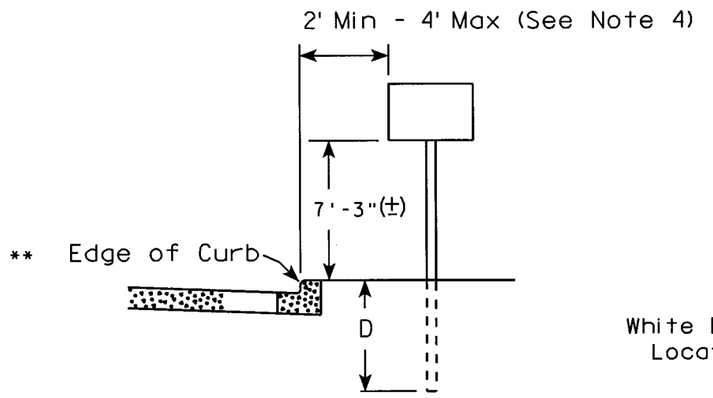
STATE PROJECT NUMBER:

SHEET NO: 105 E

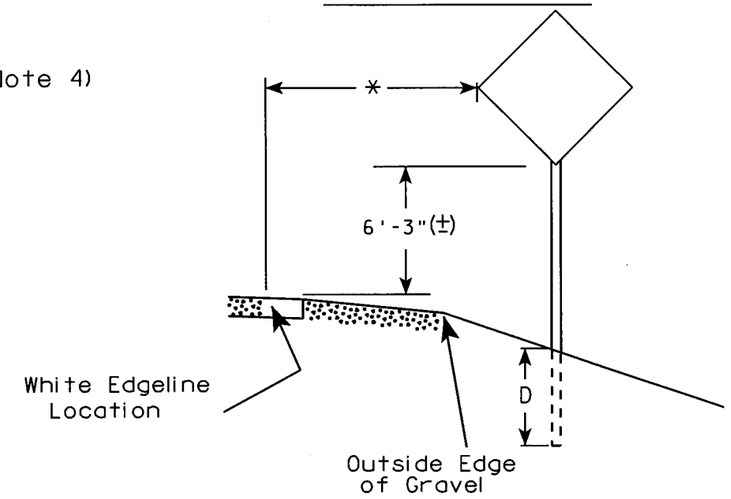
7

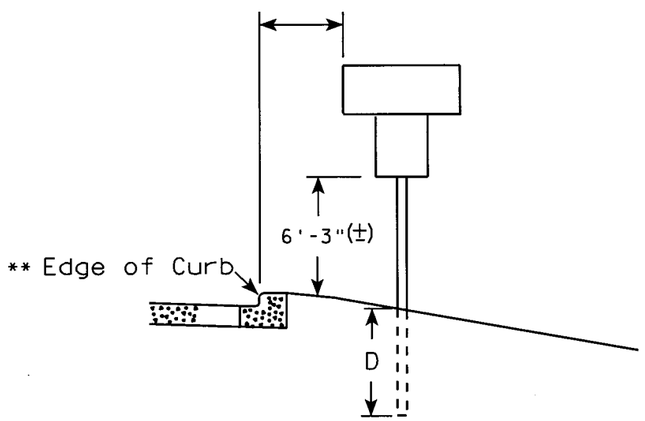
57,58,59,60,61,62,63
LEVELS ON - 2,3, 5,6, 10,

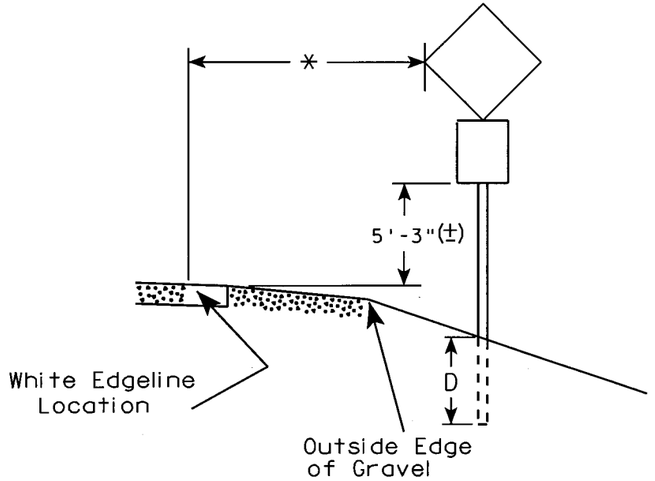
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
3. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically where there is sidewalk adjacent to the roadway or parking is permitted. This same criteria applies to mountable curb as well and measurement shall be taken from flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/20/03 PLATE NO. A4-3.12

STATE PROJECT NUMBER:	HWY:	COUNTY:			SHEET NO: 106	E

FILE NAME : C:\Users\Projects\tr_stdplate\A43.DGN PLOT DATE : 05-NOV-2004 13:26 PLOT BY : DOTDZK PLOT NAME : REV DATE : 12/20/02 Originator : Sandy Anderson PLOT SCALE : 101.940000:1.000000 WISDOT/CADDS SHEET 42

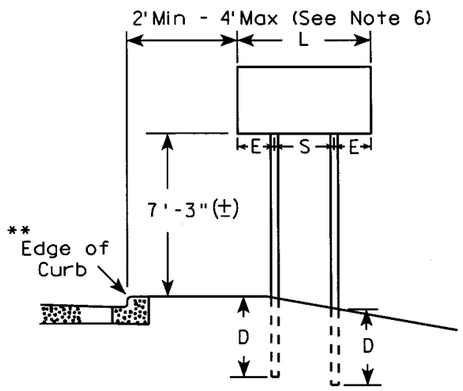
LEVELS ON - 2, 5,6, 10,11,12,13,14,15,16.

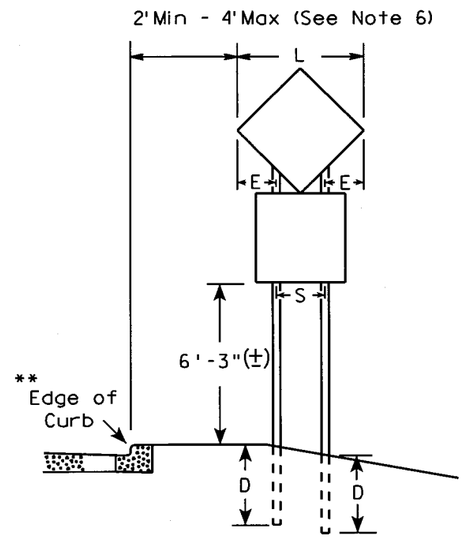
57,58,59,60,61,62,63

50.

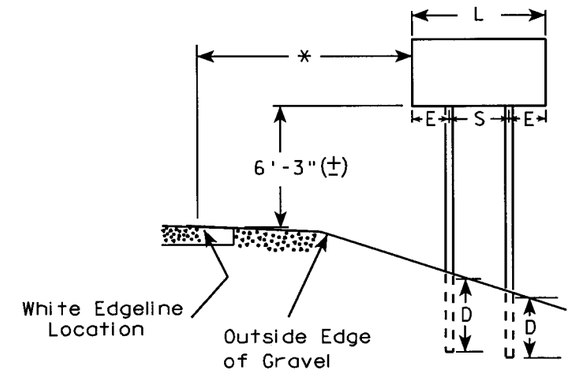
7

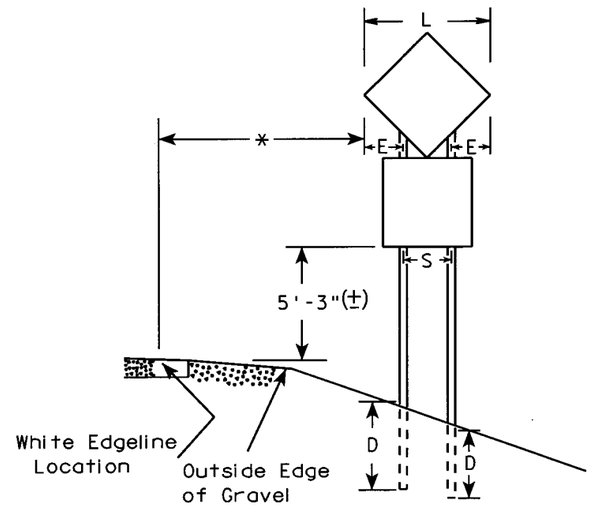
URBAN AREA

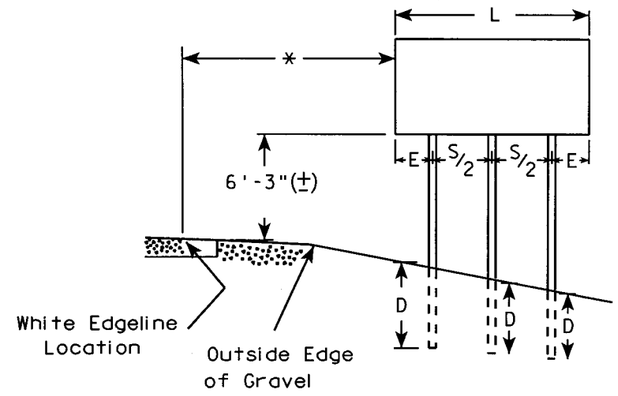




RURAL AREA (See Note 3)







GENERAL NOTES

1. For 3 post installations, spacing is S/2 and S must be greater than 7'-0".
2. For 4 post installations, spacing is S/3 and S must be greater than 10'-6".
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically where there is sidewalk adjacent to the roadway or parking is permitted. This same criteria applies to mountable curb as well and measurement shall be from the flow line.

DIAMOND SHAPED SIGNS		
L	S	E
Less than 60"	20"	L/2 - 10
60"--72"	32"	L/2 - 16
Greater than 72"	3 L/5	L/5

SIGN SHAPE OTHER THAN DIAMOND (Two Post Installations)		
L	S	E
Less than 60"	L-24"	12"
60" or more	3 L/5	L/5

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/20/03 PLATE NO. A4-4.7

STATE PROJECT NUMBER:	HWY:	COUNTY:			SHEET NO: 107	E

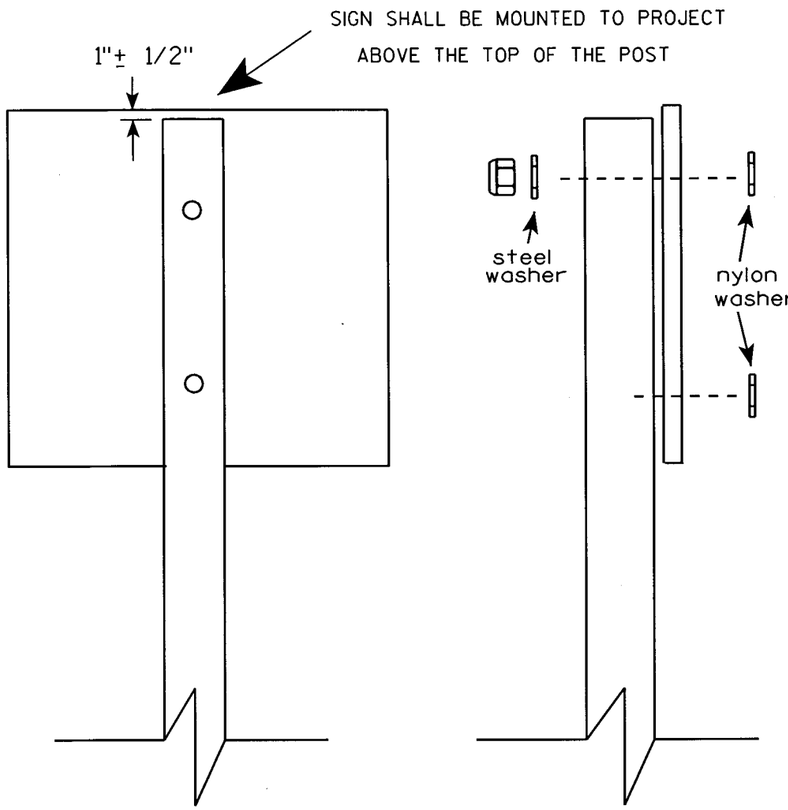
FILE NAME : C:\Users\Projects\tr_stdplate\A44.DGN PLOT DATE : 05-NOV-2004 13:31 PLOT BY : DOTDZK PLOT NAME : ORG DATE : Originator : Sandy Anderson PLOT SCALE : 104.000000:1.000000

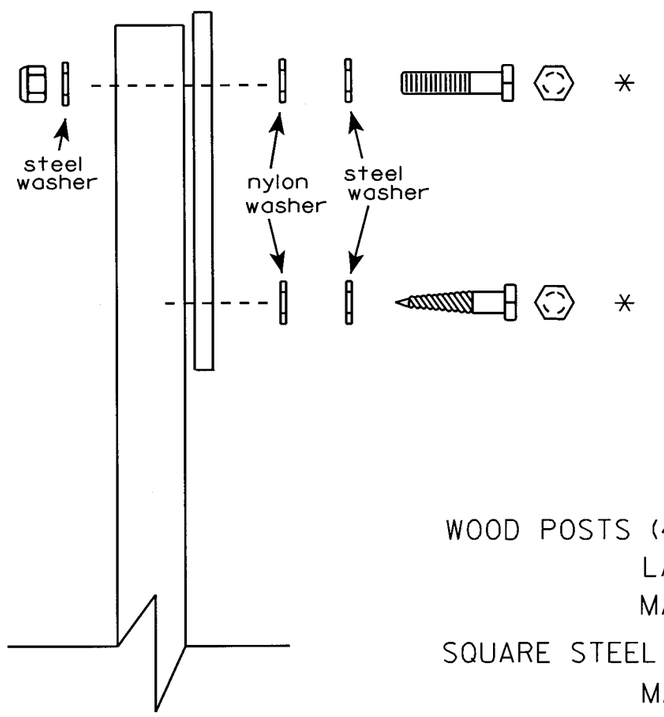
WISDOT/CADDS SHEET 42

7

LEVELS ON - 1,2,3, 5,6, 10.

57,58,59,62, 63





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

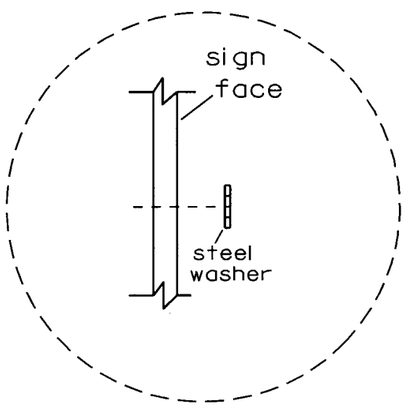
a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs 9 sq. ft. or larger require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

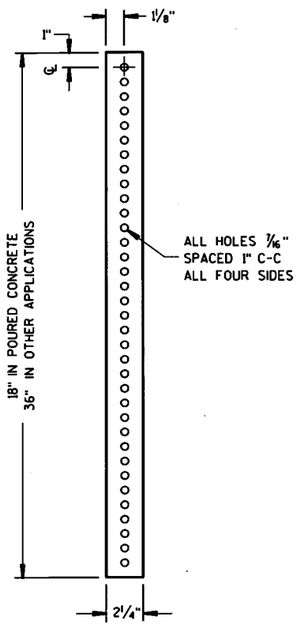
DATE 4/03/02 PLATE NO. A4-8.5

7

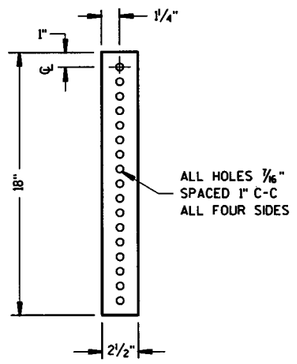
STATE PROJECT NUMBER:					SHEET NO: 108	E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH

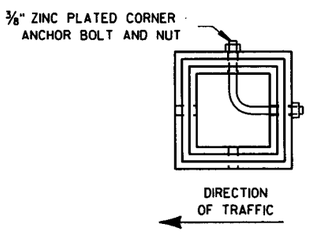


2 1/2 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH

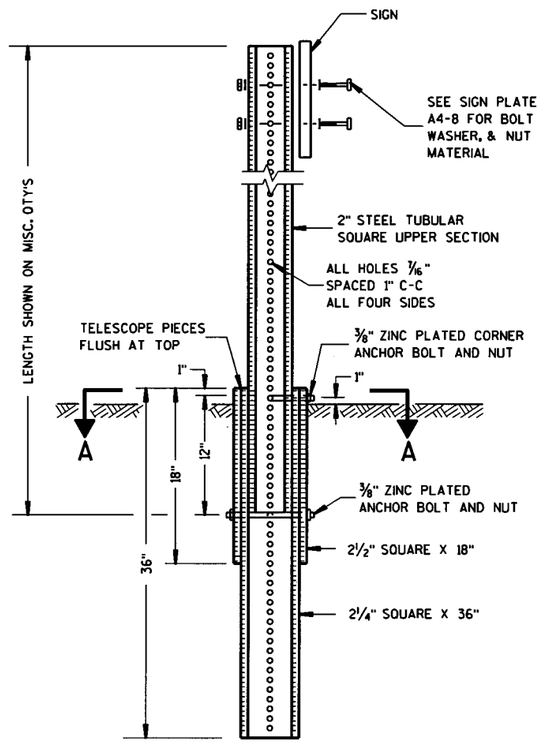


Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

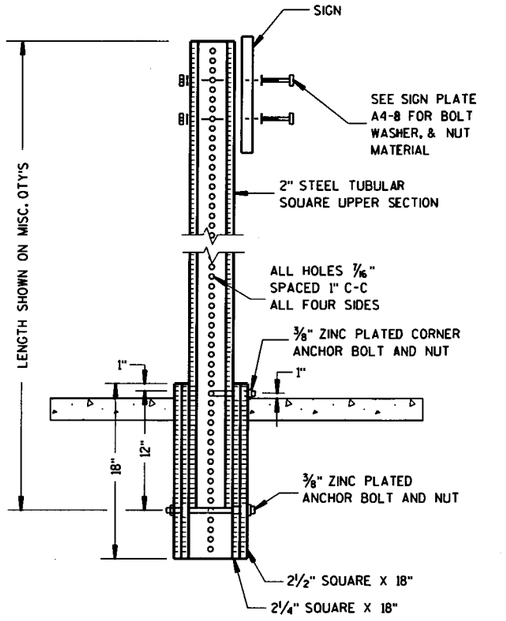


SECTION A-A



DETAIL OF TUBULAR STEEL SIGN POST
(IN OTHER INSTALLATIONS)

NOTE:
BOTH THE ANCHOR SECTION AND OUTER SLEEVE SHALL BE LEFT A MAXIMUM OF 2" ABOVE THE SURFACE.



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE)

7

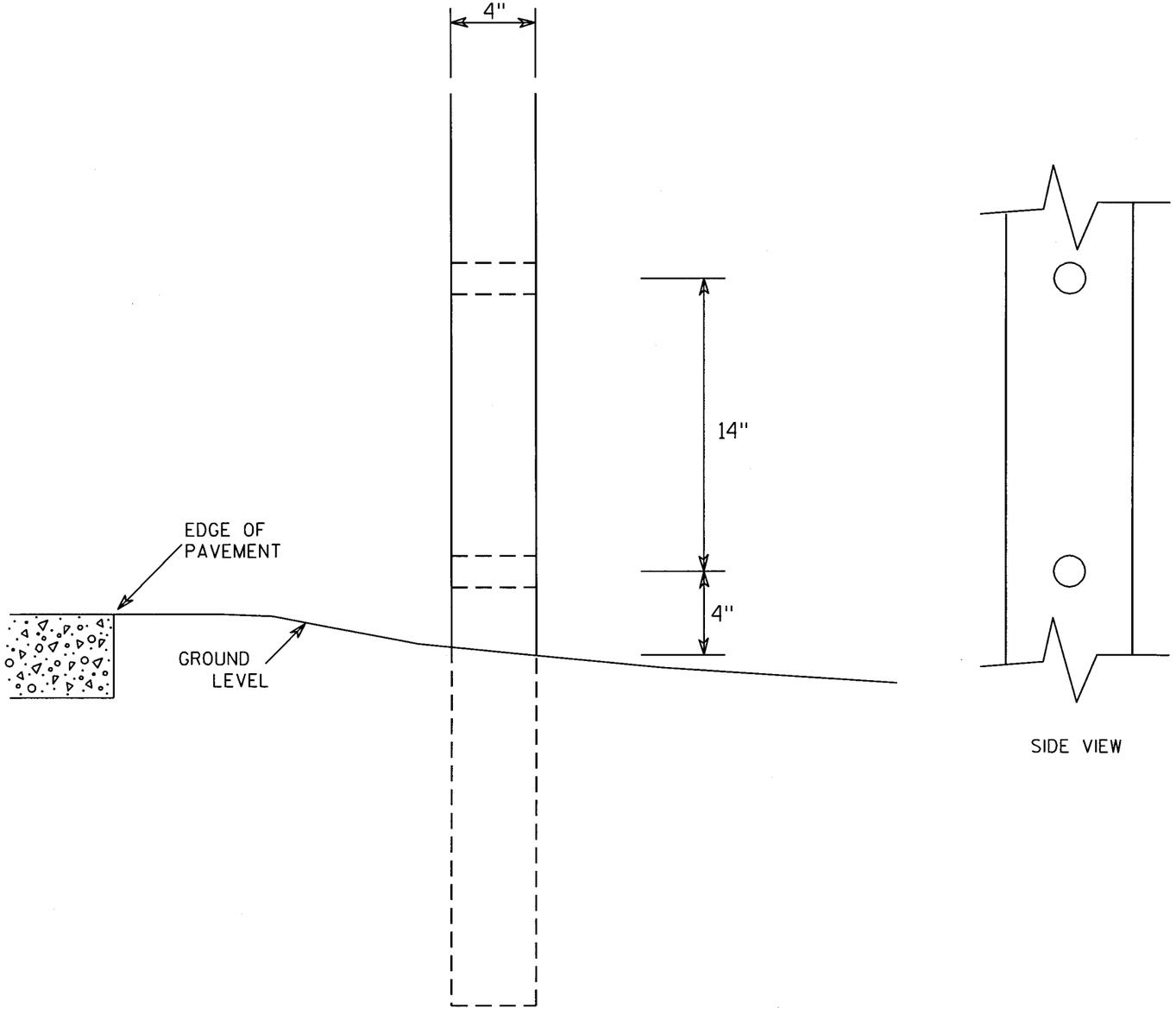
7

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 1/7/04 PLATE NO. A4-9.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

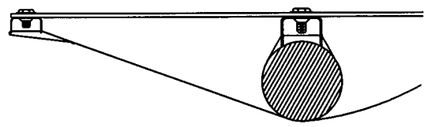
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

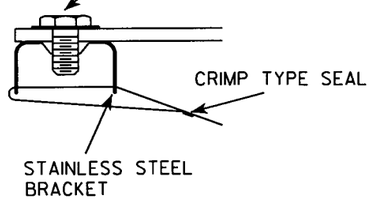
STATE PROJECT NUMBER:					SHEET NO: 110	E

57.58.59.60.61.62.63
LEVELS ON - 2.3.4.5.6. 10. 18.

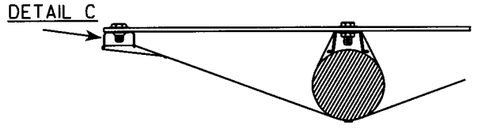
BRACE BANDING

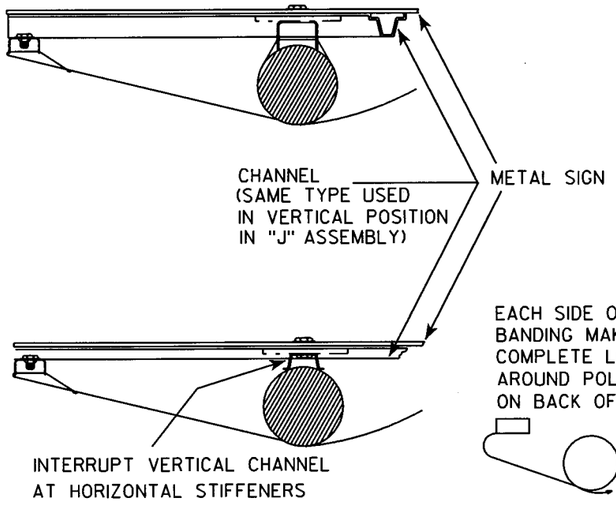


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER

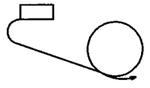


DETAIL C



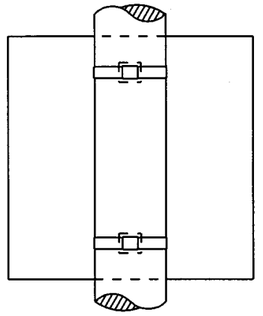


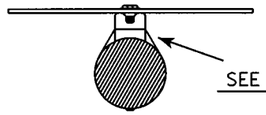
EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE



BRACKET BANDING

SINGLE SIGN

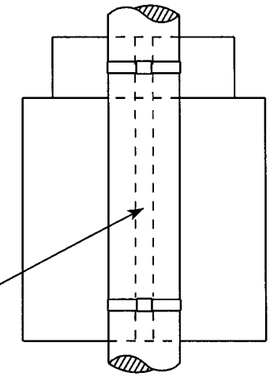




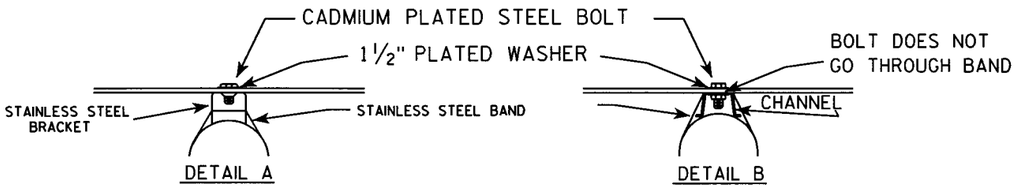
SEE DETAIL A

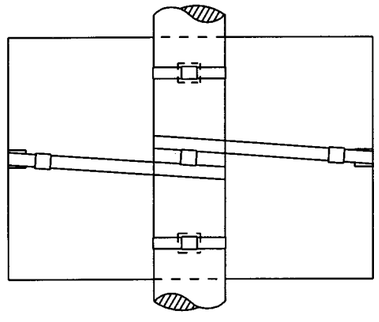
"J" ASSEMBLY

CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



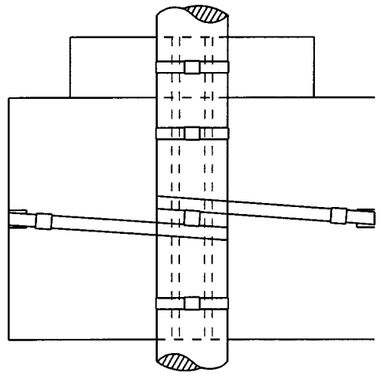
SEE DETAIL B





BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY CURVE FACE OF SIGN.



GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

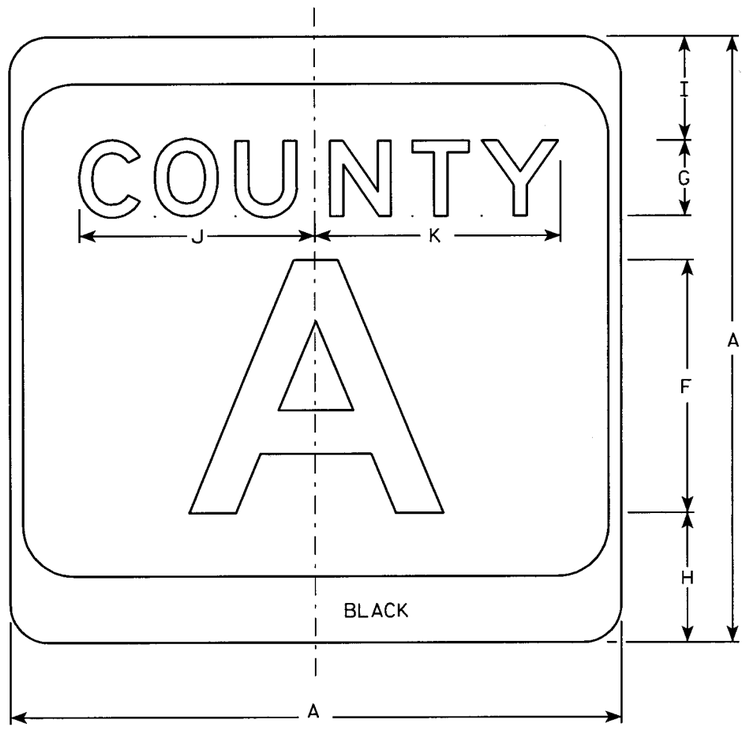
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/03/03 PLATE NO. A5-9.1

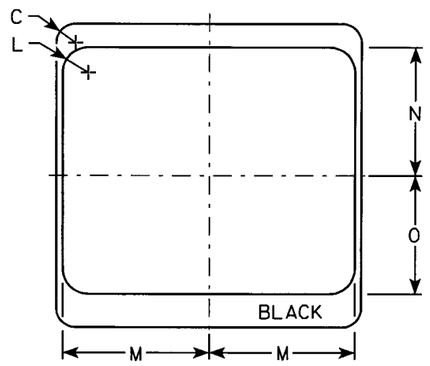
7

STATE PROJECT NUMBER:	HWY:	COUNTY:			SHEET NO: 111	E

LEVELS ON • 2.3.4.5.6.7. 10.
57.58.59.60. 63
FILE NAME : C:\Users\Projects\tr_stdplate\A59.DGN PLOT DATE : 06-OCT-2004 08:03 PLOT BY : DOTDZK PLOT NAME : ORG DATE : Feb 2003 Originator : Sandy Anderson PLOT SCALE : 36.000000:1.000000
WISDOT/CADDS SHEET 42



M1-5A



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropirate letters & optically adjust spacing to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1																												
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8												4.0	.36
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14												9.0	.81
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14												9.0	.81
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14												9.0	.81

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

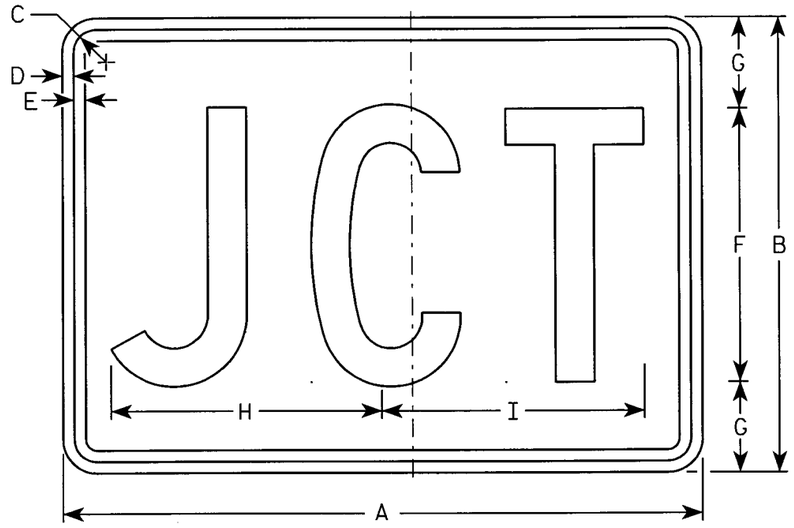
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-5A.7

STATE PROJECT NUMBER:

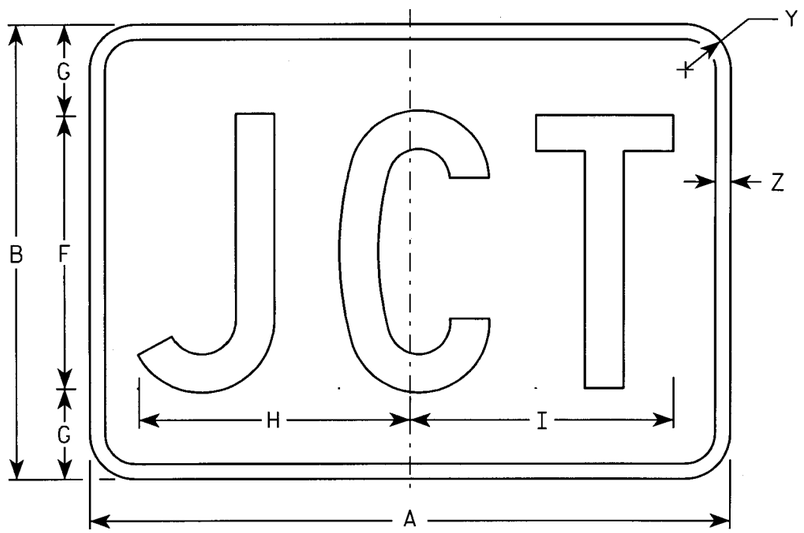
SHEET NO: 112 E

58.59.60.61.62.63
LEVELS ON - 2.3. 5.6. 10.



M2-1
MK2-1
MM2-1*
MR2-1

*See Note 6



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective
6. Border shall be omitted on MM2-1.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M2-1.9

STATE PROJECT NUMBER:

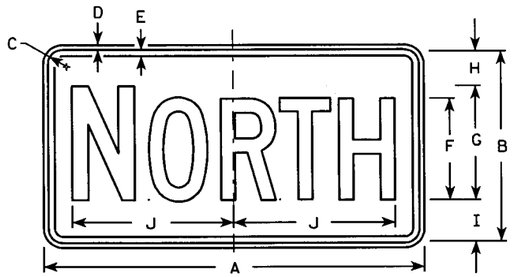
SHEET NO: 113 E

58.59.60.61.62.63

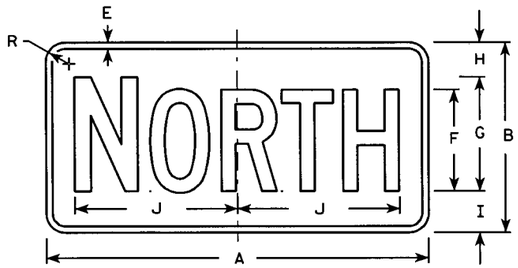
LEVELS ON - 2.3. 5.6. 10.

FILE NAME : C:\Users\Projects\tr_stdplate\M21.DGN PLOT DATE : 05-NOV-2004 13:36 ORG DATE : 10/19/00 Originator : Sandy Anderson

WISDOT/CADDS SHEET 42



M3-1
MK3-1
MO3-1



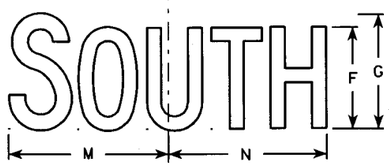
MB3-1
MG3-1
MM3-1*
MN3-1



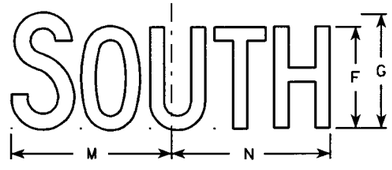
M3-2
MK3-2
MO3-2



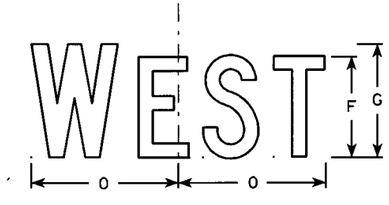
MB3-2
MG3-2
MM3-2*
MN3-2



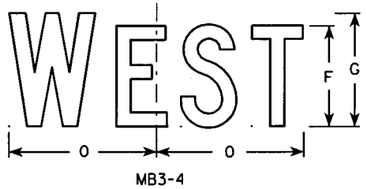
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3*
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4*
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   MO3-1 thru MO3-4 Background - Orange - Reflective
   Message - Black
6. Border shall be omitted on MM series.
7. Note the first letter of each direction is larger than the remainder of the message.

* See Note 6

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 300 mm
3	750 mm X 375 mm
4	750 mm X 375 mm
5	750 mm X 375 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	12	1 1/8	3/8	1/2	6	7	2 1/4	2 3/4	10 1/4	7 1/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2										2.00	0.18
3	30	15	1 1/8	3/8	1/2	8	9	2 3/4	3 1/4	12 3/4	10 3/8	11 1/8	12 5/8	12 1/2	11 5/8			1 1/2										3.13	0.28
4	30	15	1 1/8	3/8	1/2	8	9	2 3/4	3 1/4	12 3/4	10 3/8	11 1/8	12 5/8	12 1/2	11 5/8			1 1/2										3.13	0.28
5	30	15	1 1/8	3/8	1/2	8	9	2 3/4	3 1/4	12 3/4	10 3/8	11 1/8	12 5/8	12 1/2	11 5/8			1 1/2										3.13	0.28

STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M3-1.10

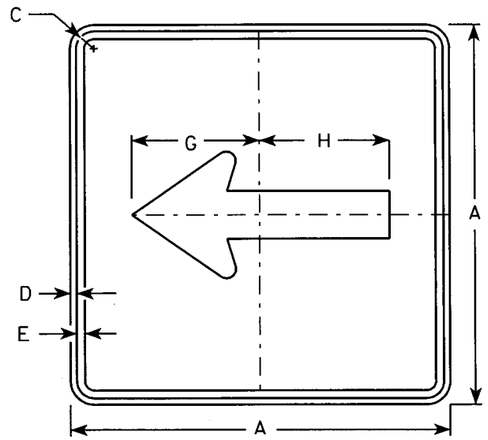
STATE PROJECT NUMBER:

SHEET NO: 119 E

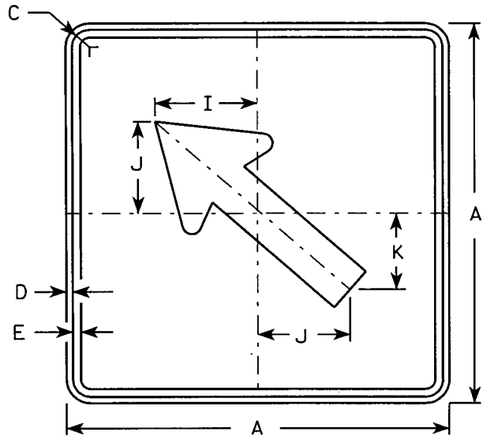
58.59.62.63 LEVELS ON - 2.3. 5.6. 10.

FILE NAME : C:\Users\Projects\tr_stdplate\M31.DGN PLOT DATE : 05-NOV-2004 13:36 ORG DATE : 1980 Originator : Sandy Anderson

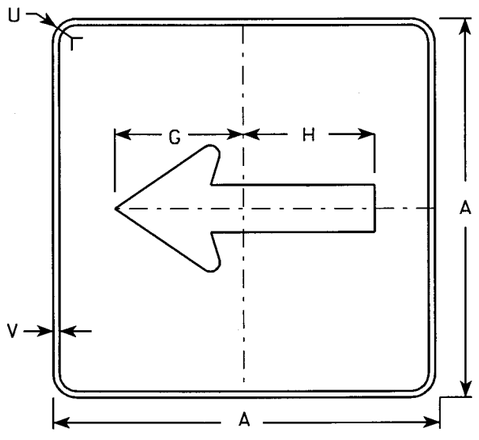
WISDOT/CADDS SHEET 42



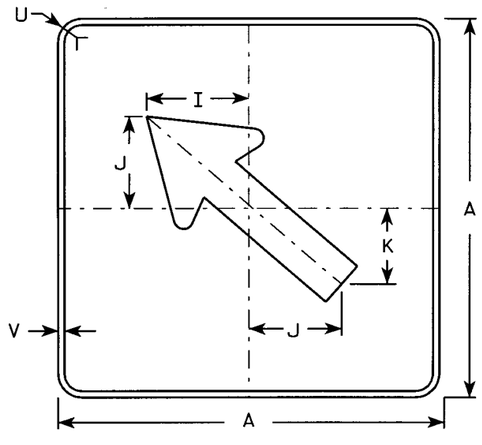
M6-1
MK6-1
MM6-1 (See Note 5)
MO6-1
MR6-1



M6-2
MK6-2
MM6-2 (See Note 5)
MO6-2
MR6-2



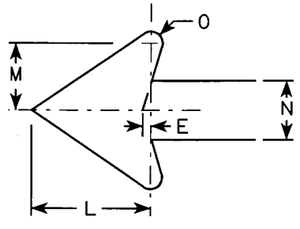
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG6-1 and MG6-2 Background - Green Message - White - Type H Reflective
   MK6-1 and MK6-2 Background - Green Message - White - Type H Reflective
   MM6-1 and MM6-2 Background - White - Type H Reflective Message - Green
   MN6-1 and MN6-2 Background - Brown Message - White - Type H Reflective
   MO6-1 and MO6-2 Background - Orange - Reflective Message - Black
   MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective
5. Border shall be omitted on MM series.



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25	0.56

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M6-1.11

STATE PROJECT NUMBER:

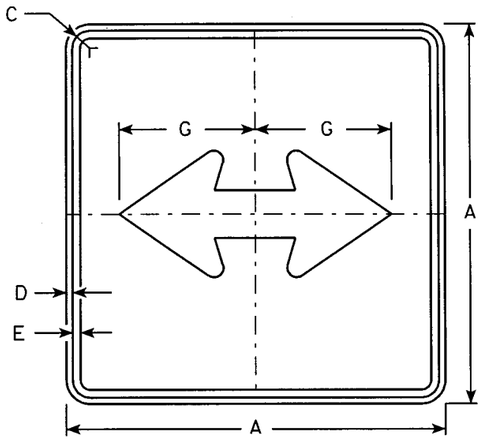
SHEET NO: 115 E

58.59.60.61.62.63

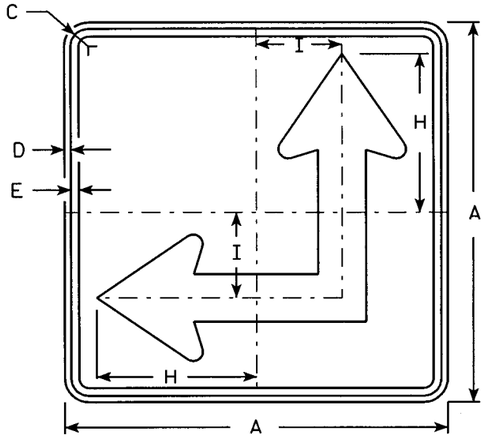
LEVELS ON - 2.3. 5.6.

FILE NAME : C:\Users\Projects\tr_stdplate\M61.DGN PLOT DATE : 05-NOV-2004 13:37 ORG DATE : 1980 Originator : Sandy Anderson

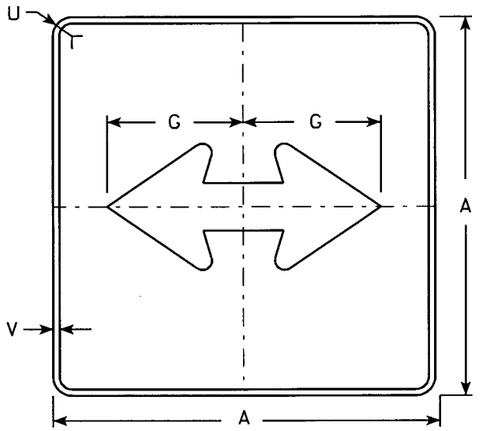
WISDOT/CADDS SHEET 42



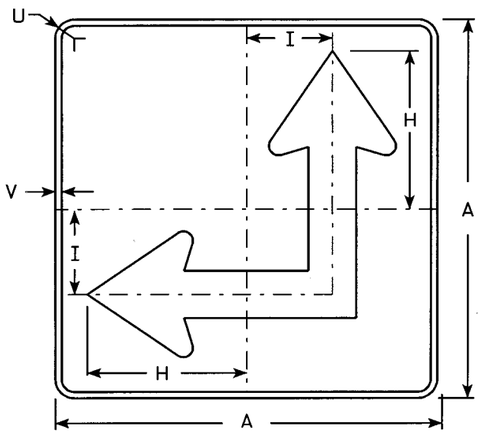
M6-4
MK6-4
MM6-4 (See Note 5)
MO6-4
MR6-4



M6-6
MK6-6
MM6-6 (See Note 5)
MO6-6
MR6-6



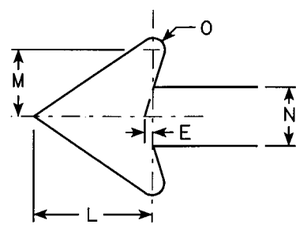
MB6-4
MG6-4
MN6-4



MB6-6
MG6-6
MN6-6

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG6-4 and MG6-6 Background - Green
   Message - White - Type H Reflective
   MK6-4 and MK6-6 Background - Green
   Message - White - Type H Reflective
   MM6-4 and MM6-6 Background - White - Type H Reflective
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White - Type H Reflective
   MO6-4 and MO6-6 Background - Orange - Reflective
   Message - Black
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow - Type H Reflective
5. M6-6R same as M6-6L except arrow points ahead and right.
6. Border shall be omitted on MM series.



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

STANDARD SIGN M6-4 & M6-6 SERIES

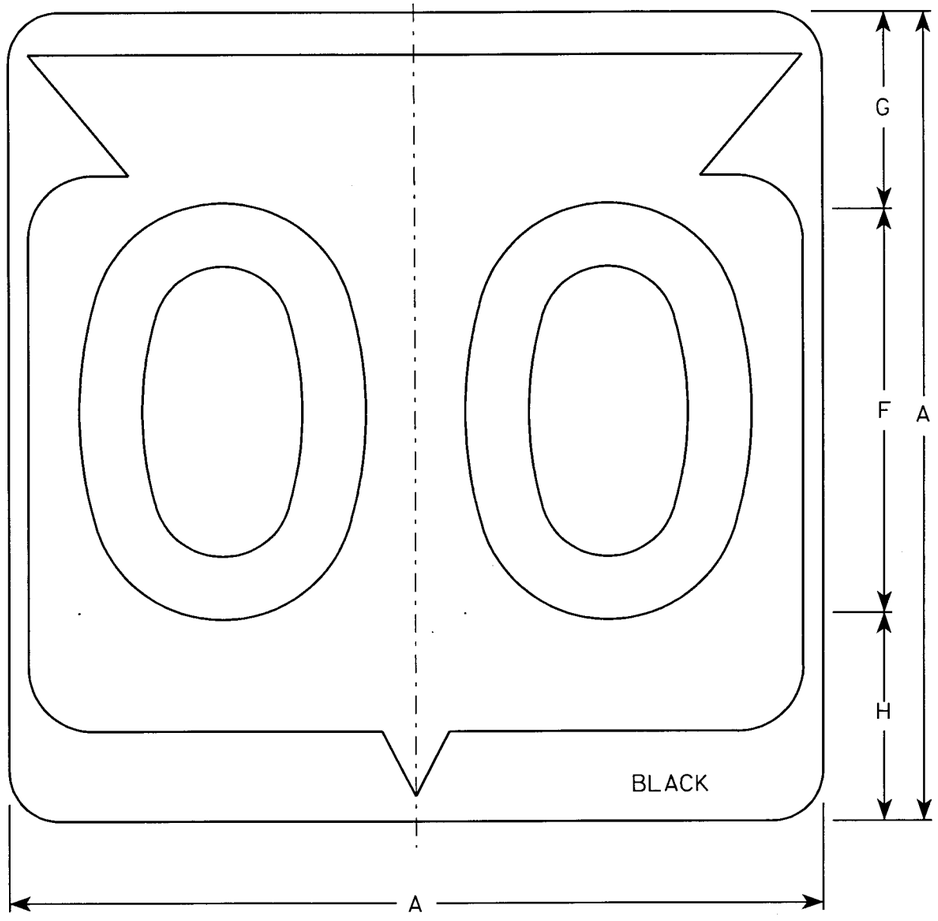
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong for State Traffic Engineer

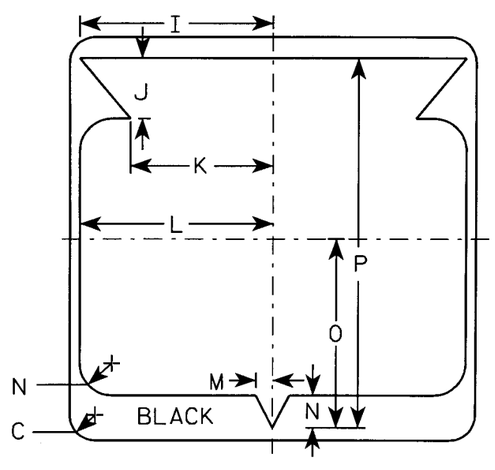
DATE 3/20/02 PLATE NO. M6-4.6

STATE PROJECT NUMBER:

SHEET NO: 116 E



M1-6



NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

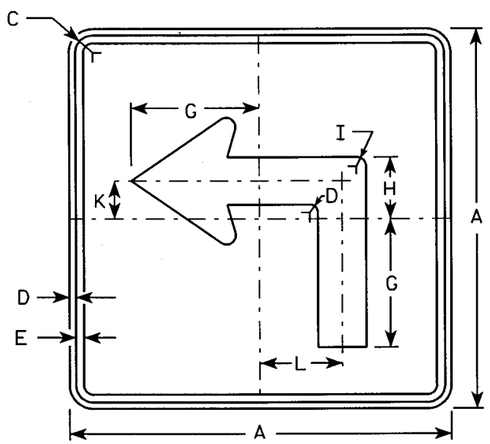
STATE PROJECT NUMBER:

SHEET NO: 117 E

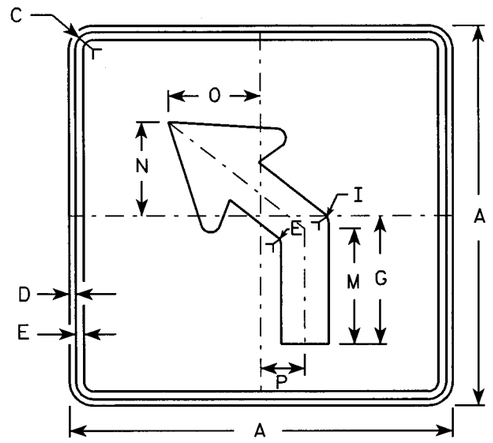
58.59.62.63 LEVELS ON - 2.3. 5.6. 10.

FILE NAME : C:\Users\Projects\tr_stdplate\M16.DGN PLOT DATE : 05-NOV-2004 13:38 ORG DATE : 1980 Originator : Sandy Anderson

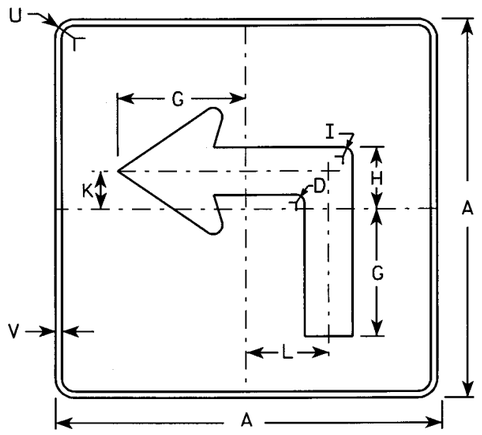
WISDOT/CADDS SHEET 42



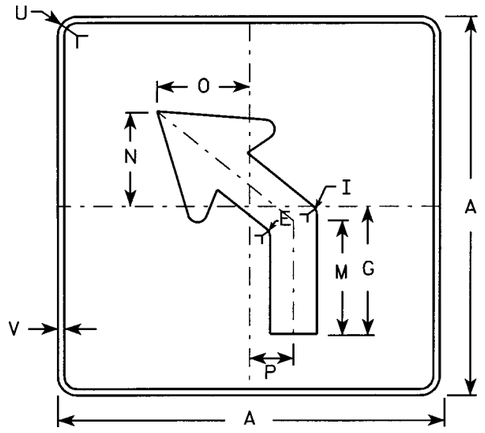
M5-1L
MK5-1L
MM5-1L (See Note 7)
MO5-1L
MR5-1L



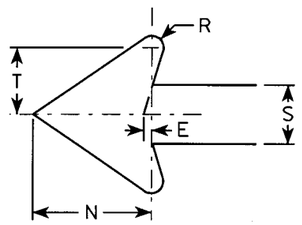
M5-2L
MK5-2L
MM5-2L (See Note 7)
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 — Background - White - Type H Reflective (Detour or temporary Signs - Reflective); Message - Black
   MB5-1 and MB5-2 — Background - Blue; Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG5-1 and MG5-2 — Background - Green; Message - White - Type H Reflective
   MK5-1 and MK5-2 — Background - Green; Message - White Type H Reflective
   MM5-1 and MM5-2 — Background - White - Type H Reflective; Message - Green
   MN5-1 and MN5-2 — Background - Brown; Message - White - Type H Reflective
   MO5-1 and MO5-2 — Background - Orange - Reflective; Message - Black
   MR5-1 and MR5-2 — Background - Brown; Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.
7. Border shall be omitted on MM series.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/03/03 PLATE NO. M5-1.10

7

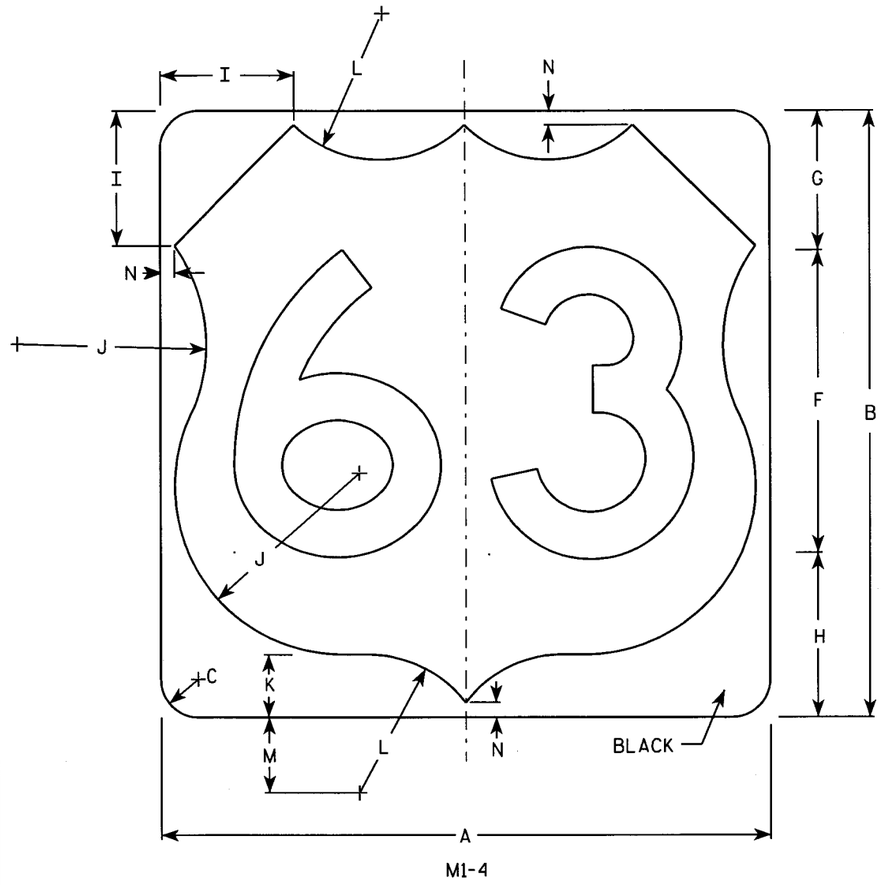
STATE PROJECT NUMBER:

SHEET NO: 118 E

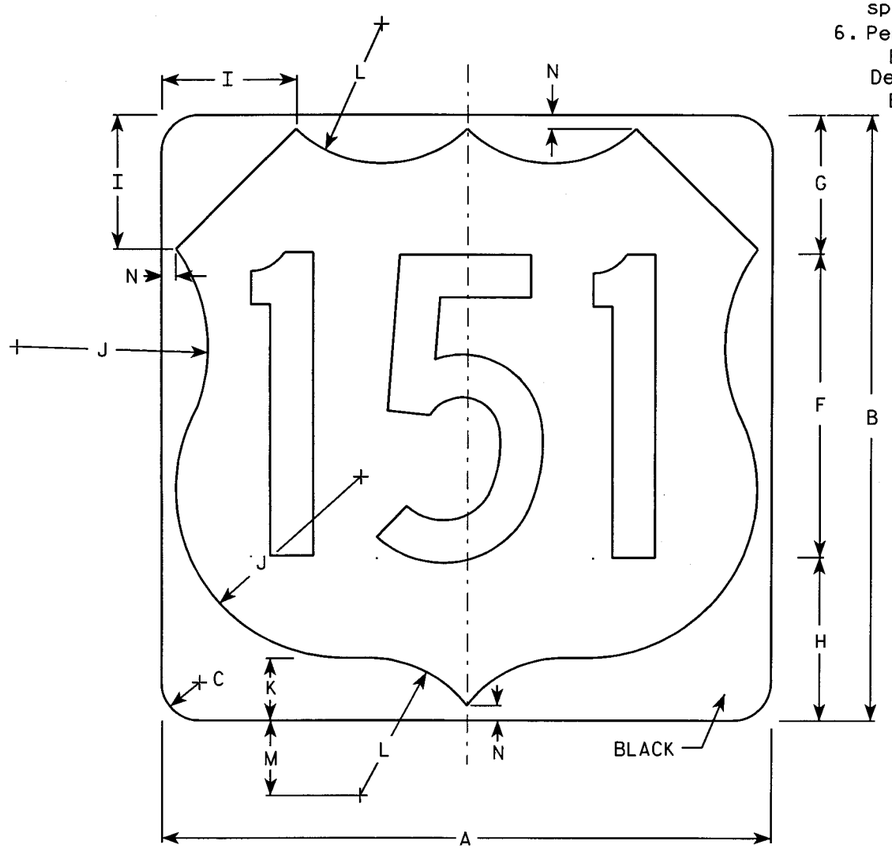
57.58.59.60.61.62.63 LEVELS ON - 2.3. 5.6. 10.

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/19/02 PLATE NO. M1-4.8

STATE PROJECT NUMBER:

SHEET NO: 119 E

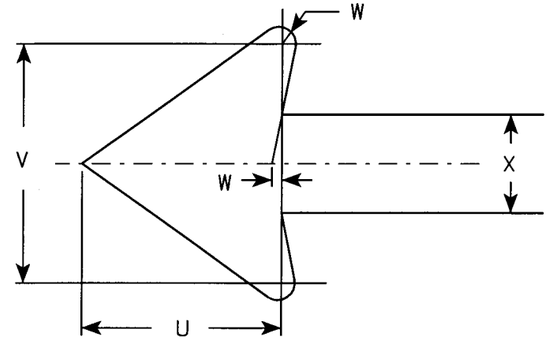
58.59.60.61.62.
LEVELS ON - 2.3. 5.6. 10.



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



Metric equivalent for this sign is:

SIZE	
1	300 mm X 450 mm
2	450 mm X 600 mm
3	600 mm X 750 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5	0.14
2	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 1/8	2 1/4	2 5/8	1/4	1 1/8			3.0	0.27
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0	0.45
4																												
5																												

STANDARD SIGN
R7-1

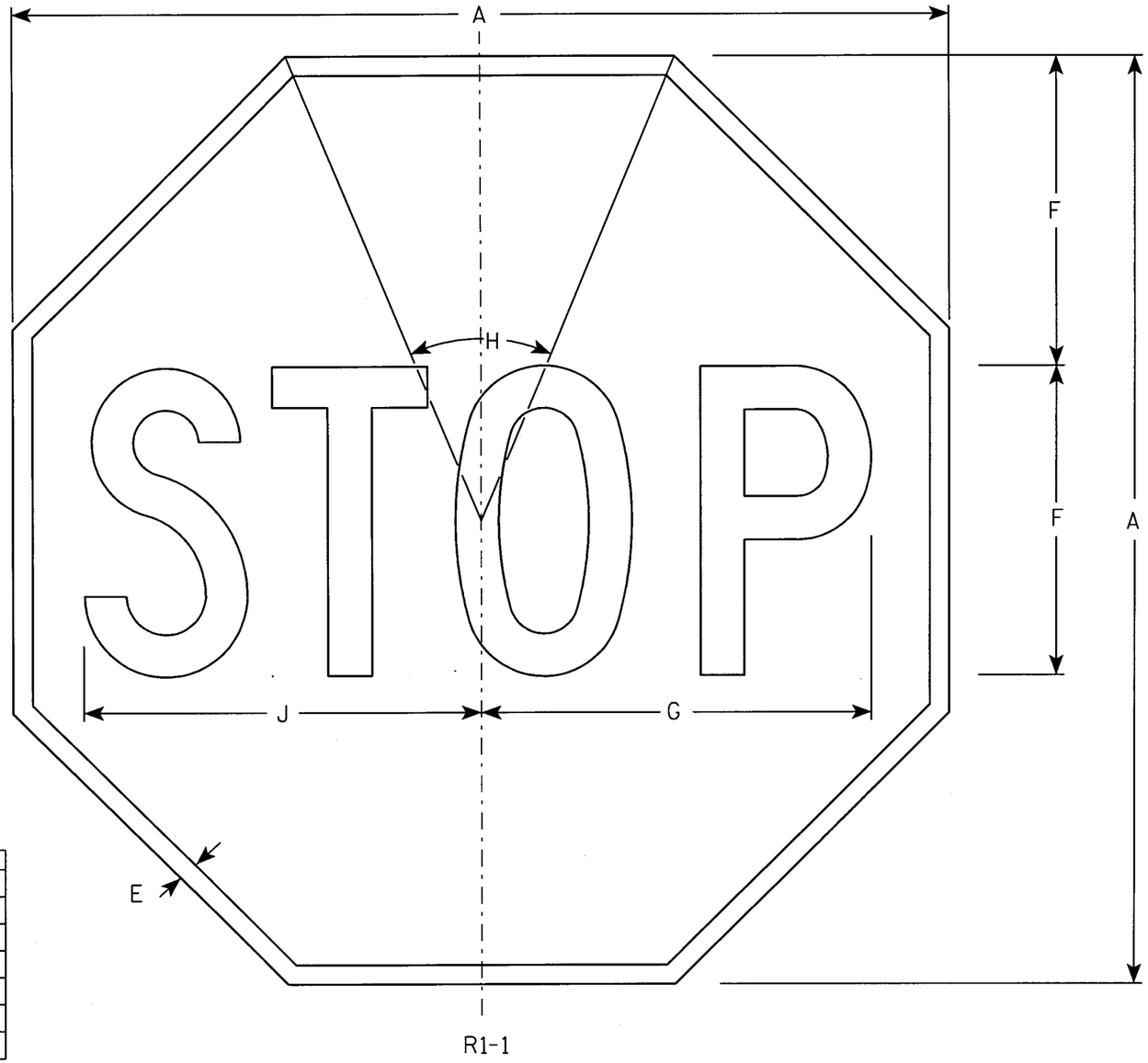
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spagg
for State Traffic Engineer

DATE 2/7/02 PLATE NO. R7-1.8

STATE PROJECT NUMBER:

SHEET NO: 120 E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

Metric equivalent for this sign is:

SIZE	
1	600 mm X 600 mm
2	750 mm X 750 mm
3	900 mm X 900 mm
4	1200 mm X 1200 mm
5	1200 mm X 1200 mm
6	450 mm X 450 mm
7	300 mm X 300 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1	24				3/8	8	10	45°		10 1/4																	3.31	0.31
2	30				5/8	10	12 1/2	45°		12 3/4																	5.18	0.48
3	36				3/4	12	15	45°		15 3/8																	7.46	0.69
4	48				1	16	20	45°		20 1/2																	13.25	1.23
5	48				1	16	20	45°		20 1/2																	13.25	1.23
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86	0.17
7	12				1/4	4	5	45°		5 1/8																	0.78	0.07

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 10/15/98 PLATE NO. R1-1.11

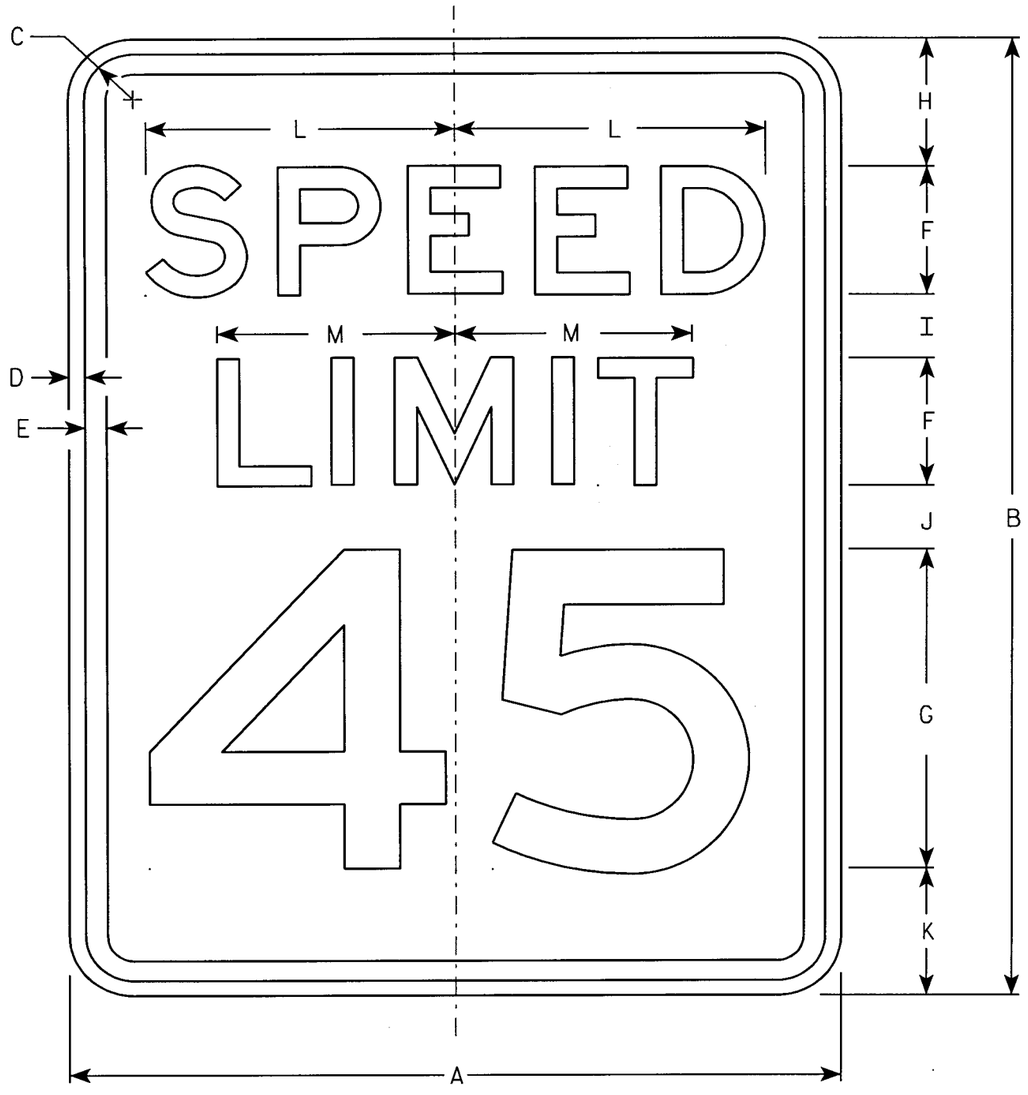
STATE PROJECT NUMBER:	HWY:	COUNTY:			SHEET NO: 121	E

FILE NAME : C:\Users\Projects\tr_stdplate\R11.DGN PLOT DATE : 05-NOV-2004 13:42 ORG DATE : 1980 PLOT NAME : Originator : Sandy Anderson PLOT SCALE : 4.500000:1.000000

WISDOT/CADDS SHEET 42

LEVELS ON - 2.3. 5.6. 10.

58.59.61. 63



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	450 mm X 600 mm
2	600 mm X 750 mm
3	900 mm X 1200 mm
4	900 mm X 1200 mm
5	1200 mm X 1500 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0	.28
2	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0	.46
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0	1.11
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0	1.11
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0	1.86

STANDARD SIGN
R2-1

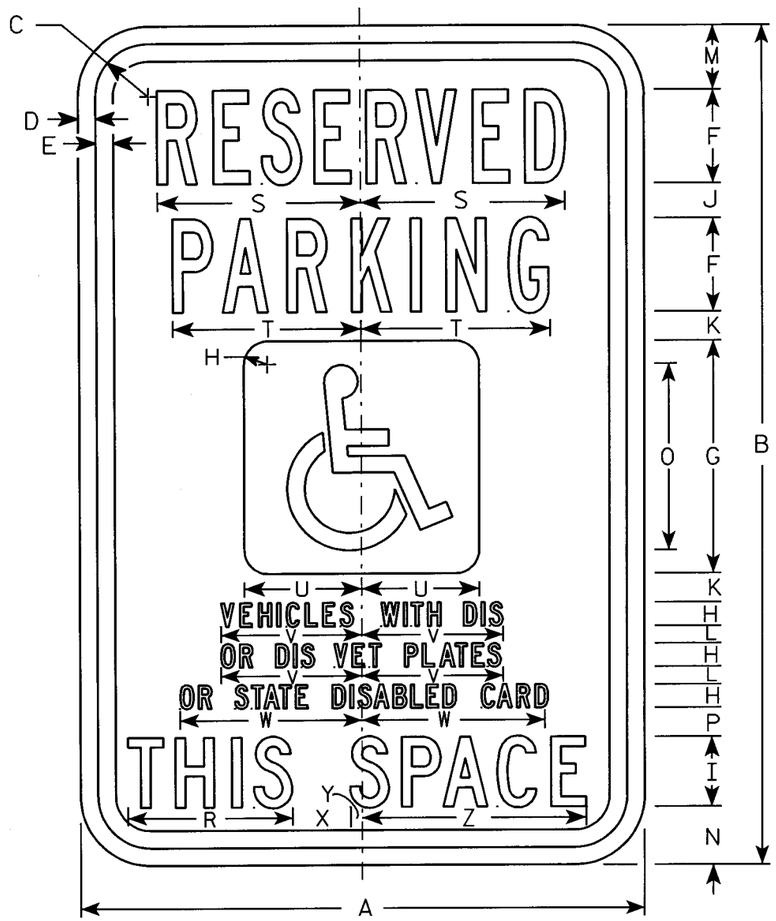
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 2/01/02 PLATE NO. R2-1.11

STATE PROJECT NUMBER:

SHEET NO: 122 E



R7-8A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Sign is white Type H Reflective; paraplegic background is blue.
   Message - Legend and border are green; paraplegic symbol is white
3. Message Series - Lines 1 & 2 are Series B
   Lines 3, 4, 5 & 6 are Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	
2	300 mm X 450 mm
3	450 mm X 600 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	12	18	1 1/8	3/8	3/8	2	5	1/2	1 1/2	3/4	5/8	3/8	1 3/8	1 1/4	4	5/8		3 1/2	4 3/8	4	2 1/2	3	3 7/8	1 1/4	1/4	4 3/4	1.5	.14
3	18	24	1 1/8	3/8	1/2	3	6	3/4	2	7/8	5/8	1/2	1 7/8	2	5	3/4		4 5/8	6 1/2	5 3/8	3	4 1/2	5 7/8	1 1/2	1/4	6 3/8	3.0	.27
4																												
5																												

STANDARD SIGN
R7-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

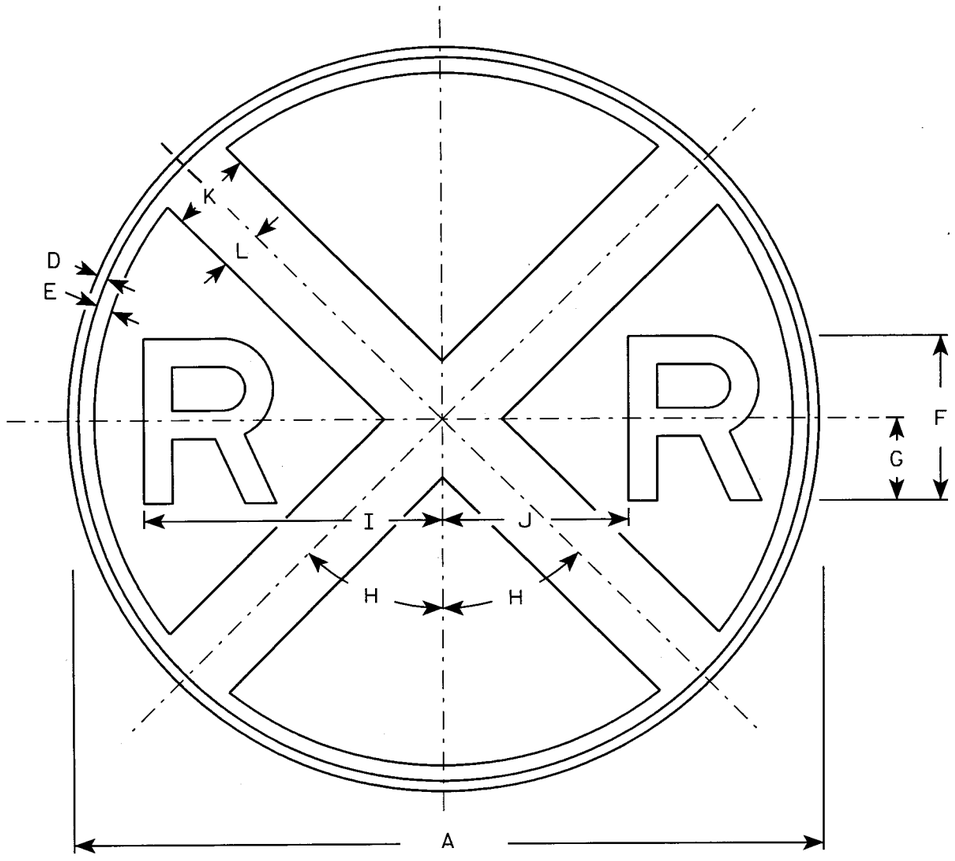
DATE 2/8/02 PLATE NO. R7-8A.5

STATE PROJECT NUMBER:

SHEET NO: 123 E

58.59.60.61.62.63

LEVELS ON • 2.3. 5.6. 10.



W10-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E

Metric equivalent for this sign is:

SIZE	
1	750 mm
2	900 mm
3	
4	1200 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	30			3/8	5/8	7	3 1/2	45°	12 3/8	7 1/8	3	1 1/2															4.91	0.44
2	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07	0.64
3																												
4	48			3/4	1 1/4	10	5	45°	18 3/8	11 5/8	5	2 1/2															12.57	1.13
5																												

STANDARD SIGN
W10-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spray for State Traffic Engineer

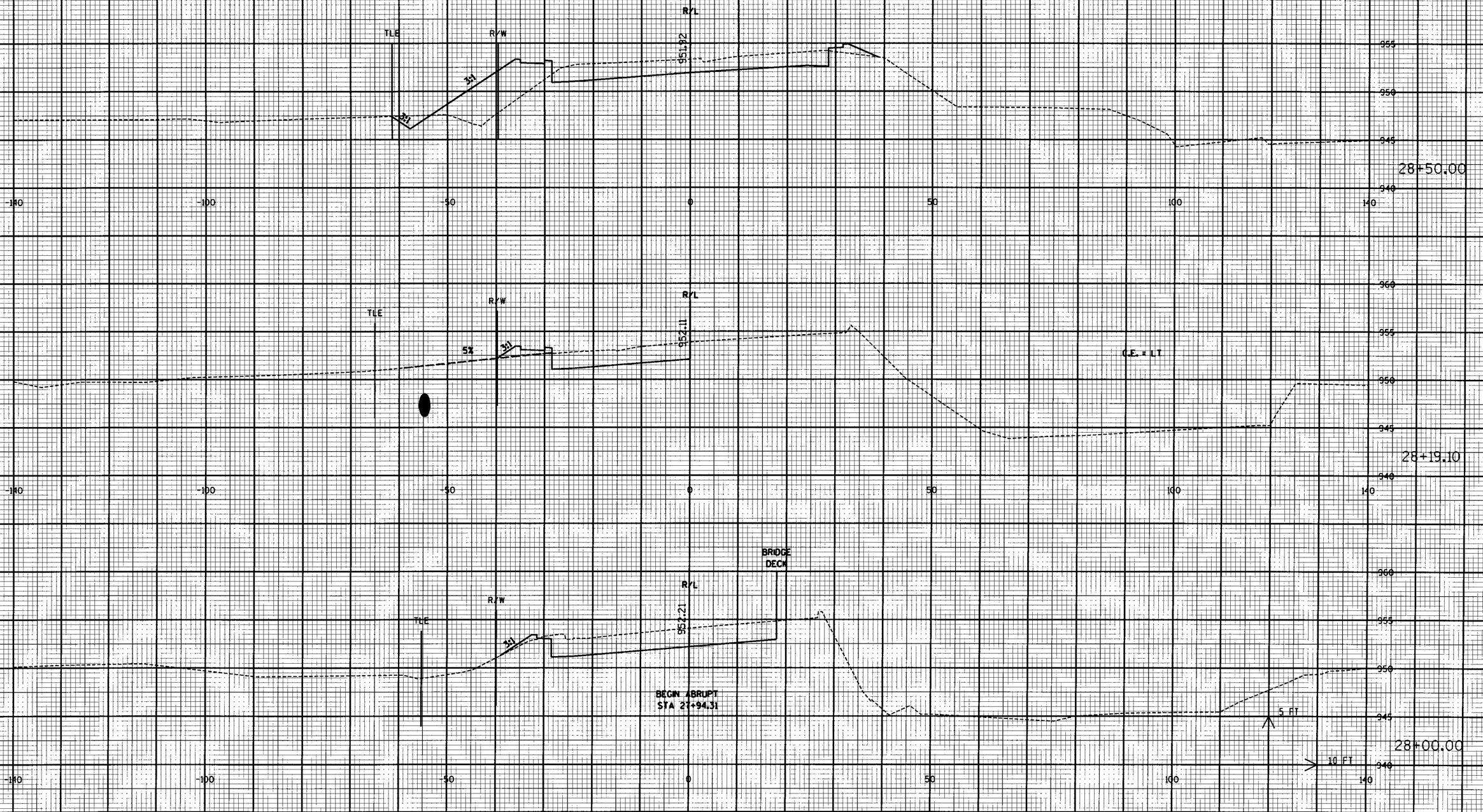
DATE 10/3/97 PLATE NO. W10-1.6

129

FILE NAME: tr_stdplate w10i.dgn PLOT SCALE: 3.5 : 1 PLOT NAME:
ORIGINATOR: Sandy Anderson
LEVELS ON - 2,3, 5,6, 10,
58,59,63

STATION	CUT AREA (SF)	FILL AREA (SF)	INC. VOLUME CUT (CY)	INC. VOLUME FILL (EXP.) (CY)	CUM. VOLUME CUT (CY)	CUM. VOLUME FILL (EXP.) (CY)
FILL ADJUSTMENT FACTOR = 1.25						
STH 33						
28+00	59	6				
28+50	77	84	126	104	126	104
29+00	82	88	148	199	273	304
29+50	82	119	152	239	425	542
30+00	89	40	158	184	584	726
30+50	85	39	161	92	745	818
31+00	107	35	178	86	922	904
31+50	102	13	194	55	1116	960
32+00	89	15	177	31	1294	991
32+50	82	24	158	44	1452	1035
33+00	99	2	168	30	1620	1065
33+50	133	0	215	2	1835	1067
34+00	141	0	254	0	2088	1067
34+50	122	3	243	3	2332	1071
35+00	109	9	214	13	2545	1084
35+50	128	7	219	18	2764	1102
36+00	110	6	220	15	2985	1118
36+50	104	14	198	23	3183	1141
37+00	111	2	199	18	3382	1159
37+50	111	3	205	5	3588	1164
37+64	106	1	56	1	3644	1166
38+00	105	3	140	4	3784	1169
38+50	90	9	181	15	3965	1184
39+00	70	19	148	33	4113	1217
39+50	64	26	125	52	4238	1269
40+00	53	15	109	47	4347	1316
40+50	63	13	108	32	4455	1348
41+00	75	7	128	24	4582	1373
41+16	141	0	64	3	4646	1375
41+50	89	9	145	7	4791	1382
42+00	57	21	135	35	4926	1418
42+50	67	43	115	74	5041	1492
43+00	62	31	119	85	5159	1577
43+50	70	36	122	78	5281	1655
44+00	86	6	145	49	5426	1704
44+50	79	18	153	28	5578	1731
45+00	82	18	148	41	5727	1773
45+50	82	16	151	39	5878	1812
46+00	84	16	153	37	6031	1849
46+50	79	24	151	46	6182	1895
47+00	67	24	135	56	6317	1951
47+50	71	44	127	79	6444	2030
48+00	76	58	136	118	6580	2148
48+50	137	3	197	70	6777	2218
49+00	130	1	247	4	7024	2222
49+50	172	0	279	1	7304	2223
50+00	338	0	473	0	7776	2223
50+15	259	0	166	0	7942	2223
50+50	95	0	229	0	8171	2223
50+90	0	0	70	0	8242	2223

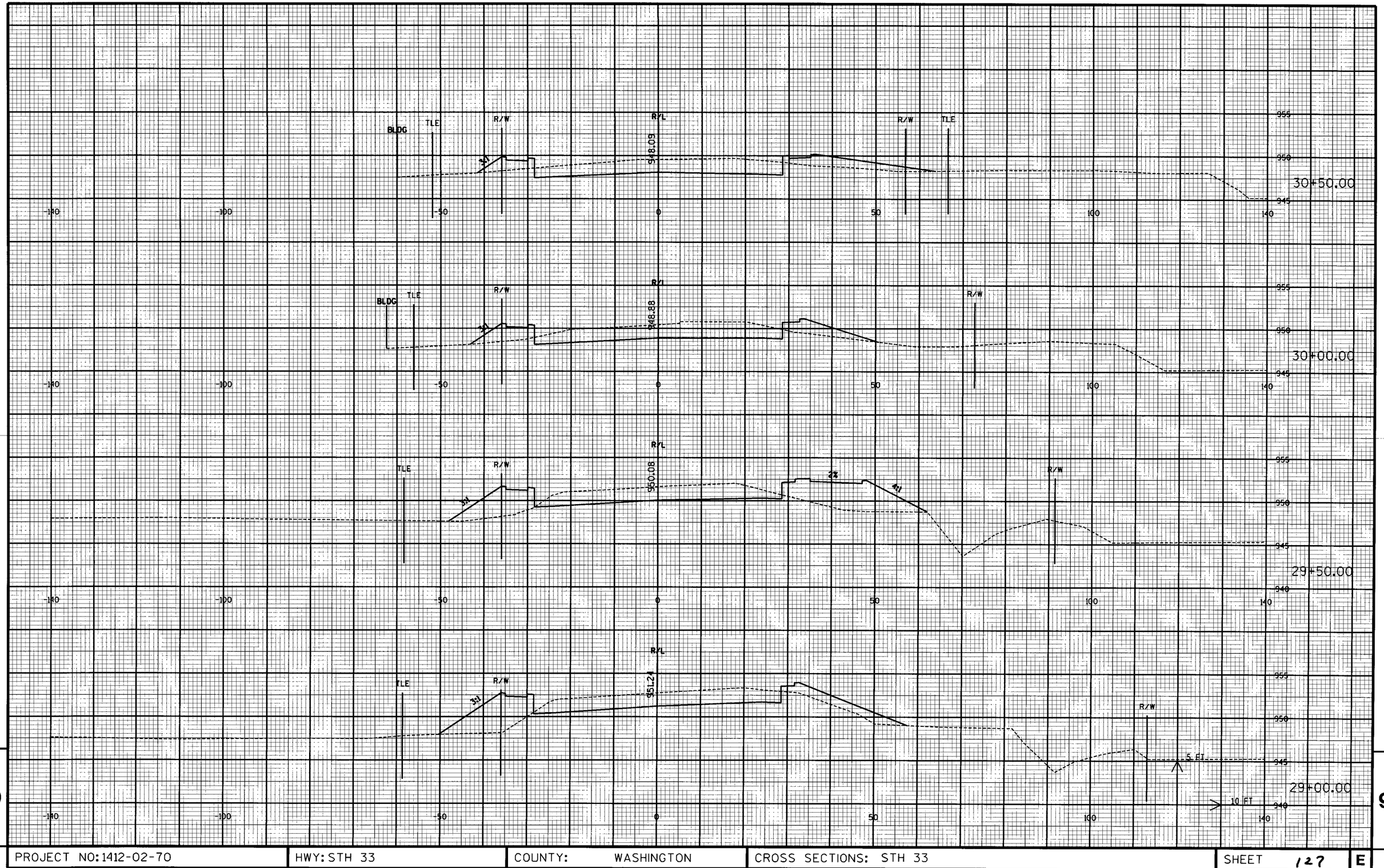
STATION	CUT AREA (SF)	FILL AREA (SF)	INC. VOLUME CUT (CY)	INC. VOLUME FILL (EXP.) (CY)	CUM. VOLUME CUT (CY)	CUM. VOLUME FILL (EXP.) (CY)
FILL ADJUSTMENT FACTOR = 1.25						
CTH W						
57+14	42	0				
57+50	55	0	65	0	65	0
58+00	64	0	110	0	175	0
58+50	91	0	144	0	318	0
58+55	91	0	17	0	335	0
58+88	108	0	122	0	457	0
59+00	107	0	48	0	505	0
59+50	152	0	240	0	744	0
WEIS STREET						
68+10	69	2				
68+50	67	1	101	3	101	3
69+00	63	2	120	3	221	6
69+39	85	3	107	5	328	11
70+00						
70+78	74	0				
71+00	66	0	57	0	57	0
71+50	44	3	102	3	159	3
PARK AND RIDE						
11+52	102	8				
12+00	99	11	179	21	179	21
12+50	100	5	184	19	363	40
12+92	56	0	121	5	484	44
DRAINAGE SWALE - STH 33 STA 39+40 LT						
1+66	26	0				
2+00	17	0	27	0	27	0
2+50	10	0	25	0	52	0
2+96	2	0	10	0	62	0



9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 126	E

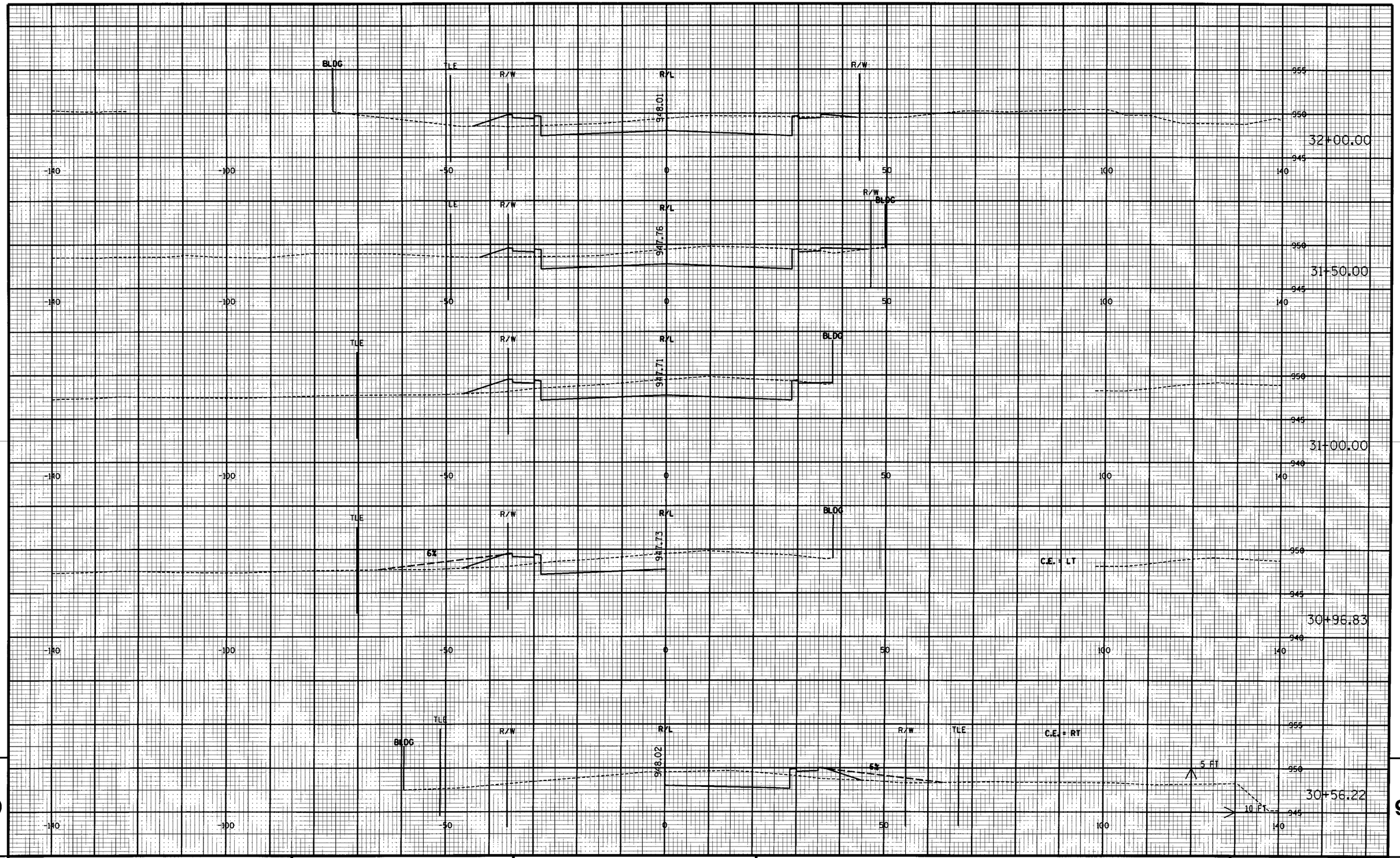
9



9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 127	E

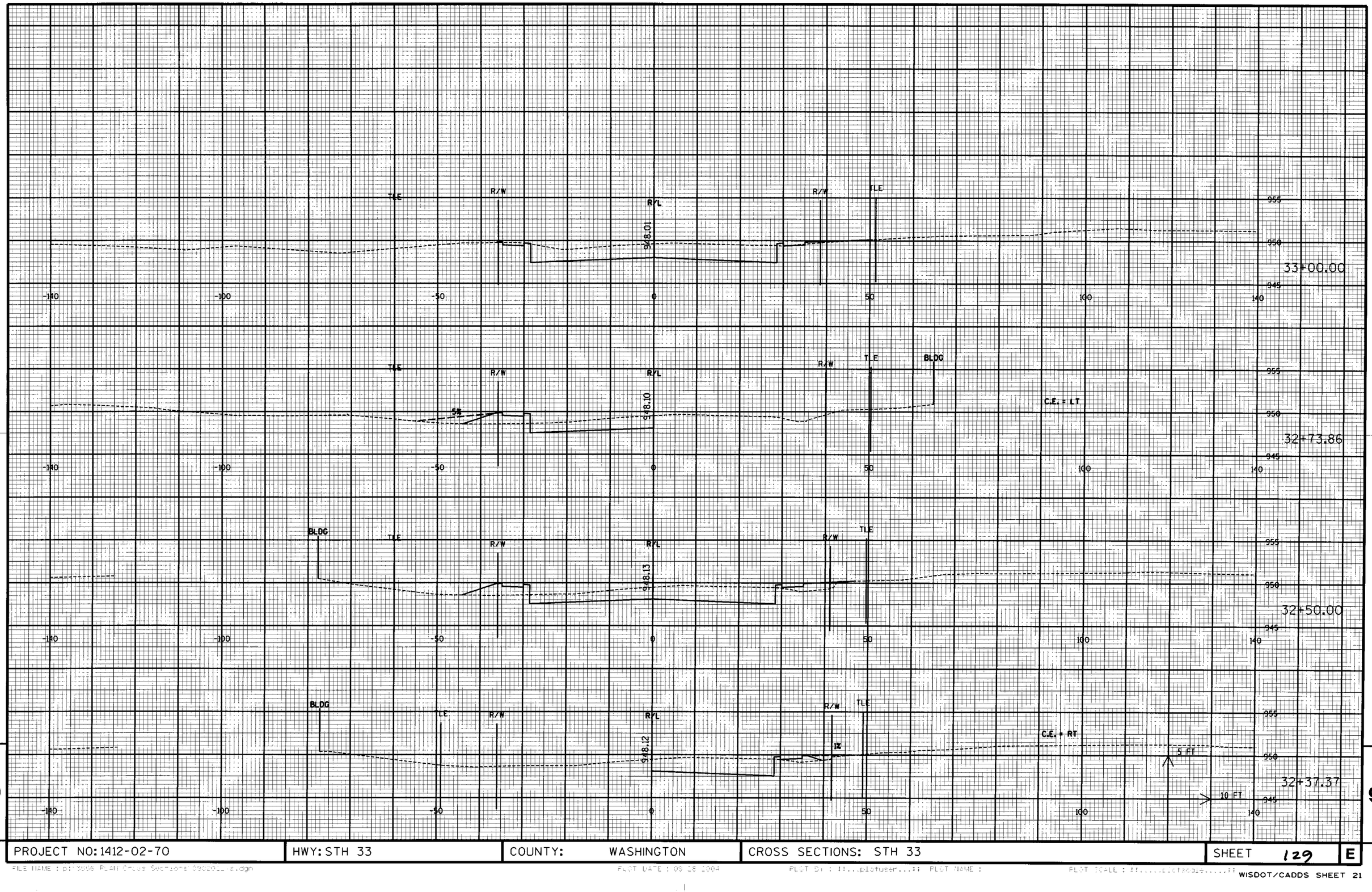


9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 128	E

FILE NAME : E:\...\Cross Sections\000001_sheet.dgn PLOT DATE : 09 29 2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....plotscale.....##



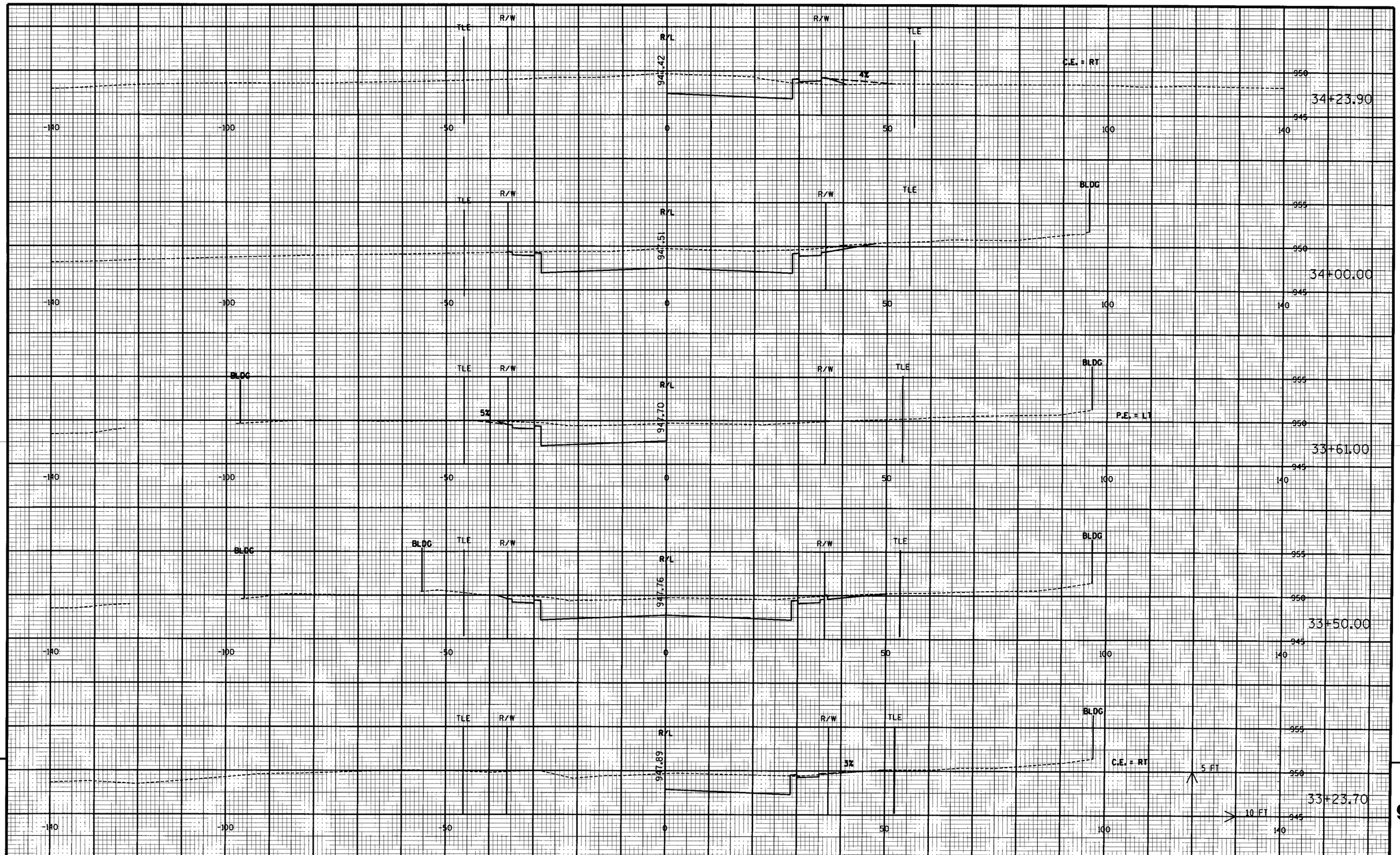
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 129	E

FILE NAME : D:\3006 Plan Cross Sections\0002021xs.dgn PLOT DATE : 09 28 2004 PLOT BY : ...plotuser... PLOT NAME : PLOT SCALE : .....

WISDOT/CADDS SHEET 21

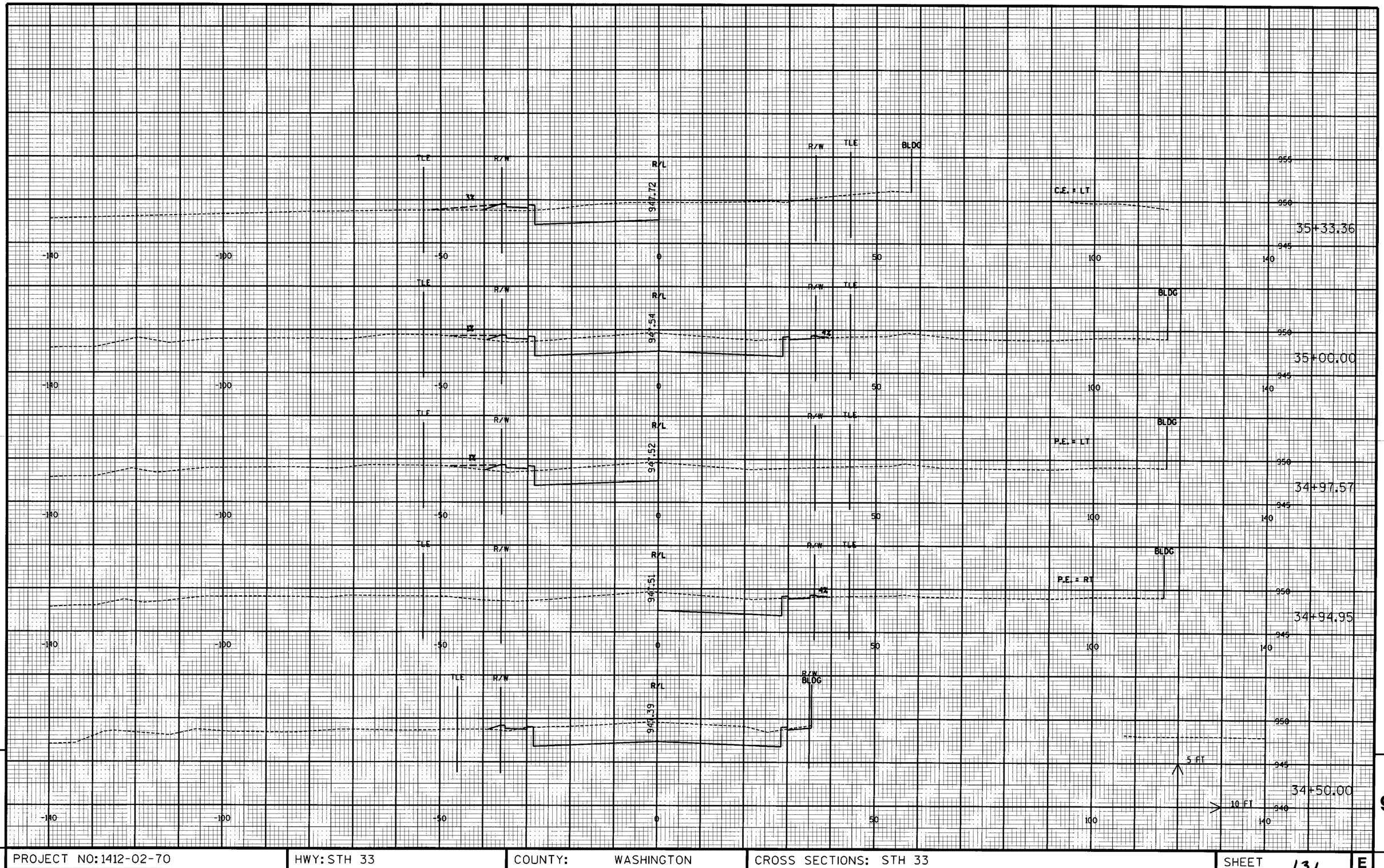


9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 130	E

FILE NAME : s: 2006 PLAN Cross Sections 0901201_xs.dgn
PLOT DATE : 09/28/2006
PLOT BY : ##...plotuser...##
PLOT NAME :
PLOT SCALE : ##.....triangle.....##
WISDOT/CADDS SHEET 21



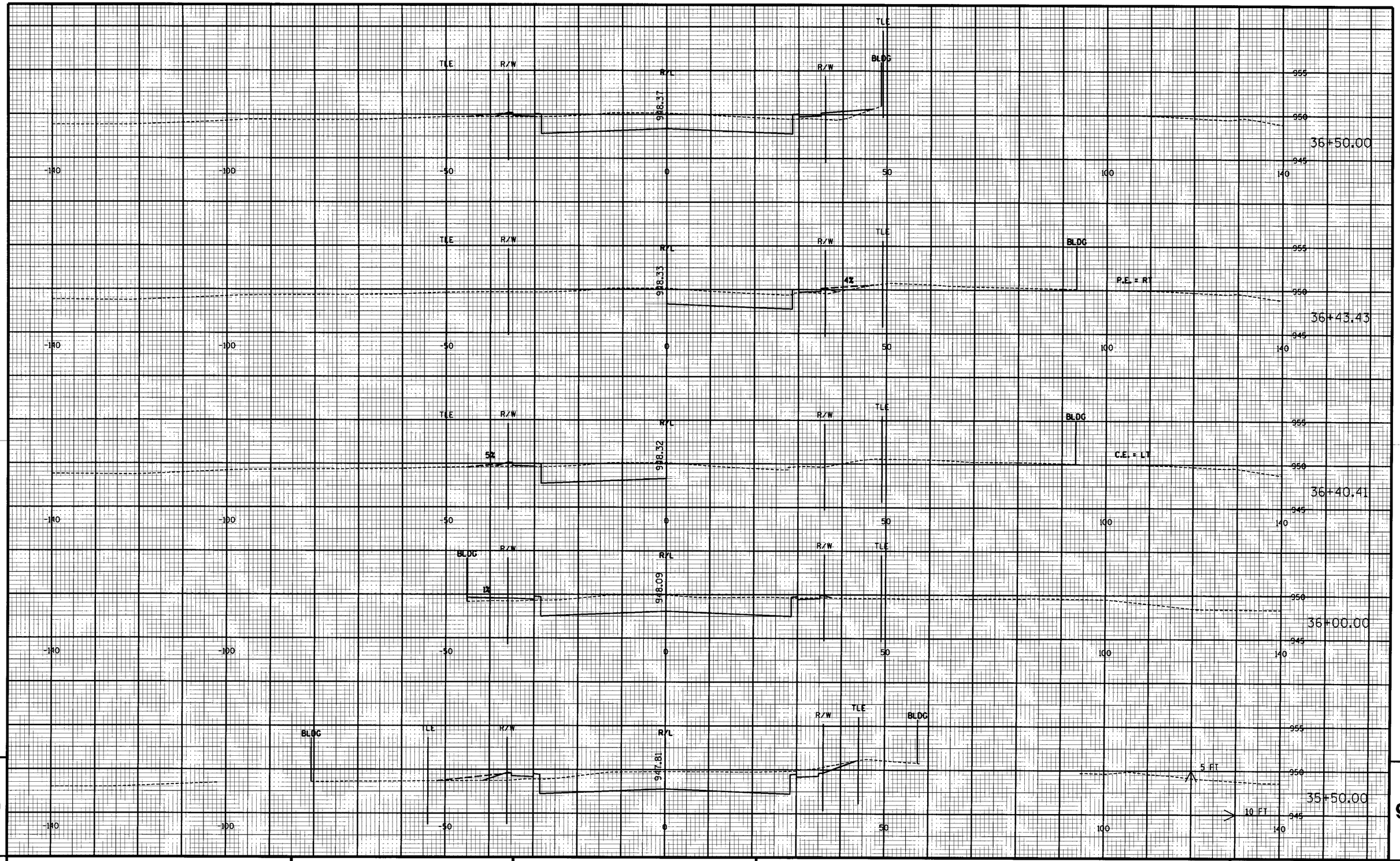
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 131	E

FILE NAME : c:\ 3552 PLAN Cross Sections\3552001_xs.dgn PLOT DATE : 09 29 2014 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....0.1"=50'.....##

WISDOT/CADDS SHEET 21



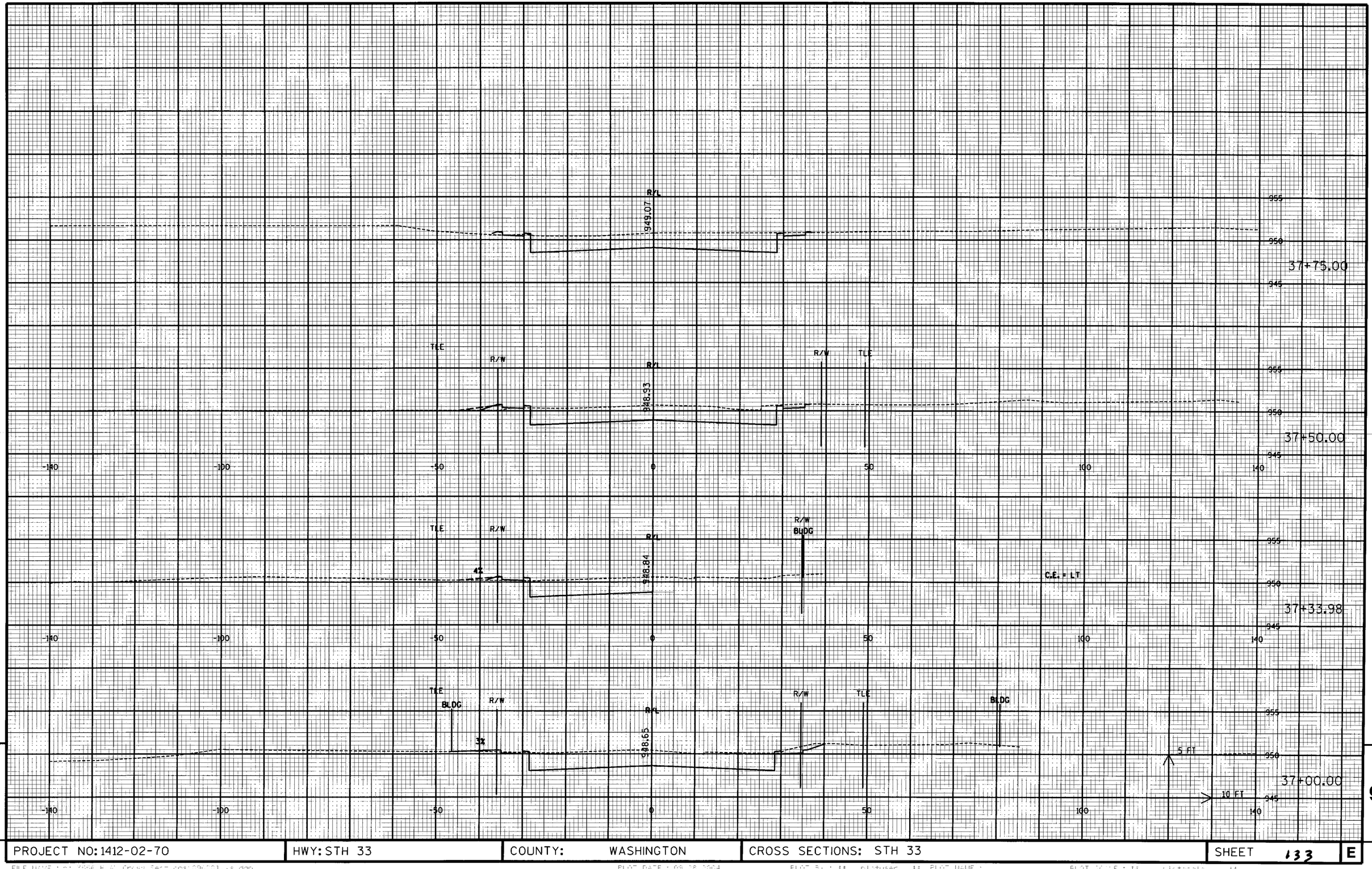
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 132	E

FILE NAME : P:\ 3551 PLAT Cross Sections\0302001ve.dgn PLOT DATE : 09/28/2004 PLOT BY : ...\...\...\user... PLOT NAME : PLOT SCALE : ...\...\...\...

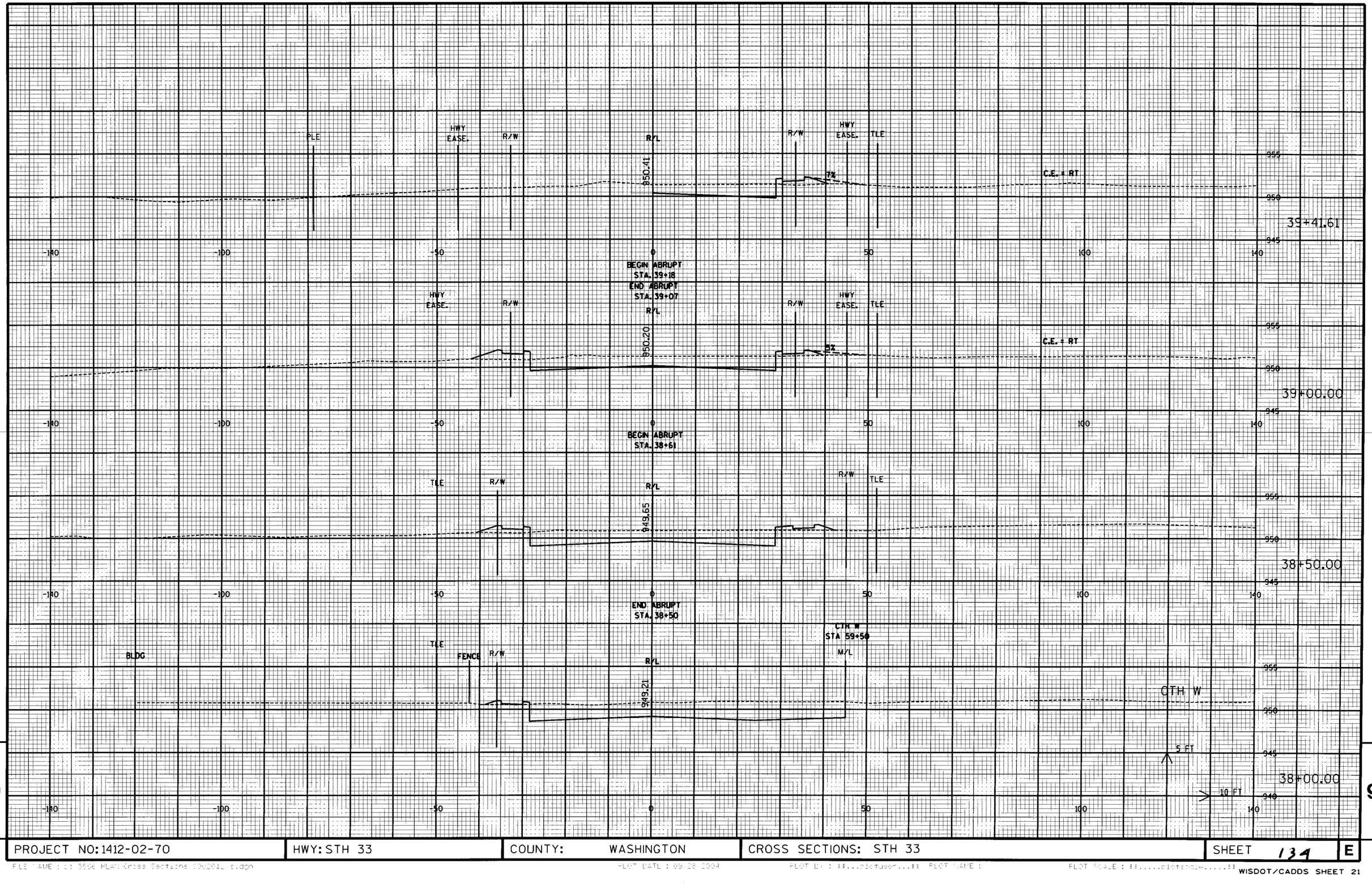
WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 133	E



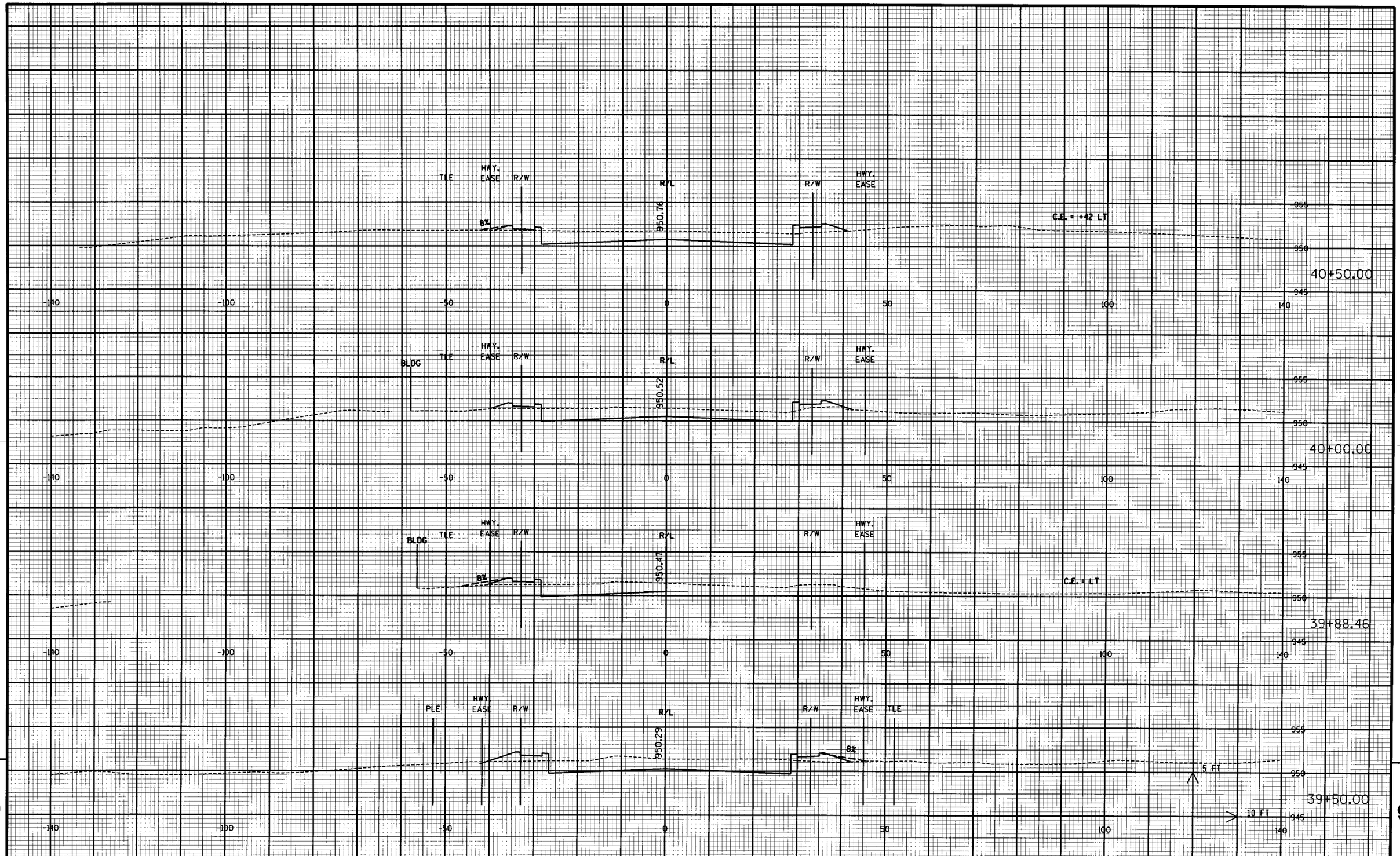
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 134	E

FILE NAME : c:\...\3606 PLAN Cross Sections CSHEET 6.dgn PLOT DATE : 09 08 2004 PLOT BY : ...Plotuser... PLOT NAME : PLOT SCALE : ...plotscale...

WISDOT/CADDS SHEET 21

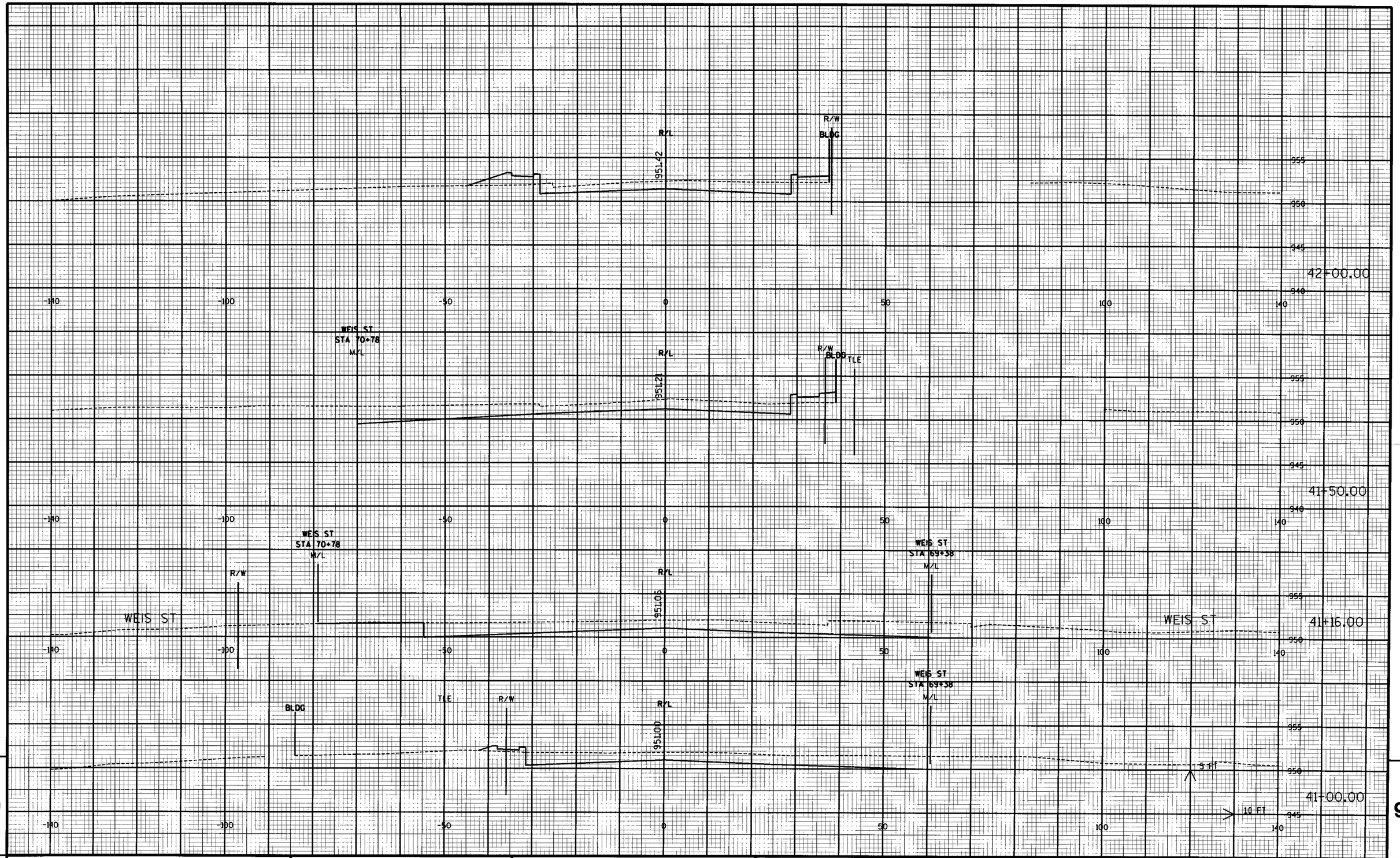


9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 135	E

FILE NAME : c:\ 3556 PLAT Cross Sections 090301_s.dgn PLOT DATE : 09.28.2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....plotscale.....##



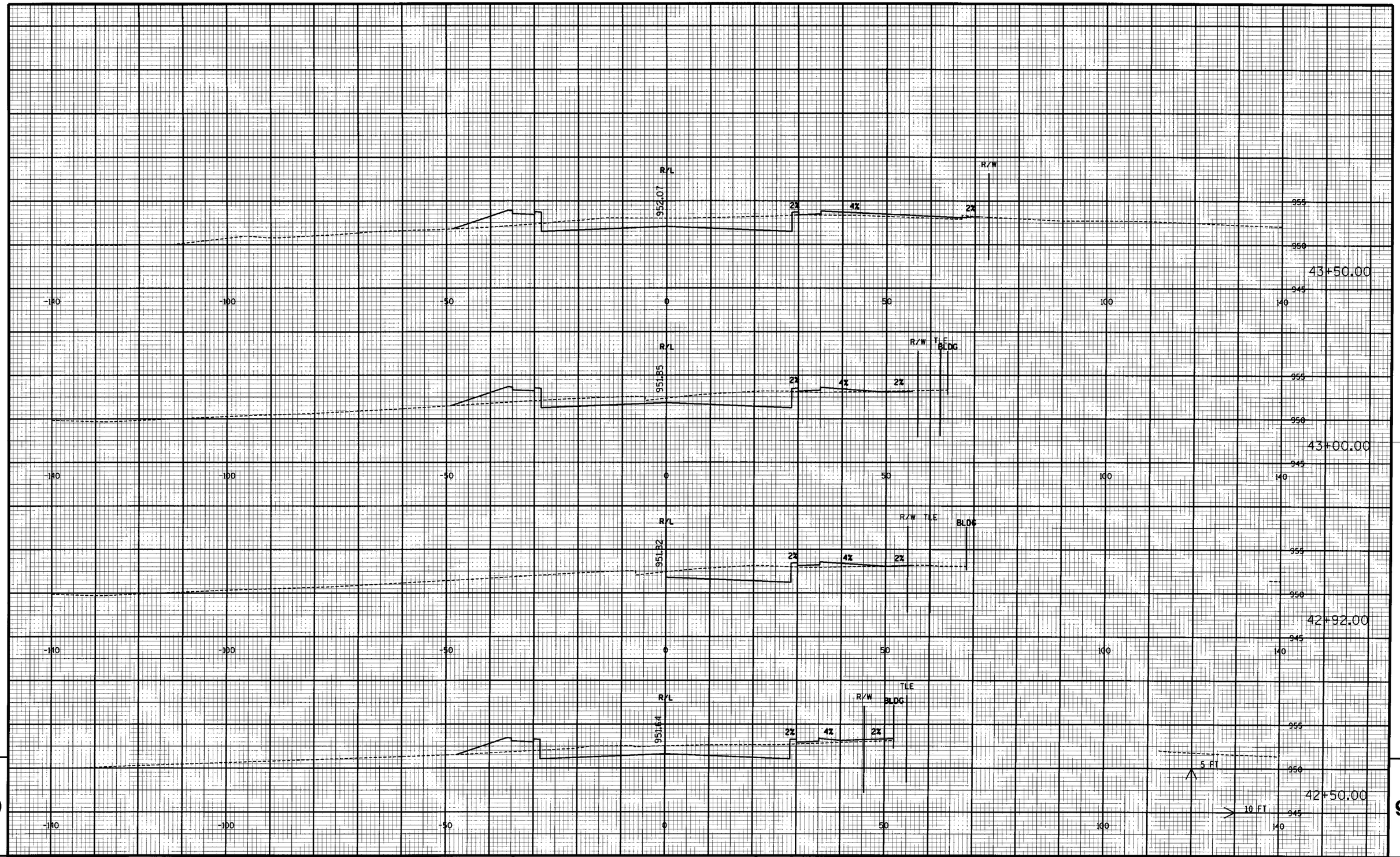
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 136	E

FILE NAME : p:\3050 PLAT\Cross Sections\000202_e.dgn PLOT DATE : 09.08.2004 PLOT BY : ...\...\User...\... PLOT NAME : PLOT SCALE : ...\...\...\...\...

WISDOT/CADDS SHEET 21

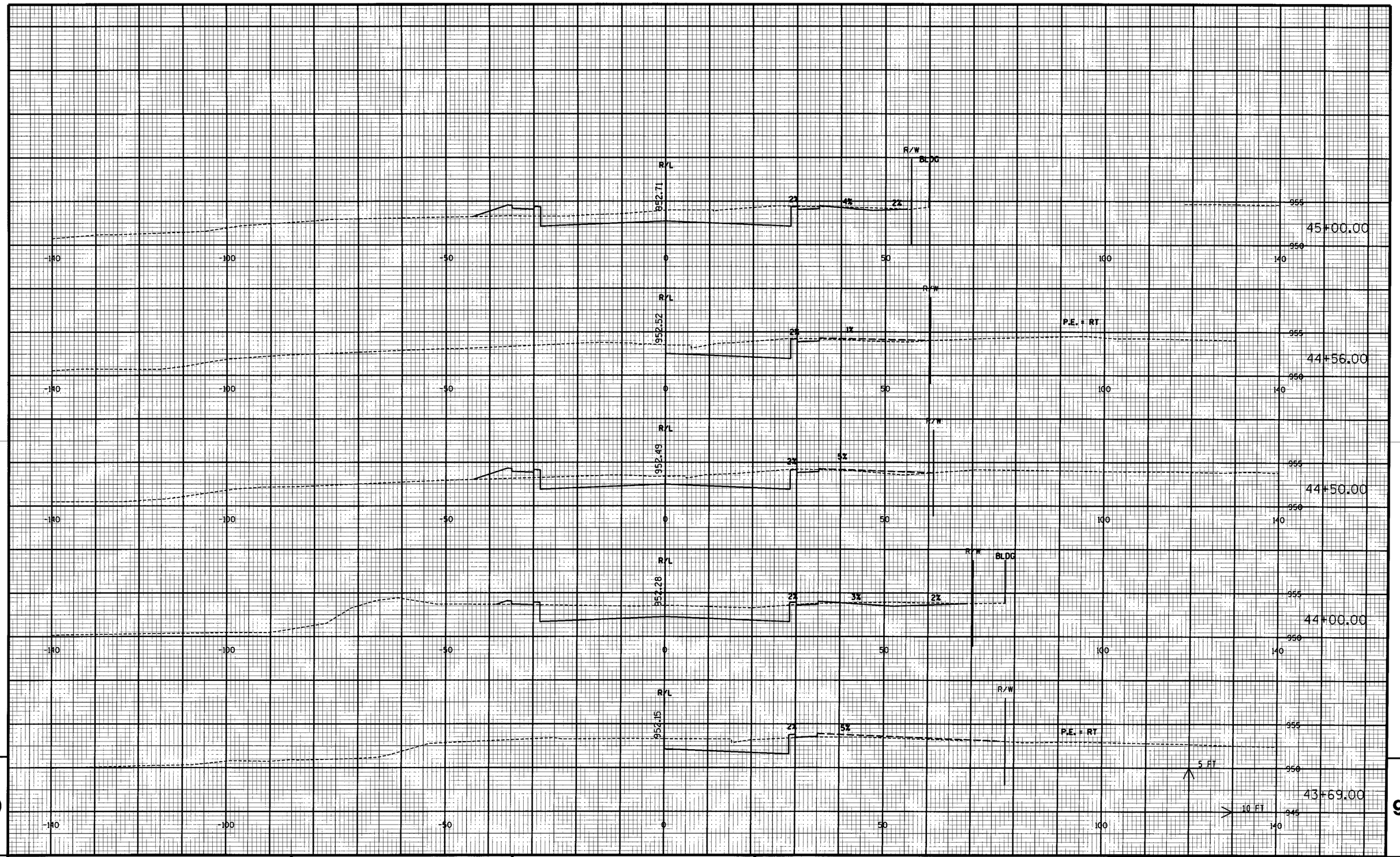


9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 127	E

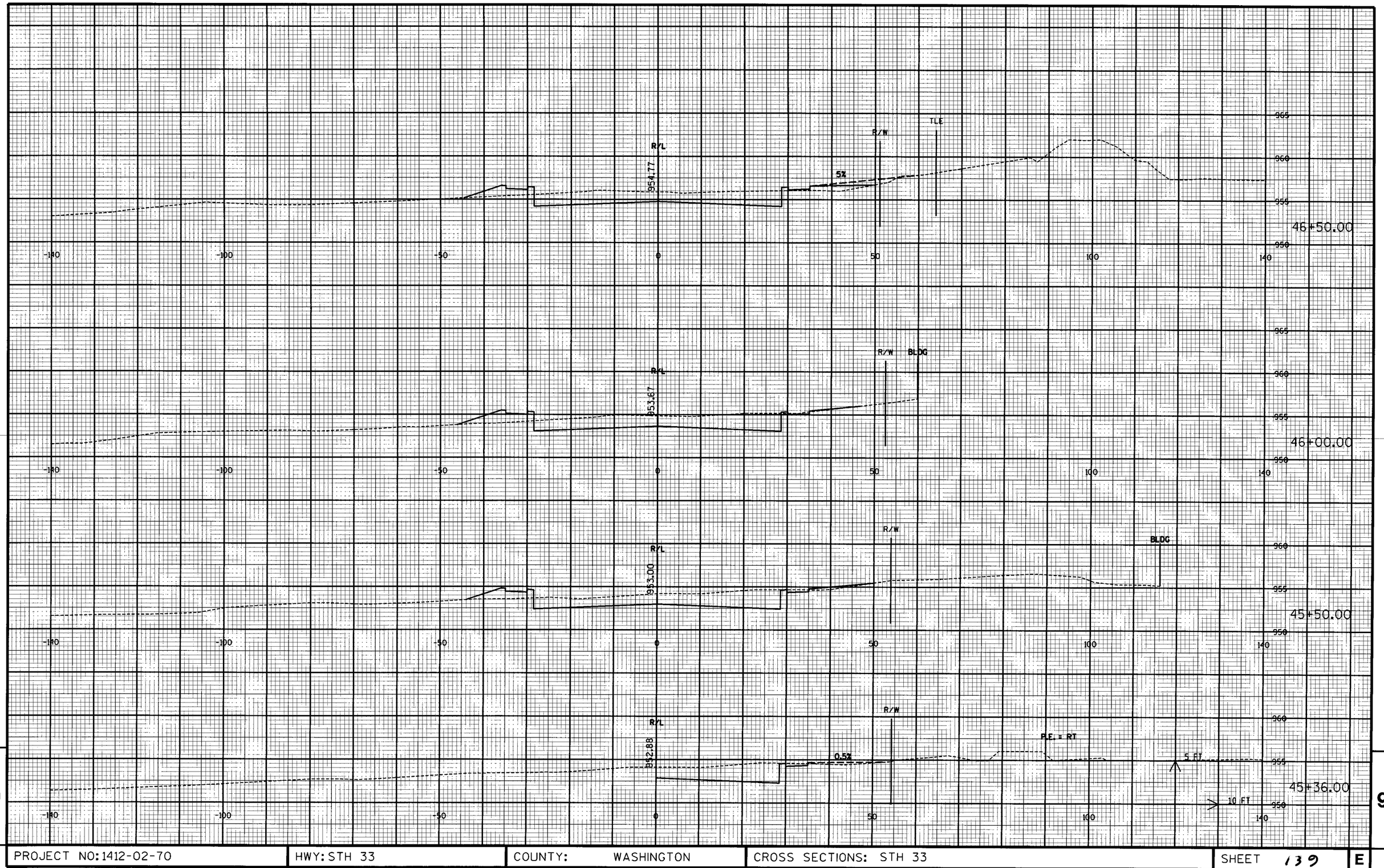
FILE NAME : c:\...\...plotfile.dgn PLOT DATE : 09 28 2012 PLOT BY : M...plotuser...M PLOT NAME : PLOT SCALE : M.....scenario.....M



9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 138	E

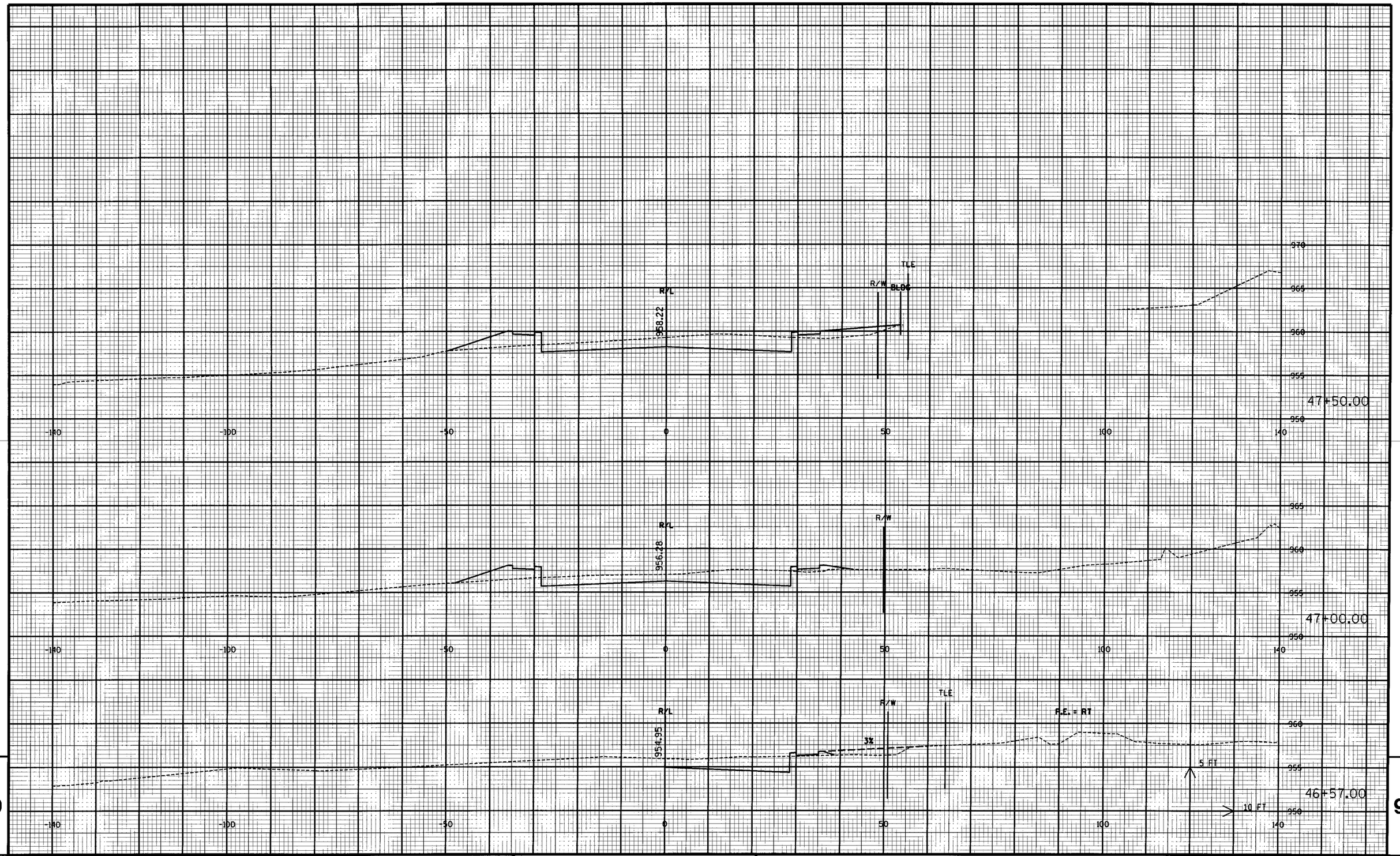


9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 139	E

9

FILE NAME : p:\9998 PLAN\Cross Sections\001201...s.dgn PLOT DATE : 03 29 2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....plotscale.....##

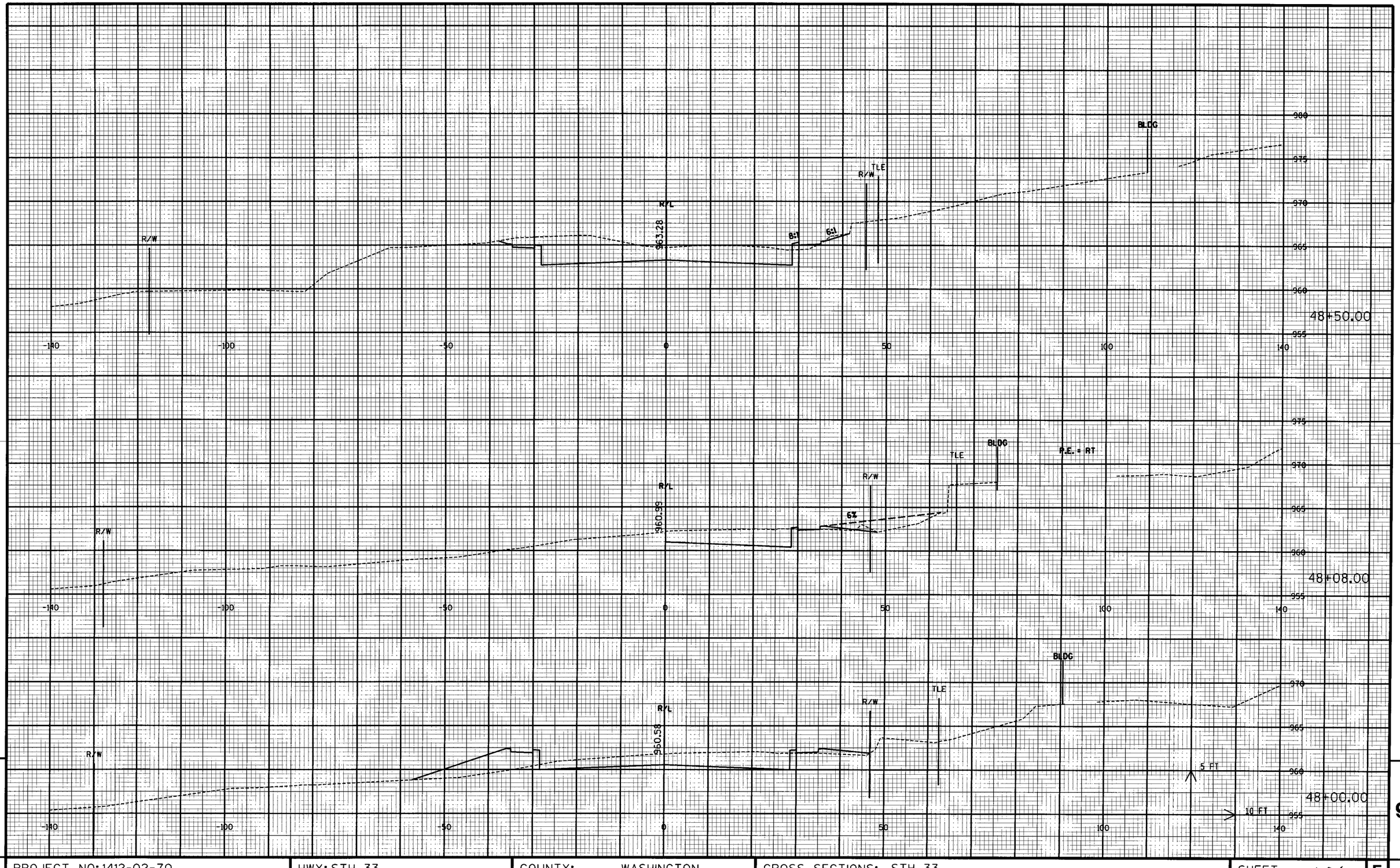


9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 190	E

FILE NAME : d:\...\56A_PLAN Cross Sections 0412021...s.dgn PLOT DATE : 09 28 2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....plotscale.....##



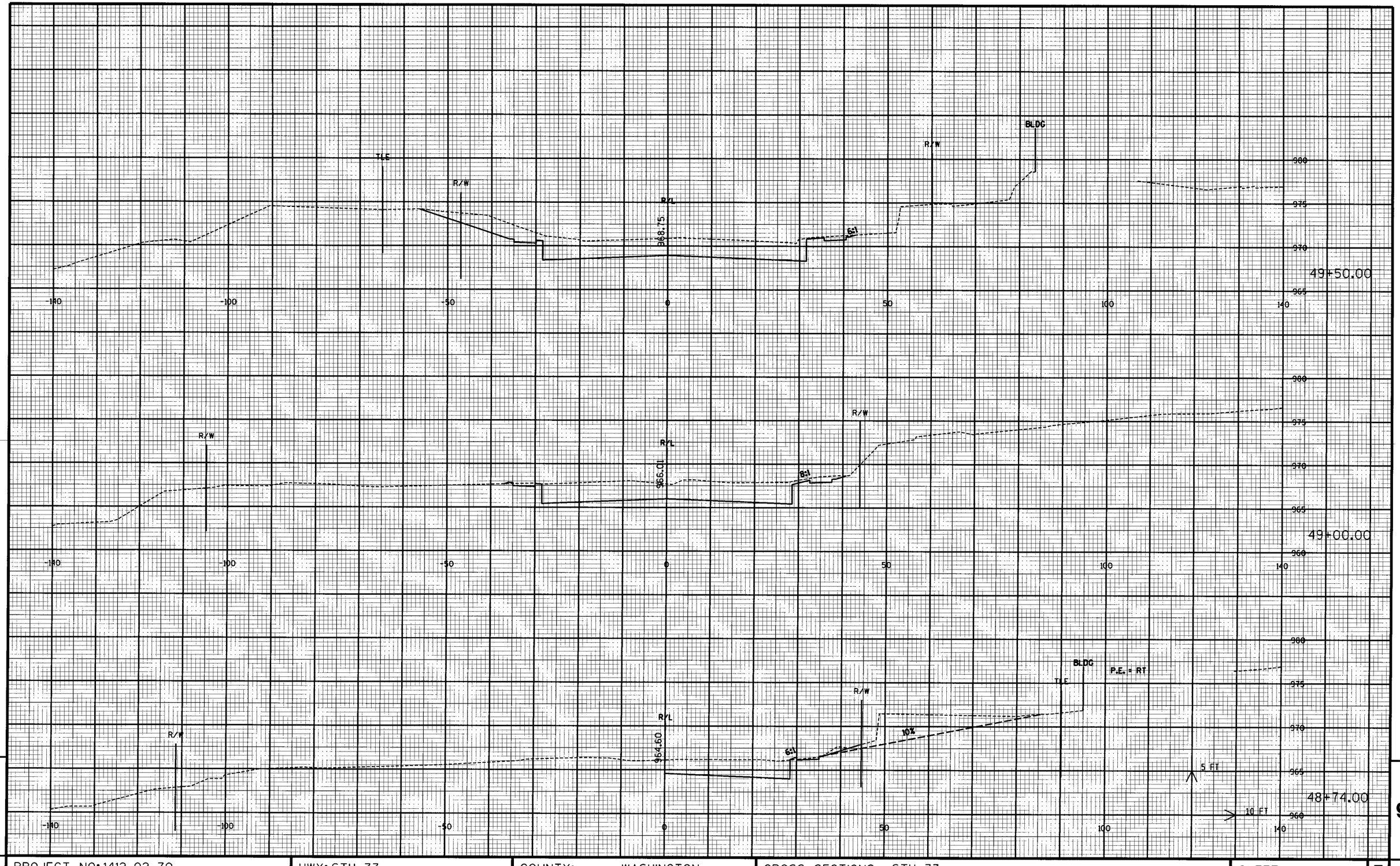
9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 191	E

9

FILE NAME : p:\3566 PLAT Cross Sections 000201_e.dgn PLOT DATE : 09 28 2009 PLOT BY : TB...BATTSER...TB PLOT NAME : PLOT SCALE : TB.....0.01"/UNIT.....TB

WISDOT/CADDS SHEET 21



9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 192	E

9

FILE NAME : p:\ 3556 PLAN Cross Sections 0912201_1.dgn PLOT DATE : 09 09 2009 PLOT BY : M...plotuser...M PLOT NAME : PLOT SCALE : M.....1"=10'.....M
WISDOT/CADDS SHEET 21

END ABRUPT
STA 50+89.81

50+90

R/L
976.41
1.1%
1.1%

50+50

R/L
974.23
1.6%
0.8%

CHURCH STREET

CHURCH STREET

50+15

R/L
972.32
1.6%
1.0%

50+00

R/L
971.49
2.0%
1.3%
5 FT
10 FT

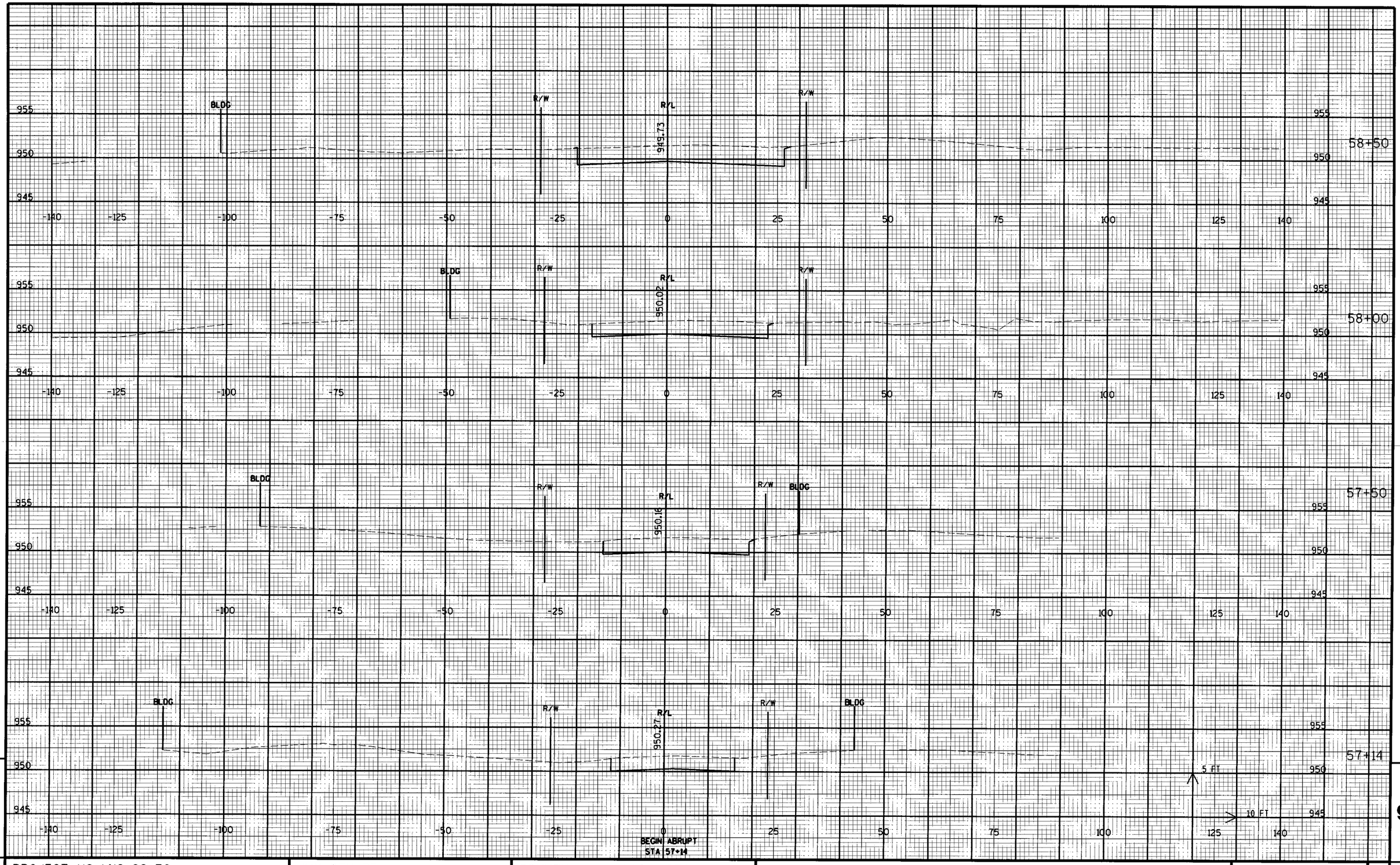
985
980
975
970
-140
-100
-50
0
50
100
140

9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: STH 33	SHEET 143	E

FILE NAME : c:\ 2004 PLAN Cross Sections\1412021x6.dgn PLOT DATE : 05 25 2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....1=xxxx'.....##
WISDOT/CADDS SHEET 21



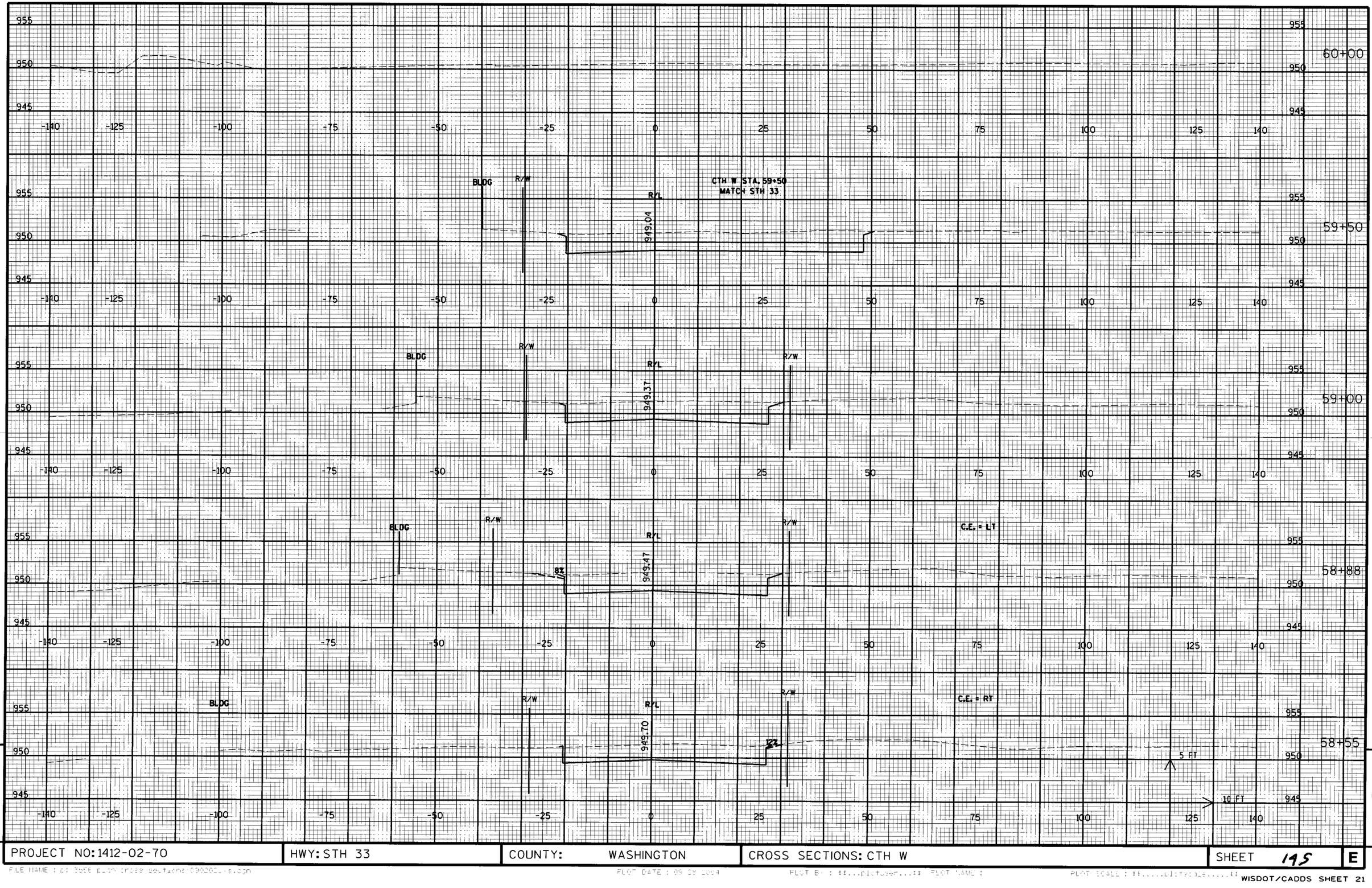
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: CTH W	SHEET 144	E

FILE NAME : D:\TEC\CLIP\1412\02\1412021...\x.dgn PLOT DATE : 09/28/2004 PLOT BY : ...\...\...\... PLOT NAME : PLOT SCALE : ...\...\...\...

WISDOT/CADDS SHEET 21



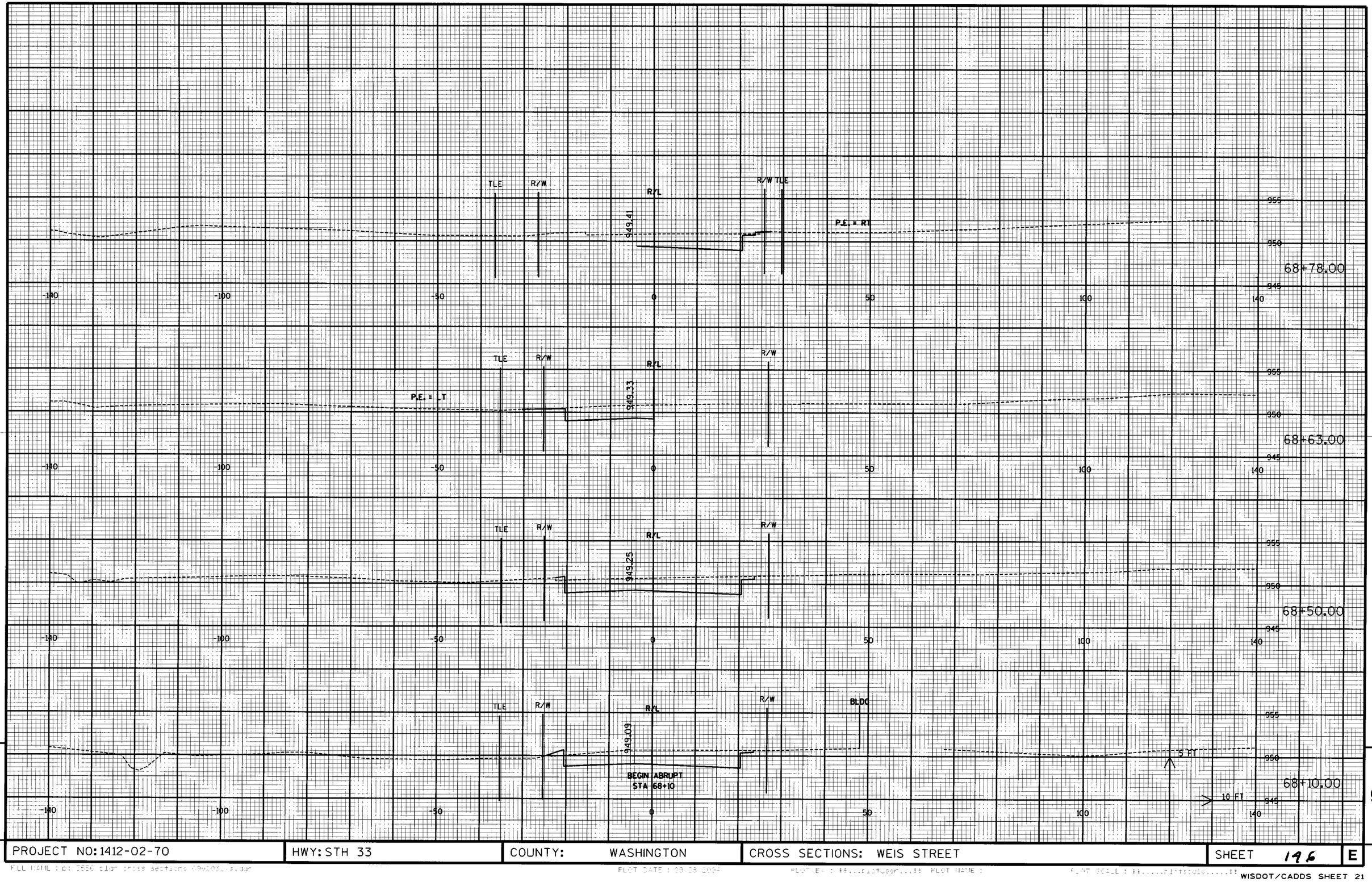
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: CTH W	SHEET 145	E

FILE NAME : d:\sse\plan sheet solutions\090202_ref.sgn PLOT DATE : 09 02 2004 PLOT BY : ...plotuser... PLOT NAME : PLOT SCALE : ...plotscale...

WISDOT/CADDS SHEET 21



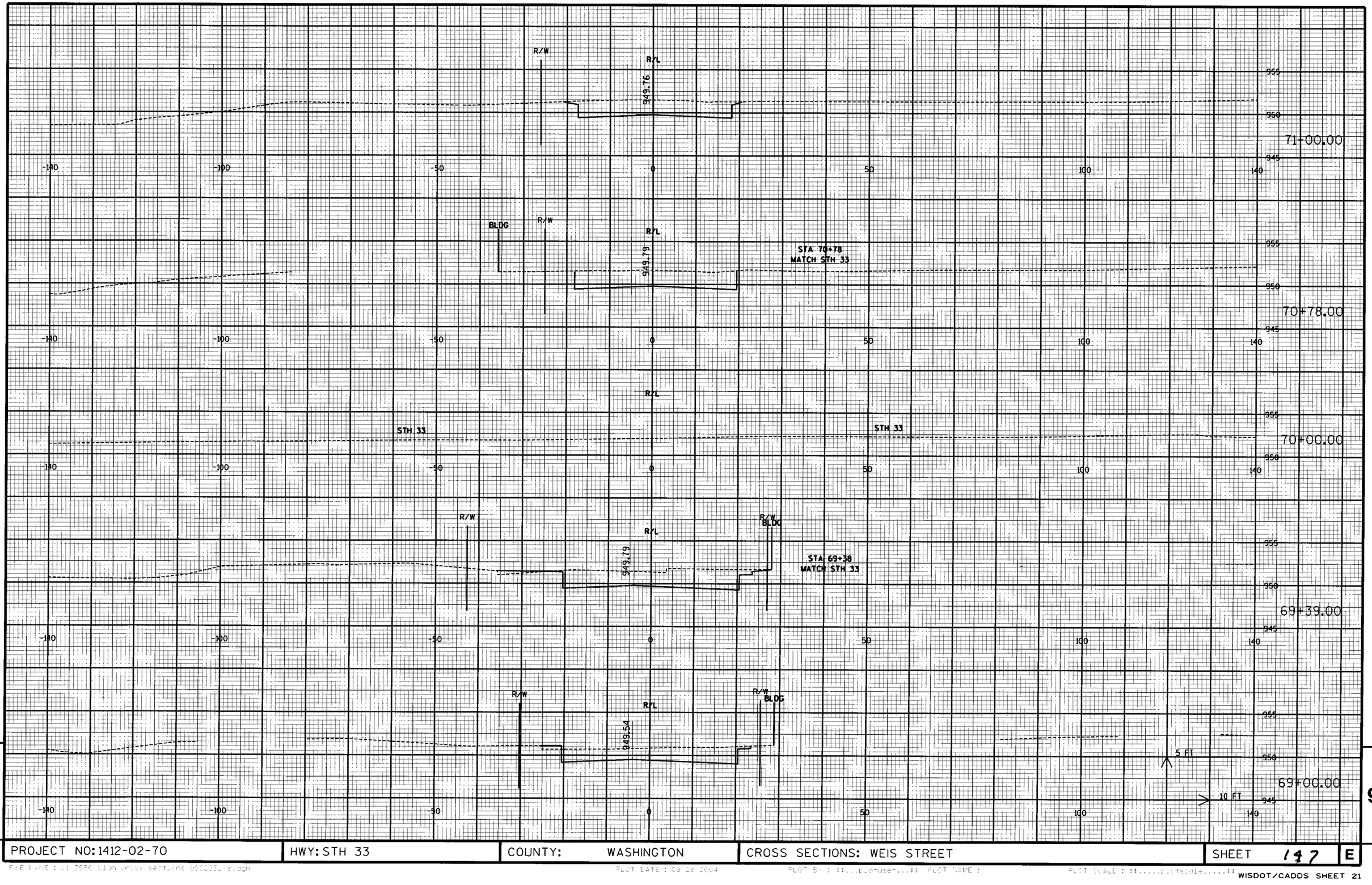
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: WEIS STREET	SHEET 196	E

FILL NAME : p:\7556 clar cross sections\9w203_xs.dgn PLOT DATE : 09 28 2004 PLOT BY : ...\rjtaeger... PLOT NAME : PLOT SCALE : ...\rjtaeger...

WISDOT/CADDS SHEET 21

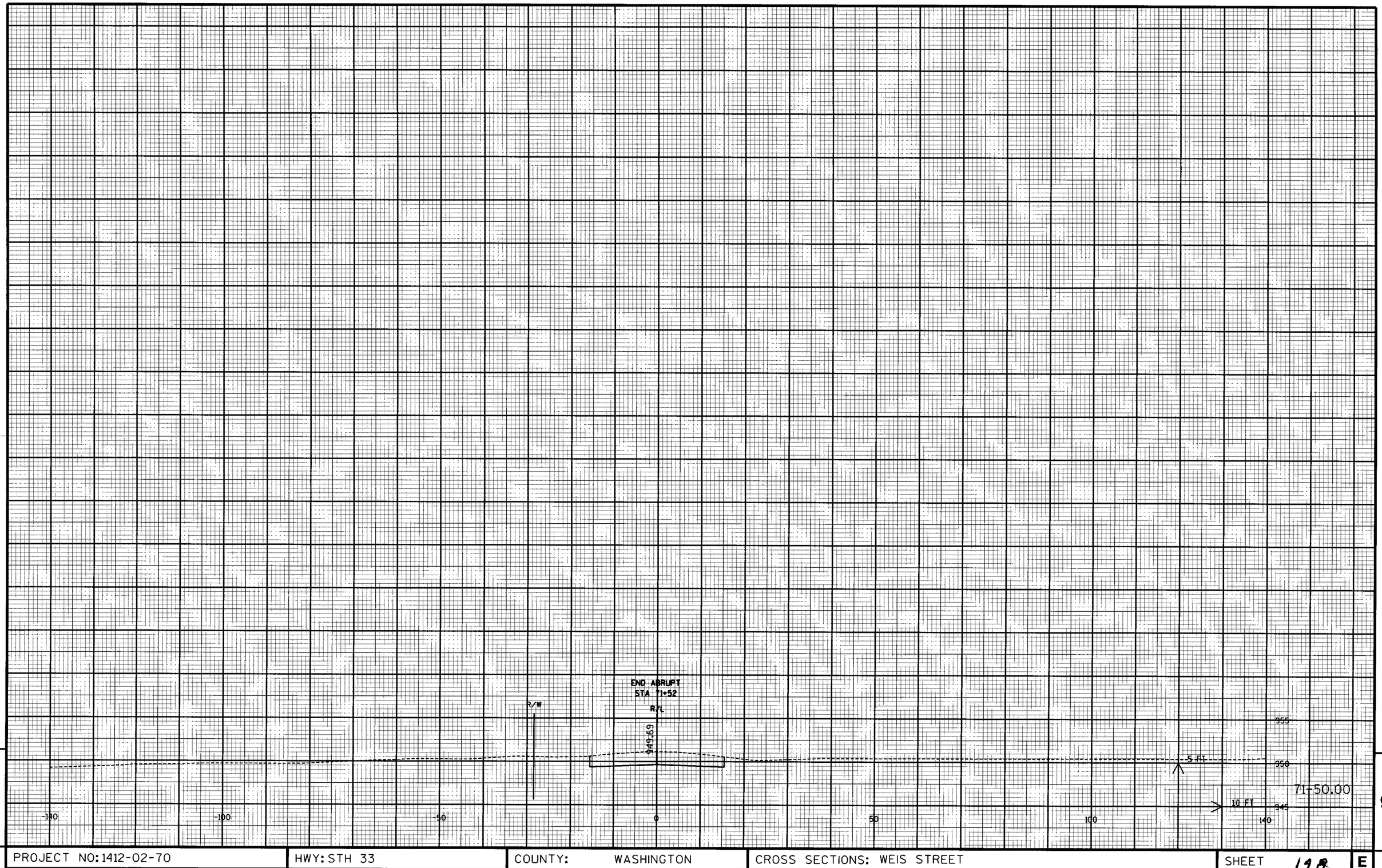


9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: WEIS STREET	SHEET 147	E

FILE NAME : c:\...\cross sections 050203_e.dgn PLOT DATE : 09 28 2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....plotscale.....##

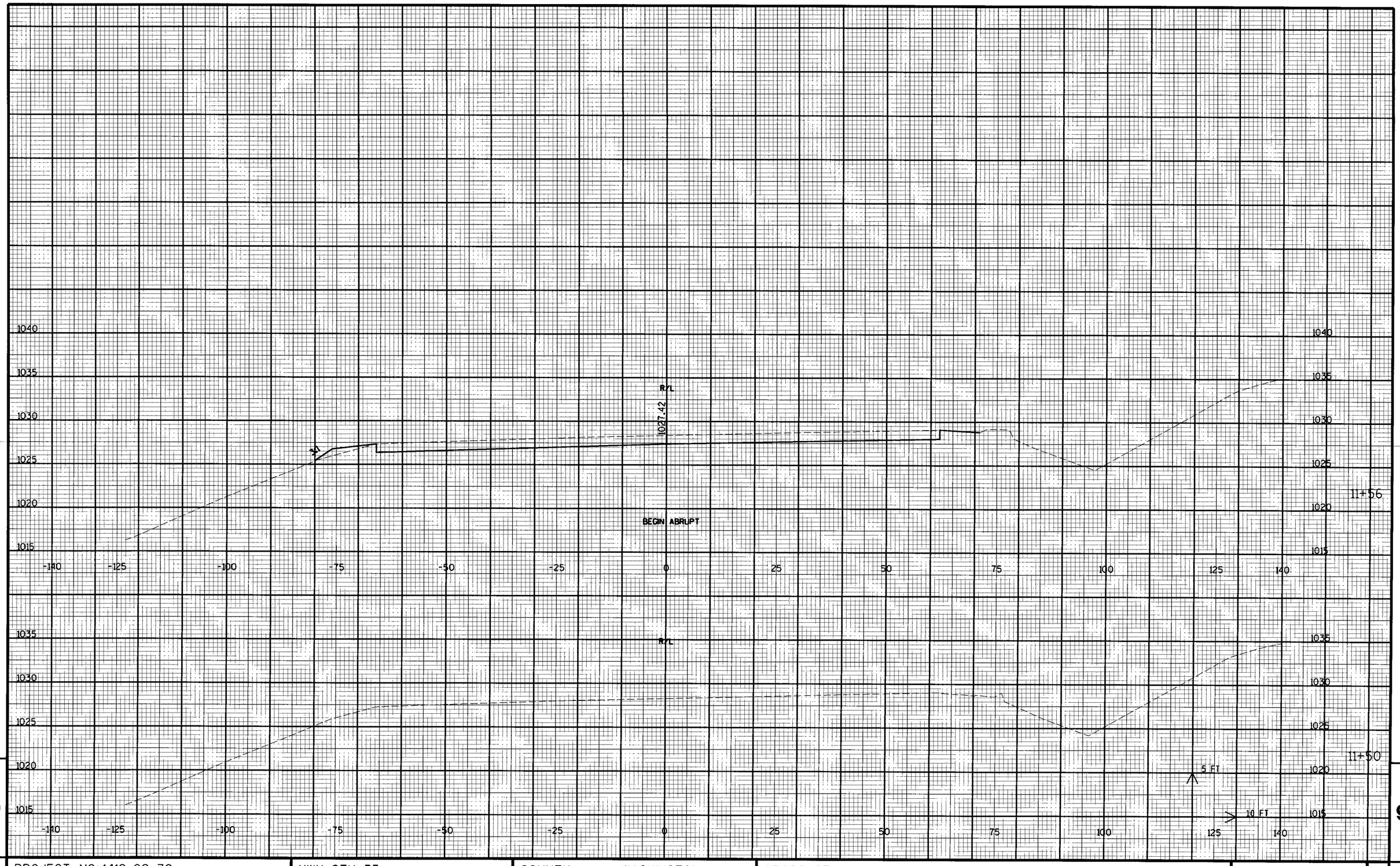


9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: WEIS STREET	SHEET 18	E

FILE NAME : p:\ 3056 plat cross sections\090203_1.dgn PLOT DATE : 09.28.2004 PLOT BY : ##...\cfrause...## PLOT NAME : PLOT SCALE : ##....plotscale....##



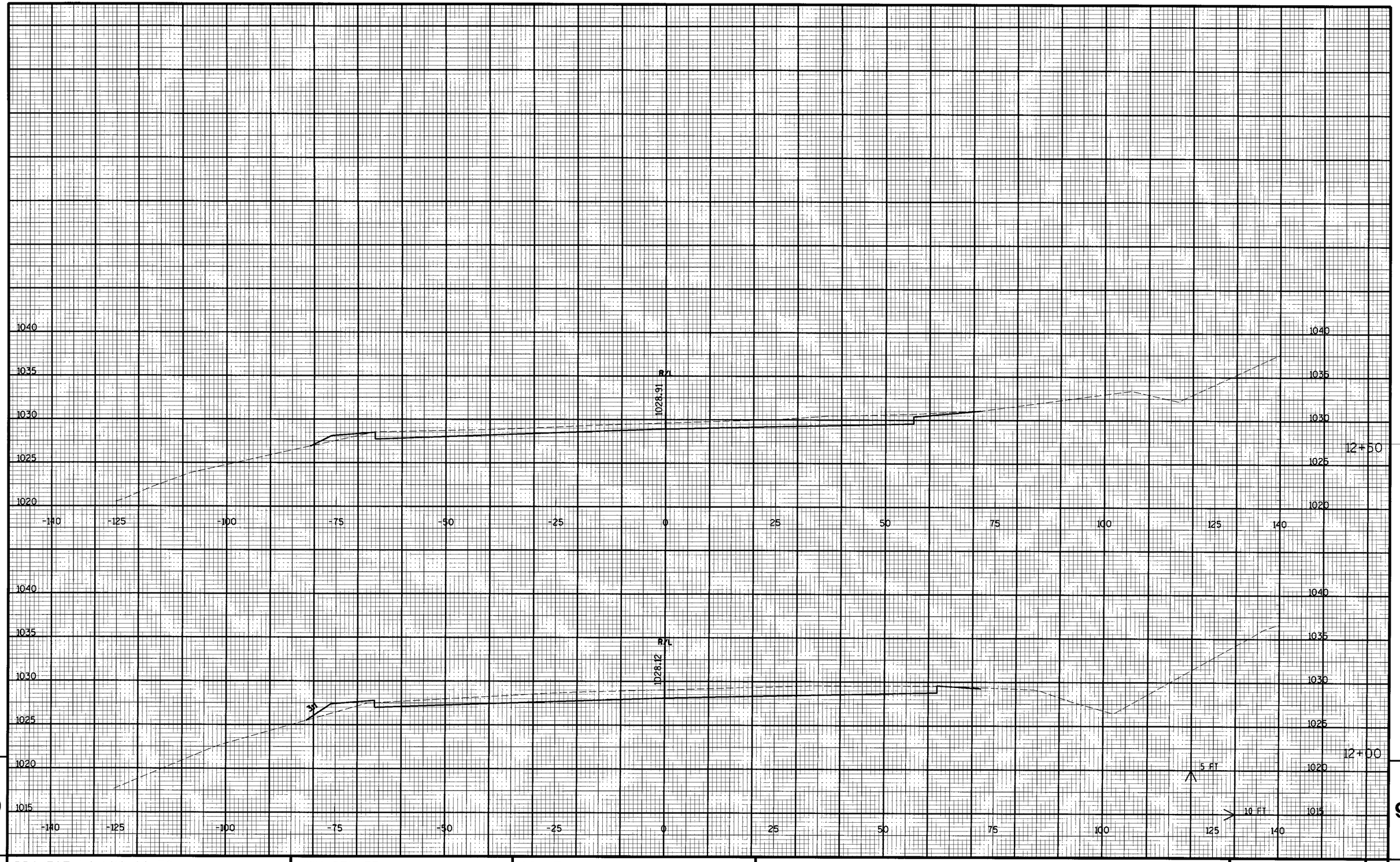
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: PARK AND RIDE	SHEET 119	E

FILE NAME : s:\ 3556 plan cross sections 090094_xs.dgn PLOT DATE : 09 28 2004 PLOT BY : ##...plotuser...## PLOT NAME : PLOT SCALE : ##.....plotscale.....##

WISDOT/CADDS SHEET 21



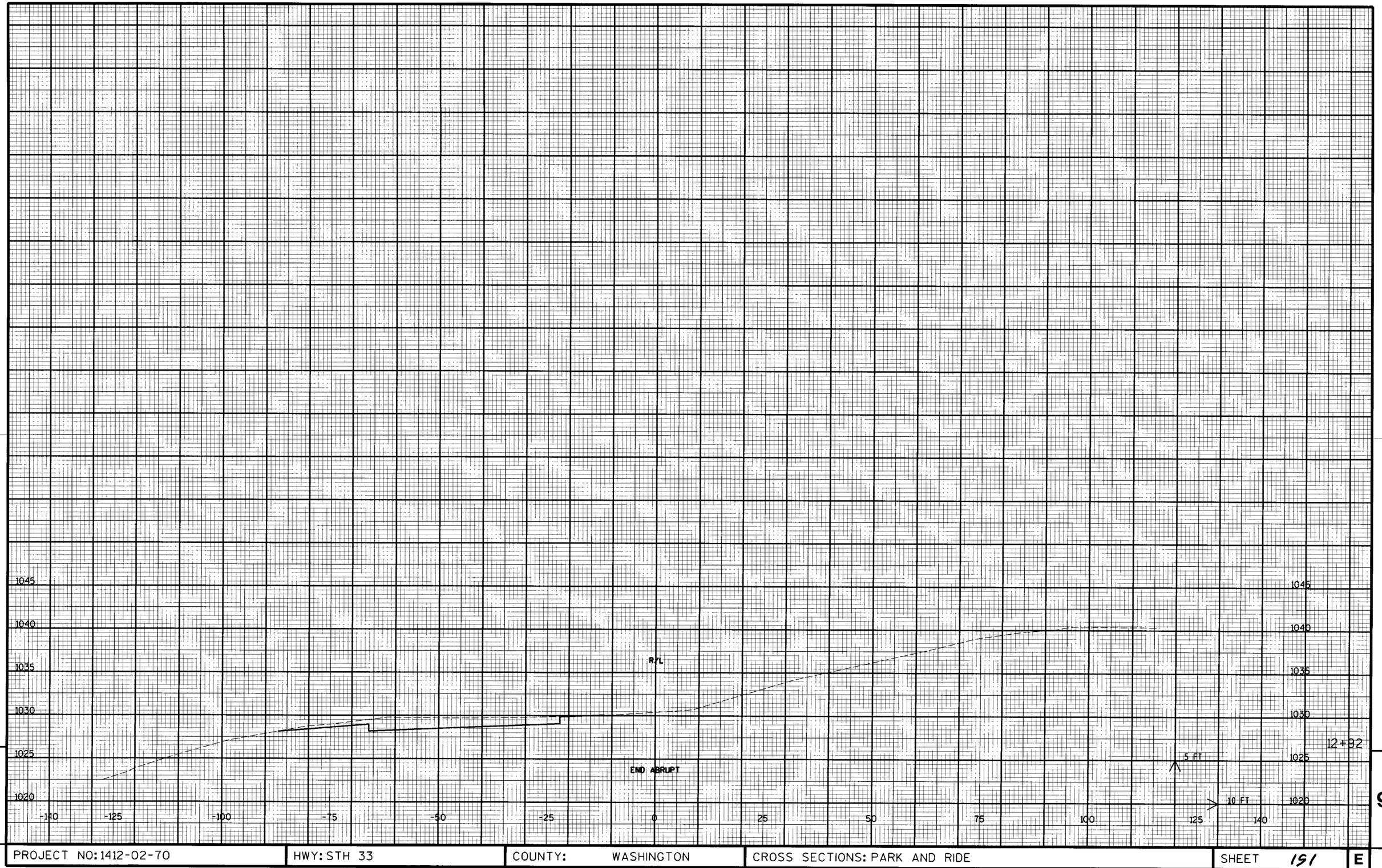
9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: PARK AND RIDE	SHEET 150	E

FILE NAME : E:\pw_plan_prod\wisdot_cadds\00000_ver.dgn PLOT DATE : 09-28-2004 PLOT BY : ...cjohnson... PLOT NAME : PLOT SCALE : 1'=...1in=10ft...'

WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 1412-02-70	HWY: STH 33	COUNTY: WASHINGTON	CROSS SECTIONS: PARK AND RIDE	SHEET 191	E

FILE NAME : n:\3556_plan_cross_sections_09\2021_ss.dgn PLOT DATE : 09 28 2004 PLOT BY : ...\jstover...\e PLOT NAME : PLOT SCALE : ...\plotscale...\\
WISDOT/CADDS SHEET 21