

From Utilities Unit

PROJECT ID: 2788-00-71
WITH:

COUNTY: WAUKESHA

ORDER OF SHEETS

- | | |
|---------------|------------------------------|
| Section No. 1 | Title |
| Section No. 2 | Typical Sections and Details |
| 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 =



DESIGN
DESIGNATION

A.A.D.T. 2017 = 12,100 - 20,900
A.A.D.T. 2037 = 17,300 - 25,000
D.H.V. = XXXXX
D.D. = 59/41
T. = 8.3%
DESIGN SPEED = 50 mph
ESALS = XXXXX

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) | ---- |
| SPECIAL DITCH | ---- |
| GRADE ELEVATION | 95.36 |
| CULVERT (Profile View) | ---- |
| UTILITIES | |
| ELECTRIC | ---- |
| FIBER OPTIC | ---- |
| GAS | ---- |
| SANITARY SEWER | ---- |
| STORM SEWER | ---- |
| TELEPHONE | ---- |
| WATER | ---- |
| UTILITY PEDESTAL | ---- |
| POWER POLE | ---- |
| TELEPHONE POLE | ---- |

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WAUKESHA
BYPASS

USH 18

GENESEE ROAD TO MADISON STREET

WAUKESHA COUNTY

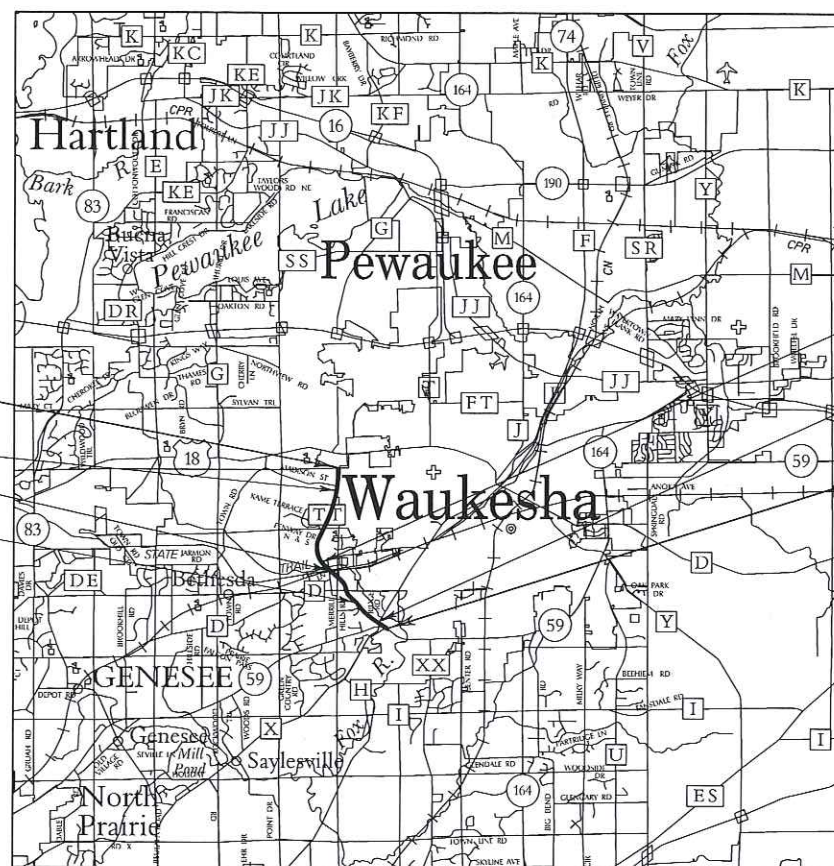
STATE PROJECT NUMBER

2788-00-71

R-18-E

R-19-E

R-20-E



T-7-N

B-67-354
B-67-355

B-67-314
B-67-315

BEGIN PROJECT ID 2788-00-71
STA 100+36.99
X=672902.16
Y=149229.17

T-6-N

LAYOUT
SCALE 0 0.75 MI.

TOTAL NET LENGTH OF CENTERLINE = 3.042 MI.

-COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WAUKESHA COUNTY NAVD 83 (1991).
-ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD 88 (1991).

STATE PROJECT

2788-01-00

2788-00-71

FEDERAL PROJECT

PROJECT

CONTRACT

DRAFT
FOR REVIEW
ONLY

ORIGINAL PLANS PREPARED BY
CH2MHILL
MILWAUKEE, WISCONSIN

(Date)

(Signature)

PLANS PREPARED BY

KAPUR & ASSOCIATES
CONSULTING ENGINEERS
414.751.7200

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KAPUR & ASSOCIATES
Designer	CH2MHILL / KAPUR & ASSOCIATES
Project Manager	XXXXXXXXXX
Regional Examiner	
Regional Supervisor	XXXXXXXXXX
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: (Signature)

E

GENERAL NOTES

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

ALL PRIVATE EXISTING UTILITIES NOT INCLUDED IN THE PLAN ARE TO BE ADJUSTED BY THE UTILITIES CONCERNED. STORM SEWER MANHOLES WILL BE ADJUSTED AND PAID FOR AS A CONTRACT BID ITEM.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

THE EARTHWORK YARDAGE WAS ESTIMATED BY EXPANDING THE FILL VOLUME. AN EXPANSION FACTOR OF 1.2 WAS USED.

THE LOCATION AND LIMITS OF EBS (EXCAVATION BELOW SUBGRADE), IF REQUIRED, WILL BE DETERMINED BY THE ENGINEER. SUCH EBS SHALL NOT BE USED TO BALANCE YARDAGE.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN THE FLOODPLAIN OR WETLAND AREAS.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL OR SALVAGED TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE PLACED A MINIMUM OF 4 INCHES IN DEPTH.

SALVAGED TOPSOIL SHALL NOT BE PLACED ON SUBGRADE UNTIL APPROVED BY ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED BY DIRECTION OF THE ENGINEER WITH THE FOLLOWING FINISHING ITEMS: SALVAGED TOPSOIL, SEED, FERTILIZER, AND MULCH. QUANTITIES FOR FINISHING ITEMS INCLUDE RESTORATION EXTENDING 3 FEET BEYOND THE SLOPE INTERCEPT SHOWN ON THE PLANS. DISTURBED AREAS SHALL HAVE FINISHING ITEMS APPLIED WITHIN 15 WORKING DAYS AFTER GRADING WORK IS COMPLETED.

EROSION CONTROL DEVICES WILL BE PLACED IN SEQUENCE WITH CONSTRUCTION ACTIVITIES AS DETERMINED BY THE ENGINEER.

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

REMOVAL OF EROSION CONTROL DEVICES IS INCIDENTAL TO THE COST OF THEIR RESPECTIVE BID ITEMS.

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

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES WILL BE FILLED WITH GRANULAR BACKFILL.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR MUST VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

LOCATION AND ELEVATION OF STORM SEWER STRUCTURES IN CURB AND GUTTER SECTION REFER TO FLOW LINE OF CURB.

LOCATION AND ELEVATION OF STORM SEWER STRUCTURES NOT IN CURB AND GUTTER REFER TO CENTERLINE OF COVER.

ADJUSTING MANHOLES TO GRADE SHALL BE COMPLETED AFTER PAVING LOWER LAYER.

EXISTING INLET AND MANHOLE COVERS THAT ARE NOT REQUIRED TO BE REUSED ON THE PROJECT SHALL BECOME THE PROPERTY OF THE RESPECTIVE MUNICIPALITY.

REINFORCED CONCRETE APRON ENDWALLS AND ADJOINING TWO SECTIONS OF CONCRETE PIPE WILL BE TIED TOGETHER AS SHOWN ON THE STANDARD DETAIL DRAWINGS. JOINT TIES WILL BE INCIDENTAL ITEMS INCLUDED IN THE COST OF THE CONCRETE PIPE.

CURB HEIGHTS AT THE END OF CURB AND GUTTER WILL BE TAPERED FROM 0 TO 6 INCHES OVER 10 FEET. CHANGES IN CURB TYPE SHALL TRANSITION OVER 10 FEET.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE LINE. CURB AND GUTTER RADII ARE MEASURED TO THE FACE.

EXPANSION JOINTS ARE TO BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER ADJACENT TO CONCRETE PAVEMENT.

CURB AND GUTTER JOINT SPACING SHALL BE 20 FEET ALONG TANGENT SECTIONS.

1/2-INCH FELT EXPANSION JOINT MATERIAL IS REQUIRED BETWEEN BACK OF CURB AND FRONT OF WALK OR DRIVEWAY APRON.

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

CONCRETE DRIVEWAY REMOVAL WILL BE PAID FOR AS REMOVING PAVEMENT.

BROKEN CONCRETE CONTAINING RE-BAR WILL NOT BE USED AS RIPRAP OR HEAVY RIPRAP.

A SAWED JOINT IS REQUIRED WHERE NEW ASPHALTIC CONCRETE SURFACE MEETS EXISTING ASPHALTIC CONCRETE SURFACE.

TRAFFIC CONTROL DEVICES WILL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

MUNICIPAL-OWNED STREET SIGNS WILL BE REMOVED, STORED AND RE-INSTALLED BY THE MUNICIPALITY.

SIGNS TO BE MOVED WILL BE STORED AND PROTECTED BY THE CONTRACTOR, FREE FROM DAMAGE, UNTIL SUCH TIME AS THEY ARE RE-INSTALLED.

UTILITY / AGENCY CONTACTS**WE ENERGIES - GAS & ELECTRIC**

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Remove

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DIGGERS HOTLINE

Dial 811 or (800) 242-8511

www.DiggersHotline.com

STANDARD ABBREVIATIONS

<	ANGLE	LF	LINEAR FOOT(FEET)	T	(TRUCKS) PERCENT OF
ADT	AVERAGE DAILY TRAFFIC	LHF	LEFT HAND FORWARD	TC	TOP OF CURB
AC	ACRE	LC	LONG CHORD	TAN	TANGENT
AE, AEW	APRON ENDWALL	LS	LUMP SUM	TEMP	TEMPORARY
AGG	AGGREGATE	LT	LEFT	TL OR T/L	TRANSIT LINE
AH	AHEAD	M	MARSH	TLE	TEMPORARY LIMITED EASEMENT
ASPH	ASPHALTIC	MATL	MATERIAL	TYP	TYPICAL
BC	BACK OF CURB	MP	MARKER POST	UG	UNDERGROUND (CABLE)
BF	BACK FACE	MAX	MAXIMUM	UNCL	UNCLASSIFIED
BIT	EXISTING BITUMINOUS	MGAL	1000 GALLONS	VAR	VARIABLE
BM	BENCH MARK	MH	MANHOLE	VCL	VERTICAL CURVE LENGTH
BEG	BEGIN	MIN	MINIMUM	VPC	VERTICAL POINT OF CURVATURE
BK	BACK	ML OR M/L	MATCH LINE	VPCC	VERTICAL POINT OF COMPOUND CURVE
C & G	CURB AND GUTTER	N	NORTH	VPI	VERTICAL POINT OF INTERSECTION
CABC	CRUSHED AGGREGATE BASE COURSE	NB	NORTHBOUND	VPRC	VERTICAL POINT OF REVERSE CURVE
CB	CATCH BASIN	NC	NORMAL CROWN OR NO CHANGE	VPT	VERTICAL POINT OF TANGENCY
CMCP	CORRUGATED METAL CULVERT PIPE	NO	NUMBER	VLV	VALVE
CMP	CORRUGATED METAL PIPE	NW OR N/W	NORMAL WATER	VOL	VOLUME
CP	CULVERT PIPE	OBLIT	OBLITERATE	W	WEST
CY	CUBIC YARD	OD	OUTSIDE DIAMETER	WB	WESTBOUND
CL OR C/L	CENTER LINE	PC	POINT OF CURVATURE	WV	WATER VALVE
CO	COUNTY	PCC	POINT OF COMPOUND CURVE	X	EASTING OR EAST GRID COORDINATE
CONC	CONCRETE	PE	PRIVATE ENTRANCE	Y	NORTHING OR NORTH GRID COORDINATE
CONST	CONSTRUCTION	PGL	PROFILE GRADE LINE	YD	YARD
CR	CREEK	PI	POINT OF INTERSECTION		
CTH	COUNTY TRUNK HIGHWAY	PL	PROPERTY LINE		
CWT	HUNDRED WEIGHT	PLE	PERMANENT LIMITED EASEMENT		
D	DEGREE OF CURVE	PRC	POINT OF REVERSE CURVE		
DHV	DESIGN HOUR VOLUME	PROJ	PROJECT		
DIA	DIAMETER	PSI	POUNDS PER SQUARE INCH		
DISCH	DISCHARGE	PT	POINT OF TANGENCY		
E	EAST	PVC	POLYVINYL CHLORIDE		
EA	EACH	PT	POINT OF TANGENCY		
EB	EASTBOUND	PAV'T	PAVEMENT		
EBS	EXCAVATION BELOW SUBGRADE	PCC	PORTLAND CEMENT CONCRETE		
EL, ELEV	ELEVATION	R	RADIUS OR RANGE		
ELEC	ELECTRIC(AL), ELEC CABLE	RCCP	REINFORCED CONCRETE CULVERT PIPE		
EMB	EMBANKMENT	RCHCEP	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CULVERT PIPE		
ESALS	EQUIVALENT SINGLE AXEL LOADS	RCPSS	REINFORCED CONCRETE PIPE STORM SEWER		
ESMT	EASEMENT	RHF	RIGHT HAND FORWARD		
EW	ENDWALL	R/L	REFERENCE LINE		
EXC	EXCAVATION	R/W	RIGHT OF WAY		
EXIST	EXISTING BITUMINOUS	RD	ROAD		
EXP	EXPANSION	RDWY	ROADWAY		
FC	FACE OF CURB	REL	RELOCATE		
FE	FIELD ENTRANCE	REM	REMAINING		
FF	FACE TO FACE	REQD	REQUIRED		
F/L, FL	FLOW LINE	RT	RIGHT		
FERT	FERTILIZER	RW	RETAINING WALL		
FHWA	FEDERAL HIGHWAY	S	SOUTH		
FT	FOOT (FEET)	SALV	SALVAGED		
G	GAS	SAN	SANITARY		
GN	GRID NORTH	SB	SOUTHBOUND		
H	HOUSE	SDD	STANDARD DETAIL DRAWINGS		
HP	HIGH POINT	SE	SUPERELEVATION		
HR	HANDICAP RAMP	SEC	SECTION		
HYD	HYDRANT	SF	SQUARE FOOT (FEET)		
I	INTERSECTION ANGLE	S/L	SURVEY LINE		
ID	INSIDE DIAMETER	SHLDR	SHOULDER(S)		
INL	INLET	SHR	SHRINKAGE		
INTER	INTERSECTION	SPECS	SPECIFICATIONS		
INV	INVERT	SS	STORM SEWER		
IP	IRON PIPE	STA	STATION		
JT	JOINT	STH	STATE TRUNK HIGHWAY		
K	RATE OF VERTICAL CURVATURE	STR	STRUCTURE		
L	LENGTH OF CURVE	SW	SIDEWALK		
LB	POUND	SY	SQUARE YARD		
LC	LONG CHORD OF CURVE	TAN	TANGENT		
LP	LOW POINT	TEL	TELEPHONE		

DESIGN INDEX

TITLE	
GEN. NOTES, UTILITIES AND STANDARD ABBREVIATIONS	✓
PROJECT OVERVIEW	✓
TYPICAL SECTIONS	✓
CONSTRUCTION DETAILS	✓
PLAN DETAILS	✓
EROSION CONTROL	✓
STORM SEWER	✓
SIGNING	✓
LIGHTING PLAN	✓
TRAFFIC SIGNALS	✓
PAVEMENT MARKING	✓
TRAFFIC CONTROL AND CONSTRUCTION STAGING	✓
ALIGNMENT PLAN	✓

- Storm Sewer (Construction details)
- Signal Plans
- Traffic Control
- Alignment
- Plan
- Plan and Profile
- Cross Sections