

# GENERAL NOTES

1. SEE CROSS SECTIONS FOR SPECIAL DITCHES AND BACKSLOPES.
4. THE FINAL TOP FOUR INCHES OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE CAPABLE OF SUPPORTING VEGETATION. THE SOIL MUST BE FROM THE A HORIZON (ZERO TO 2' DEEP) OF SOIL PROFILES OF LOCAL SOILS.
5. IT IS ESTIMATED THAT 14,205 CUBIC YARDS OF EARTH WILL BE HAULED TO THE JOB FROM OUTSIDE THE PROJECT LIMITS. A SHRINKAGE FACTOR OF 25% HAS BEEN USED.
6. THE TOPSOIL EXCAVATION QUANTITIES HAVE BEEN ADJUSTED TO ALLOW FOR SHRINKAGE OF TOPSOIL BETWEEN REMOVAL AND REPLACEMENT. SEE EARTHWORK SCHEDULE.
- 6A. ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTH MOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.
7. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 4 OR 2A SHALL BE USED. EXCEPT IN FRONT OF PROPERTIES WHERE THE GRASS WILL BE MOWED, THEN USE SEEDING, CLASS 1. CLASS 2A SHALL BE USED ON FRONT SLOPES AND DITCH BOTTOMS. CLASS 4 SHALL BE USED BEHIND TYPE A GUTTER, ON ALL BACKSLOPES AND AREAS BEHIND THE BACKSLOPE, AND BEYOND THE TOE OF FRONT SLOPE ON FILL SECTIONS WITHOUT DITCHES.

12B. PREVIOUSLY PUGMILLED STOCKPILES OF "TYPE A" OLDER THAN 1 MONTH WILL NOT BE APPROVED FOR USE UNTIL A MOISTURE CHECK IS RUN TO VERIFY MOISTURE CONTENT. MATERIAL SHIPPED TO PROJECTS WITHOUT BEING TESTED WILL NOT BE ACCEPTED.

12C. PLACEMENT AND COMPACTION OF THE BACKFILL FOR PROPOSED ACROSS ROAD CULVERTS AND EXISTING ACROSS ROAD CULVERTS THAT ARE REMOVED SHALL CONFORM TO SECTION 502.10 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT THE MATERIAL SHALL CONFORM TO ARTICLE 208.02 OF THE STANDARD SPECIFICATIONS, AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD LABORATORY DENSITY. ANY MATERIAL CONFORMING TO THE REQUIREMENTS OF ARTICLE 1003.04 OR 1004.05 WHICH HAS BEEN EXCAVATED FROM THE TRENCHES SHALL BE USED FOR BACKFILLING THE TRENCHES. THE ENTIRE EXCAVATION, WITHIN 2 FEET OUTSIDE OF EACH SHOULDER, SHALL BE BACKFILLED WITH TRENCH BACKFILL MATERIAL TO THE BOTTOM OF THE PROPOSED SUBGRADE. IMPERVIOUS MATERIAL SHALL BE USED ON THE OUTER 3 FEET AT EACH END OF THE CULVERT. THIS TRENCH BACKFILL MATERIAL WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE CLASS OF CONCRETE INVOLVED OR OTHER UNIT PRICE ITEM OF THE WORK FOR WHICH IT IS REQUIRED.

13. THE SUBGRADE ON THIS PROJECT, EXCLUSIVE OF ROCK CUT AREAS IS SCHEDULED TO BE IMPROVED TO A 12" DEPTH ACCORDING TO MECHANISTIC PAVEMENT DESIGN. THE AREAS SCHEDULED TO BE IMPROVED TO A DEPTH GREATER THAN 12" ARE ESTIMATED BASED ON THE ORIGINAL GEOTECHNICAL INVESTIGATION. THE SUBGRADE SHALL BE PROCESSED IN ACCORDANCE WITH ARTICLE 301.04 OF THE STANDARD SPECIFICATIONS BEFORE THE ENGINEER SHALL DETERMINE THE LIMITS AND THE ADDITIONAL THICKNESS OF IMPROVEMENT REQUIRED, IF ANY. ANY ADDITIONAL UNDERCUTTING REQUIRED AFTER THIS EVALUATION SHALL BE PAID FOR AS EARTH EXCAVATION.

15. ALL "AGGREGATE SUBGRADE IMPROVEMENT" (SECTION 303), SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLES 311.04, 311.05, 311.05(A), 311.06 AND 311.07. ALL AGGREGATE SUBGRADE THICKNESSES EQUAL TO OR LESS THAN 12 INCHES SHALL BE CONSTRUCTED OF AGGREGATE OF CA02 GRADATION. ALL AGGREGATE SUBGRADE THICKNESSES GREATER THAN 12 INCHES SHALL BE CONSTRUCTED OF CS02.

19. ALL MANDATORY JOINT SEALING FOR CLASS A, CLASS B, AND CLASS B (HINGE JOINTED) PATCHES AS SHOWN ON THE PLANS WILL NOT BE MEASURED FOR PAYMENT. OPTIONAL SAWING OF THE JOINT FOR THE SEALANT RESERVOIR WILL NOT BE MEASURED FOR PAYMENT.

FOR ALL CONCRETE PATCHING THAT WILL NOT BE RESURFACED, THE CONCRETE SHALL BE STRUCK OFF FLUSH WITH THE EXISTING PAVEMENT SURFACE AT EACH END OF THE PATCH.

THE ENGINEER RESERVES THE RIGHT TO CHECK ALL PATCHES FOR SMOOTHNESS BY THE USE OF A 10' ROLLING STRAIGHT EDGE SET TO A 3/16" TOLERANCE IN THE WHEEL PATHS. ANY PATCH AREAS HIGHER THAN 3/16" MUST BE GROUND SMOOTH WITH AN APPROVED GRINDING DEVICE CONSISTING OF MULTIPLE SAWS. THE USE OF BUSHHAMMER OR OTHER IMPACT DEVICES WILL NOT BE PERMITTED. ANY PATCH WITH DEPRESSIONS GREATER THAN 3/16" SHALL BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER.

THE MANDATORY SAW CUTS FOR PAVEMENT PATCHING ARE:

**CLASS A PATCH:** CUT TWO TRANSVERSE SAW CUTS AT EACH END OF THE PATCH; ONE FULL DEPTH AND ONE PARTIAL DEPTH. THE LONGITUDINAL EDGES OF THE PATCH SHALL BE CUT FULL DEPTH. WHEN THE PATCH IS ADJACENT TO A PCC SHOULDER, TWO SAW CUTS ALONG THE SHOULDER WILL BE REQUIRED.

**CLASS B PATCH:** CUT TWO TRANSVERSE SAW CUTS OUTLINING THE PATCH AND ONE TRANSVERSE PRESSURE RELIEF SAW CUT. THE LONGITUDINAL EDGES OF THE PATCH SHALL BE CUT FULL DEPTH. WHEN THE PATCH IS ADJACENT TO A PCC SHOULDER, TWO SAW CUTS ALONG THE SHOULDER WILL BE REQUIRED.

THE MANDATORY SAW CUTS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR SAW CUTS.

25. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USES(S):	RESURFACING			SHOULDERS	
	SURFACE	LEVEL BINDER	BINDER	TOP LIFT	ALL LOWER LIFTS
PG:	SBS PG 70-22	SBS PG 70-22	SBS PG 70-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0 @ N70	4.0 @ N70	4.0 @ N70	3.0 @ N50	2.0 @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5	IL 9.5FC*	IL 19.0	IL 9.5 OR	IL 19.0
FRICION AGGREGATE	E	N/A	N/A	C	N/A
20 YEAR ESAL	9.8	9.8	9.8	N/A	N/A
MIX UNIT WEIGHT	119LBS/SY/IN	112LBS/SY/IN	112LBS/SY/IN	112LBS/SY/IN	112LBS/SY/IN

\* ON PROJECTS WITH LESS THAN 2000 TONS LEVEL BINDER, GROWTH CURVE WILL BE USED FOR DENSITY AND IL 9.5 MAY BE USED

27. THE CONTRACTOR WILL BE REQUIRED TO FURNISH 5 1/2" HIGH BRASS STENCILS AS APPROVED BY THE ENGINEER AND INSTALL STATIONING AT 250' INTERVALS. STATIONING SHALL BE PLACED ON BOTH LANES OF 2 LANE HIGHWAYS AND ON THE OUTSIDE LANES IN BOTH DIRECTIONS ON 4-LANE HIGHWAYS. THE STATIONS SHALL BE PLACED 6" INSIDE THE PAVEMENT MARKING EDGE SO THEY CAN BE READ FROM THE SHOULDER. THIS WORK WILL BE INCLUDED IN THE COST OF THE FINAL PAVEMENT SURFACE.

28. THE AREA TO BE PRIMED SHALL BE LIMITED TO THAT WHICH CAN BE COVERED WITH HMA ON THE NEXT DAYS PRODUCTIVITY, BUT NO MORE THAN FIVE DAYS IN ADVANCE OF THE PLACEMENT OF THE HMA, UNLESS APPROVED BY THE ENGINEER.

32. INSTALL RUMBLE STRIPS IN ALL SHOULDERS IN ACCORDANCE WITH STATE STANDARDS 642001. RUMBLE STRIPS SHALL BE PLACED ON SHOULDERS ON BOTH SIDES OF THE PAVEMENT.

37. THE NEW NUMBERS FOR THESE STRUCTURES WILL BE:  
 US 20 OVER WEST CHANNEL ROCK RIVER:  
 101 - 0195 (EB) 101-0196 (WB)  
 US 20 OVER EAST CHANNEL ROCK RIVER:  
 101 - 0197 (EB) 101-0198 (WB)

42. THE THICKNESS FOR THE BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) ADJACENT TO EXISTING PAVEMENT SHALL BE A MINIMUM OF 12". THE MATERIAL SHALL BE 2" HOT-MIX ASPHALT SURFACE COURSE, AND THE REMAINING THICKNESS SHALL BE HOT-MIX ASPHALT BINDER COURSE.

45. REFLECTOR MARKERS TYPE B SHALL BE INSTALLED ON THE TOP OF BRIDGE PARAPET WALLS. THE MARKERS SHALL BE ACCORDING TO STANDARD 635011 AND THE COLOR AND SPACING ACCORDING TO STANDARD 635006, EXCEPT THE MINIMUM IS 2 PER SIDE.

54A. CONNECTING BANDS FOR CORRUGATED METAL PIPES SHALL BE METAL AND SHALL BE COATED WITH THE SAME MATERIAL AS THE PIPE SECTIONS. THE CONNECTING BANDS SHALL BE A MINIMUM OF 18" WIDE.

71. THE NEW MANHOLE LIDS ON THIS PROJECT SHALL HAVE THE WORD "STORM", "SANITARY", OR "WATER" ON THE LID. THE WORD TO BE USED IS NOTED ON THE PLANS. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE WORD TO BE USED ON OTHER LIDS NOT NOTED ON THE PLANS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK.

72. ALL PROPOSED MANHOLES ON THIS PROJECT SHALL BE CAST IN PLACE OR PRECAST. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR MANHOLE OF THE TYPE AND SIZE SPECIFIED.

75. THE UNDERDRAIN SYSTEM SCHEDULED ON THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION 601 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, EXCEPT CA 16 SHALL BE USED IN LIEU OF FA 1 OR FA 2 FOR TRENCH BACKFILL. THE CA 16 SHALL BE ACCORDING TO ARTICLE 1004.05 AND ARTICLE 1004.01 OF THE STANDARD SPECIFICATIONS, EXCEPT IN THE TABLE, COURSE AGGREGATE GRADATION, THE PERCENT PASSING THE NO. 16 SIEVE SHALL BE 4 + 4%. THE TRENCH SHALL BE WRAPPED USING A FABRIC ENVELOPE MEETING THE REQUIREMENTS OF ARTICLE 1080.05 OF THE STANDARD SPECIFICATIONS. FABRIC ENCASING THE PIPE SHALL BE ELIMINATED.

79. EMBANKMENT QUANTITIES FOR THE CONSTRUCTION OF THE TRAFFIC BARRIER TERMINALS AS SHOWN IN THE PLANS ARE INCLUDED IN QUANTITIES FOR EARTH EXCAVATION.

80. THE CONTRACTOR SHALL SUPPLY THE RESIDENT ENGINEER WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR THE TYPE OF STEEL PLATE BEAM GUARDRAIL TERMINAL. TYPE 1 SPECIAL (TANGENT) USED.

80A. ONE 16D GALVANIZED NAIL SHALL BE USED TO TOE NAIL THE WOOD BLOCK OUT TO THE WOOD POST ON ALL TRAFFIC BARRIER TERMINAL TYPE 1 SPECIALS.

81. DELINEATORS SHALL BE INSTALLED AS SHOWN IN STANDARD 635001, EXCEPT THAT THE POST SHALL BE ROTATED 180 AND ONLY METAL-BACKED DELINEATORS SHALL BE PERMITTED. DELINEATORS SHALL BE PLACED AT THE ENDS OF APPROACH GUARDRAIL TERMINAL SECTIONS, AND AT EACH HEADWALL OR END SECTION OF ACROSS ROAD CULVERTS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR DELINEATORS.

84. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTING AND MAINTAINING AN ELECTRONIC LOGOF ALL STAKEOUT SURVEY THAT IS PERFORMED ON THE JOB, EITHER BY HIM/HER OR ANY SUB-CONTRACTOR PERFORMING THE STAKEOUT. UPON REQUEST, ALL LOGS SHALL BE SUBMITTED TO THE DEPARTMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK, BUT SHALL BE CONSIDERED INCLUDED IN THE COST FOR CONSTRUCTION LAYOUT.

88. PAVEMENT MARKING SHALL BE DONE ACCORDING TO STANDARD 780001, EXCEPT AS FOLLOWS:  
 1. ALL WORDS, SUCH AS "ONLY", SHALL BE 8 FEET HIGH.  
 2. ALL NON-FREEWAY ARROWS SHALL BE THE LARGE SIZE.  
 3. THE DISTANCE BETWEEN YELLOW NO-PASSING LINES SHALL BE 8 INCHES, NOT 7 INCHES, AS SHOWN IN THE DETAIL OF TYPICAL LANE AND EDGE LINES.  
 4. CENTERLINE SKIP DASH PAVEMENT MARKING ON MULTI-LANE DIVIDED, MULTI-LANE UNDIVIDED, AND ONE-WAY ROADWAY SHALL BE ACCORDING TO DISTRICT STANDARD 41.1.

**SURVEY MARKERS**

89. PERMANENT SURVEY MARKERS, TYPE II, SHALL BE SET AT INTERVALS OF 1 MILE OR AS DIRECTED BY THE ENGINEER. BRIDGE OR CULVERT PROJECTS SHALL HAVE ONE SURVEY MARKER PLACED NEAR THE STRUCTURE. ESTIMATED: 2 EACH.

90. PERMANENT SURVEY MARKERS, TYPE II PLACED IN URBAN AREAS SHOULD BE PLACED IN SIDEWALK AREAS. THE MARKER SHALL BE PLACED AS SHOWN ON DISTRICT STANDARD 66.2. THE SIDEWALK SHALL BE PLACED AROUND THE MARKER AND FLUSH WITH THE TOP.

91. PERMANENT SURVEY MARKERS, TYPE II SHALL BE CAST-IN-PLACE AS SHOWN ON DISTRICT STANDARD 66.2. OPTION 2 WOULD BE TO INSTALL A VAULTED STYLE MONUMENT AS DESCRIBED BY NGS AS A 3D MONUMENT (TOP SECURITY SLEEVE ROD MONUMENT), WITH INSTALLATION INSTRUCTIONS PROVIDED BY THE DISTRICT CHIEF OF SURVEYS. IF POURED IN PLACE, THE BOTTOM OF THE MARKER SHALL BE 5'-0" BELOW THE GROUND SURFACE.

92. THE PERMANENT SURVEY MARKERS, IF POSSIBLE, SHALL BE INSTALLED AT THE BEGINNING OF THE JOB AND PROTECTED THROUGHOUT.

93. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A DESCRIPTION OF LOCATION, ELEVATION, AND COORDINATES FOR EACH PERMANENT SURVEY MARKER. THE HORIZONTAL COORDINATES MUST BE DERIVED BY GPS AND THE ELEVATION DERIVED USING AN ELECTRONIC LEVEL. THE META DATA, SUCH AS THE GEOID USED, (NGS ADJUSTMENT IE: 97 HARN, 03, 07), AND THE BASE POINT(S) NAME OR NUMBER SHALL BE SUBMITTED ALONG WITH A COMPLETE COLLECTION LOG. IF COLLECTED USING RTK METHOD, IT WILL REQUIRE EITHER 3 COLLECTIONS (AVERAGED) FROM 2 DIFFERENT BASES, OR A MINIMUM OF 3 COLLECTIONS (AVERAGED), AT LEAST 2 HOURS APART, FROM THE SAME BASE. IF USING A CORS TYPE NETWORK, THE COLLECTION PROCEDURE SHALL INCLUDE LOCALIZING WITH CHECK SHOTS ON AT LEAST 2 DIFFERENT HARN MONUMENTS BOTH BEFORE AND AFTER COLLECTION. THE LEVEL CIRCUIT SHALL BE RUN FROM FURNISHED MARK TO FURNISHED MARK AND THEN ADJUSTED. THE ERROR OF CLOSURE SHALL BE SUBMITTED WITH THE ELECTRONIC LEVEL NOTES IN A RECOGNIZED FORMAT APPROVED BY THE ENGINEER AND/OR THE CHIEF OF SURVEYS. THE ENGINEER SHALL SUBMIT THIS INFORMATION TO THE DISTRICT CHIEF OF SURVEYS.

FILE NAME: 02640198.dwg  
 MODEL: Default  
 PLOT DRIVER: v8i,1001.pdf,11x17,pltefg

 <b>QUIGG ENGINEERING INC</b>	USER NAME = rgoertz	DESIGNED - RC	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES</b> <b>US 20 BYPASS</b>	P.A.P. RTE. 301	SECTION 3BR & 3BR-1	COUNTY WINNEBAGO	TOTAL SHEETS 290	SHEET NO. 4
	PLOT SCALE = 40.0000' / in.	CHECKED - CMS	REVISED -			SCALE:	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONTRACT NO. 64019	
	PLOT DATE = 07/20/2013	DATE = 07/01/2013	REVISED -							