

- SEE CROSS SECTIONS FOR SPECIAL DITCHES AND BACKSLOPES.
- THE FINAL TOP 4" 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.
- THE REMOVAL OF BITUMINOUS SURFACING NOT ON A RIGID TYPE BASE REMOVED IN CONJUNCTION WITH THE BASE SHALL BE REMOVED AS EARTH EXCAVATION. THE REMOVAL OF BITUMINOUS SURFACING ON A RIGID TYPE BASE REMOVED IN CONJUNCTION WITH THE BASE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVEMENT REMOVAL OF THE TYPE SPECIFIED.
- 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.
- 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.
- 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.
- 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. 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.
- EXCEPT FOR THE TOP 3", ALL AGGREGATE BASES AND SUBBASES 12" IN THICKNESS SHALL BE CONSTRUCTED OF AGGREGATE GRADATION CA-2. IF THE SPECIFIED THICKNESS EXCEEDS 12", THE BASES OR SUBBASES SHALL BE CONSTRUCTED OF TOPSIZE 6" BREAKER-RUN CRUSHED STONE WITH 70% TO 90% BY WEIGHT, PASSING THE 4" SIEVE AND 15% TO 40% BY WEIGHT, PASSING THE 2" SIZE SIEVE, EXCEPT FOR THE TOP 3". THE BREAKER-RUN CRUSHED STONE SHALL BE REASONABLY UNIFORMLY GRADED FROM COARSE TO FINE AND BE TAKEN FROM A QUARRY LEDGE CAPABLE OF PRODUCING CLASS "D" QUALITY AGGREGATE. THE TOP 3" SHALL BE GRADATION CA-6 OR CA 10 REGARDLESS OF THICKNESS. THE WATER NECESSARY TO ACHIEVE COMPACTION IN ALL BUT THE TOP 3" LAYER MAY BE ADDED AFTER THE SUBBASE OR BASE COURSE IS PLACED ON THE GRADE.
- ALL EMBANKMENT CONSTRUCTED OF COHESIVE SOIL SHALL BE CONSTRUCTED WITH NOT MORE THAN 110% OF OPTIMUM MOISTURE CONTENT, DETERMINED BY THE STANDARD PROCTOR TEST. COHESIVE SOIL SHALL BE DEFINED AS ANY SOIL WHICH CONTAINS GREATER THAN 10% PARTICLES BY WEIGHT PASSING THE #200 SIEVE. THE 110% OF OPTIMUM MOISTURE LIMIT MAY BE WAIVED IN FREE-DRAINING GRANULAR MATERIAL WHEN APPROVED BY THE ENGINEER.
- THE EXISTING HOT-MIX ASPHALT ON PRIVATE AND COMMERCIAL ENTRANCES SHALL BE BLADED OFF OR MILLED AND DISPOSED OF OUTSIDE THE PROJECT LIMITS. THIS COULD BE THE ENTIRE ENTRANCE OR TAPERED AT THE END DEPENDING ON IF THE MAINLINE IS RESURFACED OR MILLED AND RESURFACED. THE COST OF THE BLADING, MILLING, ROLLING, AND DISPOSAL IS INCLUDED IN THE CONTRACT UNIT PRICE FOR INCIDENTAL HOT-MIX ASPHALT SURFACING.
- MILLING MACHINES ON THIS PROJECT SHALL BE CAPABLE OF REMOVING A LAYER OF BITUMINOUS A MINIMUM 6' WIDE AND 1-1/2 INCHES IN DEPTH IN A SINGLE PASS.

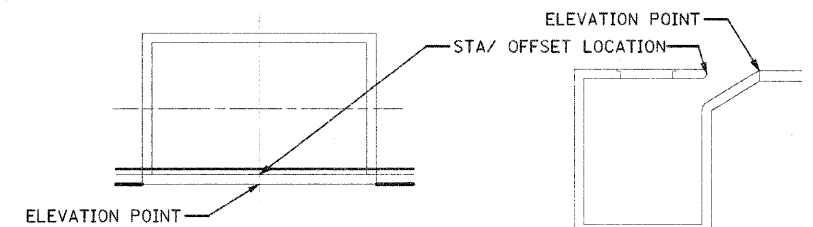
12. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USES(S):	IL 173/ALPINE RD			SMYTHE RD, BANYAN DR/N 2ND ST RUSS ST HMA OVERLAY, TEMP PAVEMENT		
	P SURFACE CSE	P LEV BINDER CSE	P BINDER CSE	SURFACE CSE	LEVEL BINDER CSE	BINDER CSE
PG:	SBS PG 70-22	SBS PG 70-22	SBS 70-22	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% @ N70	4.0% @ N70	4.0% @ N70	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5 OR 12.5	IL 9.5	IL 19.0	IL 9.5 OR 12.5	IL 9.5	IL 19.0
FRICTION AGGREGATE	E	N/A	N/A	C	N/A	N/A
20 YEAR ESAL	4.2	4.2	4.2	0.7 MAX	0.2	0.7
MIX UNIT WEIGHT	119 LBS/SY/IN			112 LBS/SY/IN		

MIXTURE USES(S):	HMA SHOULDER/HMA MEDIAN	
	TOP	BOTTOM
PG:	PG 58-22	PG 58-22
DESIGN AIR VOIDS	3.0% @ N50	2.0% @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5 OR 12.5	BAM
FRICTION AGGREGATE	C	N/A
20 YEAR ESAL	N/A	N/A
MIX UNIT WEIGHT	112 LBS/SY/IN	

- THE CONTRACTOR SHALL PLACE TEMPORARY HOT-MIX ASPHALT TAPERS ALONG ALL SIDES OF THE UTILITY STRUCTURES PROTRUDING ABOVE THE MILLED SURFACE. THE TEMPORARY TAPERS SHALL EXTEND 2" OUTSIDE OF THE CASTINGS, EXCEPT FOR THE APPROACH SIDE TO TRAFFIC SHALL HAVE A 4FT TAPER LENGTH. HOT-MIX ASPHALT MEETING THE APPROVAL OF THE ENGINEER SHALL BE USED, NO COLD MILLINGS WILL BE ALLOWED. THE COST OF THE MATERIAL, PLACEMENT, MAINTENANCE, REMOVAL AND DISPOSAL OF SAID WORK WILL BE INCLUDED IN THE PAY ITEM FOR HOT-MIX ASPHALT SURFACE REMOVAL.
- THE AREA TO BE PRIMED SHALL BE LIMITED TO THAT WHICH CAN BE COVERED WITH HMA THE SAME DAY, UNLESS OTHERWISE PERMITTED BY THE ENGINEER.
- 10' TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.
- ALL TEMPORARY SHEET PILING NECESSARY FOR THE PLACEMENT OF STORM SEWER, SANITARY SEWER AND WATERMAIN SHALL BE INCLUDED IN THE COST OF THE ITEM BEING INSTALLED.
- A NATIONWIDE 404 PERMIT HAS BEEN ISSUED FOR THIS PROJECT AND THE CONDITIONS OF THAT PERMIT MUST BE ADHERED TO.
- CULVERT FLOWS MUST BE MAINTAINED THROUGHOUT THE PROJECT. NORMAL FLOW SHALL BE ALLOWED TO PASS AT THE RATE IT ENTERS THE JOBSITE. HIGH FLOWS SHALL BE ALLOWED TO PASS WITHOUT CAUSING DAMAGE TO UPSTREAM PROPERTIES.
- THE BORING LOGS FOR THIS STRUCTURE INDICATE THAT GROUNDWATER LEVELS MAY ENCRONCH ON THE CONSTRUCTION LIMITS OF THIS CULVERT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL THE GROUND WATER AND DIVERT THE STREAM FLOW DURING CONSTRUCTION IN ORDER TO KEEP THE CONSTRUCTION AREA FREE OF WATER. THE METHOD OF CONTROLLING THE WATER SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER AND THE COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PRECAST CONCRETE BOX CULVERTS.
- THE CONTRACTOR SHALL INSTALL A 18" DIAMETER FORMED OPENING IN THE CONCRETE MEDIAN SURFACE OF THE ISLAND AS DIRECTED BY THE ENGINEER. ALSO, A 4" DIAMETER FORMED OPENING SHALL BE INSTALLED IN EACH CORNER OF THE ISLAND 1 FOOT BEHIND THE BACK OF CURB. ALL EXISTING PAVEMENT SURFACES OF OTHER EXISTING OBSTRUCTIONS BENEATH THESE OPENINGS SHALL BE REMOVED BY THE CONTRACTOR. AFTER THE MEDIAN IS IN PLACE THE 18" OPENING SHALL BE CORED DOWN 4' AND FILLED WITH DIRT. ALL COSTS INCURRED SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR CONCRETE MEDIAN SURFACE, 4 INCH.
- THE PROPOSED PIPES FOR ENTRANCES AND SIDE ROADS SHALL BE PLACED IN LINE WITH THE EXISTING OR PROPOSED DITCH LINE.
- NOSES OF CURBED CORNER ISLANDS NOTED AS 1 & 2 ON HIGHWAY STANDARD 606301 SHALL BE RAMPED UNLESS THE CURB FUNCTION IS FOR THE PROTECTION OF PEDESTRIANS, SIGNALS, LIGHT STANDARDS OR SIGN TRUSS SUPPORTS.

- THE ISLANDS ON THIS PROJECT ARE INTERMEDIATE ISLANDS AS SHOWN ON THE INTERSECTION LAYOUT DETAILS.
- THE CONTRACTOR SHALL INSTALL 18" DIAMETER FORMED OPENINGS IN THE CONCRETE MEDIAN SURFACE, SPACED AT INTERVALS NO GREATER THAN 250 FEET, AND/OR AS DIRECTED BY THE ENGINEER. ALL EXISTING PAVEMENT SURFACES OR OTHER EXISTING OBSTRUCTIONS BENEATH THESE OPENINGS SHALL BE REMOVED BY THE CONTRACTOR. AFTER THE MEDIAN IS IN PLACE, CORE EACH OPENING DOWN 4' AND FILL WITH DIRT. ALL COSTS INCURRED SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR P.C. CONCRETE MEDIAN SURFACE, 4 INCH.
- ALL FRAMES AND GRATES OF DRAINAGE STRUCTURES TO BE REMOVED OR FILLED SHALL BE CAREFULLY SALVAGED AND SHALL REMAIN THE PROPERTY OF CONTRACTOR.
- THE COST OF MAKING SEWER CONNECTIONS TO EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE VARIOUS CONTRACT UNIT PRICES FOR STORM SEWER.
- NOT USED
- FOR ALL DRAINAGE STRUCTURES IN CURB: 1) HORIZONTAL LOCATION OF STRUCTURE IS TO THE FACE OF CURB 2) ELEVATIONS ARE GIVEN AT THE EDGE OF PAVEMENT



- 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.
- 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.
- THE CONTRACTOR SHALL DETERMINE FLOW LINES OF EXISTING SEWER LINES WHICH ARE SHOWN ON THE PLANS AS ESTIMATED OR UNKNOWN. THIS INFORMATION IS NECESSARY BEFORE ORDERING INLETS AND MANHOLES.
- 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) OR STEEL PLATE BEAM GUARDRAIL TERMINAL TYPE I SPECIAL (FLARED).
- DELINEATORS SHALL BE PLACED AT THE ENDS OF APPROACH GUARDRAIL TERMINAL SECTIONS, AND AT EACH HEADWALL OR END SECTION OF AR CULVERTS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR DELINEATORS.
- PAVEMENT MARKING SHALL BE DONE ACCORDING TO STANDARD 780001, EXCEPT AS FOLLOWS:
 - ALL WORDS, SUCH AS 'ONLY', SHALL BE 8 FEET HIGH.
 - ALL NON-FREEWAY ARROWS SHALL BE THE LARGE SIZE.
 - THE DISTANCE BETWEEN YELLOW NO-PASSING LINES SHALL BE (8'), NOT 7' AS SHOWN IN THE DETAIL OF TYPICAL LANE AND EDGE LINES.
- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A DESCRIPTION OF LOCATION, ELEVATION, AND COORDINATES FOR EACH PERMANENT SURVEY MARKER. THE HORIZONTAL AND VERTICAL COORDINATES MUST BE DERIVED BY GPS AND THE ELEVATION DERIVED BY A CLOSED LEVEL CIRCUIT. THE ENGINEER SHALL SUBMIT THIS INFORMATION TO THE SURVEY CREW.
- PERMANENT SURVEY MARKERS, TYPE II SHALL BE CAST-IN-PLACE AS SHOWN ON DISTRICT STANDARD 66.2. THE BOTTOM OF THE MARKER SHALL BE 5'-0" BELOW THE GROUND SURFACE.