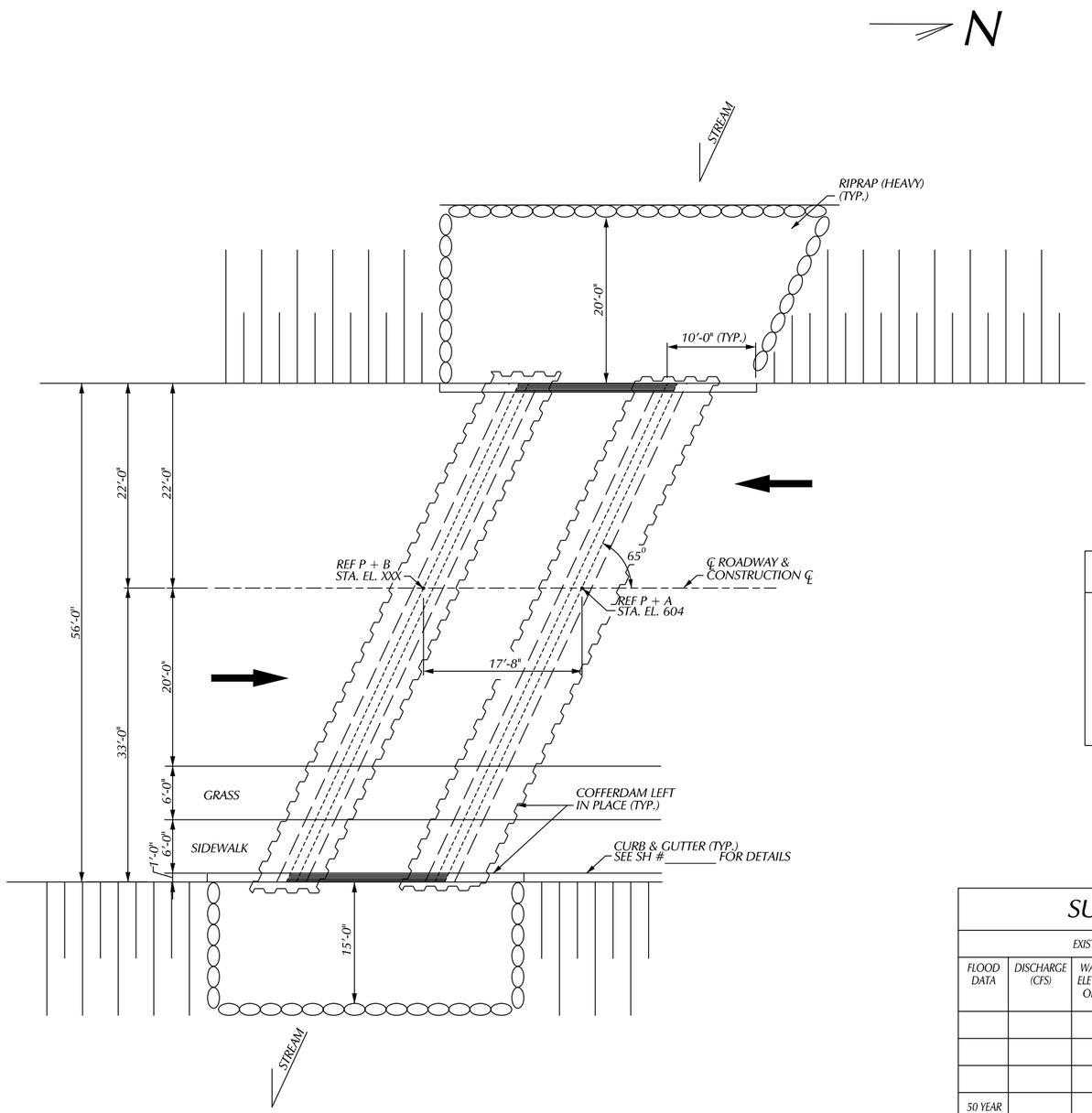
SCALE	HORIZONTAL	BOOK NO. PG.	LEVEL
	VERTICAL	PAVING COMPLETED	DATE

BEFORE STARTING CONSTRUCTION CONTRACTOR MUST CHECK WITH UTILITIES FOR LOCATIONS OF EXISTING STRUCTURES WHETHER OR NOT INDICATED ON PLANS.

BENCH MARKS ELEV



PLAN

MISCELLANEOUS QUANTITIES

_____ LS	Monitoring Vibrations (Structures)
_____ LS	Monitoring Vibrations (Sanitary Sewers)
_____ LS	Structures, Rem (B01 of 63021)
_____ Cyd	Masonry and Conc. Structures, Rem.
_____ LS	Structures, Rem Portions (B01 of 63021)
_____ Stf	False Decking
_____ Cyd	Excavation, Fdn
_____ Cyd	Backfill, Structure, CIP
_____ Cyd	Embankment, CIP
_____ Cyd	Excavation, Earth
_____ Cyd	Non Haz Contaiminated Material Handling and Disposal, LM
_____ Tan	Riprap, Heavy, Special
_____ Syd	Articulating Concrete Block System, 6 Inches
_____ LS	Confferdams, Left in Place (C01 of 63821)
_____ LS	Conc. Surface Coating
_____ Cyd	Conc. Quality Assurance, Structure
_____ Cyd	Patching Mortar or Conc. *
_____ Stf	Patch, Forming *

* TO BE USED AS DIRECTED BY THE ENGINEER FOR REPAIRS ON THE EXISTING RETAINING WALL.

EROSION AND SEDIMENTATION CONTROL

KEY	QUANTITY	PAY ITEM
55	_____ EA	Erosion Control, Filter Bag
	_____ FT	Turbidity Curtain (Shallow)
26	_____ FT	Erosion Control, Silt Fence
39A	_____ EA	Erosion Control, Inlet Protection, Fabric Drop
	_____ LS	Sedimentation Control

SUMMARY OF HYDRAULIC ANALYSIS

	EXISTING			PROPOSED			
FLOOD DATA	DISCHARGE (CFS)	WATER SURFACE ELEV. AT U/S FACE OF STRUCTURE	VELOCITY AT D/S FACE (FPS)	WATER SURFACE ELEV. AT U/S FACE OF STRUCTURE	VELOCITY AT D/S FACE (FPS)	WATERWAY AREA (SFT) AT D/S FACE	CHANGE IN WS EL 3 U/S OF PROPOSED STRUCTURE
50 YEAR							
100 YEAR							
MAXIMUM BRIDGE AREA BELOW LOW CHORD IS _____ SQUARE FEET							

THE WATER SURFACE AND/OR ENENGY GRADE ELEVATIONS SHOWN ON THE ABOVE HYDRAULIC TABLE ARE TO BE USED FOR COMPARISON PURPOSES ONLY AND ARE NOT TO BE USED FOR ESTABLISHING A REGULATORY FLOORPLAIN. THE ELEVATIONS MAY NOT BE USED PROVIDED THEY ARE VERIFIED WITH THE LAND AND WATER MANAGEMENT DIVISION, MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY.

NOTES:

THE DESIGN OF THIS STRUCTURE IS BASED ON CURRENT AASHTO STANDARDS SPECIFICATIONS FOR HIGHWAY BRIDGES HS25 LOADING. THE LOAD FACTOR METHOD OF DESIGN WAS USED FOR THIS STRUCTURE.

THE REMOVAL OF THE EXISTING STRUCTURE, SLOPEWALLS AND GABIONS IS INCLUDED IN THE PAY ITEM, "Structures, Rem B01 of 63021". SEE 'STRUCTURES REMOVAL SEQUENCE' ON SHEET ____ .

REMOVAL OF THE EXISTING SUBSTRUCTURE UNITS SHALL BE ISOLATED FROM THE WATERWAY USING TEMPORARY STEEL SHEET PILING. TEMPORARY SHEETING FOR THE REMOVAL SHALL ADHERE TO THE SAME REQUIREMENTS FOR CONSTRUCTION AND DE-WATERING AS THE COFFERDAM. TEMPORARY SHEETING SHALL BE CUT OFF 1'-0" BELOW FINISH GRADE AND SHALL NOT INTERFERE WITH PROPOSED CONSTRUCTION. ALL COST ASSOCIATED WITH THE TEMPORARY SHEETING IS INCLUDING IN THE REMOVAL ITEMS.

THE TOP 2' (±) OF THE EXISTING RETAINING WALL SHALL BE REMOVED BY SAW CUTTING. WORK IS INCLUDED IN "Structures, Rem Portions (B01 of 63021)". SEE 'RETAINING WALL REMOVAL AND CONSTRUCTION SEQUENCE" ON SHEET _____ .

REMOVAL OF EXISTING SHEETING IN THE SLOPE ADJACENT TO THE PROPOSED RETAINING WALL IS INCLUDED IN ""Structures, Rem Portions (B01 of 63021)'.

DURING WORK ON THE EXISTING AND PROPOSED RETAINING WALLS CASE SHALL BE TAKEN TO PREVENT ANY MATERIAL FROM ENTERING THE WATERWAY. THE CONTRACTOR SHALL PROPOSED A SYSTEM FOR PROTECTION OF THE WATERWAY & SUBMIT IT TO THE ENGINEER FOR APPROVAL. PAID FOR AS 'Sedimentation Control'. SEE SPECIAL PROVISION.

PAYMENT FOR FALSE DECKING SHALL BE BASED ON THE AREA OF THE EXISTING ARCH BARREL OVER THE WATERWAY REGARDLESS OF THE SIZE OF THE BARGE OR PLATFORM USED. THE CONTRACTOR SHALL TAKE CARE NOT TO ALLOW THE EXISTING EARTH FILL TO FALL INTO THE WATERWAY.

GEOTEXTILE LINER SHALL BE PLACED ON ALL SLOPES PRIOR TO PLACING RIPRAP. PAYMENT FOR GEOTEXTILE LINER SHALL BE INCLUDED IN THE PAYMENT FOR "Riprap, Heavy, Special".

THE EXISTING STRUCTURE PROVIDES A WATERWAY AREA OF _____ . SQUARE FEET TO UNDERCLEARENCE ELEVATION _____ .

WITHOUT THE PREVENTIVE MEASURES SHOWN ON THESE PLANS, THERE IS A POSSIBLILITY THAT STREAM BED SCOUR MAY OCCUR. THE ESTIMATED TOTAL SCOUR DEPTH IS CALCULATED TO BE 6.6' AT ABUMENT A AND 13.6' AT ABUMENT B. THESE DEPTHS ARE BASED ON A 100 YEAR RUNOFF EVENT.

THE DRAINAGE AREA CONTRIBUTORY TO THIS CROSSING IS 18 SQUARE MILES.

BROKEN CONCRETE SHALL NOT BE USED AS RIPRAP.

THE TREMIE SEAL DESIGN WAS BASED ON A WATER SURFACE AT EL. _____ .

THE WIDTH OF THE TREMIE UNDER THE STRUCTURE MAY NOT BE INCREASED EXCEPT IN THE SOUTHWEST QUADRANT IN THE VICINITY OF THE EXISTING AND PROPOSED SANITARY SEWER.

THE USE OF VIBRATORY HAMMERS FOR INSTALLATION COFFERDAM SHALL NOT BE ALLOWED.

DEWATERING OF THE COFFERDAM IS TO BE MADE THRU FILTER BAGS UNTIL COMPLETION OF THE TREMIE SEAL. ALL COST ASSOCIATED WITH DEWATERING ARE THE REPONSIBILITY OF THE CONTRACTOR.

COFFERDAMS IN STREAM SHALL BE CUT OFF AT ELEVATION _____ OR A MINIMUM OF 1'-0" BELOW THE STREAM BOTTOM OR 1'-0" BELOW GRADE. WORK IS INCLUDED IN THE BID ITEM, "Cofferdams, Left in Place (C01 of 63821").

CONCRETE SURFACE COATING IS TO BE APPLIED TO BOTH SIDES OF THE RAILING, THE HEADRAIL FACIA, THE CULVERT AND PEDESTAL WALL END FACES, THE TOP AND EXPOSED SIDE OF THE WINGWALL, RETURNWALLS AND THE RETAINING WALL. COATING SHALL EXTEND 6 INCHES MINIMUM BELOW FINISHED GRADE. THE ESTIMATED AREA OF COATING IS 1500 SQUARE YARDS.

ALL EXCAVATION ON THE PROJECT SHALL BE CONSIDERED NONHAZARDOUS CONTAMINATED. STORAGE AREA FOR THE MATERIAL ON SITE MAY BE LIMITED.

DESCRIPTION	DR	NCK	DAP	VD	DATE
REVISIONS					

	BY	CHECKED BY
PLAN		
GRADE		
ESTIMATE		
FINAL	ENGR	REVIEW

APPROVED:

ENGINEER OF STRUCTURE

CITY OF DETROIT
CITY ENGINEERING DIVISION - D.P.W.
BUREAUS OF STREETS AND HIGHWAYS
FOR

WEST PARKWAY CULVERT OVER ROUGE RIVER

GENERAL PLAN OF STRUCTURE

SHEET OF SHEETS
CONTRACT NO.
ASSIGNMENT NO.
DATE