

WAYNE ROAD DAM REMOVAL

NOAA GRANT AWARD NO. NA11NMF4630146
DECEMBER 2011

WAYNE COUNTY - CONTROL NO. 37-12-084



IN PARTNERSHIP WITH:



DRAWING INDEX

1. PROJECT NOTES
2. EXISTING CONDITIONS - DAM VICINITY
3. EXISTING CONDITIONS - DAM CROSS SECTIONS
4. SITE PREPARATION - ACCESS PLAN
5. SITE PREPARATION & DEMOLITION PLAN
6. DAM REMOVAL & DREDGING DETAILS
7. PROPOSED SITE IMPROVEMENTS PLAN
8. RIFFLE & BANK STABILIZATION PLAN
- 9A. CHANNEL REALIGNMENT PLAN
- 9B. CHANNEL REALIGNMENT DETAILS
10. RESTORATION/LANDSCAPE PLAN
11. REFERENCE: CITY OF WAYNE STANDARD PAVING DETAILS
12. WAYNE COUNTY STANDARD DETAILS

WAYNE ROAD OVER LOWER ROUGE RIVER AS-BUILT DRAWINGS
(FOR INFORMATION ONLY):

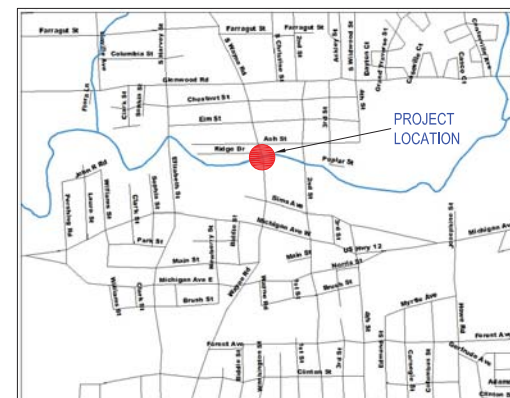
- A-1 DNR PERMIT APPLICATION DRAWING (SHEET D-1)
- A-2 LOCATION PLAN (SHEET 102)
- A-3 GENERAL PLAN OF STRUCTURE I (SHEET 104)
- A-4 GENERAL PLAN OF STRUCTURE II (SHEET 105)

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WAYNE COUNTY, MI
NOT TO SCALE



PROJECT VICINITY MAP
NOT TO SCALE

WAYNE COUNTY DPS GENERAL NOTES:

1. ALL WORK WITHIN THE WAYNE COUNTY ROAD RIGHT-OF-WAY (ROW) AND DRAIN EASEMENT SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS, INCLUDING SOIL EROSION AND SEDIMENTATION CONTROL OF THE WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES.
 2. THESE PLANS ARE NOT VALID WITHOUT ATTACHMENT OF THE WAYNE COUNTY PERMIT SPECIFICATIONS FOR CONSTRUCTION WITHIN THE ROAD ROW, PARKS, DRAIN EASEMENT OR SANITARY SEWER UNDER JURISDICTION OF THE WAYNE COUNTY (07/01/93) REVISED 12/15/2004.
 3. RESTORE ALL DISTURBED AREAS WITHIN THE COUNTY ROAD ROW WITH 3" TOPSOIL, THM SEED MIX AND MULCH. SLOPES STEEPER THAN 1 ON 3 SHALL BE RESTORED BY PLACING SOD ON MINIMUM 2" TOPSOIL.
 4. ALL BACKFILLS UNDER OR WITHIN 3 FEET OF THE PROPOSED OR EXISTING PAVEMENT, CURB OR SIDEWALK SHALL CONFORM TO THE WAYNE COUNTY TRENCH "B" BACKFILL REQUIREMENTS.
 5. MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES. ALL SIGNING AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE CURRENT M.U.T.C.D.
 6. CONTRACTOR SHALL NOTIFY WAYNE COUNTY 72 HOURS PRIOR TO START OF CONSTRUCTION.
- CONTACT MR. CHARLES SMITH AT (734) 595-6504 EXTENSION 2009.

GENERAL NOTES:

1. UNDERGROUND UTILITIES: FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, 1974, THE CONTRACTOR SHALL DIAL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.
2. SURVEY DATA PRESENTED IN THESE DRAWINGS WAS PROVIDED BY:
GREAT LAKES GEOMATICS, LLC
1274 LIBRARY SUITE 603, DETROIT, MI 48226
12504 STEPHENS ROAD, WARREN, MI 48069
PHONE (586) 755-5770 FAX (586) 755-5774
DATE OF SURVEY: JANUARY 26, 2011-FEBRUARY 3, 2011
SURVEY DATUM: NAVD 88
3. THE SOIL ANALYSIS INFORMATION REPRESENTS POINT INFORMATION. PRESENTATION OF THIS INFORMATION IN NO WAY INFERS THAT SUBSURFACE CONDITIONS ARE THE SAME OTHER THAN THE EXACT LOCATION OF THE SOIL SAMPLES.
4. STORAGE OF EQUIPMENT AND CONSTRUCTION MATERIALS SHALL BE RESTRICTED TO DESIGNATED STAGING AREAS AS INDICATED ON THE PLANS, UNLESS OTHERWISE APPROVED BY OWNER.
5. ALL UTILITIES, CULVERTS AND BENCHMARKS SHALL BE PRESERVED DURING CONSTRUCTION ACTIVITIES UNLESS OTHERWISE SHOWN ON THE DRAWINGS. CONTRACTOR TO REPLACE DAMAGED UTILITIES, CULVERTS OR BENCHMARKS AT OWN EXPENSE.
6. TRANSPORTATION OF EQUIPMENT AND MATERIALS TO/FROM THE SITE ON STATE HIGHWAYS AND TRUNK LINES SHALL CONFORM TO ALL LOCAL AND STATE TRAFFIC LAWS. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PERTAINING TO DELIVERY OF EQUIPMENT AND MATERIALS TO/FROM THE SITE. COSTS OF OBTAINING NECESSARY PERMITS IS INCIDENTAL TO THE WORK.
7. ALL WORK SHALL BE COMPLETED BETWEEN THE HOURS OF 7:30AM AND 7:00PM. ALL WORK SHALL BE COMPLETED MONDAY THROUGH SATURDAY.
8. CONSTRUCTION ACCESS TO THE SITES FOR ALL ACTIVITIES WILL BE FROM WAYNE ROAD AS INDICATED ON SHEET 4. NO OTHER ACCESS IS ALLOWED WITHOUT WRITTEN PERMISSION FROM THE OWNER.
9. ALL MATERIALS REMOVED, EXCEPT WHERE OTHERWISE INDICATED ON THE PLANS, SHALL BE LEGALLY DISPOSED OF OFF SITE.
10. ALL EXCESS SOIL AND FILL GENERATED DURING REQUIRED EXCAVATION AS SHOWN ON DRAWINGS SHALL BE LEGALLY DISPOSED OF OFF-SITE.
11. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED TO CONDUCT THE WORK, INCLUDING RIGHT-OF-WAY AND SESC PERMITS FROM WAYNE COUNTY, WITH THE EXCEPTION OF THE MDEQ/USACE JOINT PERMIT, WHICH WILL BE OBTAINED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL SESC MEASURES NECESSARY TO COMPLY WITH SESC RULES AND THE MDEQ PERMIT.
12. ALL WORK SHALL BE DONE TO MEET THE REQUIREMENTS OF THE MDEQ/USACE JOINT PERMIT ISSUED FOR THIS PROJECT (MDEQ FILE NO. 11-82-0028-P). NOTE THAT THIS PERMIT ONLY ALLOWS WORK WITHIN THE RIVER BETWEEN JUNE 1 AND SEPTEMBER 30, 2012.
13. CONTRACTOR SHALL SUBMIT A DEWATERING PLAN PRIOR TO THE START OF WORK. THE WATER BEHIND THE DAM SHOULD BE DRAWN DOWN TO 6-INCH DEPTH PRIOR TO SEDIMENT REMOVAL.
14. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPROVED HACCP, INCLUDING: WASHING AND DRYING OF ALL CONTRACTOR'S EQUIPMENT PRIOR TO TRANSPORT TO SITE; VISUAL INSPECTION OF ALL HAUL & DELIVERY VEHICLES AND REMOVAL OF CLINGING VEGETATION AND DIRT/DEBRIS PRIOR TO ARRIVAL ON SITE; AND CERTIFICATION OF ALL INERT & PLANT MATERIALS AS NOXIOUS WEED FREE.

EXISTING SITE CONDITIONS:

1. CONTRACTOR SHALL BECOME FAMILIAR WITH ALL EXISTING SITE CONDITIONS IN PREPARATION OF CONTRACTOR'S BID AND PRIOR TO STARTING WORK.
2. THE CONTRACTOR UNDERSTANDS AND ACKNOWLEDGES THAT THE PERFORMANCE OF THE WORK IS REQUIRED WITHIN A RIVER SYSTEM AND FLOODPLAIN.
3. THE CONTRACTOR SHALL BE FULLY AWARE OF THE ROUGE RIVER HYDROLOGY AND CURRENT WEATHER CONDITIONS SO THAT WORK IN PROGRESS CAN BE SECURED AND PROTECTED, SO THAT SAFE JOB SITE WORKING CONDITIONS ARE MAINTAINED, AND SO THAT SOIL EROSION IS MINIMIZED DURING AND FOLLOWING A RAIN EVENT.
4. THE ROUGE RIVER HAS A VERY SHORT RESPONSE TIME TO STORM RUNOFF.
5. THE CONTRACTOR ACKNOWLEDGES THAT DELAYS IN THE START OF OR COMPLETION OF WORK DUE TO TYPICAL SEASONAL RAINFALL AND DUE TO TYPICAL PERIODIC HIGH FLOWS IN THE ROUGE RIVER SHALL NOT CONSTITUTE A BASIS FOR ANY EXTENSION OF TIME OR DAMAGES. IF THE CONTRACTOR SHALL BE UNAVOIDABLY DELAYED IN BEGINNING OR FULFILLING THIS CONTRACT BY REASONS OF EXCESSIVE STORM OR FLOODS THE CONTRACTOR SHALL HAVE NO VALID CLAIM FOR DAMAGES, BUT HE SHALL IN SUCH CASE BE ENTITLED TO AN EXTENSION OF TIME AS THE ENGINEER SHALL ADJUDGE TO BE JUST AND REASONABLE; PROVIDED THAT FORMAL CLAIM FOR AN EXTENSION OF TIME IS MADE IN WRITING BY THE CONTRACTOR WITHIN ONE WEEK OF THE ALLEGED DELAY.

MATERIAL NOTES:

1. ALL MATERIALS SHALL CONFORM TO DETAILS AND SPECIFICATIONS IN THE DRAWINGS.

SUBMITTALS

1. SUBMITTALS FOR APPROVAL BY ENGINEER ARE REQUIRED FOR ALL MATERIALS PRIOR TO MOBILIZATION. ALL EXPENSES INCURRED BY CONTRACTOR PRIOR TO ENGINEER'S APPROVAL SHALL NOT BE PAID BY OWNER.

STAGING/ ACCESS NOTES:

1. EQUIPMENT ACCESS AND STAGING AND MATERIALS STORAGE CAN OCCUR WITHIN THE LIMITS OF PROPOSED WORK IN ADDITION TO DESIGNATED STAGING AREAS. NO ADDITIONAL VEGETATION CLEARING FOR ACCESS OR STAGING IS PERMITTED WITHOUT APPROVAL OF THE ENGINEER AND OWNER.
2. NO MATERIAL STORAGE OR EQUIPMENT STAGING IS PERMITTED ON ANY PORTION OF WAYNE ROAD INCLUDING AREAS CLOSED TO TRAFFIC.
3. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION OVER EXISTING INFRASTRUCTURE TO PREVENT PHYSICAL DAMAGE OR CHEMICAL DAMAGE FROM LEAKING PETROLEUM PRODUCTS. REPAIR OF DAMAGED ITEMS SHALL BE AT CONTRACTOR'S EXPENSE UNLESS SPECIFICALLY ACCOUNTED FOR UNDER CONTRACTOR'S SITE RESTORATION LINE ITEM.
4. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A TRAFFIC CONTROL PLAN FOR APPROVAL BY ENGINEER, WAYNE COUNTY AND THE CITY OF WAYNE PRIOR TO MOBILIZATION. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY ASSOCIATED PERMITS.

CLEARING AND GRUBBING NOTES

1. REVIEW CLEARING LIMITS WITH PROJECT ENGINEER PRIOR TO BEGINNING WORK.
2. ALL SILT FENCE AND PROTECTIVE FENCE SHALL BE INSTALLED PRIOR TO CLEARING OPERATIONS. ALL FENCING SHALL BE MAINTAINED THROUGHOUT DURATION OF PROJECT. FENCING SHALL BE REMOVED ONLY UPON APPROVAL BY ENGINEER.
3. ALL PLANT MATERIAL NOT MARKED FOR REMOVAL SHALL BE DISTURBED AS LITTLE AS POSSIBLE DURING THE CLEARING AND CONSTRUCTION OPERATIONS. NO EXCAVATION SHALL BE DONE WITHIN THE DRIP LINE (LIMIT OF OVERHANGING BRANCHES) OF TREES TO BE SAVED, UNLESS SPECIFICALLY APPROVED BY THE ENGINEER. THE LOWER BRANCHES OF ALL TREES TO REMAIN SHALL NOT BE REMOVED, OR DAMAGED BY CONSTRUCTION EQUIPMENT. AVOID COMPACTION OF ROOTS.
4. HYDRO AXE AND/OR SIMILAR CLEARING EQUIPMENT SHALL NOT BE PERMITTED ON SITE.

GRADING AND LAYOUT NOTES

1. ALL PROPOSED ELEVATIONS SHOWN ARE FINISHED GRADE. FINAL DESIGN GRADES MAY BE ADJUSTED TO MINIMIZE GRADING ACCORDINGLY.
2. CONTRACTOR SHALL PROVIDE GRADE VERIFICATION STAKES AT ALL PROPOSED SPOT ELEVATIONS SHOWN ON THE PLANS AND EVERY 50 FEET ALONG PROPOSED CONTOURS AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING VEGETATION. ALL DISTURBED AREAS SHALL BE REVEGETATED AND RESTORED TO EXISTING CONDITIONS.
4. ALL FILL SHALL BE AS SPECIFIED. ALL IMPORTED FILL SOIL SOURCES SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO DELIVERY TO THE PROJECT SITE.

SITE RESTORATION AND CLEAN-UP:

1. IMMEDIATELY CLEAN UP EXCESS SOIL, MULCH, OR OTHER DEBRIS AND PROPERLY DISPOSE OF DELETERIOUS MATERIALS LEGALLY OFF-SITE IN A MANNER CONSISTENT WITH LOCAL LAWS. TAKE NECESSARY PRECAUTIONS TO PREVENT CONTAMINATION OF CLEAN AREAS AS A RESULT OF CLEANING OPERATIONS.
2. PROMPTLY REMOVE EQUIPMENT AND UNUSED MATERIALS AT COMPLETION OF ACTIVITIES.
3. RETURN STOCKPILE AND STORAGE AREAS TO THEIR ORIGINAL GRADE AND RESTORE GROUND SURFACES AFTER STORED MATERIAL HAS BEEN REMOVED.
4. CONTRACTOR SHALL REPAIR DAMAGED VEGETATION AND AERATE SOIL OVER ROOT ZONE OF NEGATIVELY IMPACTED VEGETATION. RE-SEED ALL DISTURBED AREAS TO PRE-EXISTING CONDITIONS OR AS SPECIFIED.
5. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AS BUILT DOCUMENTS AT THE COMPLETION OF THE WORK. AS-BUILT DRAWINGS SHALL INCLUDE 1 COPY OF MARKED UP FIELD PLANS AND 3 COPIES OF CERTIFIED AS-BUILT DRAWINGS AND 1 DIGITAL FILE CONTAINING AUTOCAD AS-BUILT INFORMATION. THE BASE SURVEY DRAWING WILL BE PROVIDED TO THE CONTRACTOR.

MAINTENANCE AND GUARANTEE PERIOD:

1. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FOLLOWING THE APPROVAL OF CONSTRUCTION INSPECTION AT SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL RESPOND WITHIN TWO WEEKS OF WRITTEN REQUESTS BY THE OWNER FOR REPLACEMENT/REPAIR. IF THE CONTRACTOR FAILS TO RESPOND WITHIN THIS TIME, THE OWNER MAY PROCEED WITH REPLACEMENT WORK AND BILL THE CONTRACTOR.
2. NOTIFY THE OWNER PRIOR TO AND FOLLOWING ANY MAINTENANCE ACTIVITY.
3. FINAL ACCEPTANCE OF WORK WILL BE SUBJECT TO ACCEPTANCE BY PROJECT MANAGER AND OWNER AT THE END OF GUARANTEE PERIOD.

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A SOIL EROSION AND SEDIMENT CONTROL PERMIT FROM WAYNE COUNTY.
2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL SESC MEASURES NECESSARY TO COMPLY WITH SESC RULES AND THE MDEQ PERMIT.
3. ALL ASPECTS OF THE SOIL EROSION AND SEDIMENT CONTROL PERMIT SHALL BE ADHERED TO THROUGHOUT THE DURATION OF THE PROJECT.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE ENGINEER PRIOR TO THE BEGINNING OF EARTHWORK.
4. DESIGN, CONSTRUCT, AND COMPLETE THE EARTH CHANGE IN A MANNER THAT LIMITS THE EXPOSED AREA OF DISTURBED LAND FOR THE SHORTEST PERIOD OF TIME.
5. TEMPORARY OR PERMANENT CONTROL MEASURES SHALL BE DESIGNED AND INSTALLED TO CONVEY WATER AROUND, THROUGH OR FROM THE EARTH CHANGE AT A NON-EROSIVE VELOCITY, INCLUDING FLOW WITHIN THE ROUGE RIVER CHANNEL AS NECESSARY.
6. REMOVE SEDIMENT CAUSED BY ACCELERATED SOIL EROSION FROM RUNOFF WATER BEFORE IT LEAVES THE SITE OF THE EARTH CHANGE OR ENTERS A WATERBODY OR WETLAND.
7. INSTALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES BEFORE COMMENCEMENT OF THE EARTH CHANGE ACTIVITY AND MAINTAIN THE MEASURES ON A DAILY BASIS. REMOVE TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AFTER PERMANENT SOIL EROSION MEASURES ARE IN PLACE AND THE AREA IS STABILIZED. ("STABILIZED" MEANS THE ESTABLISHMENT OF VEGETATION OR THE PROPER PLACEMENT, GRADING OR COVERING OF SOIL TO ENSURE ITS RESISTANCE TO SOIL EROSION, SLIDING, OR OTHER EARTH MOVEMENT.)
8. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SITE DRAINAGE INCLUDING FLOW IN THE ROUGE RIVER.
9. CONTRACTOR IS RESPONSIBLE TO PROTECT ADJACENT WATER COURSES FROM THE DISCHARGE OF SEDIMENT DURING CONSTRUCTION.
10. INSTALL PERMANENT EROSION CONTROL MEASURES WITHIN 5 DAYS OF COMPLETING FINAL GRADING OR MAINTAIN TEMPORARY MEASURES UNTIL PERMANENT MEASURES ARE INSTALLED.
11. INSTALL TEMPORARY INLET FILTERS AT ALL ADJACENT AND DOWN-GRADIENT STORM WATER INLETS, CATCH BASINS AND MANHOLES AS NEEDED BASED ON SITE CONDITIONS. CATCH BASIN INLET FILTERS SHALL BE MAINTAINED CLEAN AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. IF A FILTER HAS HOLES OR IS INUNDATED WITH SEDIMENT, THE FILTER WILL REQUIRE REPLACEMENT.
12. THE USE OF HEAVY EQUIPMENT WILL BE MINIMAL TO CONTROL SEDIMENT TRACKOUT. ANY MUD/SILT TRACKED ONTO PAVED SURFACES SHALL BE IMMEDIATELY REMOVED.
13. TEMPORARY SESC MEASURES SUCH AS STRAW WATTLES, COIR LOGS, STRAW BALES OR SILT FENCE SHALL BE INSTALLED ALONG SENSITIVE AREAS AS NECESSARY. MEASURES WILL BE MAINTAINED AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. IF REPAIR OR REPLACEMENT IS NECESSARY, IT SHALL BE PERFORMED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. MAINTENANCE INCLUDES THE REMOVING OF BUILT-UP SEDIMENT THAT ACCUMULATES TO ½ THE HEIGHT OF WATTLES OR SILT FENCE. CONTRACTOR SHALL REMOVE, REPLACE, RETRENCH, OR RE-BACKFILL WATTLES OR FENCE IF IT FAILS. ADDITIONALLY, THE CONTRACTOR SHALL REINSTALL ANY PORTION OF THE WATTLES OR FENCING DAMAGED BY CONSTRUCTION MACHINERY.
14. PLACE STOCKPILES AND OTHER SPOIL PILES AWAY FROM THE DRAINAGE SYSTEM TO MINIMIZE SEDIMENT TRANSPORT. IF THE STOCKPILE AND/OR SPOIL PILE MUST REMAIN ON-SITE OVERNIGHT, OR IF THE WEATHER CONDITIONS INDICATE THE CHANCE FOR PRECIPITATION, A) COVER THE PILE WITH WATER REPELLENT MATERIAL TO PREVENT EROSION AND/OR B) INSTALL SILT FENCING AROUND THE BASE OF THE PILE TO PREVENT TRANSPORT OF SEDIMENT TO THE STORM WATER SYSTEM, OR APPLY OTHER CONTROL METHODS APPROPRIATE TO THE SITE. CONTROL MEASURES TO GUARD AGAINST WIND EROSION MUST ALSO BE EMPLOYED, SUCH AS WETTING OR COVERING THE STOCKPILES. KEEP AS FEW STOCKPILES AS POSSIBLE DURING THE COURSE OF THE PROJECT.
15. SEEDING OR OTHER STABILIZATION SHALL BE REQUIRED IMMEDIATELY TO AREAS WHICH HAVE BEEN DAMAGED BY RUNOFF.
16. CONTRACTOR SHALL MAINTAIN DUST CONTROL ON THE SITE THROUGHOUT THE DURATION OF THE CONSTRUCTION PROCESS.
17. VEGETATED BUFFERS WILL BE USED IN THE PREDOMINANTLY UPLAND AREAS, AS APPROPRIATE.
18. SILT FENCE SHALL BE 3' HIGH PRE-ASSEMBLED FILTER FENCE. FABRIC SHALL ALLOW WATER TO PASS THROUGH WHILE RETAINING SEDIMENT AND DEBRIS. STAKES SHALL BE HARDWOOD AND SHALL BE ON 8'4" CENTERS. FABRIC SHALL BE DOUBLE STAPLED TO TOP OF STAKE TO ENSURE DURABILITY.
19. IN THE EVENT OF CONSTRUCTION RELATED DEBRIS ON WAYNE ROAD, CONTRACTOR SHALL CLEAN AND MAINTAIN THE ROAD.
20. CONTROL OF SEDIMENTATION DURING RIVER OPERATIONS IS REQUIRED (USING SILT CURTAIN OR OTHER CONTROL MEASURES).
21. CONTRACTOR SHALL CONTROL ALL SURFACE WATER IN A MANNER THAT PREVENTS THE EROSION AND TRANSPORT OF SEDIMENT / SOIL DISTURBED DURING CONSTRUCTION. SURFACE WATER INCLUDES FLOW WITHIN THE ROUGE RIVER CHANNEL.

EROSION CONTROL BLANKET:

1. EROSION CONTROL BLANKET SHALL BE INSTALLED WHERE SHOWN ON PLANS ACCORDING TO THE FOLLOWING PRACTICES:

- A. EROSION CONTROL BLANKET SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- B. EROSION CONTROL BLANKET SHALL BE TRENCHED IN AT THE TOP OF THE SLOPE A MINIMUM OF 6-INCHES.
- C. IN GENERAL, ALL EDGES OF PARALLEL BLANKETS MUST BE STAKED WITH APPROXIMATELY 2' OVERLAP. WHEN THE BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6 INCHES OF OVERLAP. STAKE THROUGH OVERLAPPED AREA APPROXIMATELY 12' APART.
- D. FASTEN USING WOODEN STAKES. STAPLING PATTERN SHALL CONFORM TO NORTH AMERICAN GREEN STAPLING PATTERN "C".
- E. IN ADDITION TO LOCATIONS SHOWN ON PLANS, CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKET AS NECESSARY TO STABILIZE THE SITE AND PREVENT THE DISCHARGE OF SOILS TO PROTECTED AND STREAMS. ADDITIONAL BLANKET BEYOND WHAT IS INDICATED ON THE PLANS SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR AS A SOIL EROSION AND SEDIMENTATION CONTROL WORK ITEM.
- F. EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL STREAMBANKS AND BANKFULL BENCHES PERPENDICULAR TO FLOW WITH UPSTREAM PIECES OVERLAPPING DOWNSTREAM PIECES.
- G. EROSION CONTROL BLANKET SHALL BE INSTALLED PERPENDICULAR TO THE STONE TOE TO MINIMIZE BUNCHING AND FOLDING.
- H. EROSION CONTROL BLANKET SHALL BE INSTALLED FLAT, WITHOUT BUNCHING AND FOLDS, AND IN CONTACT WITH THE SOIL.
- I. STAPLES SHALL BE INSTALLED THROUGH THE TOP AND BOTTOM LAYERS AT ALL SEAMS. DO NOT INSTALL STAPLES SUCH THAT THEY OVERLAP TWO EDGES. STAPLES SHALL BE LOCATED COMPLETELY ON THE TOP LAYER.
- J. STAPLE STREAM EDGE OF EROSION CONTROL BLANKET EVERY 12-INCHES.
- K. STREAMWARD EDGE OF EROSION CONTROL BLANKET SHALL BE TRENCHED INTO THE FILL BEHIND THE STONE TOE AND OVER THE GEOTEXTILE A MINIMUM OF 12-INCHES PRIOR TO UNROLLING AND STAPLING. BACKFILL AGAINST THE EROSION CONTROL BLANKET AND TAMP SOIL.

REVEGETATION NOTES:

MAINTENANCE AND WARRANTY PERIOD:

1. WARRANTY PERIOD: WARRANT THAT ALL TREES, SHRUBS, SEEDING, AND PLUG PLANTINGS INSTALLED UNDER THIS CONTRACT WILL BE HEALTHY AND IN FLOURISHING CONDITION OF ACTIVE GROWTH FOR ONE (1) FULL GROWING SEASON (APRIL THROUGH NOVEMBER) FROM DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL RESPOND WITHIN TWO (2) WEEKS OF WRITTEN REQUESTS BY THE OWNER FOR REPLACEMENT OR REPAIR. IF THE CONTRACTOR FAILS TO RESPOND WITHIN THIS TIME, THE OWNER MAY PROCEED WITH REPLACEMENT WORK AND BILL THE CONTRACTOR.
2. ALL DELAYS IN COMPLETION OF PLANTING OPERATIONS WHICH EXTEND THE PLANTING INTO MORE THAN ONE PLANTING SEASON SHALL EXTEND THE WARRANTY PERIOD CORRESPONDINGLY.
3. REPLACEMENTS: AS SOON AS WEATHER CONDITIONS PERMIT, REPLACE, WITHOUT COST TO OWNER, ALL DEAD PLANTS AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE ENGINEER DURING AND AT THE END OF THE WARRANTY PERIOD.
4. PATCHY OR BARE AREAS (IN EXCESS OF 8 SQUARE FEET) WHERE SEED MIX FAILED TO CREATE SUFFICIENT DENSITY OF COVER SHALL BE RESEEDED BY HAND AT THE RECOMMENDED APPLICATION RATE AT NO ADDITIONAL COST TO OWNER.
5. INCORRECT MATERIALS: DURING WARRANTY PERIOD, REPLACE AT NO COST TO OWNER ALL PLANTS REVEALED AS BEING UNTRUE TO NAME. PROVIDE REPLACEMENTS OF A SIZE AND QUALITY TO MATCH THE PLANTED MATERIALS AT THE TIME THE MISTAKE IS DISCOVERED.
6. ALL PLANT STOCK SHALL BE WATERED BY THE CONTRACTOR TO ENSURE THE HEALTH AND VIGOR OF THE PLANTED MATERIALS. THE CONTRACTOR SHALL WATER AS NEEDED BASED ON NATURAL RAINFALL DURING THE WARRANTY PERIOD. WATERING SHALL CONTINUE SO SEEDLINGS DO NOT DRY OUT ONCE WATERING HAS BEGUN. THE WATERING SHALL BE DONE FROM SURFACE METHODS AT A PRESSURE NOT TO EXCEED THE INFILTRATION RATE OF THE SOIL, LIMITING RUNOFF DURING THE WATERING PERIOD. EACH AREA WILL BE WATERED WITH SUFFICIENT WATER TO COMPLETELY SATURATE THE ROOT ZONE. THE CONTRACTOR SHALL INSPECT ALL PLANTS FOR INSECT INFESTATION AND DAMAGE.
7. EROSION OCCURRING DURING THE WARRANTY PERIOD SHALL BE REPAIRED BY THE CONTRACTOR.
8. PROTECTION FROM TRAFFIC AND EROSION IN NEWLY SEEDED AREAS AND PLANTED AREAS IS THE RESPONSIBILITY OF THE CONTRACTOR. SAFETY FENCES AND/OR OTHER BARRIER METHODS WITH APPROPRIATE SIGNAGE MAY BE USED FOR ONE YEAR FROM COMPLETION OF CONSTRUCTION ACTIVITIES. ALL COSTS ASSOCIATED WITH THIS IS INCLUSIVE OF CONTRACTOR'S PRICING.
9. NOTIFY THE OWNER PRIOR TO AND FOLLOWING ANY MAINTENANCE ACTIVITY.
10. FINAL ACCEPTANCE OF WORK WILL BE SUBJECT TO ACCEPTANCE BY ENGINEER AND OWNER AT THE END OF GUARANTEE PERIOD.

NATIVE PLANTINGS:

1. TREES, SHRUBS, AND PLUGS SHALL BE OF NATIVE PLANT MATERIAL OF GENOTYPES FROM THE NORTH CENTRAL STATES ONLY (IL, IN, IA, MI, OH), AND FROM A RECOGNIZED NURSERY OF THIS REGION. MICHIGAN SOURCES FOR TREE, SHRUBS, AND PLUGS SHALL BE LOCATED BEFORE BRANCHING OUT TO OTHER NORTH CENTRAL STATES. NATIVE PLANTINGS INCLUDE ALL TREES, SHRUBS, AND PLUGS INSTALLED IN THE WETLAND MITIGATION AND WETLAND ENHANCEMENT AREAS.
2. PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES AND MUST MEET APPLICABLE REQUIREMENTS OF ICBN AND ICNCP. PLANTS SHALL BE SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. PLANTS SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS, OR LARVAE. PLANTS SHALL BE FREE OF KINKED, CIRCLING OR GIRDLING TRUNK SURFACE AND CENTER ROOTS, AND SHALL NOT BE ROOT-BOUND. RESPECT MAXIMUM STORAGE TIMES FOR PLANT STOCK.
3. NATIVE PLANTING AREAS SHALL BE INSTALLED AFTER MAY 15 (WHEN SOIL IS FREE OF FROST AND IN WORKABLE CONDITION), BUT BEFORE JUNE 30 OR AFTER SEPT. 1 BUT BEFORE OCTOBER 30 OR AS APPROVED BY THE ENGINEER.
4. FURNISH PLANT SPECIES AND SIZES AS INDICATED ON THE PLANS. PLANT STOCK SHALL BE TRUE TO THEIR NAME (GENUS AND SPECIES), AS SPECIFIED. CULTIVARS AND SPECIMENS SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY CONSULTANT.
5. NATIVE PLANTINGS TO BE INSTALLED PER DETAILS.
6. PLUGS, CONTAINERIZED PLANTS, AND ROOT STOCKS WHICH ARE TO BE PLACED IN SATURATED OR FLOODED SOIL CONDITIONS SHALL BE PRE-CONDITIONED FOR THIS PLACEMENT BY BEING HELD UNDER SIMILAR CONDITIONS IN A WET ENVIROMENT AT THE NURSERY PRIOR TO SHIPMENT TO THE SITE.
7. REMOVE ALL CONTAINERS AND PACKAGING MATERIAL AND DISPOSE OF LEGALLY OFF-SITE.
8. WATER PLANT STOCK IMMEDIATELY AFTER PLANTING SUCH THAT ROOT ZONE IS THOROUGHLY SOAKED. CONTRACTOR SHALL BE RESPONSIBLE TO KEEP PLUGS ADEQUATELY WATERED , IF NECESSARY, TO ENSURE THEIR SURVIVAL.
9. IF EROSION CONTROL BLANKET IS NEEDED IN AREAS WHERE PLUGS ARE PRESENT, INSTALL EROSION CONTROL BLANKET AFTER SEEDING, BUT PRIOR TO PLANTING. EROSION CONTROL BLANKET SHALL BE INSTALLED WHERE THE CONTRACTOR FEELS IT NECESSARY TO STABILIZE THE SITE AT NO ADDITIONAL COST TO THE OWNER.
10. FIELD ADJUST PLANTINGS TO DIVERSIFY SPECIES ACROSS THE PLANTING AREAS AND TO MEET FINISH GRADE OF THE STREAMBANKS WITH PLANTING REQUIREMENTS FOR SPECIES BASED ON DEPTH. ANY ADJUSTMENTS WILL BE SHOWN ON AN AS-BUILT PLAN AND SUBMITTED TO THE CONSULTANT UPON COMPLETION.
11. MULCH FOR TREES AND SHRUBS SHALL BE COARSE GRADE OAK OR MAPLE BARK AGED AT LEAST ONE YEAR AND UNIFORM IN COLOR AND TEXTURE.

SEEDING:

1. SEED SHALL BE FRESH, CLEAN, NEW SEED OF NATIVE PLANT MATERIAL OF GENOTYPES FROM THE NORTH CENTRAL STATES ONLY (IL, IN, IA, MI, OH), AND FROM A RECOGNIZED NURSERY OF THIS REGION.
2. NATIVE SEED AREAS SHALL BE SEEDED AFTER MAY 1, (WHEN SOIL IS FREE OF FROST AND IN WORKABLE CONDITION), BUT BEFORE JUNE 30 OR AFTER OCTOBER 1, BUT BEFORE NOVEMBER 30 (OR PRIOR TO FREEZE-UP) OR AS APPROVED BY THE ENGINEER.
3. SEEDBED PREPARATION: CUT ANY EXISTING VEGETATION TO 4 (FOUR) INCH HEIGHT AND APPLY HERBICIDE AS NECESSARY. PRIOR TO SOWING NATIVE SEED, LIGHTLY SCARIFY SO THAT THE BED IS SMOOTH AND FREE OF LARGE CLUMPS. SEED BED SHALL BE FIRM, BUT NOT COMPACT. SEED IMMEDIATELY AFTER SCARIFYING. DO NOT FERTILIZE.
4. IN NATIVE SEEDED AREAS, SOW SEED WITH A BROADCASTER, NATIVE SEED DRILL, OR BY HAND AND LIGHTLY RAKE TO PROVIDE ADEQUATE SEED-TO-SOIL CONTACT.
5. COVER NATIVE SEED WITH A 1-INCH THICK STRAW MULCH LAYER OR USE EROSION CONTROL BLANKET ON SLOPES 3:1 OR STEEPER.
6. ALL TURF-GRASS SEEDED AREAS SHALL BE HYDROSEEDDED. A HYDROMULCH CONSISTING OF CELLULOSE OR SIMILAR MULCH WITH TACKIFIER SUITABLE FOR HYDROSEEDING SHALL BE USED AS A SEEDING METHOD. NO STRAW MULCH SHALL BE USED.
7. ALL WATER USED IN HYDROMULCH SHALL BE FREE OF SUBSTANCES DETRIMENTAL TO PLANT GROWTH AND SHALL BE SUITABLE FOR DISCHARGE INTO SURFACE WATERS BASED ON LOCAL, STATE, AND FEDERAL REGULATORY REQUIREMENTS. SEEDING METHOD SHALL ENSURE COMPLETE COVERAGE OF DESIGNATED AREA. RE-SEED AREAS WITH GAPS IN SEEDING AT NO ADDITIONAL COST TO OWNER.
8. DO NOT SOW SEED WHERE STANDING WATER IS PRESENT.
9. SOW NATIVE SEED AT A SPECIES RATE OF POUNDS PER ACRE INDICATED ON THE DRAWING. LIGHTLY RAKE TO INCORPORATE SEED INTO SOIL. DO NOT COVER SEED MORE THAN 1/4 INCH WITH SOIL. SEED DRILLING IS ALSO ACCEPTABLE.
10. CONTRACTOR SHALL REPAIR DAMAGED VEGETATION AND AERATE SOIL OVER ROOT ZONE OF NEGATIVELY IMPACTED VEGETATION. RE-SEED ALL DISTURBED AREAS TO PRE-EXISTING CONDITIONS.



WAYNE ROAD
DAM REMOVAL
PROJECT
WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:



ISSUED FOR BIDS	3-27-12
REVISED PER CLIENT COMMENTS	3-6-12
FOR CONSTRUCTION	OCT. 2011
FOR PERMITTING	8-9-11
101086 ECT PROJECT NUMBER	
LH/ MB/ AB DESIGNED BY	LH CHECKED BY
AB/ AM/ TH/ PH DRAWN BY	JOM APPROVED BY

SHEET TITLE

PROJECT
NOTES

SCALE: NONE





1 PHOTO 1
2 LOOKING N. @ EXISTING EROSION AREA AND LOG JAM. PHOTO TAKEN 11/2/2011, ECT.



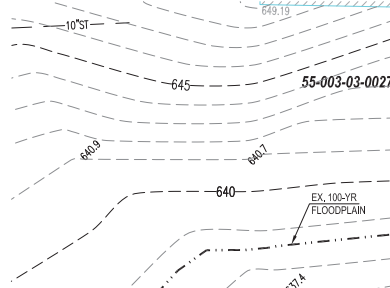
2 PHOTO 2
2 LOOKING N. ALONG THE WAYNE COUNTY PROPERTY SITE ACCESS. PHOTO TAKEN 11/2/2011, ECT.



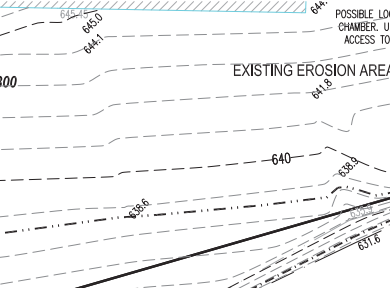
3 PHOTO 3
2 LOOKING S. @ UPSTREAM SIDE OF WAYNE ROAD BRIDGE AND LOG JAM. PHOTO TAKEN 11/2/2011, ECT.



4 PHOTO 4
2 LOOKING N. ALONG W. SIDE OF WAYNE ROAD BRIDGE @ EXISTING 24" CULVERT END SECTION. PHOTO TAKEN 11/2/2011, ECT.



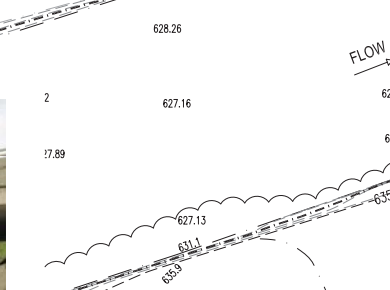
5 PHOTO 5
2 LOOKING SW. @ DOWNSTREAM SIDE OF WAYNE RD. BRIDGE & DAM. PHOTO TAKEN 11/2/2011, ECT.



6 PHOTO 6
2 LOOKING E. @ EXISTING CITY HALL ACCESS LOCATION (EXISTING DUMPSTER AND STAIRS). PHOTO TAKEN 11/2/2011, ECT.



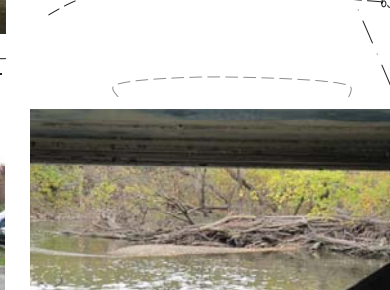
7 PHOTO 7
2 LOOKING E. @ EXISTING EROSION AREA AND LOG JAM. PHOTO TAKEN 11/2/2011, ECT.



8 PHOTO 8
2 LOOKING E. @ EXISTING CITY HALL ACCESS LOCATION (EXISTING DUMPSTER AND STAIRS). PHOTO TAKEN 11/2/2011, ECT.



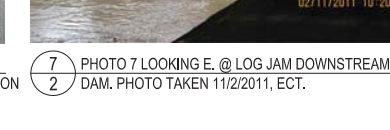
9 PHOTO 9
2 LOOKING E. @ EXISTING EROSION AREA AND LOG JAM. PHOTO TAKEN 11/2/2011, ECT.



10 PHOTO 10
2 LOOKING E. @ EXISTING CITY HALL ACCESS LOCATION (EXISTING DUMPSTER AND STAIRS). PHOTO TAKEN 11/2/2011, ECT.



11 PHOTO 11
2 LOOKING E. @ EXISTING EROSION AREA AND LOG JAM. PHOTO TAKEN 11/2/2011, ECT.



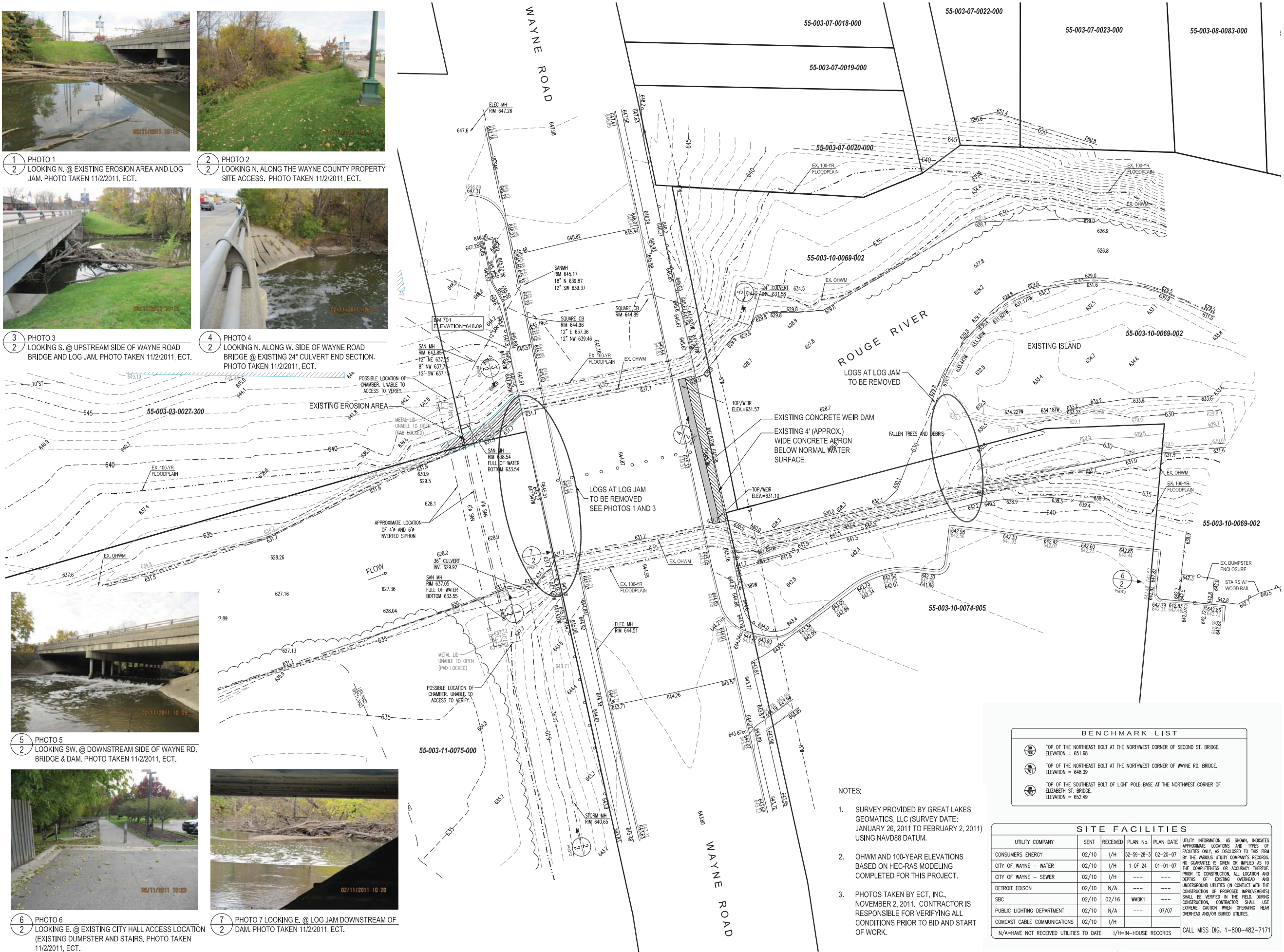
12 PHOTO 12
2 LOOKING E. @ EXISTING CITY HALL ACCESS LOCATION (EXISTING DUMPSTER AND STAIRS). PHOTO TAKEN 11/2/2011, ECT.



13 PHOTO 13
2 LOOKING E. @ EXISTING EROSION AREA AND LOG JAM. PHOTO TAKEN 11/2/2011, ECT.



14 PHOTO 14
2 LOOKING E. @ EXISTING CITY HALL ACCESS LOCATION (EXISTING DUMPSTER AND STAIRS). PHOTO TAKEN 11/2/2011, ECT.



LEGEND

- BENCHMARK
- TRAVERSE POINT
- SEWER MH (STORM/SAN)
- SQUARE CATCH BASIN
- ROUND CATCH BASIN
- BEEHIVE CATCH BASIN
- CLEAN OUT
- STEAM MANHOLE
- UNKNOWN MANHOLE
- HYDRANT
- GATE VALVE AND WELL
- WATER VALVE
- WATER SHUT OFF
- VALVE BOX
- POST INDICATOR VALVE
- WATER METER
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC HANDHOLE
- PUBLIC LIGHTING MH
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- GAS VALVE
- UTILITY POLE
- GUY ANCHOR
- LIGHT POLE
- BOLLARD
- PARKING METER
- SIGN
- RR CONTROL BOX
- RR CROSSING
- DECIDUOUS TREE
- CONIFEROUS TREE
- CHAINLINK FENCE
- WROUGHT IRON FENCE
- OVERHEAD UTILITIES
- STORM SEWER
- SANITARY SEWER
- COMBINATION SEWER
- STEAM LINES
- WATERMAIN
- GAS LINES
- ELECTRIC LINES
- PUBLIC LIGHTING DEPT.
- TELEPHONE LINES
- CABLE LINES
- FOUND IRON ROD
- FOUND MONUMENT
- FOUND P.K. NAIL
- FOUND MAG NAIL
- SET IRON ROD
- SET MONUMENT
- SET P.K. NAIL
- SET MAG NAIL
- SPOT ELEVATION
- TOP OF WALL ELEVATION
- CURB CUT ELEVATION
- UG UNDERGROUND
- FIN.FL. FINISHED FLOOR ELEVATION
- M MEASURED
- R RECORD
- C CALCULATED
- PHOTO LOCATION

BENCHMARK LIST

BM 701	TOP OF THE NORTHEAST BOLT AT THE NORTHWEST CORNER OF SECOND ST. BRIDGE. ELEVATION = 651.68
BM 702	TOP OF THE NORTHEAST BOLT AT THE NORTHWEST CORNER OF WAYNE RD. BRIDGE. ELEVATION = 648.09
BM 703	TOP OF THE SOUTHEAST BOLT OF LIGHT POLE BASE AT THE NORTHWEST CORNER OF ELIZABETH ST. BRIDGE. ELEVATION = 652.49

SITE FACILITIES

UTILITY COMPANY	SENT	RECEIVED	PLAN No.	PLAN DATE	UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF FACILITIES ONLY, AS DISCLOSED TO THIS FIRM BY THE VARIOUS UTILITY COMPANY'S RECORDS. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. PRIOR TO CONSTRUCTION, ALL LOCATION AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING CONSTRUCTION, CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR OVERHEAD AND/OR BURIED UTILITIES.
CONSUMERS ENERGY	02/10	I/H	52-59-28-3	02-20-07	
CITY OF WAYNE - WATER	02/10	I/H	1 OF 24	01-01-07	
CITY OF WAYNE - SEWER	02/10	I/H	---	---	
DETROIT EDISON	02/10	N/A	---	---	
SBC	02/10	02/16	WMDK1	---	
PUBLIC LIGHTING DEPARTMENT	02/10	N/A	---	07/07	
COMCAST CABLE COMMUNICATIONS	02/10	I/H	---	---	
N/A=HAVE NOT RECEIVED UTILITIES TO DATE I/H=IN-HOUSE RECORDS					CALL MISS DIG. 1-800-482-7171

- NOTES:**
- SURVEY PROVIDED BY GREAT LAKES GEOMATICS, LLC (SURVEY DATE: JANUARY 26, 2011 TO FEBRUARY 2, 2011) USING NAVD88 DATUM.
 - OHWM AND 100-YEAR ELEVATIONS BASED ON HEC-RAS MODELING COMPLETED FOR THIS PROJECT.
 - PHOTOS TAKEN BY ECT, INC., NOVEMBER 2, 2011. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CONDITIONS PRIOR TO BID AND START OF WORK.

3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171

Environmental Consulting & Technology, Inc.
2200 Commonwealth Blvd., Suite 300
Ann Arbor, Michigan 48105
734.769.3884
734.769.3164 fax
www.ectinc.com

WAYNE ROAD DAM REMOVAL PROJECT
WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:

OURS TO PROTECT
Working together, restoring the river

DORA
DEPARTMENT OF ROUGE AND WATER

ISSUED FOR BIDS	3.27.12
FOR CONSTRUCTION	DEC. 2011
FOR PERMITTING	8-9-11

101086
ECT PROJECT NUMBER

LH/MB/AB	LH
DESIGNED BY	CHECKED BY
AB/AM/TH/PH	JO
DRAWN BY	APPROVED BY

SHEET TITLE

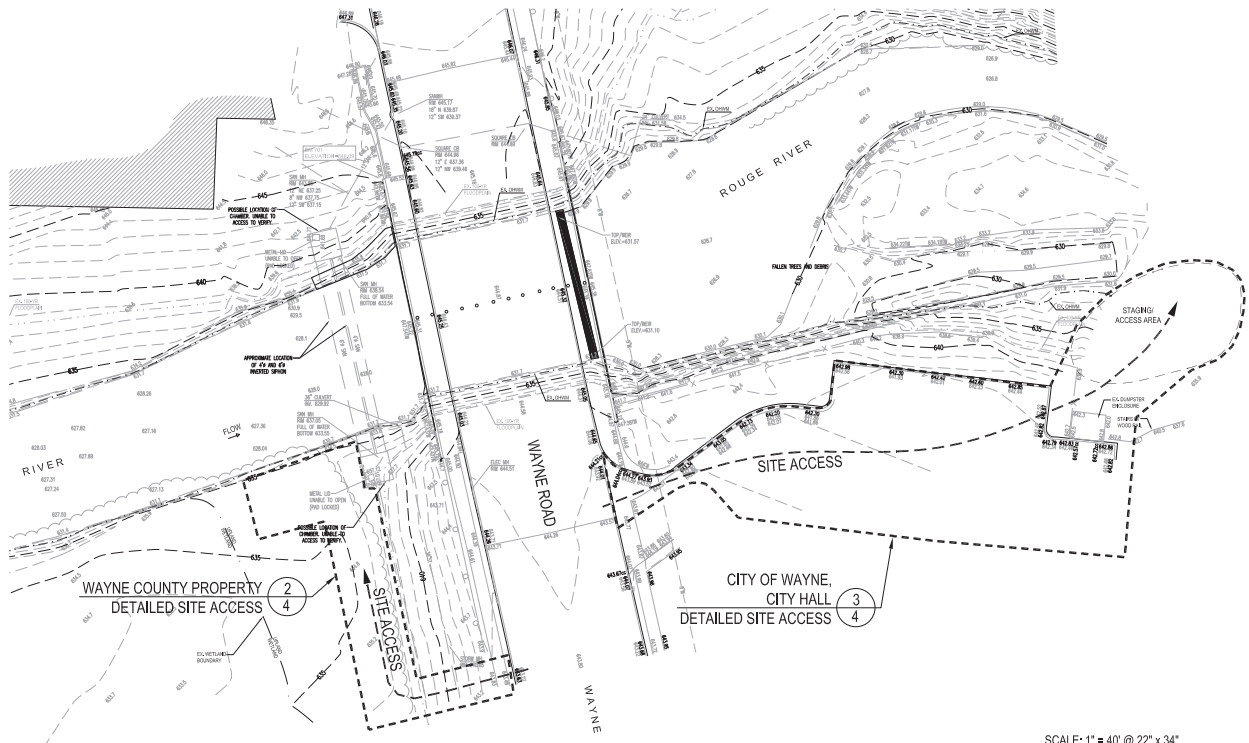
EXISTING CONDITIONS - DAM VICINITY

SCALE: 1" = 20' @ 22x34

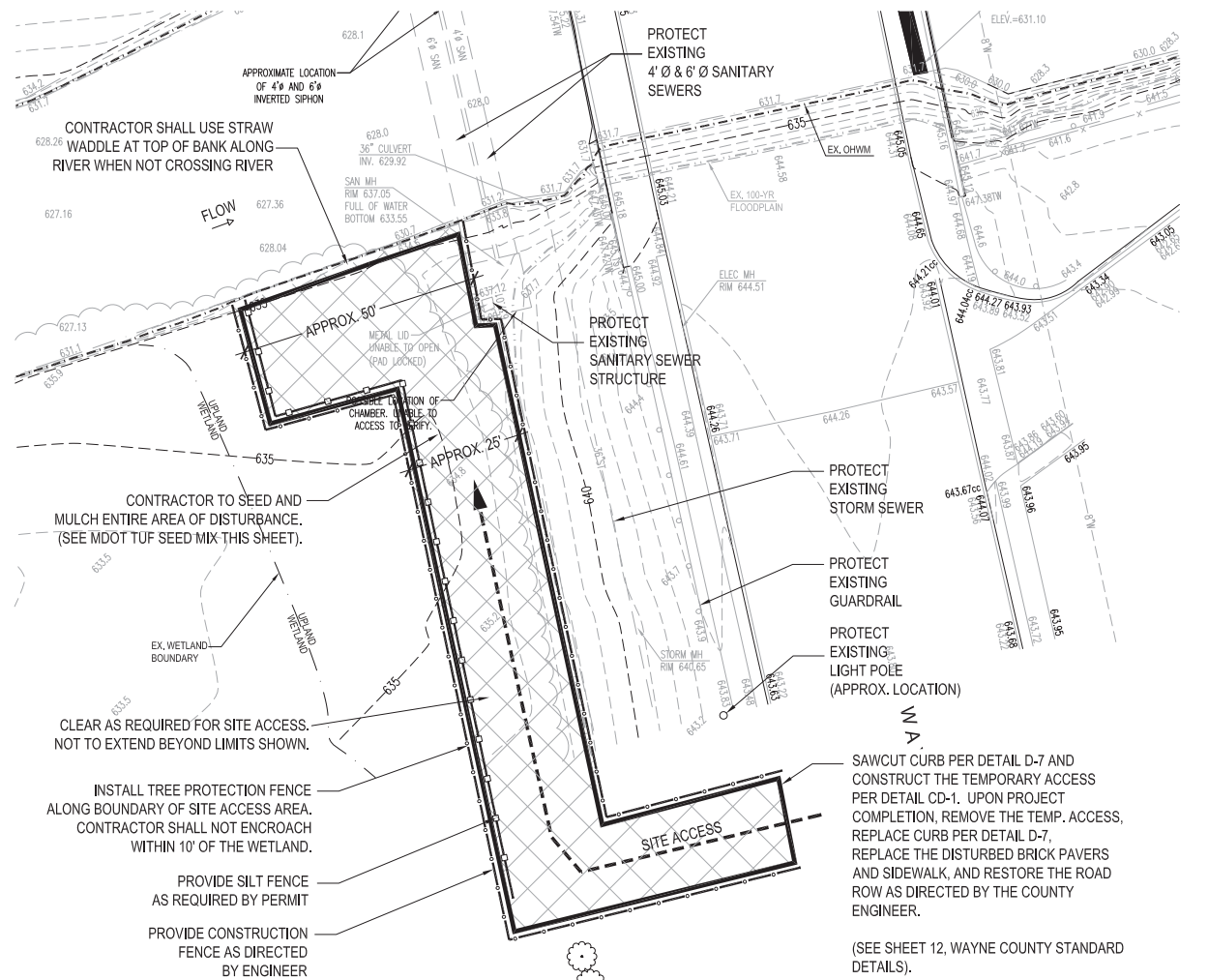
NORTH

SHEET NUMBER

2

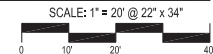


1
4 OVERALL SITE PREPARATION - ACCESS PLAN



2
4 WAYNE COUNTY PROPERTY - DETAILED SITE ACCESS PLAN

SURVEY PROVIDED BY GREAT LAKES GEOMATICS, LLC (SURVEY DATE: JANUARY 26, 2011 TO FEBRUARY 2, 2011) USING NAVD88 DATUM.
NOTE: OHWM AND 100-YR ELEVATIONS BASED ON HEC RAS MODELING COMPLETED FOR THIS PROJECT.



4
4 PHOTO 1
LOOKING W. @ STORM SEWER OUTFALL FROM CITY HALL
PARKING LOT AT RIVER. PHOTO TAKEN 11/2/2011, ECT.

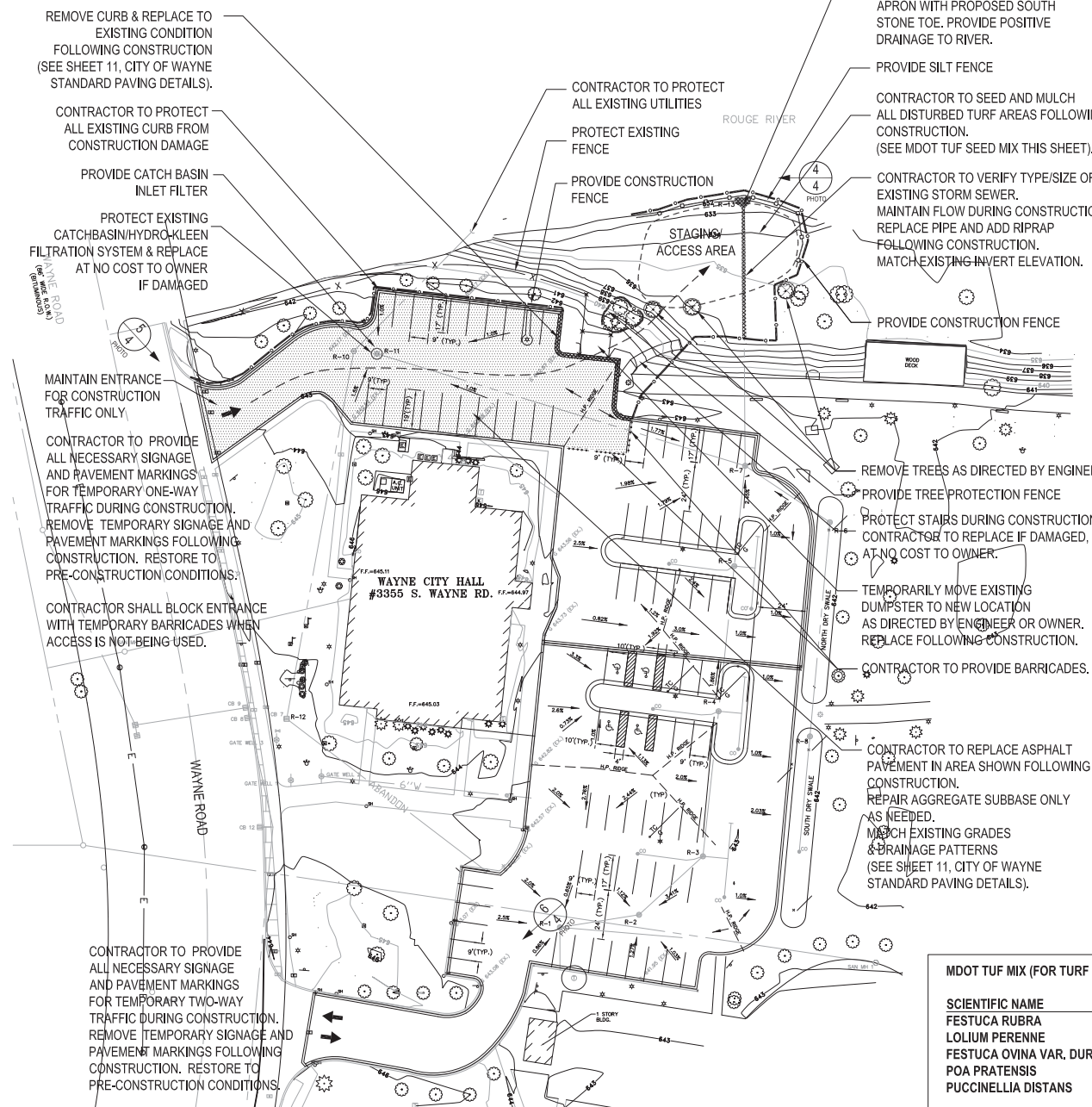


5
4 PHOTO 2
LOOKING SE. @ NORTHERN ENTRANCE/DRIVEWAY TO
CITY HALL SITE. PHOTO TAKEN 11/2/2011, ECT.



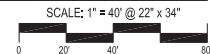
6
4 PHOTO 3
LOOKING SW. @ NORTHERN ENTRANCE/DRIVEWAY TO
CITY HALL SITE. PHOTO TAKEN 11/2/2011, ECT.

- NOTES:
- ENGINEER SHALL APPROVE STAKING FOR ACCESS AREA LIMITS AND CONSTRUCTION FENCE LOCATION PRIOR TO INSTALLATION.
 - CONTRACTOR TO PROVIDE TREE PROTECTION FENCE AS SHOWN AND AS DIRECTED BY ENGINEER.
 - CONTRACTOR TO PROTECT ALL EXISTING UTILITIES.
 - CONTRACTOR TO INSTALL AND MAINTAIN TURBIDITY CURTAIN DOWNSTREAM OF PROPOSED WORK AREA FOR DURATION OF INSTREAM WORK. ADDITIONAL TURBIDITY CURTAIN(S) SHALL BE INSTALLED PARALLEL TO THE BENCH FACE(S), ANCHORED AT THE SHORE ON THE DOWNSTREAM END OF WORK.
 - ALL DISTURBED TURF AREAS IMPACTED BY SITE ACCESS ACTIVITIES TO BE SEEDED WITH MDOT TUF GRASS SEED MIX (THIS SHEET).



3
4 CITY OF WAYNE, CITY HALL - DETAILED SITE ACCESS PLAN

SURVEY PROVIDED BY AYRES, LEWIS, NORRIS & MAY, INC., CITY OF WAYNE, MICHIGAN, CITY HALL STORM WATER QUALITY IMPROVEMENTS PROJECT, SITE PLAN (SHEET 4), DATED APRIL 7, 2004.



LEGEND	
	BENCHMARK
	TRAVERSE POINT
	SEWER MH (STORM/SAN)
	SQUARE CATCH BASIN
	ROUND CATCH BASIN
	BEEHIVE CATCH BASIN
	CLEAN OUT
	STEAM MANHOLE
	UNKNOWN MANHOLE
	HYDRANT
	GATE VALVE AND WELL
	WATER VALVE
	WATER SHUT OFF
	VALVE BOX
	POST INDICATOR VALVE
	WATER METER
	ELECTRIC MANHOLE
	ELECTRIC PEDESTAL
	ELECTRIC HANDHOLE
	PUBLIC LIGHTING MH
	TELEPHONE MANHOLE
	CABLE PEDESTAL
	GAS VALVE
	UTILITY POLE
	GUY ANCHOR
	LIGHT POLE
	BOLLARD
	PARKING METER
	SIGN
	RR CONTROL BOX
	RR CROSSING
	DECIDUOUS TREE
	CONIFEROUS TREE
	CHAINLINK FENCE
	WROUGHT IRON FENCE
	OVERHEAD UTILITIES
	STORM SEWER
	SANITARY SEWER
	COMBINATION SEWER
	STEAM LINES
	GAS LINES
	ELECTRIC LINES
	PUBLIC LIGHTING DEPT.
	TELEPHONE LINES
	CABLE LINES
	FOUND IRON ROD
	FOUND MONUMENT
	FOUND P.K. NAIL
	FOUND MAG. NAIL
	SET IRON ROD
	SET MONUMENT
	SET P.K. NAIL
	SET MAG. NAIL
	SPOT ELEVATION
	TOP OF WALL ELEVATION
	CURB CUT ELEVATION
	UNDERGROUND
	FINISHED FLOOR ELEVATION
	MEASURED
	RECORD
	CALCULATED
	PROPOSED CONSTRUCTION FENCE
	PROPOSED SILT FENCE
	EXISTING TREE TO BE REMOVED

MDOT TUF MIX (FOR TURF RESTORATION AREAS)		
SCIENTIFIC NAME	COMMON NAME	%
FESTUCA RUBRA	CREeping RED FESCUE	40%
LOLIUM PERENNE	PERENNIAL RYEGRASS	20%
FESTUCA OVINA VAR. DURIUSCULA	HARD FESCUE	20%
POA PRATENSIS	KENTUCKY BLUEGRASS	10%
PUCCINELLIA DISTANS	FULTS SALT GRASS	10%

3 WORKING DAYS
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CALL MISS DIG
1-800-482-7171

Environmental Consulting & Technology, Inc.
2300 Commonwealth Blvd., Suite 300
Ann Arbor, Michigan 48105
734.769.3004
734.769.3144 fax
www.ectinc.com

**WAYNE ROAD
DAM REMOVAL
PROJECT**
WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:

OURS TO PROTECT
Working together, restoring the river

NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

ISSUED FOR BIDS	3-27-12
REVISED PER CLIENT COMMENTS	3-6-12
FOR CONSTRUCTION	DEC. 2011
FOR PERMITTING	8-9-11

101066
ECT PROJECT NUMBER

LH/MB/AB	DESIGNED BY	LH	CHECKED BY
AB/AM/TH/PH	DRAWN BY	JO	APPROVED BY

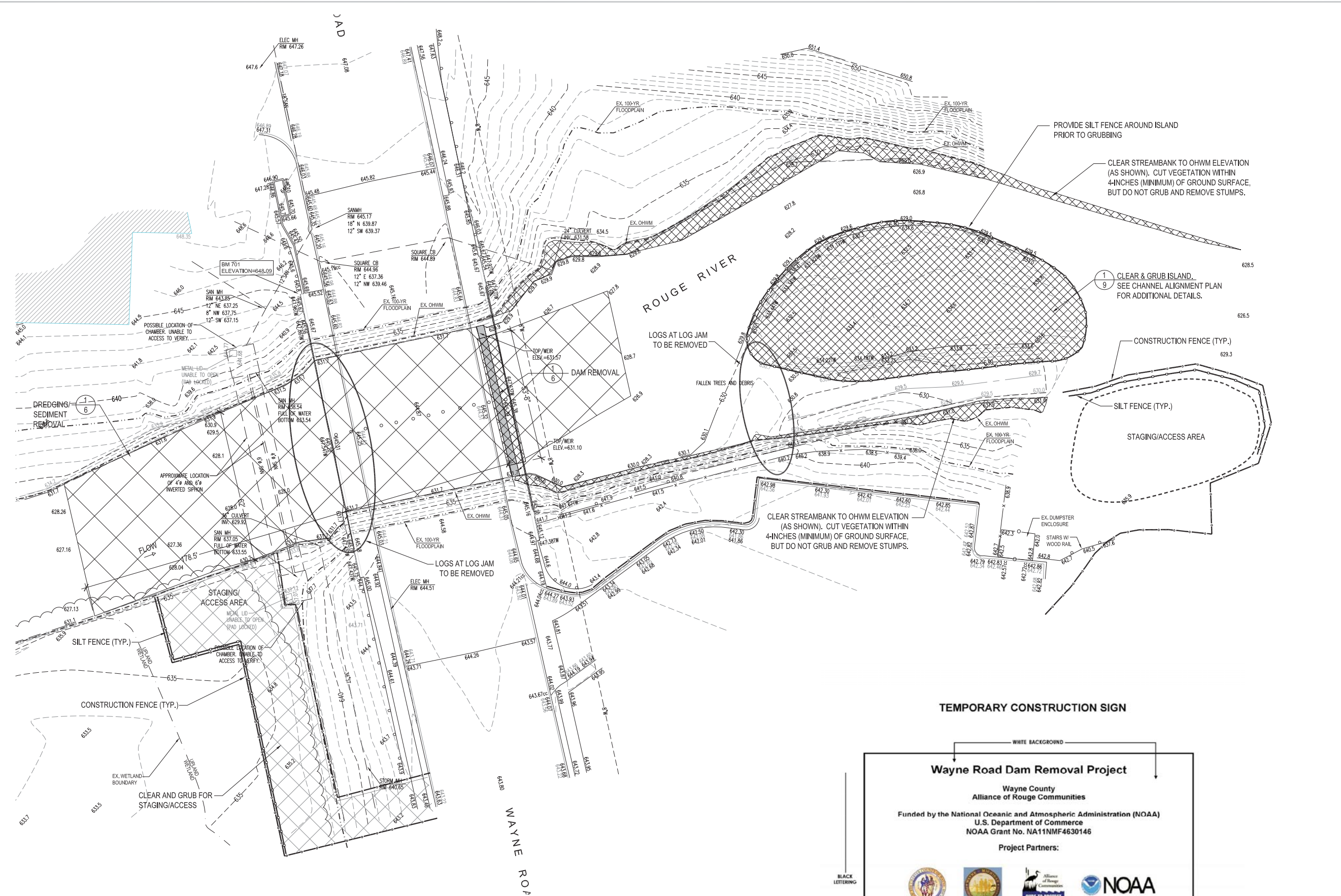
SHEET TITLE

**SITE
PREPARATION -
ACCESS
PLAN**

SCALE: 1" = 20' @ 22x34

NORTH

SHEET NUMBER
4



LEGEND	
	BENCHMARK
	TRAVERSE POINT
	SEWER MH (STORM/SAN)
	SQUARE CATCH BASIN
	ROUND CATCH BASIN
	BEEHIVE CATCH BASIN
	CLEAN OUT
	STEAM MANHOLE
	UNKNOWN MANHOLE
	HYDRANT
	GATE VALVE AND WELL
	WATER VALVE
	WATER SHUT OFF
	VALVE BOX
	POST INDICATOR VALVE
	WATER METER
	ELECTRIC MANHOLE
	ELECTRIC PEDESTAL
	ELECTRIC HANDHOLE
	PUBLIC LIGHTING MH
	TELEPHONE MANHOLE
	TELEPHONE PEDESTAL
	CABLE PEDESTAL
	GAS VALVE
	UTILITY POLE
	GUY ANCHOR
	LIGHT POLE
	BOLLARD
	PARKING METER
	SIGN
	RR CONTROL BOX
	RR CROSSING
	DECIDUOUS TREE
	CONIFEROUS TREE
	CHAINLINK FENCE
	WROUGHT IRON FENCE
	OVERHEAD UTILITIES
	STORM SEWER
	SANITARY SEWER
	COMBINATION SEWER
	STEAM LINES
	WATERMAIN
	GAS LINES
	ELECTRIC LINES
	PUBLIC LIGHTING DEPT.
	TELEPHONE LINES
	CABLE LINES
	FOUND IRON ROD
	FOUND MONUMENT
	FOUND P.K. NAIL
	FOUND MAG NAIL
	SET IRON ROD
	SET MONUMENT
	SET P.K. NAIL
	SET MAG NAIL
	SPOT ELEVATION
	TOP OF WALL ELEVATION
	CURB CUT ELEVATION
	UNDERGROUND
	FINISHED FLOOR ELEVATION
	MEASURED
	RECORD
	CALCULATED

TEMPORARY CONSTRUCTION SIGN

WHITE BACKGROUND

Wayne Road Dam Removal Project

Wayne County
Alliance of Rouge Communities

Funded by the National Oceanic and Atmospheric Administration (NOAA)
U.S. Department of Commerce
NOAA Grant No. NA11NMF4630146

Project Partners:

SIGN DIMENSIONS: 1200 mm x 2400 mm x 19 mm (approx. 4' x 8' x 3/4")
PLYWOOD PANEL (APA RATED A-B GRADE-EXTERIOR)

3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171

SURVEY PROVIDED BY GREAT LAKES GEOMATICS, LLC (SURVEY DATE: JANUARY 26, 2011 TO FEBRUARY 2, 2011) USING NAVD88 DATUM.
NOTE: OHWM AND 100-YR ELEVATIONS BASED ON HEC RAS MODELING COMPLETED FOR THIS PROJECT.



ECT
Environmental Consulting & Technology, Inc.
2300 Commonwealth Blvd., Suite 300
Ann Arbor, Michigan 48105
734.769.3004
734.769.3144 fax
www.ectinc.com



**WAYNE ROAD
DAM REMOVAL
PROJECT**
WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:



Working together, restoring the river



U.S. DEPARTMENT OF COMMERCE



WAYNE COUNTY, MICHIGAN
PRIDE AND PROUD

ISSUED FOR BIDS	3-27-12
FOR CONSTRUCTION	DEC. 2011
FOR PERMITTING	8-9-11

101066 ECT PROJECT NUMBER	
LH/ MB/ AB DESIGNED BY	LH CHECKED BY
AB/ AM/ TH/ PH DRAWN BY	JO APPROVED BY

SHEET TITLE

**SITE
PREPARATION AND
DEMOLITION
PLAN**

SCALE: 1" = 20' @ 22" x 34"

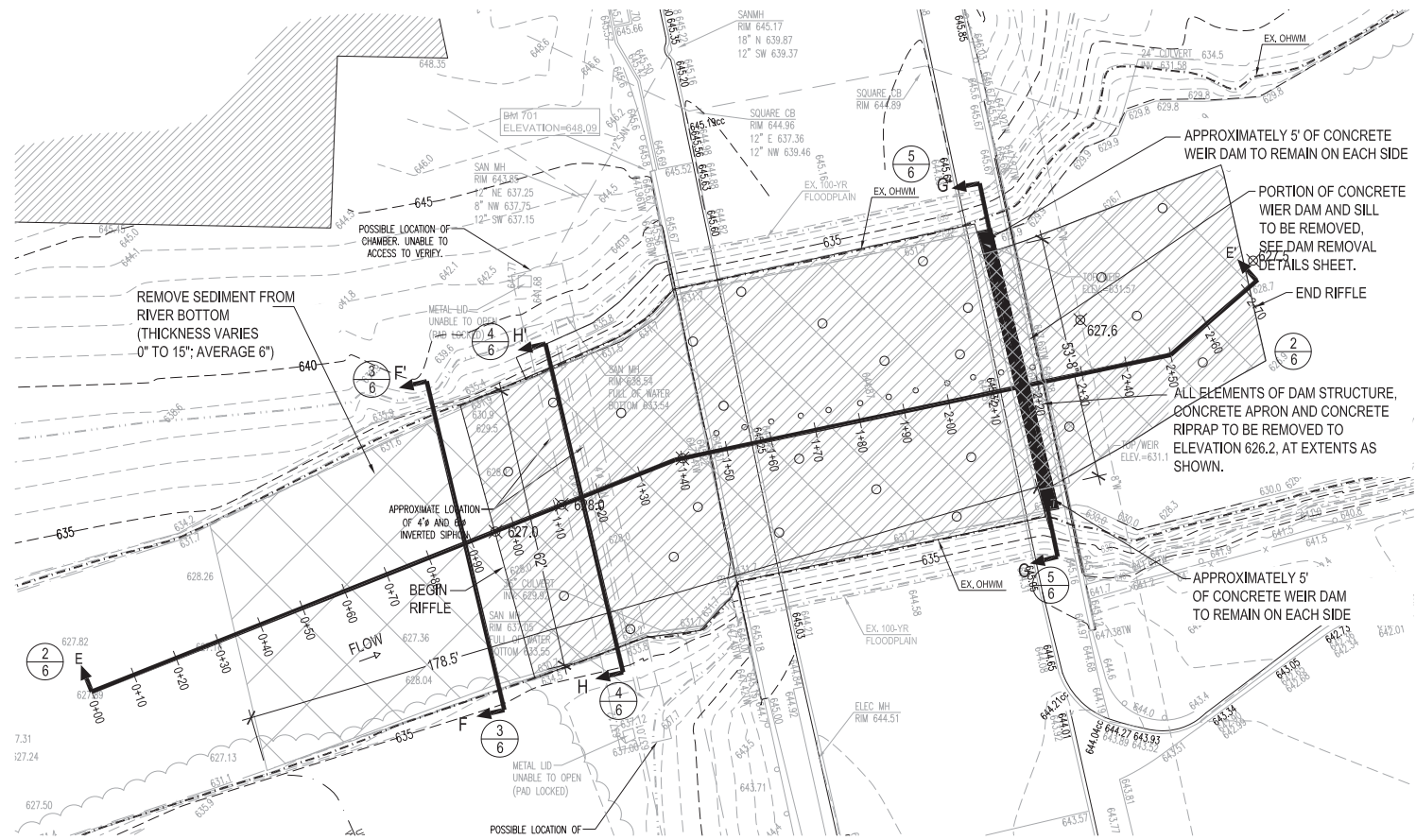
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NORTH

SHEET NUMBER

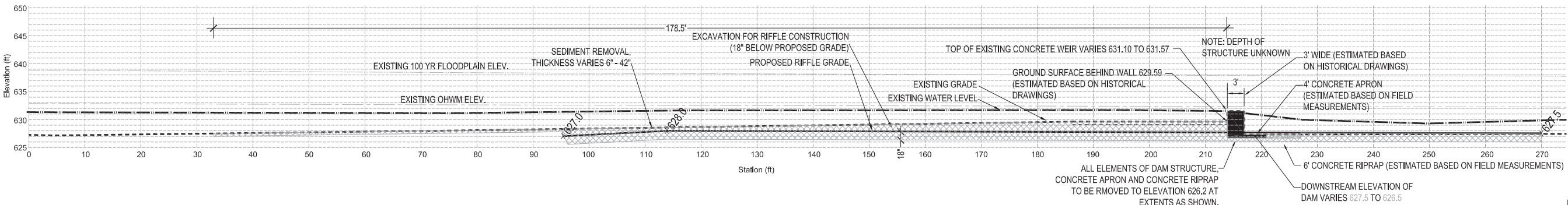
5

P:\Alliance of Rouge Communities (ARC)\2011 Alliance of Rouge Communities\Wayne Road Dam\CAD\ECT\Permit Drawings\Construction.dwg

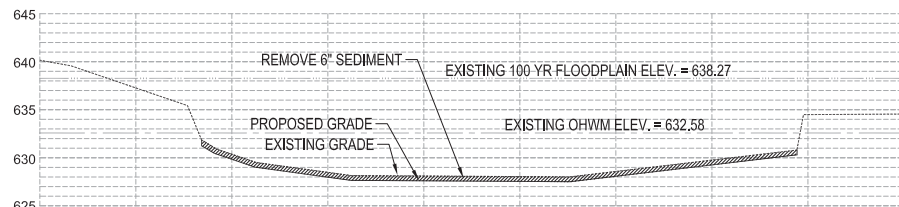


1 DAM & SEDIMENT REMOVAL PLAN

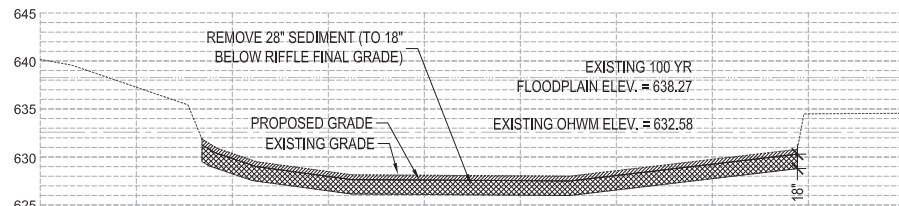
CHANNEL CENTERLINE RIFFLE STATIONING				
STA.	PROPOSED RIFFLE ELEVATION	EXCAVATION ELEVATION	EXISTING BED ELEVATION	EXCAVATION DEPTH
95	627.00	625.50	628.4	2.90
100	627.29	625.79	628.5	2.71
110	627.88	626.38	628.6	2.22
112	628.00	626.50	628.7	2.20
120	627.97	626.47	628.8	2.33
130	627.94	626.44	628.9	2.46
140	627.91	626.41	629.0	2.59
150	627.88	626.38	629.1	2.72
160	627.85	626.35	629.2	2.85
170	627.82	626.32	629.4	3.08
180	627.78	626.28	629.5	3.22
190	627.75	626.25	629.7	3.45
200	627.72	626.22	629.6	3.38
210	627.69	626.19	629.6	3.41
220	627.66	626.16	627.3	1.14
230	627.63	626.13	627.3	1.17
240	627.59	626.09	627.2	1.11
250	627.56	626.06	627.2	1.14
260	627.53	626.03	627.2	1.17
270	627.50	626.00	627.2	1.20



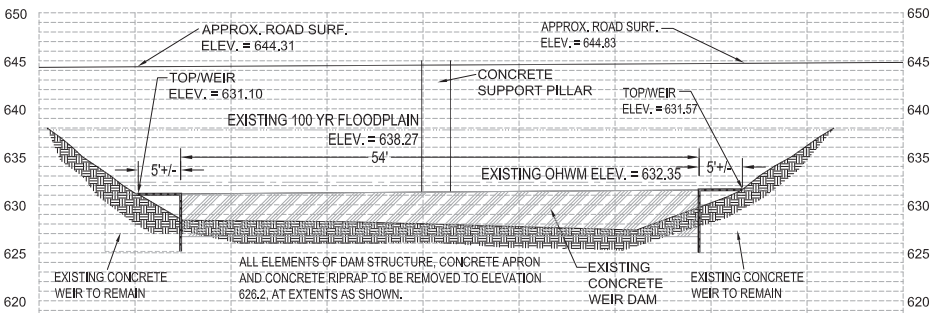
2 CROSS SECTION E - E'
SCALE: 1" = 10' (HORIZ. & VERT.)



3 CROSS SECTION F - F'
SCALE: 1" = 10' (HORIZ. & VERT.)



4 CROSS SECTION H - H'
SCALE: 1" = 10' (HORIZ. & VERT.)



5 CROSS SECTION G - G'
SCALE: 1" = 10' (HORIZ. & VERT.)

NOTE: CONTRACTOR MUST SAW CUT CONCRETE TO DEPTH OF REMOVAL AT LIMITS OF REMOVAL SHOWN.

- LEGEND**
- BENCHMARK
 - TRAVERSE POINT
 - SEWER MH (STORM/SAN)
 - SQUARE CATCH BASIN
 - ROUND CATCH BASIN
 - BEEHIVE CATCH BASIN
 - CLEAN OUT
 - STEAM MANHOLE
 - UNKNOWN MANHOLE
 - HYDRANT
 - GATE VALVE AND WELL
 - WATER VALVE
 - WATER SHUT OFF
 - VALVE BOX
 - POST INDICATOR VALVE
 - WATER METER
 - ELECTRIC MANHOLE
 - ELECTRIC PEDESTAL
 - ELECTRIC HANDHOLE
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 - TELEPHONE MANHOLE
 - TELEPHONE PEDESTAL
 - CABLE PEDESTAL
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 - UTILITY POLE
 - GUY ANCHOR
 - LIGHT POLE
 - BOLLARD
 - PARKING METER
 - SIGN
 - RR CONTROL BOX
 - RR CROSSING
 - DECIDUOUS TREE
 - CONIFEROUS TREE
 - CHAINLINK FENCE
 - WROUGHT IRON FENCE
 - OVERHEAD UTILITIES
 - STORM SEWER
 - SANITARY SEWER
 - COMBINATION SEWER
 - STEAM LINES
 - WATERMAIN
 - GAS LINES
 - ELECTRIC LINES
 - PUBLIC LIGHTING DEPT.
 - TELEPHONE LINES
 - CABLE LINES
 - FOUND IRON ROD
 - FOUND MONUMENT
 - FOUND P.K. NAIL
 - FOUND MAG NAIL
 - SET IRON ROD
 - SET MONUMENT
 - SET P.K. NAIL
 - SET MAG NAIL
 - SPOT ELEVATION
 - TOP OF WALL ELEVATION
 - CURB CUT ELEVATION
 - UNDERGROUND
 - FIN.FL. FINISHED FLOOR ELEVATION
 - MEASURED
 - RECORD
 - CALCULATED
 - EXISTING DAM STRUCTURE
 - PROPOSED RIFFLE
 - PROPOSED EXCAVATION FOR RIFFLE CONSTRUCTION



WAYNE ROAD DAM REMOVAL PROJECT

WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:



ISSUED FOR BIDS 3-27-12
FOR CONSTRUCTION DEC. 2011
FOR PERMITTING 8-9-11

101086
ECT PROJECT NUMBER
LH/MB/AB DESIGNED BY CHECKED BY
AB/AM/TH DRAWN BY APPROVED BY

SHEET TITLE

DAM REMOVAL & DREDGING DETAILS

SCALE: AS SHOWN

NORTH

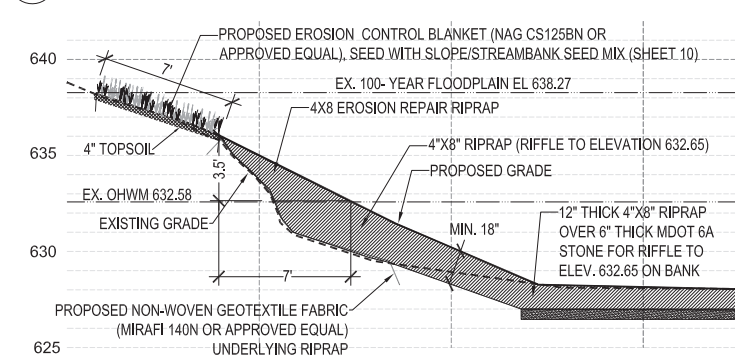
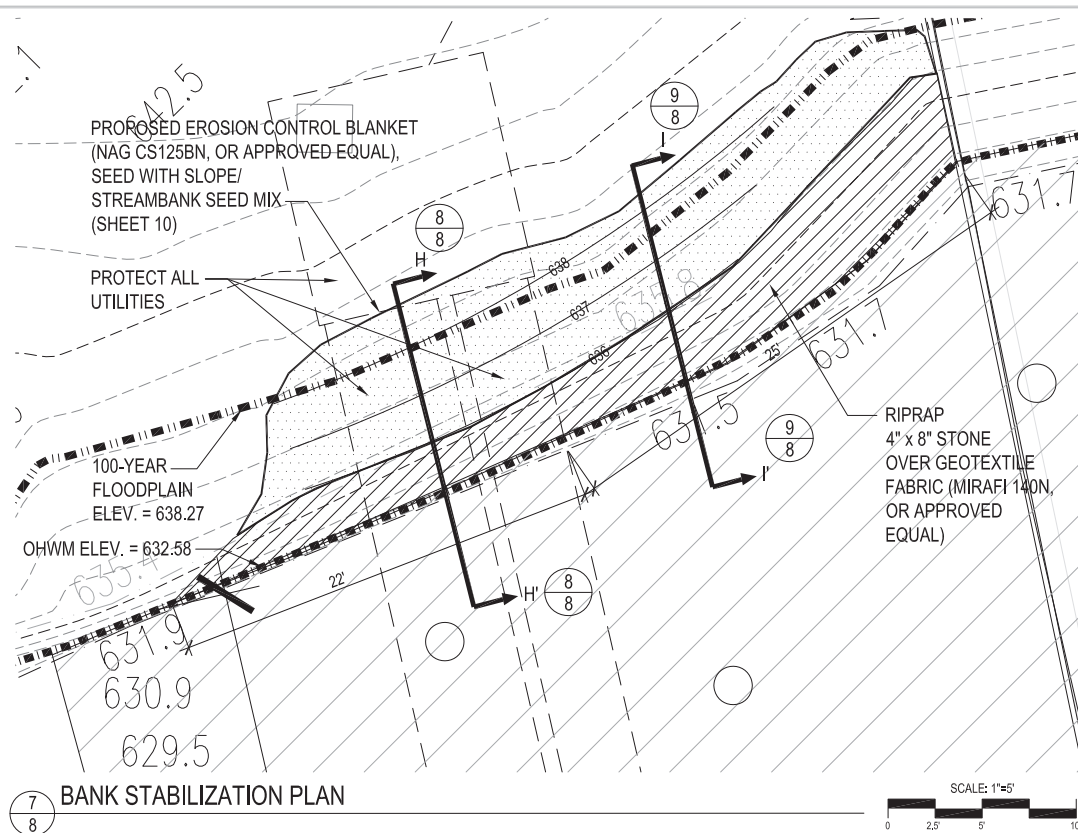
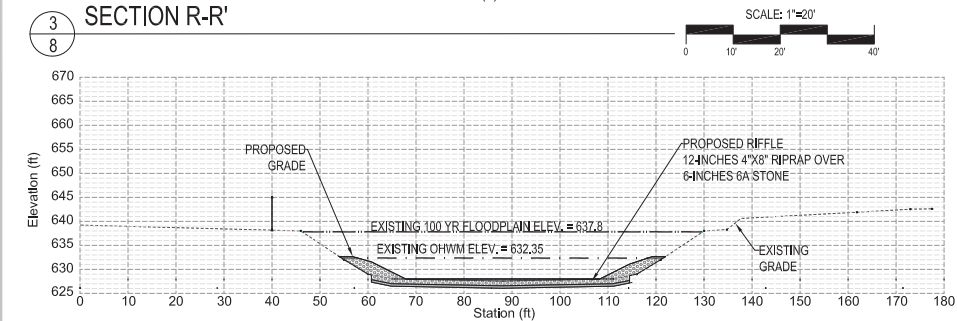
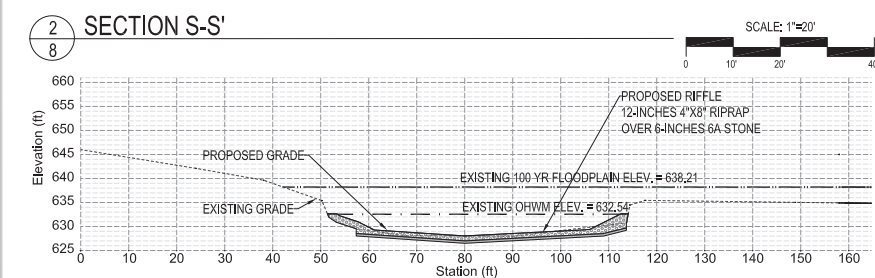
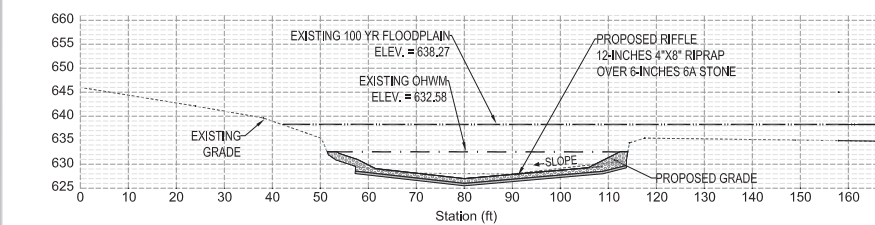
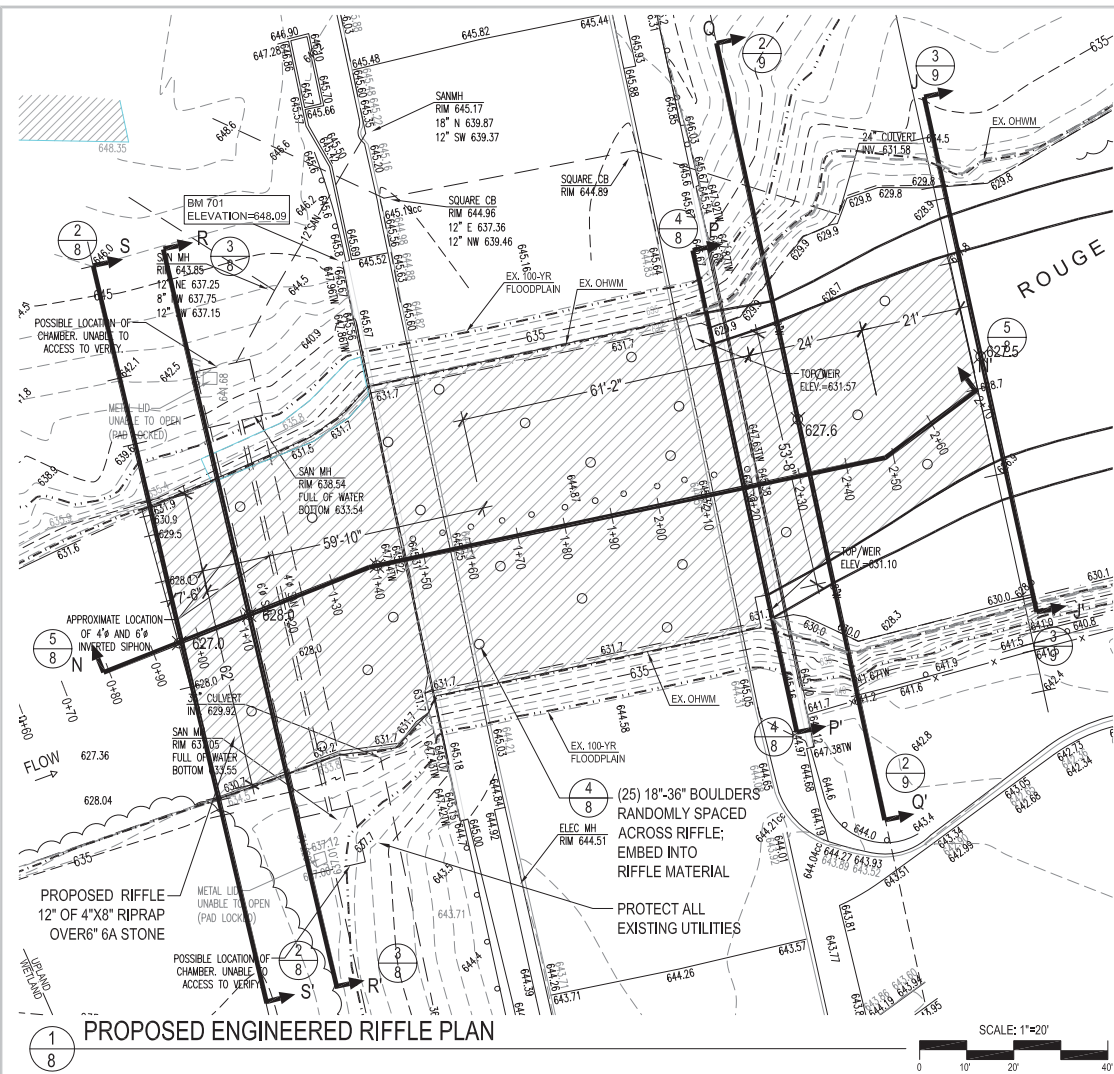


SHEET NUMBER

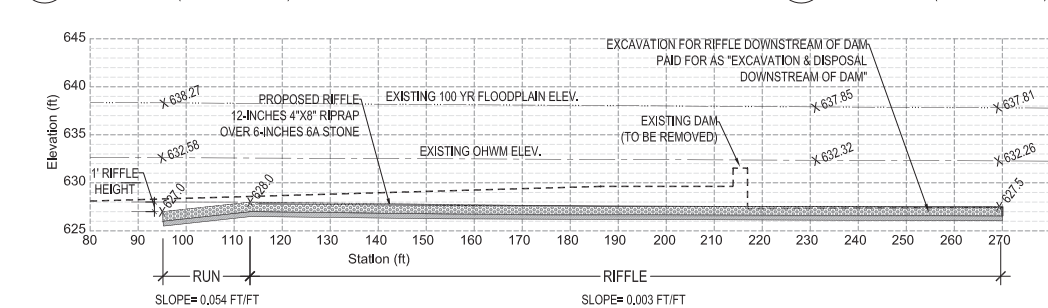
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SURVEY PROVIDED BY GREAT LAKES GEOMATICS, LLC (SURVEY DATE: JANUARY 26, 2011 TO FEBRUARY 2, 2011) USING NAVD88 DATUM.

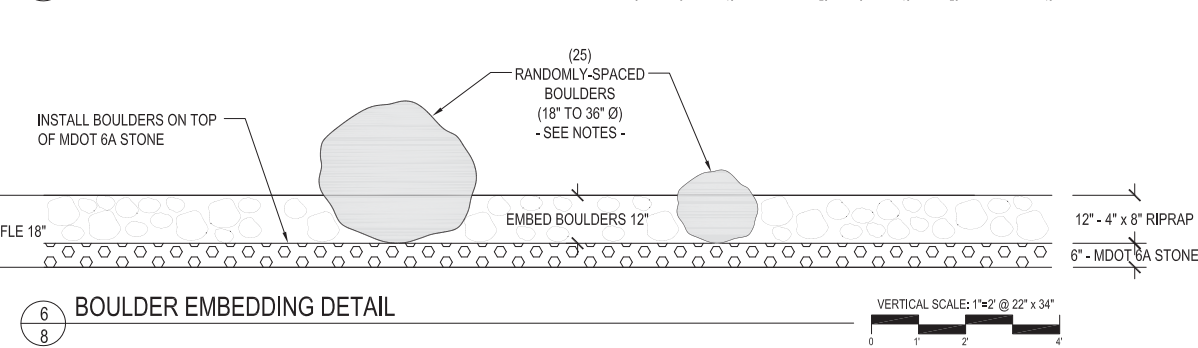
3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171



8 CROSS SECTION H - H'
SCALE: 1" = 20' (HORIZ. & VERT.)



5 SECTION N-N'
VERTICAL SCALE: 1"=10' @ 22' x 34"
HORIZONTAL SCALE: 1"=20' @ 22' x 34"



6 BOULDER EMBEDDING DETAIL
VERTICAL SCALE: 1"=2' @ 22' x 34"

LEGEND	
	BENCHMARK
	TRAVERSE POINT
	SEWER MH (STORM/SAN)
	SQUARE CATCH BASIN
	ROUND CATCH BASIN
	BEEHIVE CATCH BASIN
	CLEAN OUT
	STEAM MANHOLE
	UNKNOWN MANHOLE
	HYDRANT
	GATE VALVE AND WELL
	WATER VALVE
	WATER SHUT OFF
	VALVE BOX
	POST INDICATOR VALVE
	WATER METER
	ELECTRIC MANHOLE
	ELECTRIC PEDESTAL
	ELECTRIC HANDHOLE
	PUBLIC LIGHTING MH
	TELEPHONE MANHOLE
	TELEPHONE PEDESTAL
	CABLE PEDESTAL
	GAS VALVE
	UTILITY POLE
	GUY ANCHOR
	LIGHT POLE
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	PARKING METER
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	STEAM LINES
	WATERMAIN
	GAS LINES
	ELECTRIC LINES
	PUBLIC LIGHTING DEPT.
	TELEPHONE LINES
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	FOUND IRON ROD
	FOUND MONUMENT
	FOUND P.K. NAIL
	FOUND MAG NAIL
	SET IRON ROD
	SET MONUMENT
	SET P.K. NAIL
	SET MAG NAIL
	SPOT ELEVATION
	TOP OF WALL ELEVATION
	CURB CUT ELEVATION
	UNDERGROUND
	FINISHED FLOOR ELEVATION
	MEASURED
	RECORD
	CALCULATED

NOTES:

1. 4" x 8" RIPRAP SHALL HAVE D₅₀ = 6", D₈₄ = 7", AND D₁₀₀ = 8".
2. 4" x 8" RIPRAP SHALL EXTEND UP BANKS TO THE OHWM ALONG BOTH SIDES OF THE RIFFLE AT A MINIMUM THICKNESS OF 18".
3. ALL STONE FOR BANK STABILIZATION AND GEOTEXTILE FABRIC TO BE INCLUDED IN RIFFLE PAY ITEM.
4. LEFT BANK STABILIZATION UPSTREAM OF BRIDGE AND RIFFLE ARE SEPARATE BID ITEMS AND PAY ITEMS. RIFFLE STOPS AT OHWM ELEVATION WHERE APPLICABLE. BANK STABILIZATION INCLUDES ALL WORK SHOWN ABOVE THE OHWM WHERE APPLICABLE.
5. 50% OF RIFFLE BOULDERS SHALL BE GREATER THAN 24" AND 50% SHALL BE LESS THAN 24".
6. ENGINEER SHALL DIRECT PLACEMENT OF RIFFLE BOULDERS.
7. EXCAVATION REQUIRED FOR RIFFLE CONSTRUCTION DOWNSTREAM OF DAM SHALL BE INCLUDED IN "EXCAVATION AND DISPOSAL/DOWNSTREAM OF DAM" PAY ITEM.

SURVEY PROVIDED BY GREAT LAKES GEOMATICS, LLC (SURVEY DATE: JANUARY 26, 2011 TO FEBRUARY 2, 2011) USING NAVD88 DATUM.

3 WORKING DAYS
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1-800-482-7171

ECT
Environmental Consulting & Technology, Inc.
2200 Commonwealth Blvd., Suite 300
Ann Arbor, Michigan 48106
734.769.3004
734.769.3164 fax
www.ectinc.com

**WAYNE ROAD
DAM REMOVAL
PROJECT**
WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:

OURS TO PROTECT
Working together, restoring the river

NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

ISSUED FOR BIDS	3-27-12
FOR CONSTRUCTION	DEC. 2011
FOR PERMITTING	8-9-11

101066
ECT PROJECT NUMBER

LH/MB/AB	DESIGNED BY	LH	CHECKED BY
AB/AM/TH/PH	DRAWN BY	JO	APPROVED BY

SHEET TITLE

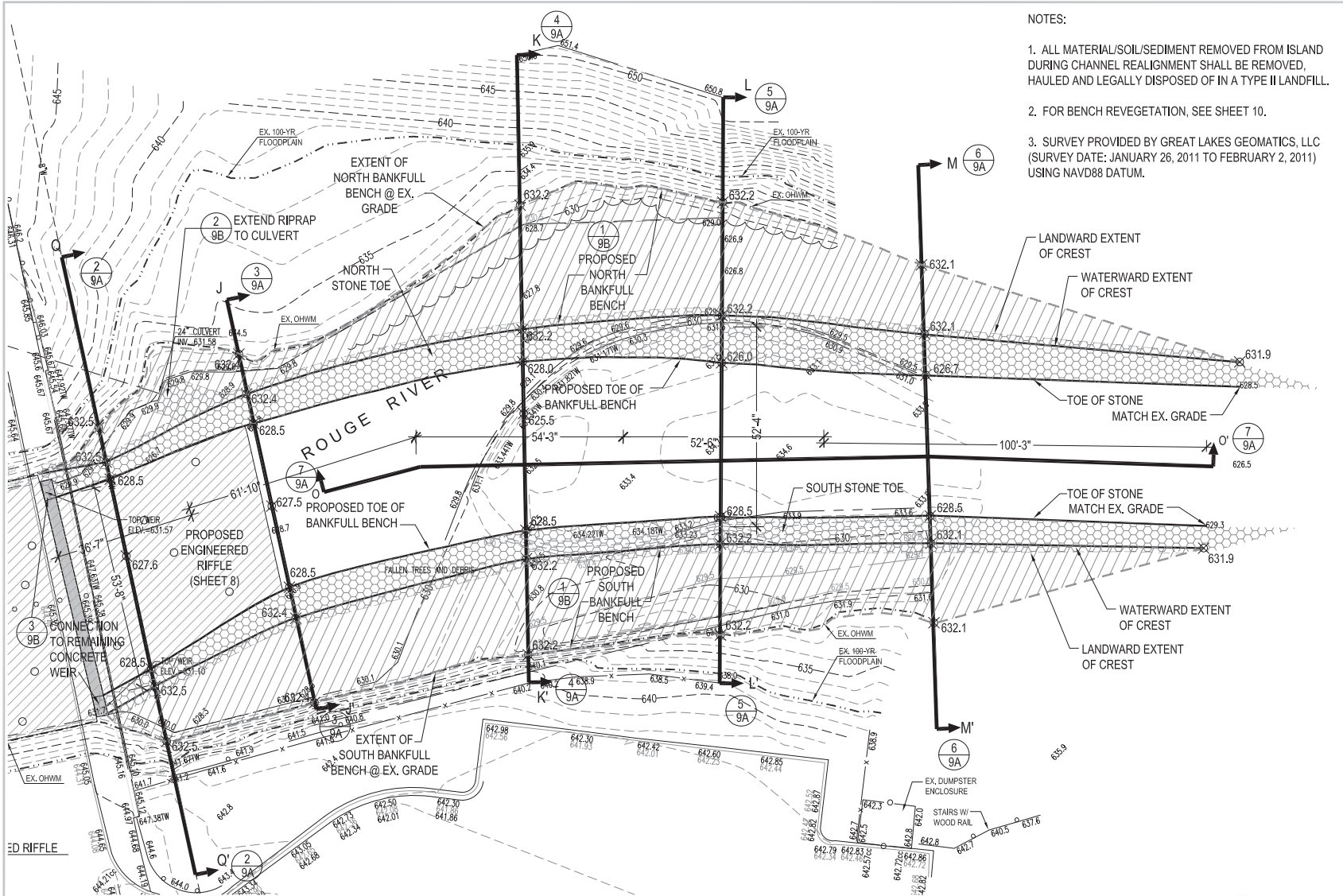
**RIFFLE & BANK
STABILIZATION
PLAN**

SCALE: AS SHOWN

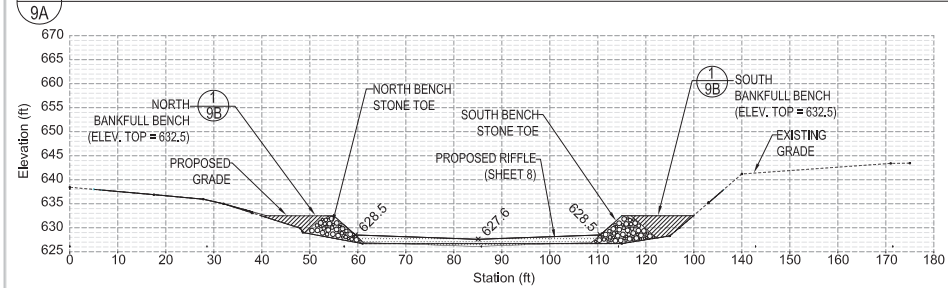
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SHEET NUMBER

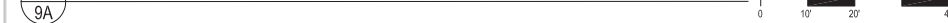
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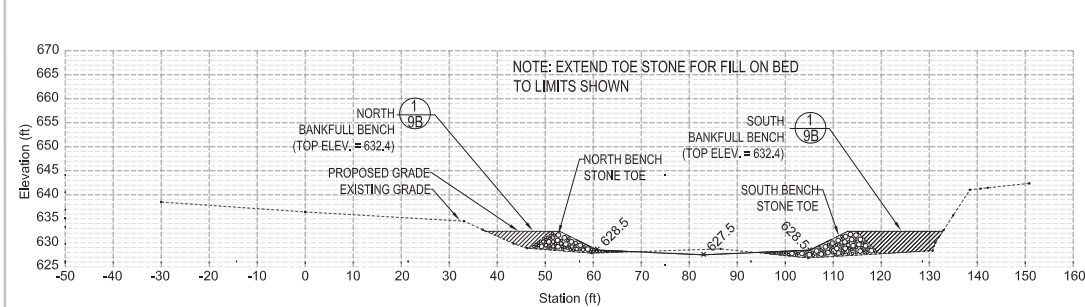
1 CHANNEL RE-ALIGNMENT PLAN



2 CROSS SECTION Q-Q'



3 CROSS SECTION J-J'



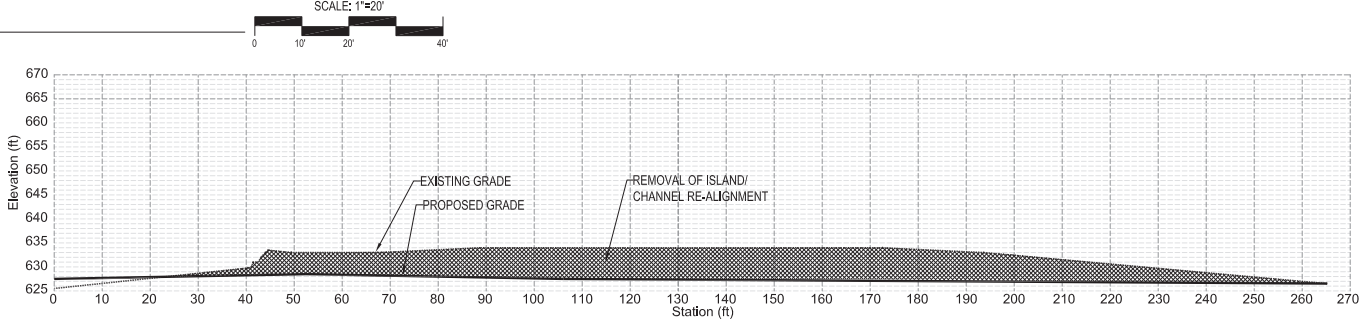
4 CROSS SECTION K-K'



5 CROSS SECTION L-L'



6 CROSS SECTION M-M'



7 CROSS SECTION O-O'



8 CROSS SECTION P-P'



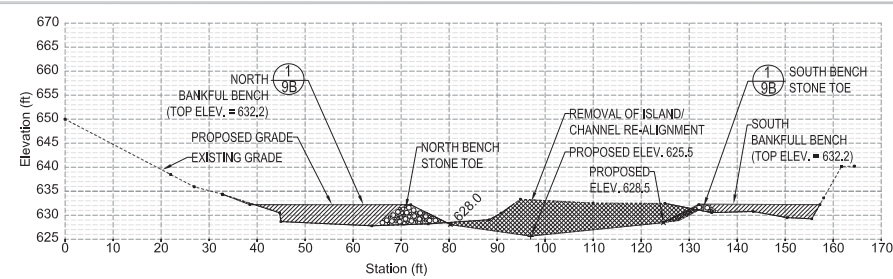
9 CROSS SECTION R-R'



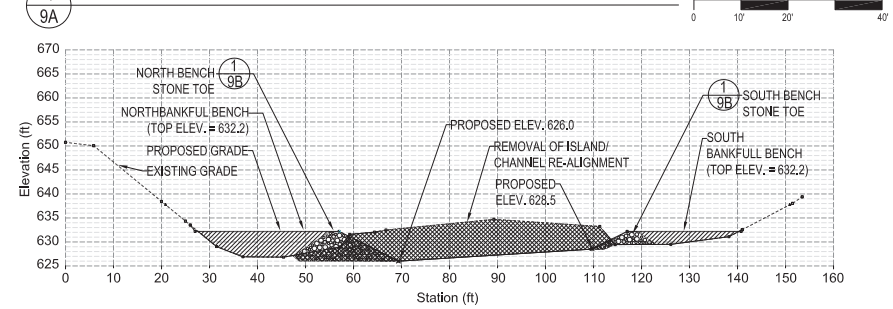
10 CROSS SECTION S-S'



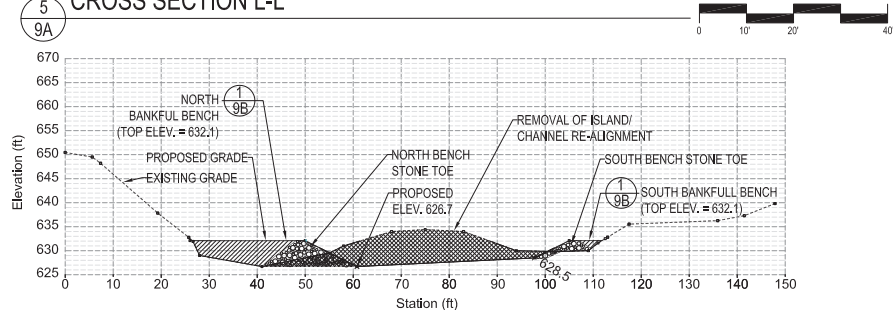
11 CROSS SECTION T-T'



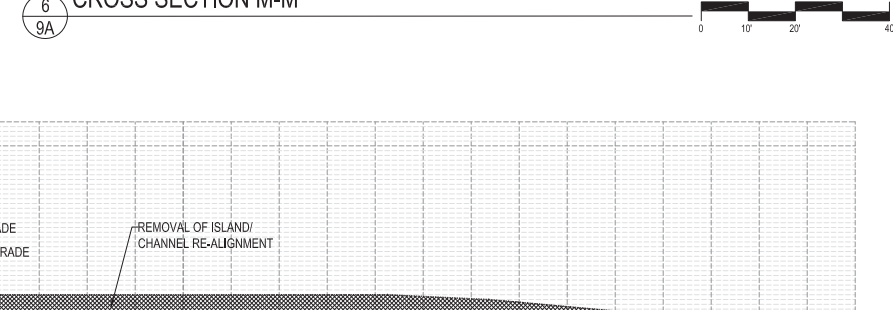
12 CROSS SECTION U-U'



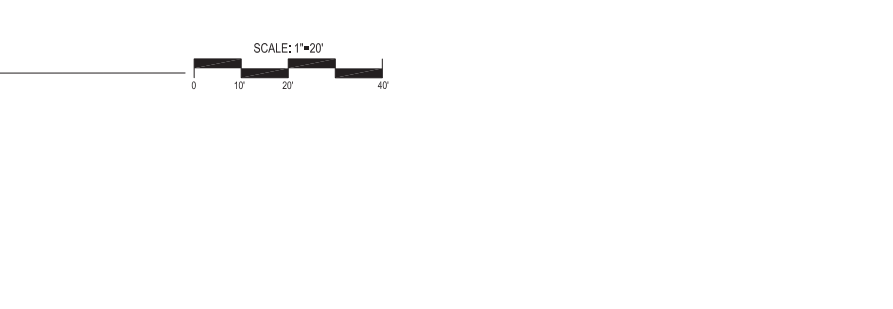
13 CROSS SECTION V-V'



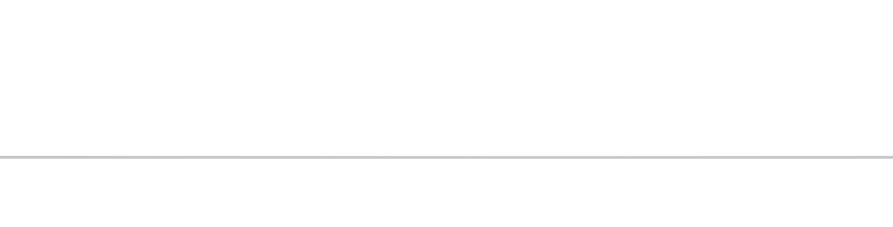
14 CROSS SECTION W-W'



15 CROSS SECTION X-X'



16 CROSS SECTION Y-Y'



17 CROSS SECTION Z-Z'

LEGEND	
	BENCHMARK
	TRAVERSE POINT
	SEWER MH (STORM/SAN)
	SQUARE CATCH BASIN
	ROUND CATCH BASIN
	BEEHIVE CATCH BASIN
	CLEAN OUT
	STEAM MANHOLE
	UNKNOWN MANHOLE
	HYDRANT
	GATE VALVE AND WELL
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	FINISHED FLOOR ELEVATION
	MEASURED
	RECORD
	CALCULATED
	PROPOSED DREDGE/EXCAVATION
	PROPOSED BANKFULL BENCH/FILL
	PROPOSED STONE TOE



WAYNE ROAD DAM REMOVAL PROJECT

WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:

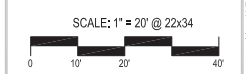


ISSUED FOR BIDS	3-27-12
FOR CONSTRUCTION	DEC. 2011
FOR PERMITTING	8-9-11

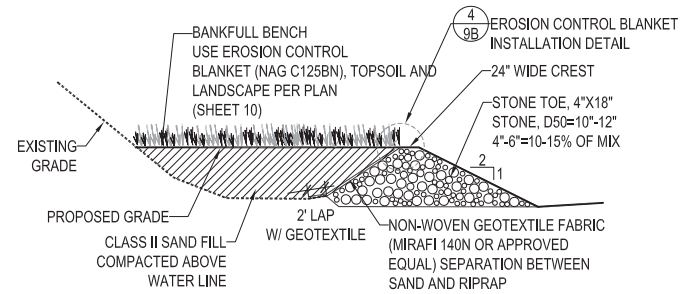
101066
ECT PROJECT NUMBER

LH/ MB/ AB	LH
DESIGNED BY	CHECKED BY
AB/ AM/ TH/ PH	JO
DRAWN BY	APPROVED BY

CHANNEL REALIGNMENT PLAN

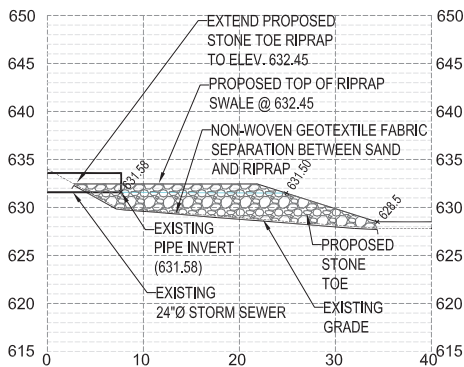
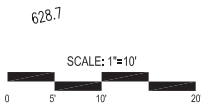
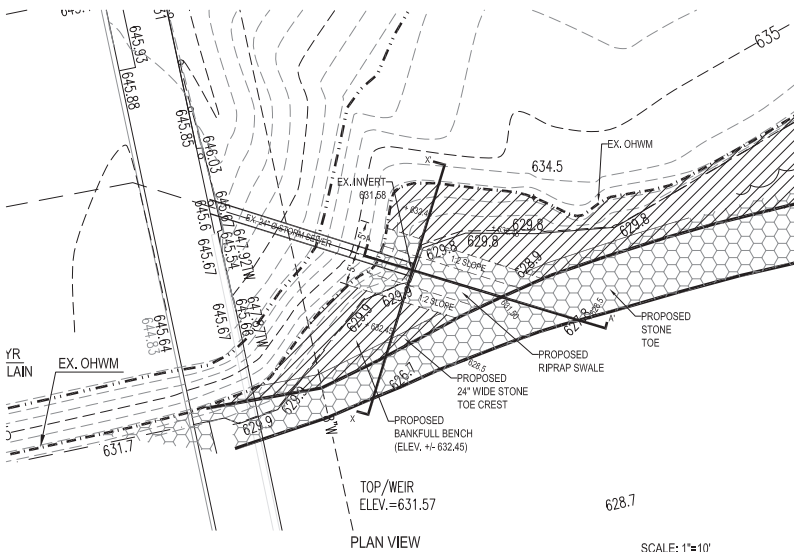
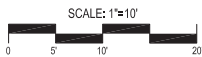


3 WORKING DAYS
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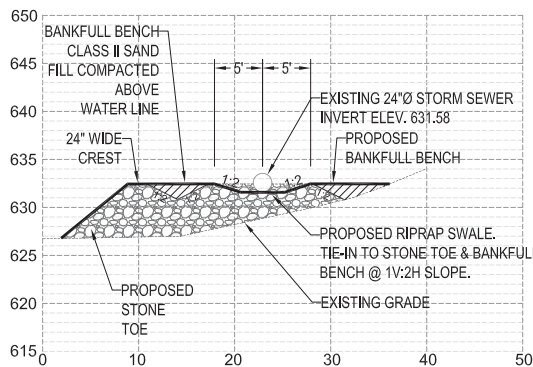
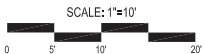


NOTE: TOP ELEVATION OF STONE AND BENCH TO MATCH OHWM ELEVATION WHERE APPLICABLE, AS SHOWN ON DRAWINGS.

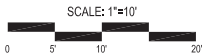
1
9B
TYPICAL BENCH DETAIL



PROFILE A - A'



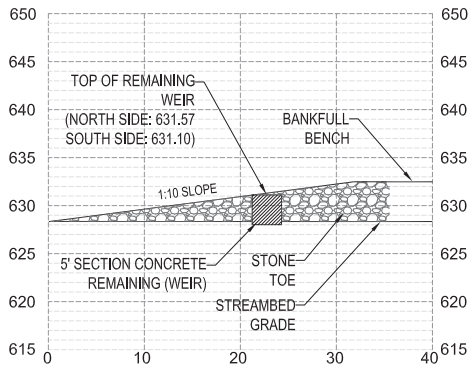
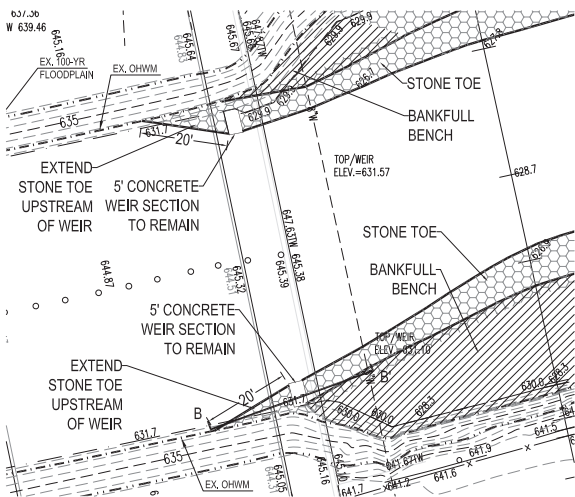
CROSS-SECTION X - X'



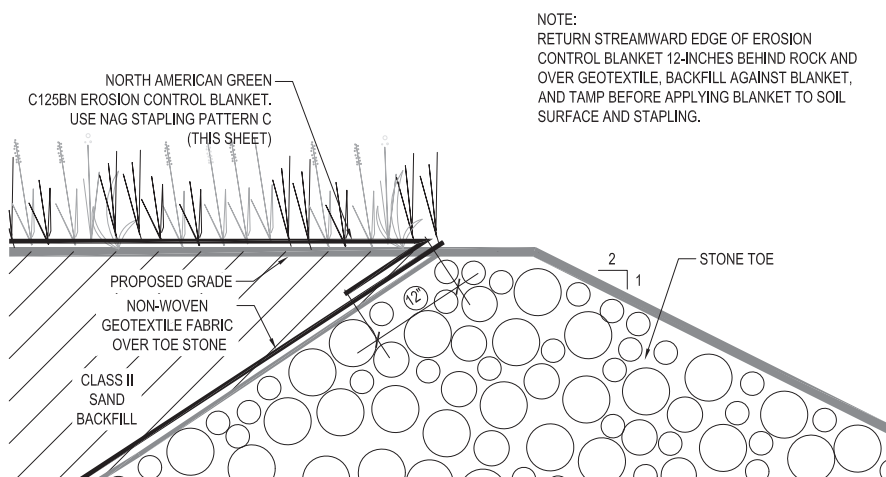
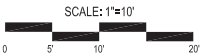
NOTES:

1. SEE SHEET 9A FOR TOP OF ROCK AND BANKFULL BENCH FILL ELEVATIONS AT OUTFALL.
2. USE GEOTEXTILE BETWEEN STONE AND SAND FILL (INSTALL PER DETAIL 1 ON SHEET 9B).
3. SEE DETAIL 1 ON SHEET 9B FOR BANKFULL BENCH CONSTRUCTION.

2
9B
TYPICAL RIPRAP AT OUTLET PIPE DETAIL



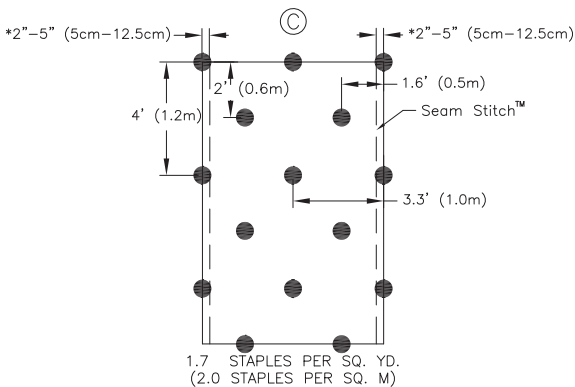
PROFILE B - B'



NOTE:

RETURN STREAMWARD EDGE OF EROSION CONTROL BLANKET 12-INCHES BEHIND ROCK AND OVER GEOTEXTILE, BACKFILL AGAINST BLANKET, AND TAMP BEFORE APPLYING BLANKET TO SOIL SURFACE AND STAPLING.

4
9B
EROSION CONTROL BLANKET INSTALLATION DETAIL
NOT TO SCALE



For blankets with the North American Green DOT System™ place staples/stakes through each of the GREEN colored dots.

Ara mantas con el sistema DOT de North American Green, clave las grapas/estacas a traves de los puntos de colores Verde.

C125BN STAPLING PATTERN DETAIL
NOT TO SCALE

3
9B
STONE TOE AT REMAINING WEIR DETAIL



WAYNE ROAD DAM REMOVAL PROJECT

WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:



ISSUED FOR BIDS	5-27-12
FOR CONSTRUCTION	DEC. 2011
FOR PERMITTING	8-8-11

101066	
ECT PROJECT NUMBER	
LH/ MB/ AB	LH
DESIGNED BY	CHECKED BY
AB/ AM/ TH/ PH	JO
DRAWN BY	APPROVED BY

SHEET TITLE CHANNEL REALIGNMENT DETAILS

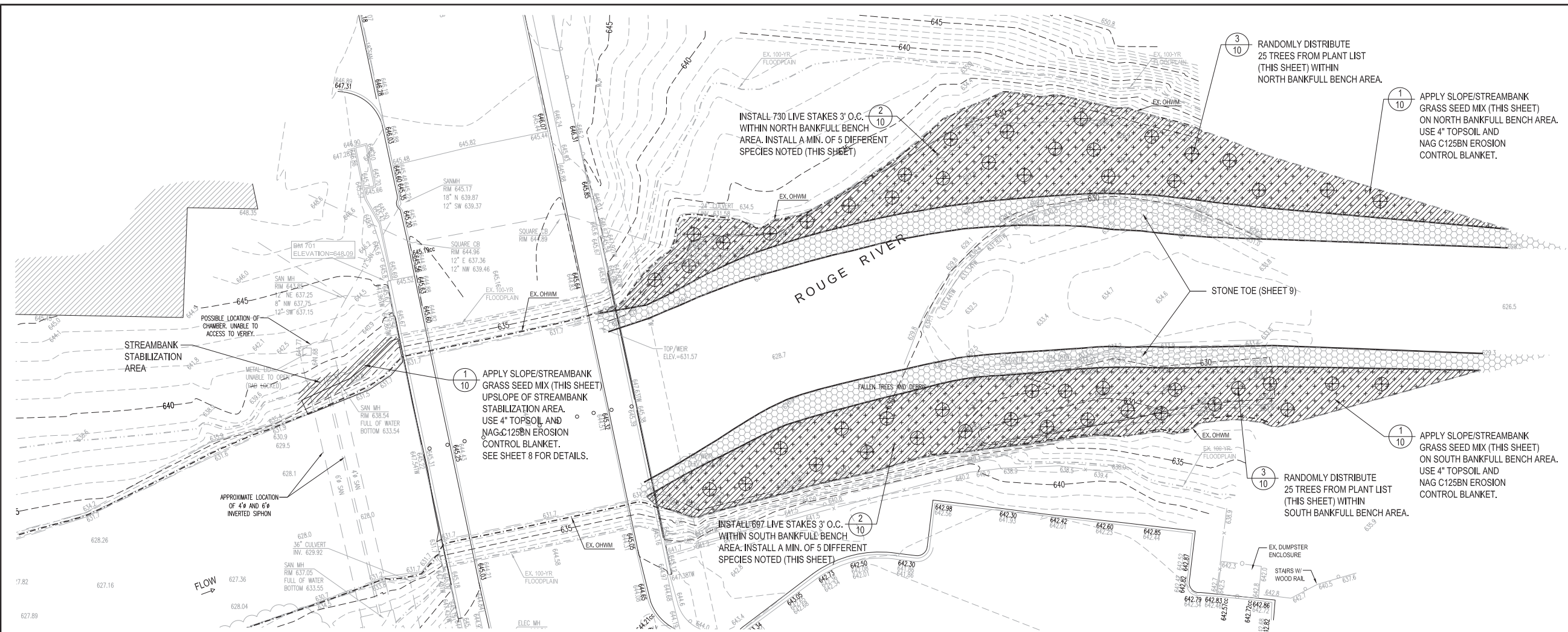
SCALE: 1" = 20' @ 22x34
0 10 20 40

NORTH



SHEET NUMBER

9B

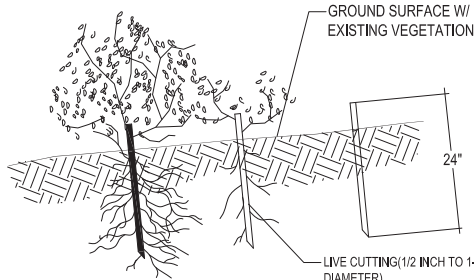


SLOPE STABILIZATION SEED MIX		
SCIENTIFIC NAME	COMMON NAME	LBS/AC
ANDROPOGON GERARDII	BIG BLUESTEM	5,000
ANDROPOGON SCOPARIUS	LITTLE BLUESTEM	5,000
BOUTELOUA CURTIPENDULA	SIDE-OATS GRAMMA	5,000
ELYMUS CANADENSIS	CANADA WILD RYE	8,000
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	8,000
GLYCERIA STRIATA	FOWL MANNA GRASS	1,000
PANICUM VIRGATUM	SWITCH GRASS	1,000
SORGHASTRUM NUTANS	INDIAN GRASS	10,00
SPARTINA PECTINATA	PRAIRIE CORD GRASS	0,500
SPOROBOLUS HETEROLEPIS	DROPSEED	0,500
AVENA SATIVA	SEED OATS	20,00
LOLIUM MULTIFLORUM	ANNUAL RYE	5,000
TOTAL		69,00

1 10 SLOPE/STREAMBANK SEED MIX
NO SCALE

A MINIMUM OF FIVE OF THE FOLLOWING SPECIES SHALL BE INSTALLED AT 3' ON CENTER WHERE INDICATED ON PLANS. CONTRACTOR SHALL SELECT A MAXIMUM OF 3 SALIX SPECIES.

LIVE STAKE SPECIES LIST:	
SCIENTIFIC NAME	COMMON NAME
CORNUS SERICEA	RED-OSIER DOGWOOD
CORNUS AMOMUM	SILKY DOGWOOD
PHYSCARPUS OPULIFOLIUS	NINEBARK
SALIX EXIGUA	SANDBAR WILLOW
SALIX DISCOLOR	PUSSY WILLOW
SALIX SERICEA	SILKY WILLOW
SALIX NIGRA	BLACK WILLOW
SALIX AMYGDALOIDES	PEACH-LEAF WILLOW



- NOTES:
1. INSTALL IN MUDFLAT/TILL ZONE AS DIRECTED BY LANDSCAPE ECOLOGIST, DURING FIRST DORMANT SEASON FOLLOWING SEEDING
 2. ROOTED/LEAFED CONDITION OF THE LIVING PLANT MATERIAL IS NOT REPRESENTED AT THE THE TIME OF INSTALLATION.
 3. INSTALL LIVE STAKES AT RIGHT ANGLES PUSH INTO THE GROUND BY HAND. USE DEAD BLOW HAMMER AS NEEDED.
 4. BURY MINIMUM 2/3 OF THE STAKE IN THE GROUND, AND FIRMLY PACK SOIL AROUND IT. ORIENT THE BUDS UP.
 5. INSTALL STAKES 3 FEET APART IN TRIANGULAR SPACING PATTERN.

2 10 LIVE STAKE INSTALLATION
NO SCALE

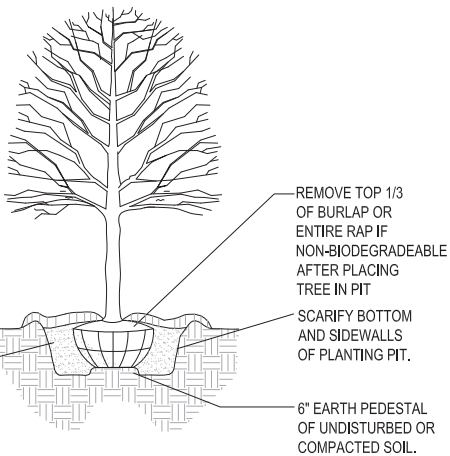
PLANT LIST:							
TREES	SYM	NO.	SCIENTIFIC NAME	COMMON NAME	SPACING	SIZE	CONT
	AR	10	ACER RUBRUM	RED MAPLE	AS SHOWN	2-2.5" CAL.	B & B
	AS	10	ACER SACCHARINUM	SILVER MAPLE	AS SHOWN	2-2.5" CAL.	B & B
	LT	10	LIRIODENDRON TULIPIFERA	TULIP TREE	AS SHOWN	2-2.5" CAL.	B & B
	PO	10	PLATANUS OCCIDENTALIS	SYCAMORE	AS SHOWN	2-2.5" CAL.	B & B
	QB	5	QUERCUS BICOLOR	SWAMP WHITE OAK	AS SHOWN	2-2.5" CAL.	B & B
	QM	5	QUERCUS MACROCARPA	BUR OAK	AS SHOWN	2-2.5" CAL.	B & B

NOTES:

TREE SHALL BE PLANTED WITH TOP OF ROOT BALL AT OR SLIGHTLY ABOVE FINISH GRADE - NEVER LOWER.

PRUNE ONLY AS DIRECTED EXCEPT FOR REMOVING DEAD OR BROKEN BRANCHES; RETAIN NATURAL FORM; DO NOT CUT LEADER.

SPECIFIED BACKFILL SOIL



3 10 DECIDUOUS TREE PLANTING
NO SCALE

- LEGEND
- BENCHMARK
 - TRAVERSE POINT
 - SEWER MH (STORM/SAN)
 - SQUARE CATCH BASIN
 - ROUND CATCH BASIN
 - BEEHIVE CATCH BASIN
 - CLEAN OUT
 - STEAM MANHOLE
 - UNKNOWN MANHOLE
 - HYDRANT
 - GATE VALVE AND WELL
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 - VALVE BOX
 - POST INDICATOR VALVE
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 - 000.00 SPOT ELEVATION
 - TW TOP OF WALL ELEVATION
 - cc CURB CUT ELEVATION
 - UG UNDERGROUND
 - Fin.Flr. FINISHED FLOOR ELEVATION
 - M MEASURED
 - R RECORD
 - C CALCULATED

WAYNE ROAD
DAM REMOVAL
PROJECT
WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:



ISSUED FOR BIDS 3-27-12
FOR CONSTRUCTION DEC. 2011
FOR PERMITTING 8-9-11

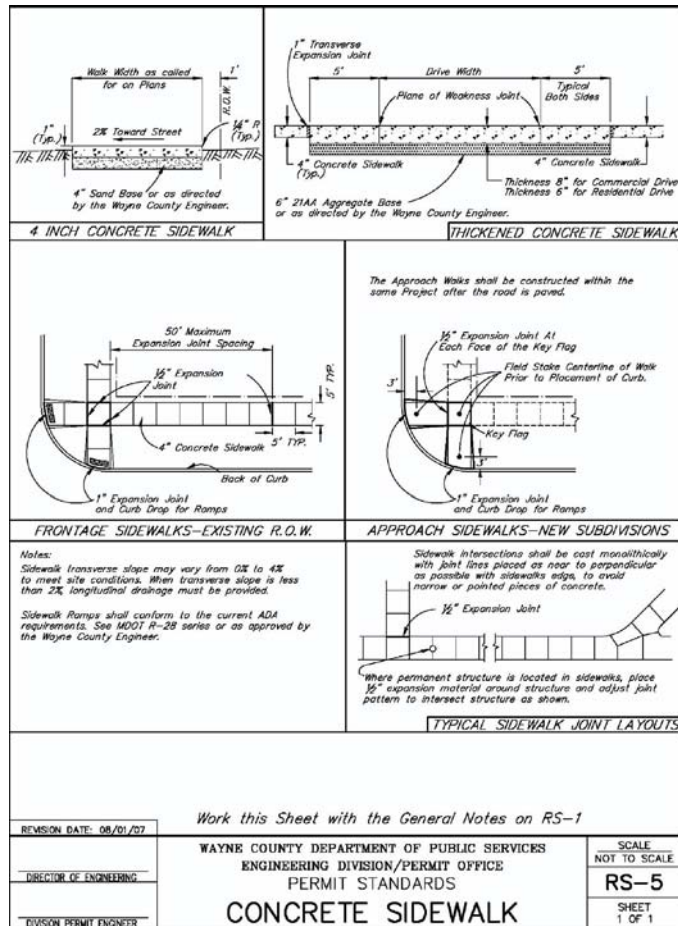
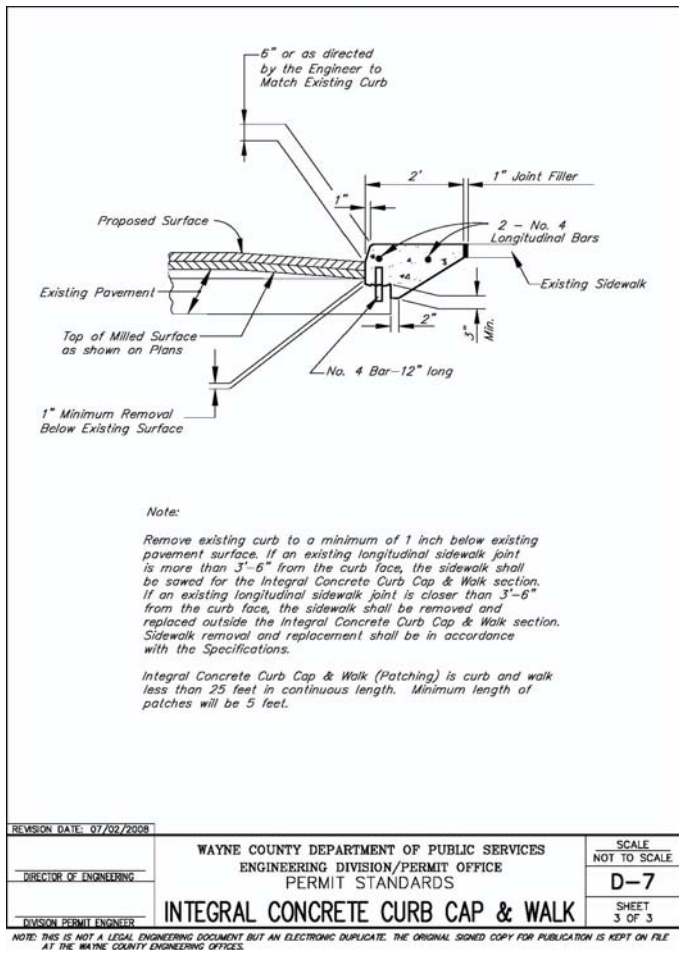
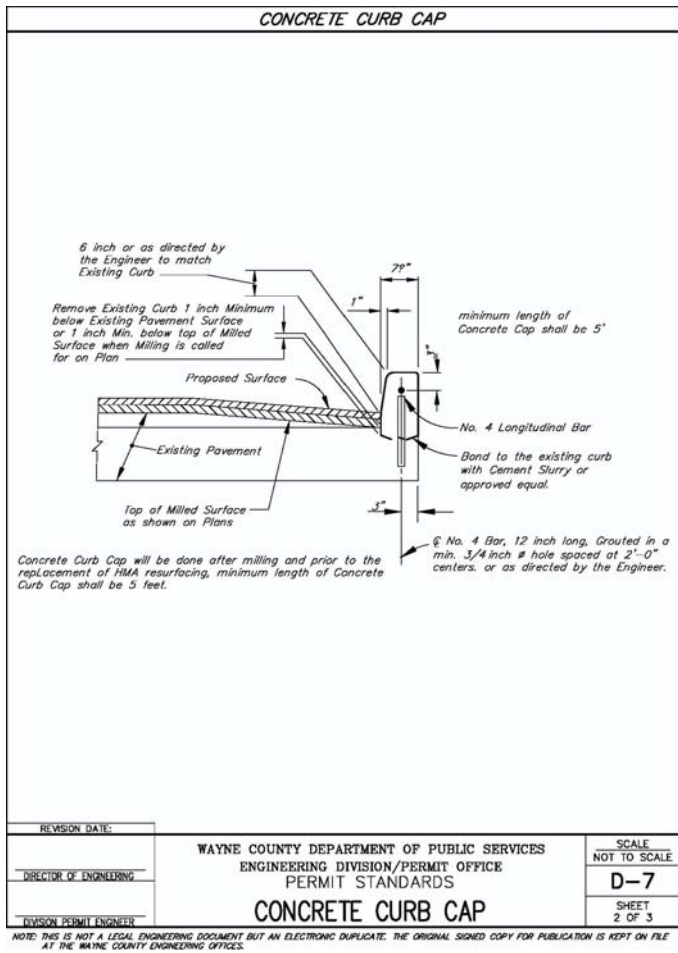
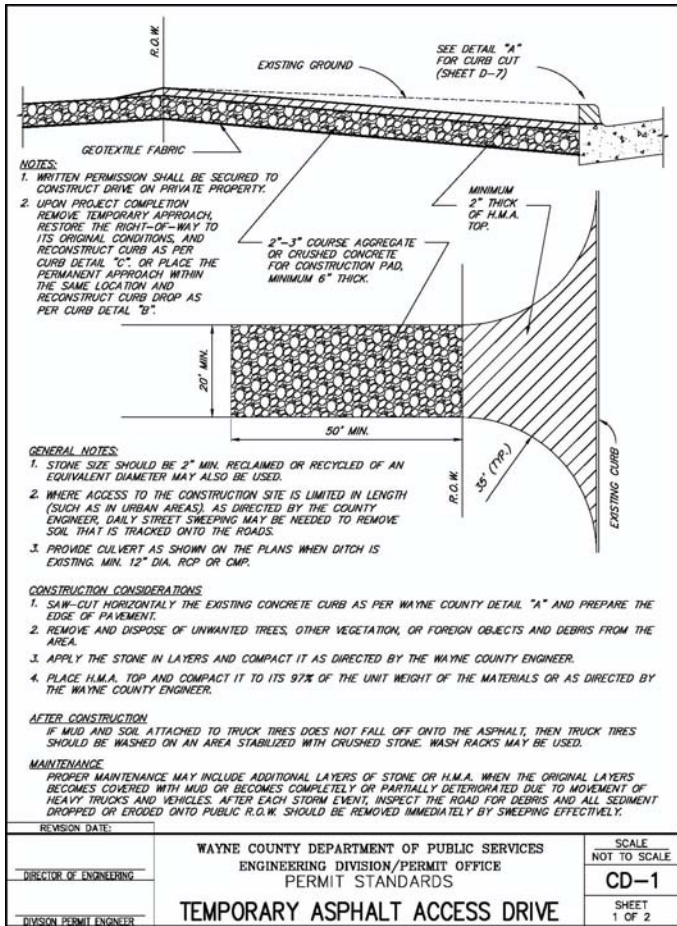
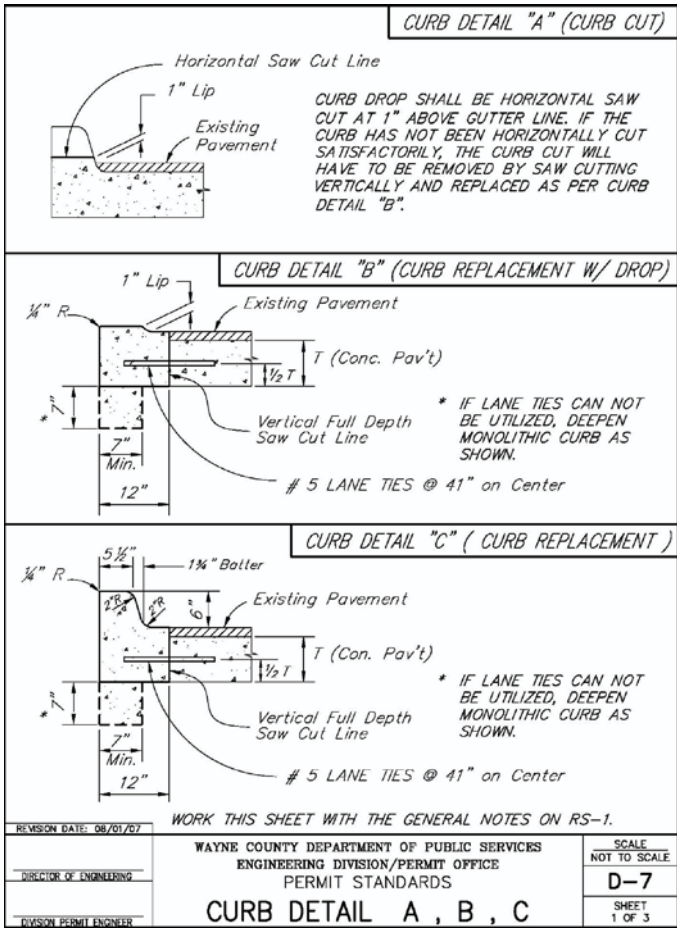
301066
ECT PROJECT NUMBER
LH/ MB/ AB DESIGNED BY CHECKED BY LH
AB/ AM/ TH/ PH DRAWN BY JO APPROVED BY

SHEET TITLE
RESTORATION/
LANDSCAPE
PLAN

SCALE: 1" = 20' @ 22x34
0 10 20 40

NORTH
SHEET NUMBER
10

3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171



**WAYNE ROAD
DAM REMOVAL
PROJECT**
WAYNE COUNTY, MICHIGAN
CONTROL NO. 37-12-084

IN PARTNERSHIP WITH:

Alliance
of Rouge
Communities

OURS TO PROTECT

Working together, restoring the river



ISSUED FOR BIDS	3-27-12
PER CLIENT COMMENTS	3-6-12
101066 ECT PROJECT NUMBER	
LH/MBI/AB DESIGNED BY	LH CHECKED BY
AB/AM/TH/PH DRAWN BY	JOM APPROVED BY

SHEET TITLE

**WAYNE COUNTY
STANDARD
DETAILS**