

# WHEELER FACILITY POND DREDGING

## 4170 PLATT ROAD

### CITY OF ANN ARBOR

### WASHTENAW COUNTY, MICHIGAN

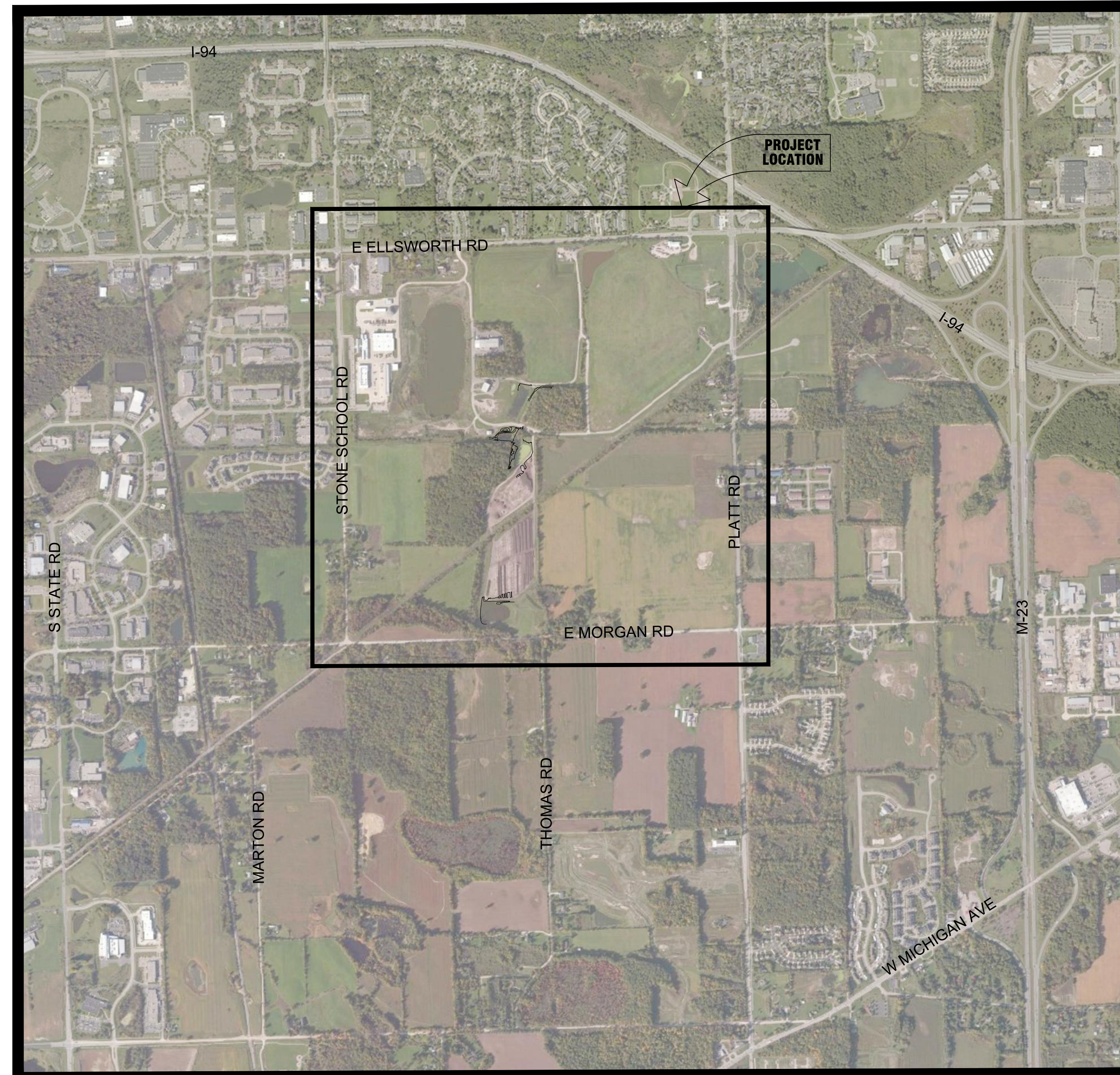
### HRC JOB No. 20190818



#### CITY OF ANN ARBOR PUBLIC WORKS

4251 STONE SCHOOL ROAD  
ANN ARBOR, MI 48104  
PHONE: (734) 794-6350

WEB SITE: <https://www.a2gov.org/departments/public-works/Pages/default.aspx>



#### SHEET INDEX

DESCRIPTION	SHEET NO.
COVER	
PROJECT NOTES	A
PROJECT NOTES	B
LANDSCAPE DETAILS	C
OVERALL SITE PLAN	1
SOUTH COMPOST PAD POND	2
NORTH COMPOST PAD POND & MAINTENANCE POND	3
FOREBAY & TRANSFER POND	4
LANDFILL POND	5
CITY OF ANN ARBOR SESC DETAILS	
CHARTER TOWNSHIP OF PITTSFIELD SESC DETAILS	

**HRC**  
HUBBELL, ROTH & CLARK, INC  
CONSULTING ENGINEERS SINCE 1915

555 HULET DRIVE P.O. BOX 824  
BLOOMFIELD HILLS, MICH. 48303 - 0824

PHONE: (248) 454-6300  
FAX (1st. Floor): (248) 454-6312  
FAX (2nd. Floor): (248) 338-2592



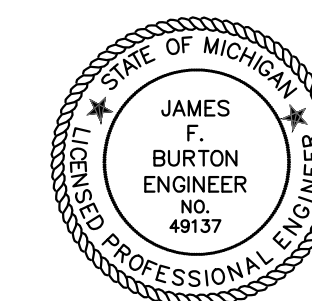
WEB SITE: <http://www.hrc-engr.com>

**NOTE:**  
ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHICAL SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION, AND RECORD MAPPING WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION ACTIVITIES.



CALL MISS DIG  
72 HOURS  
(3 WORKING DAYS)  
BEFORE YOU DIG  
1-800-482-7171

Know what's below  
Call before you dig. OR 811  
CALL811.COM (TOLL FREE)



DATE	ADDITIONS AND/OR REVISIONS
06/18/20	ISSUED FOR OWNER REVIEW



GENERAL NOTES:

COOPERATION BY THE CONTRACTOR: NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO MATERIAL SHORTAGES OR REASONABLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE PROPOSAL OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OF EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.

LIMITATIONS ON PRIVATE WORK: DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT WITHOUT PRIOR OWNER CONSENT. WORK MAY BE ALLOWED WHEN REQUESTED, BUT ONLY WITH WRITTEN CONSENT.

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES FOR NOISE LEVELS, VIBRATIONS, OR ANY OTHER RESTRICTIONS WHILE PERFORMING ANY CONSTRUCTION OPERATIONS WITHIN THIS CONTRACT. COSTS TO BE INCLUDED IN THE RESPECTIVE ITEM OF WORK.

THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE CITY OF ANN ARBOR FIRE & POLICE DEPARTMENTS, POST OFFICE, AND THE CITY 24 HOURS IN ADVANCE OF PROPOSED ROAD CLOSURES, OR TEMPORARY TRAFFIC CONTROL MEASURES.

THE CONTRACTOR SHALL, BEFORE EACH DAYS WORK, OR WHEN MOVING TO A NEW AREA OF WORK, DETERMINE AND EVALUATE THE LOCATION OF ALL UNDERGROUND FACILITIES IN THE AREA. IF LOCATION STAKES HAVE BEEN MOVED OR DO NOT APPEAR CORRECT, THE CONTRACTOR SHALL NOT EXCAVATE UNTIL ALL UTILITIES HAVE HAD AN OPPORTUNITY TO CHECK OR RESTAKE THEIR LOCATIONS. ANY DELAYS INCURRED, DUE TO THE CHECKING OR RESTAKING OF UTILITIES SHALL NOT BE A BASIS FOR ADDITIONAL COMPENSATION.

THERE WILL BE NO ADJUSTMENT IN THE CONTRACT UNIT PRICE REGARDLESS OF THE PERCENTAGE OF INCREASE OR DECREASE ABOVE OR BELOW THE CONTRACT QUANTITY FOR ANY ITEM OF WORK.

IT IS THE INTENT THAT ALL GOVERNMENT CORNERS ON THIS PROJECT BE PRESERVED AND THAT, WHERE NECESSARY, MONUMENT BOXES BE PLACED OR ADJUSTED, AT THE CONTRACTORS EXPENSE WHETHER SHOWN OR NOT.

THE LOCATION OF ALL PUBLIC UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM THE BEST AVAILABLE DATA. THE OWNER & HUBBELL, ROTH AND CLARK, INC. WILL NOT BE HELD RESPONSIBLE FOR ANY OMISSION OR VARIATIONS FROM THE LOCATIONS SHOWN. PURSUANT TO ACT 53 OF THE PA OF 1974 AS A CONDITION OF THIS CONTRACT NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT. PHONE: (800)-482-7171 OR 847-7344.

CONTRACTOR TO SUBMIT DETAILED CONSTRUCTION SEQUENCE AT THE PRECONSTRUCTION MEETING NOTING ALL CHANGES TO PROPOSED SCHEDULE OF WORK PROPOSED OR WORK PROPOSED TO OCCUR CONCURRENTLY WITH OTHER ITEMS OF WORK.

CONSTRUCTION NOTES:

DRIVEWAYS AND ENTRANCES TO BUILDINGS, REAL PROPERTY AND THE LIKE SHALL NOT BE BLOCKED EXCEPT FOR SHORT DURATIONS AND ONLY WHEN APPROVED BY THE ENGINEER. VEHICULAR ACCESS SHALL BE MAINTAINED AT ALL TIMES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL NECESSARY DRIVEWAY CLOSURES WITH THE COMPOST FACILITY OPERATOR IN THE AREAS OF CONSTRUCTION.

THE LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LEADS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

LOCATION AND DEPTH OF UTILITIES AS DEPICTED ON THE PLANS IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXCAVATE AHEAD AND ADJUST DEPTH OF UTILITIES IN CONFLICT ACCORDINGLY. AND DAMAGE TO UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY TO AVOID AND/OR REPAIR AS NECESSARY.

DURING NON-WORKING HOURS, NO MORE THAN 25 FEET OF TRENCH SHALL REMAIN OPEN. ANY OPEN TRENCH SHALL BE PROPERLY SECURED WITH PROTECTIVE FENCING. THIS WORK SHALL NOT BE PAID SEPARATELY BUT INCLUDED IN THE COST OF THE PROJECT.

ALL TRENCHES SHALL BE EXCAVATED TO MISHA REQUIREMENTS, INCLUDING ANY REQUIRED TRENCH DESIGNS OUTLINED IN PART 9 OF THE GUIDELINES.

THE CONTRACTOR SHALL BACKFILL TRENCHES IN ACCORDANCE WITH TRENCH DETAILS SPECIFIED ON THE PLANS. CONCRETE REMOVALS AND REPLACEMENTS REQUIRED FOR THIS WORK WILL BE PAID SEPARATELY.

POSTAL DELIVERY AND REFUSE PICKUP SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.

WHEN STREET CURBS ARE UNDERMINED DUE TO CONSTRUCTION ACTIVITIES, THEY SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER.

ALL CURB, SIDEWALK AND DRIVEWAY APPROACH REMOVALS SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE WORK BEING COMPLETED.

SAWED SEWER PIPE CONNECTIONS SHALL BE COUPLED WITH A FERNCO FLEXIBLE COUPLING AND A STAINLESS STEEL SHEAR RING.

THE LOCATION OF MATERIAL STOCKPILES AND ONSITE STAGING AREAS SHALL BE APPROVED BY THE ENGINEER.

ALL STRUCTURES RECEIVING NEW CASTINGS AS DIRECTED BY THE ENGINEER, AS SPECIFIED BY THE CASTING SCHEDULE. THE EXISTING CASTINGS SHALL BECOME THE PROPERTY OF THE CITY OF ANN ARBOR.

PAYMENT FOR DRAINAGE STRUCTURE SUMPS, WHERE SPECIFIED, SHALL BE INCLUDED IN THE PAYMENT FOR THE VARIOUS DRAINAGE STRUCTURE SIZE AND/OR TYPES.

WHERE SEWER PIPES OF DIFFERENT SIZES OR MATERIALS ARE JOINED, FERNCO FLEXIBLE COUPLINGS WITH STAINLESS STEEL SHEAR RINGS SHALL BE USED. THE CONTRACTOR'S PURCHASE PRICE FOR THESE DEVICES, INCLUDING SHIPPING, SHALL BE PAID AS AN EXTRA. PRIOR TO PAYMENT OF THIS ITEM, THE CONTRACTOR SHALL SUBMIT RECEIPTS FOR THE ENGINEER'S REVIEW AND APPROVAL. ALL OTHER COSTS ASSOCIATED WITH THE INSTALLATION OF THESE DEVICES SHALL BE INCLUDED IN THE PAYMENT OF THE SEWER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE SLOPE STAKE LINE, INCLUDING EXISTING FENCING, LAWN, TREES AND SHRUBBING.

TRAFFIC MAINTENANCE & CONTROL

ON-SITE TRAFFIC SHALL BE MAINTAINED SO AS TO NOT INTERFERE OR INTERRUPT THE OPERATIONS OF THE LANDFILL. CONTRACTOR TO COORDINATE WITH SITE OPERATIONS MANAGER PRIOR TO START OF CONSTRUCTION

UTILITIES

THE FOLLOWING UTILITY COMPANIES MAY HAVE FACILITIES WITHIN THE PROJECT LIMITS:

Table with columns: UTILITY CONTACT INFORMATION, PUBLIC UTILITIES, OWNER, CONTACT. Lists utilities like Forestry, Sanitary Sewer, Storm Sewer, Traffic Signs & Signals, Water System, Private Utilities, Gas, Electric, Phone, Cable, ITC, Fiber Optic.

ALL UTILITIES WITHIN ZONE OF INFLUENCE OF PROPOSED WORK ARE TO BE FIELD LOCATED AND HAND DUG INCLUDED IN THE UNIT BID PRICES FOR APPROPRIATE ITEMS.

ALL GAS FACILITIES SHALL BE PROTECTED AND SUPPORTED PER MICHCON OR CONSUMER ENERGY STANDARDS AS APPLICABLE.

PRIOR TO WORK ON FACILITIES BELONGING TO THE ABOVE AGENCIES, A MINIMUM OF 72 HOURS NOTICE MUST BE GIVEN IN ORDER TO INSURE PROPER INSPECTION BY THE RESPECTIVE AGENCIES.

CONCRETE, GRADE S3, SHALL BE USED TO ENCASE UTILITIES THAT ARE IN CLOSE PROXIMITY TO THE PROPOSED CONSTRUCTION ONLY AS DIRECTED BY THE ENGINEER.

ALL EXPLORATORY WORK REQUIRED FOR LOCATING EXISTING UTILITIES SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONSTRUCTION OF THE PROJECT.

THE EXISTING UTILITIES LISTED HEREIN AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AS OBTAINED FROM SURVEYS AND FROM UTILITY RECORD MAPS THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SATISFY HIMSELF AS TO THEIR ACCURACY OR OF HIS RESPONSIBILITY IN CASE UTILITIES HAVE BEEN CONSTRUCTED, RELOCATED OR REMOVED. OWNERS OF PRIVATE UTILITIES WILL NOT BE REQUIRED TO MOVE ADDITIONAL POLES AND STRUCTURES THAT ARE NOT SPECIFICALLY INDICATED AS SUCH ON THE PLANS.

THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK, AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO INSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.

FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL DIAL 800-482-7171 A MINIMUM OF 3 WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS, PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY LINES. ALL "MISS DIG" PARTICIPATING WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

STAGING AREA NOTES

STAGING AREA FOR PROJECT SHALL BE LIMITED TO THE AREA SHOWN ON THE PLAN SHEETS

IF THE CONTRACTOR WOULD LIKE TO PROPOSE ANOTHER STAGING AREA LOCATION, HE MUST SUBMIT IT IN WRITING TO BE APPROVED BY THE ENGINEER.

RESTORATION FOR THE STAGING AREA SHALL INCLUDE BUT NOT BE LIMITED TO: FINAL GRADING, SODDING, GRAVEL ROAD REPAIRS AND REPLACEMENT PER DETAIL, AND RESTORATION SPECIFICATIONS, REMOVAL OF ALL CONSTRUCTION DEBRIS, AND ANYTHING ELSE DEEMED NECESSARY TO RETURN AREA TO EXISTING CONDITIONS. PAID FOR UNDER LUMP SUM COST FOR "Restoration".

CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING DAMAGED PAVEMENT CAUSED BY HIS ACTIVITIES OUTSIDE THE WORK AREA AND DESIGNATED HAUL ROUTE.

THE STAGING AREA MUST BE FENCED OFF FROM THE PUBLIC, AND ONLY CONSTRUCTION RELATED TRAFFIC WILL BE PERMITTED WITHIN ITS LIMITS.

HEAVY EQUIPMENT ACCESS AND OPERATION

THE CONTRACTOR SHALL STAY WITHIN THE LIMITS OF CONSTRUCTION AND MINIMIZE THE AREA AND DURATION OF DISTURBANCE AT ALL TIMES. ALL OTHER TREE CLEARING NECESSARY TO CONSTRUCT THE PROJECT PER THE PLANS AND FOR SITE ACCESS SHALL BE MINIMIZED TO THE EXTENT POSSIBLE, AND APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL USE REASONABLE MEASURES TO AVOID SOIL COMPACTION BY HEAVY EQUIPMENT.

CONTRACTOR SHALL USE EQUIPMENT SUITABLE FOR WORK IN THE PONDS. THE INSPECTOR RESERVES THE RIGHT TO EXCLUDE ANY EQUIPMENT HE DEEMS UNACCEPTABLE TO ENTER THE PONDS DUE TO LEAKING FLUIDS, ACCUMULATED SEDIMENT OR OTHER POTENTIAL HAZARDS TO WATER QUALITY. TEMPORARY RIP RAP OR OTHER MEANS AS NECESSARY SHALL BE USED TO PROTECT THE BANKS WHEN ENTERING OR EXITING THE PONDS. THE ACCESS PATH WILL BE GRADED AND STABILIZED BY THE CONTRACTOR TO SUPPORT HIS OPERATIONS WHILE MINIMIZING DISRUPTION AND RESTORATION. THE CONTRACTOR SHALL PROVIDE ACCESS PLANS AND DETAILS FOR REVIEW AT THE PRECONSTRUCTION MEETING. ALL COSTS ASSOCIATED WITH THE CONTRACTOR'S CHOSEN MEANS OF ACCESS SHALL BE INCIDENTAL TO THE PROJECT AND INCLUDED IN OTHER LINE ITEMS AS NECESSARY. THE CONTRACTOR WILL NOT BE COMPENSATED FOR EXCESS CLEARING, GRADING, OR RESTORATION DUE TO THE CONTRACTOR'S OPERATIONS SELECTED.

ALL EQUIPMENT ENTERING THE SITE SHALL COMPLY WITH THE SPECIAL PROVISION PREVENT SPREADING OF INVASIVE SPECIES CONTROL MEASURES.

EARTH EXCAVATION

EARTH EXCAVATION SHOULD BE BASED ON SURVEYED CROSS-SECTIONS AND PROFILES. ACTUAL ELEVATIONS TO BE STAKED IN THE FIELD.

SPOILS DISPOSAL AREA NOTES

CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT THE TREES LOCATED ADJACENT TO SPOILS AREAS. FILL DEPTHS SHALL NOT EXCEED 6 INCHES AT THE BASE OF TREES.

ALL SPOILS ARE TO BE PLACED WITH A MAX. SLOPE OF 1V:5H AND TO A MAX. HEIGHT OF 5 FEET.

THE SPOILS SHALL BE COVERED WITH 3'-4" OF ON-SITE TOPSOIL, SPECIFIED SEED MIX, AND MULCH.

SILT FENCE SHALL BE MAINTAINED AROUND THE BASE OF THE SPOILS UNTIL VEGETATION BECOMES FULLY ESTABLISHED.

CONSTRUCTION STAKING:

GRADING LIMITS, ELEVATIONS, AND LOCATIONS OF STRUCTURES AND BANK TREATMENTS SHALL BE STAKED BY THE ENGINEER. THE CONTRACTOR SHOULD PROVIDE 72 HOURS NOTICE OF STAKING NEEDS PRIOR TO WORK COMMENCING. THE CONTRACTOR SHALL MAINTAIN ALL STAKING THROUGH THE DURATION OF THE PROJECT.

RESTORATION

RESTORATION OF THE SITE SHALL BE IN ACCORDANCE WITH THE FOLLOWING AND SHALL BE PAID FOR AS INDICATED BELOW:

- 1. ALL DISTURBED AREAS IN THE FLOOD PLAIN SHALL BE RESTORED WITH SPECIFIED SEED MIX AND HYDROMULCH.
2. RESTORATION IN OTHER AREAS TO BE PER PLAN NOTES AND DETAILS. SEE LANDSCAPE PLANS, SHEETS L-1 & L-2.

REMOVE ALL CONSTRUCTION EQUIPMENT, EXCESS MATERIALS, DEBRIS, ETC., ESTABLISH FINE GRADE, AND RESTORE (PER PLANS AND SPECIFICATIONS). ALL COSTS FOR THE LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN UNIT PRICE BID FOR GRADING.

REMOVE ANY HAUL ROADS OR ACCESS ROADS, MATERIAL STOCKPILES, AND CONSTRUCTION FENCING. THIS SHALL BE CONSIDERED INCIDENTAL TO PROJECT ITEM.

ALL PAVEMENT DAMAGED DURING CONTRACTOR OPERATIONS SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE CITY OF ANN ARBOR SPECIFICATIONS.

WATER REQUIRED FOR SOD AND SEEDING SHALL BE INCLUDED IN THE CONTRACT COST FOR THESE ITEMS. WATER REQUIRED FOR COMPACTION SHALL BE INCLUDED IN THE COST OF CONSTRUCTION FOR THIS PROJECT. CONTRACTOR SHALL WATER THE PLANTINGS AND SEEDED AREAS DAILY FOR A MINIMUM OF 14 DAYS WITH AN ADDITIONAL FOUR (4) WATERING EVENTS IN THE FOLLOWING TWO WEEKS AFTER THE DAILY WATERING. WATERING SHALL NOT OCCUR ON SATURDAYS, SUNDAYS, OR IMMEDIATELY AFTER RAIN EVENTS. ALL EXCEPTIONS SHALL BE APPROVED BY THE PROJECT ENGINEER. WATER CAN BE TAKEN FROM THE RIVER FOR THE PLANTINGS.

ALL AREAS DISTURBED BY THE CONTRACTOR AND/OR HIS SUBCONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE RESTORED AS SPECIFIED OR DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE ALLOWED FOR THIS ACTIVITY. THIS INCLUDES RESTORATION TO ALL MATERIAL STORAGE OR STAGING AREAS.

SPRINKLER SYSTEMS SHALL NOT BE COVERED WHEN PLACING TOPSOIL AND SOD.

ALL DISTURBED AREAS TO BE RESTORED WITHIN SEVEN (7) DAYS OF COMPLETION.

CONTRACTOR TO CHECK ON SEED AND SOD GROWTH & SUPPLEMENT AS NEEDED. COSTS FOR RESEEDING AND RESODDING TO BE INCLUDED IN THE UNIT PRICE FOR SITE RESTORATION.

MISCELLANEOUS ITEMS OF WORK

SEVERAL PAY ITEMS INCLUDED IN THE PROPOSAL ARE NOT SPECIFICALLY SHOWN ON THE PLANS. THESE ITEMS SHALL BE CONSTRUCTED AS DIRECTED BY THE PROJECT ENGINEER OR USED AS NEEDED. THEY ARE:

- MOBILIZATION, 10% MAX. \_\_\_\_\_ LS
AUDIO VIDEO SITE SURVEY \_\_\_\_\_ LS
VEGETATIVE ESTABLISHMENT AND INVASIVE CONTROL MEASURES \_\_\_\_\_ LS
TRAFFIC MAINTENANCE AND CONTROL \_\_\_\_\_ LS
FLOW MANAGEMENT \_\_\_\_\_ LS
BYPASS PUMPING \_\_\_\_\_ LS
RESTORATION \_\_\_\_\_ LS

MISCELLANEOUS

FOR PROPOSED WORK IN AREAS CLOSE TO UTILITY POLES, NO EXCAVATIONS WITHIN TEN (10) FEET AND NO BORES WITHIN (6) FEET FROM THE UTILITY POLES ARE ALLOWED.

CONTRACTOR RESPONSIBLE TO REPAIR OR REPLACE ANY EXISTING TRAFFIC SIGNS DAMAGED BY HIS OPERATION DURING CONSTRUCTION. SIGNS TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MMUTCD.

ACCESS TO AREAS OUTSIDE OF PROJECT LIMITS TO BE APPROVED BY THE ENGINEER PRIOR TO START OF CONSTRUCTION.

CONTRACTOR TO COORDINATE CONSTRUCTION ACTIVITIES WITH OTHER CONTRACTORS WORKING IN AREA.

CONTRACTOR IS TO REVIEW SOIL BORING DATA & RECOMMENDATIONS AS PREPARED BY THE GEOTECHNICAL FIRM IF AVAILABLE.

ANY DEWATERING NECESSARY TO CONSTRUCT THIS PROJECT SHALL BE CONSIDERED INCIDENTAL AND ALL COSTS ASSOCIATED SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE AFFECTED UTILITY INSTALLATION

ALL UTILITY CROSSINGS TO HAVE A MINIMUM OF 18" VERTICAL CLEARANCE TYPICAL.

NO RAP (RECYCLED ASPHALT PRODUCTS) WILL BE ALLOWED IN ANY WEARING COURSE.

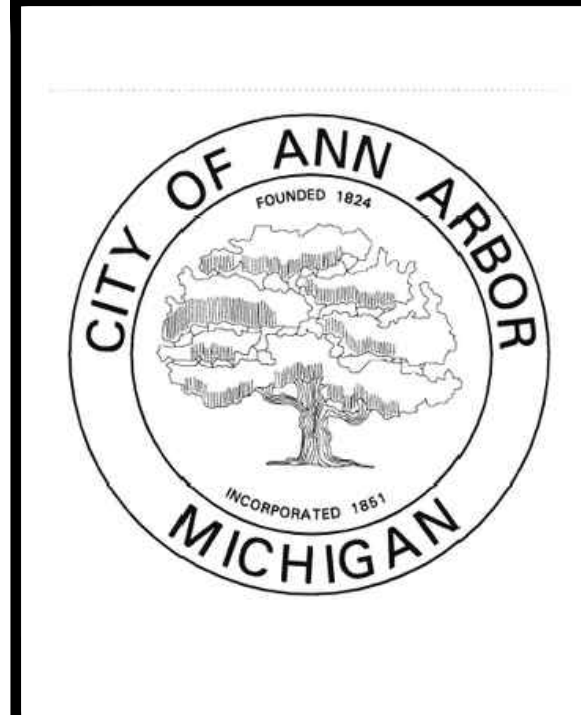
NO BROKEN CONCRETE IN ANY RIP RAP WILL BE ALLOWED ON THIS PROJECT.

SEQUENCE OF CONSTRUCTION - SOIL EROSION CONTROL

- 1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THE SEDIMENT TRAP, TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO COMMENCEMENT OF EARTH CHANGE. CONTRACTOR TO PLACE APPROVED SOIL EROSION BARRIERS AND CONSTRUCTION FENCING. WHILE SILT FENCE IS NOT SHOWN ON THE PLANS AS THE PROPOSED WORK IS WITHIN THE STREAM AND FLOODPLAIN, IT SHALL BE PLACED AROUND ALL MATERIAL STOCKPILE AREAS PER DETAILS.
2. REMOVE VEGETATION AND TOPSOIL FROM CONSTRUCTION AREA.
3. BEGIN CONSTRUCTION.
4. CHECK AND MAINTAIN SOIL EROSION CONTROL MEASURES DAILY. ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE AND THE AREA IS STABILIZED.
5. COMPLETE CONSTRUCTION.
6. RESTORE ALL DISTURBED AREAS AS SPECIFIED HEREIN. PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED AREA SHALL BE INSTALLED WITHIN FIVE (5) CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED.
7. CONTRACTOR TO MAINTAIN SEDIMENT CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT UNTIL GRASS IS ESTABLISHED, THEN THE CONTRACTOR IS TO REMOVE THEM.

ALL SOIL EROSION CONTROL MEASURES AS SHOWN ON THESE PLANS OR AS NEEDED TO COMPLETE THIS PROJECT PAID FOR AT THE UNIT PRICES AS INCLUDED IN THE PROPOSAL. ADDITIONAL SILT FENCE AND/OR OTHER SOIL EROSION CONTROL MEASURES MAY BE REQUIRED.

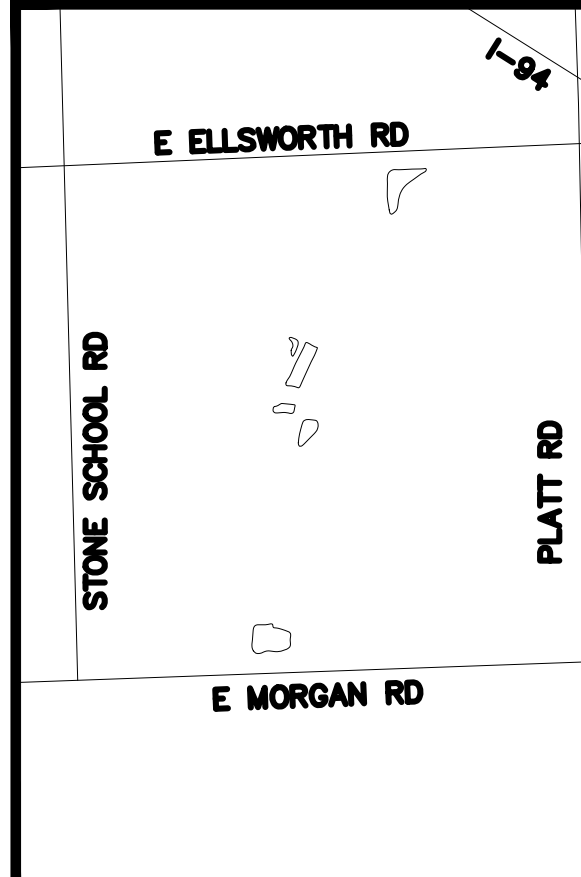
Table with 2 columns: PERMIT, ISSUING AUTHORITY. Lists permits like GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT, LANE CLOSURE PERMIT and their respective authorities.



HRC HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915. 555 HULET DRIVE BLOOMFIELD HILLS, MICH. P.O. BOX 824 48303 - 0824. PHONE: (248) 454-6300 FAX (1st. Floor): (248) 454-6312 FAX (2nd. Floor): (248) 454-6359. WEB SITE: http:// www.hrcenr.com

Table with 2 columns: DATE, ISSUED FOR OWNER REVIEW. Shows dates 09/18/20 and 06/18/20.

Table with 2 columns: DATE, ADDITIONS AND/OR REVISIONS. Lists revisions for DESIGNED, DRAWN, CHECKED, APPROVED.



WHEELER FACILITY POND DREDGING

Table with 2 columns: HRC JOB NO., SCALE, DATE, SHEET NO. A. Values: 20190818, NTS, April 2020, A.



GENERAL NOTES

CONTRACTOR SHALL OBTAIN ALL LOCAL AND STATE PERMITS REQUIREMENT TO WORK WITHIN THE UTILITY, ROAD, AND DRAIN RIGHT-OF-WAYS UNLESS OTHERWISE PROVIDED

CONTRACTOR SHALL CONFORM TO THE SOIL EROSION AND SEDIMENTATION CONTROL ACT, PART 91 OF ACT 451 OF 1994, CITY OF ANN ARBOR STANDARDS, AND MACDC STANDARDS.

ALL WORK SHALL BE WITHIN IDENTIFIED EASEMENTS. WORK OUTSIDE EASEMENTS MUST BE AGREED UPON BY LANDOWNER AND ENGINEER WITH A SIGNED LANDOWNER AGREEMENT FORM (SEE SPECIFICATION) PRIOR TO WORK ON THAT PROPERTY

CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND SHALL NOTIFY THE ENGINEER IF POSSIBLE CONFLICT EXISTS

ANY UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE SUPPORTED, PER THE SPECIFICATIONS OF THE INDIVIDUAL UTILITY COMPANY CLAIMING OWNERSHIP OF THE UTILITY. COST ARE IDENTIFIED AND INCLUDED WITH THE PAY ITEM BEING INSTALLED. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE

PROTECT ALL BITUMINOUS ROADS, DRIVES, OR PARKING AREAS NOT SPECIFIED TO BE REMOVED DURING CONSTRUCTION. REPAIR ANY UNAUTHORIZED DAMAGE AT CONTRACTOR'S EXPENSE

THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC AND ACCESS TO HOMES AT ALL TIMES DURING THE PROJECT. COST SHALL BE INCLUDED IN THE PAY ITEM FOR MAINTAINING TRAFFIC. 24-48 HOURS NOTICE IS REQUIRED OF ALL IMPACTED AREAS

THE CONTRACTOR SHALL CAREFULLY REMOVE AND NEATLY STOCKPILE ALL FENCES, LANDSCAPING, ETC. OUTSIDE OF THE EASEMENT

WORK HOURS ARE 7 AM TO 7 PM MONDAY THROUGH SATURDAY. WORK ON SUNDAYS AND HOLIDAYS IS NOT PERMITTED WITHOUT OWNER APPROVAL.

ALL EXCAVATED MATERIAL NOT TO BE REUSED OR DISPOSED OF ON SITE SHALL BE REMOVED FROM SITE. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF MATERIALS ACCORDING TO LOCAL AND STATE REQUIREMENTS

ALL RIP RAP SHALL BE NATURAL TYPE MATERIAL AS APPROVED BY THE ENGINEER UNLESS OTHERWISE DIRECTED. SUBMIT SAMPLES TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. OWNER AND ENGINEER RESERVES THE RIGHT TO REJECT ANY AND ALL RIP RAP

CONTRACTORS SHALL FINISH GRADE, SEED, FERTILIZE, AND MULCH DAILY ON ALL DISTURBED AREAS AS DESCRIBED IN THE SPECIFICATIONS. ALL AREAS TO RECEIVE LANDSCAPE SEEDING SHALL HAVE 4" TOPSOIL PLACED AS DETAILED IN THE SPECIFICATIONS. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE AS TOPSOIL SURFACE AS DIRECTED BY THE ENGINEER

CONTRACTOR SHALL MAINTAIN ACCESS FOR POSTAL AND PARCEL DELIVERY AND GARBAGE AND RECYCLING PICKUP AT ALL TIMES. CONTRACTOR IS RESPONSIBLE FOR TAKING THE NECESSARY ACTIONS IF SERVICE IS INTERRUPTED. CONTRACTOR SHALL PROTECT, REMOVE AND REPLACE ALL MAILBOXES AND POSTS. ANY DAMAGED MAILBOXES AND POSTS SHALL BE REPLACED AT CONTRACTOR'S EXPENSE

CONTRACTOR SHALL PROTECT ALL POWER POLES. POWER POLES WITHIN DRAIN INFLUENCE SHALL BE RELOCATED OR REMOVED BY OTHERS AS SPECIFIED ON PLANS

CONTRACTOR SHALL PROTECT ALL TELEPHONE PEDESTALS & RISERS. TELEPHONE PEDESTALS & RISERS WITHIN DRAIN BANKS SHALL BE RELOCATED OUTSIDE OF DRAIN BANKS BY OTHERS

CONTRACTOR SHALL CLEAN OUT ALL SIDE DITCHES TO LIMITS OF EASEMENT OR AS DISTURBED

COORDINATE DRIVE CLOSURES AND MAILBOX RELOCATION WITH LANDOWNERS A MINIMUM OF ONE DAY IN ADVANCE

CONTRACTOR TO PROVIDE DUST CONTROL AND SWEEP ROADS DAILY

UNDERGROUND UTILITIES/MISS DIG FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 1-800-482-7171 OR 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THIS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM

ALL CONSTRUCTION UNDER CLASS III UTILITIES, INCLUDING HOUSE SERVICES, SHALL BE COMPLETELY BACKFILLED WITH SAND, IN 12" LAYERS, AND COMPACTED TO NOT LESS THAN 95% OF MAXIMUM UNIT WEIGHT

TRAFFIC THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC AT ALL TIMES. SIGNAGE MUST BE IN ACCORDANCE WITH THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SHALL BE COORDINATED WITH THE ENGINEER AND GOVERNING ROAD AGENCY. PERMITS MAY BE REQUIRED. PAID FOR AS TRAFFIC CONTROL

PERMITS PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED BY THE APPROPRIATE AGENCIES

CONTRACTOR SHALL RESTORE INCIDENTAL DAMAGES ON THE PROJECT AS DIRECTED BY OWNER AND ENGINEER

REMOVE EXISTING FENCES, LANDSCAPING, AND OTHER STRUCTURES IN THE EASEMENT AS NEEDED FOR CONSTRUCTION. REINSTALLATION OF FENCES MUST BE COORDINATED WITH THE LAND OWNER. PAID FOR AS "REMOVE & REPLACE FENCE"

TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE AS TOPSOIL SURFACE AS DIRECTED BY THE ENGINEER. RESTORE ALL LAWN AREAS WITH 4" OF TOPSOIL AND SEED AND MULCH

ALL SPRINKLER SYSTEMS DAMAGED SHALL BE REPAIRED BY THE CONTRACTOR. COST TO BE INCLUDED IN OTHER WORK ITEMS OF THE PROJECT

CONTRACTOR SHALL COORDINATE RELOCATION/REMOVAL OF ALL TREES WITHIN THE LIMITS OF CONSTRUCTION WITH THE PROPERTY OWNER AND ENGINEER

CONTRACTOR TO CLEAR TREES, STUMPS, AND BRUSH WITHIN THE EASEMENT AS NECESSARY FOR CONSTRUCT DRAIN (MIN 20 FT CENTERED ON STORM SEWER) AND LEVEL OR HAUL SPOILS AS SHOWN ON PLANS AND DETAILS. TREES, STUMPS, AND BRUSH SHALL BE TAKEN OFF-SITE UNLESS A SIGNED LAND OWNER AGREEMENT IS OBTAINED BY CONTRACTOR. IF A LAND OWNER AGREEMENT IS SIGNED, WOODY DEBRIS MUST BE PLACED OUTSIDE OF DRAIN EASEMENT.

GENERAL NOTES (CONT)

UTILITIES ELECTRIC, GAS AND TELEPHONE UTILITIES LOCATED IN THE ROAD AND EASEMENT WILL BE RELOCATED BY OTHERS IF NECESSARY

ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE

GRADING AROUND MANHOLES/CATCH BASINS, FLARED END SECTIONS, AND OTHER INLETS DETERMINED BY THE ENGINEER PROPERLY SHALL BE SMOOTH AND SHAPED TO PROVIDE POSITIVE DRAINAGE INTO THE INLETS

ALL MANHOLE TO PLASTIC PIPE CONNECTIONS SHALL BE MADE WITH KOR-N-SEAL BOOT OR ENGINEER APPROVED EQUAL

ALL STORM SEWER SHALL BE PREMIUM JOINT UNLESS OTHERWISE SPECIFIED

ALL FLARED END SECTIONS UNDER 8" IN DIAMETER SHALL HAVE FACTORY SUPPLIED ANIMAL GUARD

DEMOLISH EXISTING STRUCTURE(S) AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS, INCIDENTAL TO THE PROJECT

CONTRACTOR SHALL CONNECT ANY AND ALL FIELD TILE OUTLETS AND OTHER STORM LEADS TO PROPOSED STORM SEWER WITH PRE-MANUFACTURED TEES, WYES, GASKETS, SEALS, COUPLERS, BOOTS, ETC. COST TO BE PAID FOR AS PART OF LATERAL TILE DRAIN REPAIR.

RIM GRADES ARE SUBJECT TO ADJUSTMENT PER PROJECT ENGINEER DEPENDING ON FIELD CONDITIONS.

CONSTRUCTION TOPSOIL, RAKE, SEED, AND MULCH ALL DISTURBED GRASS AREAS, FOR FARM AREAS, REPLACE TOPSOIL, RAKE, AND FINISH GRADE. CONTRACTOR SHALL DEEP RIP ANY AREAS THAT ARE COMPACTED DUE TO CONSTRUCTION ACTIVITIES PRIOR TO PLACING TOPSOIL.

REMOVE AND PROPERLY DISPOSE OF EXISTING TILE & STRUCTURES LOCATED WITHIN PROPOSED STORM SEWER TRENCH. REMOVED STRUCTURES & TILE OR DEBRIS SHALL BECOME PROPERTY OF THE CONTRACTOR. REMOVAL TO BE INCLUDED IN THE COST PER LINEAR FOOT OF STORM SEWER.

CONNECTION TO PROPOSED HDPE STORM SEWER SHALL BE SOIL TIGHT AND SHALL BE MADE WITH PRE-MANUFACTURED FITTINGS APPROVED BY THE ENGINEER.

CONTRACTOR SHALL FIELD VERIFY ANGLE OF CONNECTION PRIOR TO CONSTRUCTION

CONTRACTOR IS RESPONSIBLE FOR SETTING UP AND MAINTAINING TRAFFIC CONTROL PER THE WASHTENAW COUNTY ROAD COMMISSION STANDARDS FOR THE COURSE OF THE PROJECT

CONTRACTOR SHALL TIE IN ALL SUMP CONNECTIONS, PRIVATE DRAINS, AND OTHER STORM WATER DRAINAGE SYSTEMS WITHIN THE INFLUENCE OF THE STORM DRAIN. CONNECTIONS SHALL BE MADE WATER-TIGHT USING "INSERT-A-TEE" OR APPROVE EQUAL. COST SHALL BE INCLUDED IN THE UNIT PRICE FOR HOUSE LEAD REPAIR OR LATERAL TILE DRAIN REPAIR.

CONTRACTOR SHALL SUPPORT ALL EXISTING UTILITIES DURING CONSTRUCTION PER THE REQUIREMENTS OF UTILITY REPRESENTATIVE, ENGINEER, OWNER AND/OR OWNER'S REPRESENTATIVE

CONTRACTOR SHALL MAINTAIN DRAINAGE DURING CONSTRUCTION

CONTRACTOR SHALL COORDINATE INSTALLATION OF EROSION CONTROL STRUCTURES WITH ENGINEER PRIOR TO CONSTRUCTION. LOCATIONS, QUANTITIES, OR TYPES MAY VARY BASED ON FIELD DECISIONS

CONTRACTOR TO HAUL ALL WOODY DEBRIS.

THE CONTRACTOR SHALL PROTECT ALL ROADWAY AND DRIVEWAY DITCH SLOPES DURING CONSTRUCTION. COST SHALL BE INCIDENTAL TO THE PROJECT

COORDINATE FINAL LOCATION OF TEES AND CATCH BASINS WITH ENGINEER

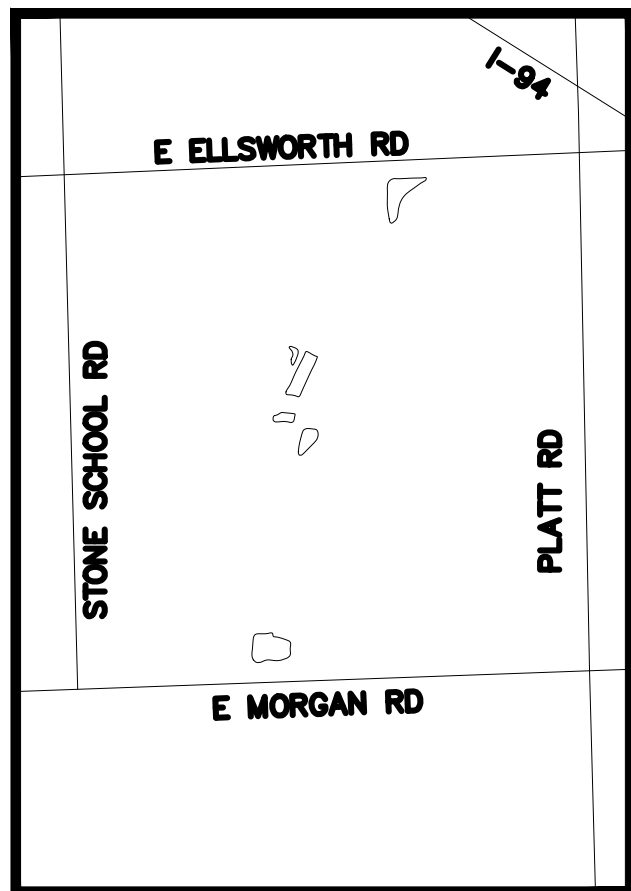
CONTRACTOR TO COORDINATE FINAL RIM GRADES WITH OWNER/ENGINEER IN THE FIELD. ADJUSTMENT SHALL BE INCIDENTAL TO PROJECT



HRC HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915 555 HULET DRIVE BLOOMFIELD HILLS, MICH. P.O. BOX 824 48303-0824 PHONE: (248) 454-6300 FAX (1st. Floor): (248) 454-6312 FAX (2nd. Floor): (248) 454-6359 WWW SITE: http:// www.hrcengr.com

Table with 2 columns: DATE, ISSUED FOR CITY PERMITS, ISSUED FOR OWNER REVIEW, ADDITIONS AND/OR REVISIONS

Table with 2 columns: DESIGNED, DRAWN, CHECKED, APPROVED, D.HURRISH, D.HURRISH, J.BALINT, A.GROAT, J.BALINT, A.GROAT



WHEELER FACILITY POND DREDGING

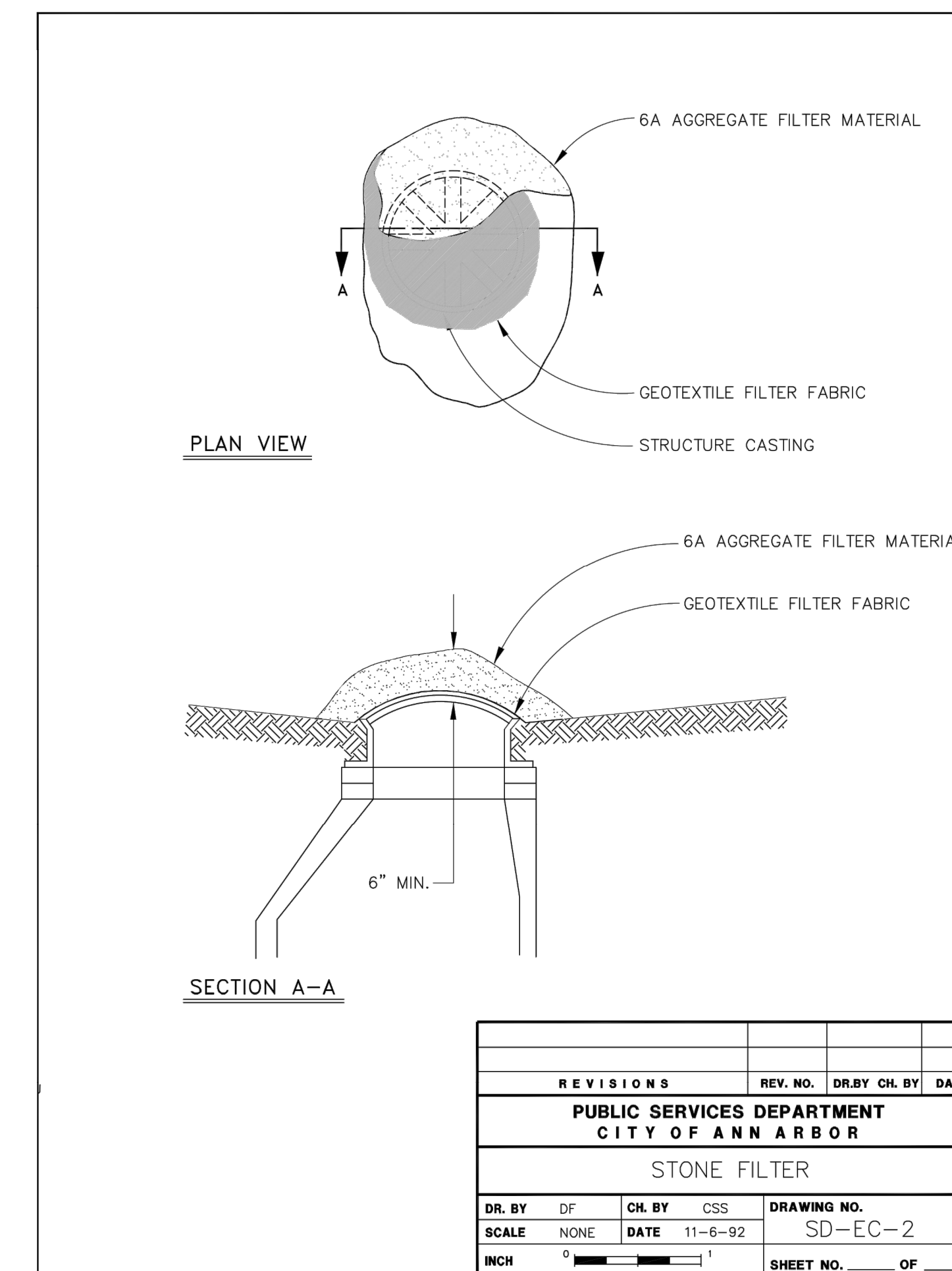
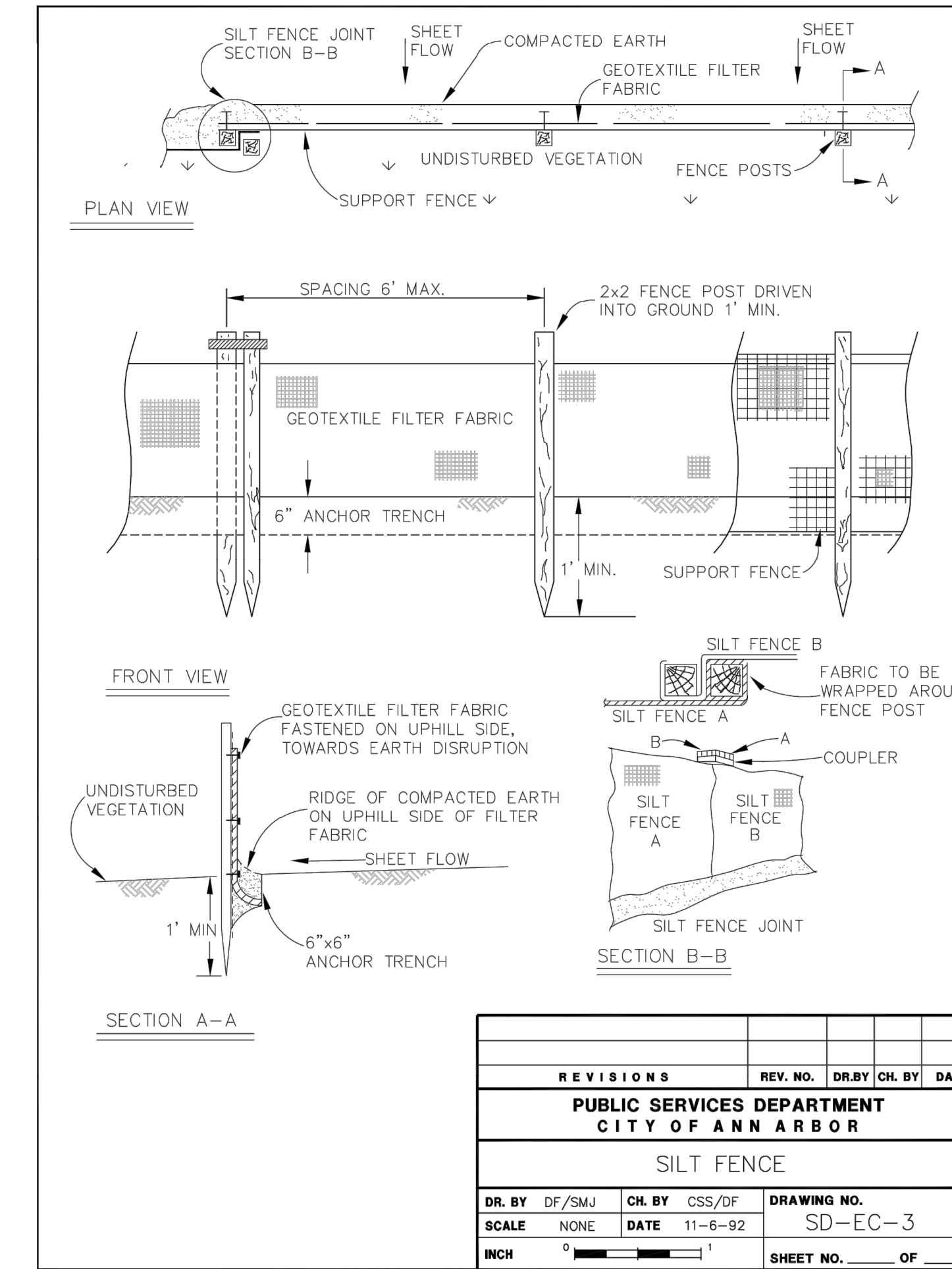
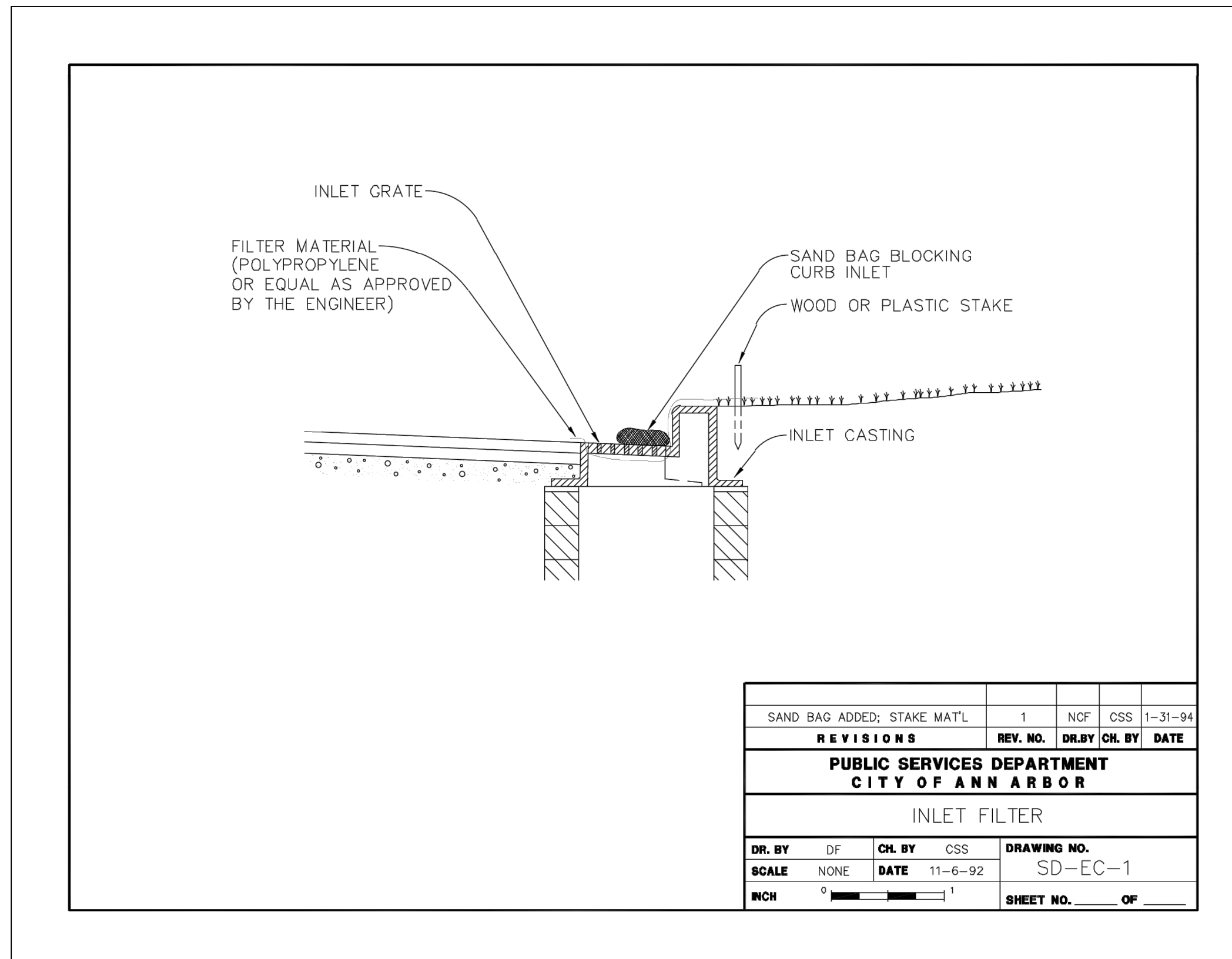
PROJECT NOTES

Table with 2 columns: HRC JOB NO., SCALE, DATE, SHEET NO., 20190818, NTS, April 2020, B



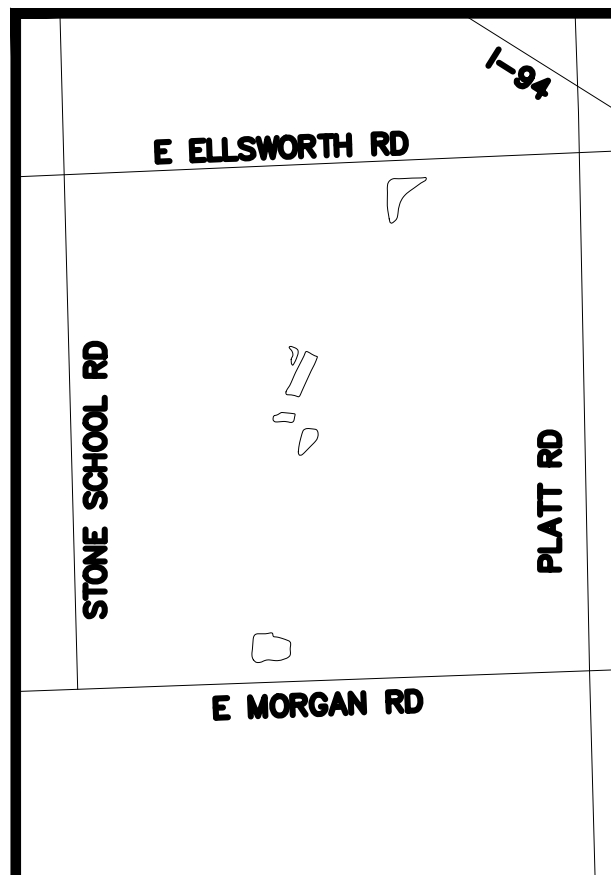






**HRC**  
**HUBBELL, ROTH & CLARK, INC**  
 CONSULTING ENGINEERS SINCE 1915  
 555 HULET DRIVE P.O. BOX 824  
 BLOOMFIELD HILLS, MICH. 48303-0824  
 PHONE: (248) 454-6300  
 FAX (1st. Floor): (248) 454-6312  
 FAX (2nd. Floor): (248) 454-6359  
 WEB SITE: [http:// www.hrcengr.com](http://www.hrcengr.com)

09/18/20	ISSUED FOR CITY PERMITS
06/18/20	ISSUED FOR OWNER REVIEW
DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	D.HURRISH
DRAWN	D.HURRISH
CHECKED	J.BALINT, A.GROAT
APPROVED	J.BALINT, A.GROAT



**WHEELER FACILITY  
 POND DREDGING**

**CITY OF ANN ARBOR  
 SESC DETAILS**

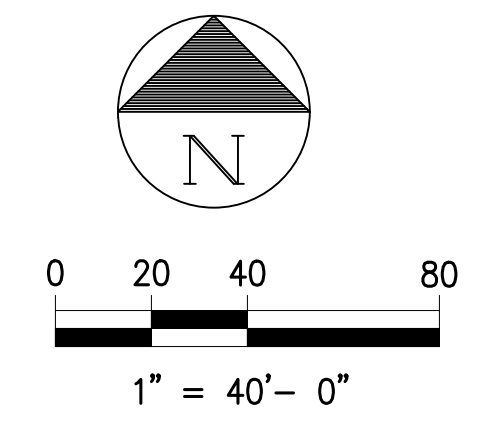
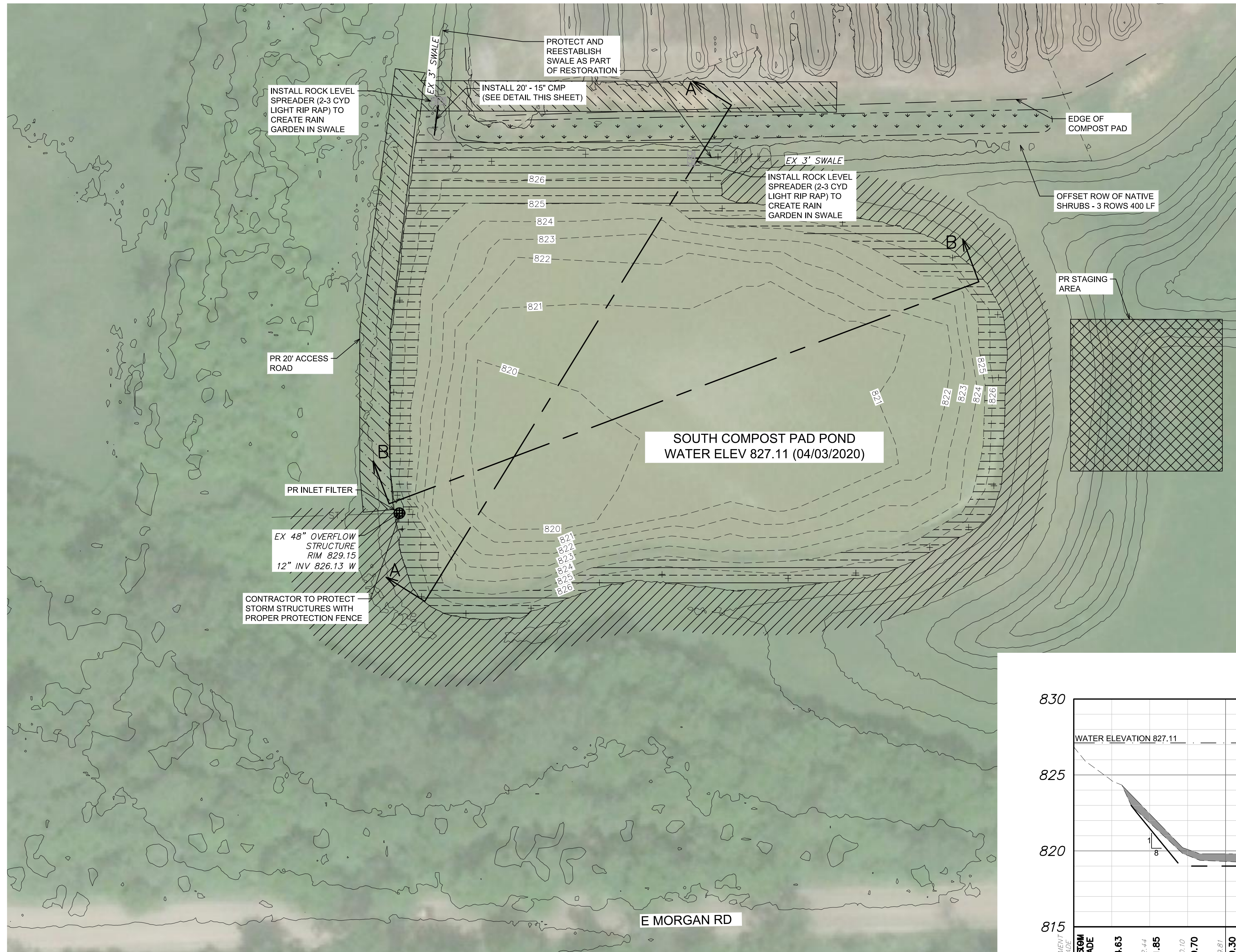
HRC JOB NO. 20190818	SCALE NTS
DATE April 2020	SHEET NO.

**811**  
 Know what's below  
 Call before you dig.  
 CALL MISS DIG  
 72 HOURS  
 (3 WORKING DAYS)  
 BEFORE YOU DIG  
 1-800-482-7171  
 OR 811  
 (TOLL FREE)









SOUTH COMPOST PAD POND QUANTITIES		
Item	Unit	Quantity
Sediment Removal and Earth Excavation	CY	2200
Silt Sack	EA	1
Native Shrubs Plugs	EA	240
Rip-Rap	CY	3
Geotextile Fabric	SY	6

SOUTH COMPOST PAD POND  
POND AREA: 82,685 SF  
AVG SEDIMENT DEPTH: 0.26 FT  
EX POND VOLUME: 13,500 CY  
PR POND VOLUME: 15,700 CY

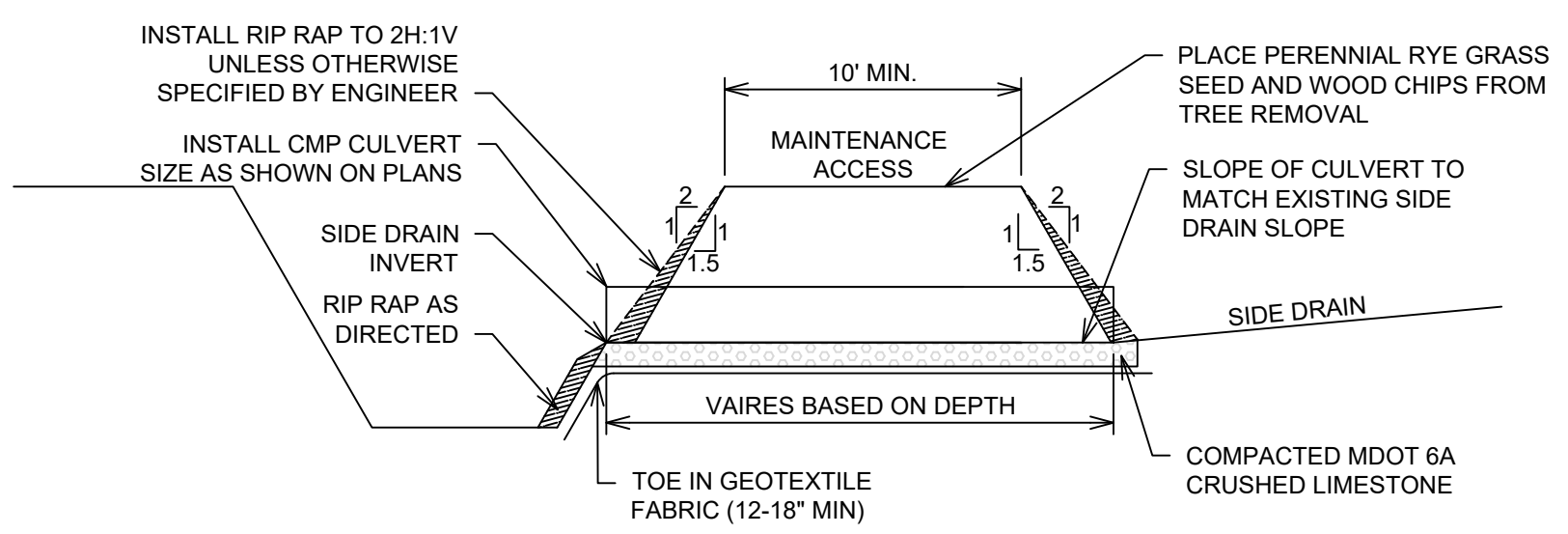
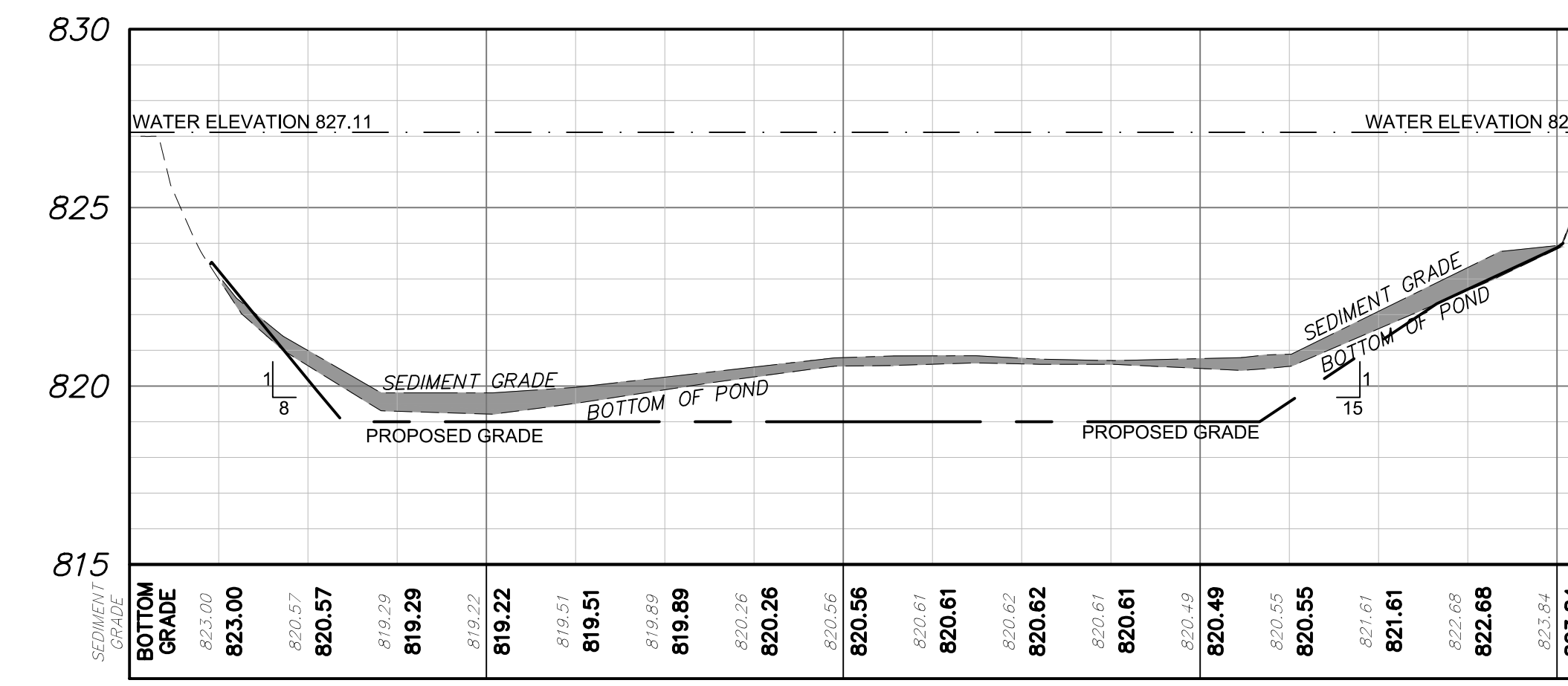
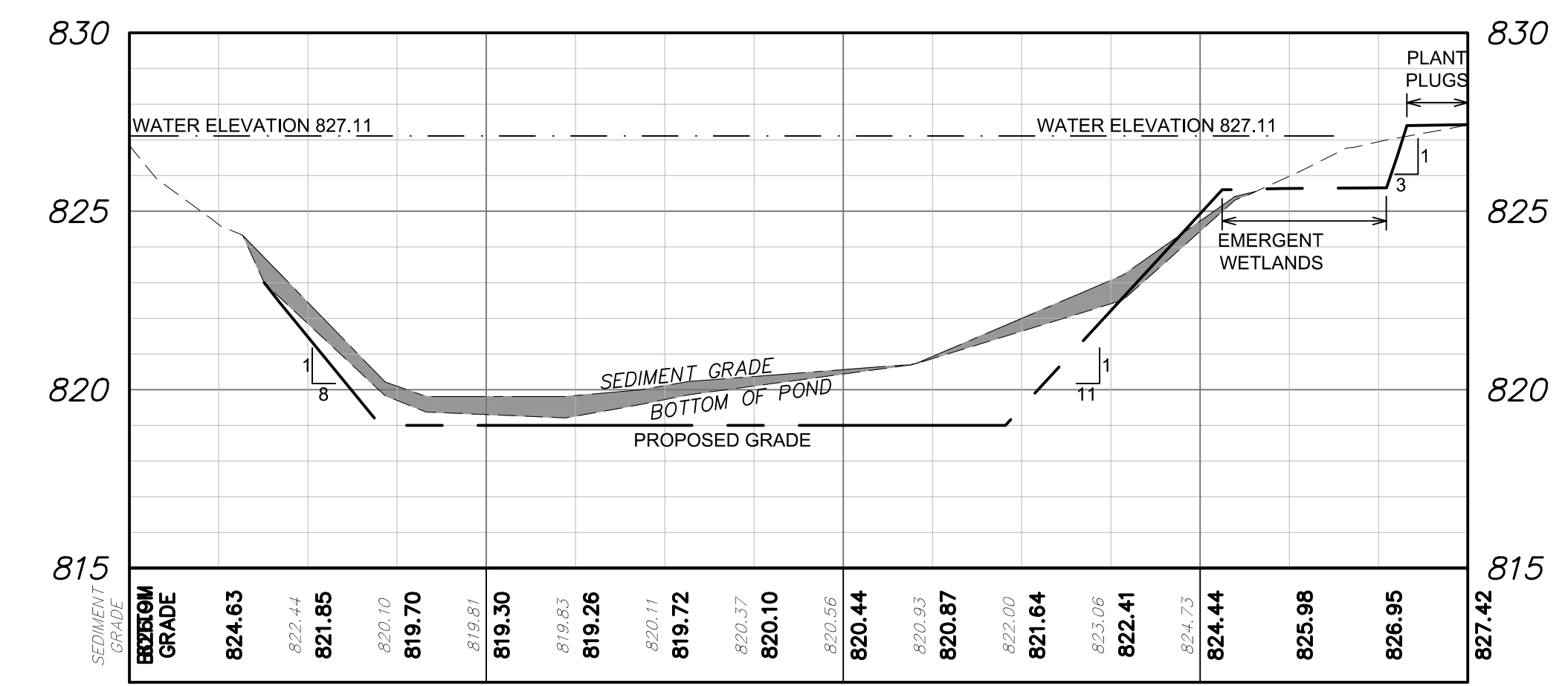
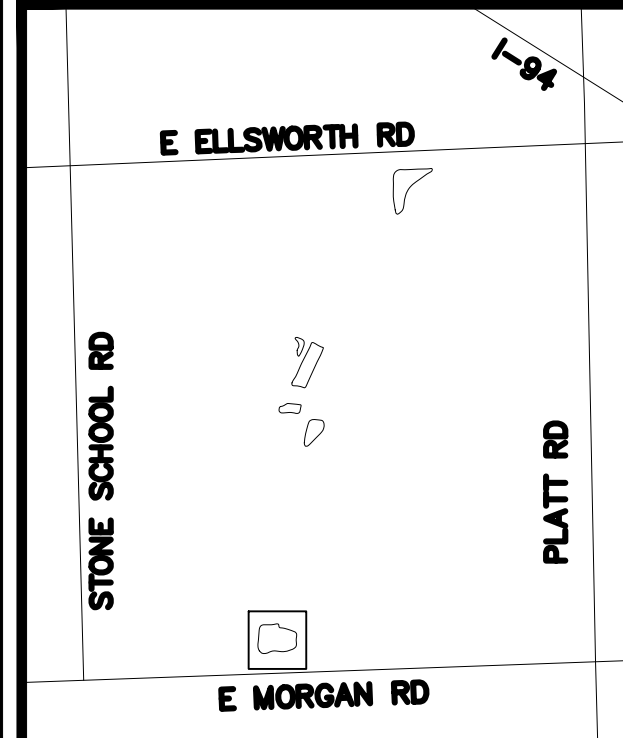
NOTE:  
- ALL EX CONTOURS SHOWN ARE BOTTOM OF POND ELEVATIONS  
- EXISTING AERATORS WILL BE REMOVED FROM PONDS BY FACILITY STAFF  
- REMOVE PHARMACMITES AS PART OF DREDGING OPERATION

PLANT PLUG PLANT LIST:  
60 ARONIA ARBUTIFOLIA - RED CHOKEBERRY  
60 PHYSOCARPOS OPOLIFOLIUS - COMMON NINEBARK  
60 VIBURNUM DENTATUM - ARROWWOOD VIBURNUM  
60 POTENTILLA FRACITICOSA - SHRUBBY CINQUEFOIL



**HRC**  
**HUBBELL, ROTH & CLARK, INC**  
CONSULTING ENGINEERS SINCE 1915  
555 HULET DRIVE  
BLOOMFIELD HILLS, MICH. P.O. BOX 824  
48303 - 0824  
PHONE: (248) 454-6300  
FAX (1st. Floor): (248) 454-6312  
FAX (2nd. Floor): (248) 454-6356  
WEB SITE: [http:// www.hrcengr.com](http://www.hrcengr.com)

09/18/20	ISSUED FOR CITY PERMITS
06/18/20	ISSUED FOR OWNER REVIEW
DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	D.HURRISH
DRAWN	D.HURRISH
CHECKED	J.BALINT, A.GROAT
APPROVED	J.BALINT, A.GROAT



LEGEND

⊕	INLET FILTER
---	EX CONTOUR
- - -	PR CONTOUR
▨	STAGING AREA
▧	SEED MIX A
▩	SEED MIX B
▪	SEED MIX C
▫	SEED MIX D
▼	PLANT PLUGS

SIDE DRAIN - CULVERT DETAIL  
N.T.S.

**811**  
Know what's below  
Call before you dig.

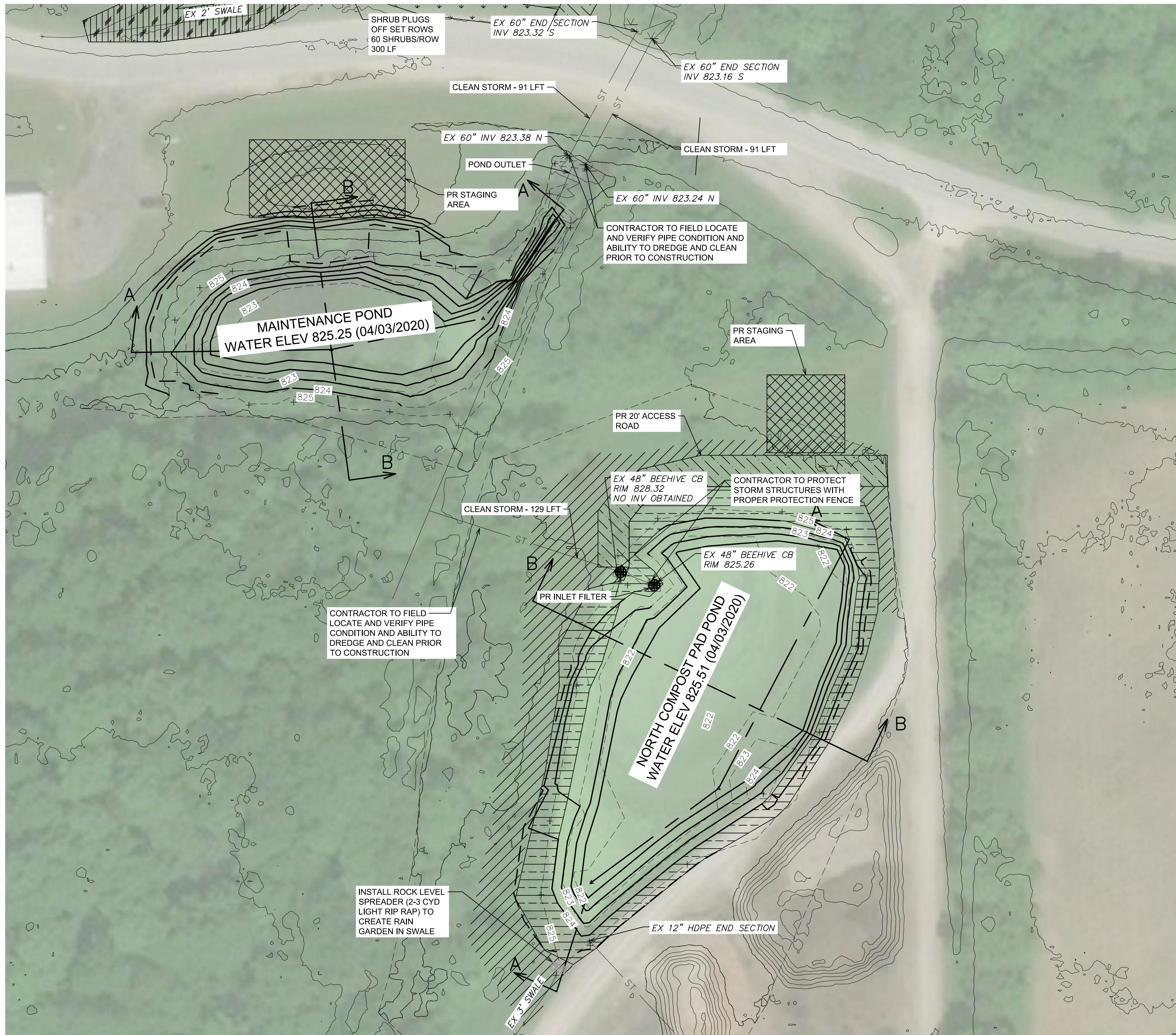
CALL MISS DIG  
72 HOURS  
(3 WORKING DAYS)  
BEFORE YOU DIG  
1-800-482-7171  
OR 811  
(TOLL FREE)

**WHEELER FACILITY  
POND DREDGING**

**SOUTH COMPOST  
PAD POND**

HRC JOB NO. 20190818	SCALE H: 1"=40' V: 1"=4'
DATE April 2020	SHEET NO. 2





NORTH COMPOST PAD POND		
QUANTITIES		
Item	Unit	Quantity
Sediment Removal and Earth Excavation	CY	900
Silt Sack	EA	2

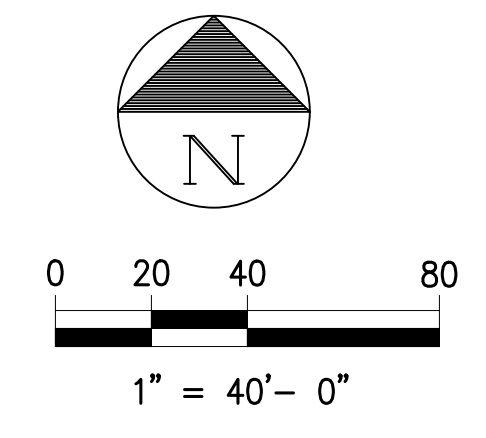
  

MAINTENANCE POND		
QUANTITIES		
Item	Unit	Quantity
Sediment Removal and Earth Excavation	CY	800

NORTH COMPOST PAD POND  
 POND AREA: 28,900 SF  
 AVG SEDIMENT DEPTH: 0.57 FT  
 EX POND VOLUME: 2,300 CY  
 PR POND VOLUME: 3,200 CY

MAINTENANCE POND  
 POND AREA: 16,380 SF  
 AVG SEDIMENT DEPTH: 0.55 FT  
 EX POND VOLUME: 300 CY  
 PR POND VOLUME: 1,100 CY

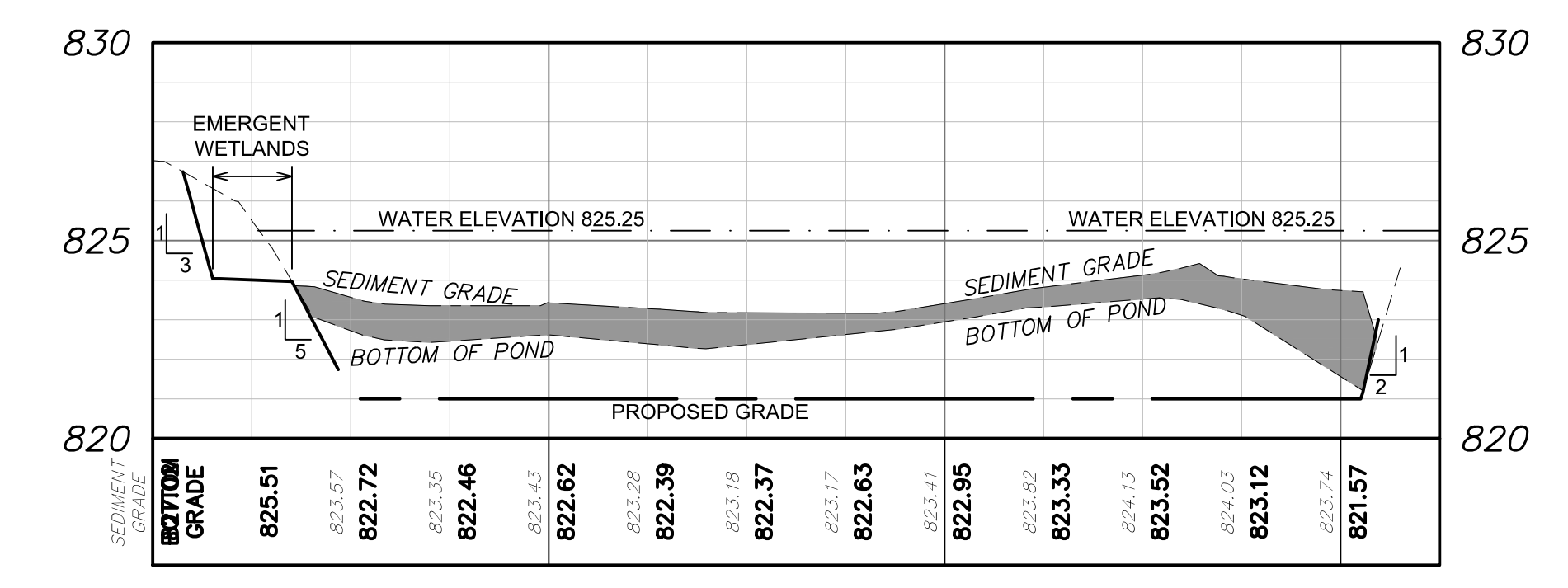
NOTE:  
 - ALL EX CONTOURS SHOWN ARE BOTTOM OF POND ELEVATIONS  
 - EXISTING AERATORS WILL BE REMOVED FROM PONDS BY FACILITY STAFF  
 - REMOVE PHARMGMITES AS PART OF DREDGING OPERATION



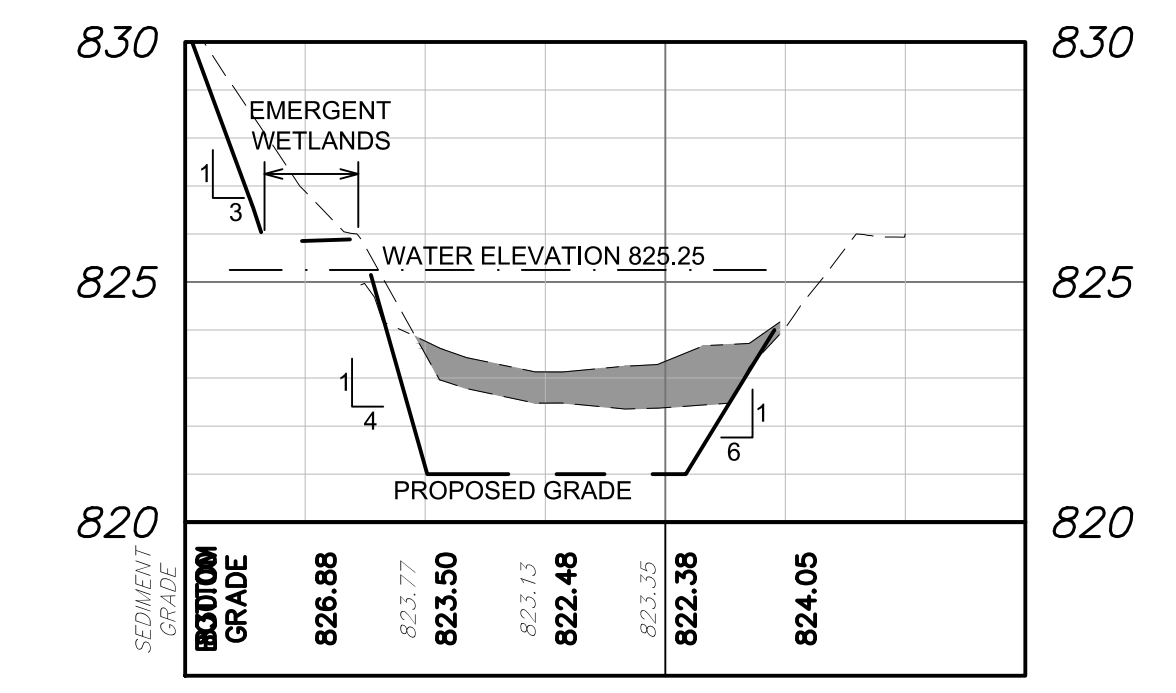
**HRC**  
**HUBBELL, ROTH & CLARK, INC**  
 CONSULTING ENGINEERS SINCE 1915  
 555 HULET DRIVE P.O. BOX 824  
 BLOOMFIELD HILLS, MICH. 48303-0824

PHONE: (248) 454-6300  
 FAX (1st. Floor): (248) 454-6312  
 FAX (2nd. Floor): (248) 454-6359

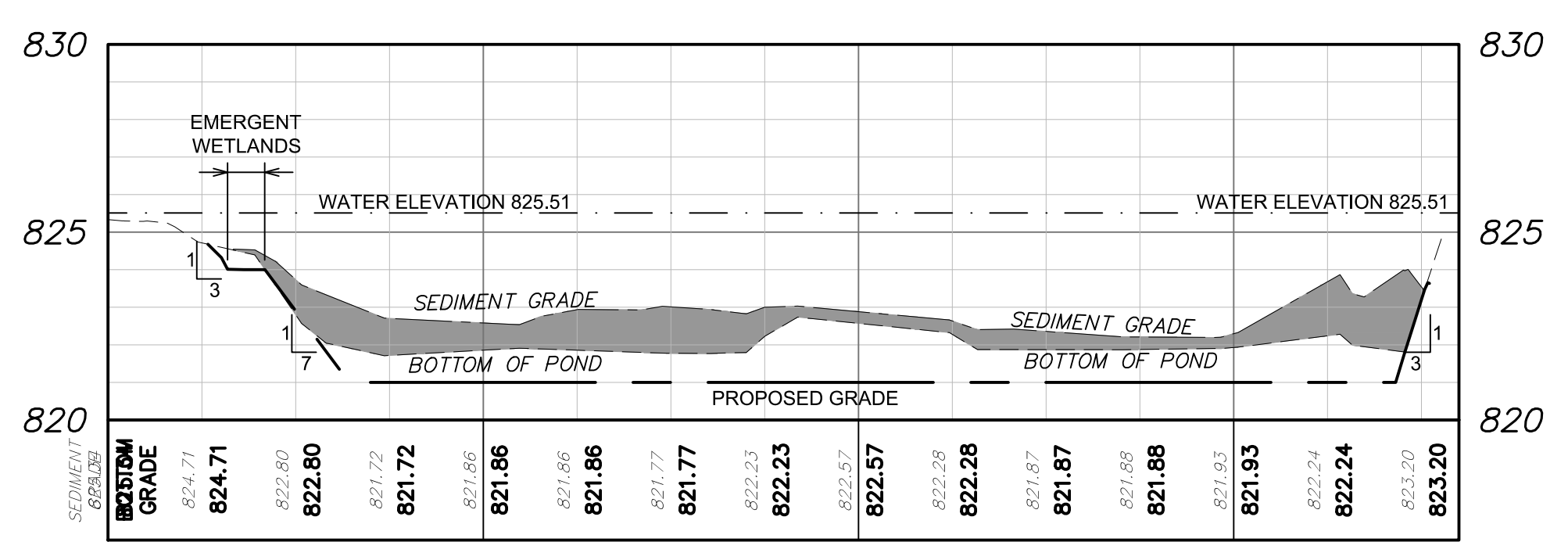
WEB SITE: [http:// www.hrcengr.com](http://www.hrcengr.com)



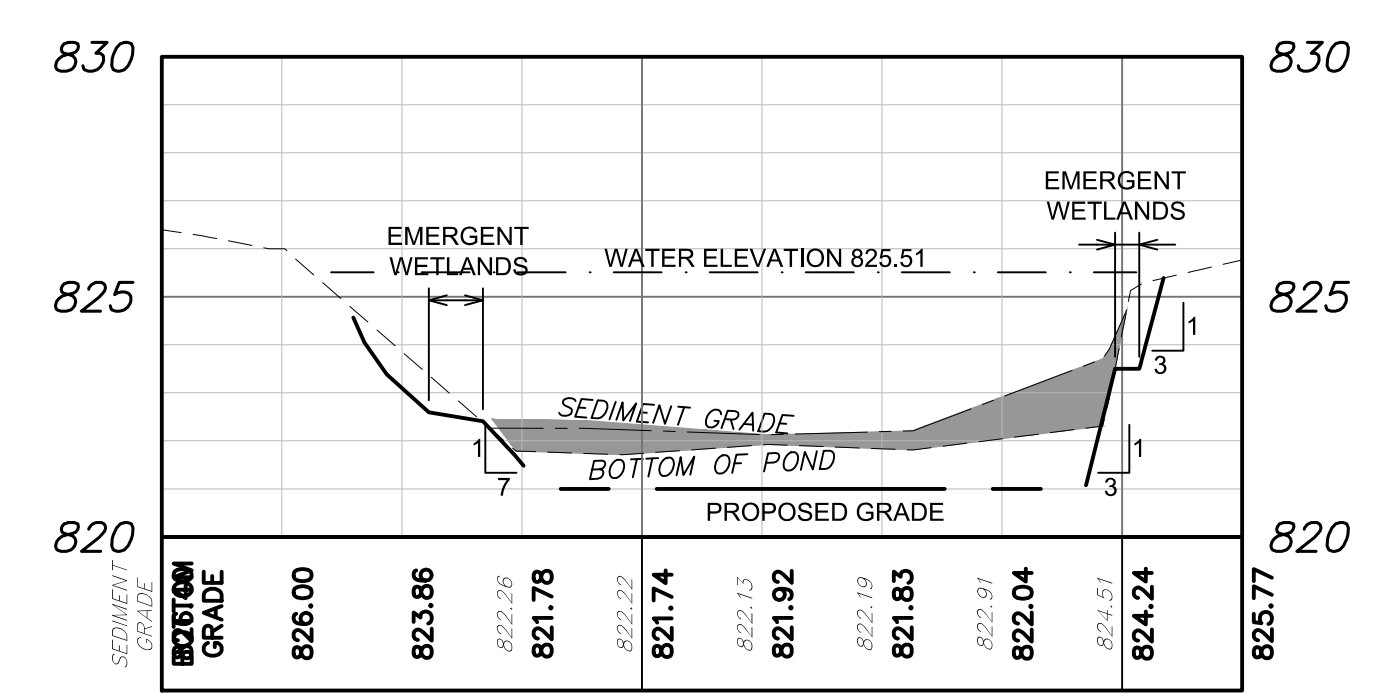
MAINTENANCE POND A-A



MAINTENANCE POND B-B



NORTH COMPOST PAD POND A-A



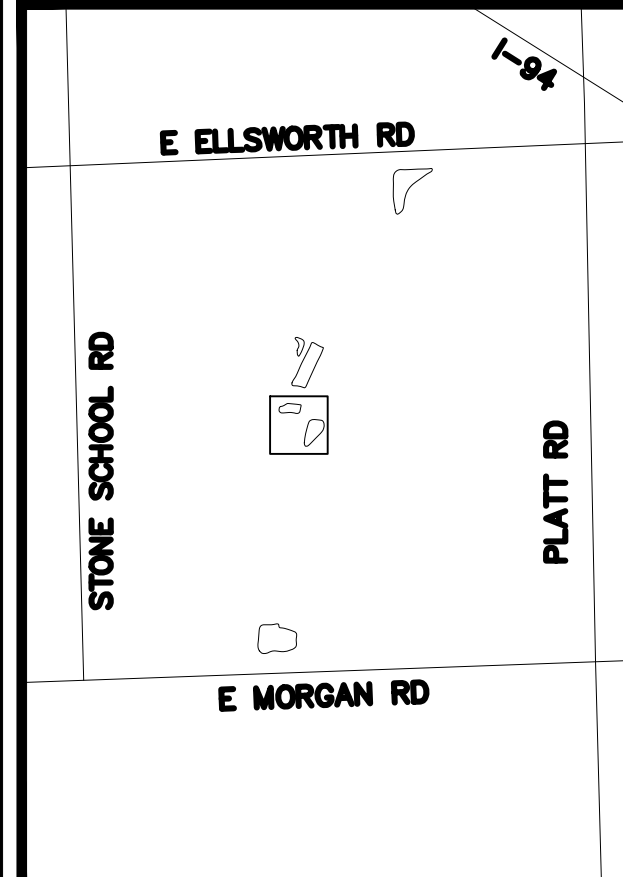
NORTH COMPOST PAD POND B-B

- LEGEND**
- INLET FILTER
  - EX CONTOUR
  - PR CONTOUR
  - STAGING AREA
  - SEED MIX A
  - SEED MIX B
  - SEED MIX C
  - SEED MIX D

**811**  
 Know what's below  
 Call before you dig.

**CALL MISS DIG**  
**72 HOURS**  
**(3 WORKING DAYS)**  
**BEFORE YOU DIG**  
**1-800-482-7171**  
**OR 811**  
**(TOLL FREE)**

09/18/20	ISSUED FOR CITY PERMITS
06/18/20	ISSUED FOR OWNER REVIEW
DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	D.HURRISH
DRAWN	D.HURRISH
CHECKED	J.BALINT, A.GROAT
APPROVED	J.BALINT, A.GROAT

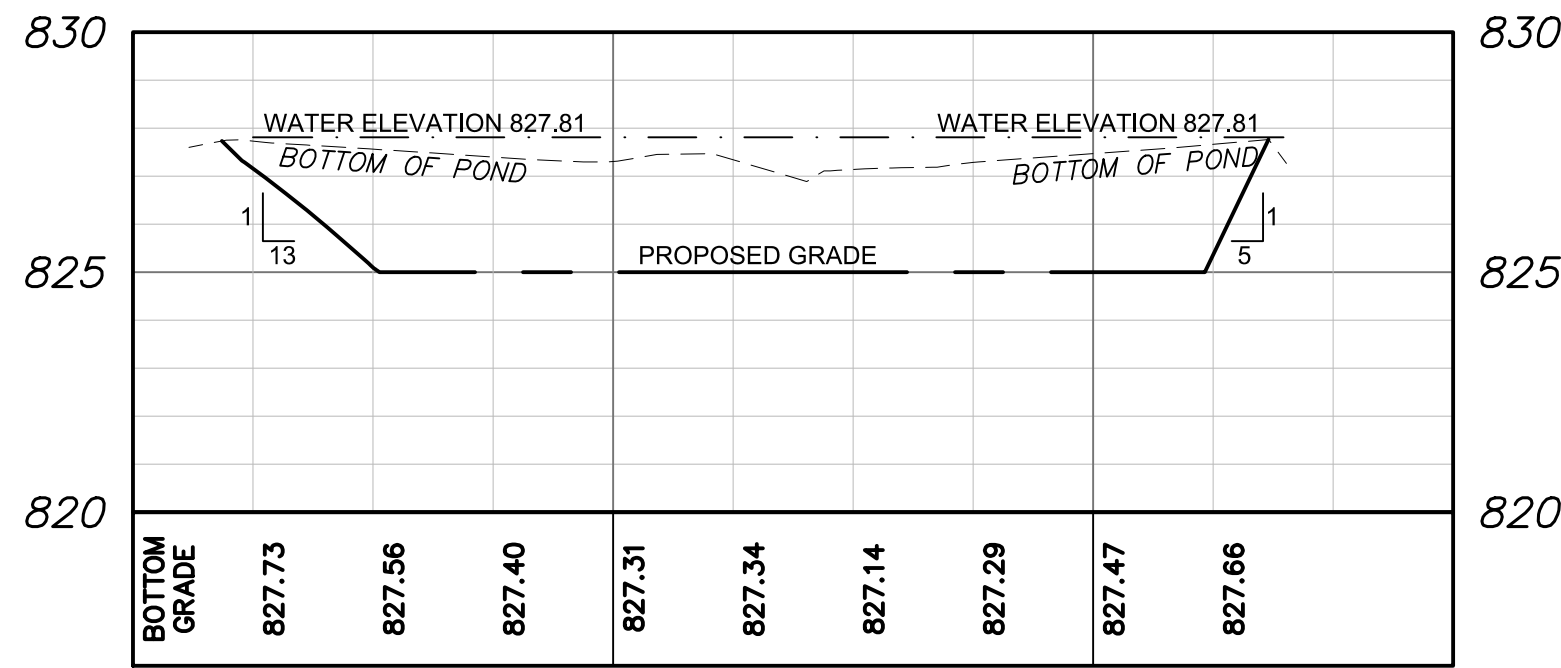


**WHEELER FACILITY POND DREDGING**

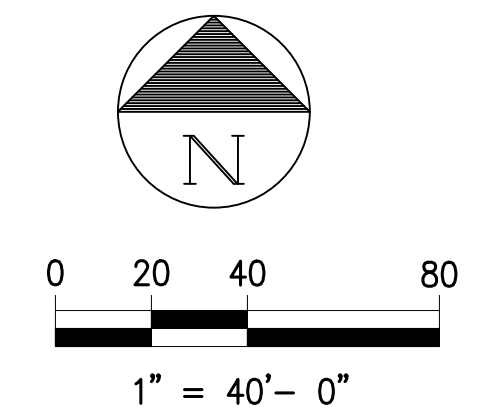
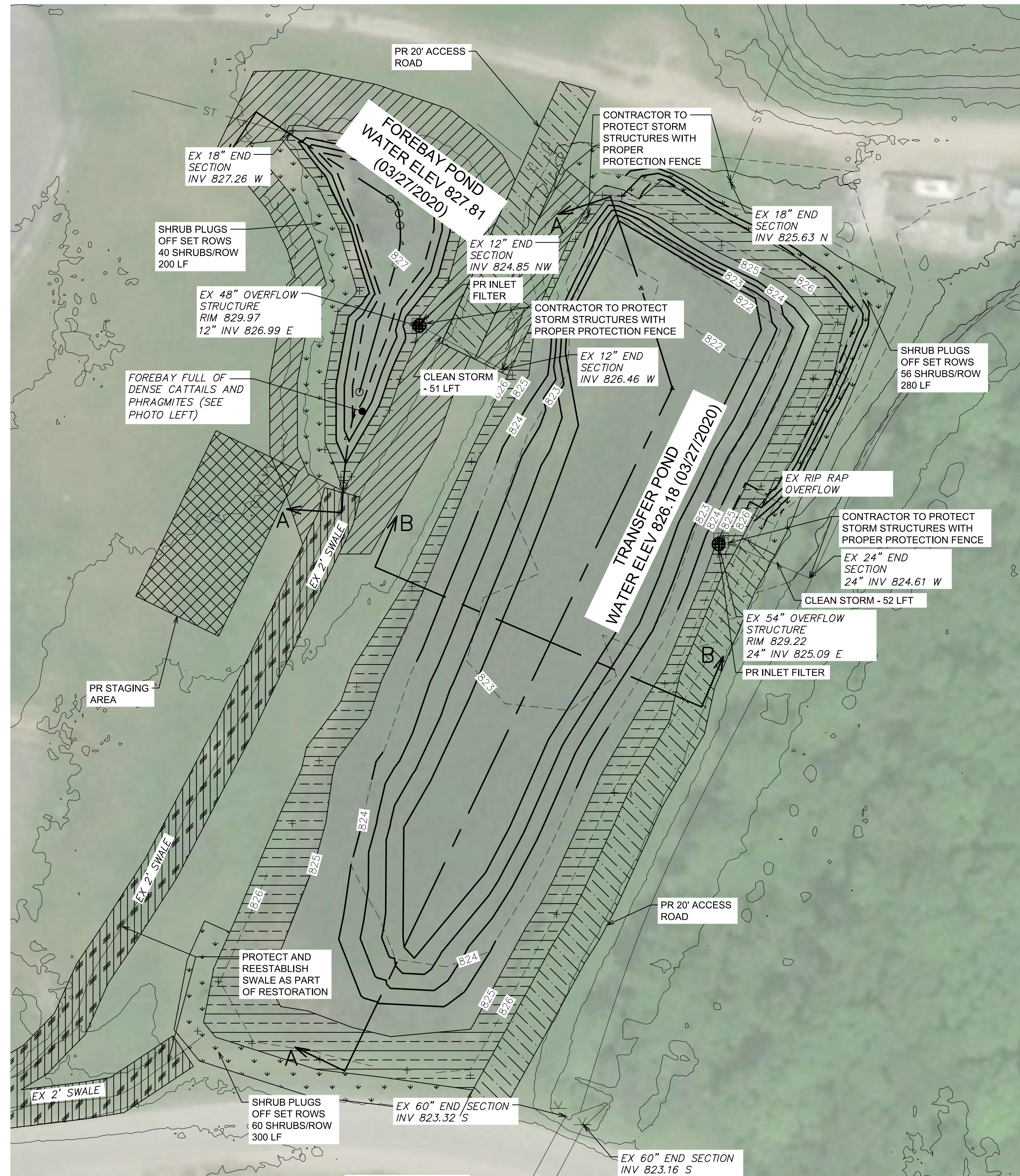
**NORTH COMPOST PAD POND & MAINTENANCE POND**

HRC JOB NO. 20190818	SCALE H: 1"=40' V: 1"=4'
DATE April 2020	SHEET NO. 3





FOREBAY A-A



LEGEND

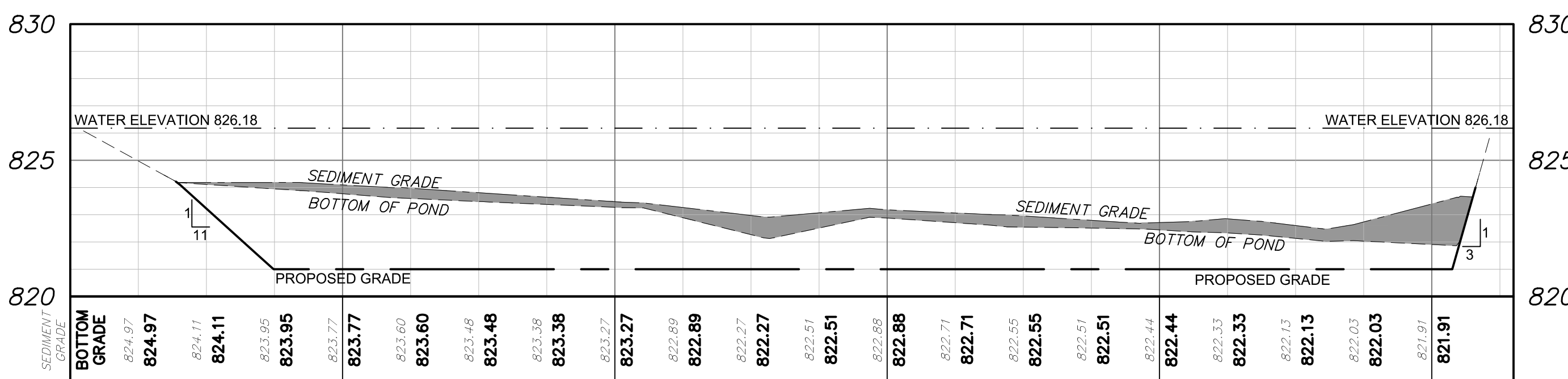
- INLET FILTER
- EX CONTOUR
- PR CONTOUR
- STAGING AREA
- SEED MIX A
- SEED MIX B
- SEED MIX C
- SEED MIX D
- PLANT PLUGS

FOREBAY QUANTITIES		
Item	Unit	Quantity
Sediment Removal and Earth Excavation	CY	500
Silt Sack	EA	1
Shrub Plug		
TRANSFER POND QUANTITIES		
Item	Unit	Quantity
Sediment Removal and Earth Excavation	CY	2300
Silt Sack	EA	1
Shrub Plug	EA	348

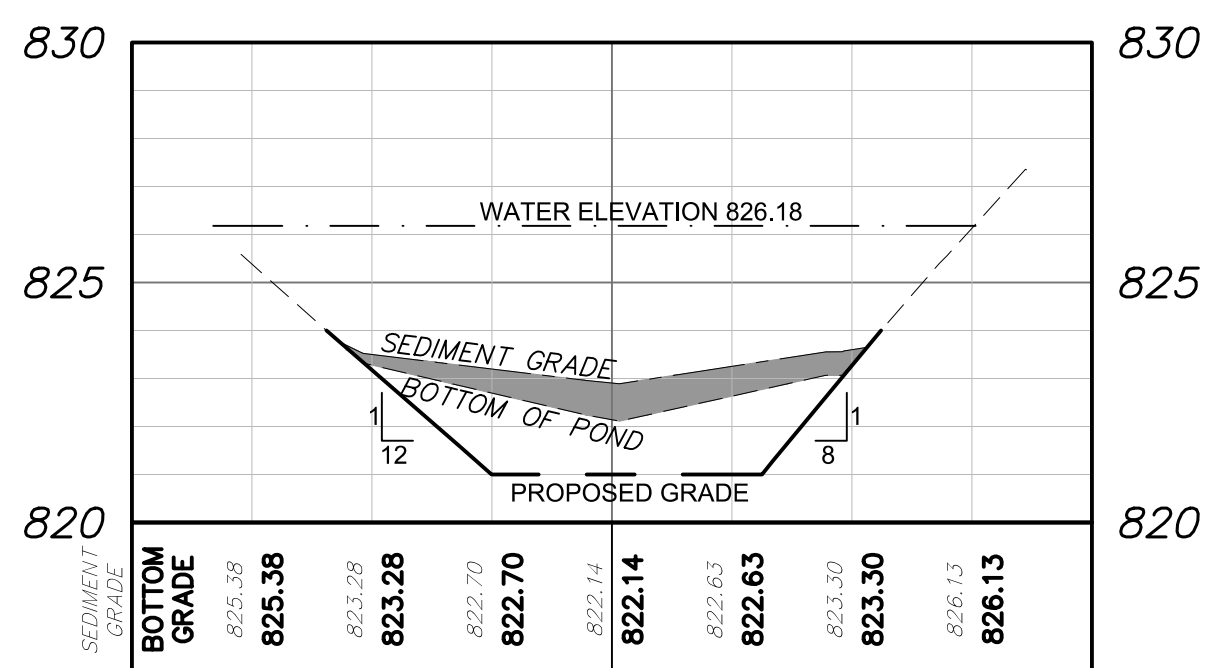
FOREBAY  
 POND AREA: 8,720 SF  
 EX POND VOLUME: 25 CY  
 PR POND VOLUME: 525 CY

TRANSFER POND  
 POND AREA: 47,550 SF  
 AVG SEDIMENT DEPTH: 0.36 FT  
 EX POND VOLUME: 1,400 CY  
 PR POND VOLUME: 3,700 CY

- NOTE:
- ALL EX CONTOURS SHOWN ARE BOTTOM OF POND ELEVATIONS
  - EXISTING AERATORS WILL BE REMOVED FROM PONDS BY FACILITY STAFF
  - REMOVE PHRAGMITES AS PART OF DREDGING OPERATION



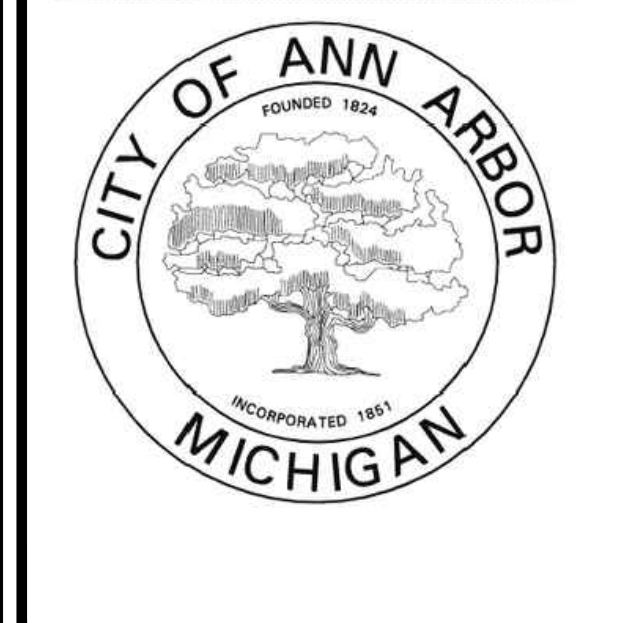
TRANSFER POND A-A



TRANSFER POND B-B

**811**  
 Know what's below  
 Call before you dig.

CALL MISS DIG  
 72 HOURS  
 (3 WORKING DAYS)  
 BEFORE YOU DIG  
 1-800-482-7171  
 OR 811  
 (TOLL FREE)



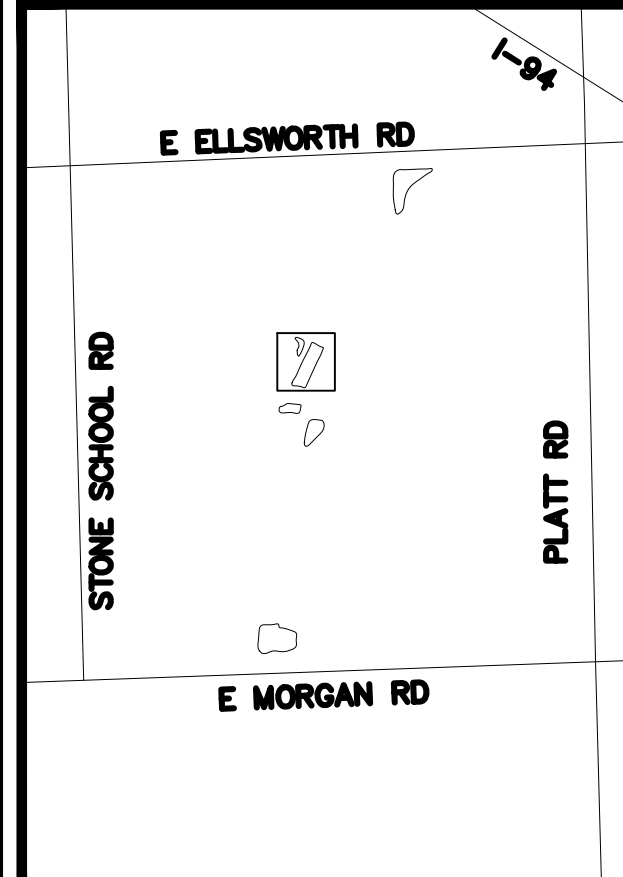
**HRC**  
 HUBBELL, ROTH & CLARK, INC  
 CONSULTING ENGINEERS SINCE 1915

555 HULET DRIVE  
 BLOOMFIELD HILLS, MICH. P.O. BOX 824  
 48303 - 0824

PHONE: (248) 454-6300  
 FAX (1st. Floor): (248) 454-6312  
 FAX (2nd. Floor): (248) 454-6359

WEB SITE: [http:// www.hrcengr.com](http://www.hrcengr.com)

09/18/20	ISSUED FOR CITY PERMITS
06/18/20	ISSUED FOR OWNER REVIEW
DATE ADDITIONS AND/OR REVISIONS	
DESIGNED	D.HURRISH
DRAWN	D.HURRISH
CHECKED	J.BALINT, A.GROAT
APPROVED	J.BALINT, A.GROAT

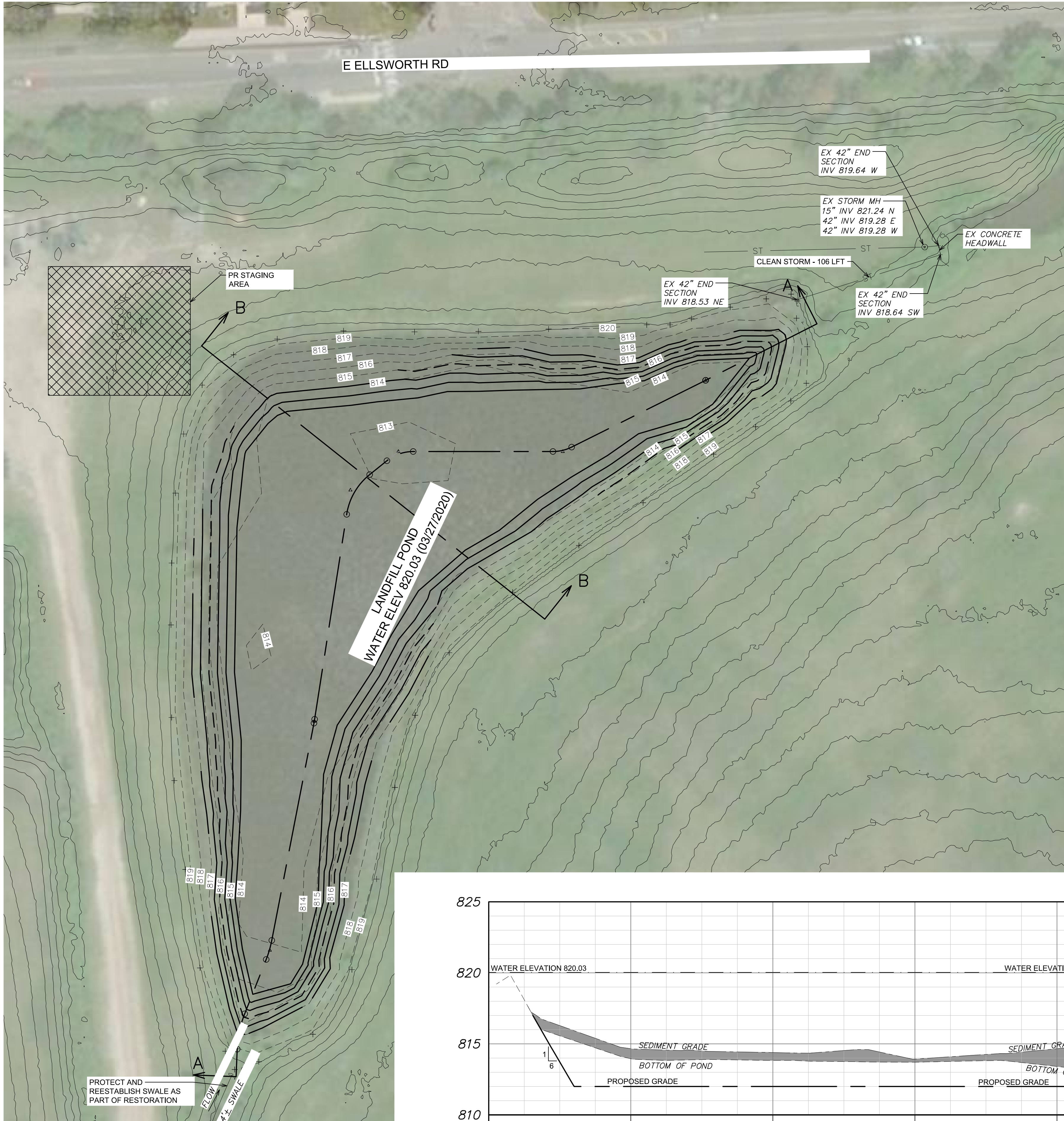


**WHEELER FACILITY  
 POND DREDGING**

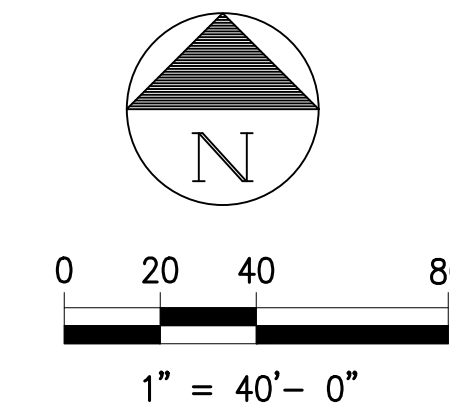
**FOREBAY AND  
 TRANSFER POND**

HRC JOB NO. 20190818	SCALE H: 1"=40' V: 1"=4'
DATE April 2020	SHEET NO. 4





LANDFILL POND QUANTITIES		
Item	Unit	Quantity
Sediment Removal and Earth Excavation	CY	3800



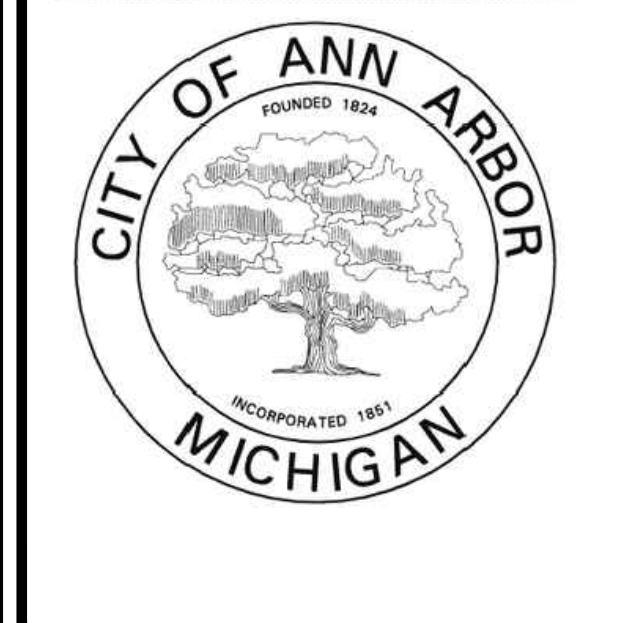
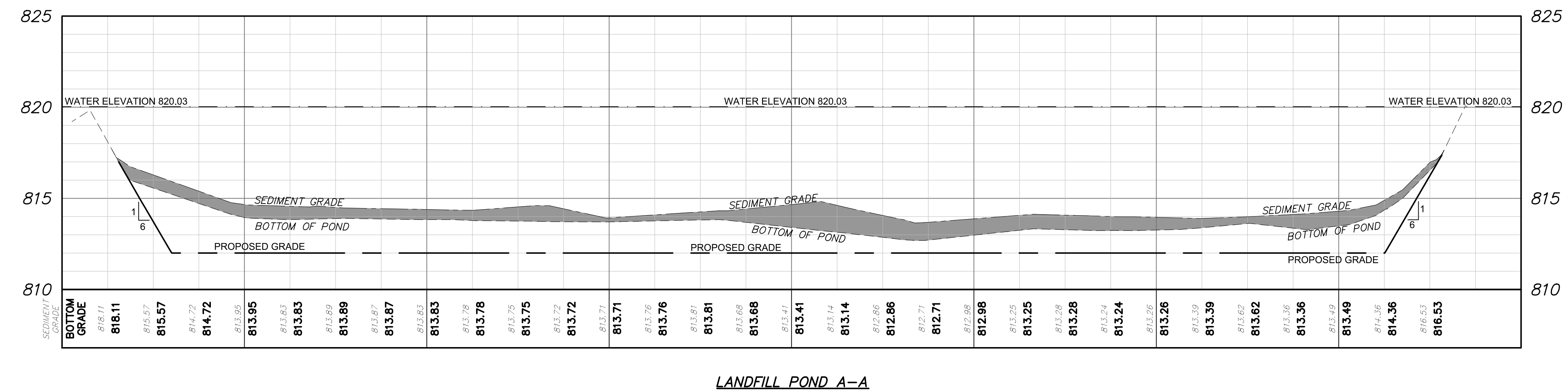
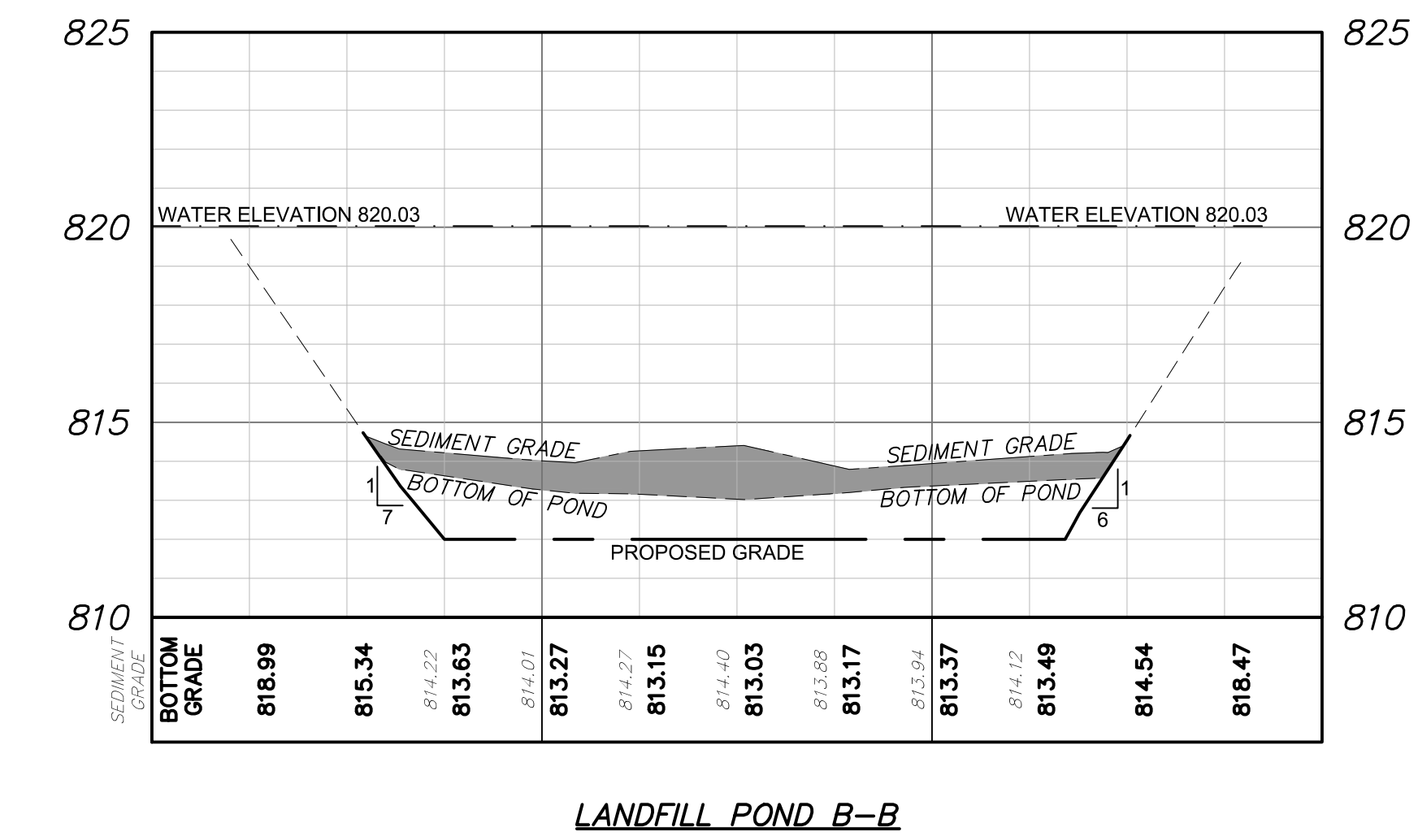
LEGEND

- INLET FILTER
- EX CONTOUR
- PR CONTOUR
- STAGING AREA
- SEED MIX A
- SEED MIX B
- SEED MIX C
- SEED MIX D
- PLANT PLUGS

LANDFILL POND  
 POND AREA: 68,315 SF  
 AVG SEDIMENT DEPTH: 0.58 FT  
 EX POND VOLUME: 15,000 CY  
 PR POND VOLUME: 18,800 CY

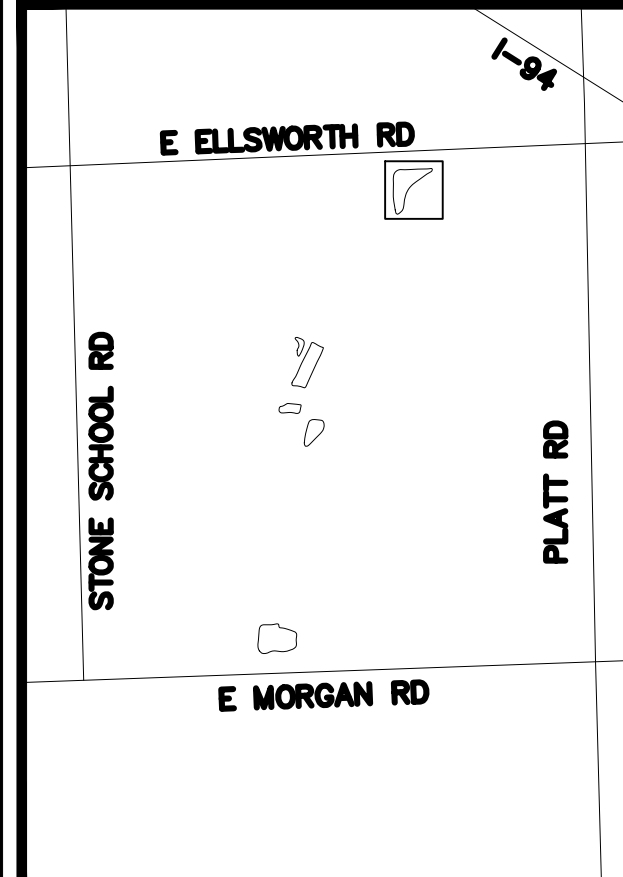
NOTE:

- ALL EX CONTOURS SHOWN ARE BOTTOM OF POND ELEVATIONS
- EXISTING AERATORS WILL BE REMOVED FROM PONDS BY FACILITY STAFF
- REMOVE PHARMGMITES AS PART OF DREDGING OPERATION



**HRC**  
**HUBBELL, ROTH & CLARK, INC**  
 CONSULTING ENGINEERS SINCE 1915  
 555 HULET DRIVE P.O. BOX 824  
 BLOOMFIELD HILLS, MICH. 48303 - 0824  
 PHONE: (248) 454-6300  
 FAX (1st. Floor): (248) 454-6312  
 FAX (2nd. Floor): (248) 454-6359  
 WEB SITE: [http:// www.hrcengr.com](http://www.hrcengr.com)

09/18/20	ISSUED FOR CITY PERMITS
06/18/20	ISSUED FOR OWNER REVIEW
DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	D.HURRISH
DRAWN	D.HURRISH
CHECKED	J.BALINT, A.GROAT
APPROVED	J.BALINT, A.GROAT



**WHEELER FACILITY  
 POND DREDGING**

<b>LANDFILL POND</b>	
HRC JOB NO. 20190818	SCALE H: 1"=40' V: 1"=4'
DATE April 2020	SHEET NO. 5

**811**  
 CALL MISS DIG  
 72 HOURS  
 (3 WORKING DAYS)  
 BEFORE YOU DIG  
 1-800-482-7171  
 OR 811  
 (TOLL FREE)

Know what's below  
 Call before you dig.