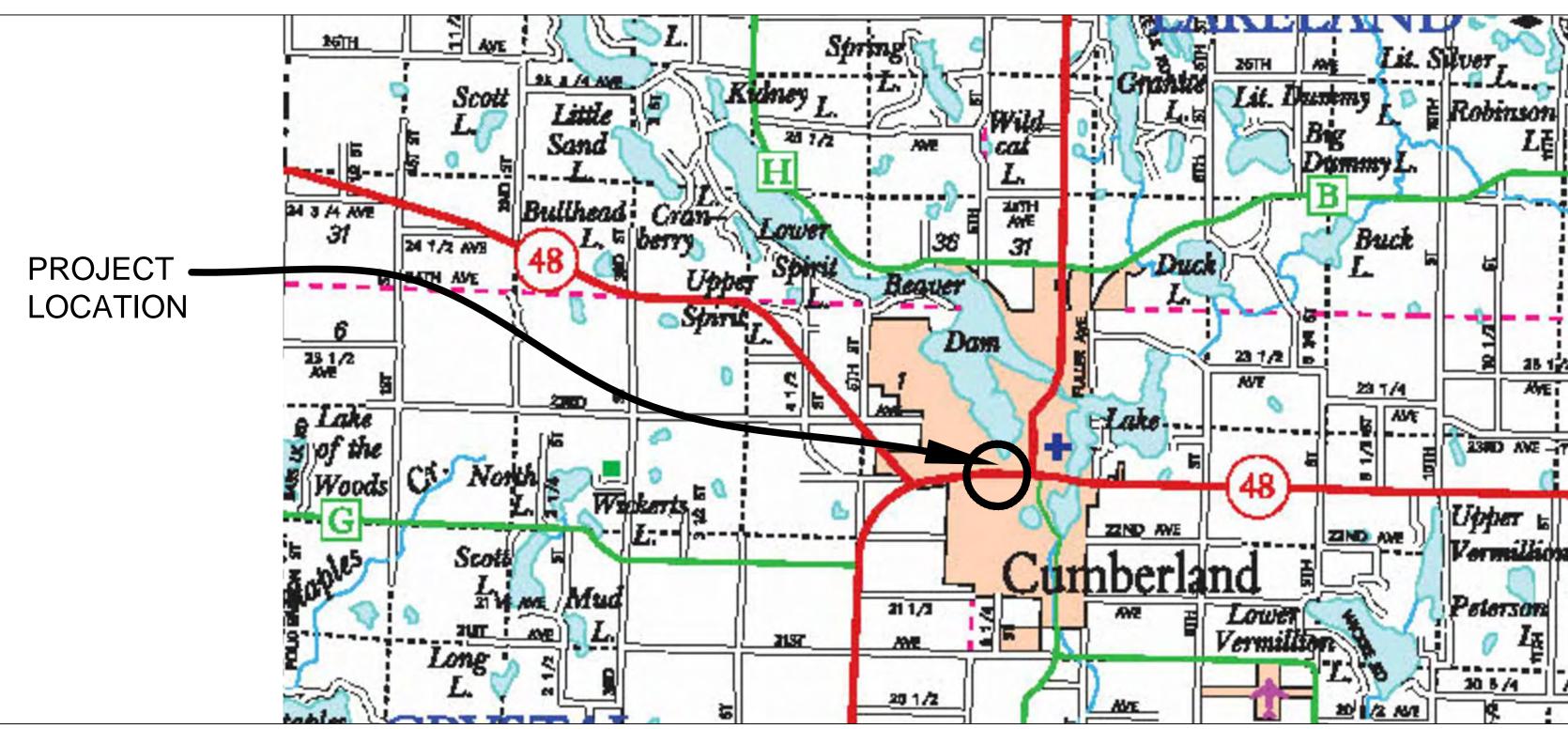
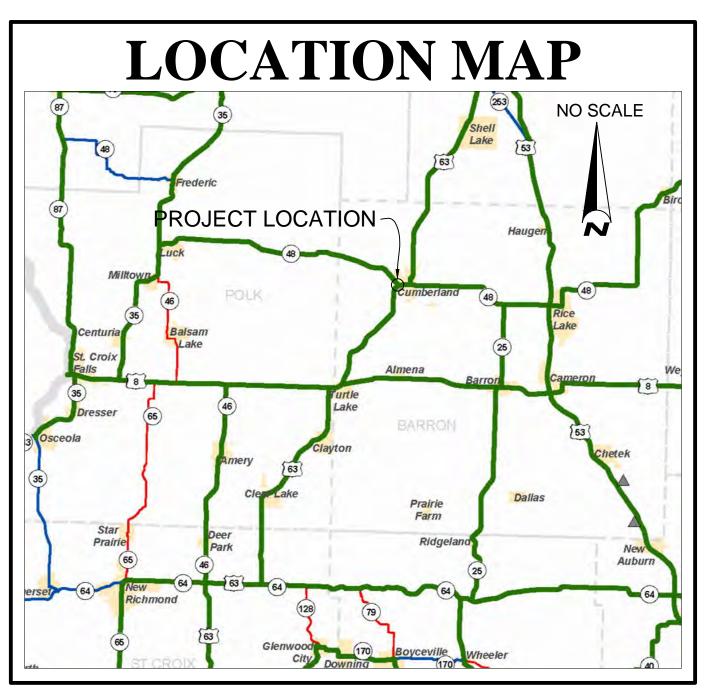
BEAVER DAM LAKE MANAGEMENT DISTRICT LIBRARY LAKE SW WETLAND

CUMBERLAND, BARRON COUNTY, WISCONSIN

	LEGEND	
FEATURE	EXISTING	PROPOSED
SILT FENCE		——————————————————————————————————————
CONSTRUCTION FENCE		·
DELINEATED WETLAND -		
WATERLINE/SHORELINE		
OVERHEAD ELECTRIC LINES	E-O	
BURIED ELECTRIC LINES	E-U	
FIBER OPTIC LINES	FO	
GAS LINES -	G	
PIPELINE -	PL	
OVERHEAD TELEPHONE	T-O	
BURIED TELEPHONE	T-U	
TELEPHONE MANHOLE	T-U	
TELEPHONE CABLE PEDESTAL-	T-U	
OVERHEAD CABLE TV	TV-O	
BURIED CABLE TV	TV-U	
TV CABLE PEDESTAL	TV-U V	
BARBED WIRE FENCE	_xxxxxx	
CHAIN LINK FENCE		
STOCKADE/WOOD FENCE		-0-0-0-0-0-0-0
GUARD RAIL		00000
CENTER LINE ROADWAY		
CENTER LINE RAILROAD		
SANITARY SEWER LINE		
SANITARY SEWER FORCEMAIN	——FM- ———FM- ———	—FM- ——FM-
SANITARY SEWER MANHOLE		
STORM SEWER LINE		
STORM SEWER CULVERT		
STORM SEWER FORCEMAIN	——FM———FM———	—FM——FM—
STORM SEWER MANHOLE		 0
WATERMAIN	+	•
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WATERMAIN WATERMAIN MANHOLE HYDRANT	+	· · · · · · · · · · · · · · · · · · ·





12-06-2016







STATE PROJECT NO. ---

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01	TITLE SHEET				
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GOVERNING SPECIFICATIONS

THE 2016 EDITION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

EXISTING UTILITIES

THE LOCATION OF UNDERGROUND FACILITIES AND/OR STRUCTURES AS SHOWN ON THE PLANS ARE BASED ON THE EXACT LOCATION OF ALL FACILITIES AND TO PROVIDE ADEQUATE PROTECTION OF SAID UTILITIES DURING THE COURSE

CONSTRUCTION NOTE

CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN OPERATION OF EXISTING UTILITIES THROUGHOUT THE NOTIFICATION TO ALL AFFECTED BUSINESSES A MINIMUM OF 3 WORKING DAYS IN ADVANCE OF ANY INTERRUPTION

DIGGERS HOTLINE

FOR PLANNING NON-EMERGENCY EXCAVATIONS TO PROVIDE ADVANCE NOTICE OF AT LEAST THREE BUSINESS DAYS TO THE ONE CALL SYSTEM. SEE THE STATE STATUE FOR THE DEFINITION OF EXCAVATION, DIGGERS HOTLINE NEEDS TO BE CONTACTED PRIOR TO EXCAVATION AND PLANNING AN EXCAVATION IN ORDER TO COMPLY WITH THE STATE

DIGGERS HOTLINE SHOULD ALSO BE USED TO OBTAIN INFORMATION ON SAFE WORKING CLEARANCES FROM OVERHEAD LINES. OSHA REQUIRES THAT YOU STAY AT LEAST 10 FEET AWAY FROM DISTRIBUTION LINES AND UP TO 16 FEET AWAY FROM TRANSMISSION LINES WITH EXCAVATORS, BACK-HOES, WHEEL LOADERS, DIGGER DERRICKS USED FOR AUGURING HOLES, AND SETTING POLES IN TELECOMMUNICATIONS AND ELECTRICAL WORK ETC. THE 2010 OSHA CRANE STANDARD REQUIRES ADDITIONAL RESTRICTIONS FOR OTHER TYPES OF CRANES OR HOISTING DEVICES.

SEE THE EXCAVATOR'S GUIDE TO DIGGERS HOTLINE FOR ADDITIONAL INFORMATION.

CONTACTING DIGGERS HOTLINE

BY PHONE: DIGGERS HOTLINE IS AVAILABLE 24 HOURS A DAY, 7 DAYS A WEEK, 365 DAYS A YEAR BY CALLING THE THREE-DIGIT CODE **811** OR BY CALLING (800) 242-8511. TDD USERS MAY CALL (800) 542-2289.

BY EMAIL: ON THE DIGGERS HOTLINE WEBSITE, WWW.DIGGERSHOTLINE.COM, YOU CAN EMAIL LOCATE REQUESTS TO THE CALL CENTER. TO ACCESS THE ONLINE EMAIL FORM, GO TO DIGGERS HOTLINE WEBSITE, WWW.DIGGERSHOTLINE.COM

CLIENT

CITY PROJECT NO. 00909-0011

BEAVER DAM LAKE MANAGEMENT DISTRICT PO BOX 232

CUMBERLAND, WISCONSIN 54829

ENGINEER

EMMONS & OLIVIER RESOURCES, INC. 651 HALE AVENUE NORTH OAKDALE, MINNESOTA 55128-7534 TELEPHONE: (651) 770-8448 FAX: (651) 770-2552 eorinc.com

OT FOR CONSTRUCTION

HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

DESIGN BY DRAWN BY EOR PROJECT NO. DEREK R. LASH DATE: 12-06-2016 LICENSE # 40938-006

SUBMISSION DATE:

Emmons & Olivier Resources, Inc. 651 Hale Avenue North w a t e r Oakdale, MN 55128 ecology Tele: 651.770.8448 community www.eorinc.com

BEAVER DAM LAKE MANAGEMENT DISTRICT

PO BOX 232 CUMBERLAND, WISCONSIN 54829 LIBRARY LAKE SW WETLAND

CUMBERLAND, BARRON COUNTY, WISCONSIN

TITLE SHEET

SHEET 01 OF 09 SHEETS

Statement of Estimated Quantities

Item No.	Item Code	ltem	Unit	Quantity	As-Built Quantity
Part I - Gen	eral/Erosion	Control			
1	619.1000	MOBILIZATION	L\$	1	
2	643.0100	TRAFFIC CONTROL	LS	1	
3	628.7504	SEDIMENT CONTROL LOG, TYPE WOOD FIBER - INSTALL, MAINT., REMOVAL	LF	745	
4	SPECIAL	TEMPORARY TREE PROTECTION FENCE	LF	305	
5	628.7560	STABILIZED CONSTRUCTION EXIT - INSTALL, MAINT., REMOVAL	EA	1	
6	628.7000	STORM DRAIN INLET PROTECTION - INSTALL, MAINT., REMOVAL	EA	5	
7	628.2002	EROSION CONTROL BLANKET - CLASS 1, TYPE A (NET FREE)	SY	1057	
8	SPECIAL	ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES	ALLOW	1	

Part 2 - Removals

9	201.0110	CLEAR AND GRUBB	L5	1	
10	204.0280	REMOVE EXISTING PIPE	LS	1	
11	204.0210	REMOVE EXISTING MANHOLE	EA	1	
12	204.0110	SAWCUT AND REMOVE ASPHALTIC SURFACE	SY	340	

Part 3 - Grading

13	205.0100	COMMON EXCAVATION	CY	1713	
14	625.0500	SALVAGE & RESPREAD TOPSOIL	SY	3050	
15	606.0200	RIPRAP, MEDIUM (FOR BERMS)	CY	38	

Part 4 - Storm Sewer

16	\$PECIAL	CONNECTION TO EXISTING STORM SEWER	EA	1	
17	611.0410	RECONSTRUCT EXISTING CATCH BASIN	EA	1	
18	611.0000	ST MANHOLE 1 - 48" DIA.	EA	1	
19	611.2006	ST MANHOLE 2- 72" DIA. W/SUMP	EA	1	
20	611.2005	ST MANHOLE 3 - 60" DIA. LOW FLOW DIVERTER	EA	1	
21	612.0000	30" RCP STORM SEWER	LF	108	
22	612.0000	12" RCP STORM SEWER	LF	24	
23	612.0000	30" HDPE BYPASS PIPE	LF	58	
24	SPECIAL	SEDIMENT CHAMBER, 6020 WQU	EA	1	
25	611.0000	48" DIA. PRECAST CONCRETE BYPASS MANHOLE	EA	2	
26	SPECIAL	24" DIA. HDPE RISER PIPE	EA	2	
27	SPECIAL	REINFORCED CONCRETE COLLAR (RISER MANHOLE CAP)	EA	2	
28	SPECIAL	REINFORCED CONCRETE COLLAR (RISER CONNECTION AT TANK)	EA	2	
29	611.0530	NEENAH FRAME AND CASTING	EA	0	
30	SPECIAL	30" FLARED END SECTION	EA	1	
31	606.0200	RIPRAP, MEDIUM (W FILTER FABRIC)	CY	8	
32	SPECIAL	OUTLET STRUCTURE (2x60" DIA. STMH AND FRAME & CASTINGS, 30" RCP	EA	1	

Part 5 - Restoration

33	350.0115	SUBGRADE REPAIR - ROADWAY	SY	340	
34	465.0110	BITUMINOUS PAVEMENT REPAIR - ROADWAY	SY	340	
3 5	630.0175	SEED - WISDOT MIX 75	LB	19.00	
36	630.0400	SEED - NURSE CROP	LB	63.00	
37	628.2002	EROSION MAT (CLASS I, TYPE A)	SY	3000.00	
38	632.0101	DECIDUOUS TREE	EA	22	
39	632.0201	DECIDUOUS SHRUB	EA	78	
40	631.1000	TURF SOD	SY	100	
41	628.2031	TURF REINFORCEMENT MAT - CLASS III, TYPE A	SY	80	
42	SPECIAL	2-Year Vegetation Establishment/Maintenance Warranty Period (To Start After Final	LS	1	

GENERAL SITE WORK NOTES

- 1. CONTRACTOR TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION BY CALLING DIGGERS HOTLINE 1-800-242-8511.
- 2. VERIFY HORIZONTAL LOCATION AND ELEVATION WHERE A CONNECTION TO EXISTING PAVEMENT, STRUCTURE, PIPE OR OTHER SITE FEATURE IS TO BE MADE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM THE PLANS.
- 3. REFERENCE TO WI/DOT SPECIFICATIONS SHALL MEAN THE 2016 SPECIFICATIONS FOR CONSTRUCTION.
- 4. SEE SITE RESTORATION PLAN FOR TURF RESTORATION REQUIREMENTS.
- 5. CONTRACTOR SHALL INSTALL, INSPECT, MAINTAIN AND REMOVE THE NECESSARY SIGNAGE FOR LANE CLOSURES. ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE WMUTCD. ONE 11 FOOT MINIMUM WIDTH LANE IN EACH DIRECTION SHALL BE PROVIDED AT ALL TIMES.

GENERAL UTILITY NOTES

- 1. CONTRACTOR SHALL CONTACT 'DIGGERS HOTLINE' (1-800-242-8511) BY AT LEAST THREE BUSINESS DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
- 2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND INVERTS, SHOWN OR NOT SHOWN. ANY DISCREPANCY BETWEEN PLANS AND FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER IMMEDIATELY.
- 3. ALL UTILITY WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CUMBERLAND SPECIFICATIONS AND BUILDING PERMIT REQUIREMENTS.
- 4. CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE SEWER, WATER AND PLUMBING PERMITS FROM THE CITY OF CUMBERLAND.
- 5. UTILITY TRENCHES SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698.78 OR AASHTO T-99) FROM THE PIPE ZONE TO WITHIN THREE FEET OF THE GROUND SURFACE AND 100% STANDARD PROCTOR IN THE UPPER THREE FEET.
- 6. FIELD ADJUST ALL CASTINGS TO MATCH FINAL GRADES.
- 7. CONNECTION TO THE EXISTING SANITARY SEWER. STORM SEWER AND WATER REQUIRES INSPECTION BY THE CITY OF CUMBERLAND.
- 8. CONTRACTOR SHALL NOTIFY THE CITY OF CUMBERLAND 48 HOURS IN ADVANCE OF WORKING WITHIN THE EXISTING RIGHT OF WAY. CITY INSPECTORS MUST OBSERVE ALL WORK COMPLETED WITHIN THE EXISTING RIGHT OF WAY INCLUDING REMOVAL OF EXISTING BITUMINOUS PAVEMENT, EXCAVATION OF TRENCHES, PLACEMENT OF WATER MAIN AND SANITARY SEWER, UTILITY CONNECTIONS TO EXISTING LINES, BACKFILLING AND PLACEMENT OF BITUMINOUS PAVEMENT.

SITE REMOVAL NOTES

- 1. BITUMINOUS PAVEMENT REMOVALS ARE TO BE MADE TO A VERTICAL SAW CUT OR TO A NEAT MILLED EDGE IN ACCORDANCE WITH WI/DOT SPECIFICATIONS.
- 2. CONCRETE PAVEMENT, SIDEWALK, CURB & GUTTER AND OTHER POURED CONCRETE ITEMS ARE TO BE REMOVED TO AN EXISTING EXPANSION OR CONTRACTION JOINT. SAW CUT AS NECESSARY FOR A NEAT EDGE OF REMOVAL.
- 3. SALVAGED SEWER CASTINGS AND MANHOLE SECTIONS SHALL BE CLEANED AND INSPECTED FOR DAMAGE PRIOR TO REINSTALLATION.
- 4. SALVAGED WATER MAIN PIPE, FITTINGS, VALVES, HYDRANTS OR OTHER APPURTENANCES SHALL BE INSPECTED TO DETERMINE SUITABILITY FOR REUSE. ALWAYS REPLACE GASKETS, BOLTS AND NUTS, AND RETAINING GLANDS WHEN REINSTALLING.
- 5. ALL REMOVAL ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE AND SHALL BE DISPOSED OF OFF-SITE IN A MANNER MEETING ALL APPLICABLE REGULATIONS.

STORM SEWER NOTES

- STORM SEWER CONSTRUCTION IS IN ACCORDANCE WITH WI/DOT SPECIFICATIONS.
- 2. STORM SEWER SHALL BE DUAL WALL ECOFLOW 100WT AS MANUFACTURED BY PRINSCO OR APPROVED EQUAL.
- 3. CATCH BASINS SHALL BE PRECAST REINFORCED CONCRETE. CASTING SHALL BE AS SPECIFIED ON THE PLANS OR APPROVED EQUAL.
- 4. MANHOLES SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH ASTM C478. CASTING SHALL BE NEENAH R-1733. MANHOLES SHALL HAVE A MINIMUM OF 2 ADJUSTMENT RINGS AND MORTAR AND A MAXIMUM OF 12" OF ADJUSTMENT RINGS AND MORTAR.
- 5. CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE BY CORE DRILLING OR SAW CUTTING THE EXISTING MANHOLE AT THE PROPOSED INVERT ELEVATION. GROUT IN THE NEW PIPE AND REFORM THE INVERT.
- 6. PIPE LENGTHS ON THE PLAN INCLUDE THE APRON SECTION.
- 7. TIE LAST THREE STORM SEWER PIPE JOINTS AT ALL APRON SECTIONS.
- 8. STORM SEWER CASTINGS IN THE CURB AND GUTTER SHALL BE STAKED FOR LOCATION AT THE CENTER OF CASTING AT BACK OF CURB, WITH REFERENCE STAKES ON EACH SIDE OF THE STRUCTURE AT THE BACK OF CURB. THE CONTRACTOR WILL LOCATE THE MANHOLE OR CATCH BASIN STRUCTURE AS NECESSARY FROM THESE REFERENCE POINTS. PIPE ALIGNMENTS ARE STAKED TO CENTER OF CASTING AT BACK OF CURB - CONTRACTOR WILL ADJUST THE ALIGNMENT TO FIT THE ACTUAL STRUCTURES INSTALLED.

GRADING & EROSION CONTROL NOTES

- 1. CONTRACTOR SHALL CONTACT 'DIGGERS HOTLINE' (1-800-242-8511) BY AT LEAST THREE BUSINESS DAYS PRIOR TO EXCAVATION/ CONSTRUCTION, FOR UTILITY LOCATIONS.
- 2. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
- 4. INSTALL PERIMETER EROSION CONTROL AND TREE PROTECTION MEASURES BEFORE BEGINNING SITE GRADING ACTIVITIES. SOME EROSION CONTROLS SUCH AS BALE CHECKS AND TEMPORARY SILT PONDS MAY BE INSTALLED AS GRADING OCCURS IN THE SPECIFIC AREA. MAINTAIN EROSION CONTROLS THROUGHOUT THE GRADING PROCESS AND REMOVE WHEN TURF HAS BEEN ESTABLISHED.
- 5. THE CONTRACTOR SHALL CONSTRUCT DRAINAGE BASINS PRIOR TO GENERAL SITE GRADING.
- 6. CONTRACTOR TO ADHERE TO ALL REQUIREMENTS OF THE WISCONSIN DNR N.P.D.E.S. PERMIT, INCLUDING THE REQUIREMENT TO MINIMIZE THE AREA DISTURBED BY GRADING AT ANY GIVEN TIME AND TO COMPLETE TURF RESTORATION WITHIN THE TIME REQUIRED BY THE PERMIT AFTER COMPLETION OF GRADING OF AN AREA.
- 7. ALL EXPOSED SOIL AREAS WITHIN 100 FEET OF A WATER OF THE STATE OR ANY STORMWATER CONVEYANCE SYSTEM WHICH IS CONNECTED TO A WATER OF THE STATE MUST BE STABILIZED WITHII 7 DAYS (STEEPER THAN 3:1 SLOPES), 14 DAYS (10:1 TO 3:1 SLOPES), OR 21 DAYS (FLATTER THAN 10:1).
- 8. ALL CONSTRUCTION ENTRANCES SHALL BE SURFACED WITH CRUSHED ROCK ACROSS FULL WIDTH FROM ENTRANCE POINT TO 50 FEET INTO THE CONSTRUCTION ZONE. SEE DETAIL.
- 9. INLET PROTECTION IS TO BE USED DURING CONSTRUCTION. SEE WI/DOT SPECIFICATIONS.
- 10. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY, COUNTY, STATE AND N.P.D.E.S. PERMITS.
- 11. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF ACCUMULATED SILT IN FRONT OF SILT FENCES DURING THE DURATION OF THE CONSTRUCTION.
- 12. MAINTAIN EXISTING EROSION CONTROL AND TREE PROTECTION MEASURES. RE-ESTABLISH ANY EXISTING EROSION CONTROL DISTURBED BY CONSTRUCTION.
- 13. CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES AS REQUIRED FOR CONSTRUCTION.
- 14. ANY EXCESS SEDIMENT IN PROPOSED BASINS SHALL BE REMOVED BY THE CONTRACTOR.
- 15. REMOVE ALL EROSION CONTROL MEASURES AFTER VEGETATION IS ESTABLISHED.
- 16. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS. 17. IF BLOWING DUST BECOMES A NUISANCE, THE CONTRACTOR SHALL
- APPLY WATER FROM A TANK TRUCK TO ALL CONSTRUCTION AREAS. 18. SWEEP ADJACENT STREETS IN ACCORDANCE WITH CITY
- 19. INSPECT EROSION CONTROL DEVICES AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING EROSION CONTROL DEVICES.

- 20. SEDIMENT REMOVAL SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.
- 21. ANY SEDIMENT REMAINING IN PLACE AFTER THE EROSION CONTROL DEVICE IS NO LONGER REQUIRED SHALL BE GRADED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED WITH THE APPROPRIATE SEED MIX AS DIRECTED BY THE OWNER.
- 22. SUITABLE GRADING MATERIAL SHALL CONSIST OF ALL SOIL ENCOUNTERED ON THE SITE WITH EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL. STOCKPILE TOPSOIL AND GRANULAR FILL AT LOCATIONS DIRECTED BY OWNER.
- 23. EXISTING GRANULAR MATERIALS SHALL BE SEGREGATED AND STOCKPILED FOR REUSE ON-SITE.
- 24. CONTRACTOR SHALL STRIP, STOCKPILE AND RE-SPREAD EXISTING ON-SITE TOPSOIL TO PROVIDE A UNIFORM THICKNESS ON ALL DISTURBED AREAS TO BE SODDED OR SEEDED EXCEPT THE BIOINFILTRATION CELL.
- 25. SUBGRADE EXCAVATION SHALL BE BACKFILLED IMMEDIATELY AFTER EXCAVATION TO HELP OFFSET ANY STABILITY PROBLEMS DUE TO WATER SEEPAGE OR STEEP SLOPES. WHEN PLACING NEW SURFACE MATERIAL ADJACENT TO EXISTING PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING OF THE EXISTING PAVEMENT.
- 26. GRADES SHOWN ARE FINISHED GRADES, CONTRACTOR SHALL ROUGH GRADE TO SUBGRADE ELEVATIONS. SUBGRADE ELEVATIONS SHALL BE INSPECTED AND APPROVED PRIOR TO PLACEMENT OF FINISH MATERIALS.
- 27. FINAL GRADING TOLERANCES ARE ±0.1 FEET OF PLAN GRADES.
- 28. ALL EXCESS MATERIAL, BITUMINOUS SURFACING, CONCRETE ITEMS, ANY ABANDONED UTILITY ITEMS, AND OTHER UNSTABLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OFF THE CONSTRUCTION SITE.
- 29. CONTRACTOR IS RESPONSIBLE FOR GRADING AND SLOPING THE FINISHED GROUND SURFACE TO PROVIDE SMOOTH & UNIFORM SLOPES, WHICH PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING IN LOWER AREAS. CONTACT ENGINEER IF FIELD ADJUSTMENTS TO GRADING PLANS ARE REQUIRED.
- 30. UNDER PAVEMENTS COMPACT THE UPPER THREE FEET OF SUBGRADE TO 100% STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT AND 95% STANDARD PROCTOR DENSITY BELOW THE UPPER THREE FEET OF SUBGRADE. OUTSIDE OF PAVEMENT AREAS COMPACT EMBANKMENTS TO 95% STANDARD PROCTOR DENSITY.
- 31. TURF RESTORATION IS SEEDING IN ACCORDANCE WITH THE SITE RESTORATION PLAN. ALL SEEDED AREAS ARE TO RECEIVE CLEAN STRAW MULCH AND DISC ANCHOR OR EROSION CONTROL REVEGETATIVE MAT.
- 32. SLOPES AT 3:1 OR STEEPER, AND/OR WHERE INDICATED ON THE PLANS SHALL BE SEEDED AND HAVE A EROSION CONTROL REVEGETATIVE MAT INSTALLED OR MAY BE HYDROSEEDED WITH TACKIFER MULCH.

BIOFILTRATION CELL CONSTRUCTION SEQUENCING NOTES

THE FOLLOWING RECOMMENDED CONSTRUCTION SEQUENCING HAS BEEN ESTABLISHED TO PROTECT THE INTEGRITY OF THE BIOFILTRATION BASIN. ANY AND ALL DEVIATIONS FROM THE PROPOSED SCHEDULE MUST BE PRE-APPROVED BY THE PROJECT ENGINEER. ABSOLUTELY NO STOCKPILING, STAGING, OR TRAFFIC IS PERMITTED WITHIN THE BIOFILTRATION BASIN AT ANY

- 1. THE FOLLOWING INSTALLATIONS SHALL TAKE PLACE PRIOR TO THE COMMENCEMENT OF ANY WORK ONSITE:
- PERIMETER SILT FENCE CONSTRUCTION ENTRANCE
- BIOFILTRATION CONSTRUCTION FENCE ENCLOSURE (ONLY REQUIRED IF MASS GRADING OPERATIONS TAKE PLACE AFTER SUBGRADE IS EXPOSED)
- 2. FOLLOWING THE COMPLETION AND ACCEPTANCE OF THESE ACTIVITIES, MASS GRADING MAY COMMENCE.
- 3. MASS GRADE SITE AND EXCAVATE BIOFILTRATION BASIN TO WITHIN FINISHED GRADE. DO NOT SUBCUT THE BIOFILTRATION BASIN AT THIS TIME. NOTE: GRADING OF THE BMPs SHALL BE COMPLETED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION TO THE UNDERLYING SOILS. SMALL TRACKED DOZERS AND SKID-STEERS WITH RUBBER TRACKS ARE REQUIRED.
- 4. IMMEDIATELY FOLLOWING MASS GRADING, INSTALL RIPRAP AT OVERFLOW LOCATIONS.
- 5. PROJECT ENGINEER TO APPROVE SUBGRADE OF BIOFILTRATION BASIN PRIOR TO INSTALLATION OF PLANTING MEDIUM.







HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

LICENSE # 40938-006

DEREK R. LASH

DATE: 12-06-2016

12-06-2016 DESIGN BY DRAWN BY DRL BH

SUBMISSION DATE:

EOR PROJECT NO.

00909-0011

Emmons & Olivier Resources, Inc. 651 Hale Avenue North w a t e r Oakdale, MN 55128 e c o | o g y Tele: 651.770.8448 community www.eorinc.com

BEAVER DAM LAKE MANAGEMENT DISTRICT

PO BOX 232

CUMBERLAND, WISCONSIN 54829

REQUIREMENTS.

WISCONSIN

STATE PROJECT NO. ---

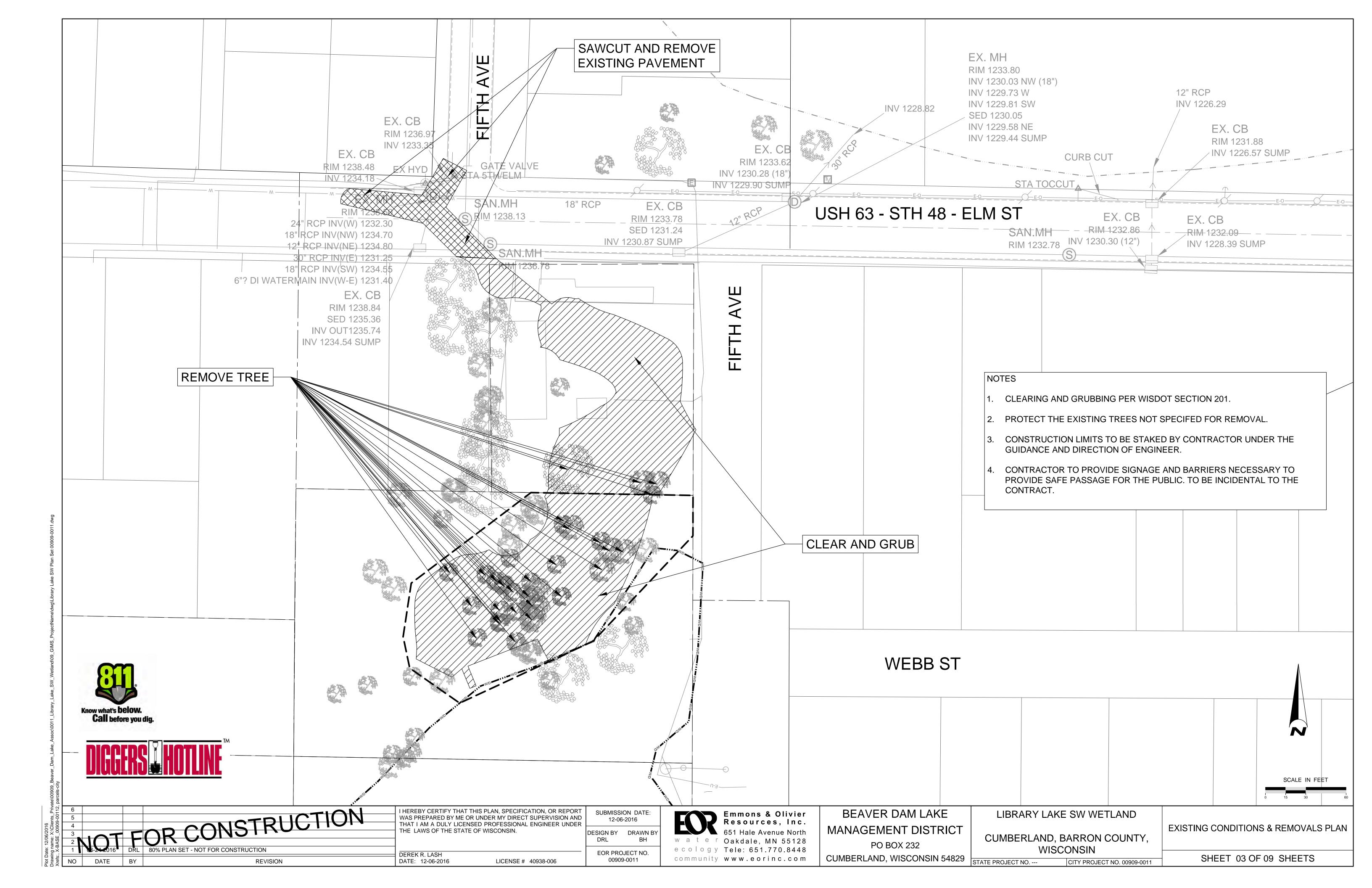
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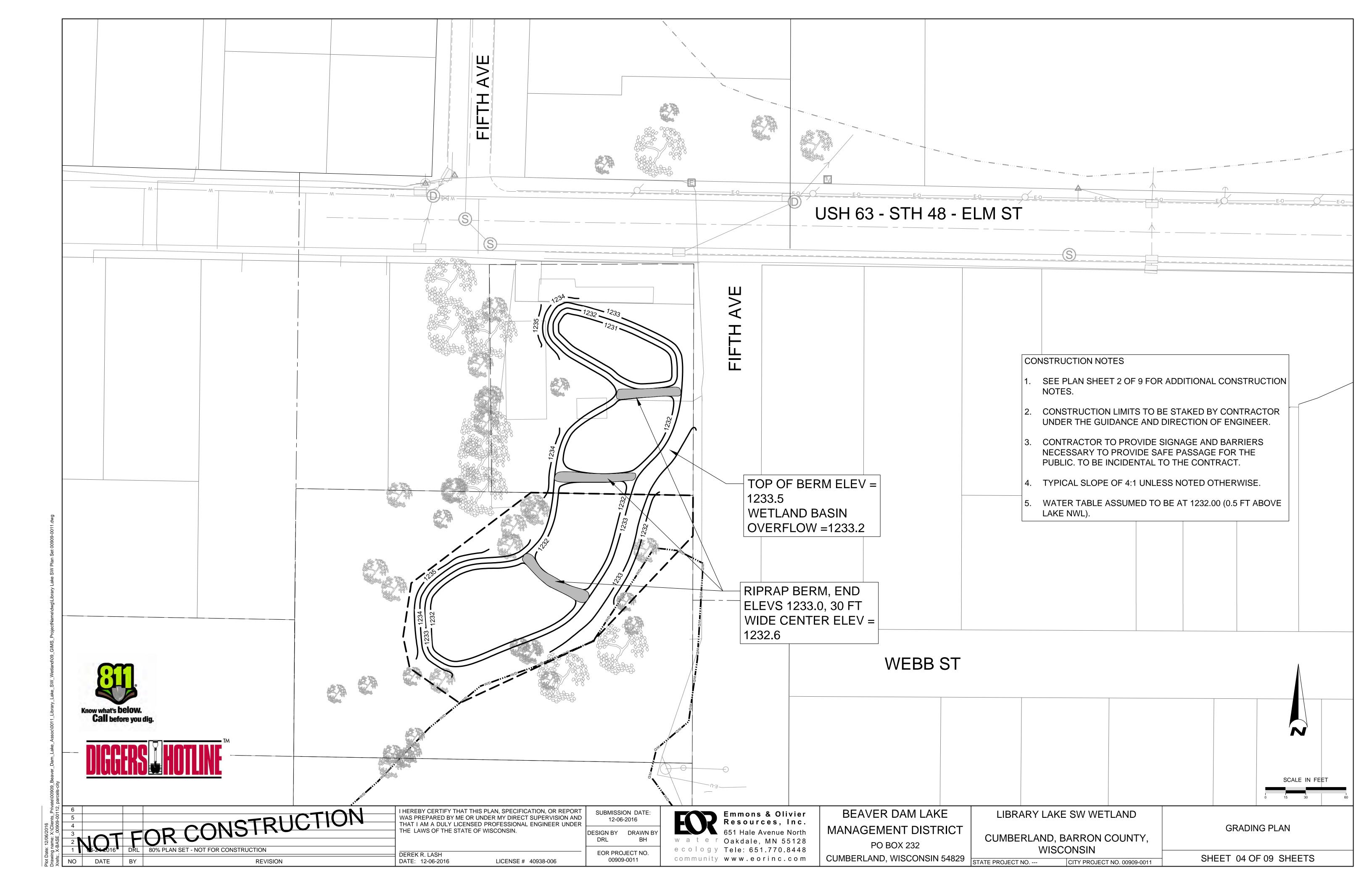
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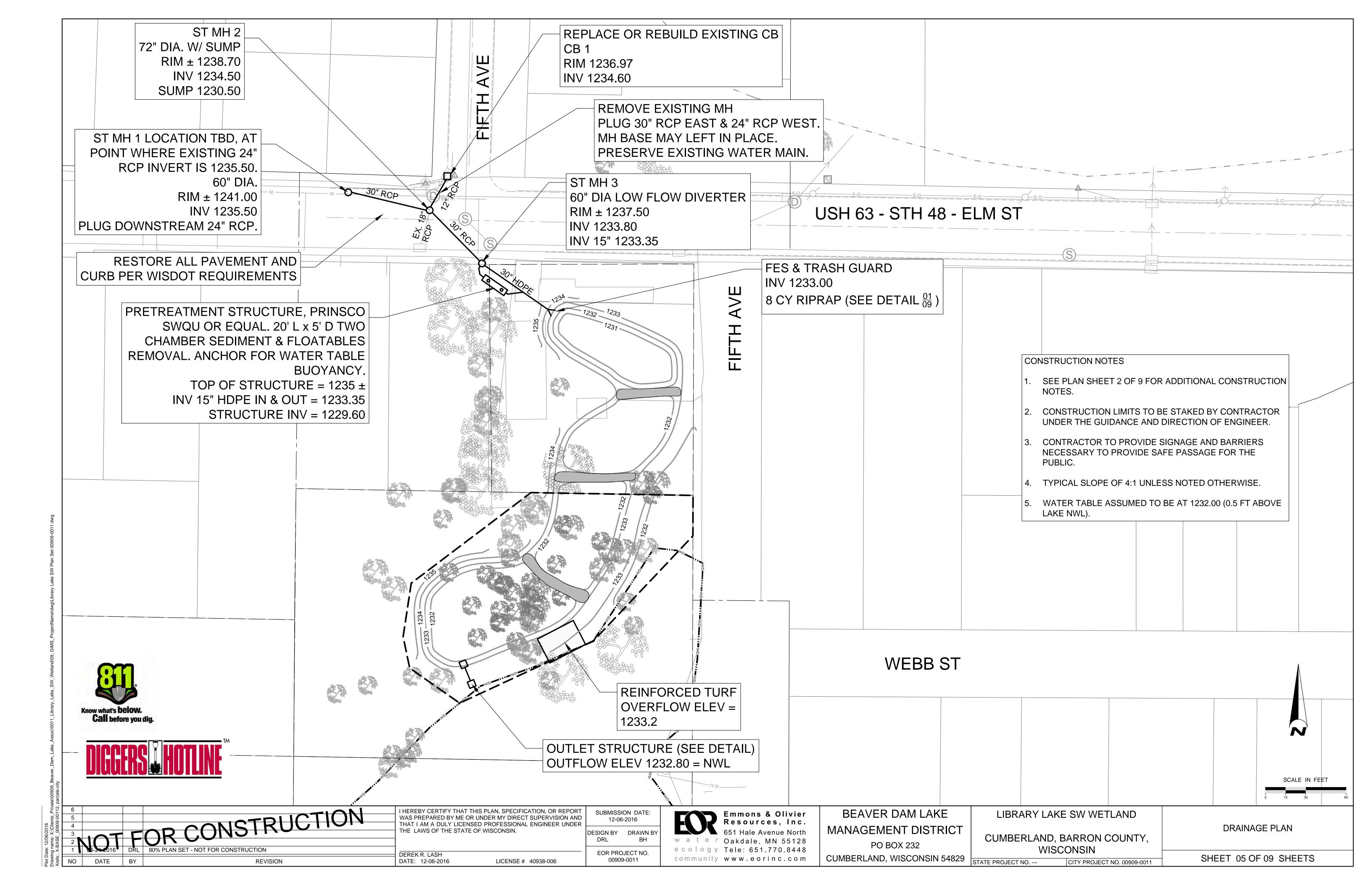
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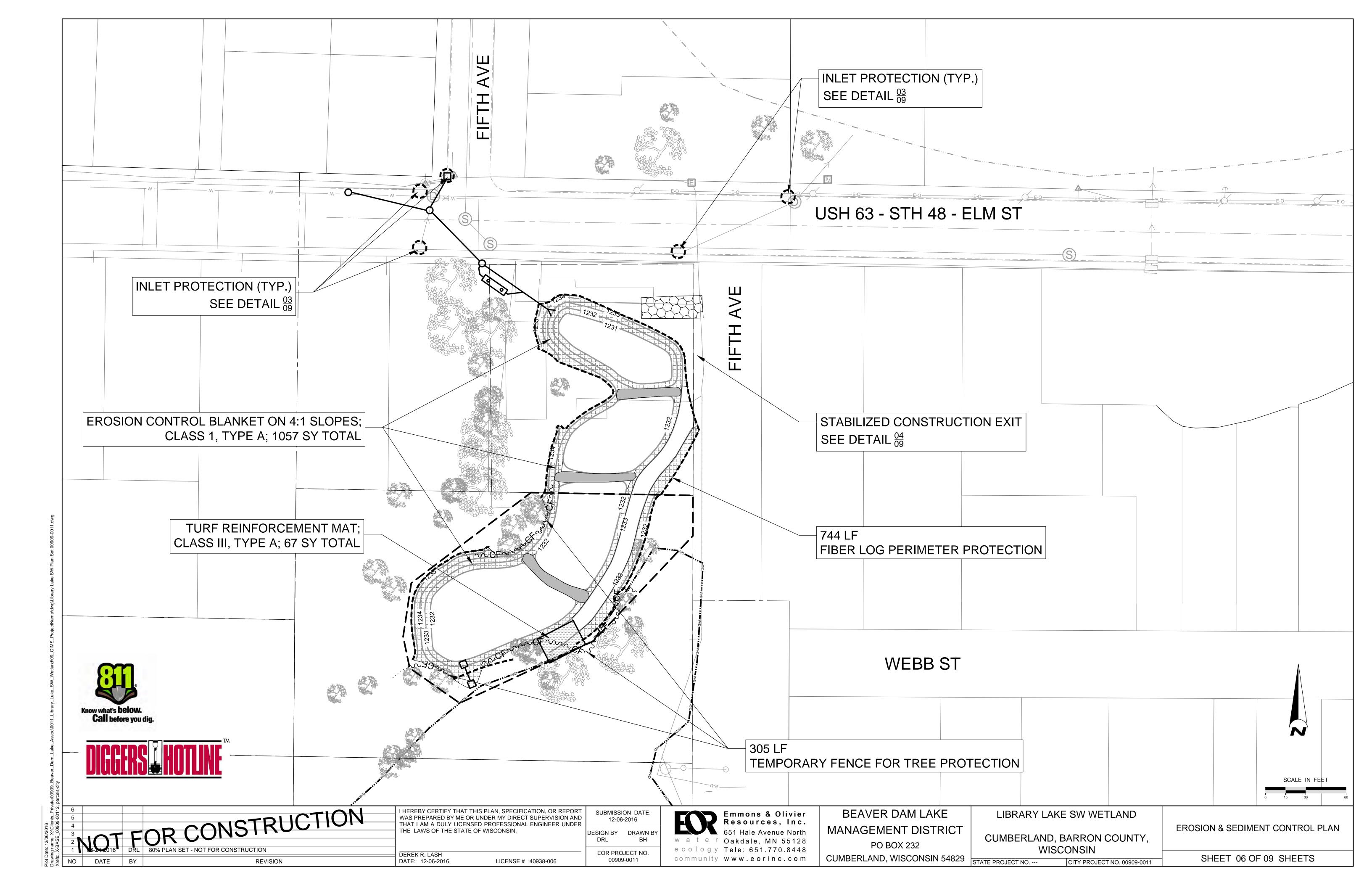
SEQ & NOTES

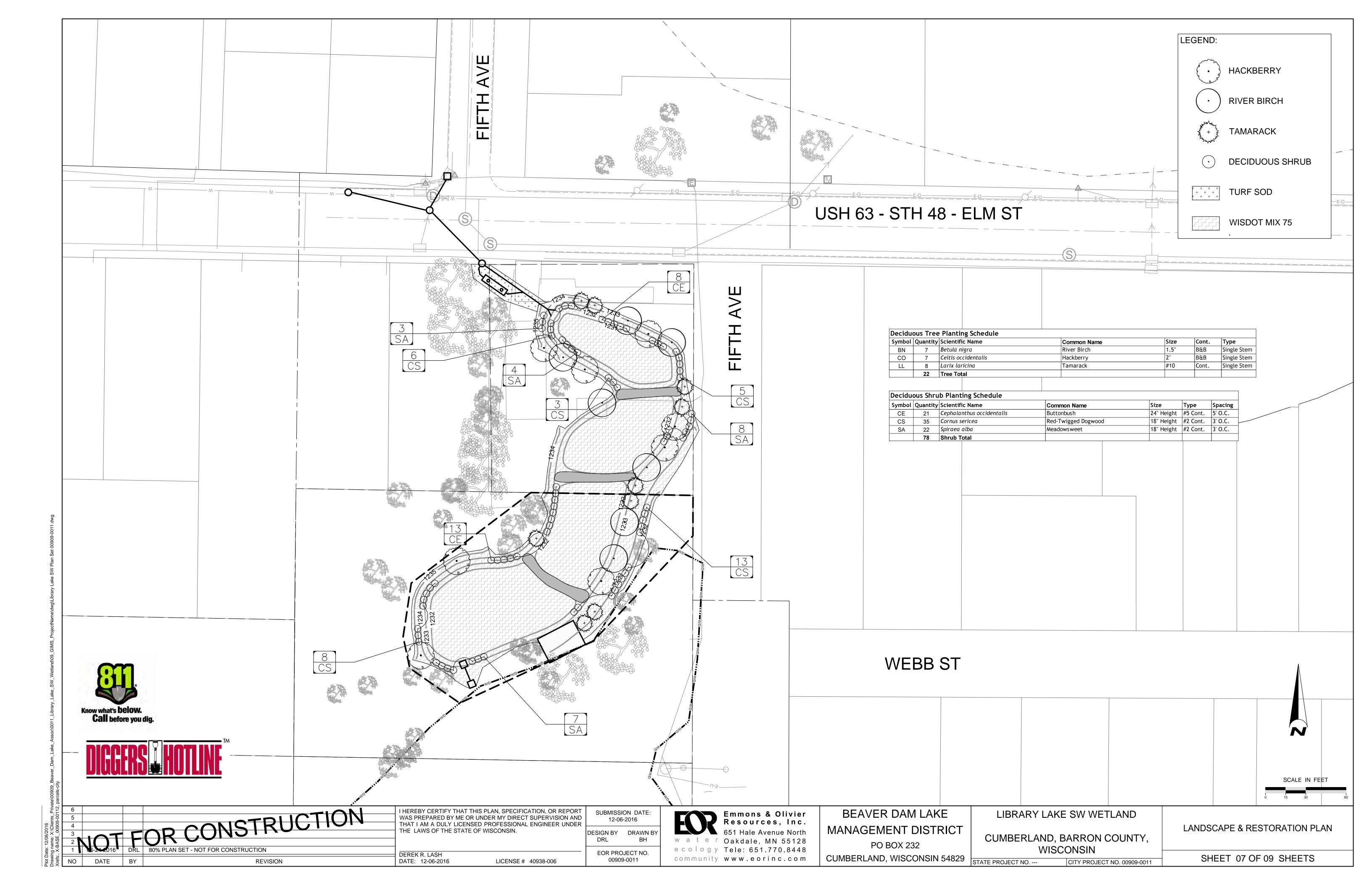
SHEET 02 OF 09 SHEETS











GENERAL LANDSCAPE NOTES

- 1. CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF WORK.
- 2. CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
- CONTRACTOR SHALL ASSURE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK AND MATERIALS SUPPLIED.
- 4. CONTRACTOR SHALL PROTECT EXISTING ROADS, CURBS/GUTTERS, TRAILS, TREES, LAWNS AND SITE ELEMENTS DURING CONSTRUCTION OPERATIONS. DAMAGE TO SAME SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER
- 5. CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON SITE.
- CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK.
- CONTRACTOR IS RESPONSIBLE FOR ONGOING MAINTENANCE OF NEWLY INSTALLED MATERIALS UNTIL TIME OF SUBSTANTIAL COMPLETION. REPAIR OF ACTS OF VANDALISM OR DAMAGE WHICH MAY OCCUR PRIOR TO SUBSTANTIAL COMPLETION SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- SYMBOLS ON PLAN DRAWING TAKE PRECEDENCE OVER SCHEDULES IF DISCREPANCIES IN QUANTITIES EXIST. SPECIFICATIONS AND DETAILS TAKE PRECEDENCE OVER NOTES.

LANDSCAPE PLANTING NOTES

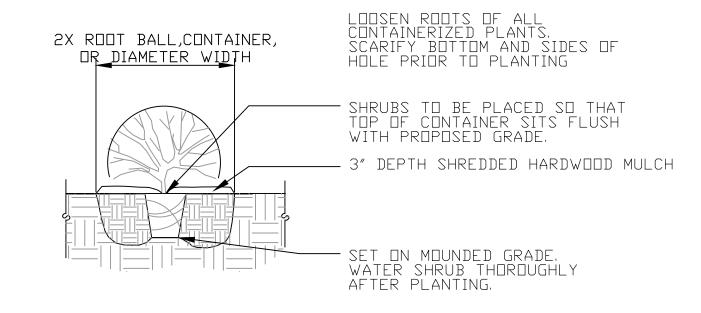
- 1. NO PLANTS WILL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- 2. PROPOSED PLANT MATERIAL SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1. UNLESS NOTED OTHERWISE, DECIDUOUS SHRUBS SHALL HAVE AT LEAST 5 CANES AT THE SPECIFIED HEIGHT. ORNAMENTAL TREES SHALL HAVE NO 'V' CROTCHES AND SHALL BEGIN BRANCHING NO LOWER THAN 3' FEET ABOVE THE ROOT BALL. PROPOSED PLANT MATERIAL SHALL BE LOCATED AND STAKED AS SHOWN ON PLAN. LANDSCAPE ARCHITECT MUST APPROVE STAKING OF PLANT MATERIAL PRIOR TO DIGGING.
- 3. NO PLANT MATERIAL SUBSTITUTIONS WILL BE ACCEPTED UNLESS APPROVAL IS GRANTED BY THE LANDSCAPE ARCHITECT TO THE CONTRACTOR PRIOR TO THE SUBMISSION OF BID.
- 4. ADJUSTMENTS IN LOCATION OF PROPOSED PLANT MATERIALS MAY BE NEEDED IN FIELD. LANDSCAPE ARCHITECT MUST BE NOTIFIED PRIOR TO ADJUSTMENT OF PLANTS.
- 5. PLANT MATERIALS TO BE INSTALLED PER PLANTING DETAILS.
- TREE WRAPPING MATERIAL SHALL BE TWO-WALLED PLASTIC SHEETING APPLIED FROM TRUNK FLARE TO FIRST BRANCH. WRAP SMOOTH-BARKED DECIDUOUS TREES PLANTED IN THE FALL PRIOR TO DECEMBER 1 AND REMOVE WRAPPING AFTER MAY 1.
- 7. TREESAND SHRUBS ARE TO RECEIVE 3" DEEP SHREDDED HARDWOOD MULCH AND SHALL HAVE NO MULCH IN DIRECT CONTACT WITH THE TRUNK OR STEMS. EXTEND MULCH IN 3' RADIUS AROUND BASE OF TREE OR SHRUB.
- 8. CONTRACTOR SHALL WARRANTY NEW PLANT MATERIAL FOR A PERIOD OF ONE (1) CALENDAR YEAR. NO PARTIAL ACCEPTANCE WILL BE CONSIDERED.

SOD NOTES

- 1. SOD AREAS DISTURBED DUE TO GRADING UNLESS NOTED OTHERWISE.
- 2. WHERE SOD ABUTS PAVED SURFACES, FINISHED GRADE OF SOD/SEED SHALL BE HELD 1" BELOW SURFACE ELEVATION OF TRAIL, SLAB, CURB, ETC.
- 3. SOD SHALL BE LAID PARALLEL TO THE CONTOURS AND SHALL HAVE STAGGERED JOINTS. UNLESS NOTED OTHERWISE, THE APPROPRIATE DATES FOR SPRING SOD PLACEMENT IS FROM THE TIME GROUND HAS THAWED TO JUNE 15.
- FALL SODDING IS ACCEPTABLE FROM AUGUST 15 TO NOVEMBER 1. ADJUSTMENTS TO SOD/SEED PLANTING DATES MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.

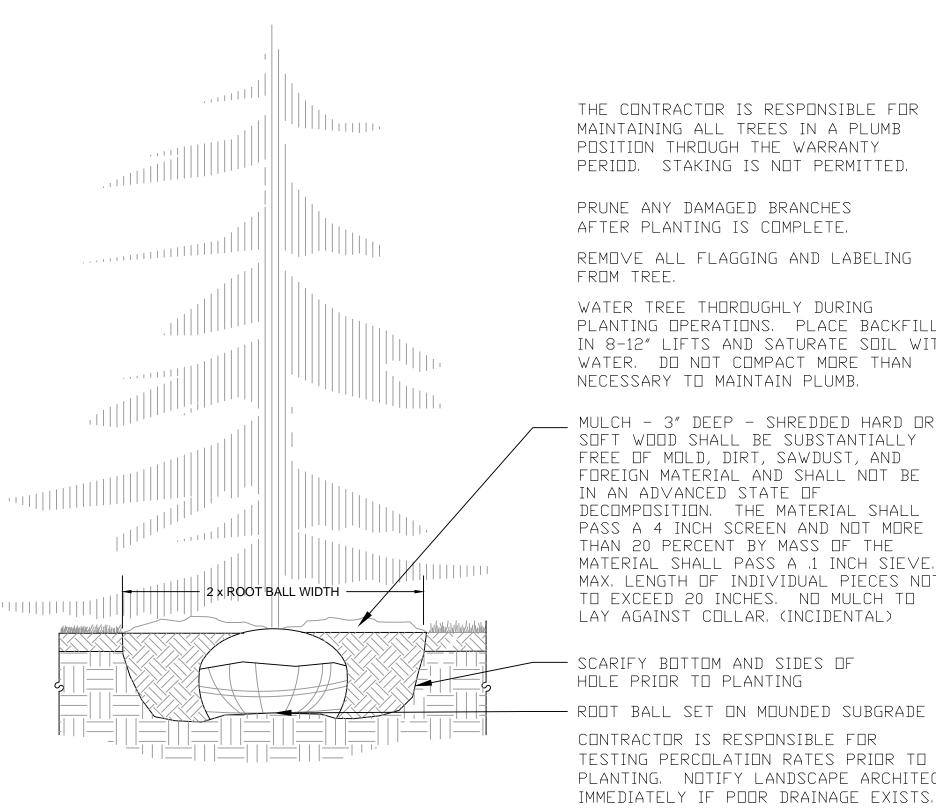
SEEDING NOTES

- RE-SPREAD SALVAGED TOPSOIL AND PREPARE SEED BED PER WISDOT SPEC. SECTION 630. USE A TRILLION BROADCAST SPREADER OR OTHER METHOD TO BROADCAST SEED AS APPROVED BY LANDSCAPE ARCHITECT. DO NOT ROLL SEED AFTER SPREADING.
- 2. APPLY WISDOT SEED MIX 75 AT A RATE OF 30 LB/AC ALONG WITH A COVER CROP OF ANNUAL OATS OR WINTER WHEAT @ 100 LB/AC. OATS SHALL BE USED IF SEEDING BETWEEN OCTOBER 15TH AND AUGUST 1ST. WINTER WHEAT SHALL BE USED IF SEEDING BETWEEN AUGUST 1ST AND OCTOBER 15TH.
- 3. SEED SHALL BE LOCAL ECOTYPE SOURCED WITHIN 150 MILES OF THE PROJECT SITE.
- 4. DO NOT APPLY FERTILIZER.



SHRUB PLANTING DETAIL

(No Scale) Library Lake SW Wetland



THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TREES IN A PLUMB POSITION THROUGH THE WARRANTY PERIOD, STAKING IS NOT PERMITTED.

PRUNE ANY DAMAGED BRANCHES AFTER PLANTING IS COMPLETE.

REMOVE ALL FLAGGING AND LABELING FROM TREE.

PLANTING OPERATIONS. PLACE BACKFILL IN 8-12" LIFTS AND SATURATE SOIL WITH WATER, DO NOT COMPACT MORE THAN NECESSARY TO MAINTAIN PLUMB.

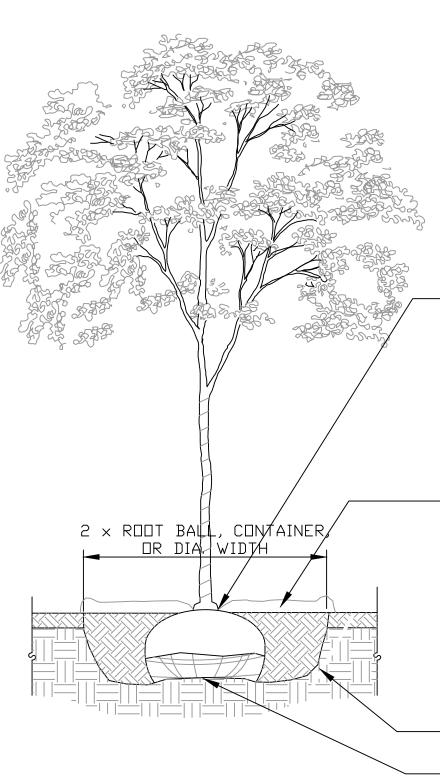
MULCH - 3" DEEP - SHREDDED HARD OR SOFT WOOD SHALL BE SUBSTANTIALLY FREE OF MOLD, DIRT, SAWDUST, AND FOREIGN MATERIAL AND SHALL NOT BE IN AN ADVANCED STATE OF DECOMPOSITION. THE MATERIAL SHALL PASS A 4 INCH SCREEN AND NOT MORE THAN 20 PERCENT BY MASS OF THE MATERIAL SHALL PASS A .1 INCH SIEVE. MAX. LENGTH OF INDIVIDUAL PIECES NOT TO EXCEED 20 INCHES. NO MULCH TO LAY AGAINST COLLAR, (INCIDENTAL)

SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING

ROOT BALL SET ON MOUNDED SUBGRADE CONTRACTOR IS RESPONSIBLE FOR TESTING PERCOLATION RATES PRIOR TO PLANTING. NOTIFY LANDSCAPE ARCHITECT

PROVIDE RODENT PROTECTION ON ALL CONIFEROUS TREES UNLESS OTHERWISE SPECIFIED.

CONIFEROUS TREE PLANTING DETAIL (No Scale) Library Lake SW Wetland



THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TREES IN A PLUMB POSITION THROUGH THE WARRANTY PERIOD. STAKING IS NOT PERMITTED. PRUNE DAMAGED AND CROSSING BRANCHES AFTER PLANTING IS COMPLETE. REMOVE ALL FLAGGING AND LABELING

FROM TREE. WATER TREE THOROUGHLY DURING
PLANTING OPERATIONS. PLACE BACKFILL
IN 8-12" LIFTS AND SATURATE SOIL WITH
WATER. DO NOT COMPACT MORE THAN NECESSARY TO MAINTAIN PLUMB. CREATE A SHALLOW RING DEPRESSION

--- PLANTS SHOULD BE AT THE PROPER DEPTH WHEREBY THE BEGINNING TAPER OF THE ROOT FLARE IS AT THE SAME ELEVATION AS THE FINISHED SOIL GRADE. THIS SHOULD BE THE SAME DEPTH AS THE PLANTS WERE GROWN AT IN THE NURSERY. NOTE THAT THE ROOTS OF BALLED AND BURLAPPED PLANTS ARE UNACCEPTABLE WHEN THEY ARE COVERED BY MORE THAN 4" OF SOIL IN THE TOP OF THE BALL.

AROUND TREE TO RETAIN WATER.

MULCH - 3" DEEP - SHREDDED HARD OR SOFT WOOD SHALL BE SUBSTANTIALLY FREE OF MOLD, DIRT, SAWDUST, AND FOREIGN MATTERIAL AND SHALL NOT BE IN AN ADVANCED STATE OF DECOMPOSITION. THE MATERIAL SHALL PASS A 4 INCH SCREEN AND NOT MORE THAN 20 PERCENT BY MASS OF THE MATERIAL SHALL PASS A .1 INCH SIEVE. MAX. LENGTH OF INDIVIDUAL PIECES NOT TO EXCEED 20 INCHES, NO MULCH TO LAY AGAINST COLLAR. (INCIDENTAL)

SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING

- ROOT BALL SET ON MOUNDED SUBGRADE

PROVIDE RODENT PROTECTION ON ALL DECIDUOUS TREES UNLESS OTHERWISE SPECIFIED. ROOT BOUND CONTAINER TREES TO BE SCARIFIED ON THE SIDES AND BOTTOM.

DECIDUOUS TREE PLANTING DETAIL

STATE PROJECT NO. ---

(No Scale) Library Lake SW Wetland

OT FOR CONSTRUCTION 80% PLAN SET - NOT FOR CONSTRUCTION

HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

LICENSE # 40938-006

DEREK R. LASH

DATE: 12-06-2016

SUBMISSION DATE: 12-06-2016 DESIGN BY DRAWN BY

00909-0011

BH EOR PROJECT NO. community www.eorinc.com

Emmons & Olivier Resources, Inc. 651 Hale Avenue North w a t e r Oakdale, MN 55128 ecology Tele: 651.770.8448 BEAVER DAM LAKE

MANAGEMENT DISTRICT PO BOX 232

CUMBERLAND, WISCONSIN 54829

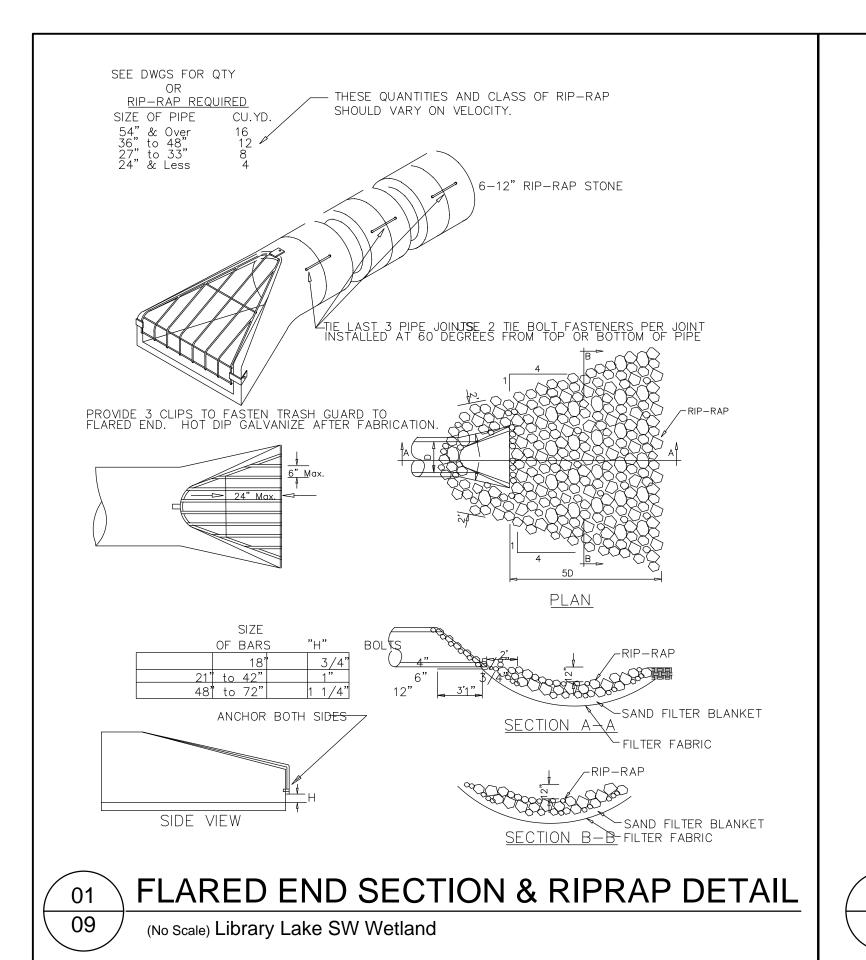
LIBRARY LAKE SW WETLAND

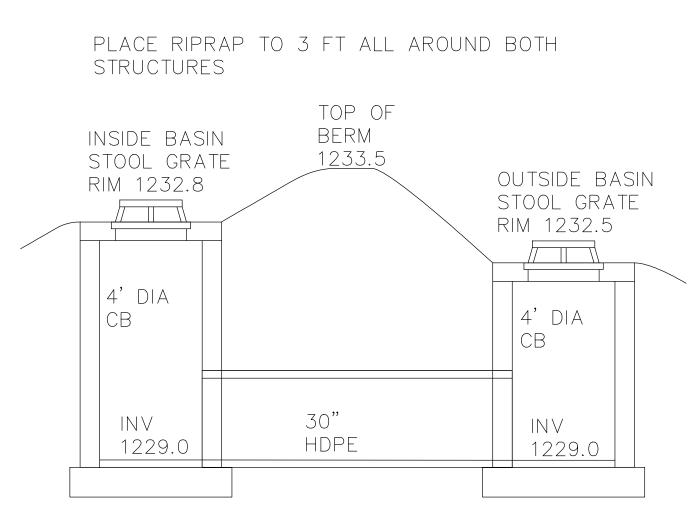
CUMBERLAND, BARRON COUNTY. WISCONSIN

CITY PROJECT NO. 00909-0011

LANDSCAPE NOTES & DETAILS

SHEET 08 OF 09 SHEETS





OUTLET STRUCTURE DETAIL (No Scale) Library Lake SW Wetland

INLET PROTECTION DETAIL

ATTACH GEOTEXTILE
FABRIC, TYPE FF TO
THE STAKES AND
CROSS BRACING.

(No Scale) Library Lake SW Wetland

CROSS BRACING

INLET PROTECTION, TYPE A

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

D FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES, THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

3 FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL

GENERAL NOTES

DIRECTION OF THE ENGINEER.

INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)

INLET PROTECTION, TYPE C (WITH CURB BOX)

TYPE B & C

TYPE D

INSTALLATION NOTES

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

WOOD 2" × 4" EXTENDS

8" BEYOND GRATE WIDTH ON BOTH SIDES.

LENGTH VARIES.
SECURE TO GRATE WITH WIRE OR PLASTIC TIES

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

GENERAL NOTES DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM. EXISTING & — CULVERT PIPE IF NEEDED PLAN VIEW TRACKING PAD STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION TRACKING PAD

CONSTRUCTION ENTRANCE - TRACKING PAD DETAIL

(No Scale) Library Lake SW Wetland

OT FOR CONSTRUCTION

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DEREK R. LASH

DATE: 12-06-2016

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BEAVER DAM LAKE MANAGEMENT DISTRICT PO BOX 232

LIBRARY LAKE SW WETLAND CUMBERLAND, BARRON COUNTY, WISCONSIN

CITY PROJECT NO. 00909-0011

STATE PROJECT NO. ---

INLET SPECIFICATIONS AS PER THE PLAN
DIMENSION LENGTH AND WIDTH TO MATCH

INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

OR
FOR INLETS WITH CAST
CURB BOX USE WOOD
2" X 4", EXTEND 10" BEYOND
GRATE WIDTH ON BOTH
SIDES, LENGTH VARIES,
SECURE TO GRATE WITH
WIRE OR PLASTIC TIES

— 4" X 6" OVAL HOLE SHALL BE HEAT CUT INTO ALL FOUR SIDE PANELS.

INLET PROTECTION

TYPE A, B, C, AND D

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

DETAILS

LICENSE # 40938-006

EOR PROJECT NO. 00909-0011

CUMBERLAND, WISCONSIN 54829

SHEET 09 OF 09 SHEETS