BELL CREEK PARK WETLAND RESTORATION PROJECT

PART OF THE ROUGE RIVER AOC WAYNE COUNTY HABITAT RESTORATON PROJECT

WAYNE COUNTY, MICHIGAN

FOR BIDDING - JANUARY, 2022

Working together, restoring the river

PREPARED BY:

ECT Environmental Consulting & Technology, Inc.

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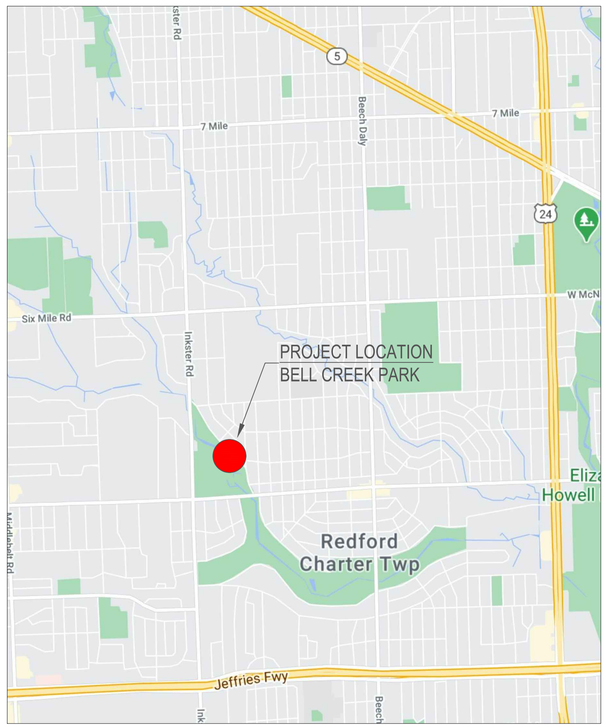
WITH:

MIDWESTERN CONSULTING

Somat Engineering INCORPORATED

BELL CREEK PARK
REDFORD TOWNSHIP,
WAYNE COUNTY, MI
NOT TO SCALE



PROJECT LOCATION MAP
NOT TO SCALE

NORTH

PROJECT VICINITY MAP
NOT TO SCALE

NORTH

DRAWING INDEX

PROJECT DESIGN FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02432-2).
PROJECT IMPLEMENTATION FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02896).

EXISTING SITE CONDITIONS:

1. CONTRACTOR SHALL BECOME FAMILIAR WITH ALL EXISTING SITE CONDITIONS PRIOR TO STARTING WORK.

2. THE CONTRACTOR UNDERSTANDS AND ACKNOWLEDGES THAT THE PERFORMANCE OF THE WORK IS REQUIRED WITHIN THE ROUGE RIVER SYSTEM AND FLOODPLAIN AND THAT THE ROUGE RIVER WATER LEVEL FLUCTUATES. ROUGE RIVER HAS A VERY SHORT RESPONSE TIME TO STORM RUNOFF.

3. THE CONTRACTOR UNDERSTANDS AND ACKNOWLEDGES THAT THEY HAVE TAKEN INTO ACCOUNT THE POTENTIAL FOR ANY WATER LEVEL CHANGES THAT MIGHT OCCUR IN COSTING, SCHEDULING, AND FEASIBILITY OF PERFORMING THE CONTRACT WORK UNDER THE PREVAILING ENVIRONMENTAL CONDITIONS. THEREFORE THE CONTRACTOR ACKNOWLEDGES THAT ANY FLUCTUATION IN WATER LEVELS, FLOODING, OR INUNDATION DURING/OVER THE COURSE OF THE PROJECT IS LIKELY AND DOES NOT CONSTITUTE A CHANGE IN CONDITIONS OR AN UNFORESEEN SITE CONDITION.

4. THE CONTRACTOR SHALL BE FULLY AWARE OF THE ROUGE RIVER HYDROLOGY AND CURRENT WEATHER CONDITIONS SO THAT WORK CAN BE SECURED AND PROTECTED AT ALL TIMES, SO THAT SAFE JOB SITE WORKING CONDITIONS ARE MAINTAINED, AND SO THAT SOIL EROSION IS CONTROLLED IN ACCORDANCE WITH ALL APPLICABLE PERMITS AND ENVIRONMENTAL LAWS.

5. THE CONTRACTOR ACKNOWLEDGES THAT DELAYS IN THE START OF, OR COMPLETION OF, WORK DUE TO FLUCTUATIONS IN WATER LEVEL THROUGHOUT THE DURATION OF THE PROJECT SHALL NOT CONSTITUTE A CHANGE IN CONDITIONS NOR SHALL BE A BASIS FOR ANY EXTENSION OF TIME OR DAMAGES. IF THE CONTRACTOR SHALL BE UNAVOIDABLE DELAYED IN BEGINNING OR FULFILLING THIS CONTRACT BY REASONS OF CHANGING WATER LEVELS, STORMS, INUNDATION OR FLOODS, THE CONTRACTOR SHALL HAVE NOT VALID CLAM FOR DAMAGES, BUT 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 14 DAYS OF THE ALLEGED DELAY.

6. THE ENGINEER RESERVES THE RIGHT TO SUSPEND WORK ACTIVITIES WHEN IT IS IN THE BEST INTEREST OF THE PROJECT TO DO SO DUE TO WEATHER, FLOW, OR WATER LEVEL CONDITIONS. THE DIRECTIVE TO SUSPEND WORK ACTIVITIES SHALL BE SUBMITTED TO THE CONTRACTOR, BY THE ENGINEER, IN WRITING. SUCH SUSPENSION SHALL NOT BE BASIS FOR CLAIM FOR ADDITIONAL COST BUT CAN BE BASIS FOR EXTENSION OF TIME.

7. THE CONTRACTOR SHALL RESEARCH AVAILABLE INFORMATION AND PERFORM ITS OWN INDEPENDENT INVESTIGATIONS AS NEEDED IN AN EFFORT TO FULLY UNDERSTAND ENVIRONMENTAL CONDITIONS ASSOCIATED WITH THE PROJECT SITE. THE CONTRACTOR SHALL UNDERSTAND THE SITE CONDITIONS THAT WILL AFFECT THE COST, SCHEDULE, OR PERFORMANCE OF WORK IN ADVANCE OF STARTING SUCH WORK.

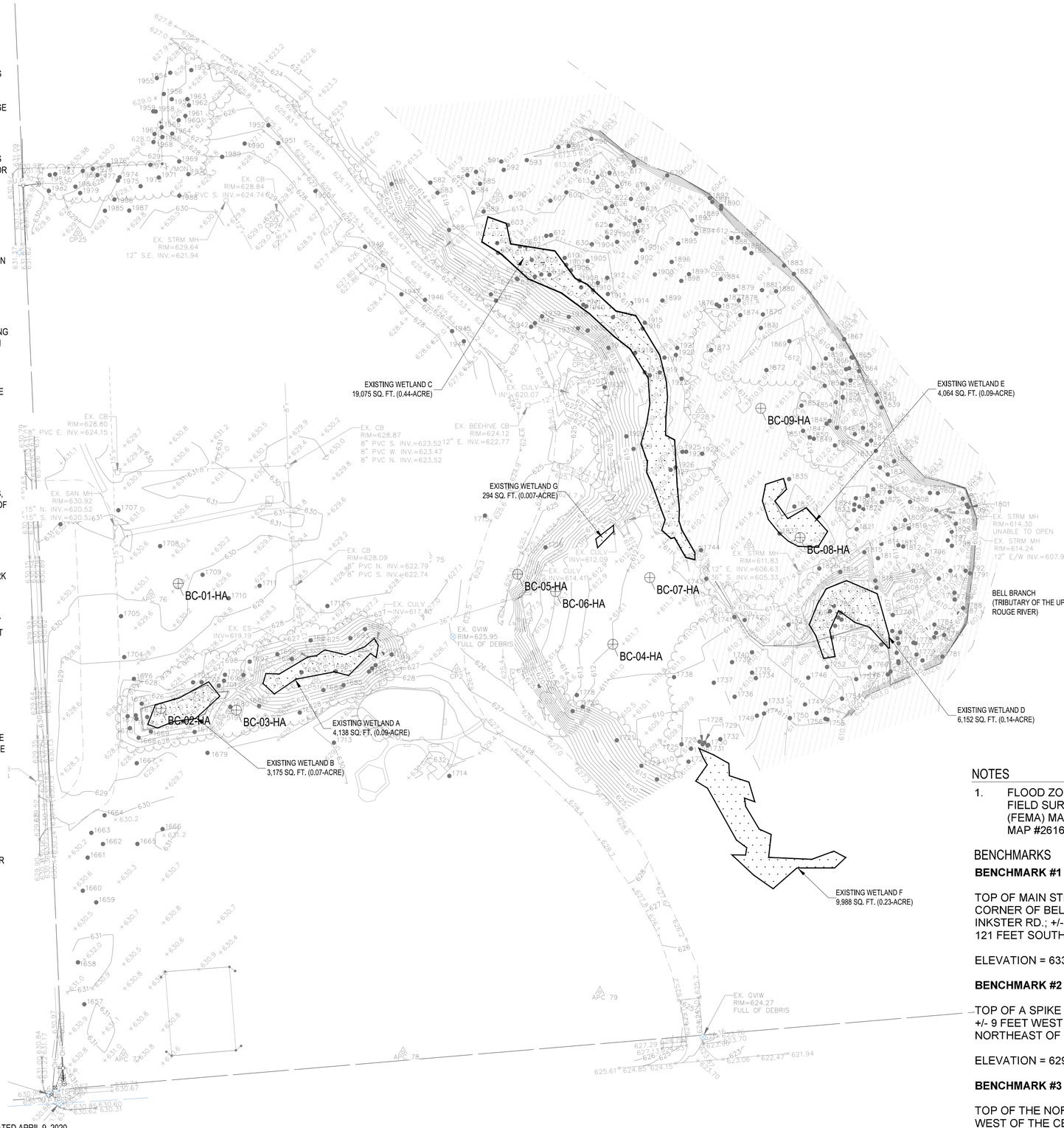
8. TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY MIDWESTERN CONSULTING, INC. SURVEY CONDUCTED IN APRIL, 2020.

9. ALL ELEVATIONS SHOWN ARE IN NAVD88 DATUM.

10. CONTRACTOR TO CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION, AND REPORT ANY DISCREPANCIES TO PROJECT TEAM PRIOR TO COMMENCING WORK ACTIVITIES.

11. SOIL SAMPLE LABORATORY DATA IS INCLUDED IN THE CONTRACT DOCUMENTS

12. EXISTING TREE INVENTORY ON SHEET 3.



LEGEND

- EXIST, CONTOUR
- EXIST, SPOT ELEVATION
- EXIST, UTILITY POLE
- GUY WIRE
- EXIST, OVERHEAD UTILITY LINE
- EXIST, LIGHT POLE
- EXIST, GAS LINE
- EXIST, WATER MAIN
- EXIST, HYDRANT
- EXIST. GATE VALVE IN WELL
- EXIST, CATCH BASIN OR INLET
- CULVERT
- SIGN
- SPRINKLER CONTROL BOX
- GAS METER
- GAS LINE MARKER
- FIBER OPTIC MARKER
- PEDESTRIAN CROSSING SIGNAL
- TRAFFIC SIGNAL CONTROL BOX
- POST
- FENCE
- SINGLE TREE
- TREE OR BRUSH LIMIT
- SECTION CORNER
- FOUND MONUMENT
- FOUND IRON ROD
- CONTROL PT.
- REGULATORY FLOODWAY AREA
- LIMIT OF FLOOD ZONE AE (819 CONTOUR)
- STREAM CENTERLINE
- EXISTING WETLANDS (MI NWI)
- SOIL SAMPLE LOCATIONS (BC-01)

NOTES

1. FLOOD ZONE AND REGULATORY FLOODWAY LIMITS DETERMINED WITH FIELD SURVEY AND FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) MAP #26163C0068E, EFFECTIVE FEBRUARY 2, 2012 & MAP #26163C0064E, EFFECTIVE FEBRUARY 2, 2012.

BENCHMARKS

BENCHMARK #1

TOP OF MAIN STEAMER VALVE OF A HYDRANT LOCATED IN THE NORTHWET CORNER OF BELL CREEK PARK; +/- 51 FEET EAST OF THE CENTERLINE OF INKSTER RD.; +/-89 FEET WEST-SOUTHWEST FROM CONTROL POINT #25; +/- 121 FEET SOUTH OF A CONCRETE DRIVEWAY (TO HSE#15648)

ELEVATION = 633.23 (NAVD88 DATUM)

BENCHMARK #2

TOP OF A SPIKE LOCATED IN THE EAST FACE OF A 19" ELM TREE (TAG #1714); +/- 9 FEET WEST OF THE WEST EDGE OF BELL CREEK R. (GRAVEL); +/-98 FEET NORTHEAST OF CONTROL POINT #75;

ELEVATION = 629.21 (NAVD88 DATUM)

BENCHMARK #3

TOP OF THE NORTHEAST CORNER OF A CONCRETE VAULT LOCATED +/- 45 WEST OF THE CENTERLINE OF BELL CREEK; +/-19 FEET EAST OF AN 8" BOX ELDER (TREE TAG #1804); +/-125 FEET SOUTHEAST OF CONTROL POINT #4;

ELEVATION = 613.62 (NAVD88 DATUM)

BASE SURVEY CONDUCTED BY MIDWESTERN CONSULTING DATED APRIL 9, 2020
ALL ELEVATIONS SHOWN ARE IN NAVD88 DATUM.

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ECT Environmental Consulting & Technology, Inc.
Great Lakes RESTORATION
United States Environmental Protection Agency
Alliance of Rouge Communities — OURS TO PROTECT — Working together, restoring the river
Wayne County parks — EXPLORE EVEN MORE

ROUGE RIVER WATERSHED AOC- WAYNE COUNTY HABITAT RESTORATION

BELL CREEK PARK WETLAND RESTORATION PROJECT

ALLIANCE OF ROUGE COMMUNITIES

WAYNE COUNTY, MICHIGAN

BIDDING	JAN 2022
AGENCY REVIEW	06-10-21
PRELIMINARY	04-21-20

200115-0200
ECT PROJECT NUMBER

DESIGNED BY	CHECKED BY
AAB	
DRAWN BY	APPROVED BY
PFH	JMO

SHEET TITLE

EXISTING CONDITIONS PLAN

SCALE: 1" = 80' @ 22" x 34"
0 40' 80' 160'

NORTH

SHEET NUMBER
2

TREE LIST

LM = LANDMARK | INV = INVASIVE | % = PERCENT ALIVE

TAG#	DBH	COMMON NAME	GENUS/SPECIES	STEMS	SCORE	LM	INV
1657	27"	Red Oak	Quercus rubra				
1658	33"	Red Oak	Quercus rubra				
1659	24"	Red Oak	Quercus rubra				
1660	30"	Red Oak	Quercus rubra				
1661	31"	Red Oak	Quercus rubra				
1662	29"	Red Oak	Quercus rubra				
1663	23"	Red Oak	Quercus rubra				
1664	27"	Red Oak	Quercus rubra				
1665	21"	Red Oak	Quercus rubra				
1666	36"	Red Oak	Quercus rubra				
1667	20"	Northern Hackberry	Celtis occidentalis				
1668	9"	Norway Maple	Acer platanoides				
1669	9"	Norway Maple	Acer platanoides				
1670	9"	White PoplarUM	Populas albaUM				
1671	8"	Norway Maple	Acer platanoides				
1672	12"	American Elm	Ulmus americana				
1673	8"	American Elm	Ulmus americana				
1674	8"	Box Elder	Acer negundo				
1675	13"	Norway Maple	Acer platanoides				
1676	24"	Sugar Maple	Acer saccharum		40%		
1677	19"	Black Willow	Salix nigra				
1678	9"	Common Apple	Malus pumila	twin			
1679	21"	Red Oak	Quercus rubra				
1680	9"	American Elm	Ulmus americana				
1681	9"	Hawthorn	Crataegus	twin			
1682	19"	Northern Hackberry	Celtis occidentalis				
1683	18"	American Elm	Ulmus americana				
1684	7"	Hawthorn	Crataegus	twin			
1685	8"	Hawthorn	Crataegus	twin			
1686	6"	Hawthorn	Crataegus	quad			
1687	8"	Hawthorn	Crataegus				
1688	7"	Hawthorn	Crataegus	triple			
1689	8"	Hawthorn	Crataegus				
1690	9"	Common Apple	Malus pumila				
1691	9"	Hawthorn	Crataegus	twin			
1692	7"	Hawthorn	Crataegus	quad			
1693	12"	Black Willow	Salix nigra	twin			
1694	7"	Hawthorn	Crataegus	quad			
1695	7"	Hawthorn	Crataegus	twin			
1696	11"	Black Cherry	Prunus serotina				
1697	11"	Box Elder	Acer negundo				
1698	14"	Box Elder	Acer negundo				
1699	8"	Box Elder	Acer negundo				
1700	12"	Box Elder	Acer negundo	twin			
1701	13"	Black Walnut	Juglans nigra				
1702	25"	Black Willow	Salix nigra	twin			
1703	8"	Siberian Elm	Ulmus pumila				
1704	19"	Sugar Maple	Acer saccharum		40%		
1705	17"	Sugar Maple	Acer saccharum				
1706	12"	Silver Maple	Acer saccharinum		40%		
1707	19"	Sugar Maple	Acer saccharum		40%		
1708	6"	Hawthorn	Crataegus	triple			
1709	10"	Hawthorn	Crataegus	twin			
1710	15"	Red Oak	Quercus rubra				
1711	23"	Red Oak	Quercus rubra				
1712	29"	Sugar Maple	Acer saccharum				
1713	11"	Norway Maple	Acer platanoides				
1714	12"	Crab Apple	Malus coronaria				
1715	19"	American Elm	Ulmus americana				
1716	16"	Silver Maple	Acer saccharinum				
1717	22"	Silver Maple	Acer saccharinum				
1718	17"	Black Walnut	Juglans nigra				
1719	10"	American Elm	Ulmus americana				
1720	8"	Black Walnut	Juglans nigra	twin			
1721	22"	Bur Oak	Quercus macrocarpa				
1722	11"	Black Walnut	Juglans nigra				
1723	26"	Black Walnut	Juglans nigra				
1724	13"	American Elm	Ulmus americana				
1725	9"	American Elm	Ulmus americana				
1726	39"	Cottonwood	Populus deltoides				
1727	30"	Cottonwood	Populus deltoides				
1728	22"	Cottonwood	Populus deltoides				
1729	27"	Cottonwood	Populus deltoides				
1730	13"	Cottonwood	Populus deltoides				
1731	23"	Cottonwood	Populus deltoides				
1732	14"	Black Walnut	Juglans nigra				
1733	19"	Black Walnut	Juglans nigra				
1734	10"	American Elm	Ulmus americana				
1735	10"	Bitternut Hickory	Carya cordiformis				
1736	10"	Bitternut Hickory	Carya cordiformis				
1737	11"	Box Elder	Acer negundo				
1738	15"	American Elm	Ulmus americana				
1739	14"	Sycamore	Plantanus occidentalis				
1740	10"	Hawthorn	Crataegus				
1741	40"	Cottonwood	Populus deltoides				
1742	9"	Black Cherry	Prunus serotina				
1743	29"	Sycamore	Plantanus occidentalis				
1744	9"	Black Willow	Black Willow	quad			
1745	12"	Black Walnut	Juglans nigra				
1746	21"	Black Walnut	Juglans nigra				
1747	19"	Black Walnut	Juglans nigra				
1748	10"	Northern Hackberry	Celtis occidentalis				
1749	17"	Black Walnut	Juglans nigra				
1750	10"	Black Walnut	Juglans nigra				
1751	15"	Black Walnut	Juglans nigra				
1752	11"	Black Walnut	Juglans nigra				
1753	44"	Black Willow	Black Willow				
1754	29"	Black Walnut	Juglans nigra				
1755	13"	Linden	Tilia americana				
1756	11"	Linden	Tilia americana				
1757	46"	Black Willow	Black Willow				
1758	29"	Cottonwood	Populus deltoides				
1759	7"	American Elm	Ulmus americana	twin			
1760	22"	Cottonwood	Populus deltoides				
1761	14"	Cottonwood	Populus deltoides				
1762	20"	Cottonwood	Populus deltoides				
1763	17"	Cottonwood	Populus deltoides				
1764	11"	American Elm	Ulmus americana				
1765	8"	Silver Maple	Acer saccharinum				
1766	9"	American Elm	Ulmus americana				
1767	10"	Silver Maple	Acer saccharinum				
1768	12"	Silver Maple	Acer saccharinum				
1769	13"	Silver Maple	Acer saccharinum				
1770	9"	Box Elder	Acer negundo				
1771	11"	Silver Maple	Acer saccharinum				
1772	15"	Cottonwood	Populus deltoides				
1773	31"	Cottonwood	Populus deltoides				
1774	34"	Cottonwood	Populus deltoides				
1775	12"	Cottonwood	Populus deltoides				
1776	21"	Cottonwood	Populus deltoides				
1777	33"	Cottonwood	Populus deltoides				
1778	25"	Cottonwood	Populus deltoides				
1779	9"	Box Elder	Acer negundo				
1780	8"	Box Elder	Acer negundo				
1781	16"	Silver Maple	Acer saccharinum				
1782	9"	Box Elder	Acer negundo				
1783	14"	Box Elder	Acer negundo				
1784	9"	Box Elder	Acer negundo				
1785	41"	Cottonwood	Populus deltoides				
1786	13"	Silver Maple	Acer saccharinum				
1787	12"	Box Elder	Acer negundo				
1788	9"	Silver Maple	Acer saccharinum				
1789	13"	Box Elder	Acer negundo		40%		
1790	11"	Box Elder	Acer negundo	twin	40%		
1791	11"	Linden	Tilia americana				
1792	14"	Linden	Tilia americana				
1793	8"	American Elm	Ulmus americana				
1794	14"	Black Walnut	Juglans nigra				
1795	47"	Cottonwood	Populus deltoides				
1796	8"	Silver Maple	Acer saccharinum				
1797	10"	American Elm	Ulmus americana				
1798	10"	Northern Hackberry	Celtis occidentalis				
1799	12"	Northern Hackberry	Celtis occidentalis				
1800	25"	Cottonwood	Populus deltoides				
1801	8"	Box Elder	Acer negundo				
1802	14"	Black Walnut	Juglans nigra				
1803	12"	Box Elder	Acer negundo				
1804	8"	Box Elder	Acer negundo				
1805	9"	Black Locust	Robinia pseudoacaci				
1806	8"	Northern Hackberry	Celtis occidentalis				
1807	20"	Black Walnut	Juglans nigra				
1808	29"	Box Elder	Acer negundo				
1809	14"	Box Elder	Acer negundo				
1810	12"	Sweet Cherry	Prunus avuim		40%		
1811	9"	Box Elder	Acer negundo				
1812	10"	Linden	Tilia americana				
1813	8"	Linden	Tilia americana				
1814	12"	River Birch	Betula nigra				
1815	16"	Black Cherry	Prunus serotina				
1816	10"	Box Elder	Acer negundo				
1817	10"	Silver Maple	Acer saccharinum				
1818	23"	Silver Maple	Acer saccharinum				
1819	9"	Box Elder	Acer negundo				
1820	21"	Black Walnut	Juglans nigra				
1821	13"	Northern Hackberry	Celtis occidentalis				
1822	35"	Sycamore	Plantanus occidentalis				
1823	9"	Sycamore	Plantanus occidentalis				
1824	14"	Box Elder	Acer negundo				
1825	9"	Box Elder	Acer negundo				
1826	14"	Box Elder	Acer negundo				
1827	8"	Black Cherry	Prunus serotina				
1828	9"	Box Elder	Acer negundo				
1829	14"	American Elm	Ulmus americana				
1830	10"	Bitternut Hickory	Carya cordiformis				
1831	13"	Black Maple	Acer nigrum				
1832	13"	Box Elder	Acer negundo				
1833	14"	Silver Maple	Acer saccharinum				
1834	9"	Silver Maple	Acer saccharinum				
1835	24"	Sycamore	Plantanus occidentalis				
1836	22"	Sycamore	Plantanus occidentalis				
1837	23"	Sycamore	Plantanus occidentalis				
1838	13"	Silver Maple	Acer saccharinum				
1839	11"	Box Elder	Acer negundo				
1840	8"	Silver Maple	Acer saccharinum				
1841	21"	Silver Maple	Acer saccharinum				
1842	8"	Box Elder	Acer negundo				
1843	10"	Box Elder	Acer negundo				
1844	9"	Box Elder	Acer negundo				
1845	9"	Box Elder	Acer negundo				
1846	49"	Cottonwood	Populus deltoides				
1847	8"	Box Elder	Acer negundo				
1848	12"	Sweet Cherry	Prunus avuim				
1849	17"	Osage Orange	OO				
1850	8"	American Elm	Ulmus americana				
1851	10"	Box Elder	Acer negundo				
1852	17"	Silver Maple	Acer saccharinum	twin			
1853	33"	Cottonwood	Populus deltoides				
1854	20"	Silver Maple	Acer saccharinum				
1855	12"	Silver Maple	Acer saccharinum				
1856	10"	Silver Maple	Acer saccharinum				
1857	9"	Box Elder	Acer negundo				
1858	8"	Box Elder	Acer negundo				
1859	9"	Box Elder	Acer negundo				
1860	39"	Cottonwood	Populus deltoides				
1861	30"	Cottonwood	Populus deltoides				
1862	29"	Cottonwood	Populus deltoides				
1863	8"	Box Elder	Acer negundo				
1864	15"	Silver Maple	Acer saccharinum				
1865	10"	Silver Maple	Acer saccharinum				
1866	11"	Silver Maple	Acer saccharinum	twin			
1867	9"	Silver Maple	Acer saccharinum	twin			
1868	34"	Cottonwood	Populus deltoides				
1869	19"	Box Elder	Acer negundo				
1870	8"	Box Elder	Acer negundo				
1871	8"	American Elm	Ulmus americana				
1872	10"	Box Elder	Acer negundo				
1873	15"	Box Elder	Acer negundo				
1874	13"	Black Walnut	Juglans nigra				
1875	8"	Northern Hackberry	Celtis occidentalis				
1876	8"	Black Cherry	Prunus serotina				
1877	9"	Black Cherry	Prunus serotina				
1878	8"	American Elm	Ulmus americana				
1879	8"	White PoplarUM	Populas albaUM				
1880	11"	Box Elder	Acer negundo				
1881	11"	Box Elder	Acer negundo				
1882	9"	American Elm	Ulmus americana				
1883	14"	Silver Maple	Acer saccharinum				
1884	10"	Black Walnut	Juglans nigra				
1885	14"	Northern Hackberry	Celtis occidentalis				
1886	10"	American Elm	Ulmus americana				
1887	8"	Box Elder	Acer negundo				
1888	18"	Box Elder	Acer negundo				
1889	12"	Northern Hackberry	Celtis occidentalis				
1890	9"	Northern Hackberry	Celtis occidentalis				
1891	10"	Northern Hackberry	Celtis occidentalis				
1892	19"	Linden	Tilia americana				
1893	19"	Black Walnut	Juglans nigra				
1894	14"	American Elm	Ulmus americana				
1895	20"	Black Walnut	Juglans nigra				
1896	18"	Black Walnut	Juglans nigra				
1897	18"	Box Elder	Acer negundo				
1898	14"	Box Elder	Acer negundo				
1899	11"	Northern Hackberry	Celtis occidentalis				
1900	12"	American Elm	Ulmus americana				
1901	10"	Box Elder	Acer negundo				
1902	8"	Northern Hackberry	Celtis occidentalis				
1903	15"	Black Walnut	Juglans nigra				
1904	13"	Bitternut Hickory	Carya cordiformis				
1905	15"	Silver Maple	Acer saccharinum				
1906	11"	American Elm	Ulmus americana				
1907	27"	Silver Maple	Acer saccharinum				
1908	8"	American Elm	Ulmus americana				
1909	9"	American Elm	Ulmus americana				
1910	13"	Silver Maple	Acer saccharinum				
1911	13"	Silver Maple	Acer saccharinum				
1912	9"	Red Maple	Acer rubrum				
1913	18"	Silver Maple	Acer saccharinum				
1914	20"	Black Walnut	Juglans nigra				
1915	15"	Silver Maple	Acer saccharinum				
1916	28"	Silver Maple	Acer saccharinum				
1917	9"	Linden	Tilia americana				
1918	12"	Silver Maple	Acer saccharinum				
1919	11"	Silver Maple	Acer saccharinum				
1920	12"	Black Walnut	Juglans nigra				
1921	20"	Black Walnut	Juglans nigra				
1922	19"	Silver Maple	Acer saccharinum				
1923	11"	Hawthorn	Crataegus				
1924	14"	White Mulberry	Morus alba				
1925	9"	Box Elder	Acer negundo				
1926	8"	American Elm	Ulmus americana				
1927	11"	Silver Maple	Acer saccharinum	twin			
1928	8"	Black Walnut	Juglans nigra				
1929	10"	American Elm	Ulmus americana				
1930	12"	Black Walnut	Juglans nigra				
1931	40"	White Oak	Quercus alba				
1932	17"	Silver Maple	Acer saccharinum				
1933	10"	Cottonwood	Populus deltoides				
1934	20"	Black Walnut	Juglans nigra				
1935	11"	Silver Maple	Acer saccharinum				
1936	13"	Box Elder	Acer negundo				
1937	15"	Black Walnut	Juglans nigra				
1938	28"	Black Walnut	Juglans nigra				
1939	18"	Black Walnut	Juglans nigra				
1940	21"	Silver Maple	Acer saccharinum				
1941	8"	Silver Maple	Acer saccharinum				
1942	17"	Sugar Maple	Acer saccharum				
1943	8"	American Elm	Ulmus americana				
1944	21"	Red Oak	Quercus rubra				
1945	17"	Sugar Maple	Acer saccharum				
1946	30"	Red Oak	Quercus rubra				
1947	19"	Red Oak	Quercus rubra				
1948	27"	Red Oak	Quercus rubra				
1949	11"	Sugar Maple	Acer saccharum				
1950	31"	Red Oak	Quercus rubra				
1951	28"	Red Oak	Quercus rubra				
1952	24"	Red Oak	Quercus rubra				
1953	20"	American Elm	Ulmus americana				
1954	9"	American Elm	Ulmus americana				
1955	26"	Black Locust	Robinia pseudoacaci	twin			
1956	8"	Box Elder	Acer negundo				
1957	8"	Box Elder	Acer negundo				
1958	16"	Black Locust	Robinia pseudoacaci				
1959	15"	Black Locust	Robinia pseudoacaci				
1960	11"	Box Elder	Acer negundo				
1961	9"	Silver Maple	Acer saccharinum				
1962	8"	Black Walnut	Juglans nigra				
1963	9"	Box Elder	Acer negundo		40%		
1964	8"	Black Cherry	Prunus serotina				
1965	11"	American Elm	Ulmus americana				
1966	10"	American Elm	Ulmus americana				
1967	27"	Cottonwood	Populus deltoides				
1968	29"	Cottonwood	Populus deltoides				
1969	10"	Box Elder	Acer negundo				
1970	27"	Red Oak	Quercus rubra				
1971	15"	American Elm	Ulmus americana				
1972	21"	Honey Locust	Gleditsia triacanthos				
1973	7"	American Elm	Ulmus americana	twin			
1974	8"	Hawthorn	Crataegus				
1975	9"	Hawthorn	Crataegus				
1976	8"	Siberian Elm	Ulmus pumila				
1977	15"	Siberian Elm	Ulmus pumila				
1978	19"	Siberian Elm	Ulmus pumila				
1979	10"	White PoplarUM	Populas albaUM				
1980	17"	Siberian Elm	Ulmus pumila	twin			
1981	8"	Box Elder	Acer negundo				
1982	9"	American Elm	Ulmus americana				
1983	9"	Box Elder	Acer negundo				
1984	14"	American Elm	Ulmus americana				
1985	16"	Honey Locust	Gleditsia triacanthos				
1986	16"	Honey Locust	Gleditsia triacanthos				
1987	15"	Silver Maple	Acer saccharinum				
1988	16"	Honey Locust	Gleditsia triacanthos				
1989	28"	Red Oak	Quercus rubra				
1990	27"	Red Oak	Quercus rubra				

PROJECT DESIGN FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02432-2).
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ECT Environmental Consulting & Technology, Inc.

Great Lakes RESTORATION

United States Environmental Protection Agency

Alliance of Rouge Communities — OURS TO PROTECT — Working together, restoring the river

Wayne County parks — EXPLORE EVEN MORE

ROUGE RIVER WATERSHED AOC- WAYNE COUNTY HABITAT RESTORATION

BELL CREEK PARK WETLAND RESTORATION PROJECT

ALLIANCE OF ROUGE COMMUNITIES

WAYNE COUNTY, MICHIGAN

BIDDING	JAN 2022
AGENCY REVIEW	06-10-21
PRELIMINARY	04-21-20

200115-0200
ECT PROJECT NUMBER

DESIGNED BY	CHECKED BY
PFH	AAB
DRAWN BY	APPROVED BY
	JMO

SHEET TITLE

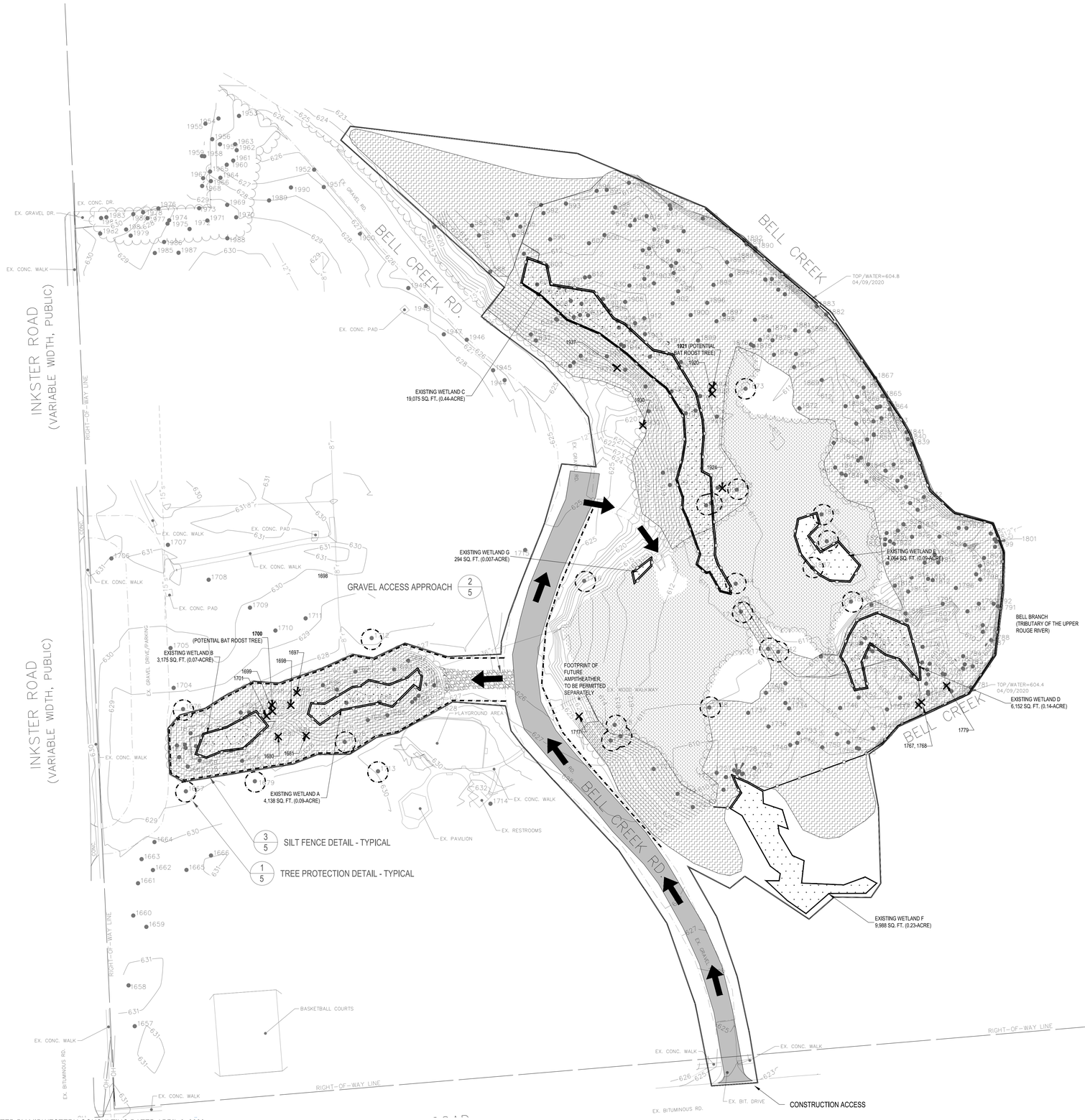
TREE LIST

SCALE: 1" = 300' @ 22" x 34"

0 150' 300' 600'

NORTH

SHEET NUMBER 3



LEGEND

- EXIST. CONTOUR
- EXIST. UTILITY POLE
- GUY WIRE
- EXIST. OVERHEAD UTILITY LINE
- EXIST. GAS LINE
- EXIST. WATER MAIN
- EXIST. GATE VALVE IN WELL
- EXIST. CATCH BASIN OR INLET
- CULVERT
- SIGN
- SINGLE TREE
- TREE OR BRUSH LIMIT
- 100 YEAR FLOODPLAIN BOUNDARY
- EXISTING WETLANDS (MI NWI)
- SILT FENCE
- PROTECTION FENCE
- LIMITS OF WORK
- TURF REMOVAL
- TREE REMOVAL LIST, THIS SHEET
- PROPOSED STAGING AREA
- PROPOSED ACCESS ROUTE
- PROPOSED TREE PROTECTION
- INVASIVE SPECIES TREATMENT AREA

NOTES:
1. SEE NOTES AND DETAILS ON SHEET 5
2. CONTRACTOR TO INSTALL PROJECT SIGN AS SHOWN ON SHEET 5, LOCATION TO BE DETERMINED
3. INVASIVE SPECIES TREATMENT IS ALSO SHOWN ON SHEET 6

TREE REMOVAL LIST:

TAG#	DBH	COMMON NAME	GENUS/SPECIES	STEMS	SCORE	LM	INV
1937	15"	Black Walnut	Juglans nigra				
1930	12"	Black Walnut	Juglans nigra				
1924	14"	White Mulberry	Morus alba				
1921	20"	Black Walnut	Juglans nigra				
1920	12"	Black Walnut	Juglans nigra				
1779	9"	Box Elder	Acer negundo				
1768	12"	Silver Maple	Acer saccharinum				
1767	10"	Silver Maple	Acer saccharinum				
1717	22"	Silver Maple	Acer saccharinum				

TREE REMOVAL LIST (WETLAND A/B):

TAG#	DBH	COMMON NAME	GENUS/SPECIES	STEMS	SCORE	LM	INV
1680	9"	American Elm	Ulmus americana				
1681	9"	Hawthorn	Crataegus	twin			
1697	11"	Box Elder	Acer negundo				
1698	14"	Box Elder	Acer negundo				
1699	8"	Box Elder	Acer negundo				
1700	12"	Box Elder	Acer negundo	twin			
1701	13"	Black Walnut	Juglans nigra				

NOTE: ANY TREE 3 INCHES DBH OR LARGER IS TO BE CONSIDERED BAT HABITAT. ECT ASSESSED THE TREES PROPOSED FOR REMOVAL ON SITE AND DETERMINED THAT TREES #1921 AND #1700 ARE POTENTIAL BAT ROOSTING TREES. TREES #1921 AND #1700 SHALL NOT BE CUT BETWEEN APRIL 1 AND SEPTEMBER 30 IN ANY YEAR TO AVOID TAKE OF INDIANA BAT (*MYOTIS SODALIS*), A FEDERALLY LISTED ENDANGERED SPECIES, UNLESS THE TREE IS CERTIFIED BY A BIOLOGIST NOT TO BE APPLICABLE HABITAT.

BASE SURVEY CONDUCTED BY MIDWESTERN CONSULTING DATED APRIL 9, 2020

PROJECT DESIGN FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02432-2).
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WAYNE COUNTY, MICHIGAN

BIDDING	JAN 2022
AGENCY REVIEW	06-10-21
PRELIMINARY	04-21-20

200115-0200
ECT PROJECT NUMBER

AAB	JMO
DESIGNED BY	CHECKED BY
PFH	JMO
DRAWN BY	APPROVED BY

SHEET TITLE

SITE PREPARATION - OVERALL

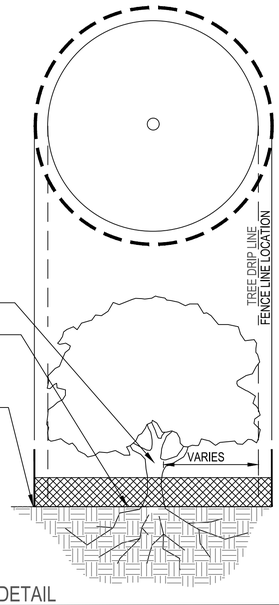
SCALE: 1" = 80' @ 22" x 34"

0 40' 80' 160'

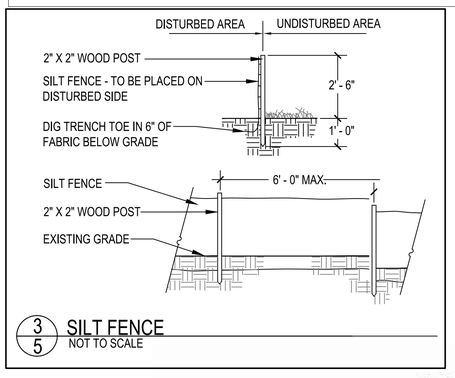
NORTH

SHEET NUMBER 4

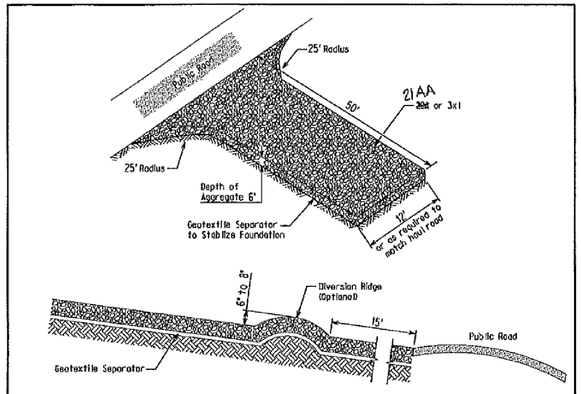
NOTE:
TREE PROTECTION FENCE SHALL BE A MINIMUM HEIGHT OF 3 FEET. FENCE SHALL BE BRIGHT ORANGE, PLASTIC FENCING. UTILIZE STANDARD METAL FENCE STAKING TO SECURE FENCE AT A MINIMUM OF 8 FEET O.C. PLACEMENT OF FENCE SHALL OCCUR PRIOR TO ANY WORK ON-SITE AND SHALL BE MAINTAINED DURING CONSTRUCTION.



1/5 TREE PROTECTION DETAIL
NOT TO SCALE



3/5 SILT FENCE
NOT TO SCALE



Use:
Providing a stable Gravel Access Approach, minimizes the tracking of loose materials from the construction site onto public roadways. Coarser aggregate is more effective in reducing tracking. Any materials tracked onto public roadways shall be removed as specified in the Standard Specifications for Construction, or as directed by the Engineer.

Installation and maintenance of Gravel Access Approach is effective in reducing sediment loading to inlet protection devices.

Installation and Maintenance:
The Gravel Access Approach should be located in accordance with the plans or as directed by the Engineer. All vegetation and other objectionable material shall be removed from the foundation area. Geotextile Separator must be placed beneath the aggregate to stabilize the foundation.

Replace or replenish aggregate if it is no longer preventing tracking.

Optional Measures:
A Gravel Access with Diversion Ridge is recommended where access grade exceeds 2%. This will also aid in dislodging soil or debris from tires.

Related SESC Measures:

Measurement and Payment:
Optional work shown, when installed and maintained as directed by the Engineer, will be included in the item Gravel Access Approach

Contract Item (Pay Item)	Pay Unit
Erosion Control, Gravel Access Approach	Each

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT SESC DETAIL FOR

Gravel Access Approach

MDOT	04-07-2006 PLAN DATE	E&S-14-A	SHEET 1 OF 1

2/5 GRAVEL ACCESS APPROACH
NOT TO SCALE

TEMPORARY CONSTRUCTION SIGN

SIGN DIMENSIONS: 1200 mm x 2400 mm x 19 mm (approx. 4' x 8' x ¾")
PLYWOOD PANEL (APA RATED A-B GRADE–EXTERIOR)

STAGING/ ACCESS NOTES:
1. CONTRACTOR TO UNDERSTAND AND ADHERE TO ALL WEIGHT RESTRICTIONS, HEIGHT RESTRICTIONS AT BRIDGES, AND ALL OTHER REQUIREMENTS AND RESTRICTIONS ALONG ANY ACCESS ROUTES USED TO ACCESS THE PROJECT SITE.
2. EQUIPMENT ACCESS AND STAGING AND MATERIALS STORAGE CAN OCCUR WITHIN THE LIMITS OF DISTURBANCE IN ADDITION TO DESIGNATED STAGING AREAS. NO ADDITIONAL VEGETATION CLEARING FOR ACESS OR STAGING IS PERMITTED WITHOUT APPROVAL OF THE ENGINEER AND OWNER.
3. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION OVER BELL CREEK DRIVE AND EXISTING GRAVEL PARKING AREAS TO PREVENT PHYSICAL DAMAGE OR CHEMICAL DAMAGE FROM LEAKING PETROLEUM PRODUCTS. REPAIR OF DAMAGED ROAD SHALL BE AT CONTRACTOR'S EXPENSE UNLESS SPECIFICALLY ACCOUNTED FOR UNDER CONTRACTOR'S SITE RESTORATION LINE ITEM. CONTRACTOR IS RESPONSIBLE FOR RESTORING GRAVEL PARKING LOT TO ORIGINAL CONDITION.

CLEARING AND GRUBBING NOTES
1. REVIEW CLEARING LIMITS AND TREE REMOVALS 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.

EASTERN MASSASAUGA RATTLESNAKE (EMR) NOTES:
1.CONTRACTOR TO USE WILDLIFE-SAFE MATERIALS FOR EROSION CONTROL AND SITE RESTORATION (MATERIALS THAT DO NOT INCORPORATE PLASTIC-MESH OR OTHER SIMILAR MATERIAL THAT COULD ENSNARE EMR).
2.CONTRACTOR AND SUBCONTRACTORS ON SITE SHOULD WATCH MDNR'S "60-SECOND SNAKES: THE EASTERN MASSASAUGA RATTLESNAKE" VIDEO OR REVIEW THE USFWS EMR FACTSHEET.
3.CONTRACTOR MUST REPORT ANY EMR OBSERVATIONS, OR OBSERVATION OF ANY OTHER LISTED THREATENED OR ENDANGERED SPECIES, DURING PROJECT IMPLEMENTATION TO ENGINEER WITHIN 2 HOURS.

PARK EVENTS AND PROGRAMMING COORDINATION NOTES:
SCHEDULED EVENTS AND PROGRAMMING SHALL TAKE PRECEDENCE AND ALL CONSTRUCTION ACTIVITIES WILL STOP TO ALLOW PARKS ACCESS AND USE OF THE GROUNDS.

SOIL EROSION CONTROL NOTES:
IN ACCORDANCE WITH RULE 1709 PROMULGATED UNDER THE AUTHORITY OF PART 91, SOIL EROSION AND SEDIMENT CONTROL, OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT, 1994 PA 451, AS AMENDED, AND IN ADDITION TO THE INFORMATION IN THE PROJECT PLANS AND SPECIFICATIONS, THE FOLLOWING GENERAL CONDITIONS APPLY TO THE EARTH CHANGE AUTHORIZED BY THIS DOCUMENT.

1. CONSTRUCT AND COMPLETE THE EARTH CHANGE IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL PERMIT AND IN A MANNER THAT LIMITS THE EXPOSED AREA OF DISTURBED LAND FOR THE SHORTEST PERIOD OF TIME.
2. TEMPORARY OR PERMANENT CONTROL MEASURES SHALL BE INSTALLED TO CONVEY WATER AROUND, THROUGH OR FROM THE EARTH CHANGE AT A NON-EROSIVE VELOCITY.
3. REMOVE SEDIMENT CAUSED BY ACCELERATED SOIL EROSION FROM RUNOFF WATER BEFORE IT LEAVES THE SITE OF THE EARTH CHANGE.
4. INSTALL TEMPORARY SOIL EROSION AND SEDIMENTATION MEASURES BEFORE OR UPON 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.)
5. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SITE DRAINAGE.
6. CONTRACTOR IS RESPONSIBLE TO PROTECT ADJACENT WATER COURSES FROM THE DISCHARGE OF SEDIMENT DURING CONSTRUCTION.
7. INSTALL PERMANENT EROSION CONTROL MEASURES WITHIN 5 DAYS OF COMPLETING FINAL GRADING OR MAINTAIN TEMPORARY MEASURES UNTIL PERMANENT MEASURES ARE INSTALLED.
8. SILT FENCE TO BE INSTALLED AROUND OFF-SITE STOCKPILE AREAS.
9. APPLY TEMPORARY EROSION CONTROL ON OVER EXPOSED SOILS DURING WET WEATHER AND WHEN SITE IS INACTIVE FOR MORE THAN 24 HOURS.
10. DO NOT CONSTRUCT DURING HIGH FLOW OR WET WEATHER.
11. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING LANDSCAPING FOR TWO YEARS DURING THE MAINTENANCE PERIOD AND ONE ADDITIONAL YEAR DURING THE REMAINING WARRANTY PERIOD.
12. PROTECT ALL DRAIN INLETS WITH SEDIMENT FILTERS.
13. EXISTING LOW AREAS TO BE USED FOR STORMWATER DETENTION AND SETTLING DURING CONSTRUCTION.
14. INSTALL TEMPORARY INLET FILTERS AT ALL ADJACENT AND DOWN-GRADIENT STORM WATER INLETS, CATCH BASINS AND MANHOLES THAT MAY BE IMPACTED. 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.
15. SILT FENCE SHALL 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 CONTRACTOR SHALL REMOVE, REPLACE IF IT FAILS. ADDITIONALLY, THE CONTRACTOR SHALL REINSTALL ANY PORTION OF THE FENCING/ BARRIER DAMAGED BY CONSTRUCTION MACHINERY.
16. 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.
17. THROUGHOUT THE CONSTRUCTION PERIOD, ALL MUD/SILT TRACKED ONTO EXISTING ROADS FROM THE SITE DUE TO CONSTRUCTION SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR.
18. SEEDING OR OTHER STABILIZATION SHALL BE REQUIRED IMMEDIATELY TO AREAS WHICH HAVE BEEN DAMAGED BY RUNOFF.
19. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL ON THE SITE THROUGHOUT THE DURATION OF THE CONSTRUCTION PROCESS.
20. SOIL EROSION CONTROL MEASURES MAY BE TEMPORARILY REMOVED DURING SEEDING AND VEGETATION INSTALLATION. EROSION CONTROL BLANKETS OR STRAW MULCH WITH TACKIFIER MUST BE PLACED IMMEDIATELY OVER EXPOSED SOIL.
21. EROSION CONTROL BLANKET NOTES:
- NORTH AMERICAN GREEN SC-150BN TO BE USED ON ANY SLOPES STEEPER THAN 1V:6H
- S75BN ON SLOPES FLATTER THAN 1V:6H WITHIN EXISTING AND PROPOSED WETLAND BASIN AREAS
- HYDRAULIC MULCH OR CERTIFIED WEED FREE STRAW MULCH WITH TACKIFIER OR CRIMPING TO BE USED ON ANY SLOPES OUTSIDE OF WETLANDS FLATTER THAN 1V:6H, AND IN WOODY AREAS FOLLOWING INVASIVE SPECIES REMOVAL. AREAS TO BE FIELD VERIFIED BY ENGINEER.

ALL EROSION CONTROL BLANKET/MULCH TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

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BELL CREEK PARK WETLAND RESTORATION PROJECT

ALLIANCE OF ROUGE COMMUNITIES

WAYNE COUNTY, MICHIGAN

BIDDING	JAN 2022
AGENCY REVIEW	06-10-21
PRELIMINARY	04-21-20

200115-0200
ECT PROJECT NUMBER

DESIGNED BY	CHECKED BY
AAB	
DRAWN BY	APPROVED BY
PFH	JMO

SHEET TITLE

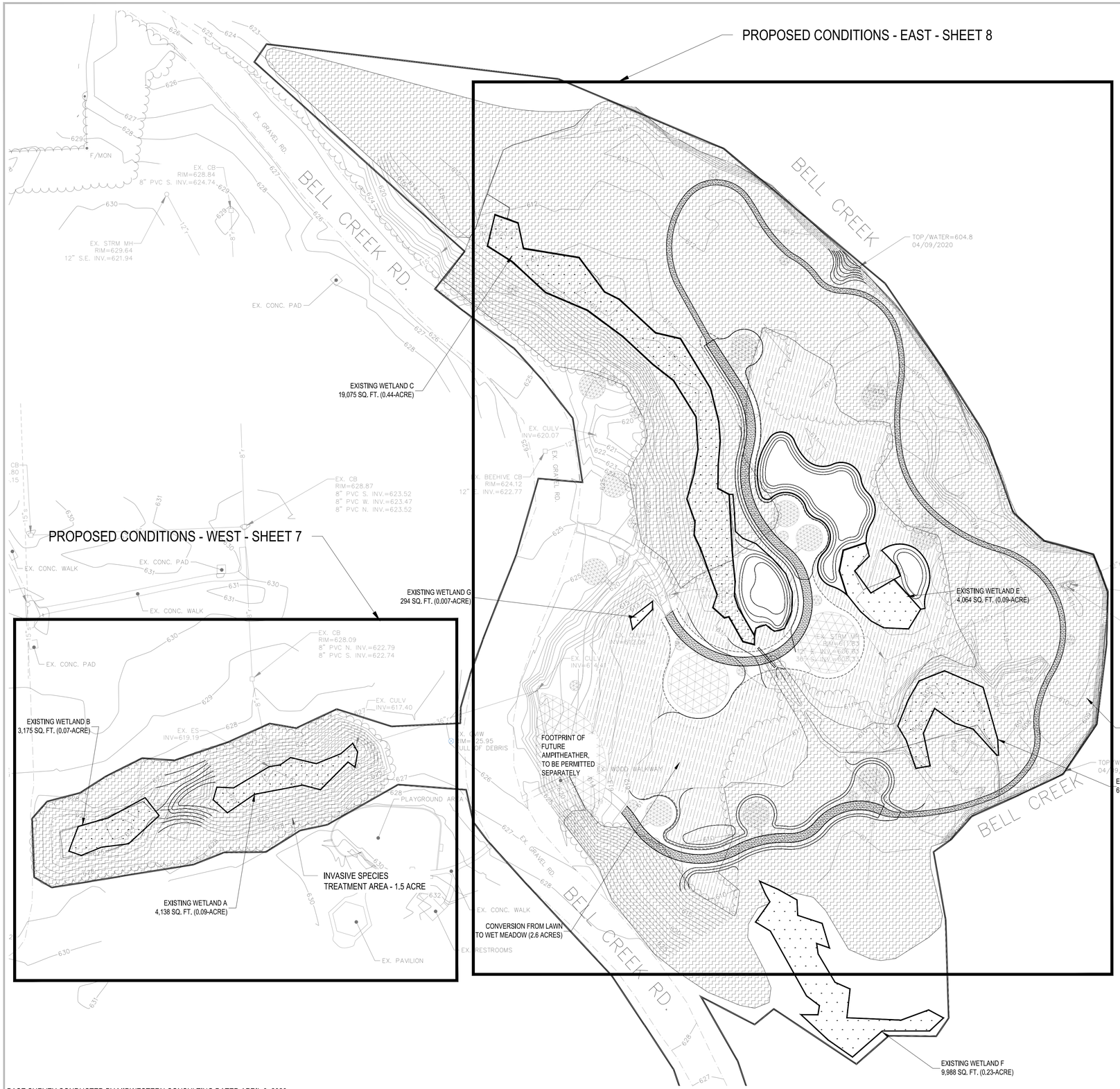
SITE PREPARATION - DETAILS

SCALE: 1" = 300' @ 22" x 34"
0 150' 300' 600'

NORTH

SHEET NUMBER 5

PROJECT DESIGN FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02432-2).
PROJECT IMPLEMENTATION FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02896).



LEGEND

- EXIST. CONTOUR
- EXIST. SPOT ELEVATION
- EXIST. UTILITY POLE
- GUY WIRE
- EXIST. OVERHEAD UTILITY LINE
- EXIST. LIGHT POLE
- EXIST. GAS LINE
- EXIST. WATER MAIN
- EXIST. HYDRANT
- EXIST. GATE VALVE IN BOX
- EXIST. GATE VALVE IN WELL
- EXIST. STORM SEWER
- EXIST. CATCH BASIN OR INLET
- END SECTION
- CULVERT
- EXIST. SANITARY SEWER
- SIGN
- POST
- SINGLE TREE
- TREE OR BRUSH LIMIT
- NOT FIELD VERIFIED
- LIMIT OF FLOOD ZONE A
- EX. WETLANDS
- PROPOSED CONTOUR
- LIMITS OF WORK
- INVASIVE SPECIES TREATMENT AREA
- TURF CONVERSION TO WET MEADOW
- PROPOSED ACCESS ROUTE

NOTES:

1. SEE SHEET 9 FOR GRADING PLAN
2. SEE SHEET 10 FOR REVEGETATION PLAN
3. TOPSOIL IS TO BE STOCKPILED AND REAPPLIED AS NEEDED.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT LAYOUT AND STAKING AS NEEDED TO CONDUCT WORK. DIGITAL AUTOCAD FILES SHALL BE PROVIDED TO CONTRACTOR TO FACILITATE LAYOUT OF PROPOSED WORK.
5. WOODY INVASIVE SPECIES TREATMENT SHALL BE PERFORMED AS DESCRIBED IN THE CONTRACT DOCUMENTS. SOME WOODY MATERIAL MAY REMAIN ON SITE FOR HABITAT BENEFIT AS DIRECTED BY ENGINEER PRIOR TO CONSTRUCTION.
6. HERBACEOUS INVASIVE SPECIES TREATMENT SHALL BE PERFORMED AS DESCRIBED IN THE CONTRACT DOCUMENTS.

BASE SURVEY CONDUCTED BY MIDWESTERN CONSULTING DATED APRIL 9, 2020

PROJECT DESIGN FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02432-2).

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WAYNE COUNTY, MICHIGAN

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200115-0200
ECT PROJECT NUMBER

DESIGNED BY	CHECKED BY
PFH	AAB
DRAWN BY	APPROVED BY
PFH	JMO

SHEET TITLE

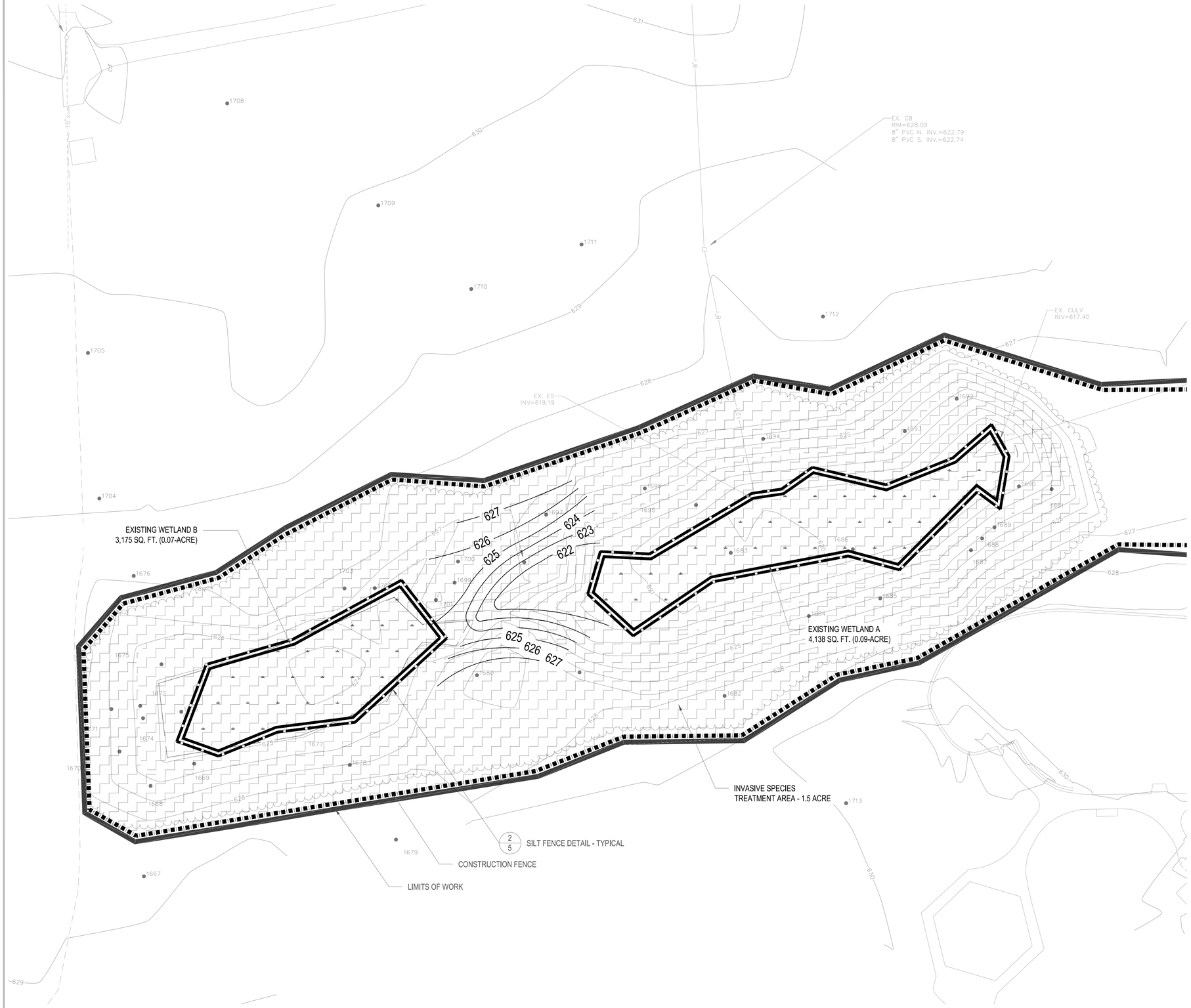
PROPOSED CONDITIONS - OVERALL

SCALE: 1" = 60' @ 22" x 34"

0 30' 60' 120'

NORTH

SHEET NUMBER **6**



LEGEND

- EXIST. CONTOUR
- EXIST. SPOT ELEVATION
- EXIST. UTILITY POLE
- GUY WIRE
- EXIST. OVERHEAD UTILITY LINE
- EXIST. LIGHT POLE
- EXIST. GAS LINE
- EXIST. WATER MAIN
- EXIST. HYDRANT
- EXIST. GATE VALVE IN WELL
- EXIST. CATCH BASIN OR INLET
- CULVERT
- SIGN
- SPRINKLER CONTROL BOX
- GAS METER
- GAS LINE MARKER
- FIBER OPTIC MARKER
- PEDESTRIAN CROSSING SIGNAL
- TRAFFIC SIGNAL CONTROL BOX
- POST
- FENCE
- SINGLE TREE
- TREE OR BRUSH LIMIT
- SECTION CORNER
- FOUND MONUMENT
- FOUND IRON ROD
- CONTROL PT.
- LIMIT OF FLOOD ZONE AE (819 CONTOUR)
- STREAM CENTERLINE
- EXISTING WETLANDS (MI NWI)
- PROPOSED CONTOUR
- SILT FENCE
- PROTECTION FENCE
- LIMITS OF WORK
- INVASIVE SPECIES TREATMENT AREA

NOTES:
1. SEE SHEET 9 FOR GRADING PLAN
2. SEE SHEETS 8-11 FOR REVEGETATION PLAN
3. CENTER LINE OF PROPOSED ACCESS ROUTE TO BE STAKED OUT IN FIELD PRIOR TO CONSTRUCTION FOR OWNER AMD ENGINEER/ARCHITECT REVIEW.
4. TOPSOIL IS TO BE STOCKPILED AND REAPPLIED AS NEEDED.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT LAYOUT AND STAKING AS NEEDED TO CONDUCT WORK. DIGITAL AUTOCAD FILES SHALL BE PROVIDED TO CONTRACTOR TO FACILITATE LAYOUT OF PROPOSED WORK.
6. INVASIVE SPECIES TREATMENT AREA TO BE CLEARED OF FELLED TREES/SHRUBS, VINES, STUMPS, LOGS, BRUSH, BRUSH PILES, ROOTS, UNDERGROWTH, TRASH, LEAF LITTER, AND OTHER DISCARDED MATERIALS.
7. SOME WOODY MATERIAL MAY REMAIN ON SITE FOR HABITAT BENEFIT AS DIRECTED BY ENGINEER PRIOR TO CONSTRUCTION.

BASE SURVEY CONDUCTED BY MIDWESTERN CONSULTING DATED APRIL 9, 2020

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Great Lakes RESTORATION

United States Environmental Protection Agency

Alliance of Rouge Communities — OURS TO PROTECT — Working together, restoring the river

Wayne County parks — EXPLORE EVEN MORE

ROUGE RIVER WATERSHED AOC- WAYNE COUNTY HABITAT RESTORATION

BELL CREEK PARK WETLAND RESTORATION PROJECT

ALLIANCE OF ROUGE COMMUNITIES

WAYNE COUNTY, MICHIGAN

BIDDING	JAN 2022
AGENCY REVIEW	06-10-21
PRELIMINARY	04-21-20

200115-0200
ECT PROJECT NUMBER

AAB	CHECKED BY
DESIGNED BY	
PFH	JMO
DRAWN BY	APPROVED BY

SHEET TITLE

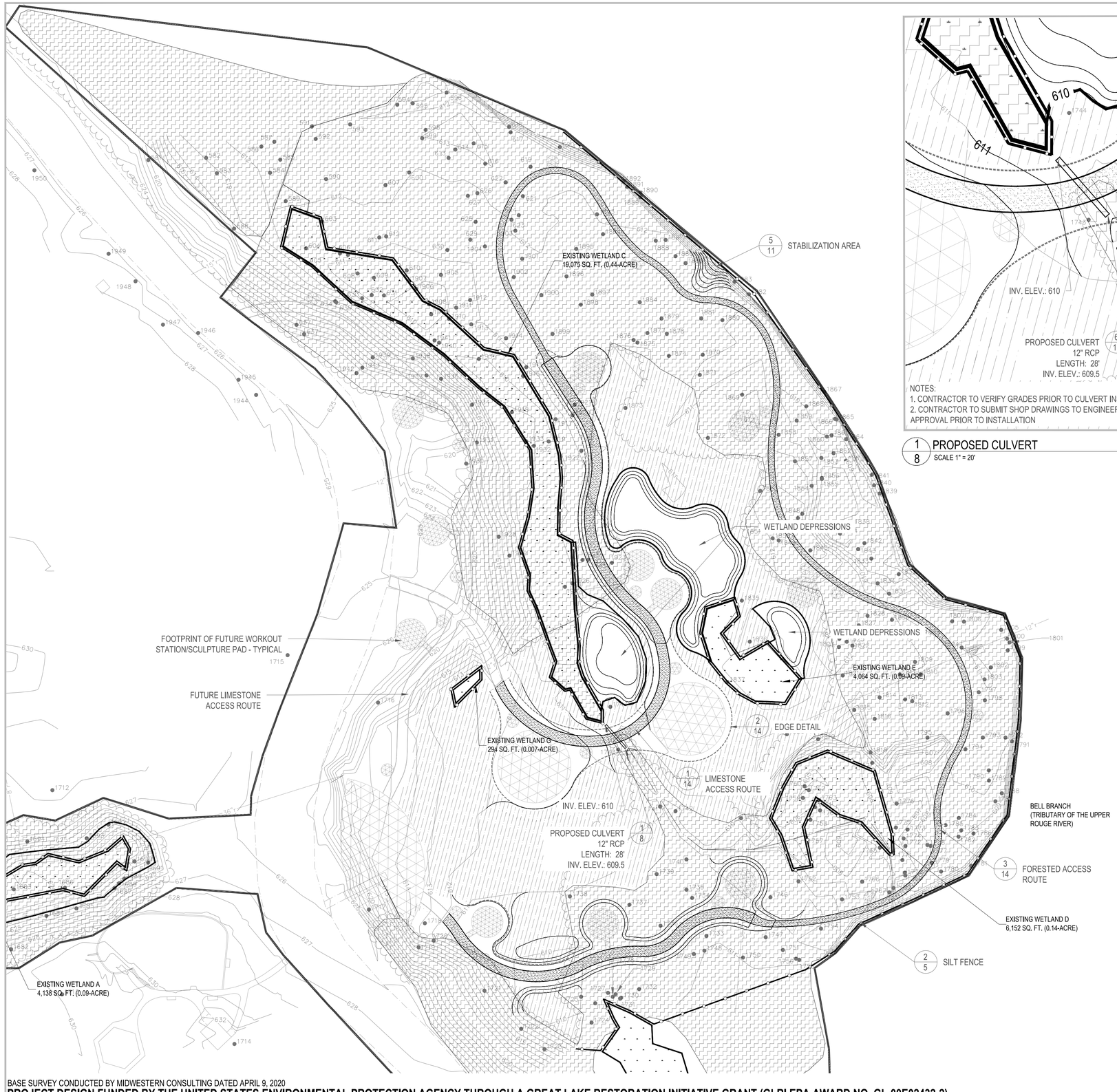
PROPOSED CONDITIONS PLAN - WEST

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

0 10' 20' 40'

NORTH

SHEET NUMBER **7**



NOTES:
1. CONTRACTOR TO VERIFY GRADES PRIOR TO CULVERT INSTALLATION.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION

1/8 PROPOSED CULVERT
SCALE 1" = 20'

LEGEND

- EXIST. CONTOUR
- EXIST. SPOT ELEVATION
- EXIST. UTILITY POLE
- GUY WIRE
- EXIST. OVERHEAD UTILITY LINE
- EXIST. LIGHT POLE
- EXIST. GAS LINE
- EXIST. WATER MAIN
- EXIST. HYDRANT
- EXIST. GATE VALVE IN WELL
- EXIST. CATCH BASIN OR INLET
- CULVERT
- SIGN
- SPRINKLER CONTROL BOX
- GAS METER
- GAS LINE MARKER
- FIBER OPTIC MARKER
- PEDESTRIAN CROSSING SIGNAL
- TRAFFIC SIGNAL CONTROL BOX
- POST
- FENCE
- SINGLE TREE
- TREE OR BRUSH LIMIT
- SECTION CORNER
- FOUND MONUMENT
- FOUND IRON ROD
- CONTROL PT.
- LIMIT OF FLOOD ZONE AE (819 CONTOUR)
- STREAM CENTERLINE
- EXISTING WETLANDS (MI NWI)
- PROPOSED CONTOUR
- LIMITS OF WORK
- SILT FENCE
- INVASIVE SPECIES TREATMENT AREA
- TURF CONVERSION TO WET MEADOW
- EDGE DETAIL, SEE SHEET 14
- TURF AREAS

NOTES:
1. SEE SHEET 9 FOR GRADING PLAN
2. SEE SHEET 10 FOR REVEGETATION PLAN
3. CENTER LINE OF PROPOSED ACCESS ROUTE TO BE STAKED OUT IN FIELD PRIOR TO CONSTRUCTION FOR OWNER AND ENGINEER/ARCHITECT REVIEW.
4. TOPSOIL IS TO BE STOCKPILED AND REAPPLIED AS NEEDED.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT LAYOUT AND STAKING AS NEEDED TO CONDUCT WORK. DIGITAL AUTOCAD FILES SHALL BE PROVIDED TO CONTRACTOR TO FACILITATE LAYOUT OF PROPOSED WORK.

BASE SURVEY CONDUCTED BY MIDWESTERN CONSULTING DATED APRIL 9, 2020

PROJECT DESIGN FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02432-2).
PROJECT IMPLEMENTATION FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02896).

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PROPOSED CONDITIONS PLAN - EAST

SCALE: 1" = 40' @ 22" x 34"
0 20' 40' 80'

NORTH

SHEET NUMBER
8

REGULATORY FLOODWAY AREA, PER FEMA MAP #26163C0068C

FLOOD ZONE AE LIMIT (819 CONTOUR)

BELL CREEK RD.

BELL CREEK

EX. GRAVEL RD.

EX. CONC. DR.

EX. CONC. PAD

RIGHT-OF-WAY LINE

5/11 STABILIZATION AREA

TOP/WATER=604.8
04/09/2020

EXISTING WETLAND C
19,075 SQ. FT. (0.44-ACRE)

FOOTPRINT OF FUTURE WORKOUT STATION/SCULPTURE PAD - TYPICAL

EXISTING WETLAND G
294 SQ. FT. (0.007-ACRE)

FUTURE LIMESTONE ACCESS ROUTE

EXISTING WETLAND E
4,064 SQ. FT. (0.09-ACRE)

3/14 FORESTED ACCESS ROUTE

BELL BRANCH
(TRIBUTARY OF THE UPPER ROUGE RIVER)

1/14 LIMESTONE ACCESS ROUTE

2/14 EDGE DETAIL

INVASIVE SPECIES REMOVAL
(6.9 ACRE)

TOP/WATER=604.4
04/09/2020

EXISTING WETLAND D
6,152 SQ. FT. (0.14-ACRE)

FOOTPRINT OF FUTURE AMPITHEATHER, TO BE PERMITTED SEPARATELY

EX. WOOD WALKWAY

PLAYGROUND AREA

EX. CONC. WALK

EX. CONC. PAD

EX. GRAVEL DRIVE/PARKING

EXISTING WETLAND B
3,175 SQ. FT. (0.07-ACRE)

EXISTING WETLAND A
4,138 SQ. FT. (0.09-ACRE)

CONVERSION FROM LAWN TO WET MEADOW (2.6 ACRES)

EX. RESTROOMS

EX. PAVILION

FLOOD ZONE AE LIMIT (819 CONTOUR)

REGULATORY FLOODWAY AREA, PER FEMA MAP #26163C0068C

EXISTING WETLAND F
9,988 SQ. FT. (0.23-ACRE)

LEGEND

- EXIST. CONTOUR
- EXIST. SPOT ELEVATION
- EXIST. UTILITY POLE
- GUY WIRE
- EXIST. OVERHEAD UTILITY LINE
- EXIST. LIGHT POLE
- EXIST. GAS LINE
- EXIST. WATER MAIN
- EXIST. HYDRANT
- EXIST. GATE VALVE IN BOX
- EXIST. GATE VALVE IN WELL
- EXIST. STORM SEWER
- EXIST. CATCH BASIN OR INLET
- END SECTION
- CULVERT
- EXIST. SANITARY SEWER
- SIGN
- POST
- SINGLE TREE
- TREE OR BRUSH LIMIT
- NOT FIELD VERIFIED
- LIMIT OF FLOOD ZONE A
- EX. WETLANDS
- PROPOSED CONTOUR
- LIMITS OF WORK
- SILT FENCE
- EDGE DETAIL, SEE SHEET 14
- REGULATORY FLOODWAY AREA

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PROPOSED GRADING

SCALE: 1" = 60' @ 22" x 34"

0 30' 60' 120'

NORTH

SHEET NUMBER

9

NOTES:
1. REFER TO SHEET 12 FOR GENERAL VEGETATION NOTES.
2. REFER TO SHEET 12 FOR OVERALL PLANT LIST AND QUANTITIES.
3. REFER TO SHEET 11 FOR LIVE STAKE DETAILS AND SPECIES LIST. ALL LIVE STAKE PLANTING LOCATIONS TO BE FIELD LOCATED BY ENGINEER.
4. ALL PLANT QUANTITIES SHALL BE CONFIRMED BY THE INSTALLATION CONTRACTOR.
5. IF SPECIAL CONDITIONS EXIST WHICH WARRANT INSTALLATION OUTSIDE THE PROPOSED PLANTING TIME FRAMES, SUBMIT A WRITTEN REQUEST TO THE LANDSCAPE ARCHITECT DESCRIBING CONDITIONS AND STATING THE PROPOSED VARIANCE. IF APPROVED, THE INSTALLATION CONTRACTOR MAY BE RESPONSIBLE FOR THE SUPPLEMENTAL WATERING AT A FREQUENCY AND DURATION FOR PROPER VEGETATION ESTABLISHMENT AND DEVELOPMENT.
6. LAYOUT NOTES:

CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT AND STAKING OF PROPOSED WORK. DIGITAL AUTOCAD FILES SHALL BE PROVIDED TO CONTRACTOR TO FACILITATE LAYOUT OF PROPOSED PLANTINGS

A. WOODY PLANTINGS

INDIVIDUAL SHRUB/TREE LOCATIONS SHALL BE STAKED ON THE PROJECT SITE BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT BEFORE ANY PLANTING PITS ARE DUG. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANT MATERIAL LOCATIONS PRIOR TO PLANTING TO MEET FIELD CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.

B. SEEDING

FLAG AND REVIEW AREAS TO BE SEEDED WITH OWNER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THE CONTRACTOR SHALL SUPPLY ALL EQUIPMENT, MATERIALS, AND ITEMS NECESSARY FOR CLEAR LAYOUT ACCORDING TO THE PLANS.

C. NATIVE PLUGS

CONTRACTOR SHALL LAYOUT PLANTING ZONES BY SPECIES AS PER PLAN, STAKE OR FLAG LOCATIONS, OUTLINE AREAS, ADJUST AREAS WHEN REQUESTED, AND OBTAIN LANDSCAPE ARCHITECTS/OWNERS ACCEPTANCE OF LAYOUT PRIOR TO ANY PLANTING. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO MAKE FIELD ADJUSTMENTS WITHOUT ANY ADDITIONAL COST TO THE OWNER.

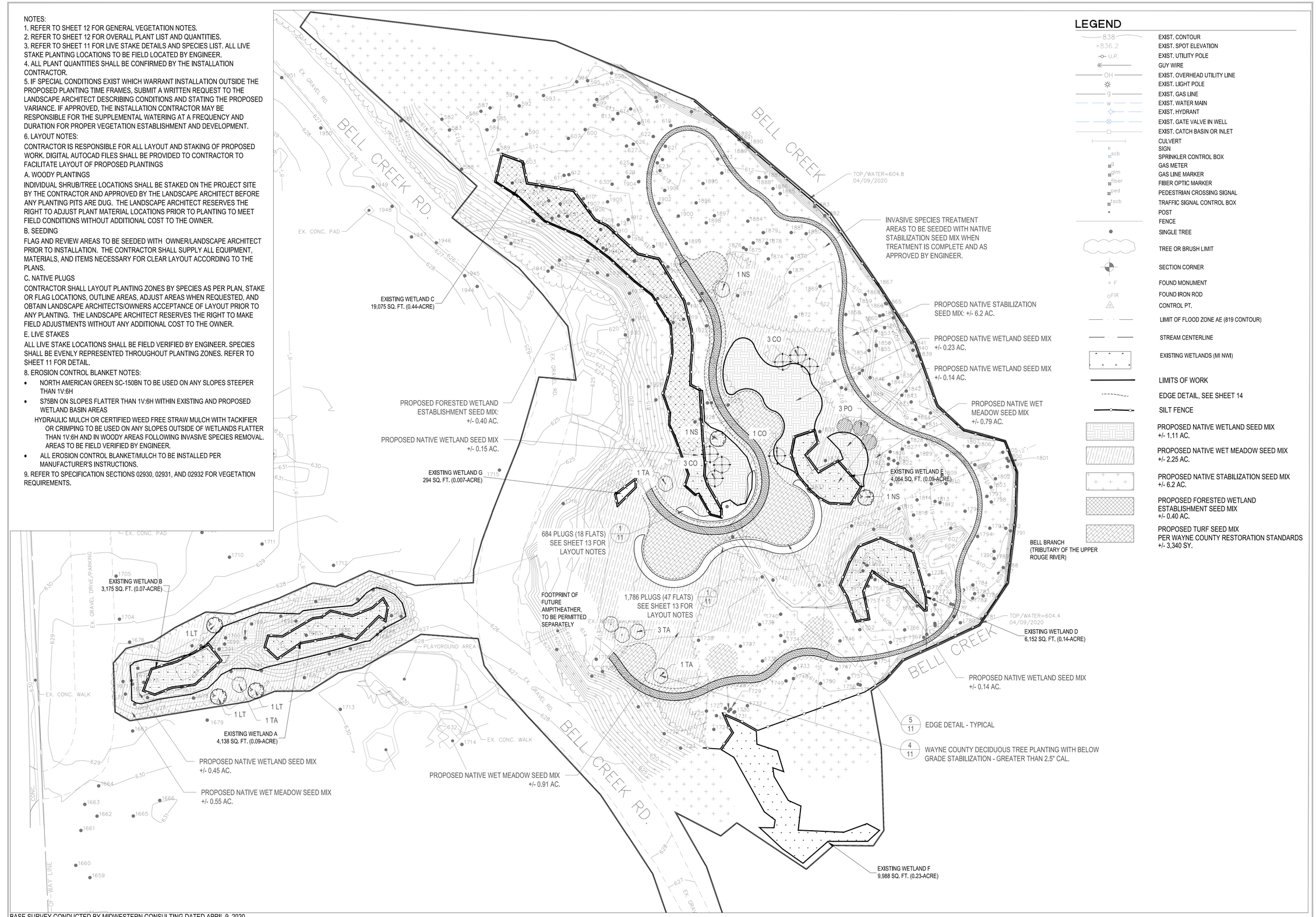
E. LIVE STAKES

ALL LIVE STAKE LOCATIONS SHALL BE FIELD VERIFIED BY ENGINEER. SPECIES SHALL BE EVENLY REPRESENTED THROUGHOUT PLANTING ZONES. REFER TO SHEET 11 FOR DETAIL.

8. EROSION CONTROL BLANKET NOTES:
- NORTH AMERICAN GREEN SC-150BN TO BE USED ON ANY SLOPES STEEPER THAN 1V:6H
- S75BN ON SLOPES FLATTER THAN 1V:6H WITHIN EXISTING AND PROPOSED WETLAND BASIN AREAS

  HYDRAULIC MULCH OR CERTIFIED WEED FREE STRAW MULCH WITH TACKIFIER OR CRIMPING TO BE USED ON ANY SLOPES OUTSIDE OF WETLANDS FLATTER THAN 1V:6H AND IN WOODY AREAS FOLLOWING INVASIVE SPECIES REMOVAL. AREAS TO BE FIELD VERIFIED BY ENGINEER.
- ALL EROSION CONTROL BLANKET/MULCH TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

9. REFER TO SPECIFICATION SECTIONS 02930, 02931, AND 02932 FOR VEGETATION REQUIREMENTS.



LEGEND

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- EXIST. SPOT ELEVATION
- EXIST. UTILITY POLE
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- LIMIT OF FLOOD ZONE AE (819 CONTOUR)
- STREAM CENTERLINE
- EXISTING WETLANDS (MI NWI)
- LIMITS OF WORK
- EDGE DETAIL, SEE SHEET 14
- SILT FENCE
- PROPOSED NATIVE WETLAND SEED MIX +/- 1.11 AC.
- PROPOSED NATIVE WET MEADOW SEED MIX +/- 2.25 AC.
- PROPOSED NATIVE STABILIZATION SEED MIX +/- 6.2 AC.
- PROPOSED FORESTED WETLAND ESTABLISHMENT SEED MIX +/- 0.40 AC.
- PROPOSED TURF SEED MIX PER WAYNE COUNTY RESTORATION STANDARDS +/- 3,340 SY.

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DRAWN BY	

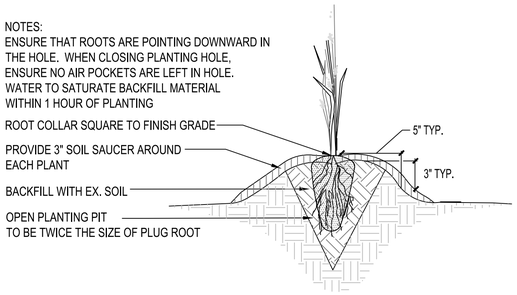
SHEET TITLE

PROPOSED REVEGETATION PLAN - OVERALL

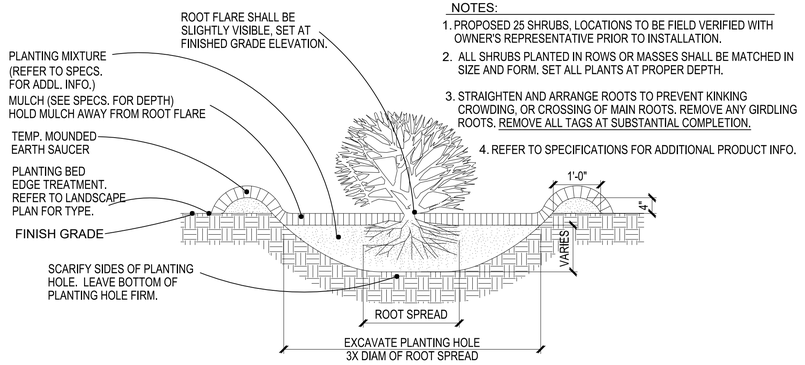
SCALE: 1" = 60' @ 22" x 34"
0 30' 60' 120'

NORTH

SHEET NUMBER
10

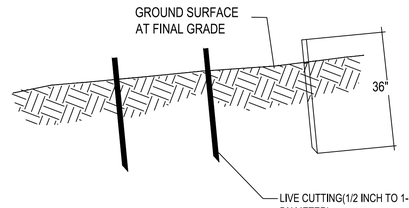


1/11 HERBACEOUS PLANTING
NOT TO SCALE



NOTES:
1. PROPOSED 25 SHRUBS, LOCATIONS TO BE FIELD VERIFIED WITH OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
2. ALL SHRUBS PLANTED IN ROWS OR MASSES SHALL BE MATCHED IN SIZE AND FORM. SET ALL PLANTS AT PROPER DEPTH.
3. STRAIGHTEN AND ARRANGE ROOTS TO PREVENT KINKING CROWDING, OR CROSSING OF MAIN ROOTS. REMOVE ANY GIRDLING ROOTS. REMOVE ALL TAGS AT SUBSTANTIAL COMPLETION.
4. REFER TO SPECIFICATIONS FOR ADDITIONAL PRODUCT INFO.

2/11 WAYNE COUNTY SHRUB PLANTING DETAIL - BARE ROOT OR CONTAINER
NOT TO SCALE

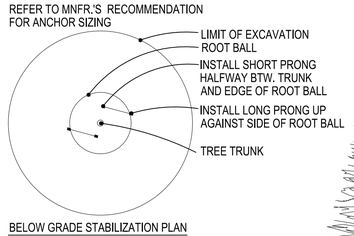


LIVE STAKE SPECIES LIST (**140 TOTAL**):	
SCIENTIFIC NAME	COMMON NAME
CORNUS SERICEA	RED-OSIER DOGWOOD
CORNUS AMOMUM	SILKY DOGWOOD
SALIX EXIGUA	SANDBAR WILLOW
SALIX DISCOLOR	PUSSY WILLOW
SALIX SERICEA	SILKY WILLOW
SALIX NIGRA	BLACK WILLOW
SALIX AMYGDALOIDE S	PEACH-LEAF WILLOW

LISTED SPECIES ARE TO BE EQUALLY REPRESENTED.

NOTES:
1. INSTALL AS DIRECTED BY LANDSCAPE ECOLOGIST, DURING FIRST DORMANT SEASON FOLLOWING SEEDING.
2. INSTALL LIVE STAKES AT RIGHT ANGLES PUSH INTO THE GROUND BY HAND. DRIVE PILOT HOLE USING DEAD BLOW HAMMER AS NECESSARY.
3. BURY FOUR-FIFTHS OF THE STAKE IN THE GROUND, AND FIRMLY PACK SOIL AROUND IT. ORIENT THE BUDS UP.
4. INSTALL STAKES 3 FEET APART IN TRIANGULAR SPACING PATTERN.

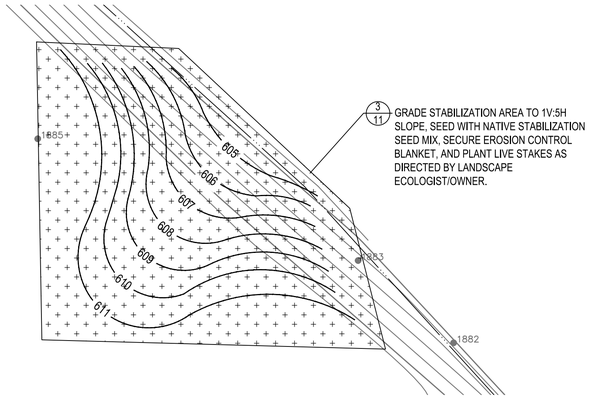
3/11 LIVE STAKE INSTALLATION
NO SCALE



BELOW GRADE STABILIZATION PLAN

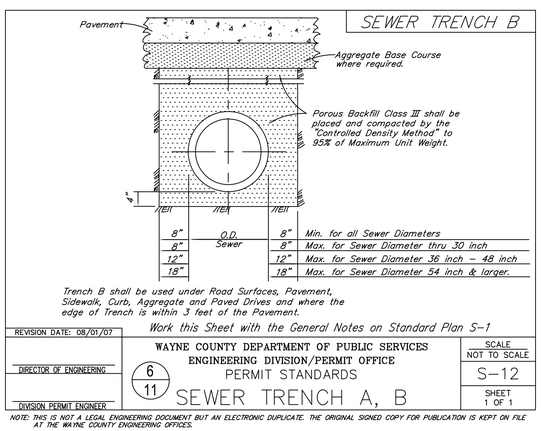
NOTES:
1. SET ALL PLANTS AT THE PROPER DEPTH. PLANT ALL TRUNKS PLUMB.
2. REMOVE ALL BURLAP, WIRE CAGE, TWINE AND ROPE FROM UPPER 2/3 OF ROOT BALL AFTER STABILIZING LOWER 1/3 OF ROOT BALL IN PLANTING TOPSOIL. DO NOT REMOVE SOIL FROM ROOTBALL.
3. PRUNE AWAY DEAD OR BROKEN BRANCHES AND REMOVE ALL SUCKERS.
4. REMOVE ALL TREE TAGS AT SUBSTANTIAL COMPLETION.
5. REFER TO SPECIFICATIONS FOR ADDITIONAL PRODUCT INFO.

4/11 WAYNE COUNTY DECIDUOUS TREE PLANTING WITH BELOW GRADE STABILIZATION - GREATER THAN 2.5" CAL.
NOT TO SCALE



3/11 GRADE STABILIZATION AREA TO 1V:5H SLOPE, SEED WITH NATIVE STABILIZATION SEED MIX, SECURE EROSION CONTROL BLANKET, AND PLANT LIVE STAKES AS DIRECTED BY LANDSCAPE ECOLOGIST/OWNER.

5/11 STABILIZATION AREA
NOT TO SCALE



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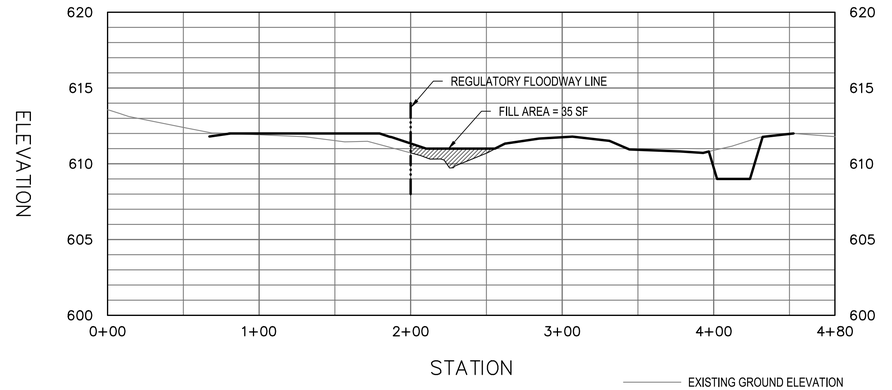
SHEET TITLE

DETAILS

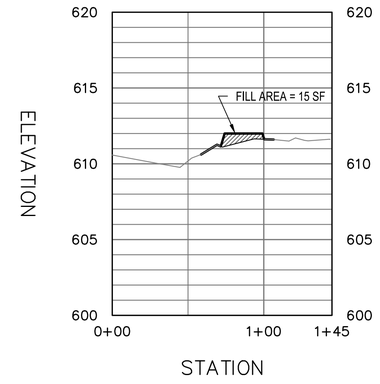
SCALE: 1" = 300' @ 22" x 34"
0 150' 300' 600'

NORTH

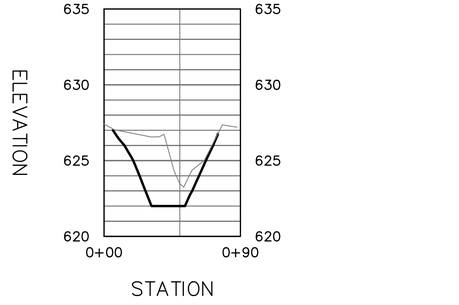
SHEET NUMBER
11



1/12 CROSS SECTION A-A'
HORIZONTAL SCALE: 1" = 50', VERTICAL SCALE: 1" = 5'



2/12 CROSS SECTION B-B'
HORIZONTAL SCALE: 1" = 50', VERTICAL SCALE: 1" = 5'



3/12 CROSS SECTION C-C'
HORIZONTAL SCALE: 1" = 50', VERTICAL SCALE: 1" = 5'

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CROSS SECTIONS

SCALE: 1" = 100' @ 22" x 34"
0 50' 100' 200'

NORTH

SHEET NUMBER
12

REVEGETATION NOTES:

MAINTENANCE AND WARRANTY PERIOD:

1. MAINTENANCE PERIOD: ENSURE THAT ALL SHRUBS, SEEDING, AND HERBACEOUS PLANTS INSTALLED UNDER THIS CONTRACT WILL BE HEALTHY AND IN FLOURISHING CONDITION OF ACTIVE GROWTH FOR TWO (2) FULL GROWING SEASONS (MAY THROUGH OCTOBER) FROM DATE OF PLANTING INSTALLATION 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. WARRANTY PERIOD: ENSURE THAT ALL SHRUBS, SEEDING, AND HERBACEOUS PLANTS INSTALLED UNDER THIS CONTRACT WILL BE HEALTHY AND IN FLOURISHING CONDITION OF ACTIVE GROWTH FOR ONE (1) FULL GROWING SEASON (MAY THROUGH OCTOBER) FROM DATE OF MAINTENANCE PERIOD 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.
3. ALL DELAYS IN COMPLETION OF PLANTING OPERATIONS WHICH EXTEND THE PLANTING INTO MORE THAN ONE PLANTING SEASON SHALL EXTEND THE WARRANTY PERIOD CORRESPONDINGLY.
4. 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 MAINTENANCE AND WARRANTY PERIODS.
5. PATCHY OR BARE AREAS (IN EXCESS OF 4 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.
6. 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.
7. 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 MAINTENANCE AND WARRANTY PERIODS. 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.
8. EROSION SHALL BE REPAIRED BY THE CONTRACTOR.
9. PROTECTION FROM TRAFFIC AND EROSION IN NEWLY SEEDED AREAS AND THE MITIGATION 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.
10. NOTIFY THE OWNER PRIOR TO AND FOLLOWING ANY MAINTENANCE ACTIVITY.
11. FINAL ACCEPTANCE OF WORK WILL BE SUBJECT TO ACCEPTANCE BY PROJECT MANAGER AND OWNER AT THE END OF WARRANTY PERIOD.

GENERAL NOTE:

1. DO NOT UNDERTAKE SEEDING AND PLANTING ACTIVITIES PRIOR TO OR DURING WET WEATHER WHEN EXCESSIVE PRECIPITATION MAY RESULT IN WASHING OF SEED AWAY FROM LOCATION INTENDED.
2. THE CONTRACTOR UNDERSTANDS AND ACKNOWLEDGES THAT THE PERFORMANCE OF THE WORK IS REQUIRED WITHIN THE ROUGE RIVER SYSTEM AND FLOODPLAIN AND THAT THE ROUGE RIVER WATER LEVEL FLUCTUATES. ROUGE RIVER HAS A VERY SHORT RESPONSE TIME TO STORM RUNOFF.
3. THE CONTRACTOR UNDERSTANDS AND ACKNOWLEDGES THAT THEY HAVE TAKEN INTO ACCOUNT THE POTENTIAL FOR ANY WATER LEVEL CHANGES THAT MIGHT OCCUR IN COSTING, SCHEDULING, AND FEASIBILITY OF PERFORMING THE CONTRACT WORK UNDER THE PREVAILING ENVIRONMENTAL CONDITIONS. THEREFORE THE CONTRACTOR ACKNOWLEDGES THAT ANY FLUCTUATION IN WATER LEVELS, FLOODING, OR INUNDATION DURING/OVER THE COURSE OF THE PROJECT IS LIKELY AND DOES NOT CONSTITUTE A CHANGE IN CONDITIONS OR AN UNFORESEEN SITE CONDITION.
4. THE CONTRACTOR SHALL BE FULLY AWARE OF THE ROUGE RIVER HYDROLOGY AND CURRENT WEATHER CONDITIONS SO THAT WORK CAN BE SECURED AND PROTECTED AT ALL TIMES, SO THAT SAFE JOB SITE WORKING CONDITIONS ARE MAINTAINED, AND SO THAT SOIL EROSION IS CONTROLLED IN ACCORDANCE WITH ALL APPLICABLE PERMITS AND ENVIRONMENTAL LAWS.

NATIVE PLANTINGS:

1. ALL PLANTS 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 SHRUBS, AND PLUGS SHALL BE LOCATED BEFORE BRANCHING OUT TO OTHER NORTH CENTRAL STATES. NATIVE PLANTINGS INCLUDE ALL SHRUBS AND PLUGS INSTALLED AS PART PF THIS PROJECT.
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 LANDSCAPE ARCHITECT.
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 LANDSCAPE ARCHITECT.
5. NATIVE PLANTINGS TO BE INSTALLED PER DETAILS.
6. REMOVE ALL CONTAINERS, TAGS AND PACKAGING MATERIAL AND DISPOSE OF LEGALLY OFF-SITE.
7. 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.
8. 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.
9. MULCH FOR TREES AND SHRUBS SHALL BE NATURAL DOUBLE SHREDDED HARDWOOD.
10. LANDSCAPE PLAN SUBMITTALS: CONTRACTOR TO PROVIDE ENGINEER ONE MONTH PRIOR TO INITIATION OF LANDSCAPE WORK AND SHALL INCLUDE:

- ALL RELEVANT PERMITS, LICENSES, AND AUTHORIZATIONS.
- WRITTEN DETAIL FOR ALL PLANTING METHODS, SCHEDULE AND CERTIFICATES.
- PLANT STOCK CERTIFICATES FROM WOODY PLANT STOCK SUPPLIERS WHICH SHALL INCLUDE:

a. Botanical name, including cultivar, and common name.
b. Quantity.
c. Size.
d. Type (B&B, Container, Bare Root…etc.)
e. Origin (Location grown).
f. Name, address, and phone number of supplier.

SEED CERTIFICATES FROM SEED SUPPLIERS WHICH SHALL INCLUDE:

a. Botanical names and common names.
b. Net weight.
c. Percentage of seeds by weights.
d. Purity of seed.
e. Amount of undesirable plant seeds present in mixture.
f. Germination percentage.
g. Date of production.
h. Date of packaging.
i. Location of packaging.
j. Name, address, and phone number of supplier.

- EROSION CONTROL BLANKET MANUFACTURER AND SPECIFICATIONS.
- NAME AND ADDRESS OF MULCH SUPPLIER(S) AND A SMALL PHYSICAL SAMPLE OF THE MATERIAL TO BE USED.

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 - REFER TO SPECIFICATION 02930.
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 LANDSCAPE ARCHITECT.
3. SEEDBED PREPARATION:

- PROTECT STRUCTURES; UTILITIES; SIDEWALKS; PAVEMENTS; AND OTHER FACILITIES, TREES, SHRUBS, AND PLANTINGS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.
- VERIFY LIMITS OF SEEDING WITH THE LANDSCAPE ARCHITECT IN THE FIELD BEFORE STARTING SEEDING WORK.
- LIMIT PREPARATION TO AREAS WHICH WILL BE IMMEDIATELY SEEDED.
- CUT ANY EXISTING VEGETATION TO 4 (FOUR) INCH HEIGHT AND APPLY HERBICIDE AS NECESSARY, REFER TO SPECIFICATION 02930.
- IF TOPSOIL IS REQUIRED, SPREAD TOPSOIL TO A DEPTH OF 4" MINIMUM TO MEET FINISH GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD IF TOPSOIL OR SUBGRADE IS FROZEN, MUDDY OR EXCESSIVELY WET. IF TOPSOIL IS ADDED, CONTRACTOR SHALL ENSURE ALL TOPSOIL IS INCORPORATED INTO THE EXISTING SOIL, AND ALL FINAL GRADES ARE MET.
- FINE GRADE TO A SMOOTH EVEN SURFACE WITH NO "BIRD BATHS", HAVING LOOSE, UNIFORMLY FINE TEXTURE. REMOVE ANY MATERIALS AS NOT IN THAT MAY INTERFERE WITH PLANTING OR MAINTENANCE OPERATIONS.
- FINE GRADE WITHIN PLUS OR MINUS ONE-HALF INCH OF FINISH ELEVATION. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES. LIMIT FINE GRADING TO AREAS THAT CAN BE SEEDED IN THE IMMEDIATE FUTURE.
- RESTORE PREPARED AREAS TO SPECIFIED CONDITION IF ERODED, SETTLED OR OTHERWISE DISTURBED AFTER FINE GRADING AND PRIOR TO SEEDING. SEED BED SHALL BE FIRM, BUT NOT COMPACT.
- MOISTEN PREPARED AREA BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL.
- CONTRACTOR TO ENSURE GOOD SOIL TO SEED CONTACT.
- DO NOT FERTILIZE

4. DO NOT SOW SEED WHERE STANDING WATER IS PRESENT.
5. DO NOT UNDERTAKE SEEDING AND PLANTING ACTIVITIES PRIOR TO OR DURING WET WEATHER WHEN EXCESSIVE PRECIPITATION MAY RESULT IN WASHING OF SEED AWAY FROM LOCATION INTENDED.
6. SOW NATIVE SEED AT A SPECIES RATE OF POUNDS PER ACRE INDICATED ON THE DRAWING AND PER SUPPLIERS RECOMMENDATIONS. LIGHTLY RAKE TO INCORPORATE SEED INTO SOIL. DO NOT COVER SEED MORE THAN 1/4 INCH WITH SOIL.
7. CONTRACTOR SHALL REPAIR DAMAGED VEGETATION AND AERATE SOIL OVER ROOT ZONE OF NEGATIVELY IMPACTED VEGETATION. RE-SEED ALL DISTURBED AREAS TO PRE-EXISTING CONDITIONS.

PROPOSED PLANT LIST

Symbol	Quantity	Scientific Name	Common Name	Size	Container	Spacing
PLUGS						
	190	*Allium cernuum*	Nodding Wild Onion	Plug	38 cell flat	18" o.c.
	190	*Aster novae-angliae*	New England Aster	Plug	38 cell flat	18" o.c.
	190	*Coreosopsis lanceolata*	Lanceleaf Coresopsis	Plug	38 cell flat	18" o.c.
	190	*Echinacea purpurea*	Purple Coneflower	Plug	38 cell flat	18" o.c.
	190	*Eryngium yuccifolium*	Rattlesnake Master	Plug	38 cell flat	18" o.c.
	190	*Geranium maculatum*	Wild Geranium	Plug	38 cell flat	18" o.c.
	190	*Liatris spicata*	Blazing Star	Plug	38 cell flat	18" o.c.
	190	*Monarda fistulosa*	Beebalm	Plug	38 cell flat	18" o.c.
	190	*Penstemon digitalis*	Foxglove Beardtongue	Plug	38 cell flat	18" o.c.
	190	*Pycnanthemum virginianum*	Common Mountain Mint	Plug	38 cell flat	18" o.c.
	190	*Sporobolus heterolepis*	Prairie Dropseed	Plug	38 cell flat	18" o.c.
	190	*Schyzachyruim scoparium*	Little Bluestem	Plug	38 cell flat	18" o.c.
	190	*Tradescantia ohiensis*	Common Spiderwort	Plug	38 cell flat	18" o.c.
SHRUBS						
Cs	10	*Cornus sericea*	Red-oisier Dogwood	5 gallon	pot	6' o.c.
Cf	5	*Cornus foemina*	Gray Dogwood	5 gallon	pot	6' o.c.
Po	10	*Physocarpus opulifolius*	Common Ninebark	5 gallon	pot	6' o.c.
TREES						
CO	7	*Celtis occidentalis*	Hackberry	3" Cal.	B&B	As Shown
LT	3	*Liriodendron tulipifera*	Tulip Tree	3" Cal.	B&B	As Shown
NS	3	*Nyssa sylvatica*	Black Gum	3" Cal.	B&B	As Shown
PO	3	*Platanus occidentalis*	Sycamore	3" Cal.	B&B	As Shown
TA	6	*Tilia americana*	Basswood	4" Cal.	B&B	As Shown

NOTES:
1. PLANT PLUGS IN SAME SPECIES GROUPS OF 5-15, AND EQUALLY REPRESENT ALL SPECIES THROUGHOUT PLANTING AREAS AS SHOWN ON THE PLANS, OR AS DIRECTED BY LANDSCAPE ECOLOGIST/OWNER.
2. PROPOSED SHRUB (25) LOCATIONS TO BE FIELD VERIFIED WITH OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

PROPOSED SEED MIXES

*NOTE: ANNUAL COVER CROP SHALL BE ADDED TO EACH MIX, OR SEEDED SEPARATELY OVER ENTIRE PROPOSED SEEDING AREA (SEE LIST BELOW)

NATIVE FORESTED WETLAND ESTABLISHMENT & NATIVE WET MEADOW SEED MIXES SHALL BE PROVIDED BY: (OR APPROVED EQUAL)
NATIVE CONNECTIONS
www.nativeconnections.net
PHONE: 269-459-6900
EMAIL: info@nativeconnections.net

NATIVE WETLAND SEED MIXED SHALL BE PROVIDED BY: (OR APPROVED EQUAL)
MICHIGAN WILDFLOWER FARM
www.michiganwildflowerfarm.com
PHONE: 517-647-6010
EMAIL: michiganwildflowerfarm@gmail.com

NATIVE FORESTED WETLAND ESTABLISHMENT SEED MIX
Total Seeding Rate: 31 lbs per acre

Native Forested Wetland Establishment Seed Mix
Total Seeding Rate: 31 lbs per acre
4.5 lbs grasses • 1.5 lbs forbs • 25 lbs nurse crop
79 native seeds per sq ft

Grasses, Sedges & Rushes		PLS Oz/acre	Seeds/sq ft
Bromus ciliatus	Fringed Brome	8.00	1.84
Calamagrostis canadensis	Bluejoint Grass	0.50	3.21
Carex comosa	Bristly Sedge	2.00	1.38
Carex frankii	Frank's Sedge	2.00	0.78
Carex stipata	Awl-fruited Sedge	2.00	1.56
Carex vulpinoidea	Fox Sedge	2.00	4.59
Elymus riparius	Riverbank Wild Rye	4.00	0.64
Elymus virginicus	Virginia Wild Rye	50.00	4.82
Glyceria striata	Fowl Manna Grass	1.00	3.67
Juncus effusus	Soft Rush	0.30	6.89
Scirpus cyperinus	Wool Grass	0.20	7.81
	Total Grasses	**72.00**	**37.19**
Forbs		**PLS Oz/acre**	**Seeds/sq ft**
Actinomeris alternifolia	Wingstem	1.75	0.36
Angelica atropurpurea	Angelica	2.25	0.28
Aster novae-angliae	New England Aster	0.25	0.38
Aster puniceus	Swamp Aster	0.25	0.46
Bidens frondosa	Devil's Beggarticks	0.25	0.03
Boltonia asteroides	False Aster	0.50	1.84
Cassia hebecarpa	Wild Senna	3.75	0.12
Cephalanthus occidentalis	Buttonbush	1.30	0.37
Eupatorium perfoliatum	Boneset	0.50	1.84
Helenium autumnale	Sneezeweed	3.00	8.95
Iris virginica	Southern Blue Flag Iris	0.75	0.02
Lobelia siphilitica	Great Blue Lobelia	0.25	2.87
Ludwigia alternifolia	Seedbox	0.25	1.61
Mimulus ringens	Monkey Flower	0.25	13.20
Monarda fistulosa	Wild Bergamot	1.50	2.41
Penstemon digitalis	Foxglove Beardtongue	1.20	3.58
Physostegia virginiana	Obedient Plant	1.00	0.25
Rudbeckia laciniata	Golden Glow	1.50	0.48
Solidago ohioensis	Ohio Goldenrod	1.00	2.53
Zizia aurea	Golden Alexander	2.50	0.63
	Total Forbs	**24.00**	**42.21**
Temporary Grass Cover		**Oz/acre**	**Seeds/sq ft**
Lolium multiflorum	Annual Ryegrass	80.00	24.79
Avena sativa	Seed Oats	320.00	7.35
		400.00	**32.14**

NATIVE WET MEADOW SEED MIX
Total Seeding Rate: 32.25 lbs per acre

Native Wet Meadow Seed Mix
Total Seeding Rate: 32.25 lbs per acre
4.75 lbs grasses • 2.5 lbs forbs • 25 lbs nurse crop
66 native seeds per sq ft

Grasses		PLS Oz/acre	Seeds/sq ft
Andropogon gerardii	Big Bluestem	20.00	4.59
Carex bebbii	Bebb's oval sedge	0.50	0.39
Carex vulpinoidea	Fox Sedge	0.50	1.15
Elymus virginicus	Virginia Wild Rye	24.00	2.31
Panicum virgatum	Switchgrass	9.90	3.18
Scirpus cyperinus	Wool Grass	0.10	3.90
Sorghastrum nutans	Indian Grass	20.00	5.51
Spartina pectinata	Prairie Cordgrass	1.00	0.15
	Total Grasses	76.00	**21.19**
Forbs		**PLS Oz/acre**	**Seeds/sq ft**
Actinomeris altemifolia (Verbesina a.)	Wingstem	0.60	0.12
Allium cemuum	Nodding Wild Onion	1.00	0.17
Angelica atropurpurea	Angelica	1.00	0.12
Asclepias incarnata	Swamp Milkweed	0.50	0.06
Aster novae-angliae	New England Aster	0.50	0.76
Cassia hebecarpa	Wild Senna	5.50	0.18
Coreopsis tripteris	Tall Coreopsis	1.00	0.32
Desmodium canadense	Showy Tick Trefoil	0.50	0.06
Eupatorium purpureum	Sweet Joe Pye Weed	0.50	0.48
Helenium autumnale	Sneezeweed	0.50	1.49
Heliopsis helianthoides	False sunflower	8.00	1.16
Heracleum maximum (H. lanatum)	Cow Parsnip	1.20	0.07
Hypericum pyramidatum	Great St John's Wort	1.50	6.54
Liatris spicata	Marsh Blazingstar	0.50	0.13
Lobelia siphilitica	Great Blue Lobelia	0.50	5.74
Monarda fistulosa	Wild Bergamot	1.50	2.41
Penstemon digitalis	Foxglove Beardtongue	2.50	7.46
Physostegia virginiana	Obedient Plant	0.50	0.13
Pycnanthemum virginianum	Mountain mint	0.20	1.01
Ratibida pinnata	Yellow Coneflower	1.50	1.03
Rudbeckia hirta	Black-eyed Susan	3.50	7.39
Rudbeckia triloba	Brown-eyed Susan	2.50	1.95
Scrophularia lanceolata	Early Figwort	0.50	2.12
Silphium terebinthinaceum	Prairie Dock	1.50	0.03
Solidago riddellii	Riddell's Goldenrod	0.50	1.07
Verbena hastata	Blue Vervain	1.00	2.13
Zizia aurea	Golden Alexander	1.00	0.25
	Total Forbs	**40.00**	**44.40**
Temporary Grass Cover		**Oz/acre**	**Seeds/sq ft**
Lolium multiflorum	Annual Ryegrass	80.00	24.79
Avena sativa	Seed Oats	320.00	7.35
	Total Temp Grasses	**400.00**	**32.14**

NATIVE WETLAND SEED MIX
Seeding Rate per Suppliers Recommendations

Native Wetland Mix
2.4 pls oz./1000 sf
4.8 pls lbs./acre

Scientific Name	Common Name	% by pls wt.
Forb		
Anemone canadensis	Canada anemone	0.02
Asclepias incarnata	Swamp milkweed	0.03
Eupatorium maculatum	Joe pye weed	0.03
Eupatorium perfoliatum	Boneset	0.02
Helenium autumnale	Sneezeweed	0.03
Iris virginia	Iris	0.04
Lobelia siphilitica	Blue lobelia	0.01
Rudbeckia fulgida	Sweet Blackeyed Susan	0.03
Solidago graminifolia	Grassleaved goldenrod	0.01
Solidago patula	Swamp goldenrod	0.02
Symphyotrichum puniceum	Swamp aster	0.02
Verbena hastata	Blue vervain	0.05
Vernonia missurica	Ironweed	0.03
		0.34
Grasss/Sedge/Rush		
Carex comosa	Bristly sedge	0.03
Carex lupulina	Common hopsedge	0.03
Carex vulpinoidea	Foxtail sedge	0.05
Elymus virginicus	Virginia wild rye	0.4
Scirpus atrovirens	Bulrush	0.03
Scirpus cyperinus	Wool grass	0.03
Sparganium eurycarpum	Common bur reed	0.03
		0.6

NATIVE STABILIZATION SEED MIX
Total Seeding Rate: 1lb./1,000 SF

Native Stabilization Mix
1 lb./1000 s.f.

Scientific Name	Common Name
Grass/Sedge/Rush	
Elymus canadensis	Canada wild rye
Elymus hystrix	Bottlebrush grass
Elymus riparius	Riverbank wild rye
Elymus virginicus	Virginia wild rye

ANNUAL COVER CROP SEED MIX
Total Seeding Rate: 8oz./1,000 SF

Annual Cover Crop
8 oz./1000 s.f. or 15 lbs./acre

Scientific Name	Common Name
Avena sativa	Seed Oats
Lolium multiflorum	Annual Rye

PROJECT DESIGN FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02432-2).
PROJECT IMPLEMENTATION FUNDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY THROUGH A GREAT LAKE RESTORATION INITIATIVE GRANT (GLRI EPA AWARD NO. GL-00E02896).

ECT Environmental Consulting & Technology, Inc.
Great Lakes RESTORATION
Alliance of Rouge Communities
OURS TO PROTECT
Working together, restoring the river
Wayne County parks
EXPLORE EVEN MORE

ROUGE RIVER WATERSHED AOC-
WAYNE COUNTY HABITAT RESTORATION

BELL CREEK PARK WETLAND RESTORATION PROJECT

ALLIANCE OF ROUGE COMMUNITIES

WAYNE COUNTY, MICHIGAN

BIDDING	JAN 2022
AGENCY REVIEW	06-10-21
PRELIMINARY	04-21-20

200115-0200
ECT PROJECT NUMBER

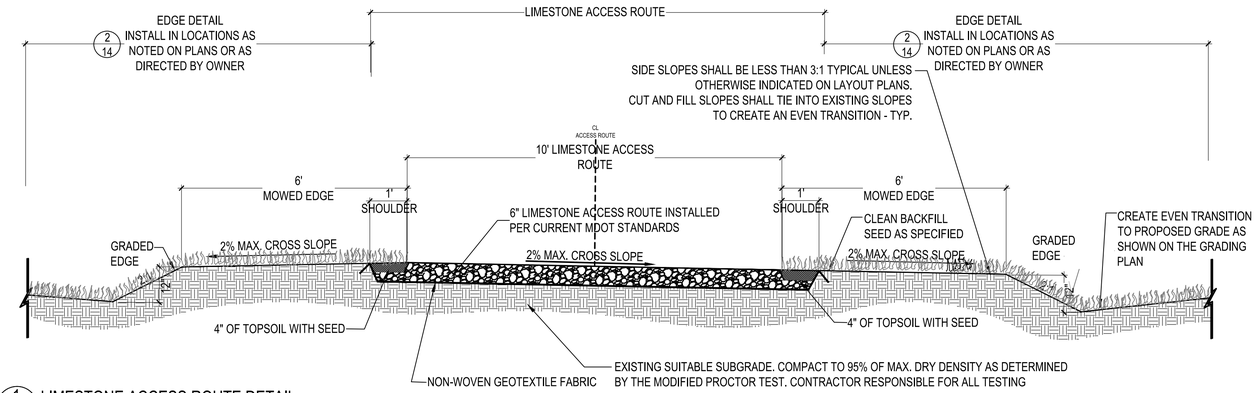
DESIGNED BY	CHECKED BY
AAB	
DRAWN BY	APPROVED BY
PEH	JMQ

SHEET TITLE
REVEGETATION NOTES

SCALE: 1" = 300' @ 22" x 34"
0 150' 300' 600'

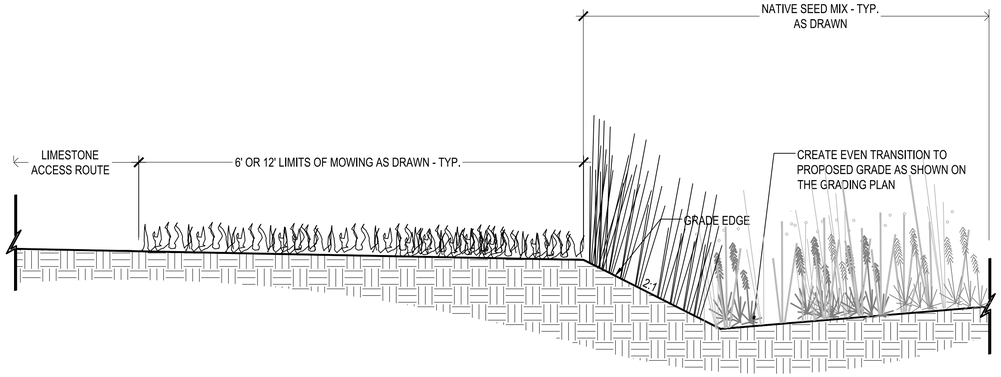
NORTH

SHEET NUMBER
13



1
14
LIMESTONE ACCESS ROUTE DETAIL
NOT TO SCALE

NOTES:
1. LIMITS OF MOWING SHALL BE 6', OR AS DRAWN.
2. CONTRACTOR TO MAKE FIRST PASS AT LIMITS OF MOWING TO ESTABLISH LIMITS.



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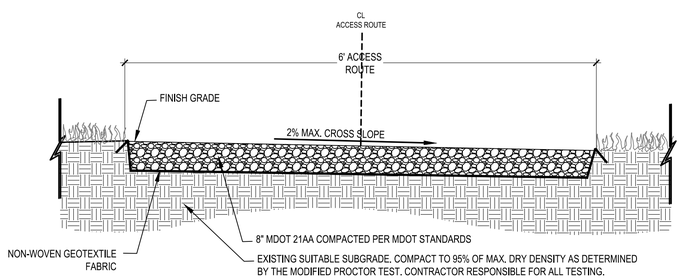
14
EDGE DETAIL
NOT TO SCALE



3
14
FORESTED ACCESS ROUTE DETAIL
NOT TO SCALE

ECT Environmental Consulting & Technology, Inc.

Great Lakes RESTORATION

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OURS TO PROTECT
Working together, restoring the river

Wayne County parks
EXPLORE EVEN MORE

ROUGE RIVER WATERSHED AOC- WAYNE COUNTY HABITAT RESTORATION

BELL CREEK PARK WETLAND RESTORATION PROJECT

ALLIANCE OF ROUGE COMMUNITIES

WAYNE COUNTY, MICHIGAN

BIDDING	JAN 2022
AGENCY REVIEW	06-10-21
PRELIMINARY	04-21-20

200115-0200
ECT PROJECT NUMBER

AAB	JMO
DESIGNED BY	CHECKED BY
PFH	JMO
DRAWN BY	APPROVED BY

SHEET TITLE

FUTURE ACCESS ROUTE DETAILS

SCALE: 1" = 300' @ 22" x 34"

0 150' 300' 600'

NORTH

SHEET NUMBER

14