



# Ulao Creek Habitat Enhancement

DESIGN REPORT: JUNE 24, 2013

*Prepared for*

**OZAUKEE COUNTY FISH PASSAGE PROGRAM**

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## Introduction

The Ozaukee County Planning and Parks Department manages a comprehensive Milwaukee River Watershed Fish Passage Program (FPP). The program has entailed assessment of barriers within the watershed, primarily consisting of dams and culverts, systematic barrier removal, and enhancement of habitat for aquatic and riparian species. The FPP contracted with Inter-Fluve to develop a design for holistic habitat enhancement of a portion of the Ulao Creek riparian area from the confluence with Kaul Creek to below the first railroad crossing downstream of that location and from the State Highway 60/County Highway Q crossing to the next railroad crossing. Inter-Fluve has completed its geomorphic, hydrologic and hydraulic analysis of this portion of Ulao Creek. The results of the analysis and summary of design decisions are described in this report.

Ulao Creek has been impacted by both urban and agricultural development. A straight channel was created, and the resulting lack of flow complexity has resulted in very limited habitat diversity within the channel. The reach of Ulao Creek targeted for enhancement currently flows through a large wetland complex dominated by open ash swamp forest at the northern end and reed canary grass and cattail dominated marsh in the middle. As it approaches the first railroad crossing the stream passes through a large wetland dominated by shrubs. This shrub riparian habitat continues west of the railroad. The stream then enters a large reed canary grass dominated marsh. Downstream of County Highway Q, the riparian area is forested, but a large berm adjacent to the creek limits connectivity between the stream and the floodplain. The watershed area is approximately 2.9 square miles at the upstream end of the project reach, 5.9 square miles at the County Q crossing, and 6.4 miles at the downstream end.

## Design Objectives

The first step in the design process was to develop an understanding of the project partners' and stakeholders' objectives for the project. On January 22, Ozaukee County staff, landowners, Wisconsin Department of Natural Resources (WDNR) staff and the design team met to discuss project objectives.

*Ecology Objectives.* The general ecological objective is to enhance habitat in a holistic way that provides habitat for a diverse assemblage of native aquatic and riparian wildlife that are suited to the natural habitat types within the project area. Specific objectives for the stream include enhancing the system for northern pike spawning by ensuring lateral connectivity between the stream and the floodplain and creating new instream habitat for native fish including through creation of a meandering channel and placing microhabitat enhancements (i.e. woody debris). Riparian area ecological objectives include controlling invasive plant species to the extent possible through design, enhancing native plant species through plantings, and improving wetland habitat complexity with ephemeral ponds that are better suited for waterfowl, shorebirds, bats, amphibians, reptiles, and other species.

*Land use and Logistics.* Several social objectives not directly tied to ecological performance of the site but related to design decisions were also identified. These included preserving the wood storage area on the Hoppe property, avoiding compromising function of tile drains in the area, ensuring that there is a stream crossing, avoiding impacts to the hunting seasons during construction, and avoiding work on the railroad property.

## Geomorphic Assessment

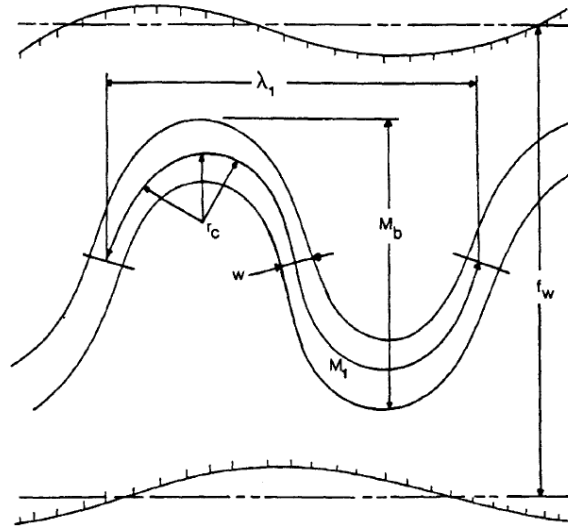
Single-channel stream patterns can be broadly classified as straight or meandering. Fluvial morphologists have identified meandering as a primary means of dissipating stream energy (Leopold and Wolman 1957; Schumm 1977). Therefore, meandering is a potential design technique to stabilize channels. Additionally, meandering streams provide greater diversity in habitat types than less sinuous or straightened streams. Bends in meandering streams usually have a pool and undercut banks on the outside of the bend and a bar on the inside, which provides variations in physical habitat. By providing multiple habitat types in a small area, a meandering stream often supports diverse species of fish and other aquatic life. Straightened streams provide fewer habitat types and less biological diversity.

Sinuosity is a measure of how much a channel meanders within its valley (*channel length/valley length*). A division between meandering and relatively straight streams was arbitrarily defined by Leopold et al. (1964) at a sinuosity of 1.5. Leopold and Wolman (1966) found that a natural stream will run straight for a maximum distance approximated by 10 times its width before returning to a meandering form. Ulao Creek, within the study reach, currently has a sinuosity of 1.1 and is straight over long distances throughout. The sinuosity is primarily created by 90 degree turns in the planform connecting straight reaches.

Meanders themselves are often characterized by their radius of curvature, meander wavelengths, and meander widths. Wavelengths have been described as twice the linear distance between successive inflection points when bends are regular, or the distance between the outside inflection points in successive bends (i.e., every second inflection point; Leopold and Wolman 1957). The radius of curvature at each point along the stream can be approximated by the radius of a circle which passes through one point and two nearby points. This approximation is similar to that employed by Brice (1973) who visually fit circles of various radii to mapped meander loops. Radii are often considered stable when they are between 2 and 3 times the channel width. Finally, meander width (meander belt width) is defined as the distance between tangents drawn on the convex sides of successive bends, especially the larger bends. Figure 1 provides a schematic defining these parameters.

One proposed method of recreating an appropriate meander channel pattern is to replace the meanders exactly as found before disturbance. However, there is no record of historic channel meanders in the study reach, so another method was required to define an appropriate channel geometry. Inter-Fluve worked with Ozaukee County staff to locate a number of stream channels that could be used as references for channel form. Reference reaches are off-site stream segments that represent a stable channel with similar characteristics to the one proposed for the primary reach of interest. They are used to develop natural channel design criteria based on measured morphological relations associated with the bankfull stage and contributing watershed area.

Figure 1. Meander characteristics.  $\lambda_1$  = wavelength,  $W$  = channel width measured at crossing (inflection point),  $M_b$  = meander belt width and  $r_c$  = radius of curvature.



The eight reaches selected as references are located on the map in Figure 2. At each reach, specific data on stream channel dimension, pattern, and profile were collected from aerial photographs, digital elevation models (DEMs), and other sources in a geographic information system (GIS, ESRI ArcGIS 10.1). The collected morphological data were used to develop relationships between the parameters and the mean contributing drainage areas (i.e., mean of the area contributing to the upstream end of the reference reach and the area contributing to the downstream end of the reach). The resulting equations (Figures 4-6) were used to estimate these characteristics for the Ulao Creek study reach based on its upstream drainage area.

The stream characteristics measured at each reference reach included:

- channel and valley lengths for calculating sinuosity
- channel gradients (channel length / elevation difference from DEMs)
- mean, maximum, and minimum radii of curvature (from circles fit to the bends -Figure 3)
- meander wavelength (distance between non-shared inflection points at subsequent bends)
- meander belt widths
- channel top width (mean of random measurements taken along the channel)

Table 1 and Figures 4 through 6 provide the results of the geomorphic analysis. Contributing watershed areas ranged from 4.7 km<sup>2</sup> at the upstream reaches of Riversedge and Mole Creeks to 33.5 km<sup>2</sup> for the downstream reach of the north branch of Cedar Creek. Ulao Creek had an estimated average watershed area of 12 km<sup>2</sup>. The channels appear to drain wetlands and wet riparian forests in rural areas. Gradients ranged from 0.0002 to 0.005 and widths were between 3.5 ft and 17.2 ft. Sinuosities amongst the reference reaches ranged between 1.2 and 1.9, but were typically between 1.3 and 1.5. However, the reaches often contained straighter portions of channel indicating that some of the channels, or channel sections, may

have been channelized in the past. The channel bends along these reaches had average meander radii between 4.5 and 42 ft, with wavelengths between 28 and 228 ft and meander widths between 60 and 240 ft. Comparisons with values obtained via standard empirical equations from the literature (e.g., Williams 1986) suggest the results are reasonable.

Figure 2. Map of reference reaches used for geomorphic analysis

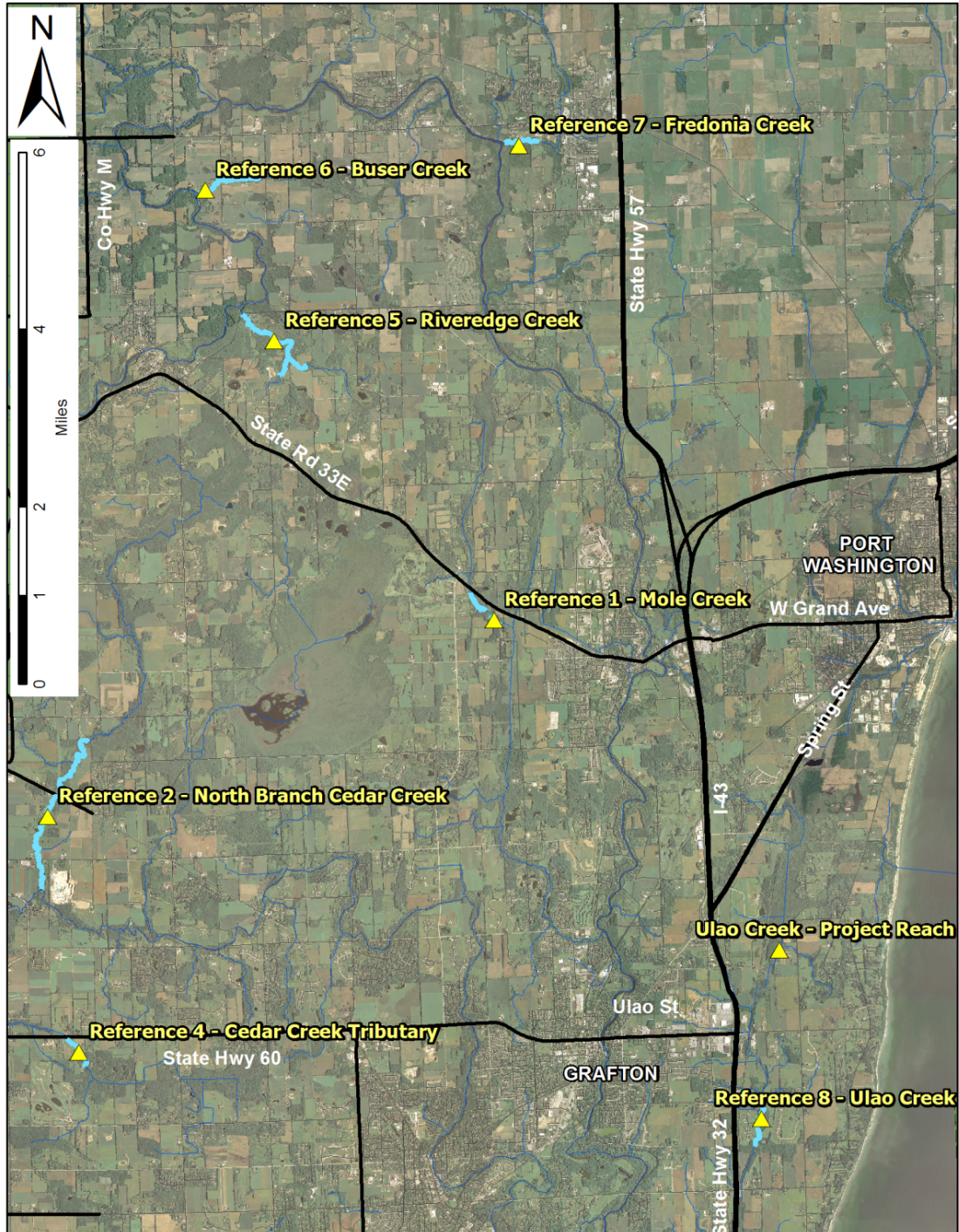
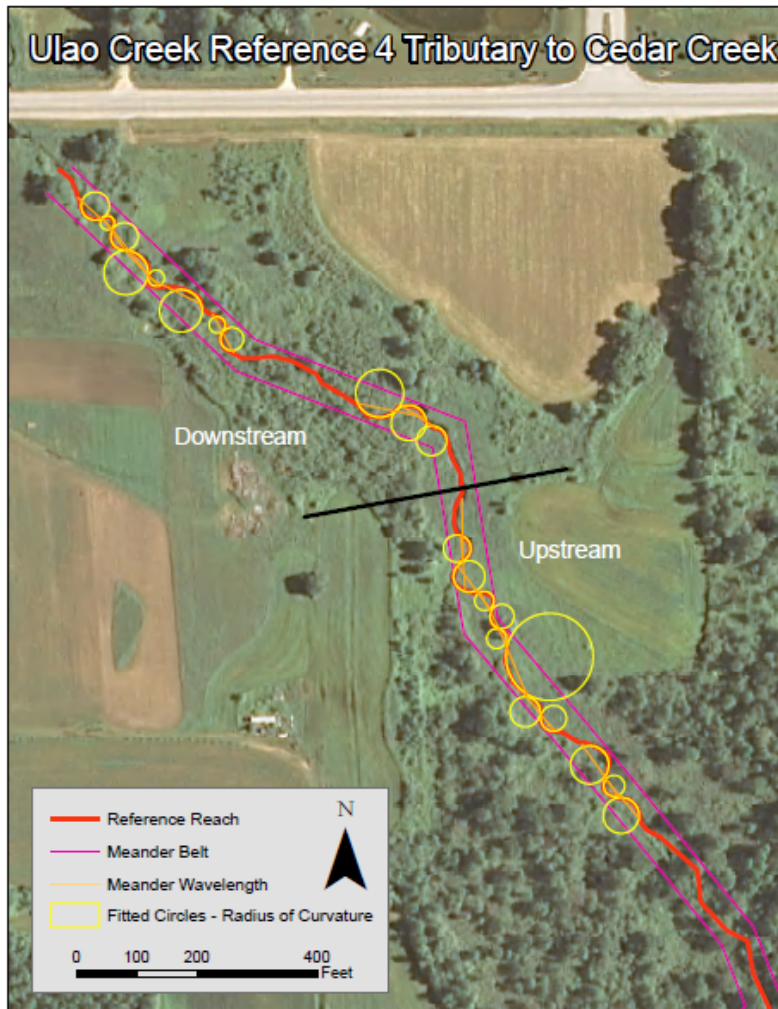


Figure 3. Example of geomorphic measurement locations (meander wavelengths, meander belt widths, etc) and fitted circles used for radius of curvature analysis.



Overall, the geomorphic parameters exhibited strong trends ( $R^2 > 0.7$ ) in relation to the contributing watershed area. Radius of curvature, meander wavelength, and meander width increased with area (Figures 4-6), and although smaller streams (smaller areas) had similar meander width values, the larger streams also exhibited a trend of larger meander widths with larger watershed area. The exception was sinuosity, which did not show much change with changes in area (Figure 7).

Table 1 – Summary of Reference Reach Geomorphic Analysis

Reach	Contr Area	Length	Drop	Slope	Valley Length	Sinuosity	Width	Radius	Curvature	Meander Length	Meander Width	Dominant Cover	Dominant Landuse
	km <sup>2</sup>	ft	ft	ft/ft	ft		ft	ft	ft/ft	ft	ft		
1 - Mole Creek DS	5.6	1170.5	1.8	0.0016	841.6	1.4	5.7	8.9	1.6	52.2	90.0	wetland/forest	suburban/agriculture
1 - Mole Creek US	4.7	2265.5	6.9	0.0031	1421.1	1.6	4.0	6.4	1.6	28.5	80.0	wetland	suburban/agriculture
2 - N Cedar Crk DS	33.5	8049.6	8.5	0.0011	5806.7	1.4	14.1	25.8	1.8	177.9	240.0	forest/open	rural/agriculture
2 - N Cedar Crk MS	31.8	2936.0	0.7	0.0002	2247.5	1.3	17.2	42.1	2.4	228.0	180.0	forest/utility corr	rural/agriculture
2 - N Cedar Crk US	20.1	3153.2	0.6	0.0002	1698.4	1.9	14.6	29.7	2.0	226.9	160.0	open/forest	rural/agriculture
4 - Cedar C Trib DS	14.1	998.4	0.7	0.0007	841.0	1.2	6.5	16.3	2.5	80.0	60.0	wetland/forest	rural/agriculture
4 - Cedar C Trib US	13.4	898.5	1.2	0.0014	773.6	1.2	8.1	16.0	2.0	91.3	60.0	wetland/forest	rural/agriculture
5 - Riveredge Ck DS	5.9	3375.4	18.1	0.0054	2430.7	1.4	8.3	13.8	1.7	82.6	90.0	forest/open	preserve/agriculture
5 - Riveredge Ck US	4.7	1434.3	4.0	0.0028	1033.5	1.4	8.4	12.6	1.5	82.4	75.0	forest	preserve/agriculture
6 - Busar Creek	2.3	2137.3	12.4	0.0058	1461.7	1.5	3.5	4.5	1.3	31.4	100.0	wetland/agriculture	rural/agriculture
7 - Fredonia Creek	17.2	2943.5	7.7	0.0026	1986.2	1.5	13.5	22.1	1.6	110.1	90.0	forest	suburban/agriculture
8 - Ulao Creek	19.7	3797.8	6.5	0.0017	2739.5	1.4	11.5	22.6	2.0	103.4	100.0	open/forest (ag/suburb)	suburban
Project - mean area	12.0			0.0025		1.4	8.7	16.2	1.9	69.6	<125	wetland	rural/agriculture
Project - min area	7.5			0.0025		1.4	7.0	12.1	1.7	119.5	<125	wetland	rural/agriculture
Project - max area	16.5			0.0025		1.4	10.4	20.3	2.0	28.0	<125	wetland/forest	rural/agriculture



Figure 4. Mean Radius of curvature (ft) vs. average contributing area at the reference reaches.

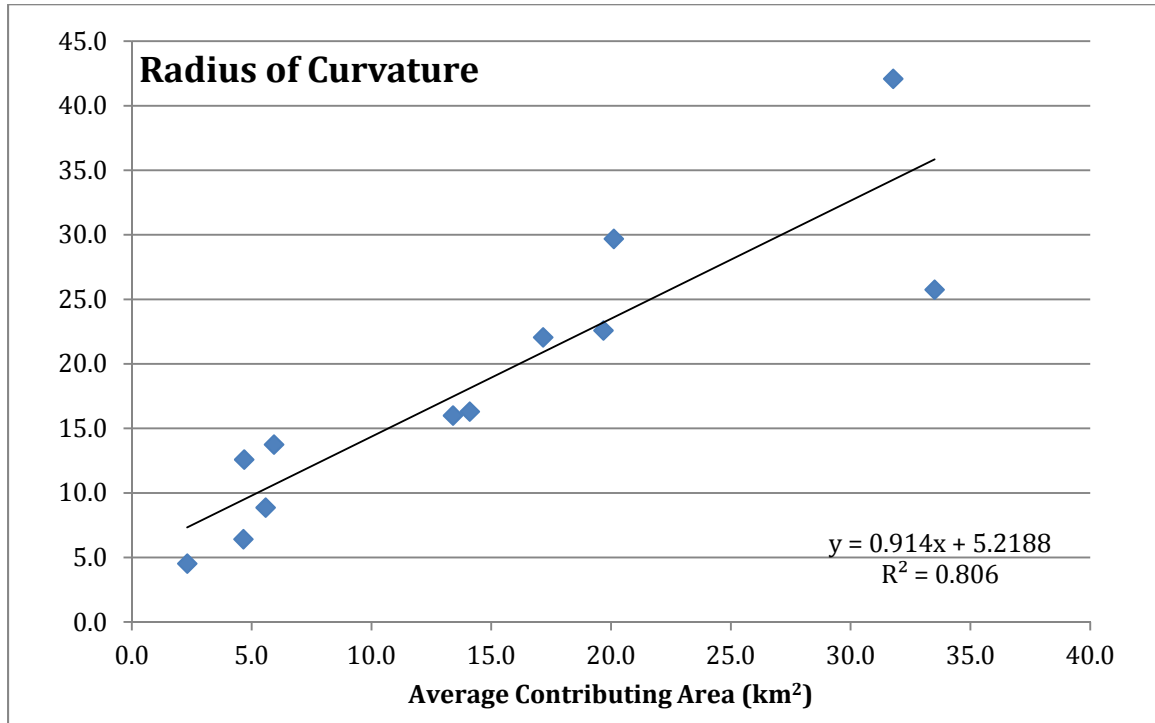


Figure 5. Mean channel width (ft) vs. average contributing area at the reference reaches.

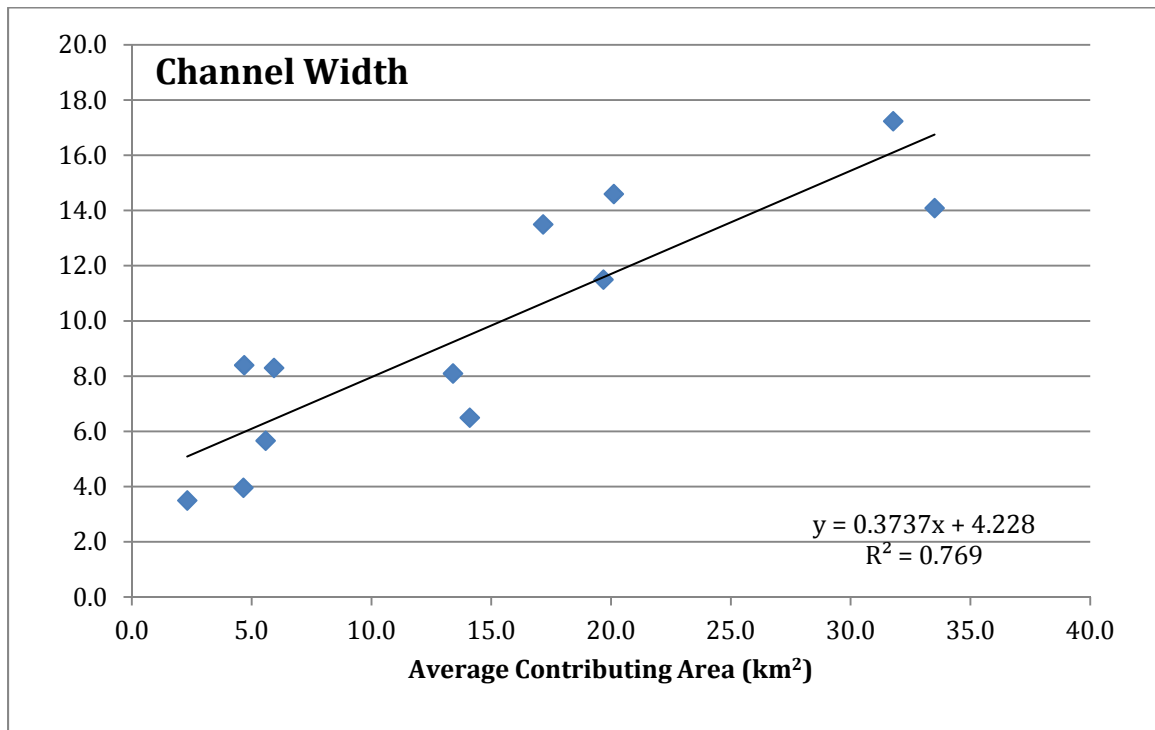


Figure 6. Mean meander wavelength (ft) vs. average contributing area at the reference reaches.

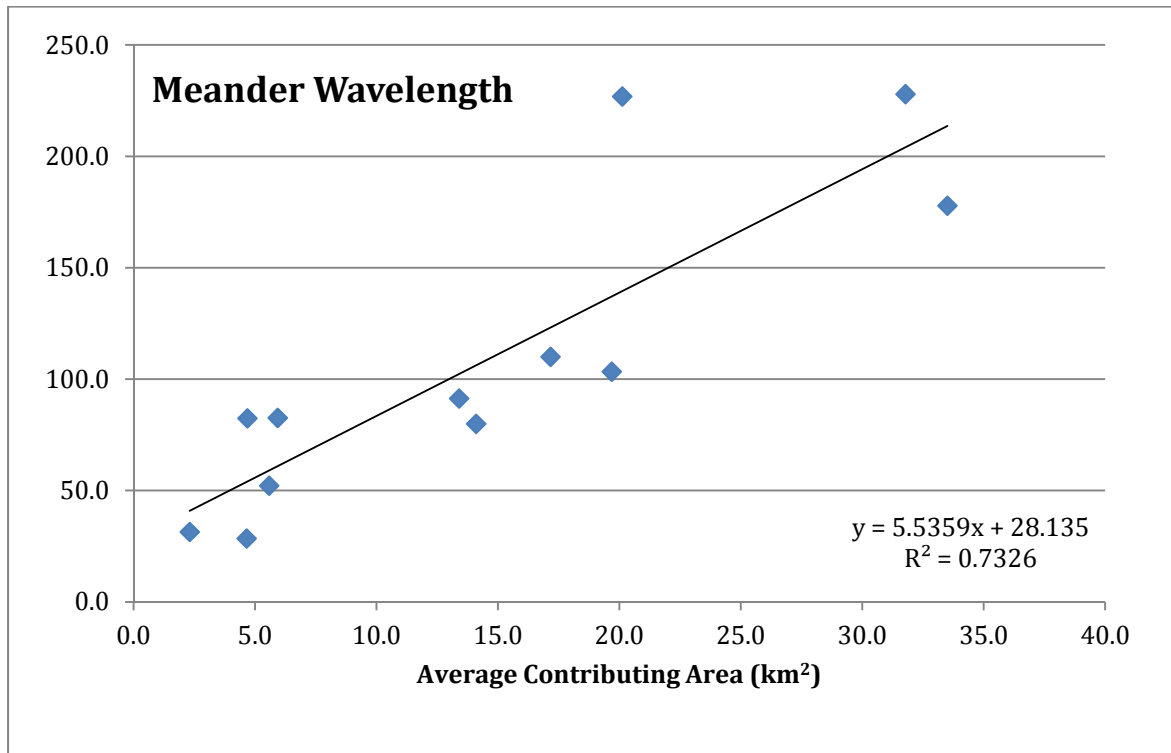
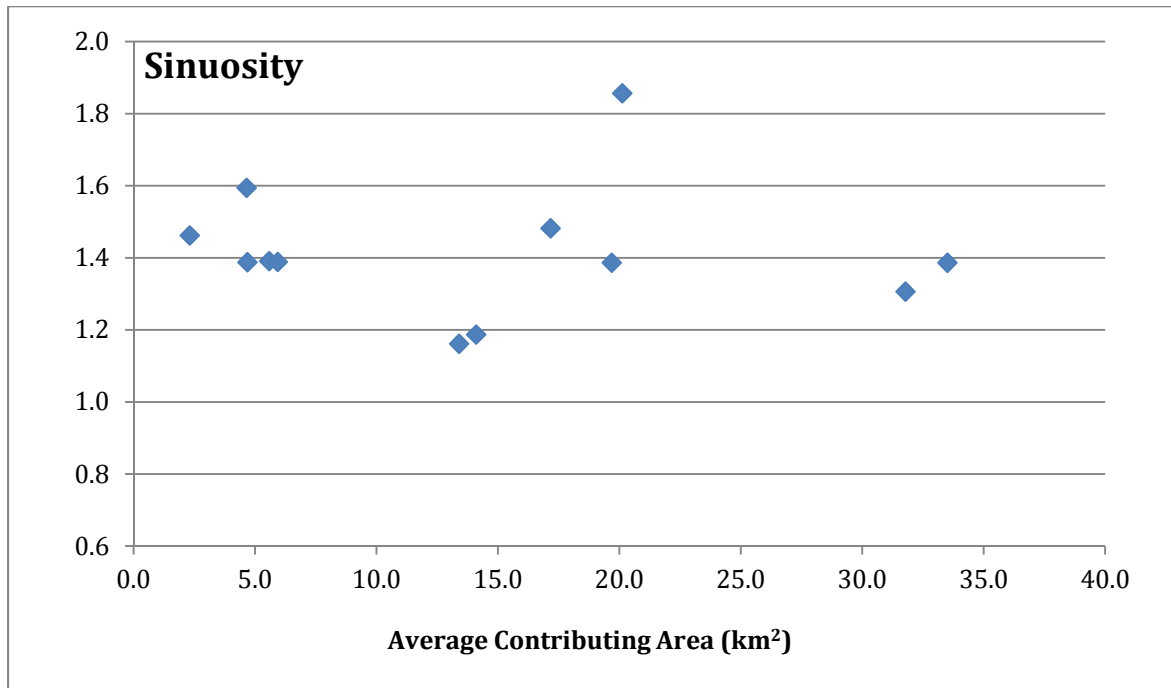


Figure 7. Sinuosity (ft/ft) vs. average contributing area at the reference reaches.



## Hydrology

Ulao Creek is an un-gaged stream, so no measured data of stream flows for any extended period of time are available. The WDNR developed a series of flood flow estimates for the stream as part of its development of the Federal Emergency Management Agency's Flood Insurance Study for the stream. These flood flows included flows with annual probabilities of 10%, 2%, 1%, and 0.2% also referred to as the 10 yr, 50 yr, 100 yr and 500 yr, respectively. Additionally, the Southeastern Wisconsin Regional Planning Commission (SEWRPC) developed estimates of the 50% and 20% probability flows, also referred to as the 2 yr and 5 yr flows. However, because this is a wetland stream, we expect flows smaller than the 2 year flow to occupy the floodplain and estimates of flood frequency and duration are useful for identifying planting zones. We utilized two methods to estimate a range of flows including a 1.01 yr flow (99% probability of occurring in any given year) and checked the results of those methods against the flows developed by WDNR and SEWRPC. We also estimated flows that are exceeded an average of 10 days, 20 days and 30 days per year, as well as flows that are exceeded 10%, 25%, 50%, 75% and 90% of all days.

*Log Pearson III Distribution.* WDNR and SEWRPC calculated flows using stormwater runoff models for rainfall events with given recurrence intervals. In Ulao Creek, flow estimates were developed at the point at which Ulao Creek crosses State Highway 32 (STH 32) and the point at which it crosses State Highway 60/County Highway Q (CTH Q). Summaries of their analyses are available from those agencies. Inter-Fluve fitted a Log Pearson Type III curve, the standard flood frequency distribution, to the WDNR/SEWRPC flows, to estimate flows that would have a 99% probability of occurring in any year (1.01 yr event). These flows are summarized with results of all flow analyses in Tables 6 and 7.

*Gage Translation.* Because Ulao Creek does not have a gage that semi-continuously measures and records stage and flow for the stream, Inter-Fluve performed simple hydrologic analyses on daily and peak flow data from nearby USGS gages. The gages were located in southwestern WI, south of Oshkosh and north of Milwaukee (Table 2). They provided at least 16 years of flow data (Mink Creek), with a maximum of 81 years (Cedar Creek). The sites were chosen largely based on location, watershed size, and length of record. Watershed conditions for several of these gage sites differ from those at Ulao Creek. The daily mean flow data acquired from the gages were evaluated in order to find the flows that were exceeded 10%, 25%, 33%, 50%, 66%, 75%, and 90% of the time (Table 3). Alternatively, flows exceeded 10 days of the year, 20 days of the year, and 30 days of the year were also documented, as were the median and mean daily flows at each gage (Table 4). For the peak flow data, a Log Pearson Type III analysis was completed for each site to estimate the 5, 2, 1.25, 1.05, and 1.01 year return interval floods (Table 5).

Similar to the geomorphic analysis, the flows at each USGS gauging station were plotted against their watershed areas (Figures 8-10), and the resulting empirical equations were used to estimate the appropriate flows along Ulao Creek (Tables 3-5). In turn, these flows were used to guide hydraulic modeling efforts and design. Overall, the relationships between the flows and watershed areas are relatively strong ( $R^2 > 0.8$ ).

Table 2. USGS gage information for gages used in the daily and peak flow hydrology analysis

Site	Site Number	Location	Earliest Daily Data	Latest Daily Data	Years of Daily Data	Earliest Peak Data	Latest Peak Data	Years of Peak Data
Bower Creek	4085119	County Hwy MM near DePere, WI	1991	2009	18	NA	NA	NA
Cedar Creek	4086500	Cedarburg, WI	1931	2012	81	1931	2012	81
Little Menomonee	4087050	Near Freistadt, WI	1975	2012	37	1958	1996	38
East Twin River	4085281	Michicot, WI	1973	1996	23	1973	1996	23
Menomonee River	4087030	Menomonee Falls, WI	1975	2012	37	1975	2012	37
Otter Creek	40857005	Willow road near Plymouth, WI	1991	2012	21	1991	2012	21
Mink Creek	4086310	County Hwy S near Beechwood, WI	NA	NA	NA	1996	2012	16
Mud Creek	40854105	Marken Rd near Valders, WI	NA	NA	NA	1996	2012	16
Killsnake River	4085400	Chilton, WI	NA	NA	NA	1961	2012	51
Milwaukee River Trib	4086400	near Fredonia, WI	NA	NA	NA	1962	1980	18

Figure 8. Daily Discharges for flows exceeded 30, 20, and 10 days per year plotted by watershed area.

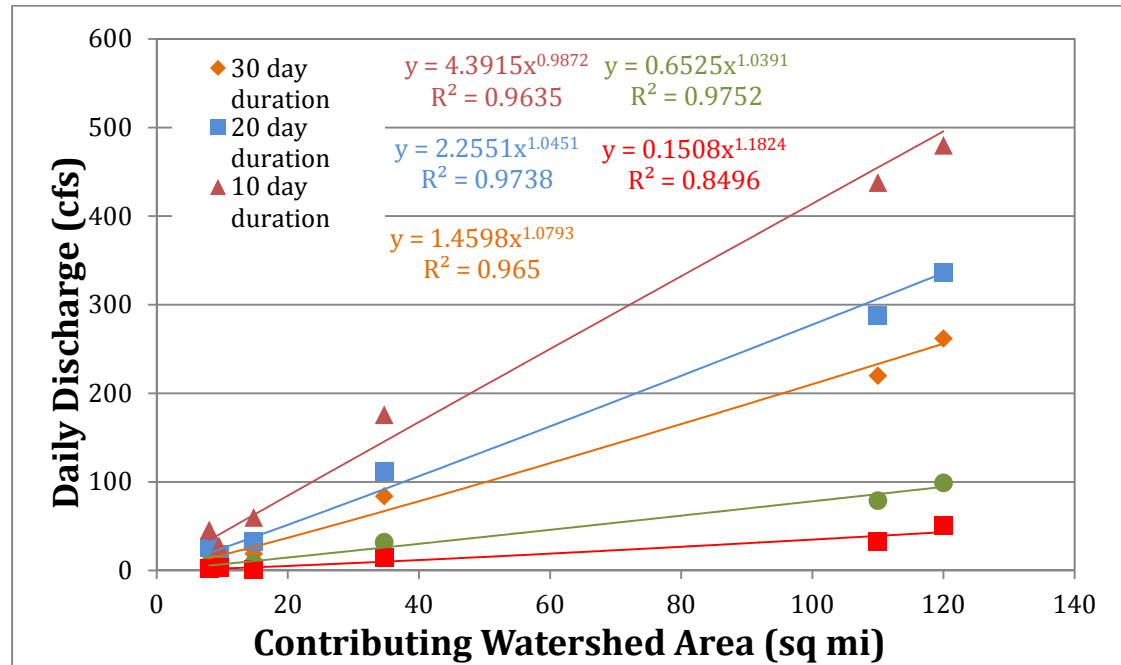


Figure 9. Daily Discharges for flows exceeded at given percentile plotted by watershed area.

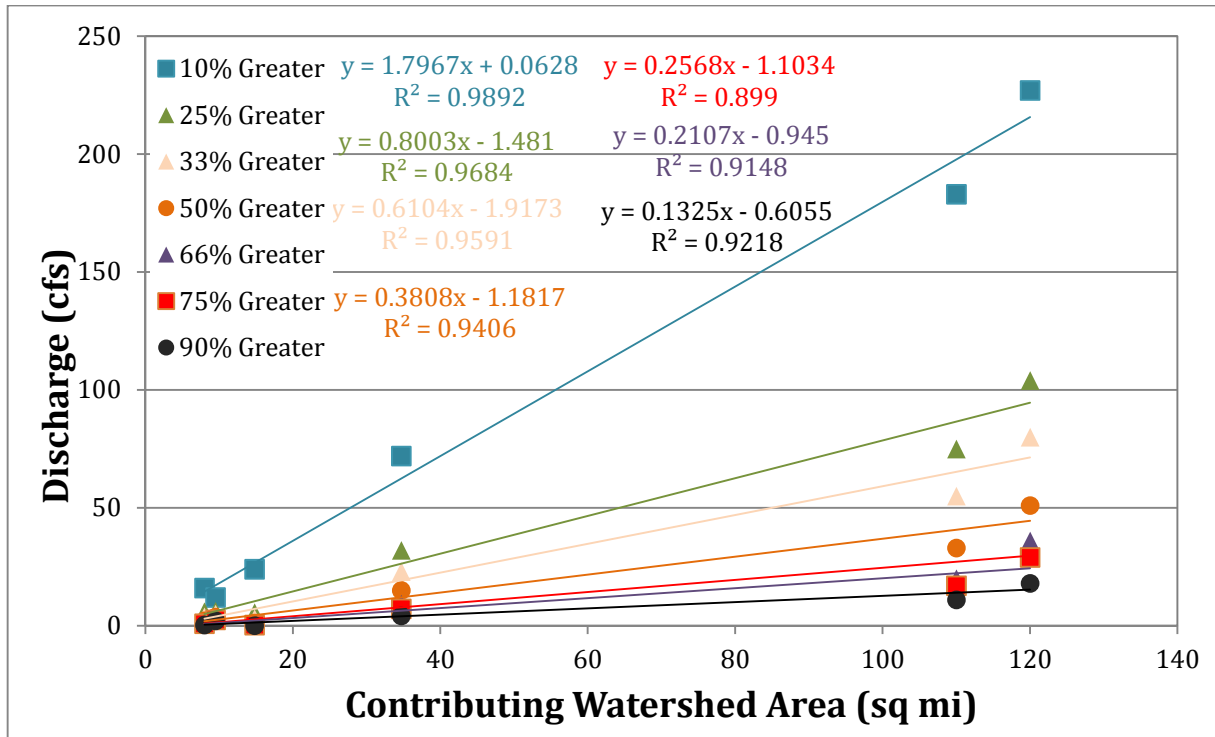
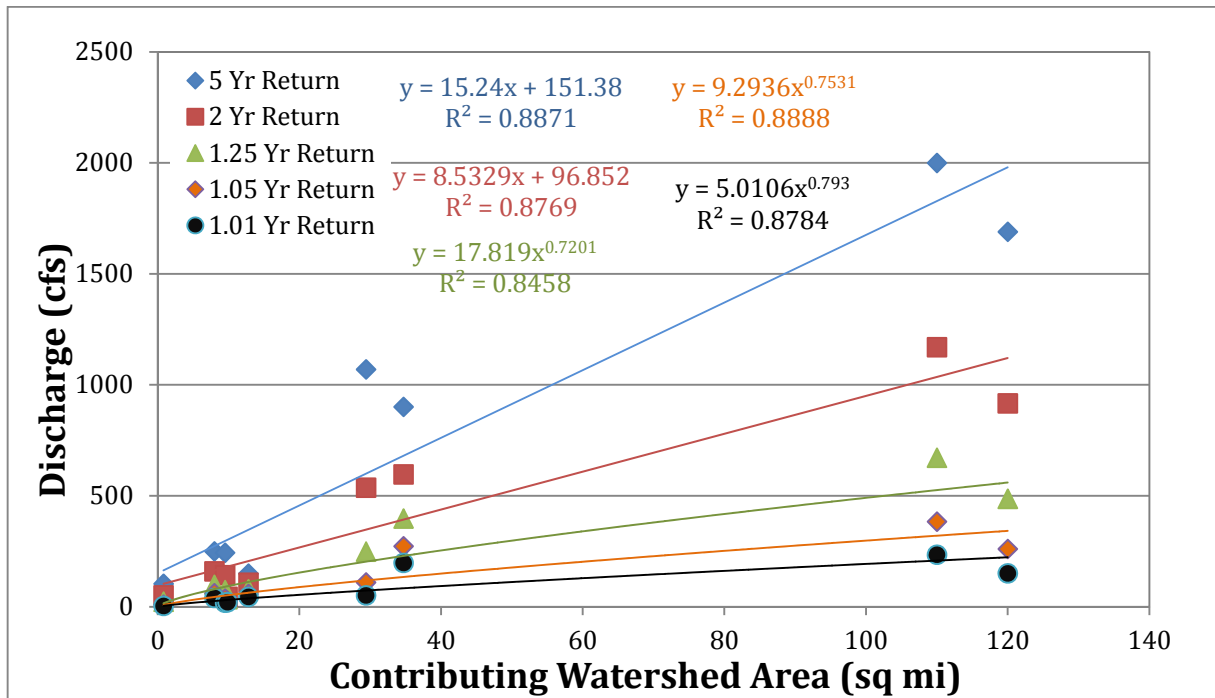


Figure 10. Peak discharges of various return periods plotted by watershed area.



The relatively strong relationships between the discharges and the watershed areas are partly related to the lack of data representing watersheds with areas between 40 and 100 square miles. There are few, if any, gage sites with moderate watershed areas and reasonably long periods of record in this region. Small watershed areas, less than 10 square miles, are also under-represented. It also appears that, with the peak flows, discharges in watersheds greater than 20 square miles might be under predicted.

Table 3. Summary of the flows (cfs) exceeded at various percentiles for the reference gage sites. Ulao Creek values are estimated based on the relationships defined in Figure 8.

Exceedence	10%	25%	33%	50%	66%	75%	90%	area (sq mi)
Cedar Creek	227	104	80	51	36	29	18	120
Bower Creek	24	5.6	3	1.2	0.55	0.32	0.08	14.8
East Twin River	183	75	55	33	20	17	11	110
Little Menomonee	16	6	3.8	2.1	1.2	0.89	0.33	8
Menomonee River	72	32	23	15	9.2	7.2	4.2	34.7
Otter Creek	12	6.2	5	3.7	2.7	2.5	2.1	9.5
Ulao Min	34.2	6.9	4.6	2.0	0.5	34.2	6.9	2.9
Ulao Mean	40.5	11.1	7.6	3.2	0.9	40.5	11.1	4.6
Hwy Q	62.8	14.4	9.9	4.1	1.2	62.8	14.4	5.9
Ulao Max	145.6	15.7	10.8	4.5	1.4	145.6	15.7	6.4

Table 4. Daily flows (cfs) that are exceeded over a certain number of days per year at the reference gage sites. Mean and medians are the mean daily flow and median daily flow, respectively. Ulao Creek values are estimated based on the relationships defined in Figure 9.

Flow Duration	10 day	20 day	30 day	Mean	Median	Area (sqmi)
Cedar Creek	262	336	480	99	51	120
Bower Creek	19	33	60	7.9	1.2	14.8
East Twin River	220	288	438	79	33	110
Little Menomonee	19	26	46	7	2.1	8
Menomonee River	84	112	176	32	15	34.7
Otter Creek	14	18	28	6.3	3.7	9.5
Ulao Min	4.54	1.58	0.98	0.53	0.30	2.9
Ulao Mean	7.35	2.62	1.66	0.92	0.52	4.6
Hwy Q	9.53	3.44	2.21	1.23	0.70	5.9
Ulao Max	10.37	3.76	2.43	1.35	0.78	6.4

Table 5. Peak flow (cfs) recurrence intervals at reference gages. Ulaio Creek values are estimated based on the relationships defined in Figure 10.

Peak Flow Recurrence Interval (yrs)	5	2	1.25	1.05	1.01	Area (sq mi)
Little Menomonee	250	160	99.6	61.6	40.1	8
Otter Creek	244	143	75.4	37	18.6	9.5
Menomonee River	901	597	398	273	198	34.7
East Twin River	2000	1170	672	384	235	110
Cedar Creek	1690	917	487	261	151	120
Mink Creek	59.7	45.6	34.7	26.5	21	9.84
Mud Creek	150	109	79.4	58.4	45	12.8
Killsnake River	1070	537	249	110	51.8	29.4
Milwaukee Trib at Fredonia	104	52.1	23.4	9.77	4.28	0.82
Ulaio Min	195.6	121.6	38.4	20.7	11.7	2.9
Ulaio Mean	221.5	136.1	53.5	29.3	16.8	4.6
Hwy Q	241.3	147.2	64.0	35.4	20.5	5.9
Ulaio Max	248.9	151.5	67.8	37.6	21.8	6.4

Table 6 – Summary of Flow Estimates for Ulaio Creek, Upper Portion of Project Reach, cfs

	WDNR/ SEWRPC	LPIII	Gage Translation Peak Flows	Gage Translation, Daily Flows
500 yr	830	-	-	-
100 yr	633	632	-	-
50 yr	521	537	-	-
25 yr	-	450	-	-
10 yr	346	344	-	-
5 yr	254	269	196	-
2 yr	171	172	122	-
1.01 yr	-	56	12	-
10 days/yr	-	-	-	12
20 days/yr	-	-	-	8
30 days/yr	-	-	-	6
10%	-	-	-	5.0
25%	-	-	-	2.0
50%	-	-	-	0.9
75%	-	-	-	0.47
90%	-	-	-	0.24

Table 7 – Summary of Flow Estimates for Ulao Creek, STH 60/CTH Q Crossing, cfs

	WDNR/ SEWRPC	LPIII	Gage Translation Peak Flows	Gage Translation, Daily Flows
500 yr	1288	-	-	-
100 yr	957	958	-	-
50 yr	780	803	-	-
25 yr	-	664	-	-
10 yr	511	501	-	-
5 yr	385	391	241	-
2 yr	252	252	147	-
1.01 yr	-	95	21	-
10 days/yr	-	-	-	24
20 days/yr	-	-	-	16
30 days/yr	-	-	-	12
10%	-	-	-	11
25%	-	-	-	4.2
50%	-	-	-	1.9
75%				1.0
90%				0.53

The flows determined through translation of the data from gages within the region are a bit higher than those modeled by WDNR and SEWRPC for the upper end of the reach and a bit lower than those modeled for the lower reach. The gage translation approach also predicts a larger difference between the 2 yr and 1.01 yr event than the LPIII distribution. Given that the watersheds used in the gage translation differ in size and character, it is likely that the gage translation approach under predicted the lower flows. Regardless, these analyses offer a suitable range of flow conditions under which to consider the performance of the proposed stream and riparian area. The flows selected to model are shown in Table 8. The upper reach flows were applied to the reach from the upstream extent of the project to the major tributary that enters the creek on the right between the upstream railroad crossing and CTH Q.

Table 8. Flows Modeled, cfs

	Upper Reach	Lower Reach
500 yr	830	1288
100 yr	633	957
50 yr	521	780
25 yr	450	664
10 yr	346	511
5 yr	254	385
2 yr	171	252
1.01 yr – LP3	56	95
1.01 yr – gage translation	12	21
20 day	8	16
median	0.9	1.9



## Stream Design

The equations produced by fitting regression lines to the data and watershed area for the reference streams provided design guidelines for a meandering Ulao Creek channel. Using this method, it was determined that sinuosity should be at least 1.4 and channel top widths should be between 7 and 12 ft. Meanders along the reach should have radii varying around 16 ft, with wavelengths (meander lengths) between 30 and 120 ft, and a meander width of 125 ft.

The planform was drawn by spacing circles with random radii between 10 and 22 ft along a flow path defined by a 125 ft wide meander belt. The circles were spaced according to a random list of meander wavelengths between 80 and 110 ft (mean = 94 ft). The channel centerline was then drawn around the circles with straighter reaches along the outside of the existing meander belt and at existing crossings. The final sinuosity was 1.6, meeting the goal of establishing a meandering planform and providing more channel habitat complexity. The design meander belt follows areas where the topography within the wetland is sufficient elevation to allow a reasonable channel depth.

The channel cross-sections were developed using the top widths from existing channel and reference reach analyses and the hydrology and hydraulics data. Channel depth was determined by balancing the need to maintain enough flow and energy within the channel to maintain habitat complexity with the desire to regularly have a hydraulic connection to the floodplain. Preliminary depths were determined using at-a-station hydraulic analysis (Manning's equation) based on a trapezoidal channel with 1.5:1 (horizontal:vertical) side slopes. At a depth in the run sections of the stream of 1.5 ft, a flow of 3 cfs would be contained within the upper reach of the channel while larger flows spill onto the floodplain. Pools will be excavated an additional 1.5 ft at the outer portion of meander bends. Below the tributary confluence at the south end of the agricultural area, the existing channel is wider and more defined, and must convey larger flows. Taking these factors into account, the design cross-section was increased to 12 ft top width by 2 ft deep with 2:1 side slopes.

The channel slope will be consistent between tie in points at the crossings and the tributary confluence, with pools excavated below this grade. In several places the top of the bank will be higher than the existing ground. In these areas, material excavated from the proposed channel will be used to build up the banks to the given bank heights. These built banks will simulate natural levees that are often formed along the banks of streams. The levees will be graded from the top of the bank to existing grade at a slope of 15:1.

The banks will be stabilized with native vegetation. Native seed of species appropriate to the anticipated moisture regimes will be applied to all disturbed areas. In areas where a surplus of excavated material allows construction of hummocks, trees will be planted. In the areas identified for shrub carr wetland enhancement, shrubs will be planted in the disturbed areas. Given the likelihood that construction will occur when the ground is saturated and the bottom of the excavated channel will likely be inundated, placement of erosion control fabric will not be feasible. Therefore, the channel will be excavated offline without connecting to the existing stream, and the banks will be vegetated allowing as much time as possible for vegetation to establish before allowing the stream to flow through the new channel.

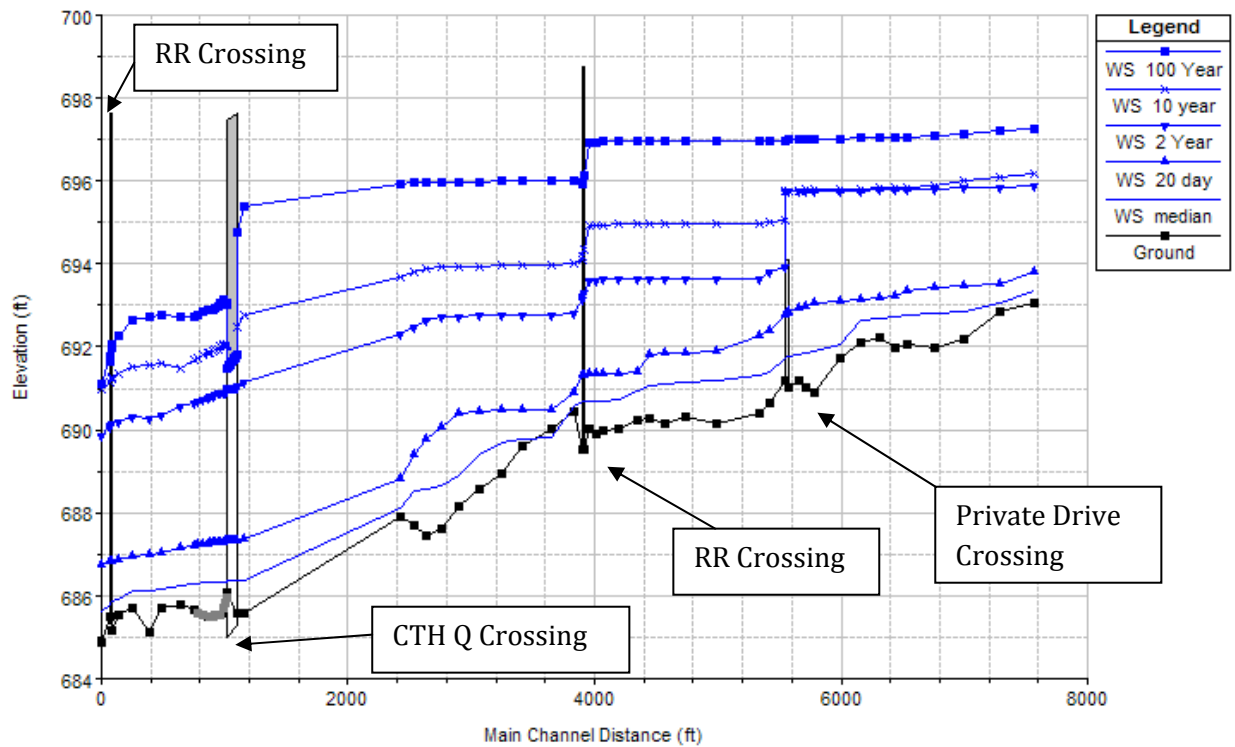
In addition to the constructed pool/run sequencing throughout the stream, we propose enhancing habitat in the channel in the short term by installing large pieces of wood that are salvaged from excavated areas

on site. In the long term, this wood will be replaced by branches that fall into the stream from plantings along the bank.

## Hydraulic Conditions

A one dimensional hydraulic model was developed using HEC-RAS for the existing channel based on survey data and observations. The flows described in the previous section were incorporated into the model. The downstream boundary conditions in the model were based on the downstream water surface elevations in the WDNR/SEWRPC model for the flows modeled by WDNR/SEWRPC. For the lower flows, downstream boundary conditions were approximated as normal flow at a slope of 0.001 which is consistent with the riffle to riffle bed slope of the channel at the downstream end of the project. Manning’s n for the channel was set at 0.11 where the channel is covered in vegetation and 0.035 in the lower reach where the channel bed is sand with some small gravel. Manning’s n in the floodplain was set at 0.11 given the density of vegetation. These values are consistent with published values for densely vegetated wetland channels and floodplains. To evaluate the sensitivity of the model to this variable, we also ran the model with Manning’s n set to 0.05 in the channel and 0.05 in the floodplain where it is dominated by grasses. The flood elevations were approximately 0.1 ft lower for the larger flows and up to 0.2 ft lower for the lowest flow modeled. For larger flows, grasses may be bent by the flows causing a lower Manning’s n value, but given the relatively small affect on the resulting flood elevations, we maintained the higher Manning’s n values for the remainder of the analysis. The profiles for several flows under existing conditions are shown in Figure 11.

Figure 11 – Ulao Creek Water Surface Elevations – Existing Conditions



Proposed condition geometry was developed for the HEC-RAS model that included excavation of a new channel as described in the previous section, fill of the old channel, removal of the existing private drive crossing, and addition of a new crossing over the bridge as detailed in the Ozaukee County bridge design. No changes to the channel were made within the railroad right of way. The model was run for the same flows. The resulting water surface elevations are very similar to the existing condition water surface elevations and are shown in Figure 12. These water elevations were used in establishing elevations appropriate for various tree and shrub plantings within the project area.

Shear stresses within the channel are important because they dictate the size and quantity of material that the stream can transport through the reach. The stream’s capacity to transport sediment within the channel determines the extent to which habitat complexity associated with stream pool/run sequences will be maintained. Table 9 shows the range of shear stresses predicted in the model within the different reaches of the stream. These shear stresses are predicted by the one-dimensional HEC-RAS model and therefore do not include increases in shear expected on outer bends of the meanders.

Shear stresses in the range of 0.02 – 0.05 lb/sq ft are sufficient to transport sands and non-colloidal silts, while grasses can withstand shear stresses in the range of 1 – 2 lb/sq ft. Therefore, where vegetation does not colonize the stream bed, flows will be capable of moving material through the channel. Vegetation on banks will be sufficient to protect them from eroding. A pool will be dug at the crossing to decrease the shear stresses at that location.

Figure 12 - Ulao Creek Water Surface Elevations – Existing Conditions

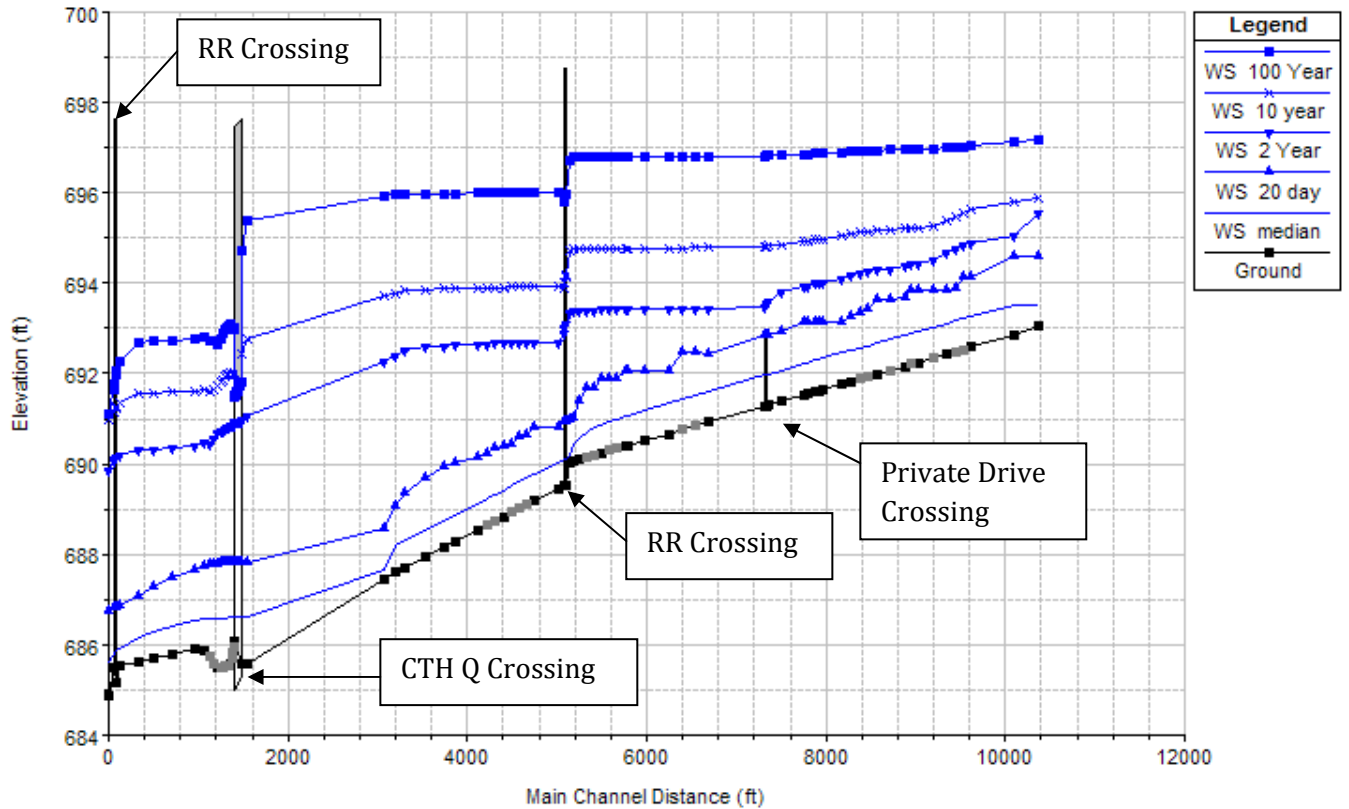


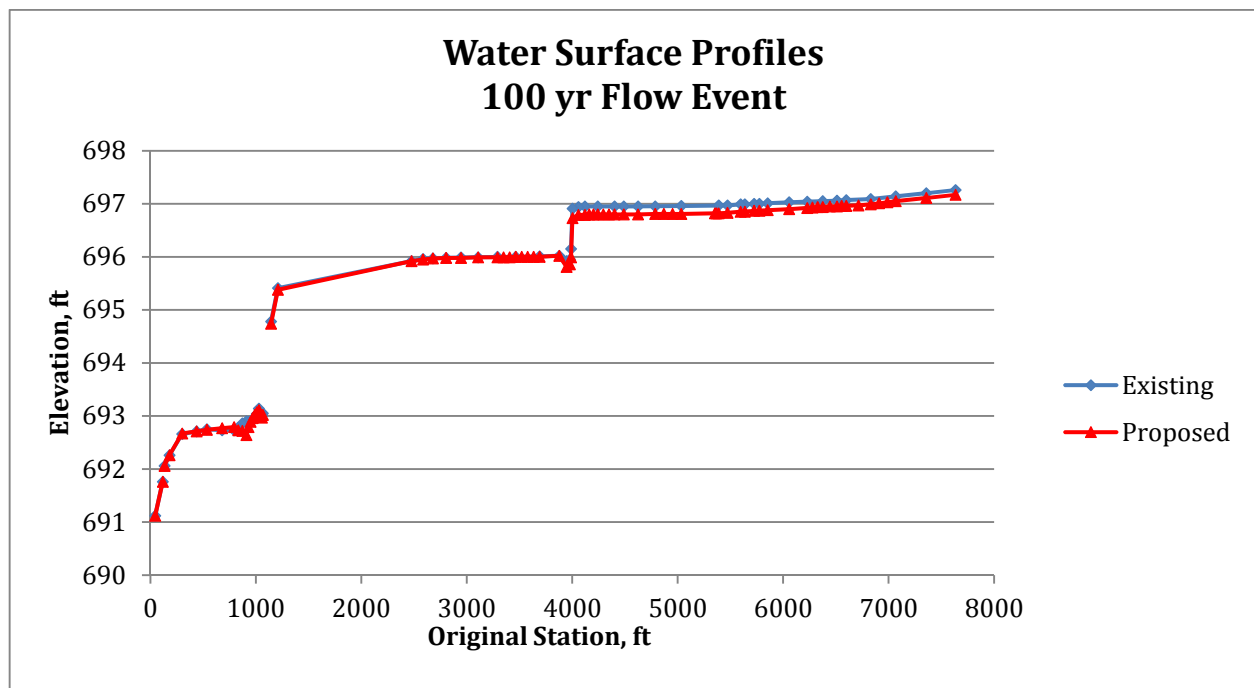
Table 9 – Shear Stresses within the Proposed Channel, lb/sq ft

	Upper Reach – Upstream of RR		Middle Reach – RR to CTH Q		Lower Reach – CTH Q to RR	
	Low	High	Low	High	Low	High
Median	0.02	0.05	0	0.03	0	0.04
20 day	0	0.25	0	0.22	0.04	0.09
1 yr LP3	0	1.26*	0	0.34	0.06	0.16
2 yr	0	0.55	0.01	0.42	0.08	0.29
5 yr	0	0.2	0.01	0.32	0.06	0.37
10 yr	0	0.21	0.01	0.29	0.07	0.49
50 yr	0	0.1	0.01	0.1	0.11	0.78
100 yr	0	0.06	0.01	0.2	0.12	0.92
500 yr	0	0.07	0.01	0.13	0.14	1

\* The high shear value for the 1 yr flow is at the point where the new crossing will be. Other than that location, the highest shear stress in the reach for that flow is 0.25 lb/sq ft.

Although we will be reusing the material excavated to create the new channel by placing within the floodplain to plug the existing channel and create topographic diversity, no material other than that excavated within the floodplain will be used as fill material. This reshaping of the land has a negligible effect on the elevation of the 100 yr flood. The modeling indicates that the 100 year flood event will decrease slightly in the upper reaches of the project and will not change in the lower stretches (Figure 13). This is due in part to the fact that constrictions at the crossing location are the primary controls on the flood elevation and capacity of the stream to convey large flows.

Figure 13 – Water surface elevation predicted along project reaches for existing and proposed conditions.



## Riparian Habitat Features

In addition to the stream, four ponds and one wetland scrape area are proposed to increase topographic diversity and provide habitat for amphibians, reptiles and birds. Three small ephemeral ponds are proposed that will not regularly receive floodwaters from the stream. The objective in creating these less connected ponds is to incorporate aquatic habitats that will rarely be occupied by fish, thereby enhancing the abundance and diversity of aquatic invertebrates in the system, some of which will require drying cycles for successful reproduction (i.e. fairy shrimp). These fish-free systems in turn support a richer and more abundant variety of birds, mammals, amphibians, and reptiles, some of which are dependent upon ephemeral wetlands for successful reproduction. These ponds will have maximum depths of 3-4 ft and will be graded to filter stormwater that runs directly off of agricultural fields.

One larger and deeper pond is proposed to provide a small area of open water habitat, particularly for water fowl, turtles and larger frogs. This pond will be connected to the creek with flood water during typical annual spring flows and will have an area of almost 7000 square feet that is between 4 and 5 ft deep.

We propose excavating 0.5 – 0.75 ft of soil near the proposed creek to more frequently connect an existing low area to the creek, particularly to enhance northern pike spawning. This area is expected to be inundated for over 30 days during a typical spring flood and inundated to a depth of more than one foot during the 2 yr flow.

Additional topographic diversity is proposed in the riparian area that will allow additional tree planting. As described previously, one of the habitat objectives is to increase the extent of swamp forest in the upper reach of the system. Another objective is to increase the shrub habitat diversity upstream and downstream of the railroad crossing. While much of the area is too wet to establish many trees, material excavated from the proposed channel and ponds will be used to create shallow hummocks that will be conducive to planting wetland trees, will be utilized by many amphibians and reptiles for thermal basking, and will provide micro-habitat variation supporting a richer variety of plants. Non-ash species will be planted to provide resilience to expected future ash die-offs.

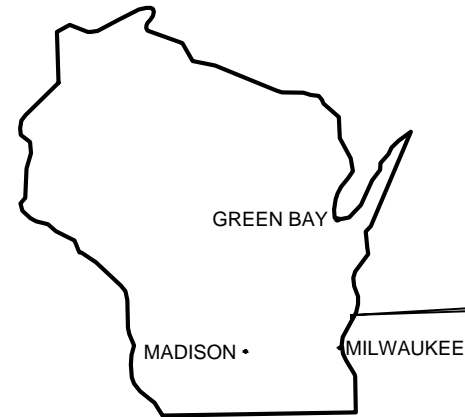
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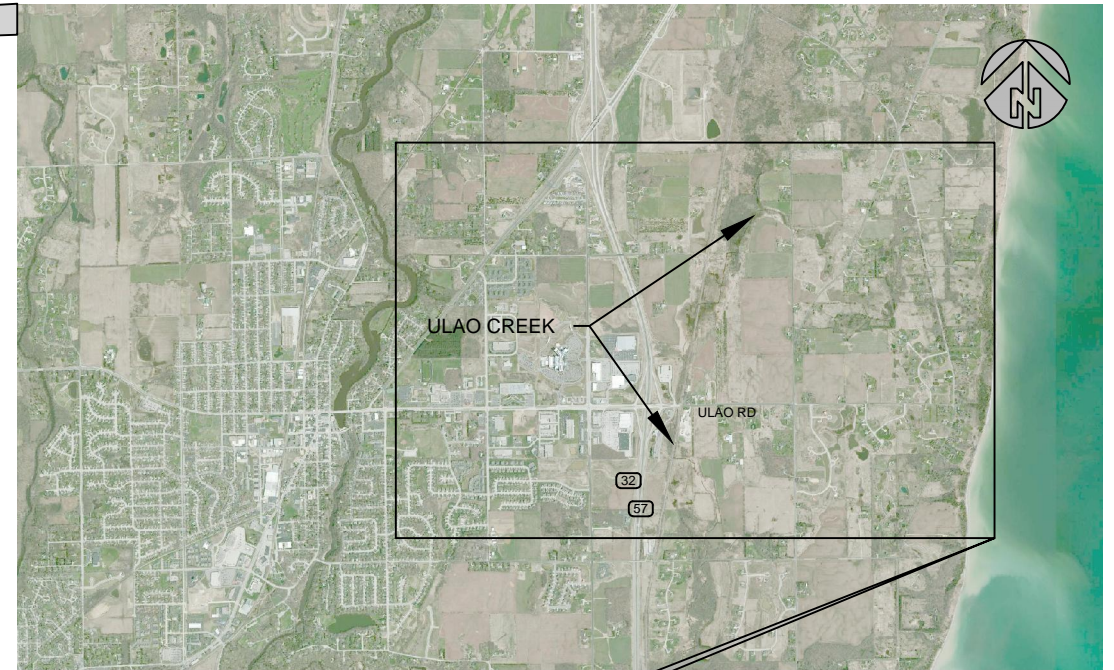
# Ulao Creek Habitat Enhancement

## Ozaukee County Planning and Parks Dept

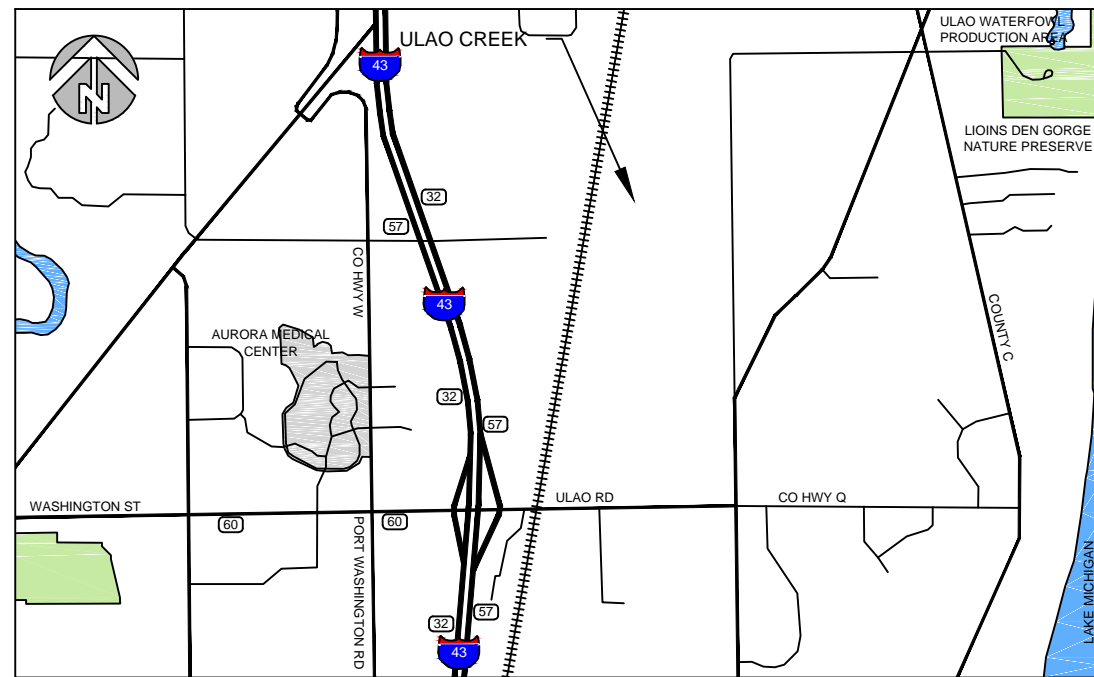
### June 5 2013



LOCATION MAP - WISCONSIN  
NTS



LOCATION MAP  
SCALE 1" = 5000'



VICINITY MAP  
NOT TO SCALE

#### SHEET INDEX:

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| 2. PLAN OVERVIEW             | 17. PLAN & PROFILE                     |
| 3. SITE PLAN                 | 18. EXISTING & PROPOSED SECTIONS       |
| 4. SITE PLAN                 | 19. EXISTING & PROPOSED SECTIONS       |
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| 15. PLAN & PROFILE           |                                        |

1	06/05/13	FINAL SUBMITTAL
NO.	DATE	REVISION DESCRIPTION

CP	MBW	GSO
DRAWN	DESIGNED	CHECKED
MBW	06/05/13	13-04-02
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Ozaukee County Planning and Parks Dept  
Ozaukee County WI



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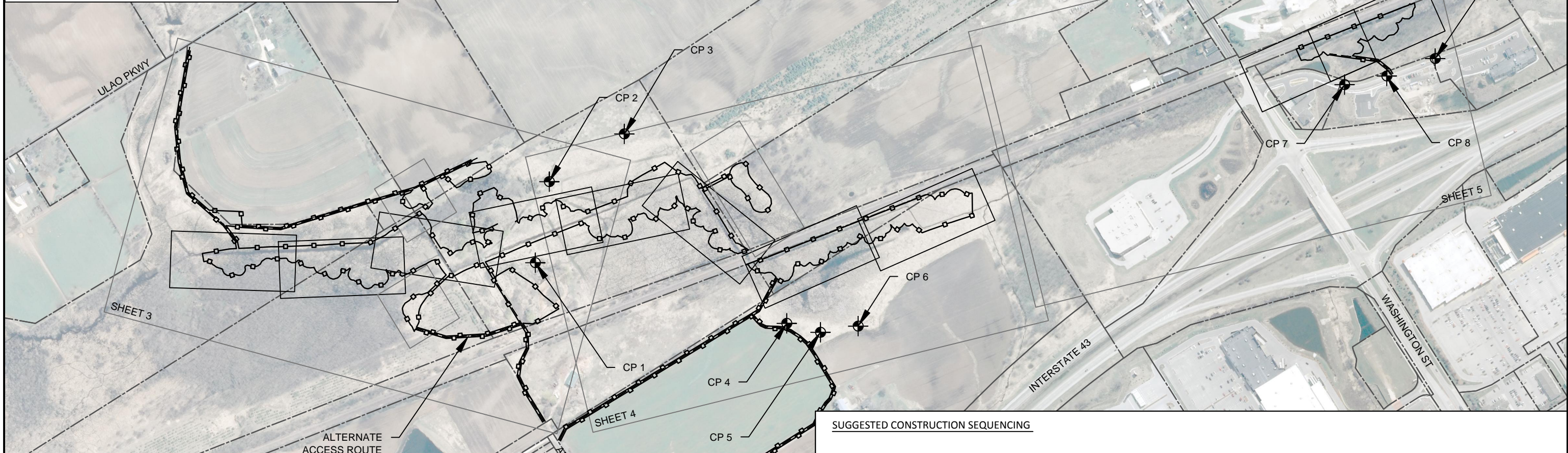
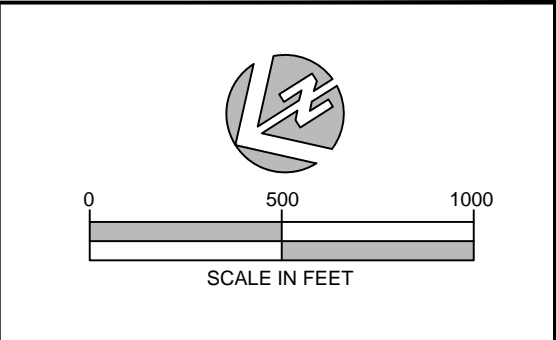
Title Sheet  
& Sheet Index

SHEET

1 OF 29

Control Point Table					
Point #	Raw Description	Elevation	Northing	Easting	Description
1	CP1	694.246	405881.682	605208.638	Rebar W/OC
2	CP2	694.556	405605.000	605525.533	Rebar W/OC
3	CP3	695.941	405150.606	605533.851	Rebar W/OC
4	CP4	692.140	404944.631	604275.175	Rebar W/OC
6262	CP5	692.959	404821.309	604146.617	Rebar W/OC
6263	CP6	692.174	404640.875	604073.308	Rebar W/OC
7	CP7	692.761	401873.901	603832.670	Rebar W/OC
6403	CP8	693.328	401667.086	603758.207	Rebar W/OC
6404	CP9	692.420	401409.464	603705.186	Rebar W/OC

Coordinate System: Wisconsin County Systems - Ozaukee County US Foot  
Projection: TM-WCCS



**PLAN LEGEND**

- PROPOSED ACCESS
- PROPERTY BOUNDARIES
- LIMITS OF DISTURBANCE
- CONTROL POINT



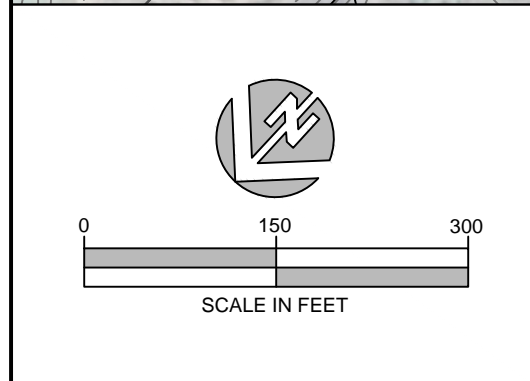
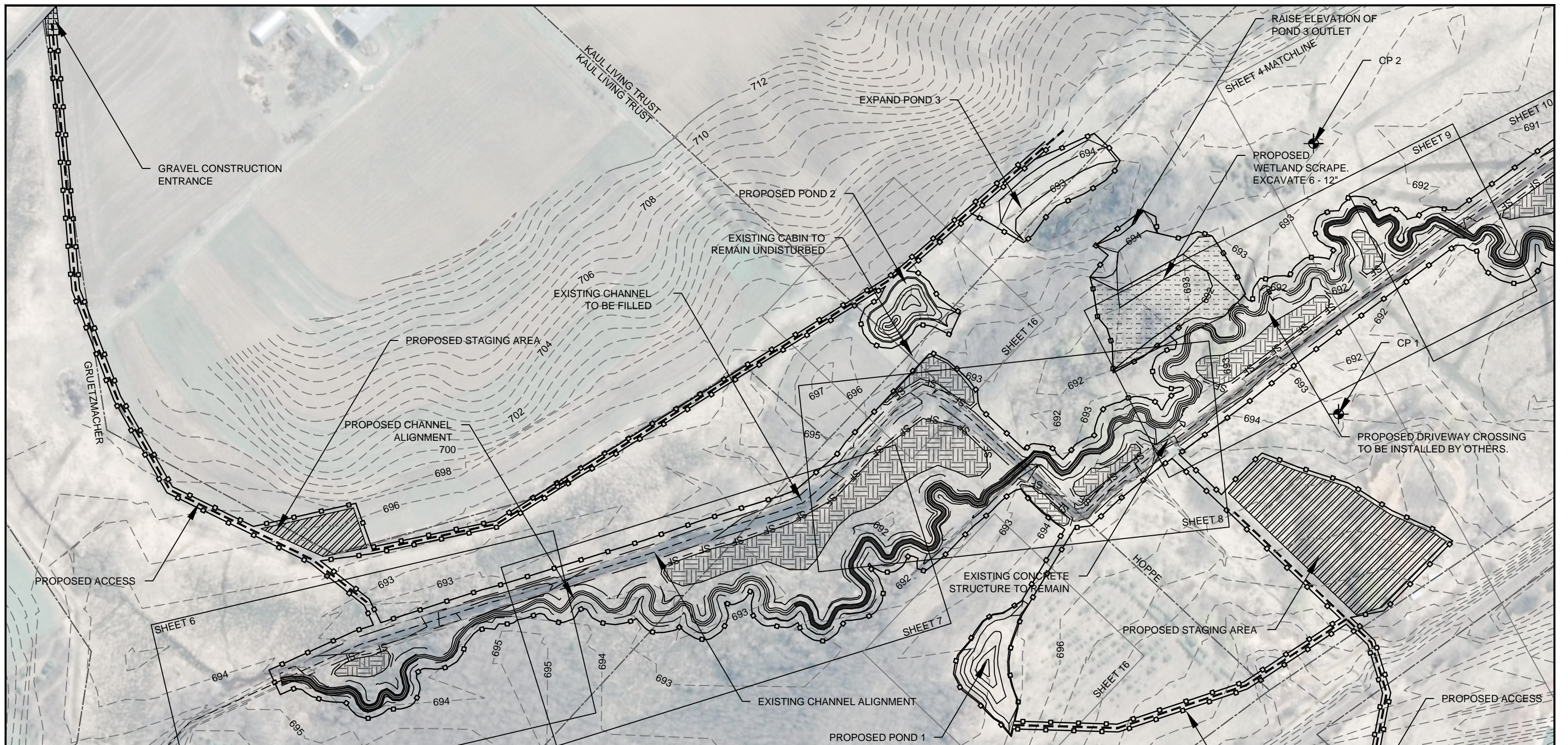
- SUGGESTED CONSTRUCTION SEQUENCING**
1. INSTALL GRAVEL CONSTRUCTION ENTRANCES. IDENTIFY SOIL STOCKPILE AREAS AND INSTALL SILT FENCE BETWEEN STOCKPILE AREAS AND THE EXISTING STREAM CHANNEL.
  2. EXCAVATE NEW CHANNEL WITHOUT CONNECTING TO EXISTING CHANNEL, LEAVING FLOW IN EXISTING CHANNEL. SEED BANKS AND DISTURBED FLOODPLAIN AREAS IMMEDIATELY AFTER COMPLETING EXCAVATION AND GRADING IN ACCORDANCE WITH SPECIFICATIONS. STOCKPILE EXCESS SOIL IN AREAS IDENTIFIED ENSURING THAT SILT FENCE IS PLACED BETWEEN THE STOCKPILE AND THE EXISTING CHANNEL.
  3. EXCAVATE WETLANDS AND PONDS. STOCKPILE SOIL IN AREAS IDENTIFIED ENSURING THAT SILT FENCE IS PLACED BETWEEN THE STOCKPILE AND THE EXISTING CHANNEL.
  4. ALLOW SEEDS SEVERAL WEEKS TO GERMINATE AND GROW. ROUTE FLOW INTO NEW CHANNEL WHEN APPROVED BY OWNER'S REPRESENTATIVE.
  5. BEGINNING AT THE DOWNSTREAM END, EXCAVATE REMAINING SOIL BETWEEN THE NEW CHANNEL AND THE OLD CHANNEL. WHEN THE ENTIRE NEW CHANNEL IS CLEAR, START AT THE UPSTREAM END OF THE OLD CHANNEL AND PLUG CROSSINGS WITH CRIB WALL STRUCTURE, REMOVE SILT FENCING AROUND STOCKPILES AND BACKFILL CHANNEL WITH STOCKPILED SOIL.
  6. SEED FORMER CHANNEL AREA ACCORDING TO SPECIFICATIONS. SEED ALL REMAINING DISTURBED AREAS.
  7. PLANT TREES DURING APPROPRIATE SEASON AS DESCRIBED IN SPECIFICATIONS.
  8. RESTORE ACCESS ROAD AREAS AND REMOVE GRAVEL CONSTRUCTION ENTRANCES.

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Ozaukee County Planning & Parks Dept  
Ozaukee County WI





PLAN LEGEND	
	EXISTING 1 FT CONTOUR
	PROPOSED 1 FT CONTOUR
	PROPOSED CHANNEL ALIGNMENT
	EXISTING CHANNEL ALIGNMENT
	TEMPORARY STOCKPILE AND POTENTIAL SOIL REUSE AREA
	WETLAND SCRAPE
	PROPOSED STAGING
	PROPOSED ACCESS
	PROPERTY BOUNDARIES
	LIMITS OF DISTURBANCE
	PROPOSED GRAVEL CONSTRUCTION ENTRANCE
	CONTROL POINT
	SILT FENCE



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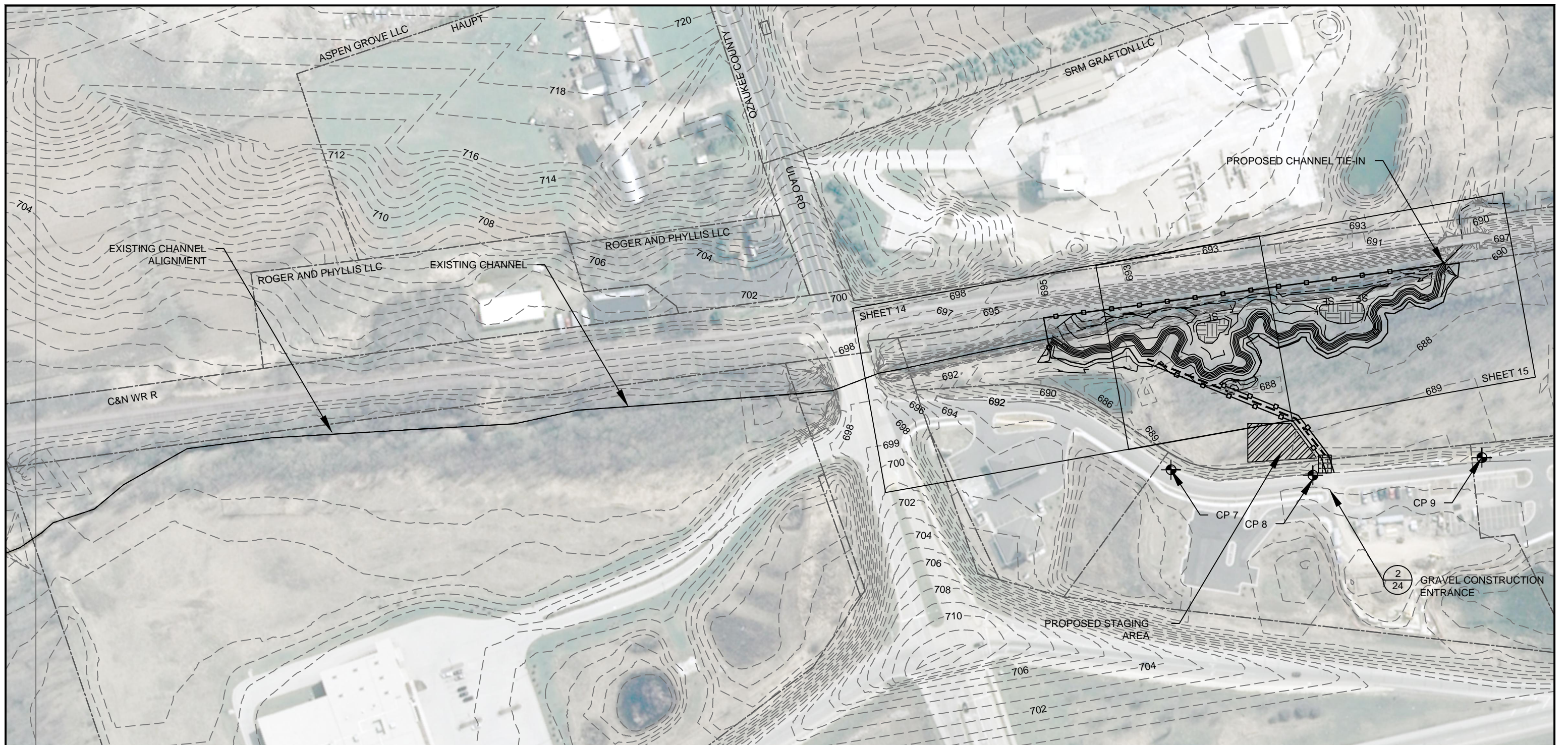
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	PROPERTY BOUNDARIES
	LIMITS OF DISTURBANCE
	TEMPORARY SOIL STOCKPILE AND POTENTIAL SOIL REUSE AREA
	SOIL REUSE AREA
	SILT FENCE
	EXISTING 1 FT CONTOUR
	PROPOSED 1 FT CONTOUR
	PROPOSED CHANNEL ALIGNMENT
	EXISTING CHANNEL ALIGNMENT
	CONTROL POINT

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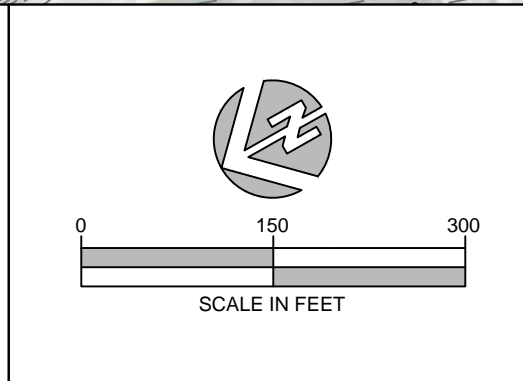
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SHEET 4 MATCHLINE



PLAN LEGEND	
	EXISTING 1 FT CONTOUR
	PROPOSED 1 FT CONTOUR
	PROPOSED CHANNEL ALIGNMENT
	EXISTING CHANNEL ALIGNMENT
	SOIL REUSE AREA
	PROPOSED STAGING AREA
	PROPOSED GRAVEL CONSTRUCTION ENTRANCE
	PROPOSED ACCESS
	PROPERTY BOUNDARIES
	LIMITS OF DISTURBANCE
	CONTROL POINT
	- SF - SF - SILT FENCE

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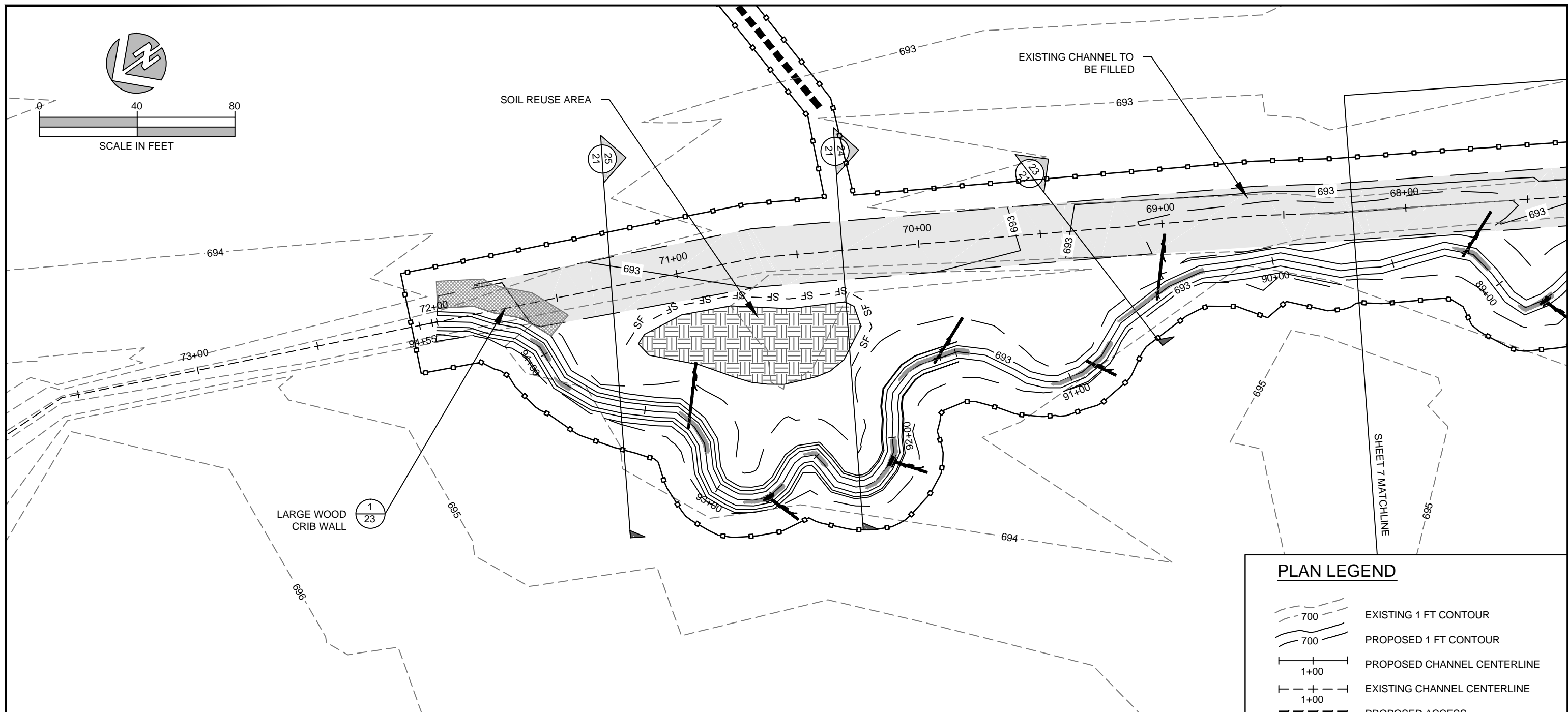
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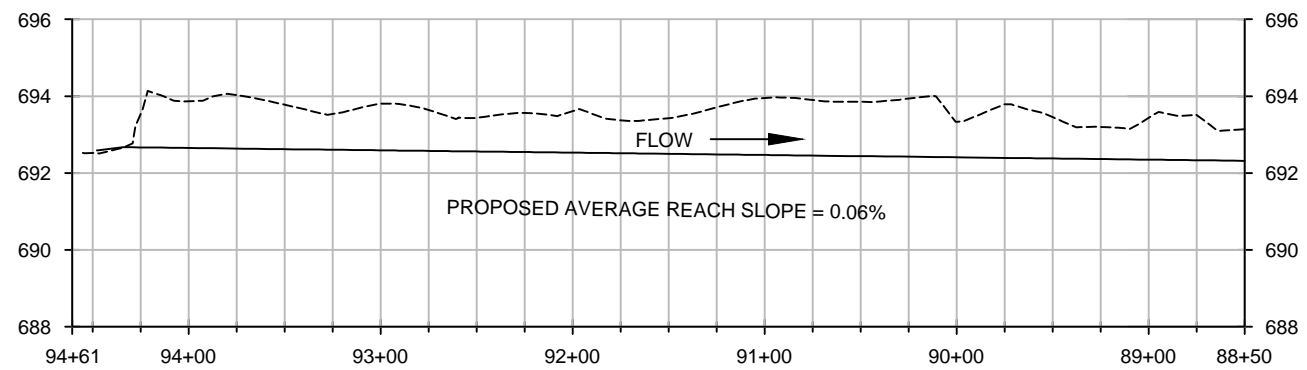
**Site Plan**

SHEET  
**5 OF 29**



**PLAN LEGEND**

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- 700 PROPOSED 1 FT CONTOUR
- 1+00 PROPOSED CHANNEL CENTERLINE
- 1+00 EXISTING CHANNEL CENTERLINE
- PROPOSED ACCESS
- LARGE WOOD CRIB WALL
- LIMITS OF DISTURBANCE
- PROPERTY BOUNDARIES
- GRADING EXTENTS
- SOIL REUSE AREA
- LARGE WOOD PLACEMENT
- SF - SF - SILT FENCE
- EXISTING CHANNEL TO BE FILLED
- PROPOSED POOLS



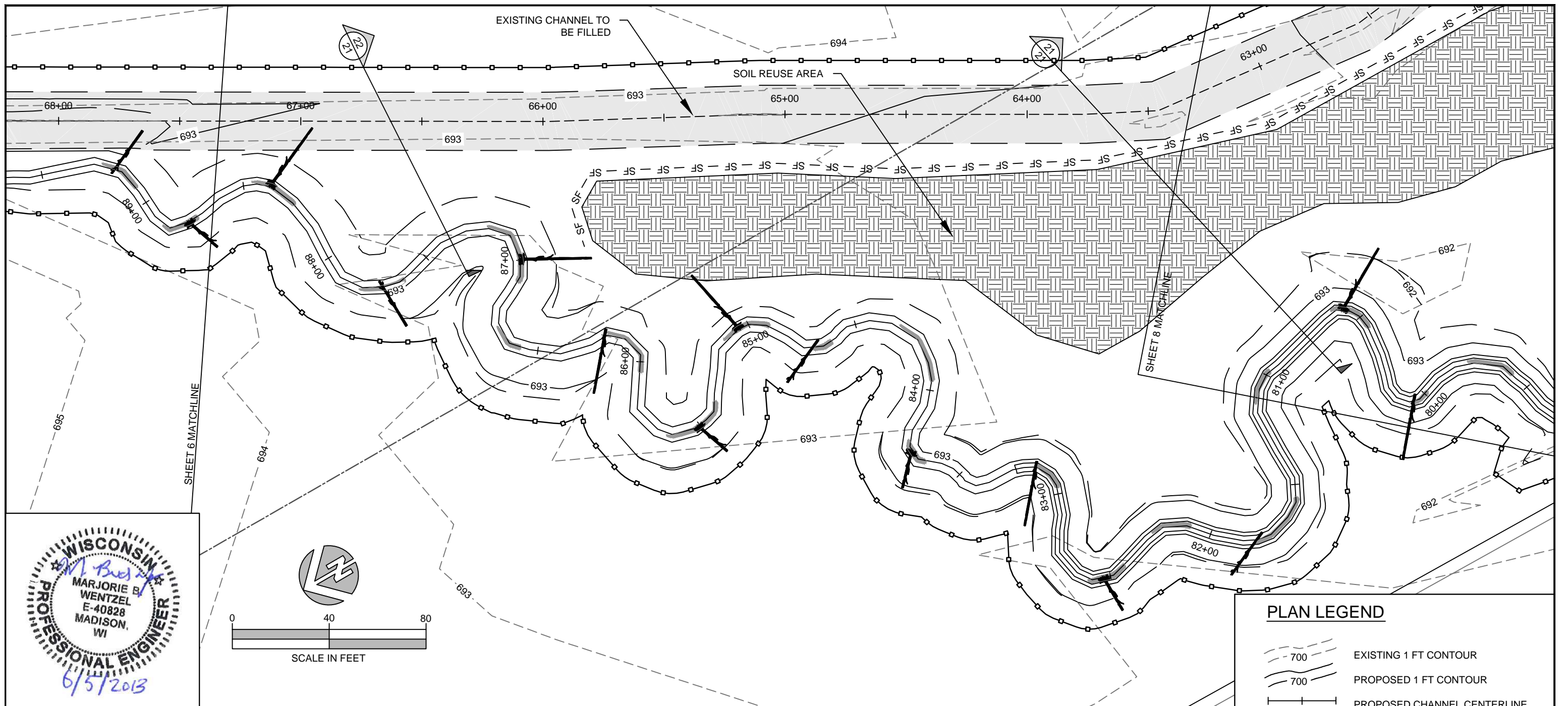
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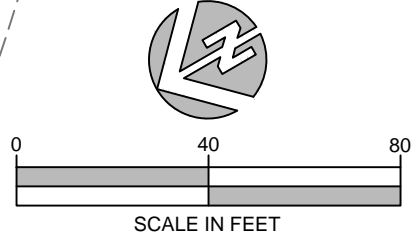
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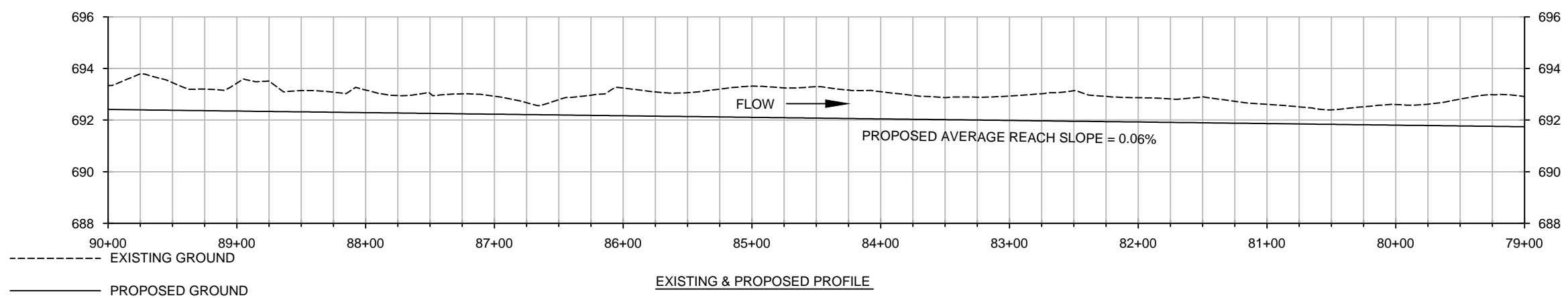
Plan & Profile View



WISCONSIN PROFESSIONAL ENGINEER
   
 MARJORIE B. WENTZEL
   
 E-40828
   
 MADISON, WI
   
 6/5/2013



- PLAN LEGEND**
- EXISTING 1 FT CONTOUR
  - PROPOSED 1 FT CONTOUR
  - PROPOSED CHANNEL CENTERLINE
  - EXISTING CHANNEL CENTERLINE
  - LIMITS OF DISTURBANCE
  - PROPERTY BOUNDARIES
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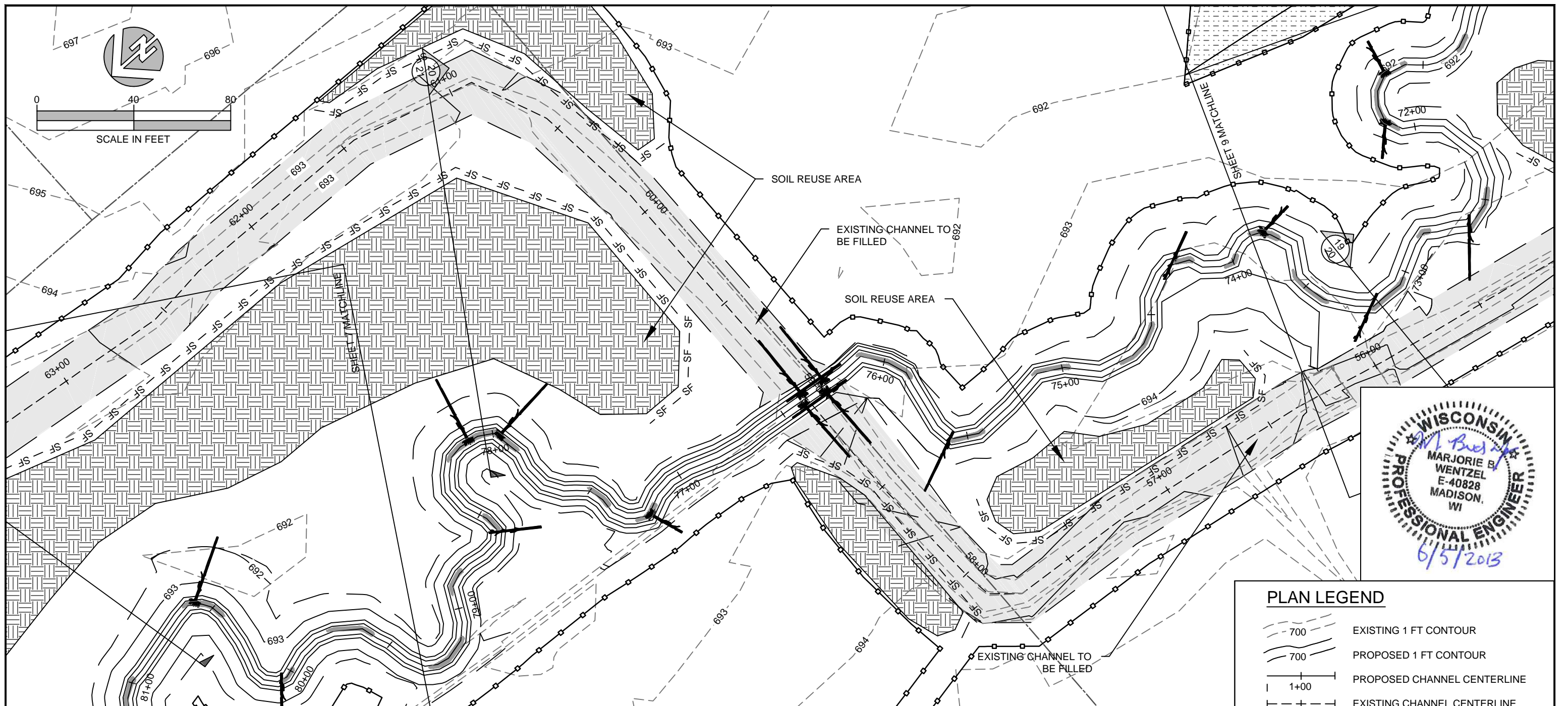


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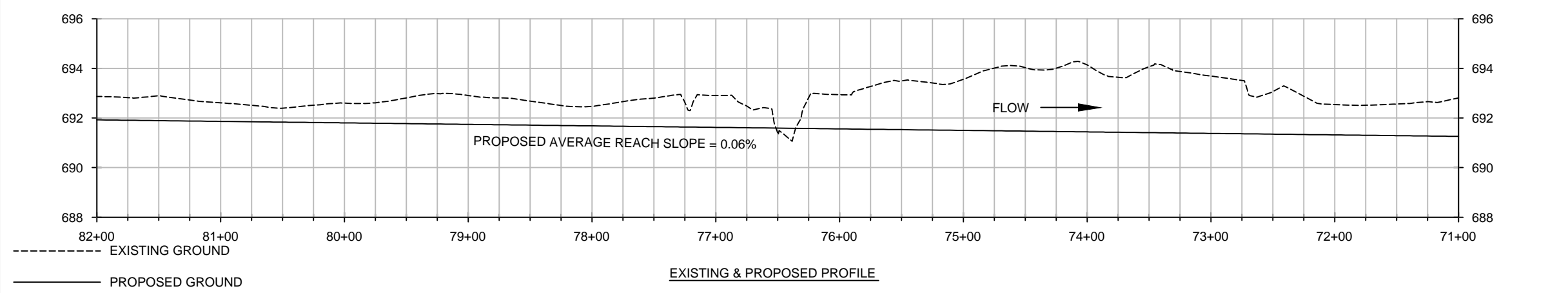
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**PLAN LEGEND**

	EXISTING 1 FT CONTOUR
	PROPOSED 1 FT CONTOUR
	PROPOSED CHANNEL CENTERLINE
	EXISTING CHANNEL CENTERLINE
	LIMITS OF DISTURBANCE
	PROPERTY BOUNDARIES
	GRADING EXTENTS
	SOIL REUSE AREA
	LARGE WOOD PLACEMENT
	SILT FENCE
	EXISTING CHANNEL TO BE FILLED
	WETLAND SCRAPE
	PROPOSED POOLS

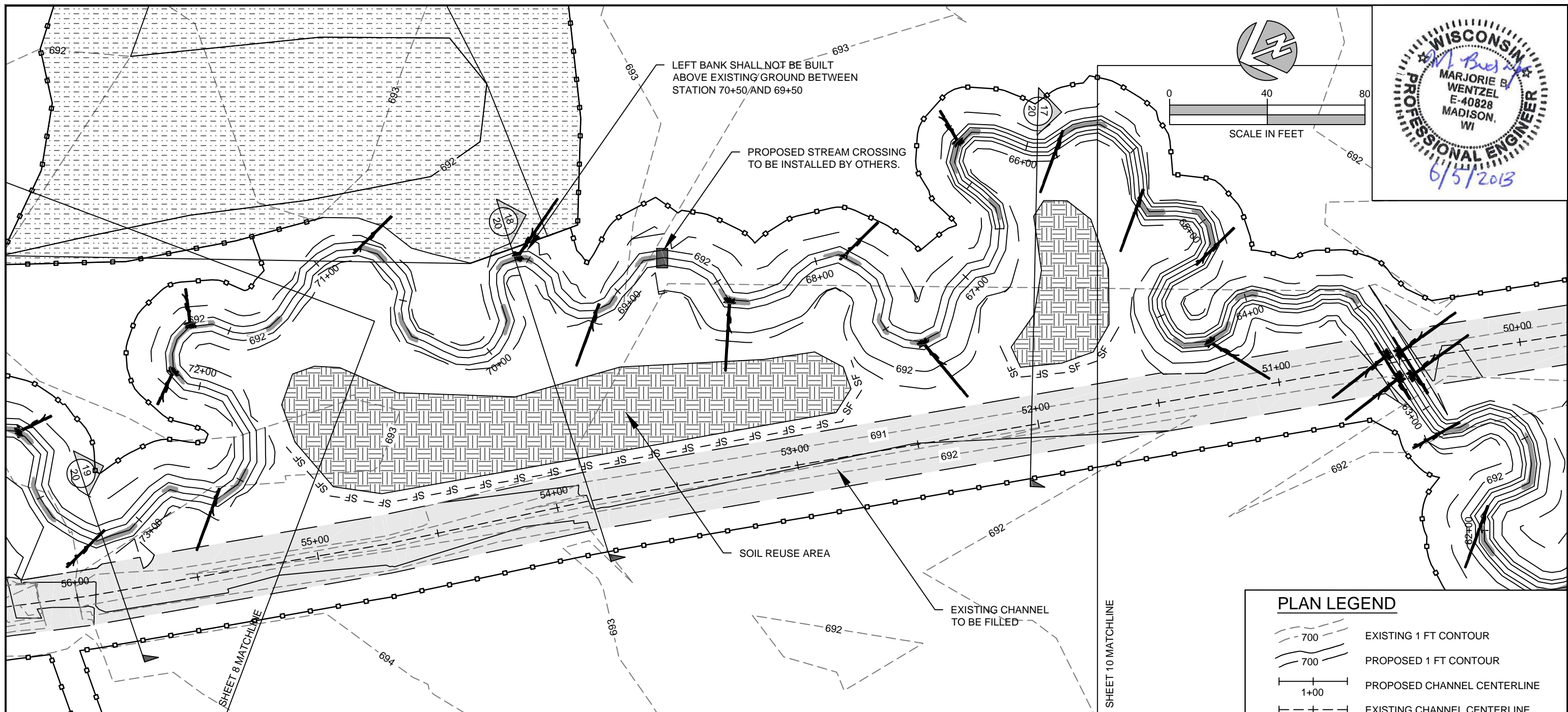


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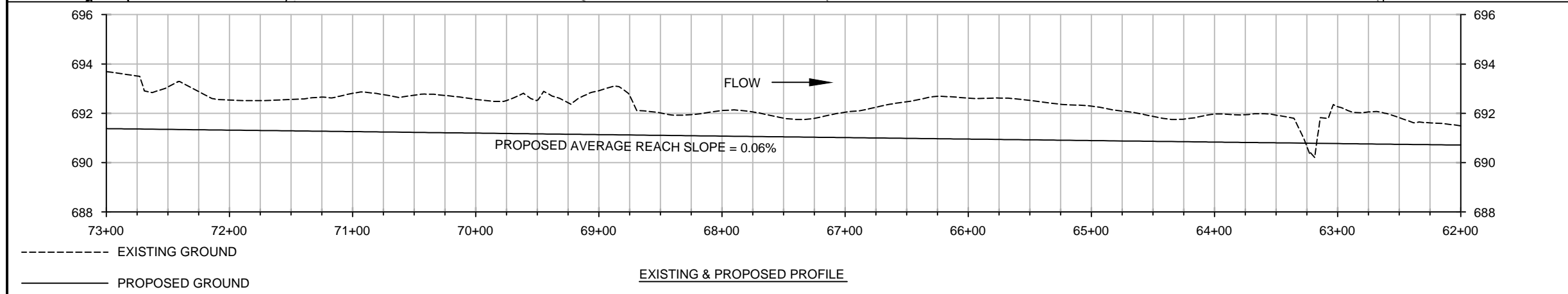
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**PLAN LEGEND**

- EXISTING 1 FT CONTOUR
- PROPOSED 1 FT CONTOUR
- PROPOSED CHANNEL CENTERLINE
- EXISTING CHANNEL CENTERLINE
- LIMITS OF DISTURBANCE
- PROPERTY BOUNDARIES
- GRADING EXTENTS
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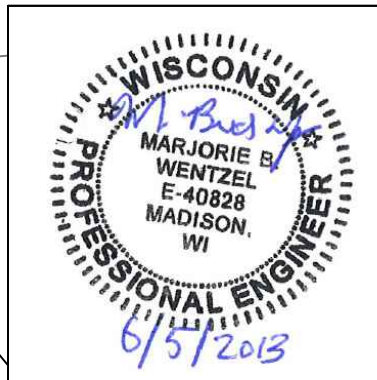
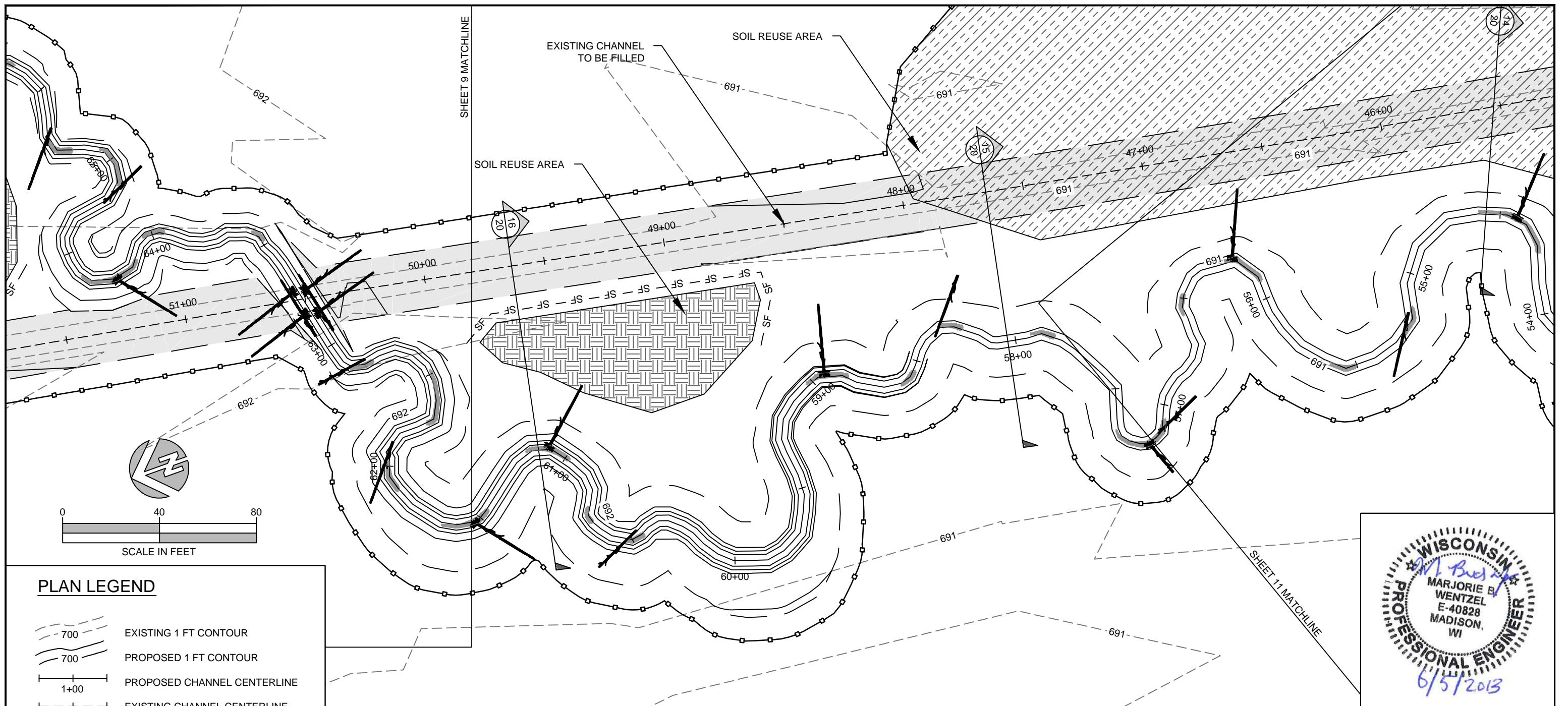
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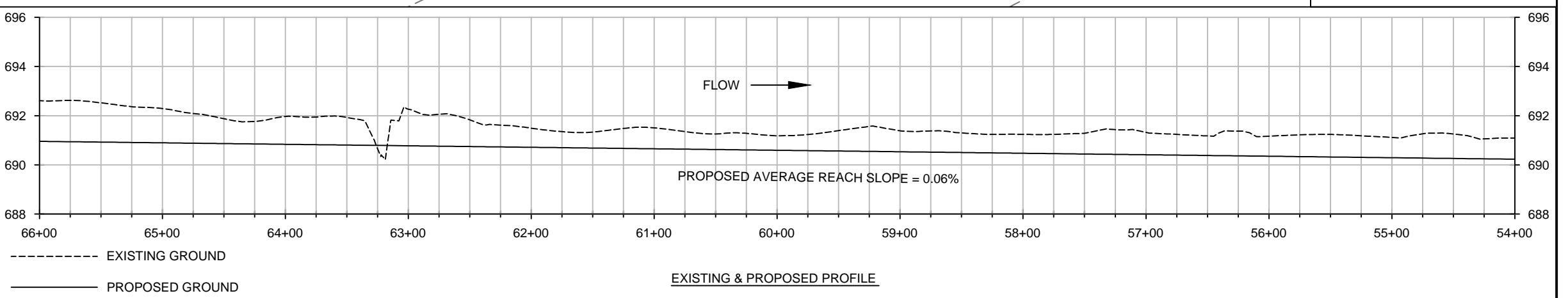
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**PLAN LEGEND**

- 700 EXISTING 1 FT CONTOUR
- 700 PROPOSED 1 FT CONTOUR
- 1+00 PROPOSED CHANNEL CENTERLINE
- 1+00 EXISTING CHANNEL CENTERLINE
- LIMITS OF DISTURBANCE
- PROPERTY BOUNDARIES
- GRADING EXTENTS
- SOIL REUSE AREA
- PERMANENT SOIL REUSE AREA
- LARGE WOOD PLACEMENT
- SILT FENCE
- EXISTING CHANNEL TO BE FILLED
- PROPOSED POOLS

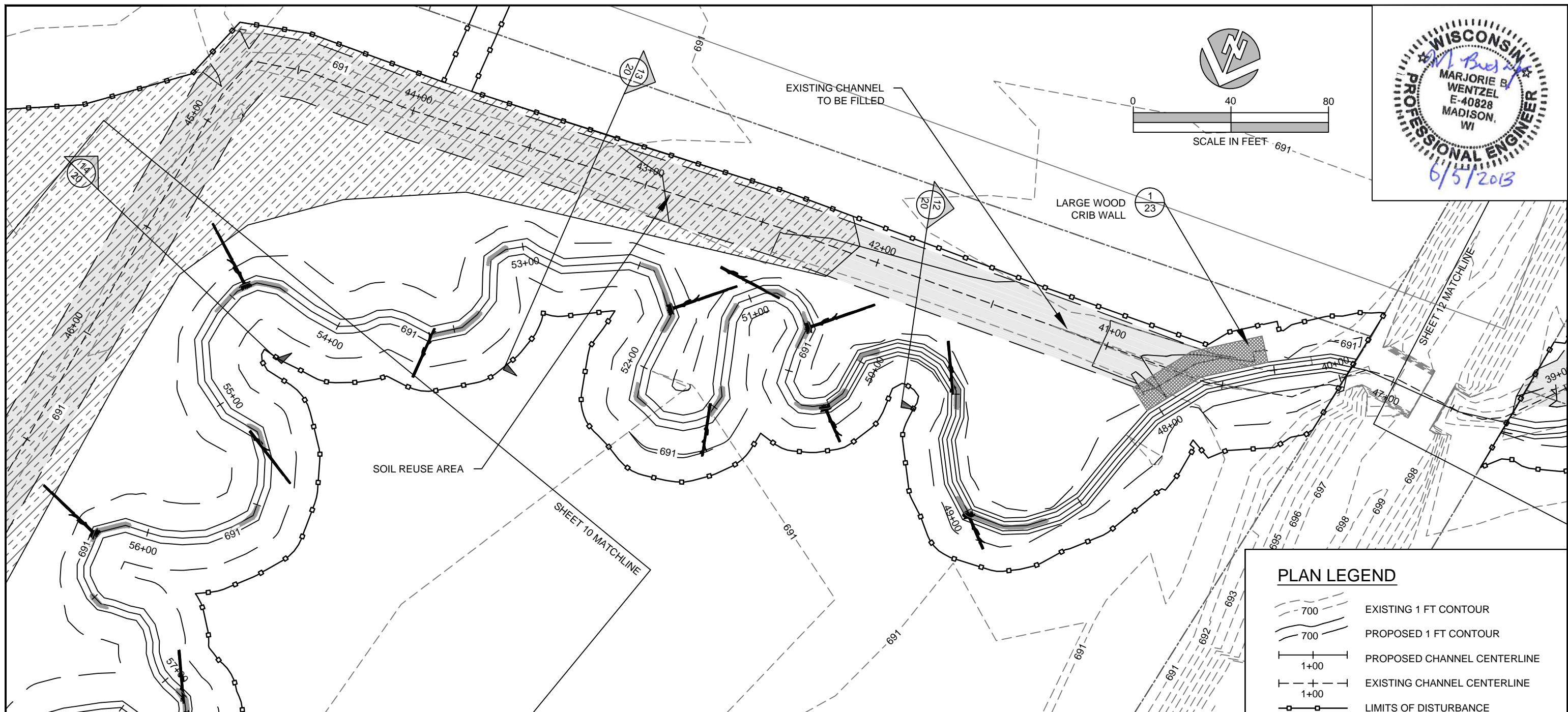


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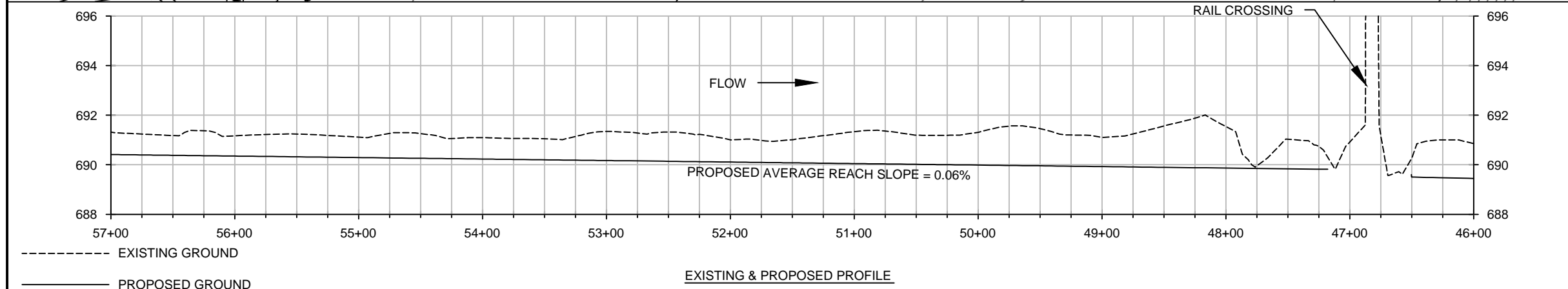
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 Ozaukee County WI

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**PLAN LEGEND**

	EXISTING 1 FT CONTOUR
	PROPOSED 1 FT CONTOUR
	PROPOSED CHANNEL CENTERLINE
	EXISTING CHANNEL CENTERLINE
	LIMITS OF DISTURBANCE
	LARGE WOOD CRIB WALL
	PROPERTY BOUNDARIES
	GRADING EXTENTS
	SOIL REUSE AREA
	PERMANENT SOIL REUSE AREA
	LARGE WOOD PLACEMENT
	SILT FENCE
	EXISTING CHANNEL TO BE FILLED
	PROPOSED POOLS



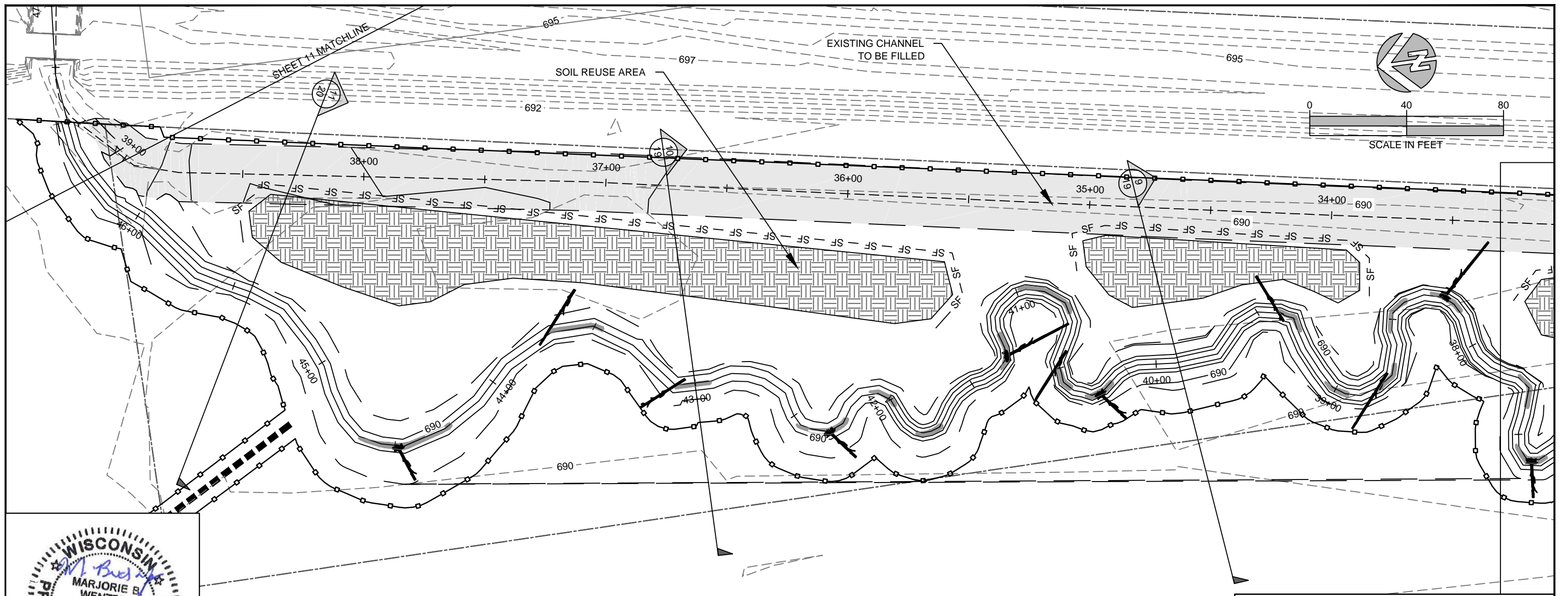
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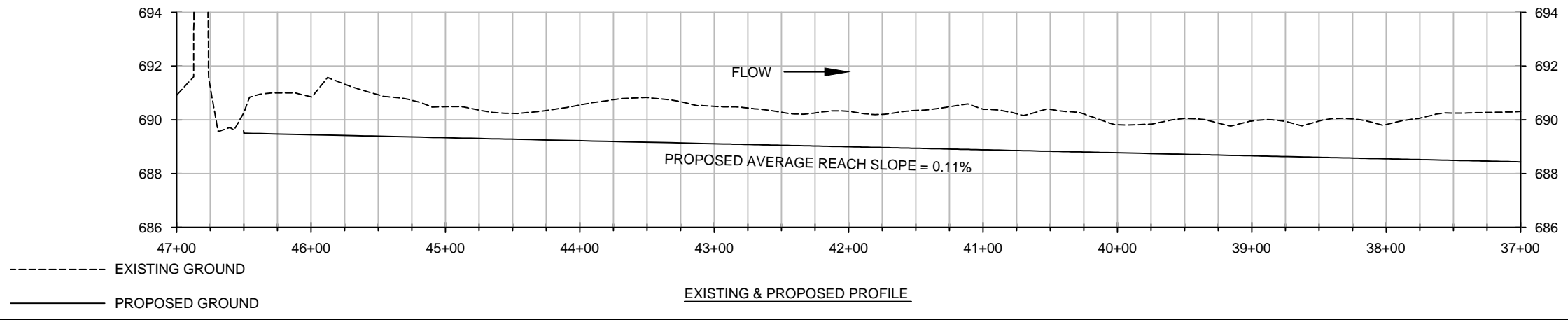




WISCONSIN PROFESSIONAL ENGINEER
   
 MARJORIE B. WENTZEL
   
 E-40828
   
 MADISON, WI
   
 6/5/2013

**PLAN LEGEND**

	EXISTING 1 FT CONTOUR
	PROPOSED 1 FT CONTOUR
	PROPOSED CHANNEL CENTERLINE
	EXISTING CHANNEL CENTERLINE
	LIMITS OF DISTURBANCE
	PROPERTY BOUNDARIES
	GRADING EXTENTS
	SOIL REUSE AREA
	LARGE WOOD PLACEMENT
	SILT FENCE
	EXISTING CHANNEL TO BE FILLED
	PROPOSED POOLS

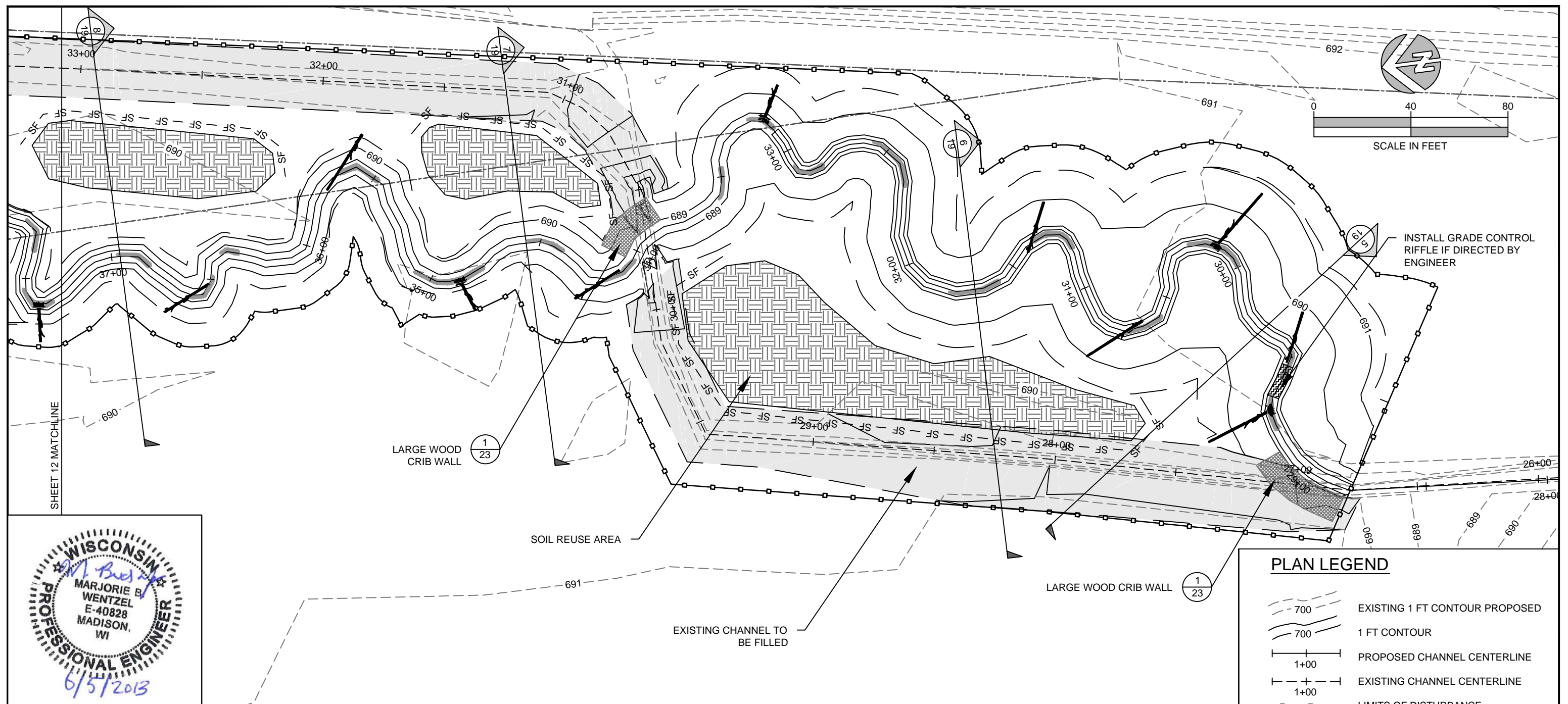


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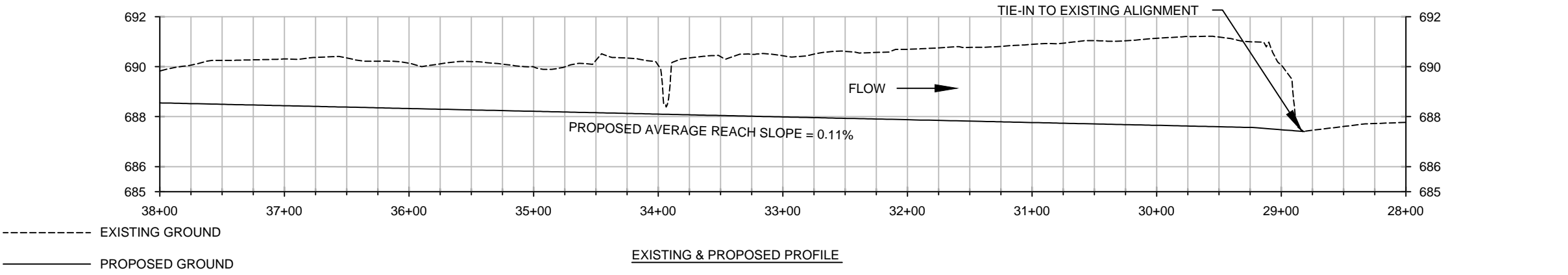
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**PLAN LEGEND**

	EXISTING 1 FT CONTOUR PROPOSED
	1 FT CONTOUR
	PROPOSED CHANNEL CENTERLINE
	EXISTING CHANNEL CENTERLINE
	LIMITS OF DISTURBANCE
	LARGE WOOD CRIB WALL
	PROPERTY BOUNDARIES
	GRADING EXTENTS
	SOIL REUSE AREA
	LARGE WOOD PLACEMENT
	SILT FENCE
	GRADE CONTROL RIFFLE
	EXISTING CHANNEL TO BE FILLED
	PROPOSED POOLS

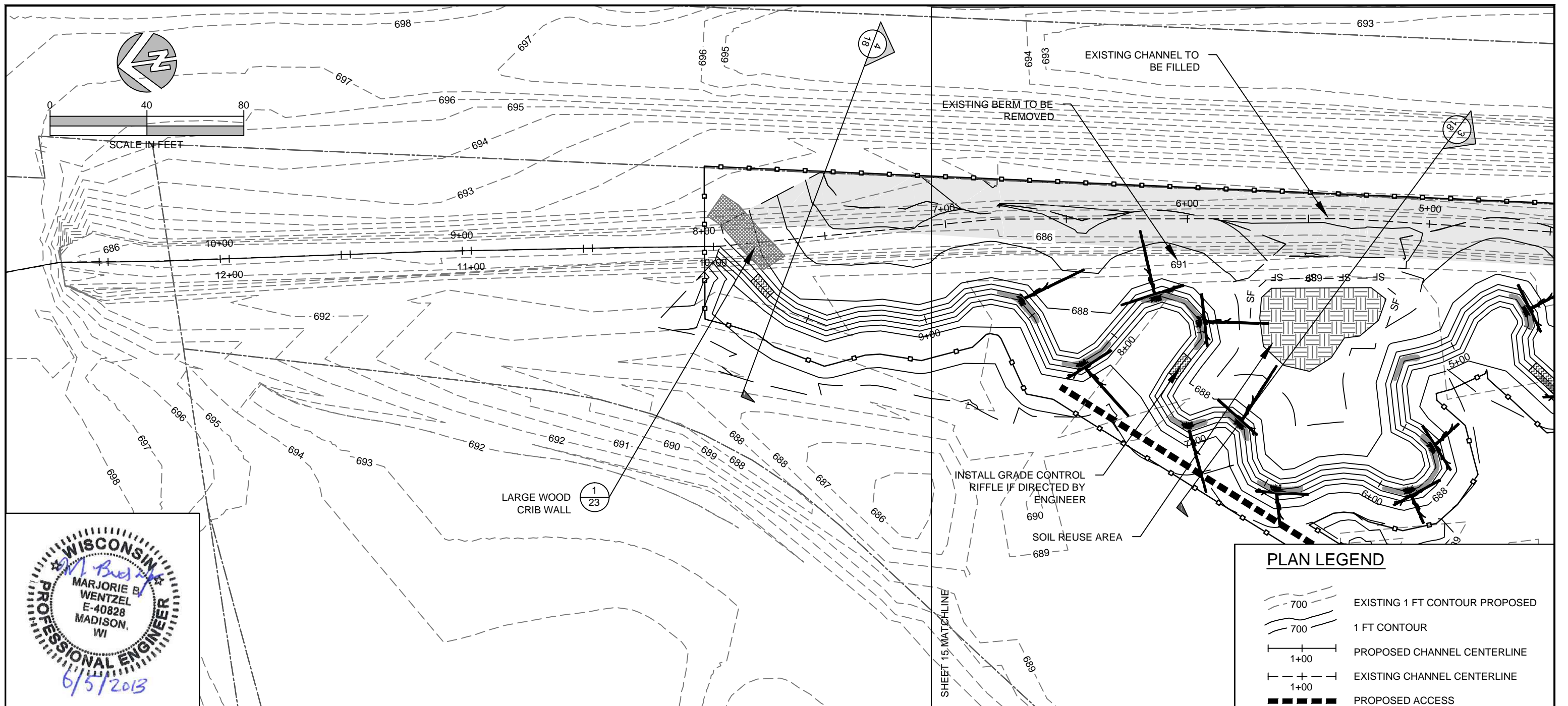


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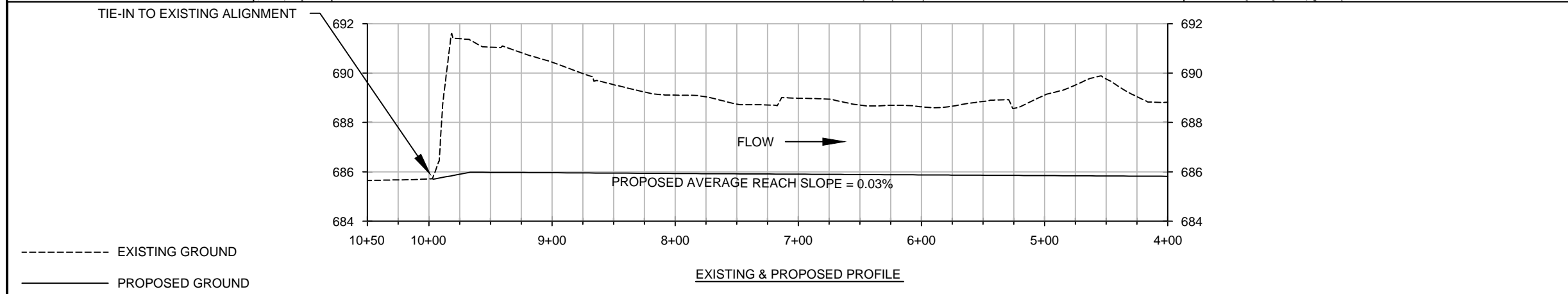
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PLAN LEGEND	
	EXISTING 1 FT CONTOUR PROPOSED
	1 FT CONTOUR
	PROPOSED CHANNEL CENTERLINE
	EXISTING CHANNEL CENTERLINE
	PROPOSED ACCESS
	LIMITS OF DISTURBANCE
	LARGE WOOD CRIB WALL
	PROPERTY BOUNDARIES
	GRADING EXTENTS
	SOIL REUSE AREA
	SILT FENCE
	GRADE CONTROL RIFFLE
	EXISTING CHANNEL TO BE FILLED
	PROPOSED POOLS

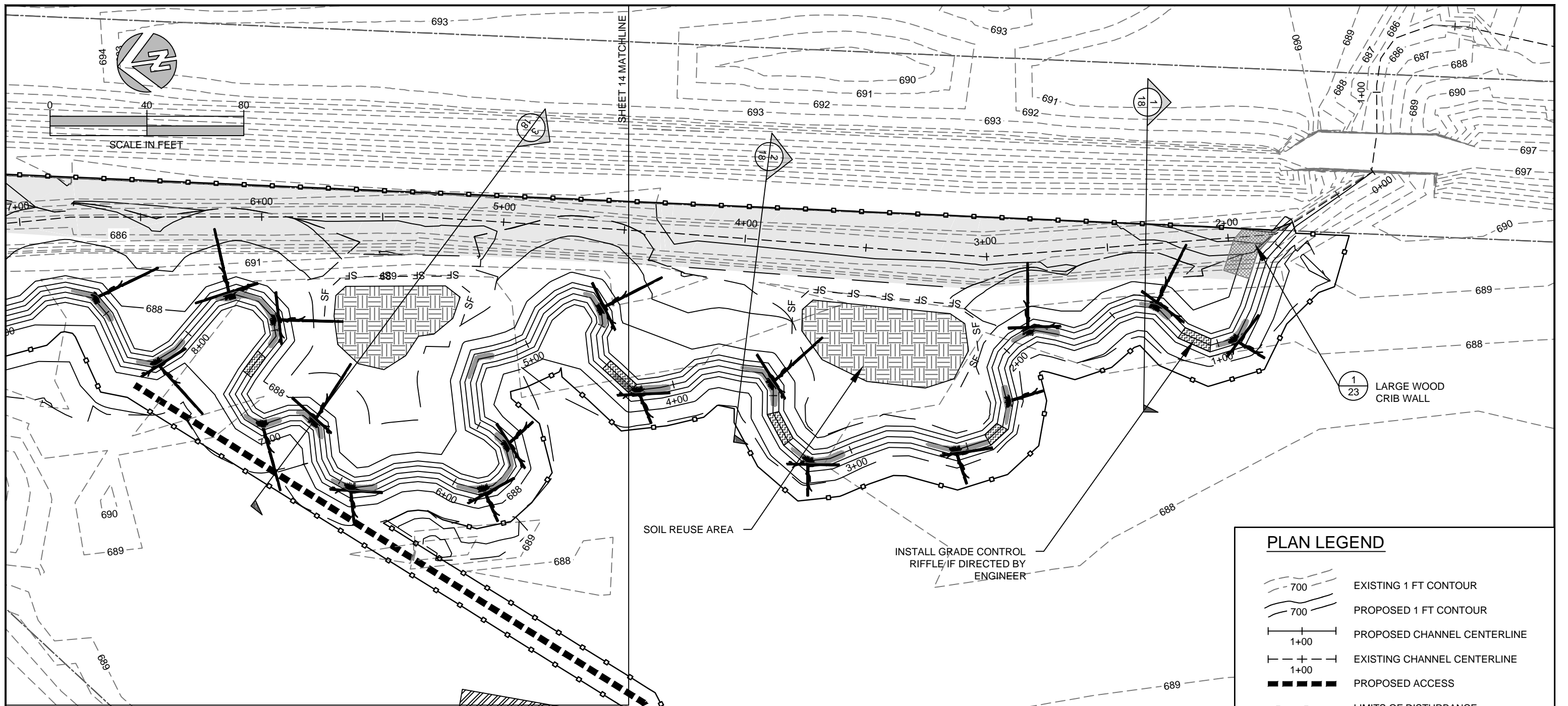


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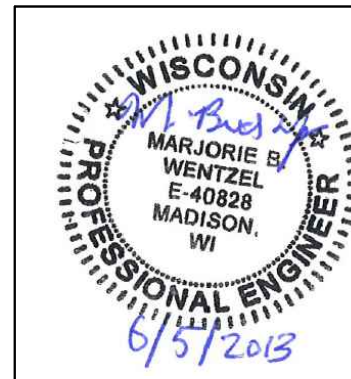
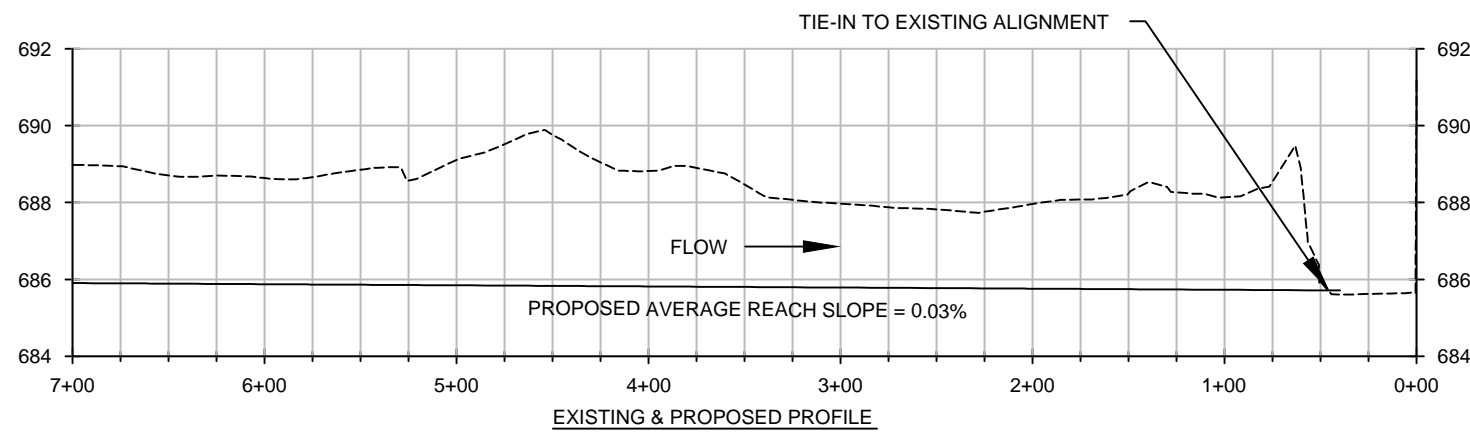
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**PLAN LEGEND**

- EXISTING 1 FT CONTOUR
- PROPOSED 1 FT CONTOUR
- PROPOSED CHANNEL CENTERLINE
- EXISTING CHANNEL CENTERLINE
- PROPOSED ACCESS
- LIMITS OF DISTURBANCE
- LARGE WOOD CRIB WALL
- PROPERTY BOUNDARIES
- GRADING EXTENTS
- SOIL REUSE AREA
- SILT FENCE
- GRADE CONTROL RIFFLE
- EXISTING CHANNEL TO BE FILLED
- PROPOSED POOLS
- LARGE WOOD PLACEMENT

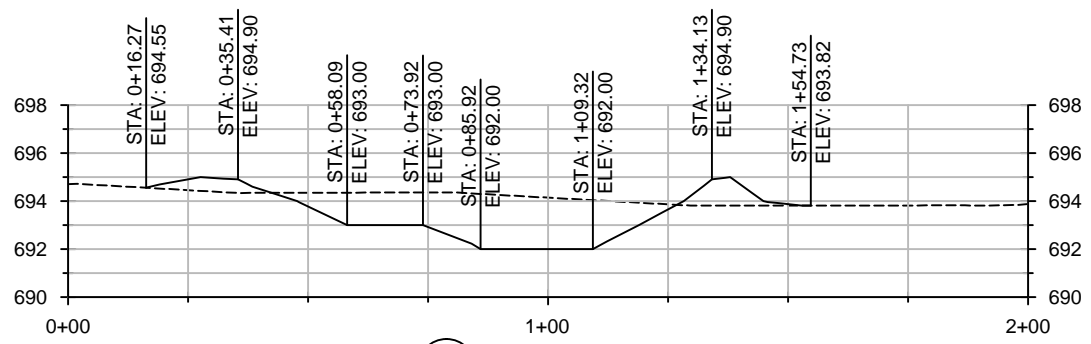
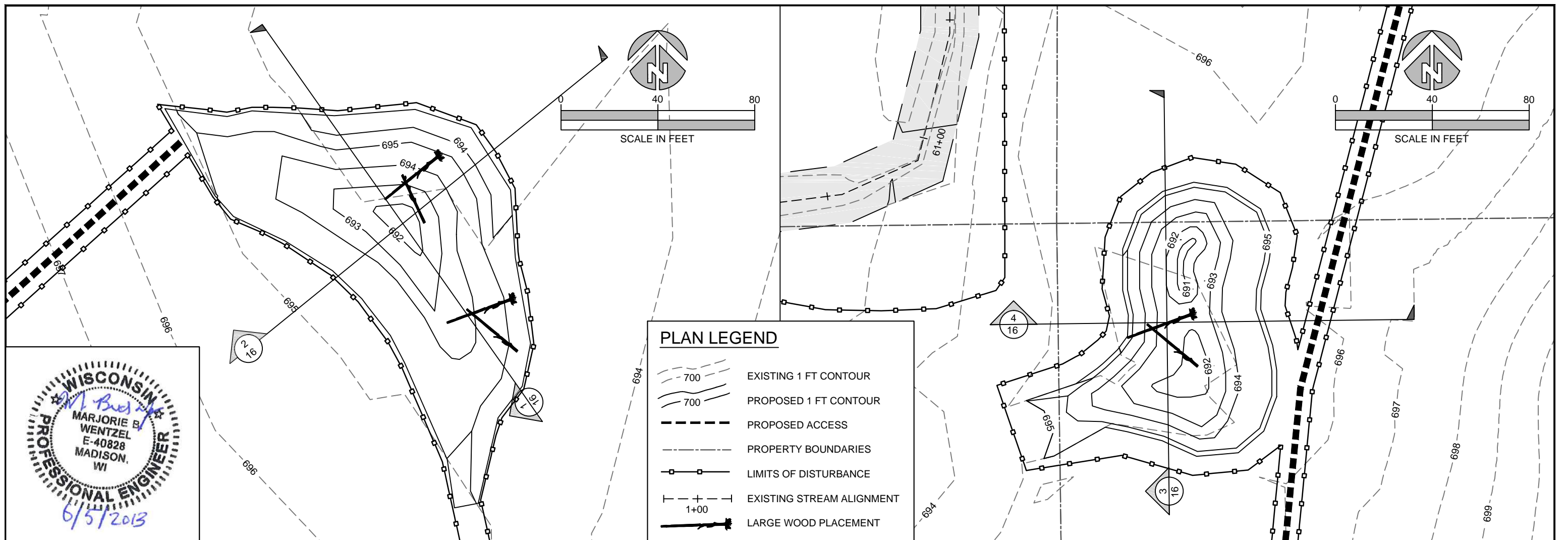


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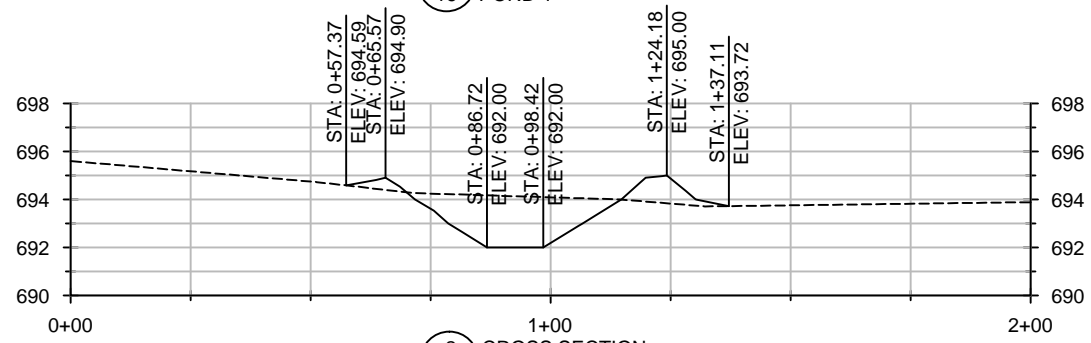
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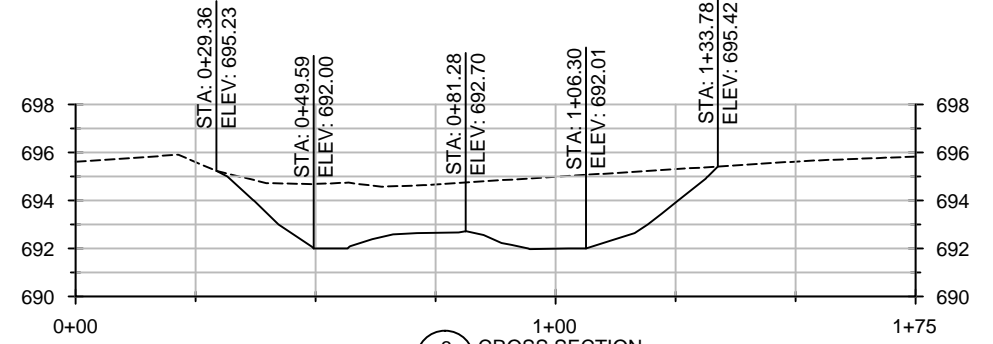
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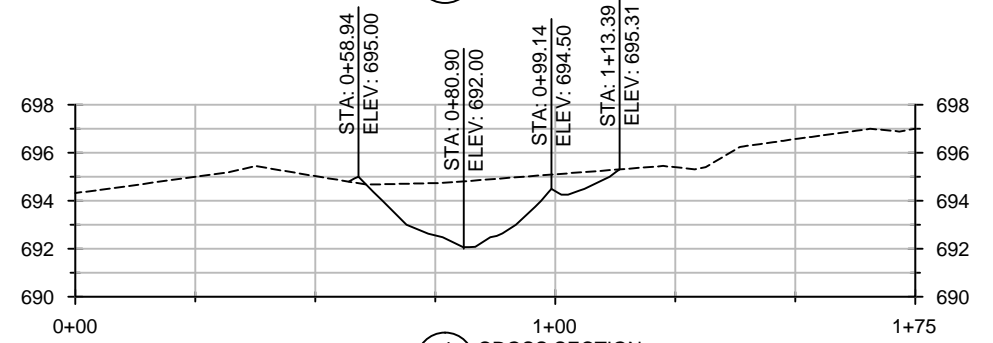
1 CROSS SECTION  
16 POND 1



2 CROSS SECTION  
16 POND 1



3 CROSS SECTION  
16 POND 2



4 CROSS SECTION  
16 POND 2

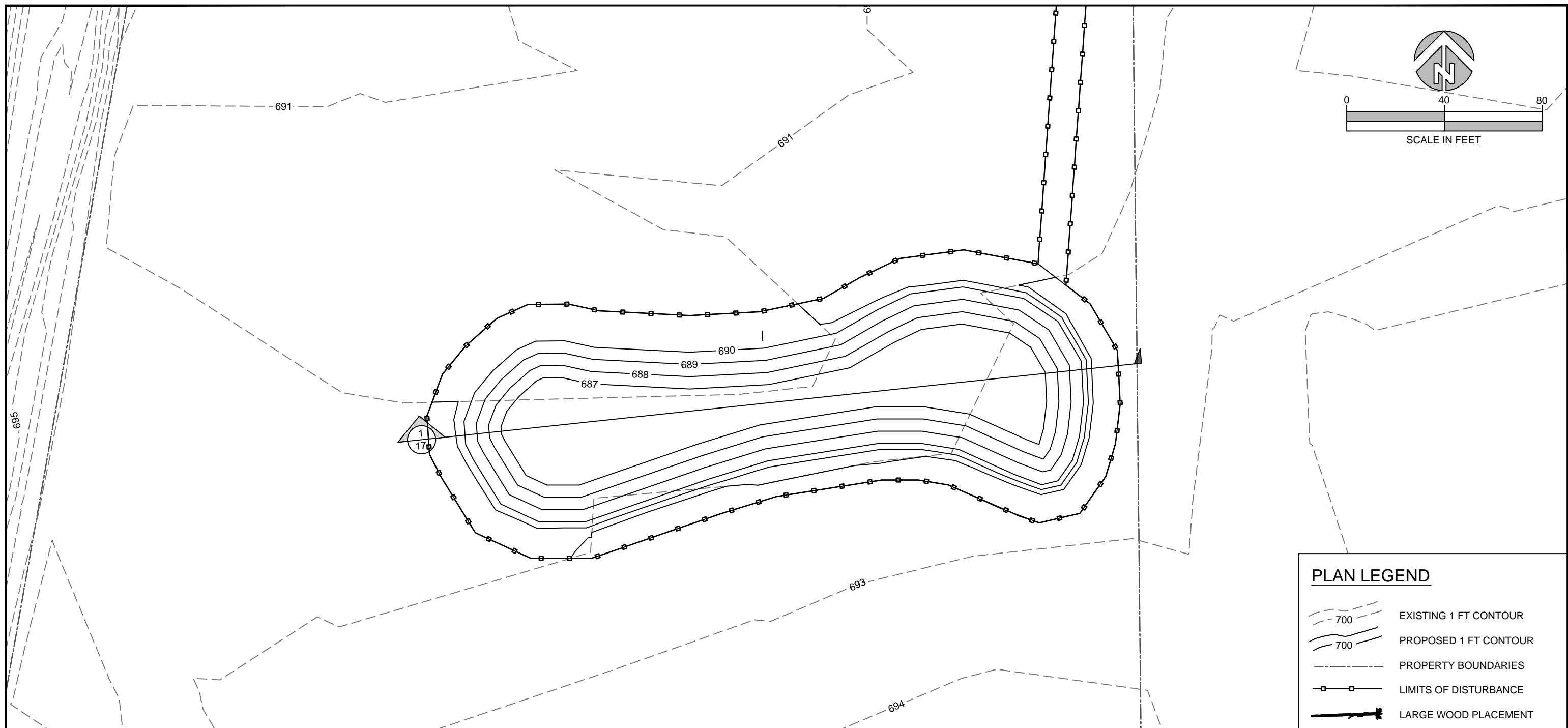
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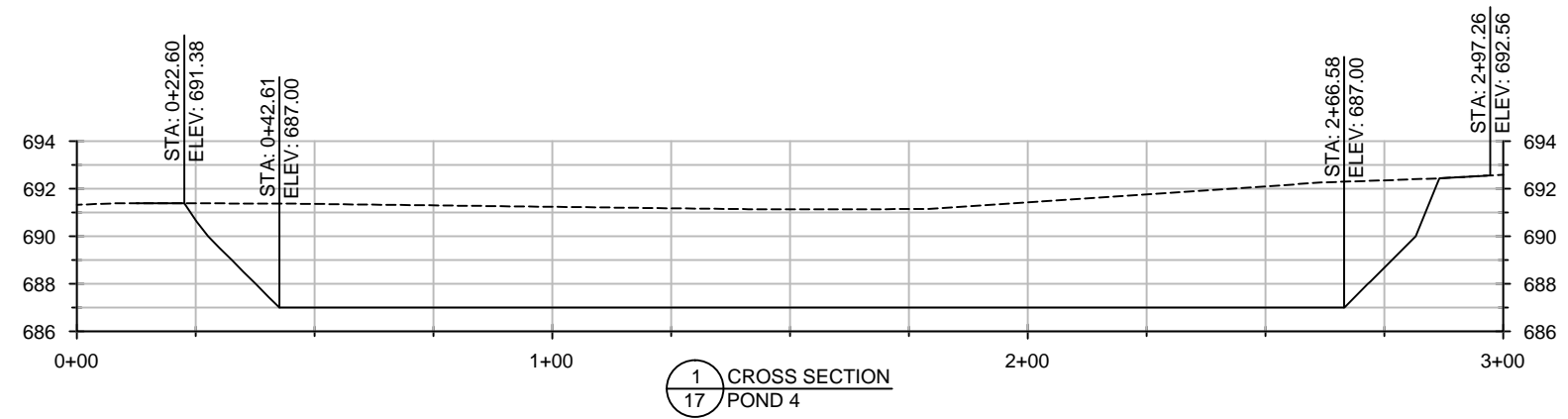


Proposed Ponds  
& Cross Sections



**PLAN LEGEND**

	EXISTING 1 FT CONTOUR
	PROPOSED 1 FT CONTOUR
	PROPERTY BOUNDARIES
	LIMITS OF DISTURBANCE
	LARGE WOOD PLACEMENT



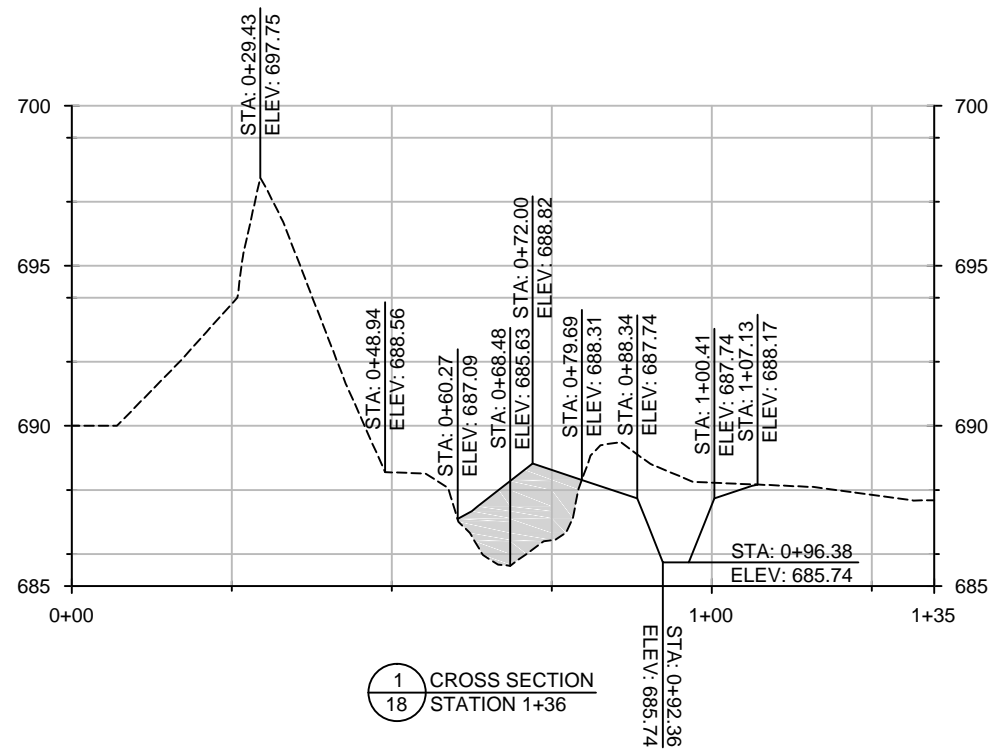
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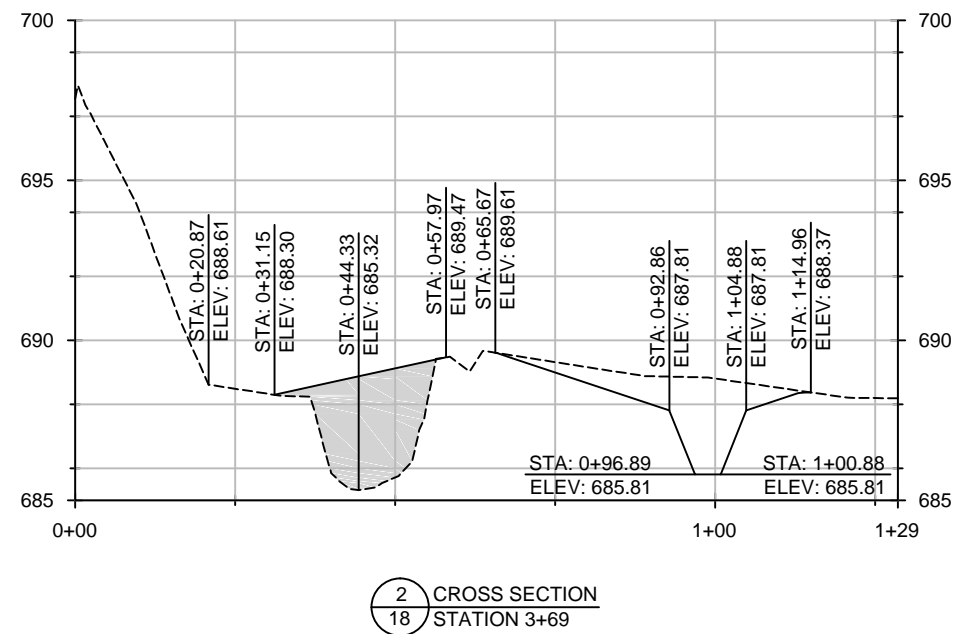
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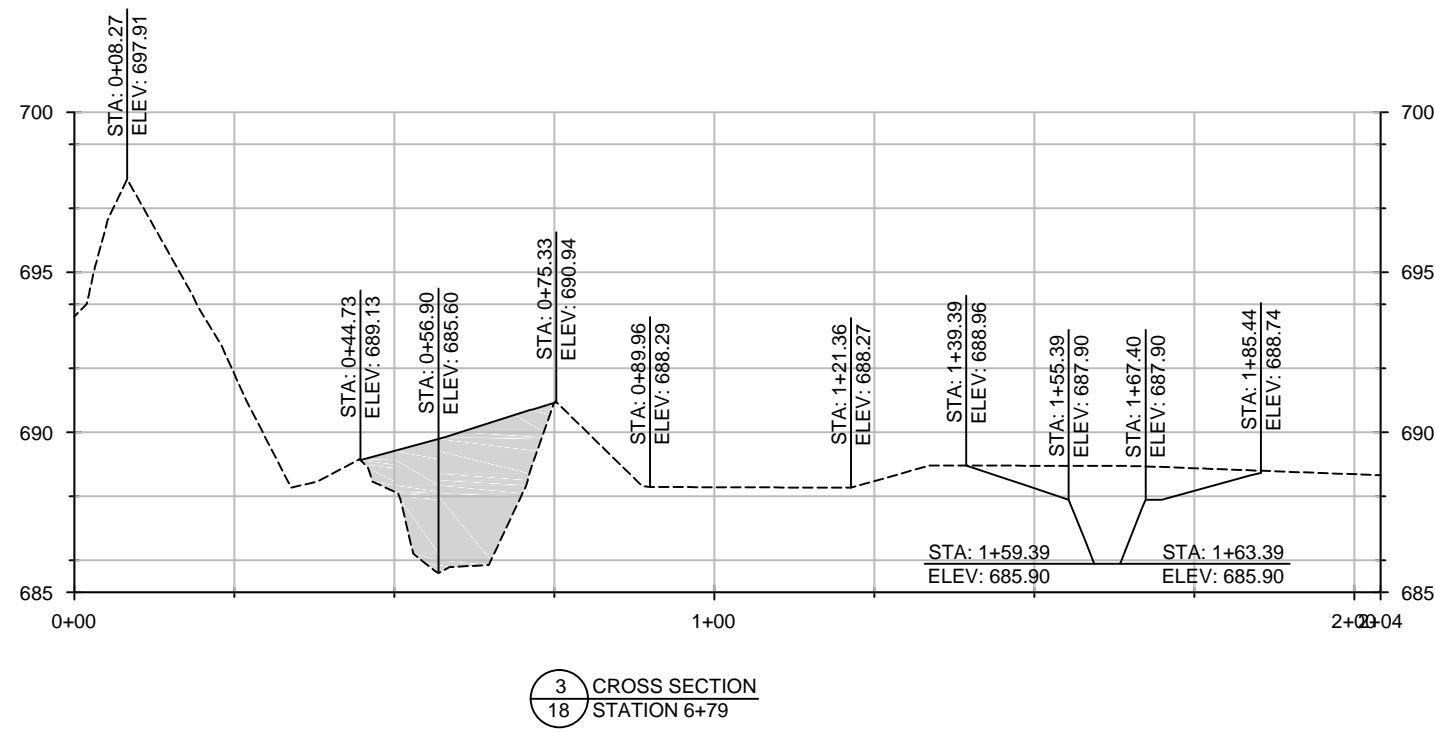
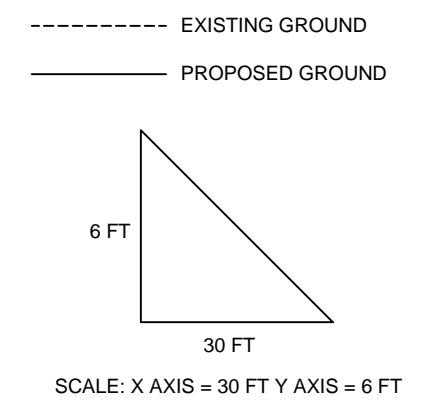
Proposed Ponds  
 & Cross Sections



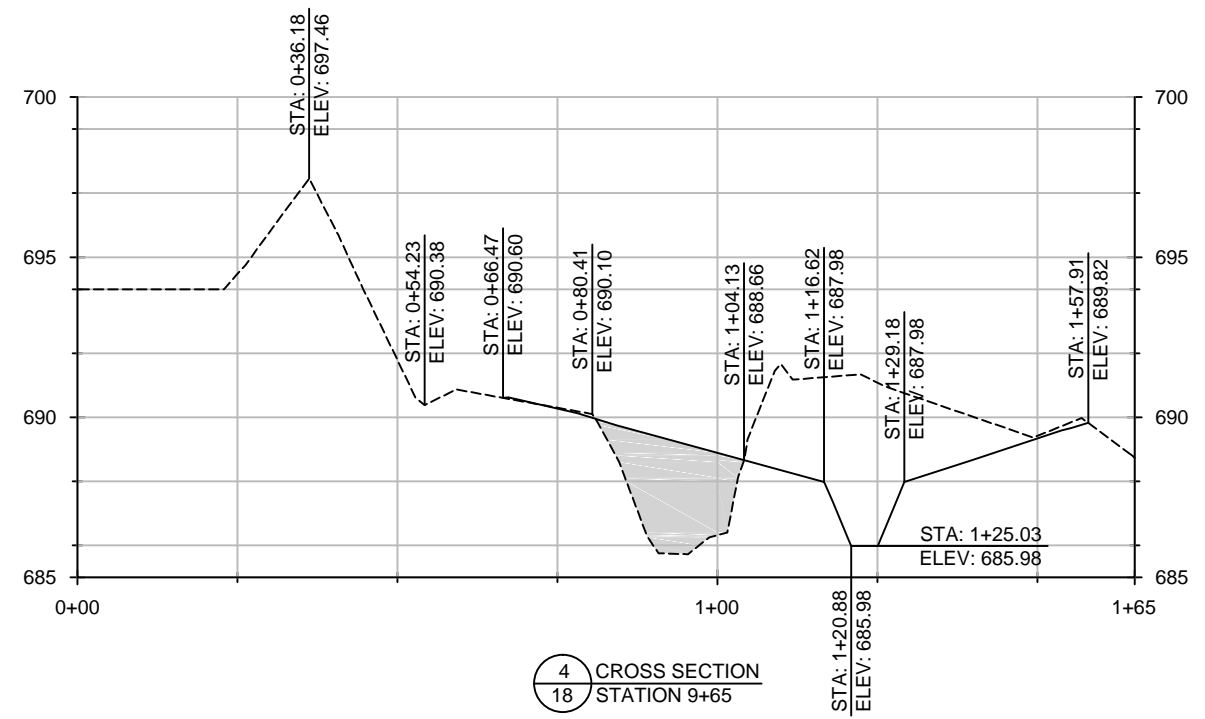
1 CROSS SECTION  
18 STATION 1+36



2 CROSS SECTION  
18 STATION 3+69



3 CROSS SECTION  
18 STATION 6+79



4 CROSS SECTION  
18 STATION 9+65

NO.	DATE	REVISION DESCRIPTION
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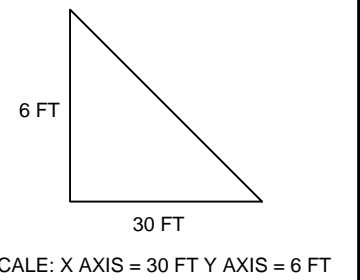
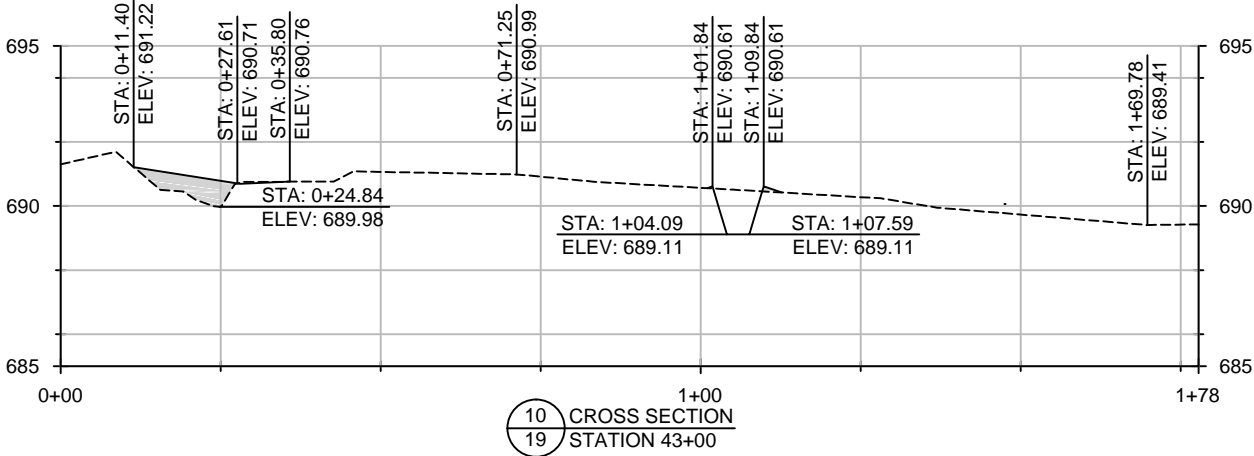
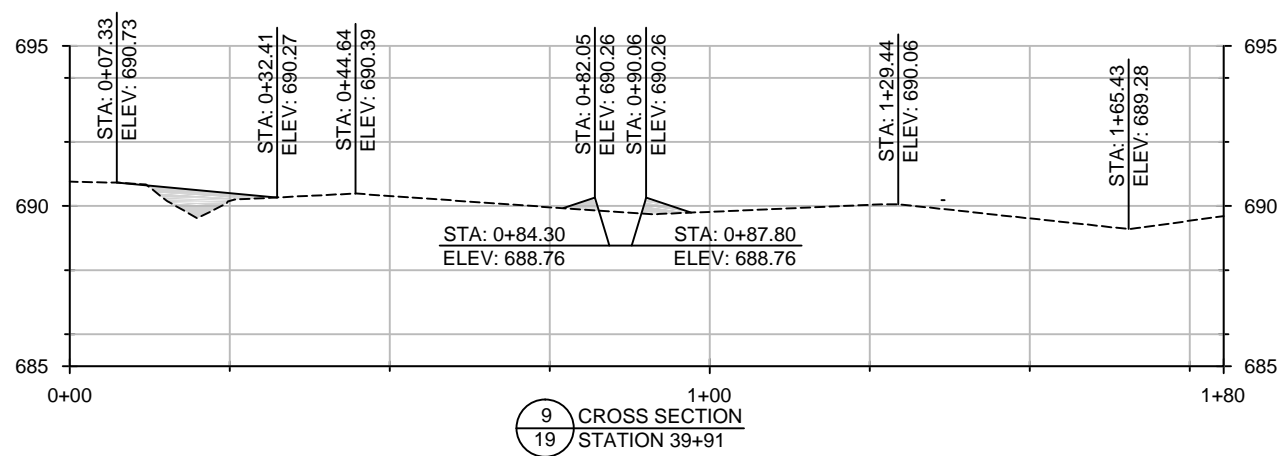
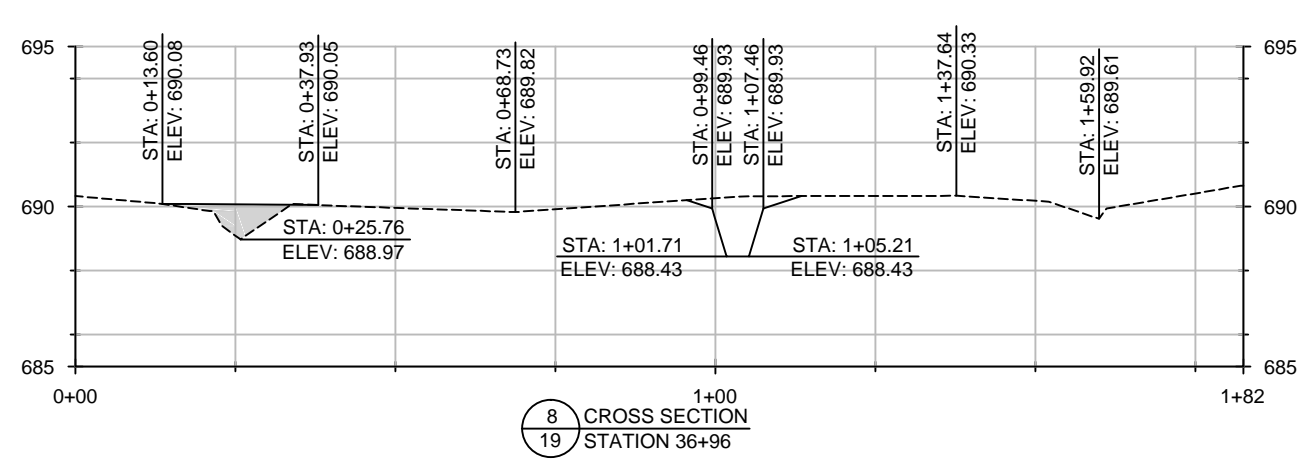
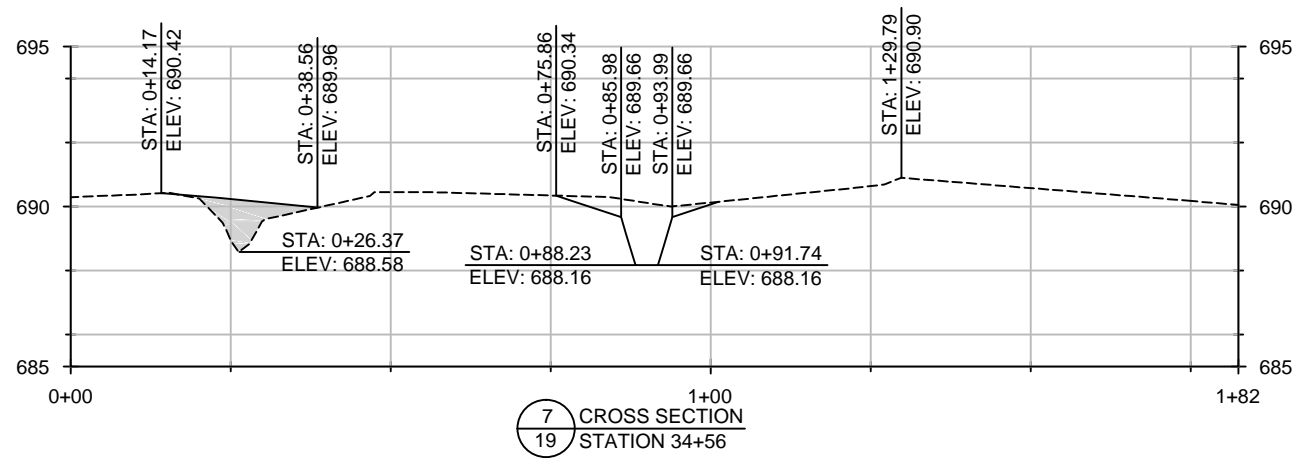
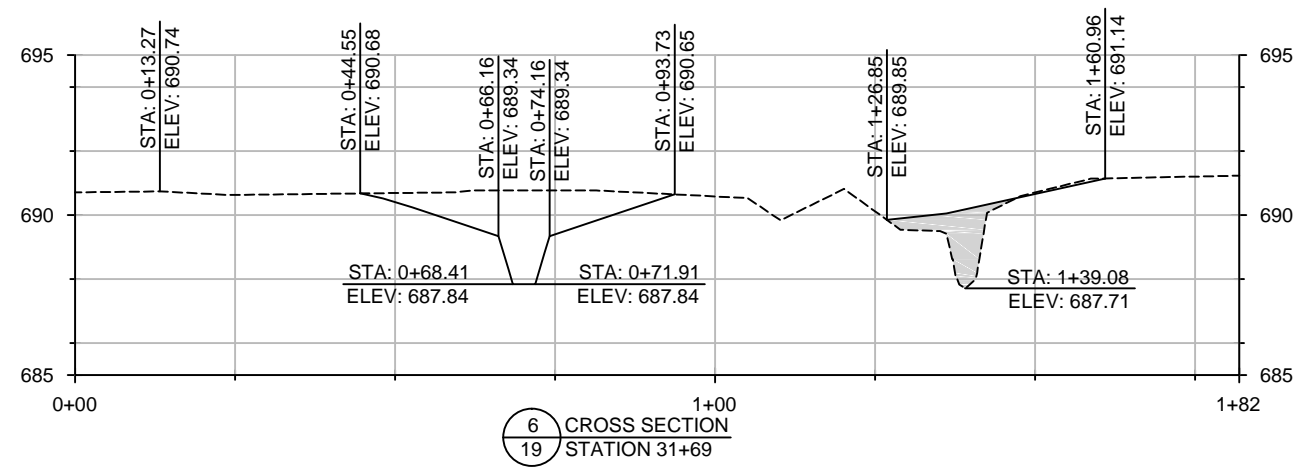
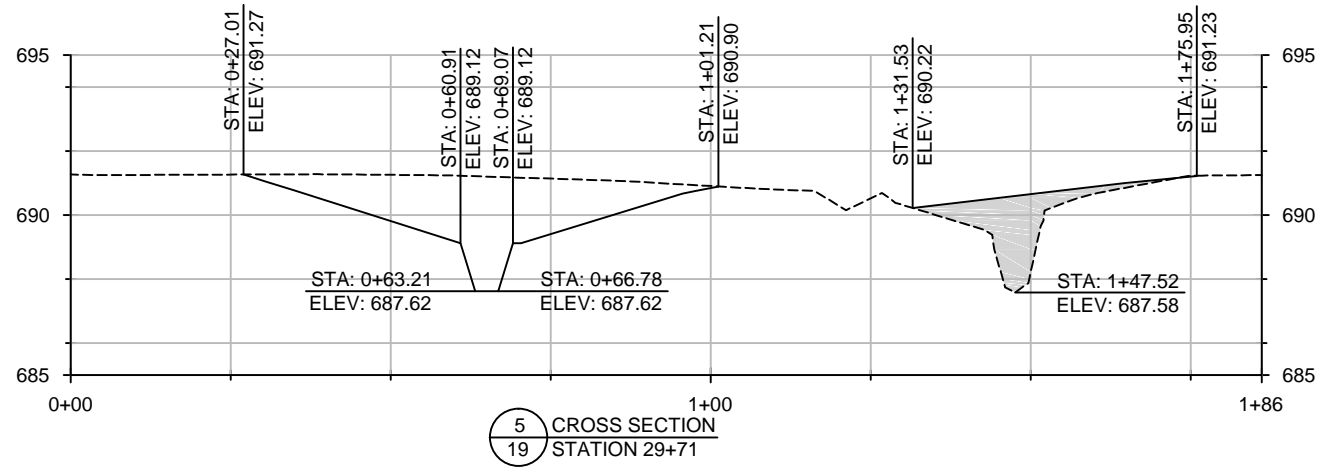
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Existing & Proposed  
Cross Sections

----- EXISTING GROUND  
 \_\_\_\_\_ PROPOSED GROUND



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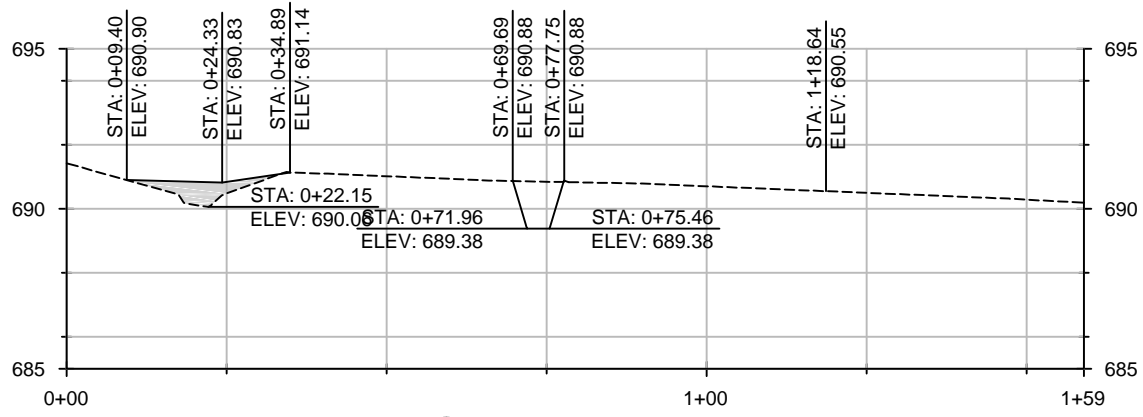
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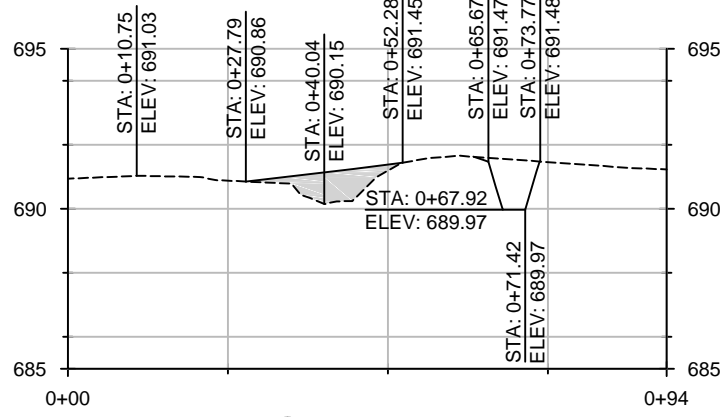
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Existing & Proposed  
 Cross Sections

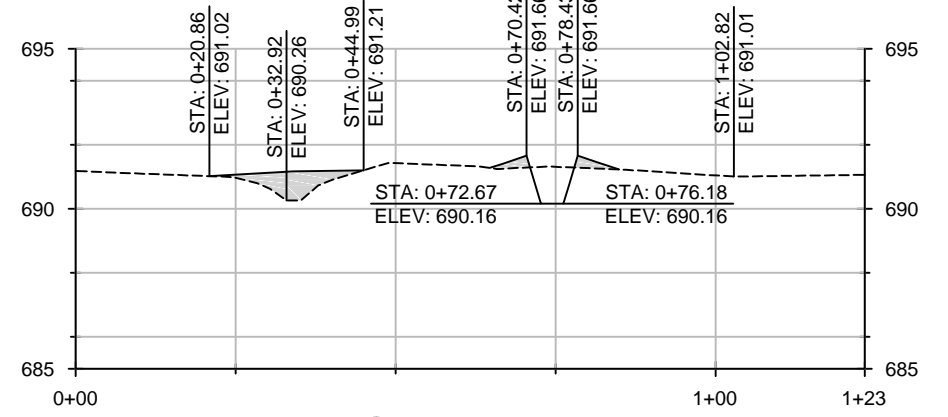




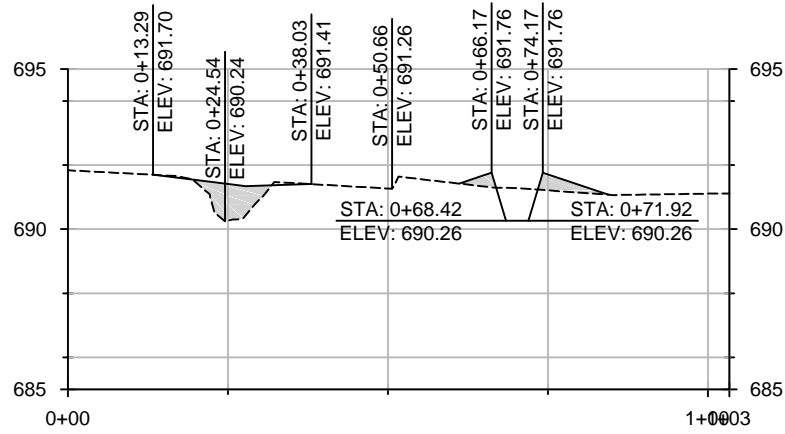
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20 STATION 45+43



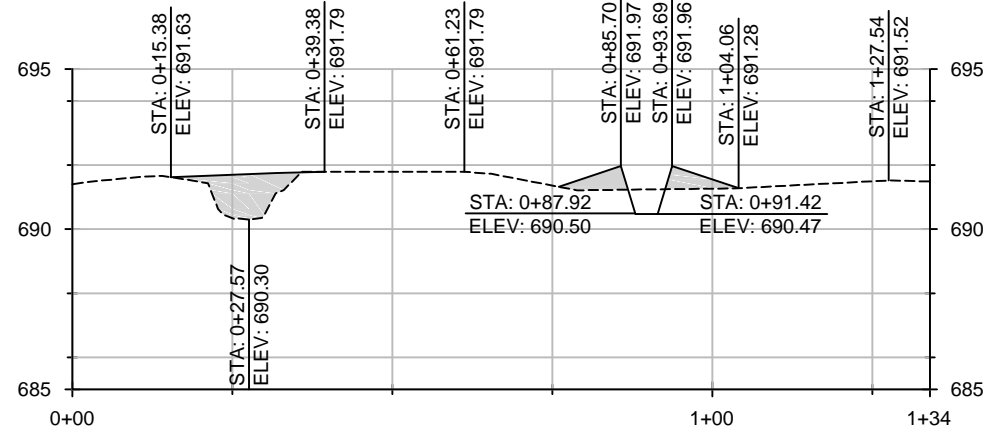
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20 STATION 49+78



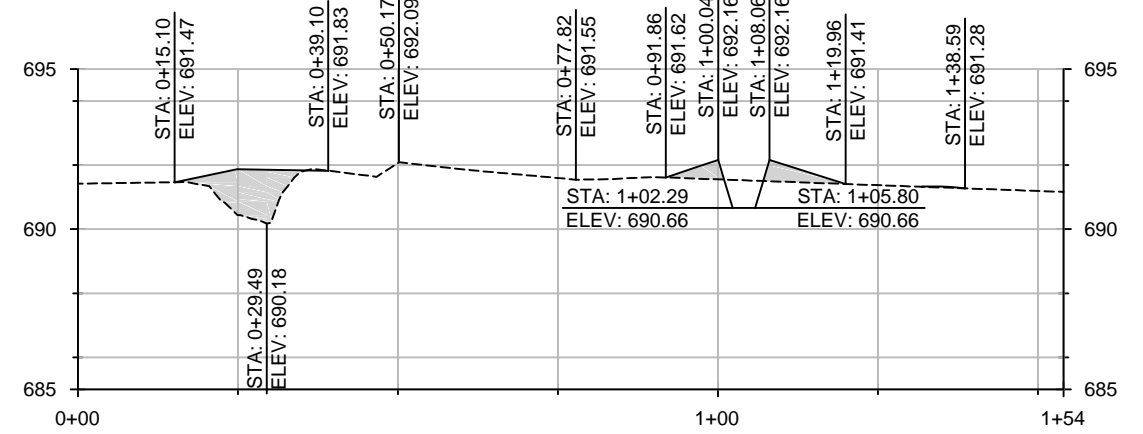
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20 STATION 52+87



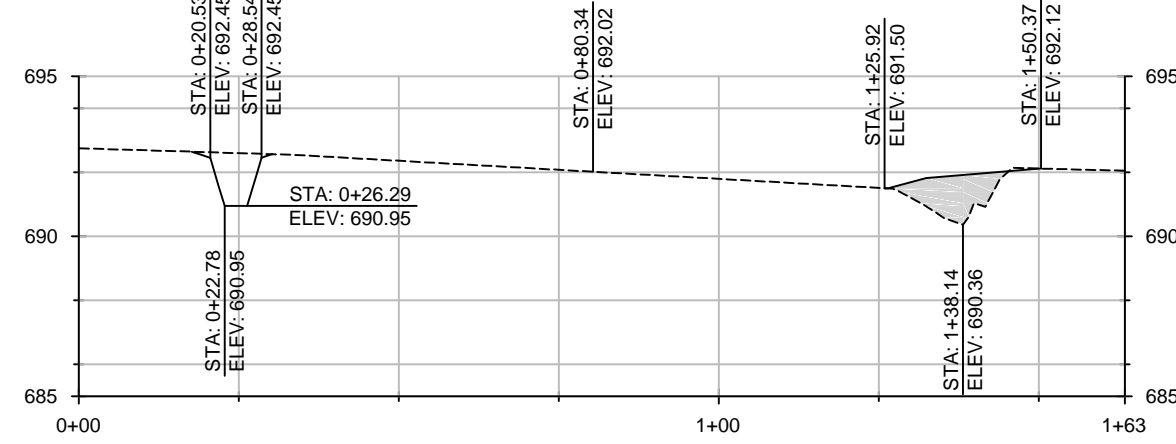
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20 STATION 54+56



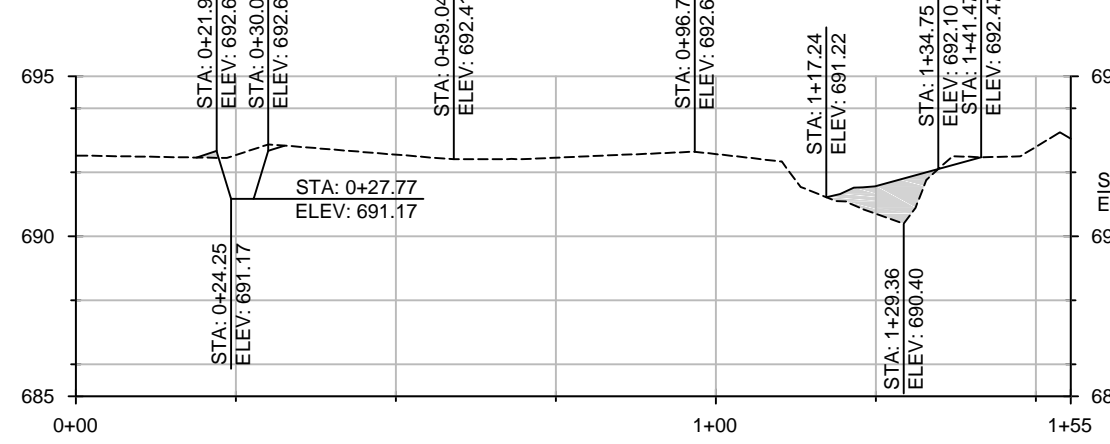
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20 STATION 58+03



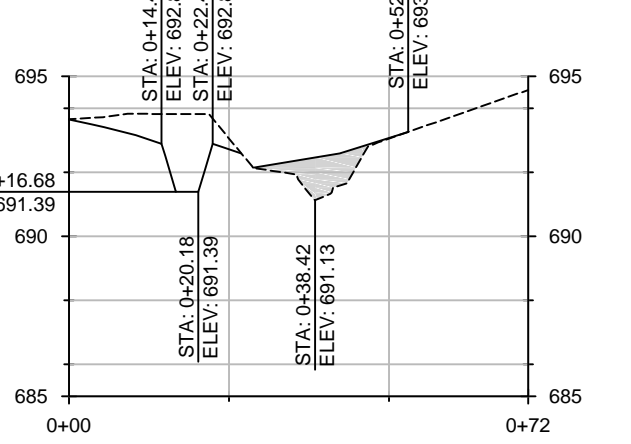
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20 STATION 61+12



17 CROSS SECTION  
20 STATION 65+96



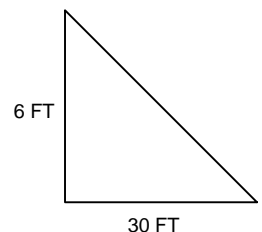
18 CROSS SECTION  
20 STATION 69+55



19 CROSS SECTION  
20 STATION 73+17



----- EXISTING GROUND  
——— PROPOSED GROUND



SCALE: X AXIS = 30 FT Y AXIS = 6 FT

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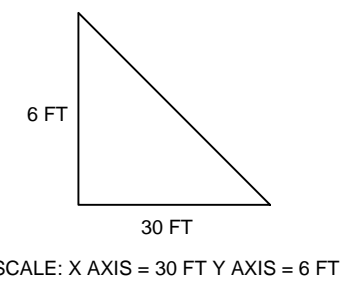
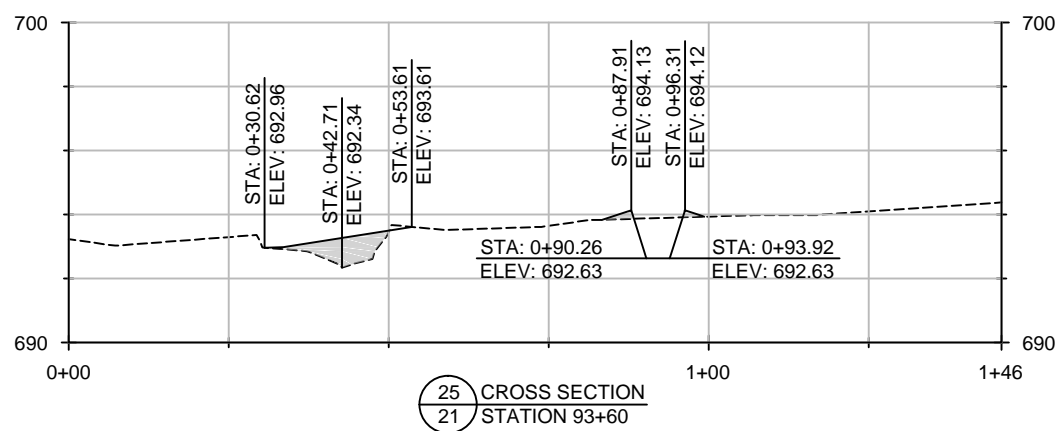
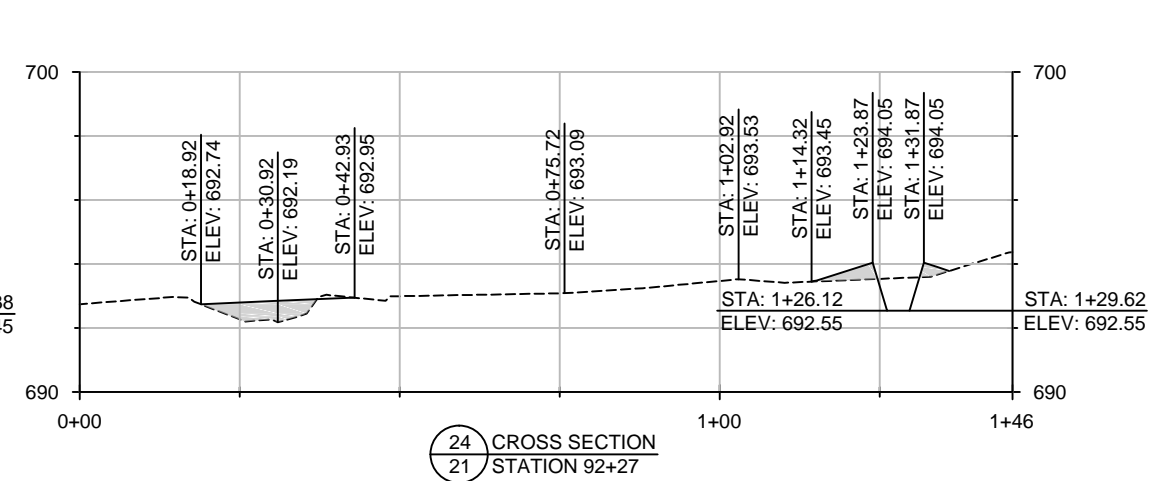
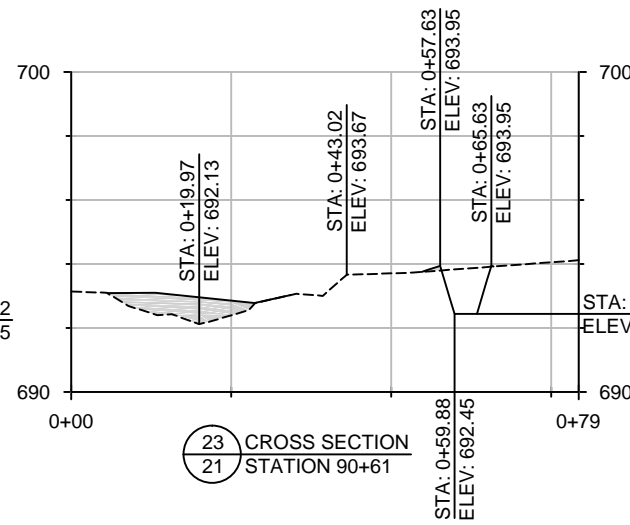
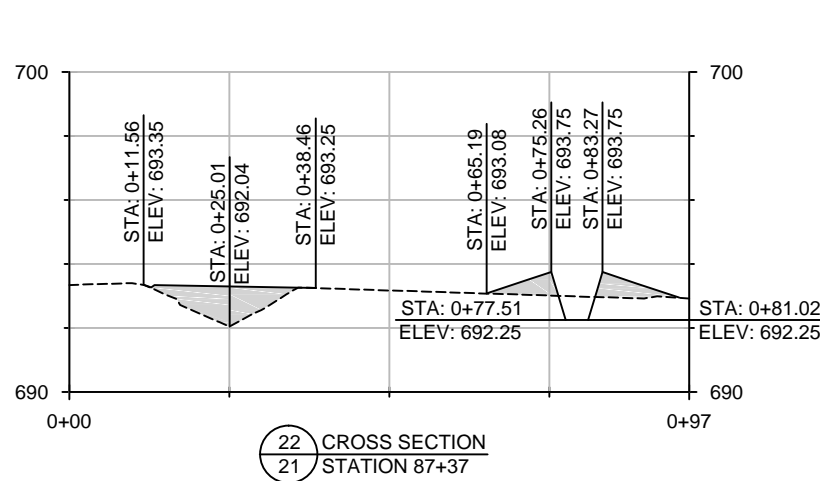
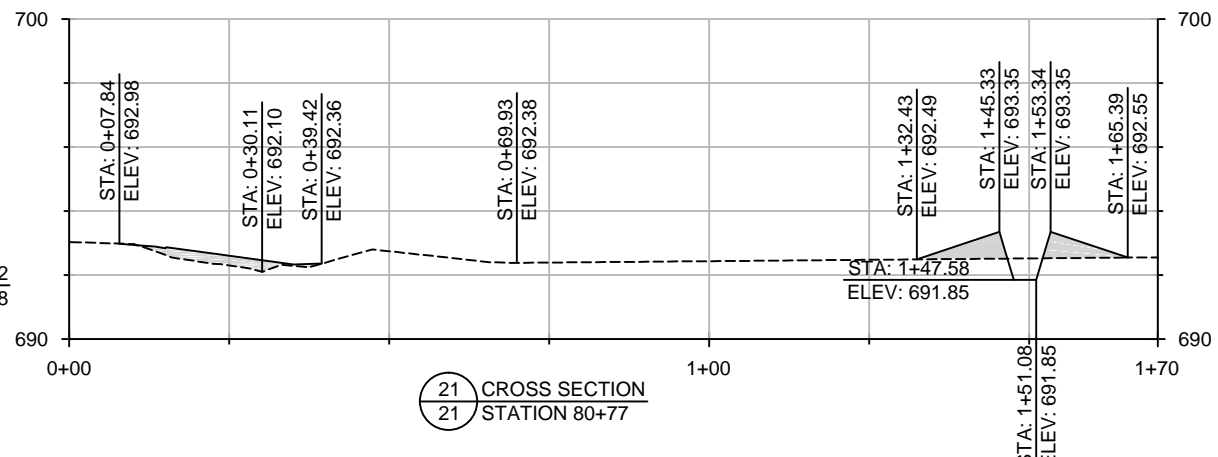
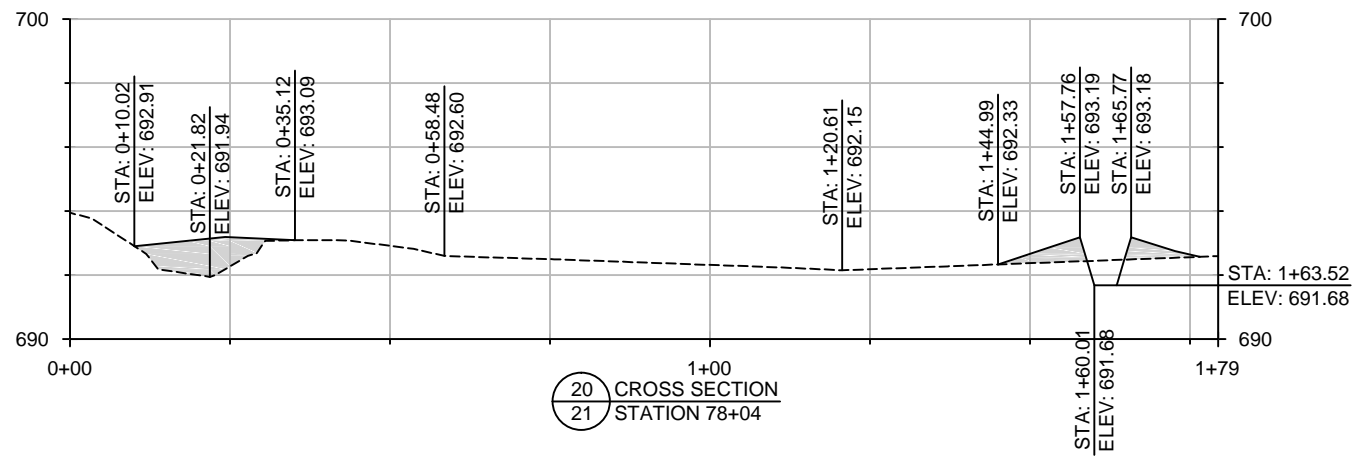
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Existing & Proposed  
Cross Sections

----- EXISTING GROUND  
 \_\_\_\_\_ PROPOSED GROUND



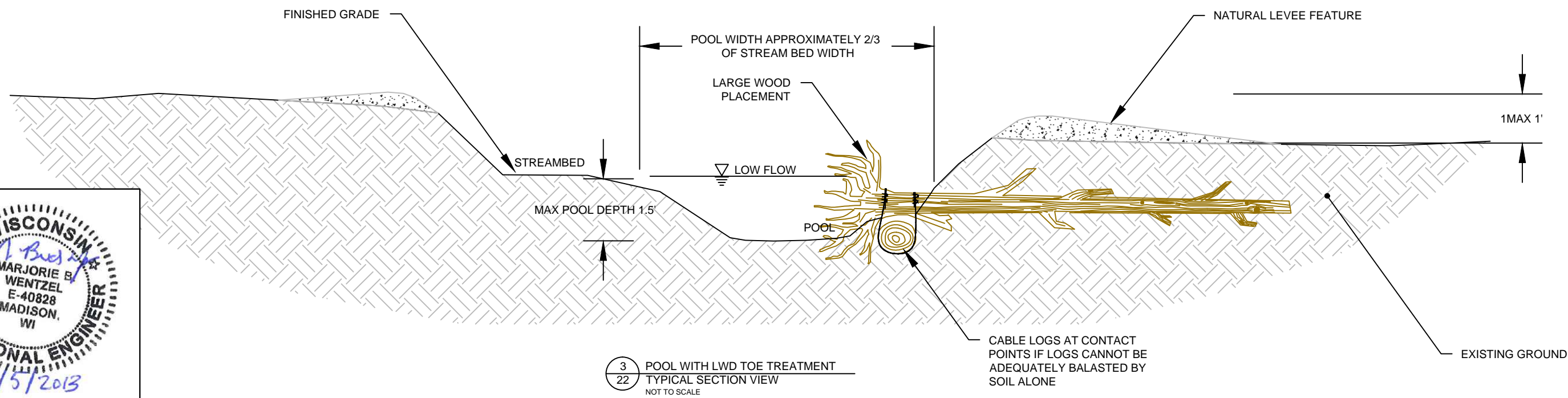
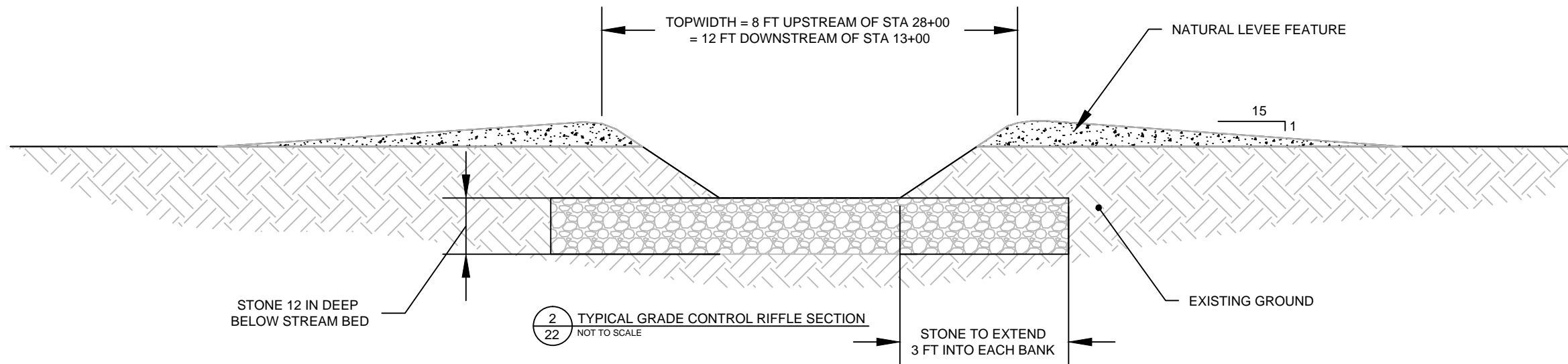
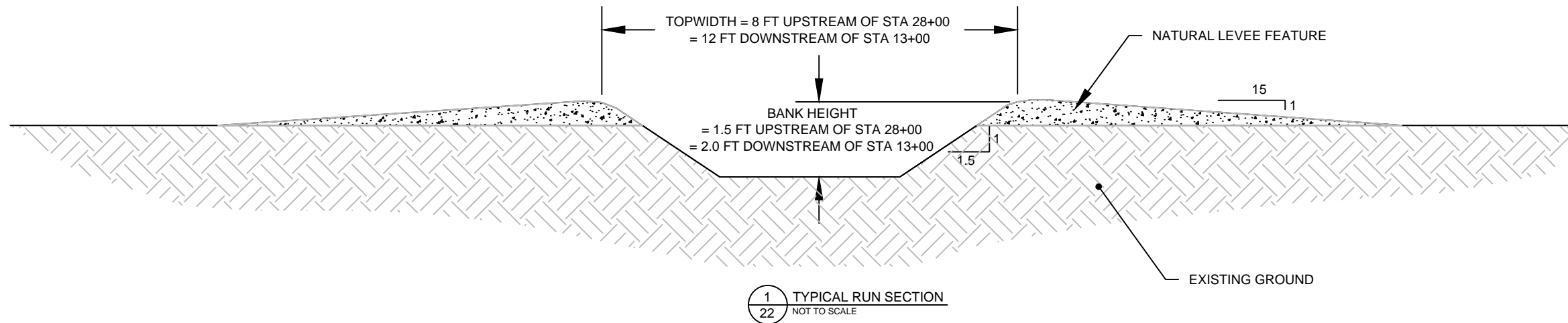
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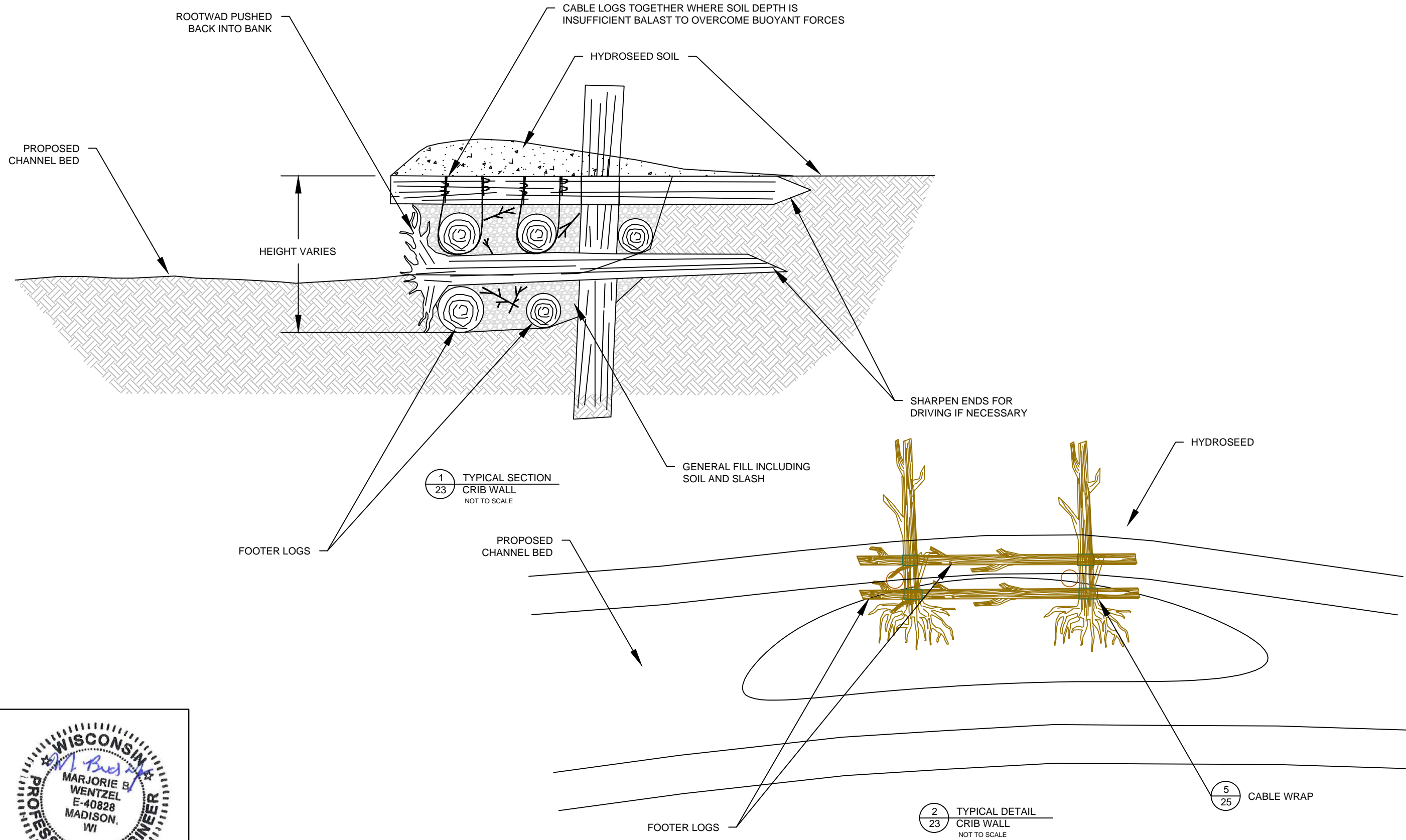
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Typical Sections

SHEET  
22 OF 29



1  
23  
TYPICAL SECTION  
CRIB WALL  
NOT TO SCALE

2  
23  
TYPICAL DETAIL  
CRIB WALL  
NOT TO SCALE

5  
25  
CABLE WRAP

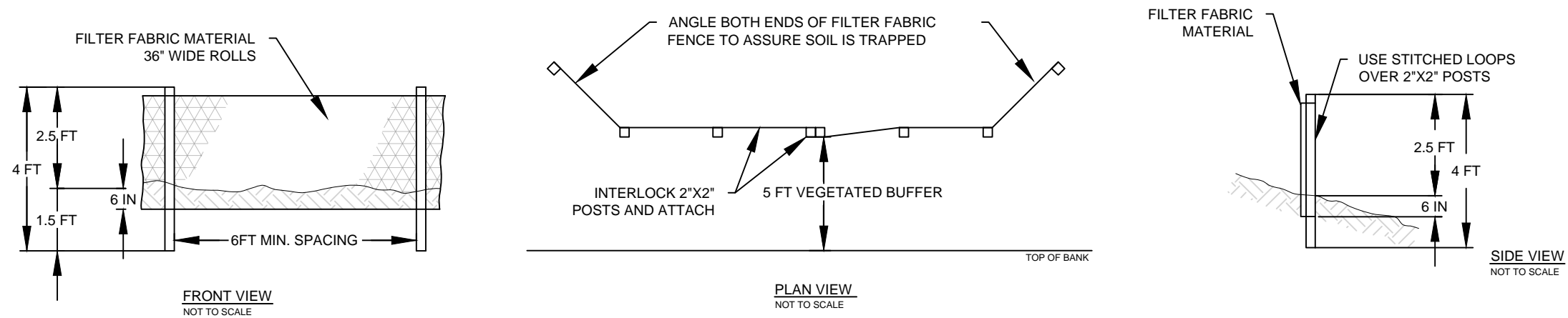


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Typical Details  
 Crib Wall

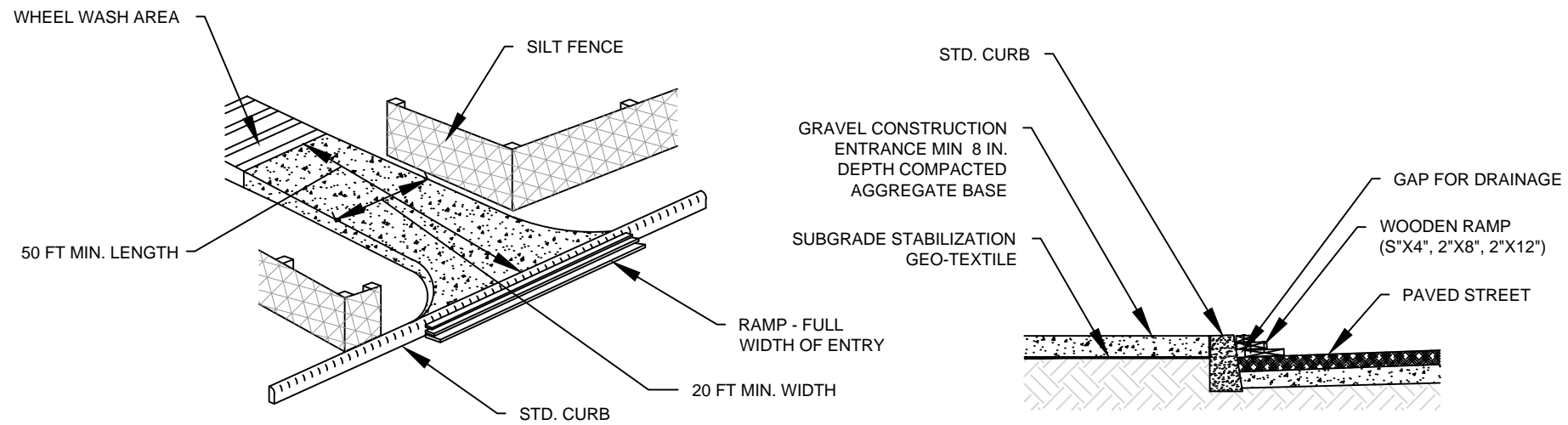


1  
24 TYPICAL DETAIL  
SILT FENCE  
NOT TO SCALE

**SILT FENCE NOTES**

1. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST. ALTERNATIVELY, OVERLAP AND INTERLOCK TWO POSTS WITH ATTACHED FABRIC AS APPROVED BY THE OWNER'S REPRESENTATIVE.
2. THE SILT FENCE IS TO BE INSTALLED AT LOCATIONS SHOWN ON THE PLAN ALONG THE DOWNHILL PERIMETER OF DISTURBED AREAS. THE FENCE POST SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES APART.

3. THE FILTER FABRIC SHALL HAVE A MINIMUM VERTICAL BURIAL OF 6 INCHES. ALL EXCAVATED MATERIAL FROM SILT FENCE INSTALLATION SHALL BE BACK-FILLED AND COMPACTED ALONG THE ENTIRE DISTURBED AREA.
4. STANDARD OR HEAVY DUTY SILT FENCE SHALL HAVE MANUFACTURED STITCHED LOOPS FOR 2 INCHES X 2 INCHES POST INSTALLATION.
5. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY PROTECTED AND STABILIZED, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.



2  
24 GRAVEL CONSTRUCTION ENTRANCE  
NOT TO SCALE



NO.	DATE	REVISION DESCRIPTION
1	06/05/13	FINAL SUBMITTAL

CP	MBW	GSO
DRAWN	DESIGNED	CHECKED
MBW	06/05/13	13-04-02
APPROVED	DATE	PROJECT

Ulaio Creek Habitat Enhancement  
Ozaukee County Planning & Parks Dept  
Ozaukee County WI



301 S. Livingston St., Suite 200  
Madison, WI 53703  
608.441.0342  
www.interfluve.com

Erosion & Sediment  
Control Details

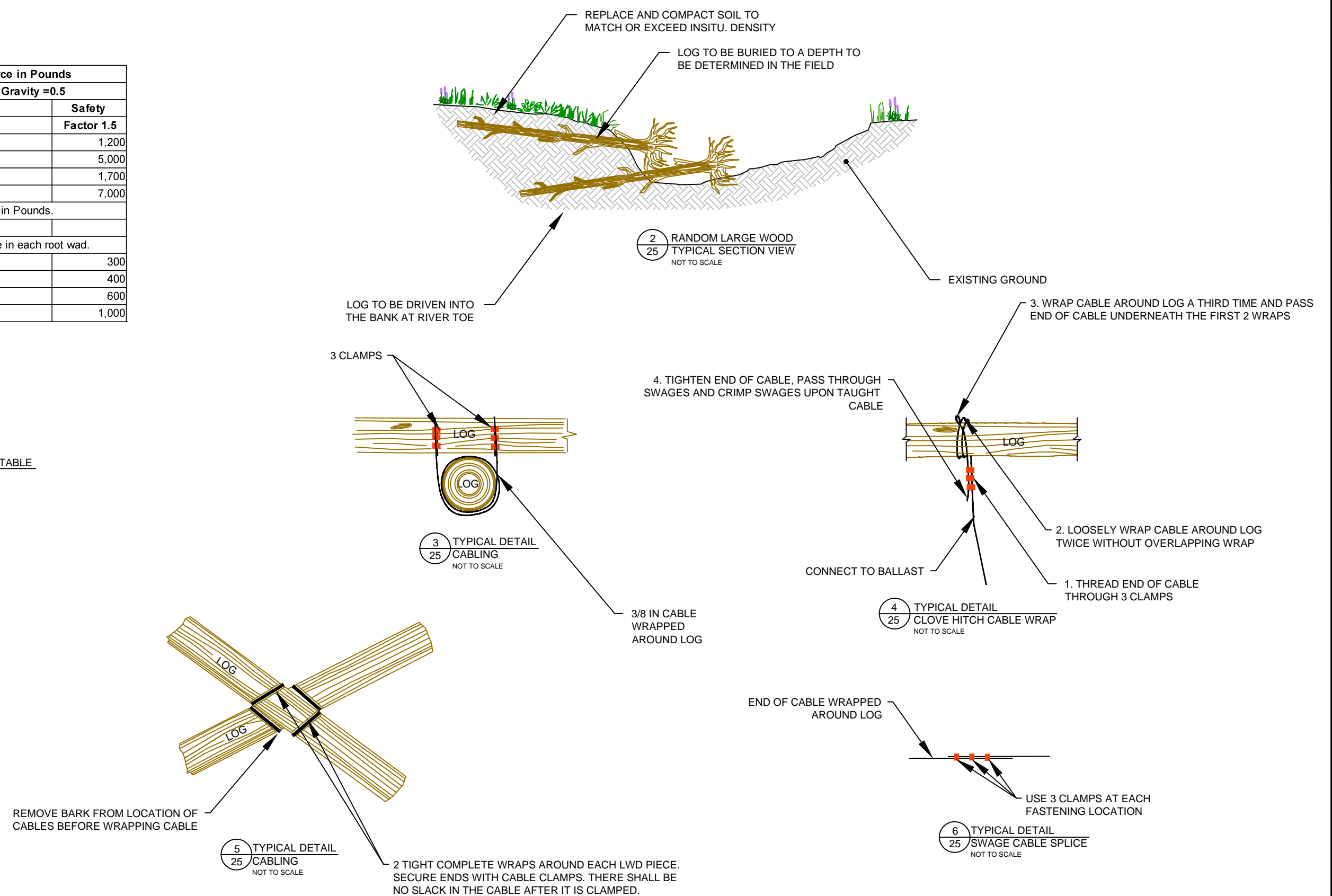
LOG BOUYANCY TABLE

Log Wood Buoyancy Force in Pounds	
Assumes Wood Specific Gravity =0.5	
DBH X Log Length (feet)	Safety Factor 1.5
1 x 25	1,200
2 x 25	5,000
1 x 35	1,700
2 x 35	7,000
Additional Root Wad Buoyancy Force in Pounds.	
Estimate Based on 35% Void Space	
Adjust as needed based on void space in each root wad.	
3 Foot Diameter RW	300
4 Foot Diameter RW	400
5 Foot Diameter RW	600
6 Foot Diameter RW	1,000

\* DBH = Diameter at Breast Height

PHYSICAL PROPERTIES REFERENCE TABLE

Species	Density (lb/ft <sup>3</sup> )	Sp Gravity
Cedar	31.0	0.48
Pine	32.8	0.51
Spruce	27.7	0.43
Hemlock	30.9	0.48
Fir	34.8	0.54
Green Ash	40.3	0.63
Maple	43.4	0.67
Dense Oak	55.8	0.87
Light Oak	37.2	0.58

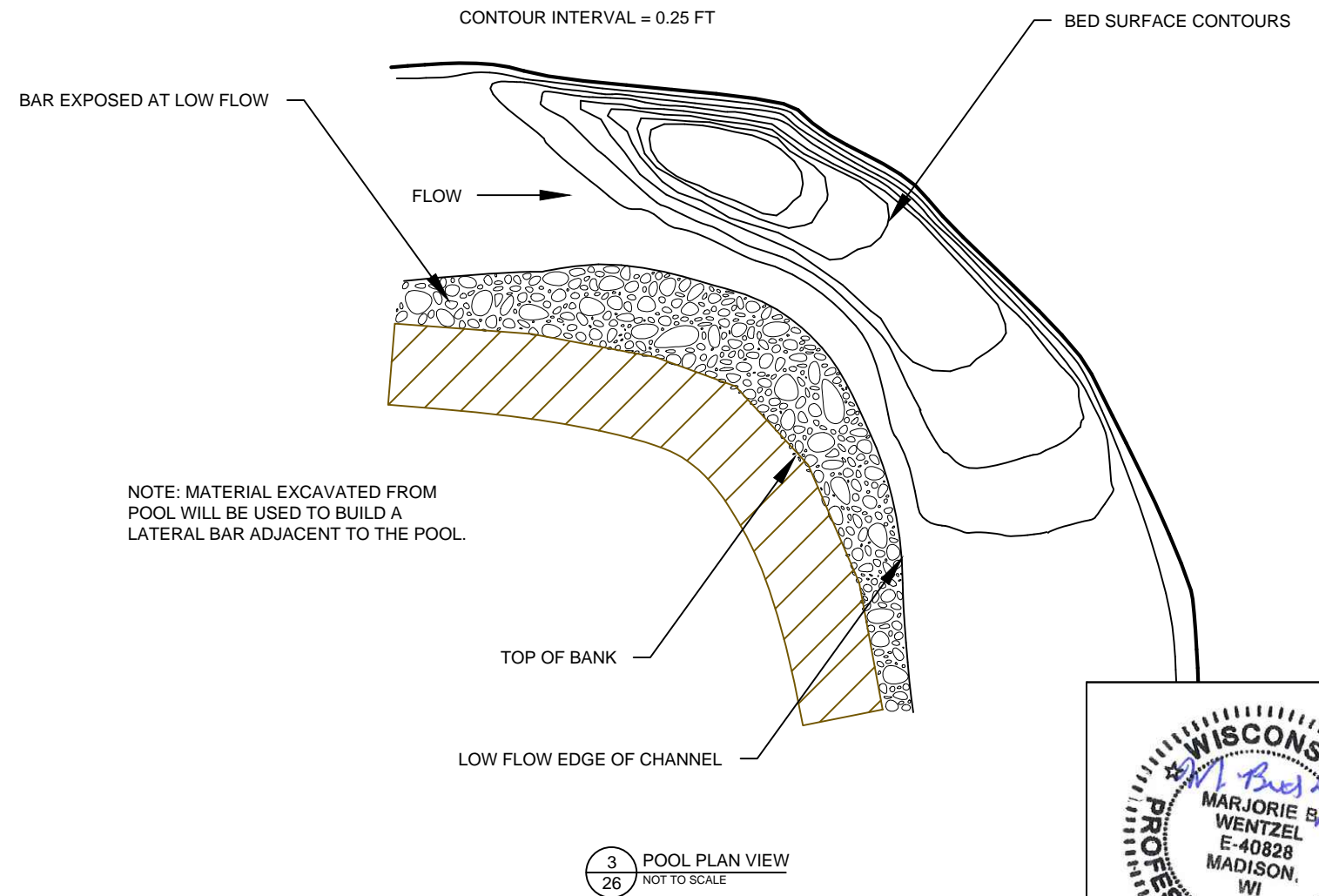
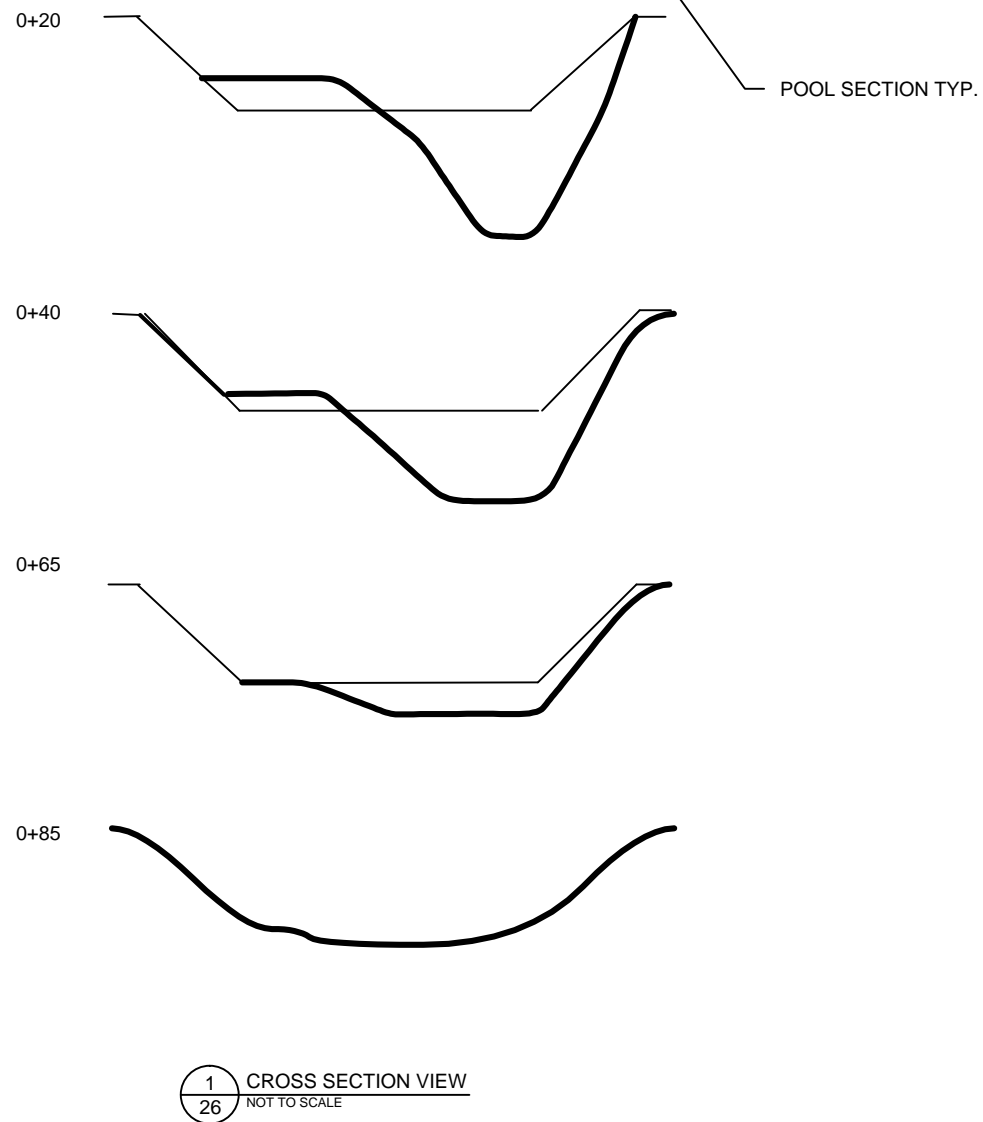
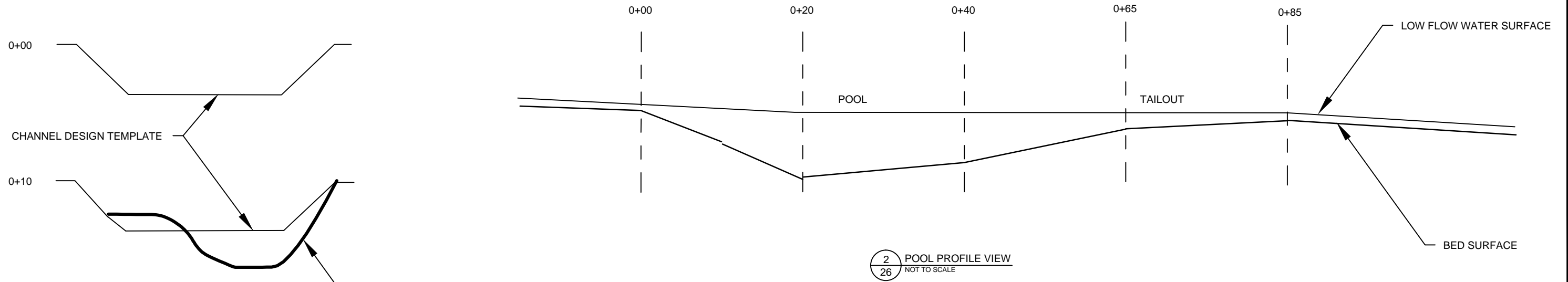


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Ulao Creek Habitat Enhancement  
 Ozaukee County Planning & Parks Dept  
 Ozaukee County WI





WISCONSIN PROFESSIONAL ENGINEER  
MARJORIE B. WENTZEL  
E-40828  
MADISON, WI  
6/5/2013

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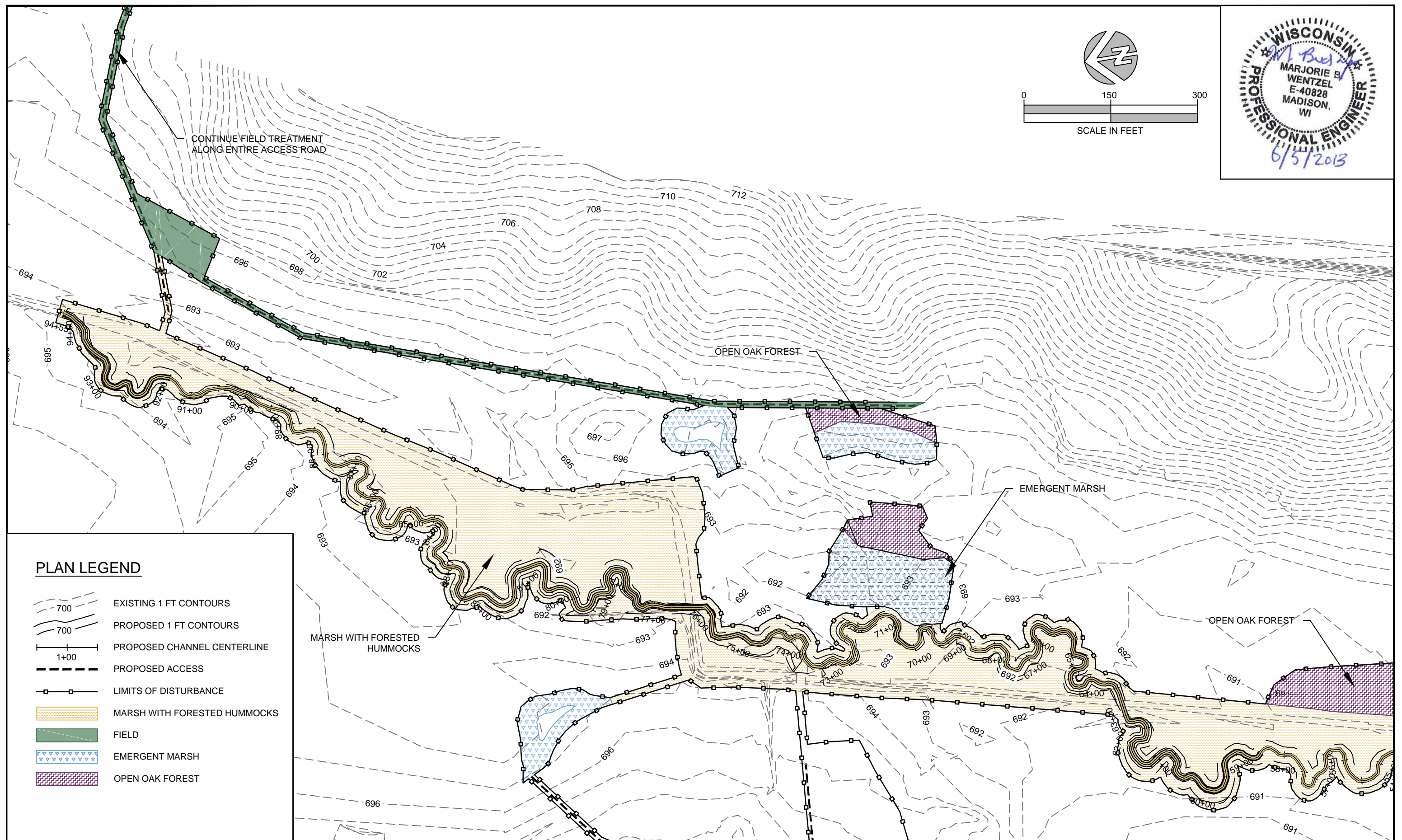
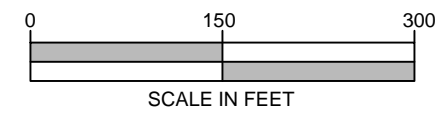
Ulaio Creek Habitat Enhancement  
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608.441.0342  
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Pool Details

SHEET  
26 OF 29



**PLAN LEGEND**

- 700 EXISTING 1 FT CONTOURS
- 700 PROPOSED 1 FT CONTOURS
- 1+00 PROPOSED CHANNEL CENTERLINE
- PROPOSED ACCESS
- LIMITS OF DISTURBANCE
- MARSH WITH FORESTED HUMMOCKS
- FIELD
- EMERGENT MARSH
- OPEN OAK FOREST

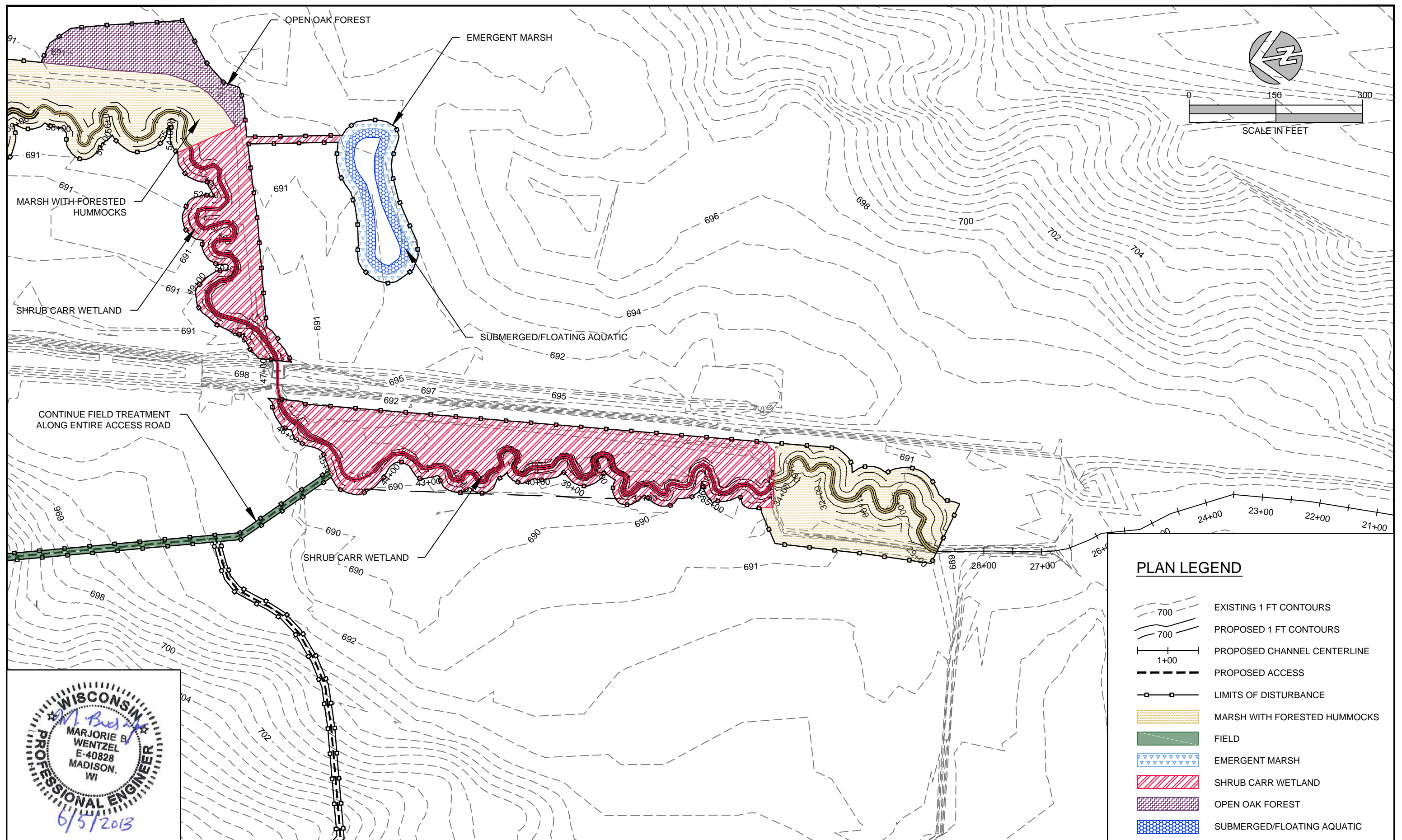
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 Ozaukee County Planning & Parks Dept  
 Ozaukee County WI

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 Madison, WI 53703  
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**PLAN LEGEND**

	EXISTING 1 FT CONTOURS
	PROPOSED 1 FT CONTOURS
	PROPOSED CHANNEL CENTERLINE
	PROPOSED ACCESS
	LIMITS OF DISTURBANCE
	MARSH WITH FORESTED HUMMOCKS
	FIELD
	EMERGENT MARSH
	SHRUB CARR WETLAND
	OPEN OAK FOREST
	SUBMERGED/FLOATING AQUATIC

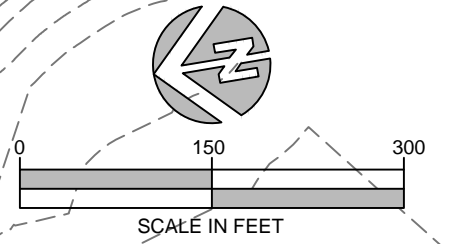
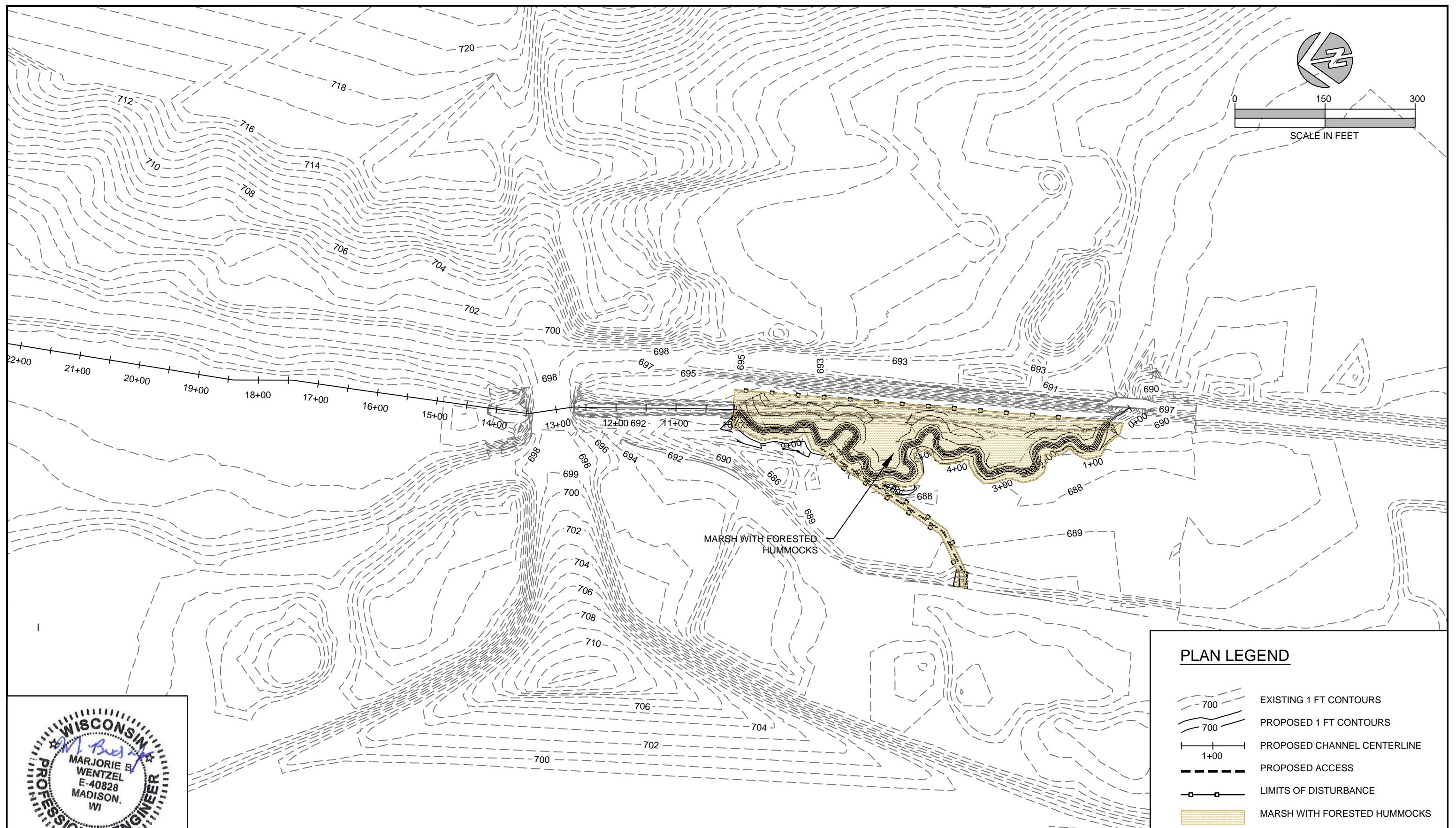
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**PLAN LEGEND**

	EXISTING 1 FT CONTOURS
	PROPOSED 1 FT CONTOURS
	PROPOSED CHANNEL CENTERLINE
	PROPOSED ACCESS
	LIMITS OF DISTURBANCE
	MARSH WITH FORESTED HUMMOCKS



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# Project Manual

## Ulao Creek Habitat Enhancement

Grafton, Wisconsin

June 5, 2013

Prepared for:

Ozaukee County Planning and Parks Department  
Fish Passage Program  
121 West Main Street, P.O. Box 994  
Port Washington, WI 53074

Prepared by:


Inter-Fluve, Inc.  
301 S. Livingston St., Suite 200  
Madison, WI 53703  
608-441-0342



## PROJECT MANUAL

### Ulao Creek Habitat Enhancement Village and Town of Grafton, Wisconsin

I hereby certify that the Project Plans and Specifications in the Contract Documents were prepared by me or under my direct supervision and that I am duly registered Engineer under the laws of the State of Wisconsin.



---

M. Beth Wentzel

June 5, 2013

Inter-Fluve, Inc.  
301 S. Livingston St., Suite 200  
Madison, WI 53703

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00 44 14	Project References
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Ulao Creek Habitat Enhancement

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**SECTION 00 11 13  
ADVERTISEMENT FOR BIDS**

**Ulaio Creek Habitat Enhancement  
Grafton, WI**

Sealed bids for the Ulaio Creek Habitat Enhancement Project will be received by Ozaukee County Clerk until 9 A. M. (local time) on Thursday, June 20, 2013 at the office of the Ozaukee County Clerk in the Ozaukee County Administration Center, 121 West Main Street, Port Washington, Wisconsin. Bids will be publicly opened and read at 9:15 A. M., Thursday, June 20, 2013, in Room 118 at the Ozaukee County Administration Center. Major components of the work include:

- Site Clearing
- Excavation, fill, and grading
- Installation of wood habitat structure
- Vegetative restoration
- Erosion control
- Installation of stream crossing

Bids shall be on the form provided for that purpose and according to the Bidding Requirements prepared by Inter-Fluve, Inc. dated June 5, 2013.

The Bidding Documents will be on file for inspection at the issuing office of Ozaukee County Planning and Parks Department, 121 W. Main Street, Port Washington, WI 53704, beginning June 6, 2013.

Contractors desiring a copy of the Bid Forms and Contract Documents may obtain them for a non-refundable fee of \$25.00 per set of documents after June 6, 2013. No partial sets will be provided. Any interested party desiring these documents by mail shall submit an additional non-refundable fee of \$25.00 (total \$50.00) per set of documents to cover the cost of handling and mailing by contacting Ozaukee County at 262-284-8257.

Bids shall be directed to Ozaukee County securely sealed and endorsed upon the outside wrapper, "BID FOR ULAIO CREEK HABITAT ENHANCEMENT."

A certified check or bond payable without condition to Ozaukee County in an amount not less than five percent (5%) of the total amount bid shall be submitted with each bid as a guarantee that if the contract is awarded, a proper contract and bond will be executed and filed within ten (10) days after the date of the Notice of Award. If the Contractor fails to execute and file such contract and bond, the amount of the check or bond shall be forfeited as liquidated damages.

No bid shall be withdrawn after the bid opening without the consent of Ozaukee County for a period of sixty (60) days after the date of the bid opening. Each Contractor agrees upon proposal submission that if the same be accepted within said time period, he/she shall be bound by the terms of acceptance hereinafter contained.

The bidder to whom a contract is awarded shall furnish a performance bond for the full amount of the Contract within 10 days of award. The performance bond shall contain a provision to increase the performance bond by the amount of any change orders that might increase the amount of the contract price. If such bidder fails to execute and file such contract and performance bond within the 10 day period, the check, bond or bank draft

accompanying the bid shall be forfeited to Ozaukee County as liquidated damages. Bidders Proof of Responsibility must be submitted to Inter-Fluve in accordance with the Instructions to Bidders.

A pre-bid meeting will be held at 10:00 am. (local time) on Monday, June 17 in Room 118 at the Ozaukee County Administration Center, 121 W. Main Street, Port Washington, WI 53704. The pre-bid meeting will include an opportunity to visit the project site. This pre-bid meeting is mandatory.

Contractors on the Project shall be required to comply with all applicable federal minimum wages, prevailing wage determinations, and labor standards as determined by the U.S. Department of Labor Davis-Bacon and related Acts Determination, U.S. Department of Commerce terms and conditions for projects funded by the Great Lakes Restoration Initiative, applicable state minimum wages, prevailing wages, and labor standards, and the conditions of employment to be observed and minimum and prevailing wage rates to be paid under the Contract. Wage rates shall be determined by the State of Wisconsin or Davis-Bacon Act, whichever is greater. Contractors on the Project shall be required to provide all labor records to the County upon request. Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum and prevailing wage rates to be paid under contract, Section 3, Segregated Facility, Section 109 and E.O. 11246.

Contractors are required to comply with the "Buy American" provision, in which all incorporated iron, steel, and manufactured goods used on the project be produced in the United States.

The Owner encourages MBEs, WBEs, and SBAs to submit Bid proposals.

Ozaukee County reserves the right to reject any and all bids, to waive irregularities and informalities, therein and to award the Contract in the best interests of the County.

Published June 6, 2013; and June 13, 2013.

Julianne B. Winkelhorst, County Clerk  
Thomas Meaux, County Administrator  
Ozaukee County  
121 West Main Street  
P.O. Box 994  
Port Washington, WI 53704



**SECTION 00 21 13  
INSTRUCTIONS TO BIDDERS**

**ARTICLE 1 – DEFINED TERMS**

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office* – The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
  - B. *Bidder* – The individual or entity who submits a Bid directly to OWNER.
  - C. *Successful Bidder* – The Bidder submitting a responsive Bid to whom OWNER (on the basis of OWNER’s evaluation as hereinafter provided) makes an award.

**ARTICLE 2 – COPIES OF BIDDING DOCUMENTS**

- 2.01 Complete sets of the Bidding Documents in the number and for the price stated in Section 00 11 13 Advertisement for Bids may be obtained digitally or by paper copy as directed in the Advertisement for Bids.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Owner’s Representative assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Owner’s Representative, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

**ARTICLE 3 – QUALIFICATIONS OF BIDDERS**

- 3.01 To demonstrate Bidder’s qualifications to perform the Work, within 5 days of Owner’s request, Bidder shall submit a Bidders Proof of Responsibility, unless a satisfactory Bidders Proof of Responsibility has been submitted to the Owner in the past 6 months.
- 3.02 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder’s representations and certifications.

**ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE**

- 4.01 *Subsurface and Physical Conditions*
- A. The Supplementary Conditions identify:
    - 1. Those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site.
    - 2. Those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
  - B. Copies of reports and drawings referenced in Paragraph 4.01.A will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the

## Ulao Creek Habitat Enhancement

“technical data” contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

### 4.02 *Underground Facilities*

- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

### 4.03 *Hazardous Environmental Condition*

- A. The Supplementary Conditions identify any reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site.
- B. Copies of reports and drawings referenced in Paragraph 4.03.A will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 4.06 of the General Conditions.

4.05 Owner will provide Bidder access to the Site during the mandatory pre-bid meeting to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

- 4.06 A. Reference is made to Article 7 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of contract documents (other than portions thereof related to price) for such other work.
- B. Paragraph 6.13.C of the General Conditions indicates that if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.07 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;

## Ulao Creek Habitat Enhancement

- B. visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
  - C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;
  - D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in Paragraph 4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in the Paragraph 4.06 of the Supplementary Conditions as containing reliable "technical data";
  - E. consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;
  - F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
  - G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
  - H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
  - I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

### **ARTICLE 5 – PRE-BID CONFERENCE**

- 5.01 A mandatory pre-Bid conference will be held at 10 am local time on Monday, June 17 in Room 118 at the Ozaukee County Administration Center, 121 W. Main Street, Port Washington, WI 53704. Representatives of Owner and Engineer will be present to discuss the Project. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to

## Ulao Creek Habitat Enhancement

questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

### **ARTICLE 6 – SITE AND OTHER AREAS**

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities and easements for access are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

### **ARTICLE 7 – INTERPRETATIONS AND ADDENDA**

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

### **ARTICLE 8 – BID SECURITY**

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price and in the form of a certified check, bank money order, or a Bid bond (on the form attached) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.

8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 10 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

8.03 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

### **ARTICLE 9 – CONTRACT TIMES**

9.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in Section 00 52 00 – Form of Agreement between Owner and Contractor for Construction Contract.

### **ARTICLE 10 – LIQUIDATED DAMAGES**

10.01 Provisions for liquidated damages, if any, are set forth in Section 00 52 00 – Form of Agreement between Owner and Contractor for Construction Contract.

**ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS**

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or those substitute or “or-equal” materials and equipment approved by Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met by any proposed substitute or “or-equal” item. No item of material or equipment will be considered by Engineer as a substitute or “or-equal” unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids. Each such request shall conform to the requirements of Paragraph 6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon Bidder. Engineer’s decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

**ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS AND OTHERS**

12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, in which case apparent Successful Bidder shall submit an acceptable substitute, Bidder’s Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to a different Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions

12.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

**ARTICLE 13 – PREPARATION OF BID**

13.01 The Bid Form is included with the Bidding Documents. Additional copies may be obtained from the office of the Owner.

13.02 All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each Bid item, alternative, adjustment unit price item, and unit price item listed therein. In the case of optional alternatives the words “No Bid,” “No Change,” or “Not Applicable” may be entered.

13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed

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and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

- 13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.
- 13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 13.06 A Bid by an individual shall show the Bidder's name and official address.
- 13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 13.08 All names shall be printed in ink below the signatures.
- 13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.10 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

### **ARTICLE 14 – BASIS OF BID; COMPARISON OF BIDS**

#### 14.01 *Unit Price*

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule.
- B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

#### 14.02 *Allowances*

- A. For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 11.02.B of the General Conditions.

### **ARTICLE 15 – SUBMITTAL OF BID**

- 15.01 Bids shall be made on the blank forms prepared by the Owner. The Bid is to be completed and submitted with the Bid security and all attachments outlined in Article 7 of the Bid Form.

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- 15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to the Owner's Office or as stated in Section 00 41 13, Bid Form.
- 15.03 The submitted Bid Bond shall bear original signatures and the seal of the Surety.
- 15.04 Bids submitted after the prescribed date and time will be returned to the Bidder unopened.

### **ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID**

- 16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

### **ARTICLE 17 – OPENING OF BIDS**

- 17.01 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

### **ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE**

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

### **ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT**

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.
- 19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.03 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

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- 19.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.
- 19.06 If the Contract is to be awarded, Owner will award the Contract to the Bidder whose Bid is in the best interests of the Project.

**ARTICLE 20 – CONTRACT SECURITY AND INSURANCE**

- 20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner’s requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such bonds.

**ARTICLE 21 – SIGNING OF AGREEMENT**

- 21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement along with the other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

**ARTICLE 22 – SALES AND USE TAXES**

- 22.01 Owner is exempt from Wisconsin state sales and use taxes on materials and equipment to be incorporated in the Work. Contractor shall contact Ozaukee County if a Wisconsin State Sales Tax Exemption No. is required. Said taxes shall not be included in the Bid. Refer to Paragraph 6.10 of the Supplementary Conditions for additional information.

**ARTICLE 23 – RETAINAGE**

- 23.01 Provisions concerning Contractor’s rights to deposit securities in lieu of retainage are set forth in the Agreement.

- END OF SECTION -





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**BID RECIPIENT**

1.01 This Bid is submitted to:

Ozaukee County Planning and Parks Department  
121 W. Main Street  
P.O Box 994  
Port Washington, WI 53074

herein after referred to as the Owner.

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**BIDDER'S ACKNOWLEDGEMENTS**

1.03 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

**BIDDER'S REPRESENTATIONS**

1.04 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in SC-4.06 as containing reliable "technical data."

E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding

## Ulao Creek Habitat Enhancement

Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.

- F. Based on the information and observations referred to in Paragraph 3.01.E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- 1. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

### **BIDDER'S CERTIFICATION**

1.05 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
  - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract. 612-759-2740

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**BASIS OF BID**

1.06 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

	Item	Cost per Unit	Unit	Number	Cost
<b>Base Bid</b>					
<b>Stream Construction Sta 46+50 - Sta 94+55</b>					
1	Mobilization		LS	1	
2	Temporary Access		LS	1	
3	Silt Fence		LF	500	
4	Gravel Construction Entrances		EA	2	
5	Clearing and Grubbing		ACRE	1.7	
6	Common Excavation and Fill		LS	1	
7	Large Wood Installation		EA	80	
8	Native Landscaping - Seeding Cover Crop		LB	300	
9	Native Landscaping - Seeding Native Mix 1		LB	77	
10	Native Landscaping - Seeding Native Mix 2		LB	4	
11	Native Landscaping - Shrubs, Potted 3' Height		EA	150	
12	Native Landscaping - Shrubs, Stakes		EA	250	
13	Native Landscaping - Trees				
13A	Red maple		EA	15	
13B	Silver maple		EA	15	
13C	Yellow birch		EA	15	
13D	American hornbeam		EA	15	
13E	Hackberry		EA	15	
13F	American tamarack		EA	15	
13G	Bur Oak		EA	15	
13H	Swamp white oak		EA	30	
13I	Northern White Cedar		EA	15	
14	Native Landscaping - black willow stakes		EA	100	
15	Native Landscaping - balsam poplar stakes		EA	100	
<b>Additive Items</b>					
A1	Vegetation Maintenance		YR	3	
<b>Pond 1</b>					
B1	Common excavation		LS	1	
B2	Large Wood Installation		EA	2	
B3	Native Landscaping - Seeding Cover Crop		LB	8	
B4	Native Landscaping - Seeding Native Mix 1		LB	2	
B5	Native Landscaping - Herbaceous Plants		EA	240	
B6	Vegetation Maintenance		YR	3	
<b>Pond 2</b>					
C1	Common excavation		LS	1	
C2	Large Wood Installation		EA	2	
C3	Temporary Access		LS	1	
C4	Native Landscaping - Seeding Cover Crop		LB	8	
C5	Native Landscaping - Seeding Native Mix 1		LB	2	
C6	Native Landscaping - Herbaceous Plants		EA	230	
C7	Vegetation Maintenance		YR	3	

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	Item	Cost per Unit	Unit	Number	Cost
<b>Pond 3 Enhancement and RCG Scrape</b>					
D1	Common excavation		LS	1	
D2	Temporary Access		LS	1	
D3	Native Landscaping - Seeding Cover Crop		LB	37	
D4	Native Landscaping - Seeding Native Mix 1		LB	6	
D5	Native Landscaping - Seeding Native Mix 2		LB	4	
D6	Native Landscaping - Herbaceous Plants		EA	600	
D7	Native Landscaping - Trees				
D7A	Yellow birch		EA	5	
D7B	American hornbeam		EA	5	
D7C	Hackberry		EA	5	
D7E	Bur Oak		EA	5	
D7F	Swamp white oak		EA	5	
D7H	Vegetation Maintenance		YR	3	
<b>Pond 4</b>					
E1	Common excavation		LS	1	
E2	Native Landscaping - Seeding Cover Crop		LB	24	
E3	Native Landscaping - Seeding Native Mix 1		LB	2	
E4	Native Landscaping - Seeding Native Mix 2		LB	5	
E5	Native Landscaping - Herbaceous Plants		EA	1,000	
E6	Native Landscaping - Trees				
E6A	Red maple		EA	10	
E6B	Yellow birch		EA	10	
E6C	American hornbeam		EA	10	
E6D	Hackberry		EA	10	
E6E	American tamarack		EA	20	
E6F	Bur Oak		EA	20	
E6G	Northern White Cedar		EA	20	
E7	Vegetation Maintenance		YR	3	
<b>Stream Construction - Sta 28+81 to Sta 46+50</b>					
F1	Staging and mobilization		LS	1	
F2	Temporary Access		LS	1	
F3	Silt Fence		LF	400	
F4	Gravel construction entrances		EA	1	
F5	Common excavation		LS	1	
F6	Large wood installation		EA	35	
F7	Grade Control Riffle Stone		TON	20	
F8	Native Landscaping - Seeding Cover Crop		LB	107	
F9	Native Landscaping - Seeding Native Mix 1		LB	25	
F10	Native Landscaping - Seeding Native Mix 2		LB	3	
F11	Native Landscaping - Shrubs, Potted 3' Height		EA	200	
F12	Native Landscaping - Shrubs, Stakes		EA	500	

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	Item	Cost per Unit	Unit	Number	Cost
<b>Stream Construction - Sta 28+81 to Sta 46+50 (cont.)</b>					
F13	Native Landscaping - Trees				
F13A	Red maple		EA	30	
F13B	Silver maple		EA	30	
F13C	Yellow birch		EA	30	
F13D	American hornbeam		EA	30	
F13E	Hackberry		EA	30	
F13F	American tamarack		EA	30	
F13G	Bur Oak		EA	40	
F13H	Swamp white oak		EA	30	
F13I	Northern White Cedar		EA	30	
F14	Native Landscaping - black willow live stakes		EA	60	
F15	Native Landscaping - balsam poplar live stakes		EA	60	
F16	Native Landscaping - red osier dogwood live stakes		EA	40	
F17	Vegetation Maintenance		YR	3	
<b>Stream Construction - Sta 0+40 to Sta 9+97</b>					
G1	Staging and mobilization		LS	1	
G2	Temporary Access		LS	1	
G3	Silt Fence		LF	500	
G4	Gravel construction entrances		EA	1	
G5	Clearing and Grubbing		ACRE	1	
G6	Common excavation		LS	1	
G7	Large wood installation		EA	40	
G8	Grade Control Riffle Stone		TON	20	
G9	Native Landscaping - Seeding Cover Crop		LB	43	
G10	Native Landscaping - Seeding Native Mix 1		LB	12	
G11	Native Landscaping - Trees				
G11A	Red maple		EA	25	
G11B	Silver maple		EA	25	
G11C	Yellow birch		EA	25	
G11D	American hornbeam		EA	25	
G11E	Hackberry		EA	25	
G11F	American tamarack		EA	25	
G11G	Bur Oak		EA	25	
G11H	Swamp white oak		EA	25	
G11I	Northern White Cedar		EA	25	
G12	Native Landscaping - black willow live stakes		EA	40	
G13	Native Landscaping - balsam poplar live stakes		EA	40	
G14	Native Landscaping - red osier dogwood live stakes		EA	40	
G15	Vegetation Maintenance		YR	3	

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Unit Prices have been computed in accordance with Paragraph 11.03.B of the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

### **TIME OF COMPLETION**

- 1.01 Bidder agrees that the Work will be substantially complete on or before October 31, 2013, and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before November 30, 2013.
- 1.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

### **ATTACHMENTS TO THIS BID**

- 1.03 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security in the form of Bid Bond (Specification Section 00 43 13 – Bid Bond, EJCDC No. C-430 Bid Bond Penal Sum Form 2007) or certified check;
  - B. Section 00 41 36, Tabulation of Subcontractors;
  - C. List of Proposed Suppliers;
  - D. List of Project References;
  - E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
  - F. Signed affidavit of Non-Collusion;
  - G. Disclosure of Ownership (Form ERD-7777), if applicable;
  - H. *[If applicable]* Contractor's License No.: \_\_\_\_\_ *[or]* Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
  - I. Required Bidder Qualification Statement with Supporting Data, including Qualification Submittal Requirements for Native Vegetation Installation Services.

### **DEFINED TERMS**

- 1.04 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

### **BID SUBMITTAL**

- 9.01 This Bid is submitted by:

If Bidder is:

An Individual

Ulao Creek Habitat Enhancement

Name (typed or printed): \_\_\_\_\_

By: \_\_\_\_\_  
(Individual's signature)

Doing business as: \_\_\_\_\_

A Partnership

Partnership Name: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

A Corporation

Corporation Name: \_\_\_\_\_ (SEAL)

State of Incorporation: \_\_\_\_\_  
Type (General Business, Professional, Service, Limited Liability): \_\_\_\_\_

By: \_\_\_\_\_  
(Signature -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_  
(CORPORATE SEAL)

Attest \_\_\_\_\_

Date of Qualification to do business in [State where Project is located] is \_\_\_\_/\_\_\_\_/\_\_\_\_.

A Joint Venture

Name of Joint Venture: \_\_\_\_\_

First Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
(Signature of first joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Second Joint Venturer Name: \_\_\_\_\_ (SEAL)



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By: \_\_\_\_\_  
(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidder's Business Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

\_\_\_\_\_

E-mail \_\_\_\_\_

SUBMITTED on \_\_\_\_\_, 20\_\_\_\_.

State Contractor License No. \_\_\_\_\_. *[If applicable]*

- END OF SECTION -





Ulao Creek Habitat Enhancement

SECTION 00 44 14  
PROJECT REFERENCES

The following is a list of the 5 most recent projects of a similar nature to this project which we have completed.

1. Contracting Agency \_\_\_\_\_  
Description of Work \_\_\_\_\_  
Agency Representative \_\_\_\_\_  
Title \_\_\_\_\_ Phone \_\_\_\_\_ Date of Contract \_\_\_\_\_
2. Contracting Agency \_\_\_\_\_  
Description of Work \_\_\_\_\_  
Agency Representative \_\_\_\_\_  
Title \_\_\_\_\_ Phone \_\_\_\_\_ Date of Contract \_\_\_\_\_
3. Contracting Agency \_\_\_\_\_  
Description of Work \_\_\_\_\_  
Agency Representative \_\_\_\_\_  
Title \_\_\_\_\_ Phone \_\_\_\_\_ Date of Contract \_\_\_\_\_
4. Contracting Agency \_\_\_\_\_  
Description of Work \_\_\_\_\_  
Agency Representative \_\_\_\_\_  
Title \_\_\_\_\_ Phone \_\_\_\_\_ Date of Contract \_\_\_\_\_
5. Contracting Agency \_\_\_\_\_  
Description of Work \_\_\_\_\_  
Agency Representative \_\_\_\_\_  
Title \_\_\_\_\_ Phone \_\_\_\_\_ Date of Contract \_\_\_\_\_

- END OF SECTION -

**SECTION 00 45 17  
PROOF OF BIDDER'S RESPONSIBILITY**

This Bidder's Proof of Responsibility must be submitted in accordance with Article 3.01 of the Instructions to Bidders.

On all contracts, bidder must submit a full and complete statement sworn to before any officer authorized to administer oaths of financial ability, equipment, experience in the work prescribed, and such other matters as the municipality may require for the protection and welfare of the public.

The contents of this questionnaire will be considered confidential. It shall be completely filled out and must be received by the official responsible for receiving bids not less than five (5) days before the scheduled date of opening bids.

This completed questionnaire is to be submitted to the following; the outside clearly marked "BIDDER'S PROOF OF RESPONSIBILITY":

Ozaukee County Planning and Parks Department  
121 W. Main Street  
P.O. Box 994  
Port Washington, WI 53074

It is recommended that this questionnaire be returned by Registered Mail.

If the Owner is not satisfied with the sufficiency of the answers to the questionnaire and financial statement, they may refuse to accept the bid, returning it unopened, or require additional information.

**STATEMENT OF BIDDER'S QUALIFICATION**

1. Name of Bidder: \_\_\_\_\_
2. Address of Bidder: \_\_\_\_\_  
\_\_\_\_\_
3. Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_
4. Direct any questions regarding information provided on this form to:  
\_\_\_\_\_ at \_\_\_\_\_  
Name Telephone number
5. Number of years in business under present firm name: \_\_\_\_\_

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6. Type of organization (check one): Corporation \_\_\_\_\_ Partnership \_\_\_\_\_ Individual \_\_\_\_\_

7. For a Corporation – Date of Incorporation \_\_\_\_\_

Incorporators: \_\_\_\_\_

\_\_\_\_\_

8. For a Partnership – When formed? \_\_\_\_\_

Partners: \_\_\_\_\_

\_\_\_\_\_

9. For an Individual – How long in business? \_\_\_\_\_

10. General character of the work performed by your firm: \_\_\_\_\_

\_\_\_\_\_

11. Experience – What is the construction experience of the principal individuals, including superintendents and/or foremen, of your present organization?

Individual's Name	Present Position of Officer in your firm	Years of Construction Experience	Magnitude & Type of Work	In What Capacity

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12. Work on hand – List below present contracts on hand. (attach additional sheets if more space is required)

Date Awarded	Type of Work	Percent Completed	Anticipated Completion Date	Cost of Work

13. Have you ever failed to complete a contract? \_\_\_\_\_  
 (if so, attach a statement detailing where and why)

14. Have you ever defaulted on a contract? \_\_\_\_\_  
 (if so, attach a statement detailing where and why)

15. Name of your bonding company: \_\_\_\_\_

Address: \_\_\_\_\_

16. Credit availability. Attach evidence, preferably from banks.

17. A schedule of all major equipment owned by the contractor and available for the project shall be attached.

18. A statement of the principal personnel available for the project and their experience in the construction of work similar in scope to this project shall be attached.

All questions shall be answered as completely as possible. Where a question does not apply, you shall so state. Answers must be typewritten or in ink. Any additional information not included in the questionnaire but of importance to determine your qualifications may be presented in letter form attached to the questionnaire and made a part thereof.

I hereby certify that I have prepared and/or examined all answers to this questionnaire, prepared all statements hereto, that all information and statements are based on facts known to me, that I have full

Ulao Creek Habitat Enhancement

authority to make such statements in behalf of the contractor to which the questionnaire applies and that such statements are true and correct.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

Subscribed and sworn to me before this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

\_\_\_\_\_  
(Notary or officer authorized to administer oath)

My commission expires: \_\_\_\_\_



Ulao Creek Habitat Enhancement

**SECTION 00 45 19  
STATEMENT OF NON-COLLUSION**

State of Wisconsin

Contract Bid Name \_\_\_\_\_

County of Ozaukee

I state that I am \_\_\_\_\_(Title) of \_\_\_\_\_(Name of Firm) and that I am authorized to make this affidavit on behalf of this firm and its owners, directors, and officers. I am the person responsible in this firm for the price(s) and the amount of this Bid.

I state that:

(1) The price(s) and amount of this Bid have been arrived at independently and without consultation, communication or agreement with any other Contractor, Bidder, or potential Bidder, except as disclosed on the attached appendix.

(2) That neither the price(s) nor the amount of this Bid, and neither the approximate price(s) nor approximate amount of this Bid, have been disclosed to any other firm or person who is a Bidder or potential Bidder, and they will not be disclosed before Bid opening.

(3) No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a Bid higher than this Bid, or to submit any intentionally high or noncompetitive Bid.

(4) \_\_\_\_\_(name of this firm), its affiliates, subsidiaries, officers, directors and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as described in the attached appendix.

I state that \_\_\_\_\_(name of this firm) understands and acknowledges that the above representations are material and important, and will be relied on by the Town of Ione in awarding the contract(s) for which this Bid is submitted. I understand and this firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the Town of Ione of the true facts relating to the submission of Bids for this contract.

Signature

\_\_\_\_\_

Name of Company/Position

\_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

Notary Public for Washington

\_\_\_\_\_

This commission expires \_\_\_\_\_

END OF SECTION

Ulao Creek Habitat Enhancement

**SECTION 00 52 00  
FORM OF AGREEMENT  
BETWEEN OWNER AND CONTRACTOR  
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between Ozaukee County Planning and Parks Department (“Owner”) and \_\_\_\_\_ (“Contractor”).

Owner and Contractor hereby agree as follows:

**ARTICLE 1 – WORK**

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Ulao Creek Habitat Enhancement

**ARTICLE 2 – THE PROJECT**

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Ulao Creek Habitat Enhancement

**ARTICLE 3 – ENGINEER**

3.01 The Project has been designed by Inter-Fluve, Inc. (Engineer), which is to act as Owner’s Representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

**ARTICLE 4 – CONTRACT TIMES**

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Dates for Substantial Completion and Final Payment*

A. The Work will be substantially completed on or before October 31, 2013, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before November 30, 2013.

4.02 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$500 for each day that expires

## Ulao Creek Habitat Enhancement

after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$50 for each day that expires after the time specified in Paragraph 4.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

### ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to

- A. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item as indicated in Contractor's Bid.

The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions.

### ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.
- B. Contractor shall submit labor reports associated with the invoicing period and attach to the Application for Payment.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions.
- a. 95% percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 95% percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 100% percent of Engineer's

## Ulao Creek Habitat Enhancement

estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

### 6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

## **ARTICLE 7 – INTEREST**

- 7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the a rate 8% per annum.

## **ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS**

- 8.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
  - A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
  - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  - C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
  - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data."
  - E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor’s safety precautions and programs.
  - F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
  - G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
  - H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

Ulao Creek Habitat Enhancement

- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

**ARTICLE 9 – CONTRACT DOCUMENTS**

9.01 *Contents*

A. The Contract Documents consist of the following:

1. This Agreement (pages 00 52 00-1 to 00 52 00-7, inclusive).
2. Performance bond (pages 00 61 13.13-1 to 00 61 13.13-4, inclusive).
3. Payment bond (pages 00 61 13.16-1 to 00 61 13.16-4, inclusive).
4. General Conditions (pages 00 72 00-1 to 00 72 00-62, inclusive).
5. Supplementary Conditions (pages 00 73 00-1 to 00 73 00-7, inclusive).
6. Specifications as listed in the table of contents of the Project Manual.
7. The Drawings listed on attached sheet index.
8. Exhibits to this Agreement (enumerated as follows):
  - a. Contractor's Bid (pages 00 41 13-1 to 00 41 13-10, inclusive);
  - b. Documentation submitted by Contractor prior to Notice of Award (pages 00 41 13-1 to 00 43 13-3, inclusive).
  - c. Certificate of Insurance and Copy of Insurance Policy
9. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
  - a. Notice to Proceed
  - b. Field Order(s)
  - c. Work Change Directives;
  - d. Change Order(s).

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

**ARTICLE 10 – MISCELLANEOUS**

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
  1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

Ulao Creek Habitat Enhancement

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Agreement).

OWNER:

CONTRACTOR

Ozaukee County Planning and Parks Department  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

License No.: \_\_\_\_\_

(Where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

Agent for service of process:  
\_\_\_\_\_

- END OF SECTION -

**PERFORMANCE BOND**

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR *(Name and Address)*: SURETY *(Name, and Address of Principal Place of Business)*:

OWNER *(Name and Address)*:

**CONTRACT**

Effective Date of Agreement:  
Amount:  
Description *(Name and Location)*:

**BOND**

Bond Number:  
Date *(Not earlier than Effective Date of Agreement)*:  
Amount:  
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

**SURETY**

\_\_\_\_\_  
Contractor's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Provide execution by additional parties, such as joint venturers, if necessary.*



Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.

1. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 2.1.
2. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
  - 2.1 Owner has notified Contractor and Surety, at the addresses described in Paragraph 9 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor, and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
  - 2.2 Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 2.1; and
  - 2.3 Owner has agreed to pay the Balance of the Contract Price to:
    1. Surety in accordance with the terms of the Contract; or
    2. Another contractor selected pursuant to Paragraph 3.3 to perform the Contract.
3. When Owner has satisfied the conditions of Paragraph 2, Surety shall promptly, and at Surety's expense, take one of the following actions:
  - 3.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
  - 3.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
  - 3.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 5 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
  - 3.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
    1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
    2. Deny liability in whole or in part and notify Owner citing reasons therefor.
4. If Surety does not proceed as provided in Paragraph 3 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 3.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
5. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 3.1, 3.2, or 3.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To the limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

- 5.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;

- 5.2 Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions of or failure to act of Surety under Paragraph 3; and
- 5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.

6. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.

7. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.

8. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located, and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

9. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

10. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

11. Definitions.

- 11.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
- 11.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 11.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 11.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – *(Name, Address and Telephone)*

Surety Agency or Broker:

Owner's Representative *(Engineer or other party)*:

**SECTION 00 61 13.16  
CONSTRUCTION PAYMENT BOND**

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

---

CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

Ozaukee County Planning and Parks  
121 W. Main ST, P.O. Box 994  
Port Washington, WI 53074

CONTRACT

Effective Date of Agreement:

Amount:

Description (*Name and Location*): Ulaos Creek Habitat Enhancement

BOND

Bond Number:

Date (*Not earlier than Effective Date of Agreement*):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

**SURETY**

\_\_\_\_\_  
Contractor's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Provide execution by additional parties, such as joint venturers, if necessary.*

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
  - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
  - 2.2 Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
  - 4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
  - 4.2 Claimants who do not have a direct contract with Contractor:
    1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
    2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
    3. Not having been paid within the above 30 days, have sent a written notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
6. Reserved.
7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on

which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

#### 15. Definitions

- 15.1 Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract, or to perform and complete or otherwise comply with the other terms thereof.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*A Practice Division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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**STANDARD GENERAL CONDITIONS OF THE  
CONSTRUCTION CONTRACT**

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
  3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
  5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
  7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
  8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
  9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
  10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
  11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

## 1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

### B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

### C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

### D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
  - a. does not conform to the Contract Documents; or
  - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

### E. *Furnish, Install, Perform, Provide:*



1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
  4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## **ARTICLE 2 – PRELIMINARY MATTERS**

### *2.01 Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

### *2.02 Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

### *2.03 Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

## 2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

## 2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
  - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
  - 2. a preliminary Schedule of Submittals; and
  - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

## 2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

## 2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
  - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### **ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

#### **3.01 *Intent***

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

#### **3.02 *Reference Standards***

- A. Standards, Specifications, Codes, Laws, and Regulations
  1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
  2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

#### **3.03 *Reporting and Resolving Discrepancies***

- A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
  - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
  - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
  1. A Field Order;
  2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

### 3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
  1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
  2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

### 3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

## **ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

### 4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

#### 4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

#### 4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

- 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
- 2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
  - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
  - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
  - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
  - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
  - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other

professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

#### 4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
  - a. reviewing and checking all such information and data;
  - b. locating all Underground Facilities shown or indicated in the Contract Documents;
  - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
  - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price



or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
  2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by

Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## **ARTICLE 5 – BONDS AND INSURANCE**

### *5.01 Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

### *5.02 Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

### *5.03 Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

#### 5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
  - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
  - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
  - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
  - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
    - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
    - b. by any other person for any other reason;
  - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
  - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
  - a. Such insurance shall remain in effect for two years after final payment.
  - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

#### 5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

#### 5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
  2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
  3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
  4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
  5. allow for partial utilization of the Work by Owner;
  6. include testing and startup; and
  7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property

insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

#### 5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
  - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
  - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery

against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.



## ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

### 6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

### 6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

### 6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

#### 6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
  2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

#### 6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
    - a. in the exercise of reasonable judgment Engineer determines that:
      - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
      - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
      - 3) it has a proven record of performance and availability of responsive service.
    - b. Contractor certifies that, if approved and incorporated into the Work:
      - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
      - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
  - 1) shall certify that the proposed substitute item will:
    - a) perform adequately the functions and achieve the results called for by the general design,
    - b) be similar in substance to that specified, and
    - c) be suited to the same use as that specified;
  - 2) will state:
    - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
    - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
    - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
  - 3) will identify:
    - a) all variations of the proposed substitute item from that specified, and
    - b) available engineering, sales, maintenance, repair, and replacement services; and

- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

#### 6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or

other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
  2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

## 6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

## 6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

## 6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all

court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

#### 6.11 *Use of Site and Other Areas*

##### A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor

shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

#### 6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

#### 6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. all persons on the Site or who may be affected by the Work;
  2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.



- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*
    - a. Submit number of copies specified in the General Requirements.
    - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.
  2. *Samples:*
    - a. Submit number of Samples specified in the Specifications.
    - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Submittal Procedures:*
1. Before submitting each Shop Drawing or Sample, Contractor shall have:
    - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
    - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
    - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
    - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
  2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
  3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop

Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
1. observations by Engineer;
  2. recommendation by Engineer or payment by Owner of any progress or final payment;
  3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
  4. use or occupancy of the Work or any part thereof by Owner;
  5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
  6. any inspection, test, or approval by others; or
  7. any correction of defective Work by Owner.

#### 6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor,

Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
  - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
  - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

#### 6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## ARTICLE 7 – OTHER WORK AT THE SITE

### 7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
  - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
  - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

### 7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
  - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
  - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
  - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

### 7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

## **ARTICLE 8 – OWNER'S RESPONSIBILITIES**

### 8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### 8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

### 8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

### 8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

### 8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

### 8.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### 8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

**ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION**

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits



and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

#### 9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

#### 9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

#### 9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

#### 9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

### **ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**

#### 10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

#### 10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

### 10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
  2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
  3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

### 10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

### 10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The

opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
  2. approve the Claim; or
  3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

## **ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

### *11.01 Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on

Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
  - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
  - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

#### 11.02 *Allowances*

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:*

1. Contractor agrees that:

- a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
- b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

#### 11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.



- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
  2. there is no corresponding adjustment with respect to any other item of Work; and
  3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

## **ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

### *12.01 Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
  2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
  3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
  2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
    - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

- c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
- d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

#### 12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

#### 12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the

control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

## **ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

### *13.01 Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

### *13.02 Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

### *13.03 Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
  - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
  - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
  - 3. as otherwise specifically provided in the Contract Documents.

- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

#### 13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

### 13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

### 13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

### 13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - 1. repair such defective land or areas; or
  - 2. correct such defective Work; or
  - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
  - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute

resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

#### 13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

#### 13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and

equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

## **ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION**

### *14.01 Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

### *14.02 Progress Payments*

#### *A. Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the

Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
  - a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
  - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
  - a. to supervise, direct, or control the Work, or



- b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
  - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
  - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

*C. Payment Becomes Due:*

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

*D. Reduction in Payment:*

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
  - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
  - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
  - c. there are other items entitling Owner to a set-off against the amount recommended; or

- d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

#### 14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

#### 14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities

pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

#### 14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
  1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
  2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
  3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
  4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

#### 14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

## 14.07 *Final Payment*

### A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
  - b. consent of the surety, if any, to final payment;
  - c. a list of all Claims against Owner that Contractor believes are unsettled; and
  - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

### B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

### C. *Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

#### 14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
  1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
  2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

### **ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION**

#### 15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

#### 15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
  2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
  3. Contractor's repeated disregard of the authority of Engineer; or
  4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
  2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
  3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

#### 15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
  3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
  4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

#### 15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

## **ARTICLE 16 – DISPUTE RESOLUTION**

### *16.01 Methods and Procedures*

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer’s action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
  - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
  - 2. agrees with the other party to submit the Claim to another dispute resolution process; or
  - 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

## **ARTICLE 17 – MISCELLANEOUS**

### *17.01 Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
  - 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
  - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### *17.02 Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.



17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.



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- b. Products – Completed Operations Aggregate \$1,000,000
- c. Personal and Advertising Injury \$1,000,000
- d. Each Occurrence (Bodily Injury and Property Damage) \$1,000,000
- e. Property Damage liability insurance will provide Explosion, Collapse, and Under-ground coverages where applicable.
- f. Excess or Umbrella Liability
  - a. General Aggregate \$1,000,000
  - b. Each Occurrence \$1,000,000

3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:

- a. Bodily Injury:
  - Each person \$500,000
  - Each Accident \$500,000
- b. Property Damage:
  - Each Accident \$500,000

4. The Contractual Liability coverage required by Paragraph 5.04.B.4 of the General Conditions shall provide coverage for not less than the following amounts:

- a. Bodily Injury:
  - Each person \$1,000,000
  - Each Accident \$1,000,000
- b. Property Damage:
  - Each Accident \$1,000,000
  - Annual Aggregate \$1,000,000

5. Other persons or entities to be included as additional insureds:

- a. Owner
- b. Inter-Fluve, Inc.

**SC-6.06 Concerning Subcontractors, Suppliers, and Others**

Add a new paragraph immediately after Paragraph 6.06.G:

Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier.

**SC-6.10 Taxes**

Add a new paragraph immediately after Paragraph 6.10.A:

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- B. Owner is exempt from payment of sales and compensating use taxes of the State of *[insert name of state where Project is located]* and of cities and counties thereof on all materials to be incorporated into the Work.
1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
  2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

**SC-10.05 Claims and Disputes**

Amend the first sentence of Paragraph 10.05.B to read as follows:

*Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 10 days) after the start of the event giving rise thereto.

**SC-11.03 Unit Price Work**

Delete Paragraph 11.03.D in its entirety and insert the following in its place:

- D. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:
1. if the Bid price of a particular item of Unit Price Work amounts to 40 percent or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 5 percent from the estimated quantity of such item indicated in the Agreement; and
  2. if there is no corresponding adjustment with respect to any other item of Work; and
  3. if Contractor believes that Contractor has incurred additional expense as a result thereof or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, either Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Article 10 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

**SC-13.07 Correction Period**

Delete Paragraph 13.07.A in its entirety and insert the following in its place:

- A. If within one year after the date of Final Payment (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
1. Repair such defective land or areas; or
  2. Correct such defective Work; or

Ulao Creek Habitat Enhancement

3. If the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. Satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

**SC-14.02.A Applications for Payments**

Add the following language at the end of Paragraph 14.02.A.1:

Supporting documentation to accompany each Application for Payment shall include:

- a. Updated Project Schedule.
- b. Updated list showing current status of submittals.
- c. Documentation showing payment by Contractor for materials and/or equipment stored.
- d. Documentation showing insurance coverage for materials and/or equipment stored.

**SC-14.02.D Reduction in Payment**

Add the following language at the end of Paragraph 1:

- e. The established Contract Time for Substantial Completion has expired.

**SC-14.04. Substantial Completion**

Add a new paragraph immediately after Paragraph 14.04.A which reads as follows:

1. For this Work, Substantial Completion is further defined as follows:
  - a. Stream bed and bank work has been completed
  - b. If applicable, pond excavation and grading has been completed
  - c. Existing stream channel has been plugged.
  - d. All areas have been planted, seeded and mulched as described.

**SC-14.06. Final Inspection**

Add the following language after the second sentence of Paragraph 14.06.A:

If, after such measures are taken, subsequent inspections by Engineer reveal that any of the previously identified particulars remain incomplete or defective, Engineer will again notify Contractor in writing of the remaining particulars. All costs associated with any subsequent inspections in which said remaining items are revealed, will be documented by Engineer and paid by Contractor to Owner.

**SC-14.07.A Application for Payment**

Add the following new paragraph immediately after Paragraph 14.07.A.3:

## Ulao Creek Habitat Enhancement

4. Before final application for payment is made for the work, Contractor must make satisfactory showing that he has complied with the provisions of Wisconsin Statutes requirement the withholding of state income taxes for wages paid employees on this Project.

**DOCUMENT 00 73 43**

**WAGE RATE REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. Section Includes:
  - 1. Wage Rates.
  - 2. Equal Employment Opportunity.
  
- B. Related Sections:
  - 1. General Conditions, Supplementary Conditions and Division 1 sections apply to the Work of this Section.

**PART 2 PRODUCTS**

Not Used

**PART 3 EXECUTION**

**3.01 WAGE RATES**

- A. Wage rates shall be determined by the State of Wisconsin or Davis-Bacon Act, whichever is greater.
  
- B. Post wage rates in conspicuous and easily accessible location at the Site.
  
- C. The U.S. Department of Labor Davis-Bacon and related Acts Determination and State of Wisconsin Prevailing Wage Rates can be found attached as part of this document 00 73 43, and shall be made a part of the contract and shall be complied with by each Contractor. Certification of compliance will be a requirement before final payment is made.
  - 1. Section 1606 of the Recovery Act requires that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the Recovery Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor has issued regulations at 29 CFR Parts 1, 3, and 5 to implement the Davis-Bacon and related Acts. Regulations in 29 CFR 5.5 instruct agencies concerning application of the standard Davis-Bacon contract clauses set forth in that section. Federal agencies providing grants, cooperative agreements, and loans under the Recovery Act shall ensure that the standard Davis-Bacon contract clauses found in 29 CFR 5.5(a) are incorporated in any resultant covered contracts that are in excess of \$2,000 for construction, alteration or repair (including painting and decorating).

2. Each covered contractor or subcontractor must provide a weekly statement of the wages paid to each of its employees engaged in covered work. The statement shall be executed by the contractor or subcontractor or by an authorized officer or employee of the contractor or subcontractor who supervises the payment of wages and shall be on the "Statement of Compliance" form on the back of [WH-347 "Payroll \(For Contractors Optional Use\)"](#) or on any form with identical wording. Within seven days after the regular pay date for the pay period the statement shall be delivered to a representative of the federal or state agency in charge.

- a. Records to be maintained include:

- 1) Name, address, and social security number of each employee; 2) Each employee's work classification(s); 3) Hourly rate(s) of pay (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof); 4) Daily and weekly numbers of hours worked; 5) Deductions made; and 6) Actual wages paid.

See 29 CFR 5.5(a)(3) for further information.

- b. Contractors who do not use Department of Labor Form WH 347 or its equivalent must submit a DD Form 879, Statement of Compliance, with each payroll report.

3. The Contracting Officer is authorized by the clause at FAR 52.222-7 (Withholding of Funds) to withhold contract funds at the request of the U.S. Department of Labor or under his or her own authority. Funds may be withheld from the contract under which the suspected violations occurred, or under any other Federal contract with the same prime contractor ("crosswithholding"). The amount of funds to be withheld should be carefully estimated so as to protect back wages that may be due employees, to the extent of estimating for somewhat of a "worst case" given the information at hand. However, funds significantly in excess of that required to protect employees possible back wage should not be withheld as an inducement to obtain settlement, as a punishment, or for any other reason. Excessive withholding for alleged labor violations may be grounds for the contractor to obtain interest payments on excess funds withheld.

4. The wage determination (including any additional classifications and wage rates conformed) and a Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen. The WH-1321 poster may be obtained at no charge from offices of the Wage and Hour Division. In the absence of such posted information, any person who wants to determine if the project is covered should contact the federal agency funding or assisting the project or the Wage and Hour Division. Multi-year construction contracts that contain option provisions by which a contracting agency may unilaterally extend the term of the contract require inclusion of a current wage determination at the time the option is exercised. (In contrast, in situations where a contractor is given additional time to complete original contract commitments, the wage determination in that contract applies).

- D. It shall be understood that whatever the minimum wage may be, the Contractor shall assume all obligation for any increase in wage rates if they are required to be paid. The Contractor shall hold the Owner free from any claim that might arise if higher rates other than the minimum prevailing in the area are paid. The Contractor shall make his own investigation locally and satisfy himself as to the necessary wage rates for local labor and requirements.

### **3.02 EQUAL EMPLOYMENT OPPORTUNITY**

- A. In connection with the performance work under this contract, the Contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, and developmental disability as defined in Section 51.4341(1), Wisconsin Statutes, or



national origin. This provision shall include, but not be limited to, the following employment, upgrading, demotion or transfer; recruitment or recruitment advertising; lay-off or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor further agrees to post in conspicuous places, available for employees and applicants for employment, notices setting for the provisions of the non-discrimination clause.

- B. The successful contractor will be required to comply with all applicable Federal and State regulations including equal opportunity and disadvantaged business enterprise regulations; regulations specified by the Americans With Disabilities Act of 1990 addressing the rights of individuals with disabilities; and regulations specified by the Omnibus Employee Testing Act of 1991 addressing drug and alcohol testing of employees in safety-sensitive positions.

**ISSUE DATE:** 6/5/2013

**PROJECT:**

ULAO CREEK HABITAT ENHANCEMENT  
GRAFTON VILLAGE, OZAUKEE COUNTY, WI  
Determination No. 201301611

**PROJECT OWNER:**

ANDREW STRUCK, DIRECTOR OF PLANNING AND PARKS  
OZAUKEE COUNTY  
121 W. MAIN STREET  
PORT WASHINGTON, WI 53074

**REQUESTER:**

BETH WENTZEL, PE  
INTERFLUVE  
301 S. LIVINGSTON STREET, SUITE 200  
MADISON, WI 53703

**ADDITIONAL CONTACT:**

**NOTE:** The Requester must provide a copy of this Project Determination and enclosures to the Project Owner and Additional Contact.

The department received an application for prevailing wage rate determination for the above-captioned project. The department conducted a survey to determine the prevailing wage rate for the trade(s) or occupation(s) needed to complete the project. The survey's findings appear in the attached project determination.

If you believe that the wage rate for any trade or occupation does not accurately reflect the prevailing wage rate in the city, village or town where the project is located, you may ask the department to conduct an administrative review of such wage rate. You must submit this request in writing within 30 days from the date indicated above. Additionally, your request must include wage rate information from at least three similar projects in the city, village or town where the proposed project is located and on which some work has been performed by the contested trade(s) during the current survey period and was previously considered by the department in issuing the attached determination. See DWD 290.10 of the Wisconsin Administrative Code and either s. 66.0903(3)(br), s. 66.0904(4)(e), or s. 103.49(3)(c), Stats., for a complete explanation of the administrative review process.

Enclosures

It is hereby ordered that the prevailing wage rates set forth in the attached project determination shall only be applicable to the above referenced project. This order is a **FINAL ORDER** of the department unless a timely request for an administrative review is filed with the department.

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Equal Rights Division  
Labor Standards Bureau  
Construction Wage Standards Section  
PO Box 8928 Madison, WI 53708-8928  
(608)266-6861

Web Site: <http://dwd.wisconsin.gov/er/>

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## PREVAILING WAGE RATE DETERMINATION

Issued by the State of Wisconsin  
Department of Workforce Development  
Pursuant to s. 66.0903, Wis. Stats.  
Issued On: 6/5/2013

**DETERMINATION NUMBER:** 201301611

**EXPIRATION DATE:** Prime Contracts MUST Be Awarded or Negotiated On Or Before 12/31/2013. If NOT, You MUST Reapply.

**PROJECT NAME:** ULAO CREEK HABITAT ENHANCEMENT

**PROJECT LOCATION:** GRAFTON VILLAGE, OZAUKEE COUNTY, WI

**CONTRACTING AGENCY:** OZAUKEE COUNTY

<b>CLASSIFICATION:</b>	Contractors are responsible for correctly classifying their workers. Either call the Department of Workforce Development (DWD) with trade or classification questions or consult DWD's Dictionary of Occupational Classifications & Work Descriptions on the DWD website at: <a href="http://dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm">dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm</a> .
<b>OVERTIME:</b>	<p>Time and one-half must be paid for all hours worked:</p> <ul style="list-style-type: none"><li>- over 10 hours per day on prevailing wage projects</li><li>- over 40 hours per calendar week</li><li>- Saturday and Sunday</li><li>- on all of the following holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25;</li><li>- The day before if January 1, July 4 or December 25 falls on a Saturday;</li><li>- The day following if January 1, July 4 or December 25 falls on a Sunday.</li></ul> <p>Apply the time and one-half overtime calculation to whichever is higher between the Hourly Basic Rate listed on this project determination or the employee's regular hourly rate of pay. Add any applicable Premium or DOT Premium to the Hourly Basic Rate before calculating overtime.</p> <p>A DOT Premium (discussed below) may supersede this time and one-half requirement.</p>
<b>FUTURE INCREASE:</b>	When a specific trade or occupation requires a future increase, you MUST add the full hourly increase to the "TOTAL" on the effective date(s) indicated for the specific trade or occupation.
<b>PREMIUM PAY:</b>	If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.
<b>DOT PREMIUM:</b>	This premium only applies to highway and bridge projects owned by the Wisconsin Department of Transportation and to the project type heading "Airport Pavement or State Highway Construction." DO NOT apply the premium calculation under any other project type on this determination.
<b>APPRENTICES:</b>	Pay apprentices a percentage of the applicable journey person's hourly basic rate of pay and hourly fringe benefit contributions specified in this determination. Obtain the appropriate percentage from each apprentice's contract or indenture.
<b>SUBJOURNEY:</b>	Subjourney wage rates may be available for some of the trades or occupations indicated below with the exception of laborers, truck drivers and heavy equipment operators. Any employer interested in using a subjourney classification on this project MUST complete Form ERD-10880 and request the applicable wage rate from the Department of Workforce Development PRIOR to using the subjourney worker on this project.

This document **MUST BE POSTED** by the **CONTRACTING AGENCY** in at least one conspicuous and easily accessible place **on the site of the project**. A local governmental unit may post this document at the place normally used to post public notices if there is no common site on the project. This document **MUST** remain posted during the entire time any worker is employed on the project and **MUST** be physically incorporated into the specifications and all contracts and subcontracts. If you have any questions, please write to the Equal Rights Division, Labor Standards Bureau, P.O. Box 8928, Madison, Wisconsin 53708 or call (608) 266-6861.

**The following statutory provisions apply to local governmental unit projects of public works and are set forth below pursuant to the requirements of s. 66.0903(8), Stats.**

**s. 66.0903 (1) (f) & s. 103.49 (1) (c) "PREVAILING HOURS OF LABOR"** for any trade or occupation in any area means 10 hours per day and 40 hours per week and may not include any hours worked on a Saturday or Sunday or on any of the following holidays:

1. January 1.
2. The last Monday in May.
3. July 4.
4. The first Monday in September.
5. The 4th Thursday in November.
6. December 25.
7. The day before if January 1, July 4 or December 25 falls on a Saturday.
8. The day following if January 1, July 4 or December 25 falls on a Sunday.

**s. 66.0903 (10) RECORDS; INSPECTION; ENFORCEMENT.**

(a) Each contractor, subcontractor, or contractor's or subcontractor's agent performing work on a project of public works that is subject to this section shall keep full and accurate records clearly indicating the name and trade or occupation of every person performing the work described in sub. (4) and an accurate record of the number of hours worked by each of those persons and the actual wages paid for the hours worked.

**s. 66.0903 (11) LIABILITY AND PENALTIES.**

(a) 1. Any contractor, subcontractor, or contractor's or subcontractor's agent who fails to pay the prevailing wage rate determined by the department under sub. (3) or who pays less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor is liable to any affected employee in the amount of his or her unpaid wages or his or her unpaid overtime compensation and in an additional amount as liquidated damages as provided under subd. 2., 3., whichever is applicable.

2. If the department determines upon inspection under sub. (10) (b) or (c) that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the department shall order the contractor to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages within a period specified by the department in the order.

3. In addition to or in lieu of recovering the liability specified in subd. 1. as provided in subd. 2., any employee for and in behalf of that employee and other employees similarly situated may commence an action to recover that liability in any court of competent jurisdiction. If the court finds that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the court shall order the contractor, subcontractor, or agent to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages.

5. No employee may be a party plaintiff to an action under subd. 3. unless the employee consents in writing to become a party and the consent is filed in the court in which the action is brought. Notwithstanding s. 814.04 (1), the court shall, in addition to any judgment awarded to the plaintiff, allow reasonable attorney fees and costs to be paid by the defendant.

<b>BUILDING OR HEAVY CONSTRUCTION</b>
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Includes sheltered enclosures with walk-in access for the purpose of housing persons, employees, machinery, equipment or supplies and non-sheltered work such as canals, dams, dikes, reservoirs, storage tanks, etc. A sheltered enclosure need not be "habitable" in order to be considered a building. The installation of machinery and/or equipment, both above and below grade level, does not change a project's character as a building. On-site grading, utility work and landscaping are included within this definition. Residential buildings of four (4) stories or less, agricultural buildings, parking lots and driveways are NOT included within this definition.

<b>SKILLED TRADES</b>
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<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
101	Acoustic Ceiling Tile Installer Future Increase(s): Add \$.75/hr on 6/3/2013. Add \$1.25/hr on 6/2/2014.	32.93	19.81	52.74
102	Boilermaker	31.09	25.44	56.53
103	Bricklayer, Blocklayer or Stonemason Future Increase(s): Add \$1.45/hr on 6/01/2013 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.80	16.87	52.67
104	Cabinet Installer Future Increase(s): Add \$.75/hr on 6/3/2013. Add \$1.25/hr on 6/2/2014.	32.93	19.81	52.74
105	Carpenter Future Increase(s): Add \$.75/hr on 6/3/2013. Add \$1.25/hr on 6/2/2014. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.93	19.81	52.74
106	Carpet Layer or Soft Floor Coverer	32.93	20.98	53.91
107	Cement Finisher	32.57	17.03	49.60
108	Drywall Taper or Finisher	29.62	18.05	47.67
109	Electrician Future Increase(s): Add \$1.60/hr on 6/1/2013. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.20	21.71	53.91
110	Elevator Constructor	41.71	24.35	66.06
111	Fence Erector	28.00	4.50	32.50
112	Fire Sprinkler Fitter	36.92	19.79	56.71

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
113	Glazier	34.19	18.25	52.44
114	Heat or Frost Insulator	33.93	23.26	57.19
115	Insulator (Batt or Blown)	27.47	19.16	46.63
116	Ironworker	31.31	21.99	53.30
117	Lather	33.43	19.31	52.74
118	Line Constructor (Electrical)	37.05	16.94	53.99
119	Marble Finisher	20.00	0.00	20.00
120	Marble Mason	35.58	16.37	51.95
121	Metal Building Erector	18.50	3.20	21.70
122	Millwright	28.28	18.23	46.51
123	Overhead Door Installer	27.30	1.94	29.24
124	Painter	29.27	18.26	47.53
125	Pavement Marking Operator	30.00	0.00	30.00
126	Piledriver Future Increase(s): Add \$.75/hr on 6/3/2013. Premium Increase(s): Add \$.65/hr for Piledriver Loftsmen; Add \$.75/hr for Sheet Piling Loftsmen. DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	29.06	25.46	54.52
127	Pipeline Fuser or Welder (Gas or Utility)	31.18	19.29	50.47
129	Plasterer	30.76	16.42	47.18
130	Plumber Future Increase(s): Add \$1.00/hr 6/1/2013; Add \$1.00/hr 6/1/2014.	36.47	19.47	55.94
132	Refrigeration Mechanic	37.76	19.99	57.75
133	Roofer or Waterproofer	29.40	15.55	44.95
134	Sheet Metal Worker Future Increase(s): Add \$1.41/hour 6/1/2013; Add \$1.56/hour 6/1/2014.	36.17	18.00	54.17
135	Steamfitter	37.76	19.99	57.75
137	Teledata Technician or Installer	23.75	2.25	26.00
138	Temperature Control Installer	37.31	18.16	55.47

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
139	Terrazzo Finisher Future Increase(s): Add \$ .80 on 6/1/2013	26.57	16.50	43.07
140	Terrazzo Mechanic	29.51	17.63	47.14
141	Tile Finisher	20.60	5.54	26.14
142	Tile Setter	29.70	16.05	45.75
143	Tuckpointer, Caulker or Cleaner	34.35	12.61	46.96
144	Underwater Diver (Except on Great Lakes)	34.16	15.31	49.47
146	Well Driller or Pump Installer Future Increase(s): Add \$.20/hr on 06/01/2013.	25.32	15.45	40.77
147	Siding Installer	37.20	17.01	54.21
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	28.24	15.10	43.34
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	29.64	14.64	44.28
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	24.00	11.57	35.57

**TRUCK DRIVERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
201	Single Axle or Two Axle	33.32	17.60	50.92
203	Three or More Axle	18.00	16.28	34.28
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$0.75/hour 6/3/2013; Add \$1.00/hour 6/2/2014; Add \$1.50/hour 6/1/2015; Add \$1.60/hour 5/30/2016.	33.52	17.60	51.12
205	Pavement Marking Vehicle	20.85	11.02	31.87
207	Truck Mechanic	18.00	16.28	34.28

**LABORERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
301	General Laborer Premium Increase(s): Add \$.11 for mortar mixer, fork lift operator, air and electric equipment and power buggy operators; Add \$.22 for jackhammer operator, certified welder, gunite machineman.	28.82	16.11	44.93
302	Asbestos Abatement Worker	18.00	0.00	18.00
303	Landscaper	11.00	5.68	16.68
310	Gas or Utility Pipeline Laborer (Other Than Sewer and Water)	19.69	16.03	35.72
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.24	15.03	32.27
314	Railroad Track Laborer	14.50	3.84	18.34
315	Final Construction Clean-Up Worker	28.82	15.61	44.43

**HEAVY EQUIPMENT OPERATORS  
SITE PREPARATION, UTILITY OR LANDSCAPING WORK ONLY**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
501	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Milling Machine; Boring Machine (Directional, Horizontal or Vertical); Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfgr's Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Crane, Shovel, Dragline, Clamshells; Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Grader or Motor Patrol; Master Mechanic; Mechanic or Welder; Robotic Tool Carrier (With or Without Attachments); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Tractor (Scraper, Dozer, Pusher, Loader); Trencher (Wheel Type or Chain Type Having Over 8 Inch Bucket).	33.91	18.85	52.76
502	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Environmental Burner; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Jeep Digger; Screed (Milling Machine); Skid Rig; Straddle Carrier or Travel Lift; Stump Chipper; Trencher (Wheel Type or Chain Type Having 8 Inch Bucket & Under). Future Increase(s): Add \$0.75/hour 6/3/2013; Add \$1.00/hour 6/2/2014; Add \$1.50/hour 6/1/2015; Add \$1.60/hour 5/30/2016.	33.52	17.60	51.12



<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
503	Air Compressor (&/or 400 CFM or Over); Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over); Greaser; High Pressure Utility Locating Machine (Daylighting Machine); Mulcher; Oiler; Post Hole Digger or Driver; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack.	33.32	17.47	50.79
504	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	37.45	19.45	56.90
505	Work Performed on the Great Lakes Including Crane or Backhoe Operator; Assistant Hydraulic Dredge Engineer; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder; 70 Ton & Over Tug Operator. Future Increase(s): Add \$2.19/hr on 01/01/2013; Add \$2.00/hr on 01/01/2014. Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	38.80	20.17	58.97
506	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery. Future Increase(s): Add \$2.08/hr on 01/01/2013; Add \$2.00/hr on 01/01/2014.	34.50	20.04	54.54
507	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY. Future Increase(s): Add \$1.88/hr on 01/01/2013; Add \$2.00/hr on 01/01/2014.	28.70	19.86	48.56

**HEAVY EQUIPMENT OPERATORS  
EXCLUDING SITE PREPARATION, UTILITY, PAVING LANDSCAPING WORK**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
508	Boring Machine (Directional); Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Premium Increase(s): Crane Operators with CCO certification add \$.50/hr. Cranes with boom length over 200 ft. not exceeding 300 ft. OR lifting capacity over 200 ton not exceeding 300 ton add \$.50/hr. Over 300 ton OR 300 ft. add \$.01/hr. per foot OR ton whichever is greater.	39.16	19.10	58.26
509	Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Boring Machine (Horizontal or Vertical); Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Pile Driver; Versi Lifts, Tri-Lifts & Gantrys (20,000 Lbs. & Over). Future Increase(s): Add \$1/hr on 6/2/2013. Premium Increase(s): Add \$.25/hr for all >45 Ton lifting capacity cranes.	34.12	18.46	52.58
510	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Dredge (NOT Performing Work on the Great Lakes); Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Hydro-Blaster (10,000 PSI or Over); Milling Machine; Skid Rig; Traveling Crane (Bridge Type). Premium Increase(s): Crane Operators with CCO certification add \$.50/hr.	38.16	19.10	57.26

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
511	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Environmental Burner; Gantrys (Under 20,000 Lbs.); Grader or Motor Patrol; High Pressure Utility Locating Machine (Daylighting Machine); Manhoist; Material or Stack Hoist; Mechanic or Welder; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tining or Curing Machine; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Future Increase(s): Add \$1/hr on 6/2/2013.	32.39	18.46	50.85
512	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Grout Pump; Hoist (Tugger, Automatic); Industrial Locomotives; Jeep Digger; Lift Slab Machine; Mulcher; Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames. Future Increase(s): Add \$0.75/hour 6/3/2013; Add \$1.00/hour 6/2/2014; Add \$1.50/hour 6/1/2015; Add \$1.60/hour 5/30/2016.	33.82	17.60	51.42
513	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Boatmen (NOT Performing Work on the Great Lakes); Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Elevator; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Forklift; Generator (&/or 150 KW or Over); Greaser; Heaters (Mechanical); Loading Machine (Conveyor); Oiler; Post Hole Digger or Driver; Prestress Machine; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack.	30.44	19.63	50.07
514	Gas or Utility Pipeline, Except Sewer & Water (Primary Equipment). Future Increase(s): Add \$2/hr on 1/1/2013.	34.89	20.59	55.48
515	Gas or Utility Pipeline, Except Sewer & Water (Secondary Equipment). Future Increase(s): Add \$1.60/hr on 06/01/2013; Add \$1.60/hr on 06/01/2014; Add \$1.65/hr on 06/01/2015	32.26	17.95	50.21
516	Fiber Optic Cable Equipment	20.00	11.52	31.52



<b>SEWER, WATER OR TUNNEL CONSTRUCTION</b>
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Includes those projects that primarily involve public sewer or water distribution, transmission or collection systems and related tunnel work (excluding buildings).

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**SKILLED TRADES**

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<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		
		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
		<b>\$</b>	<b>\$</b>	<b>\$</b>
103	Bricklayer, Blocklayer or Stonemason Future Increase(s): Add \$1.45/hr on 6/01/2013 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.80	16.87	52.67
105	Carpenter Future Increase(s): Add \$.75/hr on 6/3/2013. Add \$1.25/hr on 6/2/2014. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.93	19.81	52.74
107	Cement Finisher	30.68	16.75	47.43
109	Electrician Future Increase(s): Add \$1.60/hr on 6/1/2013. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.20	21.71	53.91
111	Fence Erector	28.00	4.50	32.50
116	Ironworker	30.90	19.11	50.01
118	Line Constructor (Electrical)	37.05	16.94	53.99
125	Pavement Marking Operator	28.10	15.00	43.10
126	Piledriver	29.56	24.96	54.52
130	Plumber	36.97	17.66	54.63
135	Steamfitter	38.26	19.49	57.75
137	Teledata Technician or Installer	23.75	2.25	26.00
143	Tuckpointer, Caulker or Cleaner	34.35	12.61	46.96
144	Underwater Diver (Except on Great Lakes)	37.45	19.45	56.90
146	Well Driller or Pump Installer	21.00	2.23	23.23

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	28.24	15.10	43.34
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	29.64	14.64	44.28
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.90	33.65

**TRUCK DRIVERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
201	Single Axle or Two Axle	25.87	13.00	38.87
203	Three or More Axle	18.00	0.00	18.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	31.89	17.98	49.87
205	Pavement Marking Vehicle	20.85	11.02	31.87
207	Truck Mechanic	17.00	9.40	26.40

**LABORERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
301	General Laborer Premium Increase(s): Add \$1.92 for bottomman; Add \$2.03 for concrete manhole builder, bracer, jointman, or pipelayer; Add \$4.83 for blaster. Add \$2.00 for all tunnel work under 15 lbs. compressed air; Add \$2.00 for 0-30 lbs. compressed air; Add \$3.00 for over 30 lbs. compressed air.	28.95	16.11	45.06
303	Landscaper	26.92	12.51	39.43
304	Flagperson or Traffic Control Person	23.55	13.45	37.00
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.24	15.03	32.27
314	Railroad Track Laborer	14.50	3.84	18.34

**HEAVY EQUIPMENT OPERATORS  
SEWER, WATER OR TUNNEL WORK**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
521	<p>Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &amp;/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Master Mechanic; Pile Driver.</p> <p>Future Increase(s): Add \$1/hr on 6/2/2013.</p> <p>Premium Increase(s): Add \$.50/hr for &gt;200 Ton / Add \$1/hr at 300 Ton / Add \$1.50 at 400 Ton / Add \$2/hr at 500 Ton &amp; Over.</p>	35.12	18.46	53.58
522	<p>Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. &amp; Under); Boring Machine (Directional); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Spreader &amp; Distributor; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &amp;/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. &amp; Under; Dredge (NOT Performing Work on the Great Lakes); Milling Machine; Skid Rig; Telehandler; Traveling Crane (Bridge Type).</p> <p>Premium Increase(s): Add \$.25/hr for operating tower crane.</p>	35.36	19.15	54.51
523	<p>Air Track, Rotary or Percussion Drilling Machine &amp;/or Hammers, Blaster; Boring Machine (Horizontal or Vertical); Bulldozer or Endloader (Over 40 hp); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Concrete Pump (46 Meter &amp; Under), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb &amp; Gutter Machine; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Manhoist; Material or Stack Hoist; Mechanic or Welder; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket).</p> <p>Premium Increase(s): Add \$.25/hr for operating tower crane.</p>	34.41	19.15	53.56

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
524	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Environmental Burner; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Hoist (Tugger, Automatic); Grout Pump; Jeep Digger; Lift Slab Machine; Mulcher; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Tining or Curing Machine; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames.	31.89	18.11	50.00
525	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Loading Machine (Conveyor); Post Hole Digger or Driver; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Premium Increase(s): Add \$.25/hr for operating tower crane.	31.96	19.15	51.11
526	Boiler (Temporary Heat); Forklift; Greaser; Oiler.	30.44	19.10	49.54
527	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	37.45	19.45	56.90
528	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	37.45	19.45	56.90
529	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	27.75	19.15	46.90
530	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under), Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	27.75	19.15	46.90



<b>LOCAL STREET OR MISCELLANEOUS PAVING CONSTRUCTION</b>
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Includes roads, streets, alleys, trails, bridges, paths, racetracks, parking lots and driveways (except residential or agricultural), public sidewalks or other similar projects (excluding projects awarded by the Wisconsin Department of Transportation).

<b>SKILLED TRADES</b>
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<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
		\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason	33.00	15.00	48.00
105	Carpenter	30.16	15.31	45.47
107	Cement Finisher	28.73	17.03	45.76
109	Electrician Future Increase(s): Add \$1.60/hr on 6/1/2013. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	32.20	21.71	53.91
111	Fence Erector	28.00	4.50	32.50
116	Ironworker	31.31	21.99	53.30
118	Line Constructor (Electrical)	37.05	16.94	53.99
124	Painter	29.27	18.26	47.53
125	Pavement Marking Operator	28.10	15.00	43.10
126	Piledriver	29.56	24.96	54.52
133	Rofer or Waterproofer	29.40	15.05	44.45
137	Teledata Technician or Installer	23.75	2.25	26.00
143	Tuckpointer, Caulker or Cleaner	34.35	12.61	46.96
144	Underwater Diver (Except on Great Lakes)	37.45	19.45	56.90
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.64	14.55	44.19
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	30.60	14.64	45.24
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.90	33.65

**TRUCK DRIVERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
201	Single Axle or Two Axle	25.87	13.00	38.87
203	Three or More Axle	17.00	9.40	26.40
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1/hr on 6/2/2013.	32.39	18.46	50.85
205	Pavement Marking Vehicle	20.85	11.02	31.87
206	Shadow or Pilot Vehicle	25.87	13.00	38.87
207	Truck Mechanic	17.00	9.40	26.40

**LABORERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
301	General Laborer	22.02	17.52	39.54
303	Landscaper Future Increase(s): Add \$1.70/hr on 6/1/13; Add \$1.60/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	28.07	13.90	41.97
304	Flagperson or Traffic Control Person Future Increase(s): Add \$1.70/hr on 6/1/2013; Add \$1.60/hr on 6/1/2014. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	24.70	13.90	38.60
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.24	15.03	32.27
314	Railroad Track Laborer	14.50	3.84	18.34

**HEAVY EQUIPMENT OPERATORS  
CONCRETE PAVEMENT OR BRIDGE WORK**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
541	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: <a href="http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm">http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm</a> .	35.22	19.90	55.12
542	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Crane, Tower Crane Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: <a href="http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm">http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm</a> .	34.72	19.90	54.62

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
543	<p>Air Track, Rotary or Percussion Drilling Machine &amp;/or Hammers, Blaster; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. &amp; Under); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb &amp; Gutter Machine; Concrete Spreader &amp; Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches &amp; A-Frames.</p> <p>Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day &amp; Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: <a href="http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm">http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm</a>.</p>	34.22	19.90	54.12
544	<p>Backfiller; Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed &amp; Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Pile Driver &amp; Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.</p> <p>Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day &amp; Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: <a href="http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm">http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm</a>.</p>	33.96	19.90	53.86

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
545	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.	33.32	17.47	50.79
546	Fiber Optic Cable Equipment.	20.00	11.52	31.52
547	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	37.45	19.45	56.90
548	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	37.45	19.45	56.90
549	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or more); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	27.75	19.15	46.90
550	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	27.75	19.15	46.90

**HEAVY EQUIPMENT OPERATORS  
ASPHALT PAVEMENT OR OTHER WORK**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
551	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	39.16	19.10	58.26
552	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1/hr on 6/2/2013.	32.92	18.46	51.38

**Fringe Benefits Must Be Paid On All Hours Worked**

<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u> \$	<u>HOURLY FRINGE BENEFITS</u> \$	<u>TOTAL</u> \$
553	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Laser/Screed; Concrete Slipform Placer Curb & Gutter Machine; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.	33.67	19.55	53.22
554	Backfiller; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self-Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.	33.67	19.55	53.22
555	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.	33.67	19.55	53.22
556	Fiber Optic Cable Equipment.	20.00	11.52	31.52

\*\*\*\*\* END OF RATES \*\*\*\*\*

Department of Workforce Development  
 Equal Rights Division  
 P.O. Box 8928  
 Madison, WI 53708-8928  
 Telephone: (608) 266-6860  
 Fax: (608) 267-4592  
 TTY: (608) 264-8752



Scott Walker, Governor  
 Reginald J. Newson, Secretary  
 Joe Handrick, Division Administrator

The documents following the Prevailing Wage Rate Determination consist of 18 pages of various forms/documents that will be used throughout the completion of the project. The chart below lists the form number, form/document name, the party who uses the document, and the document's number of pages. If you have any questions regarding these forms please call the Prevailing Wage Office at (608)266-6861.

ERD Form Number	Form Name	Party Who Uses the Form	Pages
16056	Post the White Sheet	Contracting agency	1
16770	Substance Abuse Prevention on Public Works and Publicly Funded Projects, §103.503, Wis. Stats.	All contractors working on public works and publicly funded private construction projects	1
10908	Consolidated List of Debarred Contractors	Any party contracting someone to complete work on a prevailing wage project	2
7777	Disclosure of Ownership	Contractors that meet the criteria set out in (3)(A)&(B) of the form	1
5724	Prime Contractor Affidavit of Compliance	Prime contractor files with contracting agency upon completion of the work before receiving final payment	2
10584	Agent or Subcontractor Affidavit of Compliance	Subcontractors file with their awarding contractor upon completion of their work on the project before receiving final payment	2
10880	Request to Employ Subjourneyperson	Contractors wishing to employ a subjourneyperson(s)	1
	Prevailing Wage - Public Entity Project Owners	Explanation of project owner responsibilities	2
	Prevailing Wage – Contractors	Explanation of contractor responsibilities	2
	Summary of Prevailing Wage Law Changes Effective July 1, 2011	Information for public entity or any other interested party	4

09/01/12

## **POST THE WHITE SHEET**

As the public entity receiving this prevailing wage rate determination, YOU ARE REQUIRED by law to post the prevailing wage rate determination (i.e., white sheet) in at least one conspicuous and easily accessible place on the project site that is available to all construction workers. The white sheet must remain posted from the onset of the project until all construction labor on the project has been completed.

[See, Wis. Admin. Code §DWD 290.12(1)]

Posting the white sheet inside the general contractor's trailer does not meet this requirement. That placement is not available/accessible to all workers and is not a location over which you have control.

If you have questions about posting, please call (608)266-6861 and ask for prevailing wage intake.



## Disclaimer

**Employers performing work on public works and publicly funded private construction projects in Wisconsin are required to have a written substance abuse testing program in place. The provisions of this requirement are contained in Sec. 103.503, Wis. Stats. The Department of Workforce Development is neither responsible for enforcement of this law nor authorized to answer questions concerning its provisions. For legal advice on complying with Sec. 103.503, Wis. Stats., you may wish to consult with a private attorney.**

### **103.503 Substance abuse prevention on public works and publicly funded projects. (1) DEFINITIONS.** In this section:

(a) "Accident" means an incident caused, contributed to, or otherwise involving an employee that resulted or could have resulted in death, personal injury, or property damage and that occurred while the employee was performing the work described in s. 66.0903 (4), 66.0904 (3), or 103.49 (2m) on a project.

(b) "Alcohol" has the meaning given in s. 340.01 (1q).

(c) "Contracting agency" means a local governmental unit, as defined in s. 66.0903 (1) (d), a state agency, as defined in s. 103.49 (1) (f), or an owner or developer under s. 66.0904 that has contracted for the performance of work on a project.

(d) "Drug" means any controlled substance, as defined in s. 961.01 (4), or controlled substance analog, as defined in s. 961.01 (4m), for which testing is required by an employer under its substance abuse prevention program under this section.

(e) "Employee" means a laborer, worker, mechanic, or truck driver who performs the work described in s. 66.0903 (4), 66.0904 (3), or 103.49 (2m) on a project.

(f) "Employer" means a contractor, subcontractor, or agent of a contractor or subcontractor that performs work on a project.

(g) "Project" mean a project of public works that is subject to s. 66.0903 or 103.49 or a publicly funded private construction project that is subject to s. 66.0904.

(2) **SUBSTANCE ABUSE PROHIBITED.** No employee may use, possess, attempt to possess, distribute, deliver, or be under the influence of a drug, or use or be under the influence of alcohol, while performing the work described in s. 66.0903 (4), 66.0904 (3), or 103.49 (2m) on a project. An employee is considered to be under the influence of alcohol for purposes of this subsection if he or she has an alcohol concentration that is equal to or greater than the amount specified in s. 885.235 (1g) (d).

(3) **SUBSTANCE ABUSE PREVENTION PROGRAMS REQUIRED.** (a) Before an employer may commence work on a project, the employer shall have in place a written program for the prevention of substance abuse among its employees. At a minimum, the program shall include all of the following:

1. A prohibition against the actions or conditions specified in sub. (2).

2. A requirement that employees performing the work described in s. 66.0903 (4), 66.0904 (3), or 103.49 (2m) on a project submit to random, reasonable suspicion, and post-accident drug and alcohol testing and to drug and alcohol testing before commencing work on a project, except that testing of an employee before commencing work on a project is not required if the employee has been participating in a random testing program during the 90 days preceding the date on which the employee commenced work on the project.

3. A procedure for notifying an employee who violates sub. (2), who tests positive for the presence of a drug in his or her system, or who refuses to submit to drug or alcohol testing as required under the program that the employee may not perform work on a project until he or she meets the conditions specified in sub. (4) (b) 1. and 2.

(b) Each employer shall be responsible for the cost of developing, implementing, and enforcing its substance abuse prevention program, including the cost of drug and alcohol testing of its employees under the program. The contracting agency is not responsible for that cost, for the cost of any medical review of a test result, or for any rehabilitation provided to an employee.

(4) **EMPLOYEE ACCESS TO PROJECT.** (a) No employer may permit an employee who violates sub. (2), who tests positive for the presence of a drug in his or her system, or who refuses to submit to drug or alcohol testing as required under the employer's substance abuse prevention program under sub. (3) to perform work on a project until he or she meets the conditions specified in par. (b) 1. and 2. An employer shall immediately remove an employee from work on a project if any of the following occurs:

1. The employee violates sub. (2), tests positive for the presence of a drug in his or her system, or refuses to submit to drug or alcohol testing as required under the employer's substance abuse prevention program.

2. An officer or employee of the contracting agency has a reasonable suspicion that the employee is in violation of sub. (2) and requests the employer to immediately remove the employee from work on the project.

(b) An employee who is barred or removed from work on a project under par. (a) may commence or return to work on the project upon his or her employer providing to the contracting agency documentation showing all of the following:

1. That the employee has tested negative for the presence of drugs in his or her system and is not under the influence of alcohol as described in sub. (2).

2. That the employee has been approved to commence or return to work on the project in accordance with the employer's substance abuse prevention program.

(c) Testing for the presence of drugs or alcohol in an employee's system and the handling of test specimens shall be conducted in accordance with guidelines for laboratory testing procedures and chain-of-custody procedures established by the substance abuse and mental health services administration of the federal department of health and human services.

(5) **LOCAL ORDINANCES; STRICT CONFORMITY REQUIRED.** A local governmental unit, as defined in s. 66.0903 (1) (d), may enact an ordinance regulating the conduct regulated under this section only if the ordinance strictly conforms to this section.

History: 2005 a. 181; 2009 a. 28.

Consolidated List of Debarred Contractors  
Prepared and Issued By  
State of Wisconsin  
Department of Workforce Development

September 1, 2012

This list has been prepared in accordance with the provisions of s. 66.0903(12), s. 66.0904(10) and s. 103.49(7), Stats. and Chapter DWD 294 of the Wisconsin Administrative Code. All contractors on this list were found to have committed a "debarable offense" related to certain labor standard provisions determined or established for a state or local public works project or publicly funded private construction project. No state agency, local governmental unit or owner or developer may knowingly solicit bids from, negotiate with or award any contracts to or approve or allow any subcontracts with a debarred contractor, including all divisions, affiliates or other organizational elements of such contractor that are engaged in construction business activities, until the debarment is terminated. The name of each debarred contractor must remain on this list for a period of three (3) years from the termination date indicated below. The contractor is, however, only "debarred" from the "effective date" through the "termination date" indicated for that contractor. Questions regarding this list should be addressed to Julie Eckenwalder, Equal Rights Division, P. O. Box 8928, Madison, WI 53708 or call (608) 266-3148. Deaf, hearing or speech-impaired callers may contact the department by calling its TDD number (608) 264-8752.

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/Deviations</u>
Abel, Mike	See, Abel Electric, Inc					
Abel Electric, Inc	3385 Belmar Rd Green Bay, WI 54313	9/1/12	8/31/2015	1	2011	None
Atkins, Scott	See, Freedom Insulation, Inc					
Boecker, Roger	See, R-Way Pumping, Inc					
Castlerock Commercial Construction, Inc	PO Box 11699 Milwaukee, WI 53211-0699	2/1/12	1/31/15	1, 2 and 4	2009 & 2010	None
Custom Heating & Air LLC	283 Tony Lane Green Bay, WI 54304	12/1/06	11/30/09	1, 2 and 4	2003 & 2004	None
Dem/Ex Group, Inc	805 S Adams St Manito, IL 61546	12/1/11	11/30/14	1 and 2	2010	None
Fisher, Ed &/or Fisher, Rhonda	See, Dem/Ex Group, Inc					
Freedom Insulation, Inc	117925 219 <sup>th</sup> Ave Chippewa Falls, WI 54729	9/1/11	8/31/14	1	2008- 2010	None

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/Deviations</u>
JT Roofing, Inc	350 Tower Dr Saukville, WI 53080	6/1/11	5/31/15	1, 2 and 4	2007 & 2008	None
Jinkins, Richard	See, Castlerock Commercial Construction, Inc.					
Joseph Stoller Company	N8426 Hwy 42 Algoma, WI 54201	2/1/07	1/31/10	1 and 2	2004 & 2005	None
Keiver, David	See, Custom Heating & Air LLC					
Ofstie, Darin	See, Precision Excavating and Grading, LLC					
Precision Excavating and Grading, LLC or Precision Excavating Enterprises, LLC	2104 Pierce Saint Croix Rd Baldwin, WI 54002	5/1/11	4/30/14	1, 2 and 4	2006- 2008	None
R-Way Pumping, Inc	3023 Lake Maria Rd Freeport, MN 56331	3/1/12	2/28/15	1, 2 and 4	2008	None
Stoller Enterprises LLC	N8426 Hwy 42 Algoma, WI 54201-9552	2/1/2007	1/31/10	1 and 2	2005 to 2006	None
Stoller, Joseph	See, Joseph Stoller Company					
Stoller, Patrick J	See, Stoller Enterprises LLC					
Thull, Gerald T	See, JT Roofing, Inc.					

Cause Code: 1 = Failure to Pay Straight Time 2 = Failure to Pay Overtime 3 = Kickback 4 = Payroll Records.

## Disclosure of Ownership

The statutory authority for the use of this form is prescribed in Sections 66.0903(12)(d), 66.0904(10)(d) and 103.49(7)(d), Wisconsin Statutes.

The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes.

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1) (m), Wisconsin Statutes]

- (1) On the date a contractor submits a bid to or completes negotiations with a state agency, local governmental unit, or developer, investor or owner on a project subject to Section 66.0903, 66.0904 or 103.49, Wisconsin Statutes, the contractor shall disclose to such state agency, local governmental unit, or developer, investor or owner, the name of any "other construction business", which the contractor, or a shareholder, officer or partner of the contractor, owns or has owned within the preceding three (3) years.
- (2) The term "other construction business" means any business engaged in the erection, construction, remodeling, repairing, demolition, altering or painting and decorating of buildings, structures or facilities. It also means any business engaged in supplying mineral aggregate, or hauling excavated material or spoil as provided by Sections 66.0903(3), 66.0904(2), 103.49(2) and 103.50(2), Wisconsin Statutes.
- (3) This form must **ONLY** be filed, with the state agency project owner, local governmental unit project owner, or developer, investor or owner of a publicly funded private construction project that will be awarding the contract, if **both (A) and (B) are met**.
  - (A) The contractor, or a shareholder, officer or partner of the contractor:
    - (1) Owns at least a 25% interest in the "other construction business", indicated below, on the date the contractor submits a bid or completes negotiations.
    - (2) Or has owned at least a 25% interest in the "other construction business" at any time within the preceding three (3) years.
  - (B) The Wisconsin Department of Workforce Development (DWD) has determined that the "other construction business" has failed to pay the prevailing wage rate or time and one-half the required hourly basic rate of pay, for

### Other Construction Business

Name of Business			
Street Address or P O Box	City	State	Zip Code
Name of Business			
Street Address or P O Box	City	State	Zip Code
Name of Business			
Street Address or P O Box	City	State	Zip Code
Name of Business			
Street Address or P O Box	City	State	Zip Code

**I hereby state under penalty of perjury that the information, contained in this document, is true and accurate according to my knowledge and belief.**

Print the Name of Authorized Officer			
Signature of Authorized Officer	Date Signed		
Name of Corporation, Partnership or Sole Proprietorship			
Street Address or P O Box	City	State	Zip Code

**If you have any questions call (608) 266-6861**

## Prime Contractor Affidavit of Compliance With Prevailing Wage Rate Determination

Authorization for this form is provided under Sections 66.0903(9)(c), 66.0904(7)(c) and 103.49(4r)(c) Wisconsin Statutes.

The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes.

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m), Wisconsin Statutes].

This form must **ONLY** be filed with the **Awarding Agency** indicated below.

State Of )	Project Name		
	DWD Determination Number	Project Number (if applicable)	
)SS	Date Determination Issued	Date of Contract	
County Of )	Awarding Agency		
	Date Work Completed		

After being duly sworn, the person whose name and signature appears below hereby states under penalty of perjury that

- **I am** the duly authorized officer of the corporation, partnership, sole proprietorship or business indicated below and have recently completed all of the work required under the terms and conditions of a contract with the above-named awarding agency and make this affidavit in accordance with the requirements set forth in Section 66.0903(9)(c), 66.0904(7)(c) or 103.49(4r)(c), Wisconsin Statutes and Chapter DWD 290 of the Wisconsin Administrative Code in order to obtain FINAL PAYMENT from such awarding agency.
- **I have** fully complied with all the wage and hour requirements applicable to this project, including all of the requirements set forth in the prevailing wage rate determination indicated above which was issued for such project by the Department of Workforce Development on the date indicated above.
- **I have** received the required affidavit of compliance from each of my agents and subcontractors that performed work on this project and have listed each of their names and addresses on page 2 of this affidavit.
- **I have** full and accurate records that clearly indicate the name and trade or occupation of every worker(s) that I employed on this project, including an accurate record of the hours worked and actual wages paid to such worker(s).
- **I will** retain the records and affidavit(s) described above and make them available for inspection for a period of at least three (3) years from the completion date indicated above at the address indicated below and shall not remove such records or affidavit(s) without prior notification to the awarding agency indicated above.

Name of Corporation, Partnership, Sole Proprietorship, Business, State Agency or Local Governmental Unit				
Street Address	City	State	Zip Code	Telephone Number
Print Name of Authorized Officer			Date Signed	
Signature of Authorized Officer				

## List of Agents and Subcontractors

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		
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Telephone Number			Telephone Number		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		

## Agent or Subcontractor Affidavit of Compliance With Prevailing Wage Rate Determination

Authorization for this form is provided under Sections 66.0903(9)(b), 66.0904(7)(b) and 103.49(4r)(9b), Wisconsin Statutes. The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes.

Personal information you provide may be used for secondary purposes [Privacy Law, Section 15.04(1)(m), Wisconsin Statutes].

This form must **ONLY** be filed with the **Awarding Contractor** indicated below.

State Of _____ )  )SS  County Of _____ )	Project Name	
	DWD Determination Number	Project Number (if applicable)
	Date Determination Issued	Date of Subcontract
	Awarding Contractor	
	Date Work Completed	

After being duly sworn, the person whose name and signature appears below hereby states under penalty of perjury that

- **I am** the duly authorized officer of the corporation, partnership, sole proprietorship or business indicated below. We have recently completed all of the work required under the terms and conditions of a subcontract with the above-named awarding contractor. We make this affidavit in accordance with the requirements set forth in Section 66.0903(9)(b), 66.0904(7)(b) or 103.49(4r)(b), Wisconsin Statutes and Chapter DWD 290 of the Wisconsin Administrative Code in order to obtain FINAL PAYMENT from such awarding contractor.
- **I have** fully complied with the entire wage and hour requirements applicable to this project, including all of the requirements set forth in the prevailing wage rate determination indicated above which was issued for such project by the Department of Workforce Development on the date indicated above.
- **I have** received the required affidavit of compliance from each of my agents and subcontractors that performed work on this project and have listed each of their names and addresses on page 2 of this affidavit.
- **I have** full and accurate records that clearly indicate the name and trade or occupation of every worker(s) that I employed on this project, including an accurate record of the hours worked and actual wages paid to such worker(s).
- **I will** retain the records and affidavit(s) described above and make them available for inspection for a period of at least three (3) years from the completion date indicated above at the address indicated below and shall not remove such records or affidavit(s) without prior notification to the awarding contractor.

Name of Corporation, Partnership, Sole Proprietorship, Business, State Agency or Local Governmental Unit				
Street Address or PO Box	City	State	Zip Code	Telephone Number (    )
Print Name of Authorized Officer			Date Signed	
Authorized Officer Signature				

## List of Agents and Subcontractors

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		
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Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
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City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		
Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number (    )			Telephone Number (    )		

**If you have any questions call (608) 266-6861**



## Request to Employ Subjourneyperson

The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes. Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04(1)(m), Wisconsin Statutes).

The employer indicated below requests that the Department of Workforce Development (DWD) determine the prevailing wage rate(s) and related qualifications to enable such employer to use a subjourneyperson(s) on the following prevailing wage project, in accordance with the provisions of Section DWD 290.025, Wisconsin Administrative Code.

1. Name of Project Appearing on the Project Determination			
County	City, Village or Town		
DWD Project Determination Number	Project Number (if applicable)		
2. Job Classification(s) for which you request a subjourney rate (i.e., carpenter, electrician, plumber, etc.)			
a.	b.		
c.	d.		
3. Employer Name (Print)			
Address	City	State	Zip Code
Telephone Number (       )	Requester Title		
Email address (if you prefer to receive your response via email)	Fax Number (if you prefer to receive your response via fax) (       )		

**READ CAREFULLY:** I understand that this request is ONLY applicable to the project and job classification(s) listed above and that subjourney employees primarily work under the direction of and assist a skilled trade employee by frequently using the tools of a skilled trade and will NOT regularly perform the duties of a general laborer, heavy equipment operator or truck driver. If the subjourney employee regularly performs the work of a different trade or occupation, he/she will be compensated for such work at the applicable journeyperson prevailing wage rate. I agree to compensate subjourney employees in strict accordance with the directions received from the DWD.

Requester Signature	Date Signed
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MAIL the completed request to:  
 EQUAL RIGHTS DIVISION, LABOR STANDARDS BUREAU  
 PO BOX 8928, MADISON WI 53708  
**OR**  
 FAX the completed request to: (608) 267-0310 / **DO NOT e-mail your request.**  
 Call (608) 266-6861 for assistance in completing this form.

## PREVAILING WAGE – Public Entity Project Owners

Any public works project that has a total estimated project cost that equals or exceeds single-trade or multiple-trade project thresholds requires a prevailing wage rate determination issued by the Department of Workforce Development (DWD). Public works include erecting, constructing, remodeling, repairing, demolishing, alterations, painting and decorating projects for a local governmental unit or state agency. State law excludes minor service or maintenance work, warranty work, or work under a supply-and-installation contract. There is a statutory definition for each of these exclusions. The prevailing wage law that applies to local governmental units is §66.0903, Wis. Stats. The prevailing wage law that applies to state agencies is §103.49, Wis. Stats. The applicable administrative rules for all public entities are DWD 290 and DWD 294, Wis. Adm. Code.

### Thresholds

A "single-trade project of public works" means a project in which a single trade accounts for 85% or more of the total labor cost of the project. The single trade threshold is \$48,000.

A "multiple-trade project of public works" means a project in which no single trade accounts for 85% or more of the total labor cost of the project.

(a) The multiple-trade threshold is \$100,000, unless a municipality falls under the description in (b).

(b) The multiple-trade threshold of \$234,000 applies to public works projects erected, constructed, repaired, remodeled, or demolished by a private contractor for •a city or village with a population less than 2500 or •a town.

Effective July 1, 2011, a local governmental unit or state agency that has a public works project that equals or exceeds the prevailing wage thresholds must do all of the following:

- Request a prevailing wage rate determination for the project from DWD at least 30 days before soliciting bids or negotiating contracts. An Application for Prevailing Wage Rate Determination is available on the DWD website: [http://dwd.wisconsin.gov/er/prevailing\\_wage\\_rate/default.htm](http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm)

To avoid waiting for a project determination use the on-line application system that permits the user to generate a determination immediately and save all documents in PDF form to the user's computer. Use this project determination on line application at the following address:

[http://dwd.wisconsin.gov/er/prevaling\\_wage\\_rate/pw\\_online\\_determinations.htm](http://dwd.wisconsin.gov/er/prevaling_wage_rate/pw_online_determinations.htm)

- Tell potential contractors the project is subject to state prevailing wage law when soliciting bids.
- Include the prevailing wage rate determination in the construction contract, or if there is no written contract, provide a copy of the project determination to each prime contractor.
- Award contracts to contractors who do *not* appear on the “Consolidated List of Debarred Contractors.”
- Post the prevailing wage rate determination on the project site. (This document is often referred to as “the white sheet.”)
- Notify project contractors that if DWD finds that a contractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.
- Obtain an Affidavit of Compliance from each prime contractor before making final payment for the project.

If the total estimated cost of the project exceeds the prevailing wage thresholds, a local governmental unit or state agency also must obtain a prevailing wage rate determination under the following circumstances:

- when a completed facility is leased, purchased, lease-purchased or otherwise acquired by or dedicated to a public entity in lieu of the public entity contracting for the project,
- when one public entity does work for another public entity,
- when a *private* entity will construct a road, street, bridge, sanitary sewer or water main project and dedicate it to a local governmental unit or the state for its ownership or maintenance (except for some residential subdivisions).

For more information, visit the prevailing wage website: [http://dwd.wisconsin.gov/er/prevaling\\_wage\\_rate/default.htm](http://dwd.wisconsin.gov/er/prevaling_wage_rate/default.htm). For further assistance, call the Equal Rights Division at 608-266-6861 and ask for prevailing wage.

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## PREVAILING WAGE – Contractors

Any public works project that has a total estimated project cost that equals or exceeds prevailing wage project thresholds requires a prevailing wage rate determination issued by the Department of Workforce Development (DWD). Public works include erecting, constructing, remodeling, repairing, demolishing, alterations, painting and decorating projects for a local governmental unit or state agency. State law excludes minor service or maintenance work, warranty work, or work under a supply-and-installation contract. There is a statutory definition for each of these exclusions. The prevailing wage law that applies to local governmental units and their contractors is §66.0903, Wis. Stats. The prevailing wage law that applies to state agencies and their contractors is §103.49, Wis. Stats. The applicable administrative rules for all prevailing wage projects are DWD 290 and DWD 294, Wis. Adm. Code. These laws include provisions that apply to all contractors and subcontractors working on prevailing wage projects.

Effective July 1, 2011, any contractor or subcontractor working on a local governmental unit or state agency's public works project that equals or exceeds current prevailing wage project thresholds must do all of the following:

- Receive and review the project's prevailing wage rate determination (i.e., white sheet).
- Tell subcontractors the project is subject to state prevailing wage law and include the prevailing wage rate determination in the construction contract, or if there is no written contract, provide a copy of the project determination to each subcontractor.
- Hire subcontractors who do *not* appear on the "Consolidated List of Debarred Contractors."
- Notify subcontractors that if DWD finds that a contractor or subcontractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.

- Apply to DWD for subjourney wage rates prior to employing these individuals on the project.
- Receive and retain a completed Affidavit of Compliance from each subcontractor brought on to the project before providing final payment to those subcontractors.
- Submit a completed Affidavit of Compliance to the contractor who brought the subcontractor on to the project before receiving final payment for the project.
- Maintain payroll records for 3 years that comply with §§66.0903(10)(a) or 103.49(5)(a), Stats. and DWD 274.06.
- Respond to requests from DWD or the project owner to provide payroll records and/or respond to prevailing wage complaints filed by employees or third parties.

For more information, visit the prevailing wage website: [http://dwd.wisconsin.gov/er/prevailing\\_wage\\_rate/default.htm](http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm). For further assistance, call the Equal Rights Division at 608-266-6861 and ask for prevailing wage.

## SUMMARY OF PREVAILING WAGE LAW CHANGES EFFECTIVE JULY 1, 2011

(This document updated 07/27/11)

For further updates on this topic, refer to the prevailing wage website at:  
[http://dwd.wisconsin.gov/er/prevailing\\_wage\\_rate/default.htm](http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm)

The recently approved State budget bill (2011 Wisconsin Act 40) includes major changes to prevailing wage laws (§§66.0903, 66.0904, 103.49 & 103.50, Wis. Stats.) effective JULY 1, 2011. Significant changes are described below.

Topic	Who's affected?	Brief description of requirement under §66.0903 or §103.49
Thresholds	All public entities & Contractors	The \$25,000 threshold for public works projects has been changed to single-trade and multiple-trade project thresholds as noted below. The new thresholds apply to prevailing wage projects whose prime contract is awarded after June 30, 2011.
Non-applicability: Threshold for Single-Trade Projects	All public entities & Contractors	Any single-trade project of public works with an estimated cost of completion of less than \$48,000 does not require a prevailing wage rate determination. "Single-trade project of public works" means a project of public works in which a single trade accounts for 85 percent or more of the total labor cost of the project.
Non-applicability: Threshold for Multiple-Trade Projects	All public entities except cities, towns & villages as noted below & Contractors	Any multiple-trade project of public works with an estimated cost of completion of less than \$100,000 does not require a prevailing wage rate determination. "Multiple-trade project of public works" means a project of public works in which no single trade accounts for 85 percent or more of the total labor cost of the project.
Non-applicability: Threshold for Multiple-Trade Projects	Cities or villages with a population less than 2500 & Towns & Contractors	A multiple trade project of public works erected, constructed, repaired, remodeled, or demolished by a private contractor for a city or village with a population less than 2500, or a town with an estimated cost of completion of less than \$234,000 does not require a prevailing wage rate determination. "Multiple-trade project of public works" means a project of public works in which no single trade accounts for 85 percent or more of the total labor cost of the project.
Non-applicability: Minor service & maintenance work	Towns & Contractors	The following TOWN projects only do not require a prevailing wage rate determination: <ul style="list-style-type: none"> <li>• A project not funded under §86.31, Stats. (TRIP projects) that is limited to minor crack filling, chip or slurry sealing or other minor pavement patching, not including overlays.</li> <li>• The depositing of gravel on an existing gravel road applied solely to maintain the road;</li> <li>• Road shoulder maintenance;</li> <li>• Cleaning drainage or sewer ditches or structures;</li> <li>• Any other limited, minor work on public facilities or equipment that is routinely performed to prevent breakdown or deterioration.</li> </ul>
Non-applicability: Work which a contractor or individual donates to a public entity	All public entities	Prevailing wage laws §§66.0903 & 103.49, Stats., do not apply to work performed on a project of public works for which the local governmental unit or the state or the state agency contracting for the project is not required to compensate any contractor, subcontractor, contractor's or subcontractor's agent, or individual for performing the work.

Topic	Who's affected?	Brief description of requirement under §66.0903 or §103.49
Non-applicability: Residential	All public entities	A prevailing wage rate determination is not required for the erection, construction, repair, remodeling, or demolition of a residential property containing 2 dwelling units or less.
Non-applicability: Residential subdivision infrastructure	All public entities	A prevailing wage rate determination is not required for a road, street, bridge, sanitary sewer, or water main project that is a part of a development in which at least 90 percent of the lots contain or will contain 2 dwelling units or less, as determined by the local governmental unit at the time of approval of the development, and that, on completion, is acquired by, or dedicated to, a local governmental unit (including under §236.13(2), Stats.), or the state, for ownership or maintenance by the local governmental unit or the state.
Non-applicability: Certain nursing homes	All public entities	Prevailing wage law §66.0903, Stats., does not apply to a project of public works involving the erection, construction, repair, remodeling, or demolition of a nursing home in a county having a population of less than 50,000 when the project commences no later than July 1, 2012.
Electronic certified payroll record	Contractors	The requirement that every contractor on a prevailing wage project submit to DWD monthly a certified record of employees who worked on the project and that DWD post these certified records on its Internet website is discontinued effective July 1, 2011. However, contractors who worked on prevailing wage projects during the period January 1, 2010 through June 30, 2011, must comply with the repealed law for work completed on projects during that period of time.
Payroll record inspection request by any person	Contractors & Complainants	Any person may request DWD to inspect the payroll records of any contractor working on a prevailing wage project. On receipt of such a request, the contractor must submit to DWD a certified record of its payroll records, other than personally identifiable information relating to an employee of the contractor, for no longer than a 4-week period. DWD may request records from a contractor under this provision no more than once per calendar quarter for each project of public works on which the contractor is performing work. The department may not charge a requester a fee for obtaining that information. DWD must make these certified records available for public inspection.
Complaints	Complainants	There are no longer investigation fees.
Statewide uniformity	Local governmental units	A local governmental unit may not enact & administer a prevailing wage ordinance/provision for public works or publicly funded private construction projects. Any extant laws to that effect are void.

Topic	Who's affected?	Brief description of requirement under §66.0903, §103.49 or §103.50
Covered employees	Truck drivers & Other workers & Contractors	<p>A laborer, worker, mechanic, or truck driver who is employed to process, manufacture, pick up, or deliver materials or products from a commercial establishment that has a fixed place of business from which the establishment supplies processed or manufactured materials or products or from a facility that is not dedicated exclusively, or nearly so, to a project of public works is NOT entitled to receive the prevailing wage rate UNLESS any of the following applies:</p> <ol style="list-style-type: none"> <li>1) the laborer, worker, mechanic, or truck driver is employed to go to the source of mineral aggregate such as sand, gravel, or stone and deliver that mineral aggregate to the site of a project of public works by depositing the material directly in final place, from the transporting vehicle or through spreaders from the transporting vehicle.</li> <li>2) the laborer, worker, mechanic, or truck driver is employed to go to the site of a project of public works, pick up excavated material or spoil from the site of the project, and transport that excavated material or spoil away from the site of the project.</li> </ol>
Annual Prevailing Wage Survey	All public entities	When establishing yearly prevailing wage rates, DWD may not use data from any construction work that is performed by a local governmental unit or a state agency.
Prevailing Wage Rates	DOT & Contractors & Employees	For state highway prevailing wage rates, DWD is required to include wage rates for work performed on Sundays, holidays and shift differentials based on the time of day or night when work is performed.
<p>The 2009-2011 State budget bill (2009 Wisconsin Act 28) created a new prevailing wage law (§66.0904, Wis. Stats.) for PUBLICLY FUNDED PRIVATE CONSTRUCTION PROJECTS effective January 1, 2010. The current 2011-2013 State budget bill (2011 Wisconsin Act 32) REPEALS this law. So the publicly funded private construction projects law only applies to projects that awarded the prime contract during the period January 1, 2010 through June 30, 2011.</p>		



**SINGLE & MULTIPLE TRADE PROJECT THRESHOLDS  
FOR §§66.0903 & 103.49, Wis. Stats.  
Effective July 1, 2011**

The \$25,000 threshold for public works projects has been changed to single-trade and multiple-trade project thresholds as described below. Projects of public works with total estimated costs of completion that equal or exceed these thresholds require a prevailing wage rate determination.

**SINGLE-TRADE THRESHOLD**

A “single-trade project of public works” means a project in which a single trade accounts for 85 percent or more of the total labor cost of the project.

The single trade threshold is \$48,000.

**MULTIPLE-TRADE THRESHOLDS**

A “multiple-trade project of public works” means a project in which no single trade accounts for 85 percent or more of the total labor cost of the project.

(a) The multiple-trade threshold is \$100,000, unless a municipality falls under the description in (b).

(b) The multiple-trade threshold of \$234,000 applies to public works projects erected, constructed, repaired, remodeled, or demolished by a private contractor for:

- a city or village with a population less than 2500, or
- a town

**APPLYING THE NEW THRESHOLDS**

The department will apply the new single-trade & multiple-trade prevailing wage thresholds to projects of public works for which the prime contract is awarded on or after July 1, 2011.

**SECTION 01 11 00  
SUMMARY OF WORK**

**PART 1 – GENERAL**

**1.01 SUMMARY**

- A. General work included in this section:
  - 1. Furnish all labor, materials, and equipment required in accordance with provisions of the Contract Documents.
  - 2. Coordinate work with all other trades.

**1.02 WORK COVERED BY CONTRACT**

- A. The Work includes, but is not limited to the furnishing of labor, materials and equipment and the Construction of the following:
  - 1. Construction of a new stream channel;
  - 2. Placement and compaction of fill in the existing stream channel;
  - 3. Excavation of ponds and wetlands within the floodplain adjacent to the stream;
  - 4. Grading;
  - 5. Coordination with Ozaukee County Highway Department to ensure efficient installation of a stream crossing within the project area.
  - 6. Vegetation restoration;
  - 7. Erosion control.

**1.03 CONTRACTOR'S USE OF PREMISES**

- A. Contractor shall limit his use of the premises for Work and storage and allow for:
  - 1. Work by other contractors/subcontractors
- B. Coordinate use of premises under direction of Owner's Representative.
- C. Contractor assumes full responsibility for the protection and safekeeping of products and materials Contractor has stored on site.
- D. Contractor shall move any stored products, or materials, under Contractor's responsibility, which interfere with operations of Owner's Representative or separate contractor/subcontractor.
- E. Contractor shall obtain and pay for the use of any additional storage or work areas if needed for Contractor operations.
- F. Contractor shall confine all materials storage, equipment storage and employee and subcontractor parking to areas within the project site.
- G. Contractor shall restore any areas used for materials storage, equipment storage, or employee and subcontractor parking to their original condition or better, unless specified otherwise.
- H. Contractor shall provide sanitary facilities within the designated staging area.

## Ulao Creek Habitat Enhancement

### 1.04 PROJECT SIGNS

- A. Contractor shall furnish and install Contractor's standard sign approved by Owner.
  - 1. Install in location approved by Owner.
- B. Prior to beginning construction activities in the downstream reach of the project (stream Station 00+47 – 12+00), the Contractor shall furnish and install traffic control signs near the access location as approved by the Owner's Representative.

### 1.05 WORK SEQUENCE

- A. Contractor shall sequence operations to allow for efficient progress of work.
- B. Construction must be substantially complete on or before October 31, 2013.
- C. Contractor shall conduct all on site work during regular working hours which are defined as weekdays, 7:00 a.m. to 7:00 p.m., holidays excluded. Contractor may apply to work outside of regular working hours upon written approval from the Owner.

### 1.06 LINES AND GRADES

- A. The Contractor shall construct the new stream channel, wetlands and ponds to elevations indicated by the project drawings or as approved by the Engineer.
- B. Engineer will establish or designate control points for the work as follows:
  - 1. The horizontal and vertical control designated by Engineer will consist of at least two monuments with horizontal and vertical coordinates.
  - 2. Contractor will provide without charge, such competent person, tools, stakes, and other materials as Engineer may require in establishing or designating control points; in checking layout, survey, and measurement of work performed by the Contractor.
- C. The Contractor shall provide all additional survey, layout, and measurement work required to complete the project.
  - 1. Work will be performed by a qualified professional engineer or registered land surveyor acceptable to the Engineer.
  - 2. Contractor will
    - a. Locate and protect control points prior to starting site work, and preserve all permanent reference points during construction.
    - b. Make no changes or relocations without prior written notice to Engineer.
    - c. Report to Engineer when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
    - d. Require surveyor to replace Project control points and all Federal, State, City, County and private land monuments that may be lost or destroyed.
      - 1) Establish replacements based on original survey control.
      - 2) Comply with local and State requirements for monument replacement and restoration.
  - 3. Contractor shall establish lines and levels, locate and lay out by instrumentation and similar appropriate means all site improvements.
  - 4. Contractor shall from time to time, verify layouts by the same methods.
  - 5. Contractor shall maintain a complete, accurate log of all control and survey work as it progresses.

Ulao Creek Habitat Enhancement

- 6. On request of the Engineer, Contractor shall submit documentation to verify accuracy of field engineering work.

1.07 REGULATORY REQUIREMENTS

- A. Contractor shall comply with all Federal, State, and local laws, regulations, codes, and ordinance applicable to the Work.
- B. References in the Contract Documents to local codes shall mean Village and/or Town of Grafton, Wisconsin and/or Ozaukee County codes.
- C. Other standards and codes that apply to the Work are designated in the Specifications.

1.08 ACCESS BY GOVERNMENT OFFICIALS

- A. Authorized representatives of government agencies shall at all times have access to the Work where it is in preparation or progress. Contractor shall provide proper facilities for access and inspection.

1.09 EASEMENTS AND RIGHTS-OF-WAY

- A. Confine construction operations to the immediate vicinity of the location indicated on Drawings and use due care in placing construction tools, equipment, excavated materials, materials and supplies, so as to cause the least possible damage to property and interference with traffic.
- B. Work in Private Right-of-Way
  - 1. Whenever the work is to be performed through property for which the Owner has obtained a license, permit, or easement, the Contractor shall abide fully with the terms of the license, permit, or easement, a copy of which is on file with the Owner.
  - 2. Prior to final payment, the Contractor shall send a notice to all easement grantors by certified mail, return receipt requested, a copy of which shall be filed with the Owner. Said notice shall be similar to the following:

The undersigned Contractor has completed the restoration of the construction site on which you have granted an easement for installation of certain improvements. If said restoration is not completed to your satisfaction, please contact the Owner, Ozaukee County Planning and Parks Department, 121 West Main Street, P.O. Box 994, Port Washington, WI 53074 in writing, and arrangements will be made immediately to view the site and restore the site in conformance with our contract obligations

If the Owner does not hear from you in writing within 10 days of the above date, site restoration of your property will be deemed completed and approved by you

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

Owner shall furnish contractor with names and addresses of easement grantors.

## Ulao Creek Habitat Enhancement

### 1.010 PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- A. Protect, shore, brace, support, and maintain sheetpile, formwork, pipes, drains, and other materials that are part of or otherwise affected by construction operations.
- B. Restore to their original condition, pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with sod, and shrubs, in yards and parking areas, whether within or outside the work area or easement. Remove all gravel from staging areas. Replace topsoil and hydroseed to restore grassy areas.
- C. Use new materials for replacements of all items.
- D. Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, and other public or private property, regardless of location or character, that may be caused by transporting equipment, materials, or workers to or from the Work or any part or site thereof, whether by Contractor or Contractor's subcontractors or suppliers.
- E. Make satisfactory and acceptable arrangements with Owner of, or the agency or authority having jurisdiction over, any damaged property concerning its repair, replacement, or payment of costs incurred in connection with the damage.
- F. Keep fire hydrants and water control valves free from obstruction and available for use at all times.
- G. In areas where the Contractor's operations are adjacent to or near a utility and such operations may cause damage which might result in considerable expense, loss, and inconvenience, the operation shall be suspended until all arrangements necessary for the protection thereof have been made by the Contractor.
- H. Notify all utility offices that may be affected by the construction at least working days in advance of construction activities. Before exposing, any utility having jurisdiction shall grant permission and may oversee the operation. Should service of any utility be interrupted due to the Contractor's operation, the proper authority shall be notified immediately. Contractor shall cooperate with the said authority in restoring the service as promptly as possible and shall bear any costs incurred.

### 1.10 MAINTENANCE AND TRAFFIC

- I. Contractor shall maintain entry and access roads.
- J. Contractor shall conduct Work to interfere as little as possible with public travel, whether vehicular or pedestrian.
  - 1. Whenever it is necessary to cross, close, or obstruct roads, driveways, and walks, whether public or private, provide and maintain suitable and safe bridges, detours, or other temporary measures for accommodation of public and private travel.
  - 2. Contractor may not block access to any residence or business.
  - 3. Contractor shall comply with all rules and regulations of the City, County or State authorities regarding the closures of public streets or highways to use of public traffic. No public road shall be closed to the public except by express permission of the public agency responsible for the road.

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4. No street or portion thereof may be closed without first notifying and receiving approval from the Fire Department and Police Department. Conduct operations to minimize interference with emergency vehicle access.

PART 2 – PRODUCTS

NOT APPLICABLE

PART 3 – EXECUTION

NOT APPLICABLE

PART 4 – MEASUREMENT AND PAYMENT

NOT APPLICABLE

- END OF SECTION -

**SECTION 01 31 19  
PROJECT MEETINGS**

PART 1 - GENERAL

1.01. SUMMARY

- A. Work included: This section includes all project meetings required during construction.
- B. Related Sections and Divisions
  - 1. Applicable provisions of the General Conditions shall govern the work in this section.
  - 2. Section 01 32 19 – Submittals.
  - 3. All related equipment specifications.

1.02 MEETINGS

- A. Project meetings will be held throughout the project at intervals agreed to by the Engineer, Owner and Contractor.
- B. Contractor's project manager, job superintendent, subcontractors and necessary equipment suppliers shall attend the project meetings, as appropriate. Owner's Representative shall have the authority to bind the Contractor to decisions at the meeting.
- C. The following meetings, at a minimum, shall be attended by the Contractor representatives, Engineer, and Owner. shall be invited to the Preconstruction Meeting, Project Close-Out Meeting and any other meeting at which bridge precautions, status, or inspections will be discussed.
  - 1. Preconstruction Meeting
  - 2. Monthly Progress Meeting
  - 3. Project Close-Out Meeting
- D. Notice of meetings shall be sent to those required to attend and copies to interested parties such as suppliers and governmental agencies.
- E. The Owner's Representative shall be responsible for sending meeting notices, meeting agenda and meeting minutes.
- F. The Contractor shall submit typed reports detailing the project schedule, schedule compliance and future construction plans affecting the project schedule at the project meetings. The Contractor shall keep the project schedule updated throughout the construction period.

PART 2 – PRODUCTS

NOT APPLICABLE

PART 3 – EXECUTION

NOT APPLICABLE

PART 4 – MEASUREMENT AND PAYMENT

PROJECT MEETINGS

06/05/2013

01 31 19-1

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- A. Project Meetings shall be incidental to Mobilization. No separate payment shall be made for this item.

- END OF SECTION -



**SECTION 01 32 19**  
**SUBMITTALS**

PART 1 - GENERAL

1.01. SUMMARY

- A. Work included: This section includes administrative and procedural requirements for submittals required for performance of the work, including the following:
  - 1. Contractor's progress schedule.
  - 2. Submittal schedule.
  - 3. Shop drawings.
  - 4. Submittal transmittal data sheet.
  - 5. Product data.
  - 6. Samples.
  - 7. Quality assurance submittals.
- B. Related Sections and Divisions
  - 1. Applicable provisions of the General Conditions shall govern the work in this section.
  - 2. Requirements for submittals are described in other sections of the specifications.

1.02 IDENTIFICATION OF SUBMITTALS

- A. The Contractor shall mark each submittal and re-submittal by providing the information described in 1.06, Submittal Transmittal Data Sheet.
- B. The Contractor shall sign each submittal indicating that submittal was reviewed by the Contractor and meets the requirements of the plans and specifications. Unsigned submittals will not be reviewed by the Engineer and returned.

1.03 CONSTRUCTION SCHEDULE

- A. The Contractor shall prepare and submit a detailed progress schedule in accordance with the General Conditions. The construction schedule shall be of sufficient detail to assure adequate planning and execution of the work and provide an appropriate basis for monitoring and evaluation of the progress of work.
- B. The progress schedule shall indicate the sequence of all work including the start date, completion date and duration.
- C. The progress schedule shall incorporate a schedule for submittal of shop drawings and product data.
- D. If, at any time during the Project, Contractor fails to complete an activity by its latest scheduled completion date, Contractor shall, within 3 working days notification by the Engineer, submit to Engineer written statement as to how and when work force will be reorganized to return Contract to current schedule.
- E. If it becomes apparent from progress evaluation and updated schedule data that milestone completion or Construction completion dates will not be met, Contractor shall take some or all of following actions:

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1. Increase construction staffing in such quantities and crafts as shall substantially eliminate backlog of work.
2. Increase number of working hours per shift, shifts per work day, work days per week, or amount of construction equipment, or combination thereof sufficient to substantially eliminate backlog of work.
3. Reschedule work items to achieve concurrency of accomplishments.

F. Addition of equipment or construction forces, increasing working hours or other method, manner or procedures to return to current Construction Progress Schedule will not be considered justification for amending Contract Documents or treated as acceleration.

G. The progress schedule shall be updated throughout the construction period. The Contractor shall revise the schedule monthly and submit with the monthly payment request. The progress schedule will be reviewed at the monthly construction progress meetings.

### 1.04 CONSTRUCTION OPERATIONS PLAN

A. At the pre-construction conference, the Contractor shall submit to the Owner's Representative a Construction Operations Plan. The plan will detail the Contractor's approach to the project, including the temporary access road design, construction sequencing plan, erosion and pollution control plan, and other details related to the Contractor's anticipated means and methods. The Construction Operations Plan shall be reviewed by the Owner's Representative, and approved if acceptable. The Contractor shall not mobilize equipment to the site before the Construction Operations Plan is approved.

### 1.05 SUBMITTAL SCHEDULE

A. Contractor shall make all submittals far enough in advance of scheduled installation dates to ensure adequate time for review and approval by the Engineer. This schedule shall also take into account possible revisions and resubmittals.

B. To avoid the need to delay installation as a result of the time required to process submittals, Contractor shall allow sufficient time for submittal review, including time for resubmittals.

1. Allow 4 weeks for submittals.
2. Allow 2 weeks for re-submittals.
3. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the work to permit processing.

### 1.06 SHOP DRAWINGS

A. All shop drawings shall be addressed to the Engineer.

B. Shop drawings shall be submitted under an industrial submittal transmittal data sheet as described in 1.6.

C. Shop drawings shall include technical data including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and other pertinent data. Shop drawings shall be submitted for all manufactured or fabricated items.

D. Shop drawings shall be checked, approved and stamped by the Contractor in accordance with the General Conditions before submitting to the Engineer for review and approval.

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- E. Submit one correctable, translucent, reproducible print and one blue or black-line print for the Engineer's review. The Engineer will indicate and will return the reproducible print. Keep one print with the Record Drawings.
- F. Do not use shop drawings without an appropriate final stamp indicating action taken.
- G. Except for submittals for the record or information, where action and return is required, the Engineer shall review each submittal, mark to indicate action taken, and return promptly. The Engineer will sign each submittal. The Engineer will mark the submittal form appropriately to indicate the action taken, as follows:
  - 1. "No Exceptions Taken": The work covered by the submittal may proceed provided it complies with requirements of the Contract Documents.
  - 2. "Make Corrections Noted": The work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents.
  - 3. "Revise and Resubmit": Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked "Revise and Resubmit" at the Project Site or elsewhere where work is in progress.
  - 4. "Rejected": Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked "Rejected" at the Project Site or elsewhere where work is in progress.
  - 5. "Submit Specified Item": Item submitted does not meet specifications. Submit exact item specified.
- H. Shop drawings that require resubmission shall be revised as follows:
  - 1. Revise initial drawings and data and resubmit as required.
  - 2. Provide an itemized list of all changes other than those requested by the Engineer in the cover letter.

### 1.07 SUBMITTAL TRANSMITTAL DATA SHEET

- A. The Contractor shall submit a submittal transmittal data sheet for each shop drawing. Refer to the form at the end of this section.
- B. Each shop drawing shall be submitted under its own submittal transmittal data sheet. If more than one shop drawing is submitted on one sheet, the submittal will be rejected and returned.
- C. The submittal transmittal data sheet must be filled out correctly or the submittal will be returned. The following information **MUST** be included:
  - 1. Date.
  - 2. Project name.
  - 3. Contractor.
  - 4. Submittal Number.
  - 5. Previous Submittal Number, if applicable.
  - 6. Specification Section Number.
  - 7. Submittal for.
  - 8. Information Block.
  - 9. Name and Signature of Contractor.
- D. The submittal transmittal data sheet will be provided by e-mail, if desired by the Contractor.

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### 1.08 PRODUCT DATA

- A. Contractor shall provide product data as required to supplement shop drawings.
- B. Submittal Transmittal Data Sheet shall be provided for each product data submittal.
- C. Product data shall include illustrations, schedules, installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
- D. Contractor shall mark each copy of the product data to identify products, models, options, and other pertinent information.
- E. Submit one digital copy of each required submittal.
- F. Contractor shall include all Material Safety Data Sheets (MSDS) required by OSHA.

### 1.09 SAMPLES

- A. Contractor shall provide samples where noted or specified.
- B. Submittal Transmittal Data Sheets shall be provided for each sample submittal.
- C. Samples are physical examples which illustrate the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
- D. Samples shall have attached labels for identification bearing the following information:
  - 1. Project name.
  - 2. Description of sample.
  - 3. Contractor name.
  - 4. Standards met by the sample.
  - 5. Submit three samples for review.
- E. Approval of the samples shall be obtained before proceeding with the work relating to the sample.
- F. Samples not incorporated into the work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site.

### 1.10 QUALITY ASSURANCE SUBMITTALS

- G. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other sections of the specifications.
- H. Submittal Transmittal Data Sheets shall be provided for each quality assurance submittal.
- I. Inspection and Test Reports shall be submitted as required by other sections of the specifications.

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NOT APPLICABLE

PART 3 – EXECUTION

NOT APPLICABLE

PART 4 – MEASUREMENT AND PAYMENT

- A. Submittals shall be incidental to the specific work item related to the submittal. No separate payment shall be made for this item.

- END OF SECTION -

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SUBMITTAL TRANSMITTAL DATA SHEET  
(Attach to each Submittal)

DATE: \_\_\_\_\_ PROJECT NAME: ULAO CREEK HABITAT ENHANCEMENT

CONTRACTOR: \_\_\_\_\_ CONTRACT NO.: \_\_\_\_\_

SUBMITTAL NO. \_\_\_\_\_ New Submittal \_\_\_\_\_ Resubmittal \_\_\_\_\_ Previous Submittal No. \_\_\_\_\_

SPECIFICATION SECTION NO. \_\_\_\_\_

(Cover only one section with each transmittal)

SUBMITTAL FOR: \_\_\_\_\_ Shop Drawings \_\_\_\_\_ Product Data \_\_\_\_\_ Samples  
\_\_\_\_\_ O&M Information \_\_\_\_\_ Proposed Substitution \_\_\_\_\_ Other

Specifications Section	Number of Copies	Description	Catalog Drawing or Brochure No.

I certify that the above submitted item has been reviewed in detail and is correct and in strict conformance with the contract drawings and specifications, except as otherwise stated, and is stamped accordingly.

\_\_\_\_\_  
Signature of Contractor

**SUBMITTAL REVIEW (FOR ENGINEER'S USE ONLY)**

TO: \_\_\_\_\_ TARGET DATE: \_\_\_\_\_

REVIEWER INITIALS AND DATE: \_\_\_\_\_

COMMENTS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DISPOSITION:

1. No Exceptions Taken
2. Make Corrections Noted
3. Revise and Resubmit
4. Rejected
5. Submit Specified Item

Returned By: _____
Date: _____

**SECTION 01 41 00  
REGULATORY REQUIREMENTS**

PART 1 - GENERAL

1.01. SUMMARY

- A. Work Included: This section includes regulatory requirements in regard to the project. Regulatory agency's requirements supersede this section.
- B. Related Sections and Divisions: Applicable provisions of the General Conditions shall govern the work in this section.

1.02 OSHA REQUIREMENTS

- A. All work including site safety, equipment, materials, and fabricated items provided by the Contractor shall comply with all OSHA requirements.

1.03 PERMITS

- A. The Contractor shall ensure that all required permits required for this project have been obtained. The Owner's Representative has submitted applications for the following permits:
  - 1. US Army Corps of Engineers 404 Dredge and Fill Permit
  - 2. Wisconsin DNR Chapter 30 Waterways Permit
  - 3. Wisconsin DNR Construction Stormwater Permit
- B. Contractor shall comply with all terms and conditions of each permit. Where the permit requirements of any permit are more restrictive than the plans and specifications, the permit requirements shall govern.
- C. Permit Compliance: The contractor is responsible for having a copy of all final permits at the work site. All permit acquisition and compliance with their terms are the responsibility of the contractor for the duration of the construction work. Failure to understand or correctly implement permit requirements may subject the contractor to state and/or federal fines.
- D. Contractor shall provide a billboard for displaying project permits.

1.04 UNDERGROUND UTILITIES

- A. Under the provisions of Wisconsin Statutes, Section 182.0175, all contractors, subcontractors, and any firm or individual intending to do work on this contract shall contact all utility firms in the affected area of construction a minimum of three (3) working days prior to beginning construction so that affected utilities will be located and marked.

1.05 PROPERTY MONUMENTS

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- A. It shall be the responsibility of the Contractor to protect iron pipe and survey monuments from movement where possible. The cost of replacement of any monuments moved or destroyed by the Contractor shall be assessed to him.

1.06 WAGE RATES

- A. Not less than the prevailing wage rates shall be paid to the workers employed on this project.
- B. Contractor shall comply with the State or Federal wage rates governing this project.
- C. The wage rates for this project are provided in the Contract Documents.

PART 2 – PRODUCTS

NOT APPLICABLE

PART 3 – EXECUTION

NOT APPLICABLE

PART 4 – MEASUREMENT AND PAYMENT

- A. Compliance with Regulatory Requirements shall be incidental to other items of work. No separate payment shall be made for this item.

- END OF SECTION -



**SECTION 01 55 13  
TEMPORARY ACCESS ROADS**

**PART 1 - GENERAL**

**1.01 SUMMARY**

**A. Description:**

1. Temporary Access Roads shall consist of providing construction operations to plan, install, maintain and remove temporary access roads and other provisions as necessary to sequence and complete the work and to comply with stormwater management requirements. The temporary access roads shall be sufficient to withstand rates of loading required to complete the work for the duration of the project.

**1.02 SUBMITTALS**

- A. The Contractor shall include description of planned temporary access road construction in the submittal of the Construction Operations Plan described in Section 01 32 19 Submittals.

**PART 2 - PRODUCTS**

- 2.01 The Contractor shall determine materials to be utilized to develop temporary access to the site. Materials utilized shall be free of potential pollutants.

**PART 3 - EXECUTION**

**3.01 Temporary Access Road**

- A. The Contractor is advised that site soils consist of wetland soils of varying composition and moisture content.
- B. Contractor shall design, provide, install, maintain and remove temporary access roads as required to complete the work and comply with all stormwater management requirements.
- C. Proposed and alternate temporary access road alignments are shown on the Plans. The Contractor may propose alternate alignments, if consistent with landowner access agreements, for review and approval by the Owner's Representative.
- D. Temporary access roads and other temporary access measures shall be removed in full following the completion of the Work. Portions of the temporary access road alignment not coinciding with areas previously stabilized and restored shall be scarified and seeded in accordance with the revegetation plan. Any damage to streets, curbs, parking lots, driveways, or other structures resulting from temporary access to the project site shall be repaired.

**PART 4 - MEASUREMENT AND PAYMENT**

- 4.01 Payment for Temporary Access Roads will be at the contract lump sum price as listed on the Bid form, which shall be compensation in full for all labor, materials, equipment and other expenses required to complete the work for this Item. The item, Temporary Access Roads, does

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not include Gravel Construction Entrances, which is a separate item described in Section 31 25 10 Temporary Erosion and Sediment Control.

END OF SECTION

**SECTION 01 55 26  
TRAFFIC CONTROL**

PART 1 - GENERAL

1.01 SUMMARY

A. Description:

1. Traffic Control shall consist of the following work:

- a. Install, maintain and remove signs, lights, flares, barricades and other traffic safety and directive devices as needed for the convenience, safety and direction of public vehicular and pedestrian traffic.
- b. Furnish competent flaggers as needed for the convenience, safety and direction of public vehicular and pedestrian traffic.

- B. Incorporation of standard reference - Traffic Control shall be performed in accordance with the provisions of WisDOT 2012 Standard Specifications Section 643, Traffic Control, and as described below.

PART 2 - PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

3.01 The Contractor shall employ extraordinary measures to ensure safety of the public and unrestricted vehicle and/or pedestrian ingress and egress to the businesses and residences near the project site. This includes actions such as the following;

- A. Maintenance of site closures during construction and minimization of dust and noise in areas adjacent to the project site.
- B. Provision of appropriate temporary signage is required along the approach to and at all trail and roadway closure points, construction ingress and egress locations, and all other trail access points to the project area. Contractor, Owner and Owner's Representative will confirm signage requirements at the pre-construction meeting.
- C. Provision of temporary construction fencing around the grading and stream restoration work occurring within 100ft of road, parking, or other facilities.
- D. Provision of flaggers during periods of frequent ingress and egress to the site, including during hauling operations.
- E. Owner reserves the right to require the Contractor to supply at no additional cost supplemental signage and flaggers if it is determined that the installed measures do not satisfactorily ensure public safety and access to residences and businesses.

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PART 4 – MEASUREMENT AND PAYMENT

- A. Traffic Control shall be incidental to Mobilization. No separate payment shall be made for this item.

END OF SECTION

**SECTION 01 57 14  
EROSION CONTROL**

**PART 1 - GENERAL**

**1.01. SUMMARY**

- A. Work Included: This section includes construction and maintenance of temporary erosion and sediment control measures to be performed prior to and during construction.
- B. Incorporation of standard reference:
  - 1. Erosion Control shall be performed in accordance with the provisions of WisDOT 2012 Standard Specifications Section 628, Wisconsin DNR Conservation Practice Standards, Latest Edition, and as described below.
- C. Related Sections and Divisions:
  - 1. 01 55 13 Temporary Access Roads
  - 2. 31 23 00 Excavation and Fill
  - 3. 31 25 10 Temporary Erosion and Sediment Control
  - 4. 01 32 19, Submittals.
- D. Unless shown otherwise, the Contractor shall be responsible for selecting method of erosion and sediment control.

**1.02 SUBMITTALS**

- A. Submit the following in accordance with Section 01 32 19, Submittals:
  - 1. Material samples upon request of Owner's Representative.
  - 2. Manufacturer's certification that materials delivered comply with requirements of these specifications.

**1.03 OSHA REQUIREMENTS**

- A. All work including site safety, equipment, materials, and fabricated items provided by the Contractor shall comply with all OSHA requirements.

**PART 2 – PRODUCTS**

- 2.01 Products used for implementing the Erosion Control and Storm Water Management Plan and for conformance to WDNR Conservation Practice Standards, Latest Edition shall conform to the WisDOT Product Acceptability List, Latest Edition.

**PART 3 – EXECUTION**

- 3.01 All installations shall conform to requirements of the WDNR Conservation Practice Standards, Latest Edition.

## Ulao Creek Habitat Enhancement

- 3.02 The contractor shall maintain a written record of all implemented erosion control practices as required by the WDNR. A suggested format is WDNR Form 3400-187, latest revision. The written record shall be maintained throughout final completion. Copies shall be forwarded to the Engineer or Owner's Representative upon request and with each pay request.
- 3.03 Inspections of implemented erosion and sediment control best management practices must be performed weekly and within 24 hours after a precipitation event 0.5 inches or greater which results in runoff.
- 3.04 Installed erosion control measures shall be removed from the site after 70% revegetation has been achieved, and all remaining disturbed areas shall be seeded, fertilized, and mulched.

### PART 4 – PAYMENT

- 4.01 Payment for Erosion control shall be paid for at the contract price bid in accordance with specific erosion control items on the bid form and as described in Section 31 25 10, Temporary Erosion and Sediment Control. Other measures taken to minimize erosion and sediment delivery to the stream shall be incidental to Mobilization.

- END OF SECTION -

**SECTION 01 71 13  
MOBILIZATION**

PART 1 - GENERAL

1.01 SUMMARY

A. Description:

1. Mobilization shall consist of mobilization of materials and equipment to the site; construction management; preparation of any necessary permits, submittals, notifications and other documentation; demobilization of all materials and equipment from the site; final site clean up; and any other items required to complete the construction not otherwise measured and paid for.

B. Incorporation of standard reference:

1. Mobilization shall be performed in accordance with the provisions of WisDOT 2012 Standard Specifications Section 619.

PART 2 - PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

- 3.01 Mobilization shall be performed in accordance with all state and local laws, regulations, and permit conditions.

PART 4 - MEASUREMENT AND PAYMENT

- 4.01 Payment for Mobilization will be at the contract lump sum price as listed on the Bid Form, which shall be compensation in full for all labor, materials, equipment and other expenses required to complete the work for this Item.

END OF SECTION

**SECTION 01 71 23**  
**FIELD ENGINEERING**

PART 1 - GENERAL

1.01. SUMMARY

- A. Work under this section shall include:
  - 1. Supplemental Staking.
  - 2. Verifying construction to lines and grades shown on Drawings.
  - 3. Records and markers.

1.02 STAKING PROVIDED BY OWNER'S REPRESENTATIVE

- A. Staking for stream and wetland construction shall include:
  - 1. Original staking of line and grade location of stream centerline.
  - 2. Original staking of line and grade location of perimeter of wetlands and ponds.
  - 3. Establish benchmarks on site.

1.03 STAKING TO BE PROVIDED BY CONTRACTOR

- A. Any staking work required to complete the work and not specifically provided by the Owner's Representative.
- B. Contractor shall establish grade from stakes or benchmarks established by the Owner's Representative.

1.04 CONSTRUCTION STAKING

- A. The Contractor shall provide the Owner's Representative an advance notification of three working days when requesting construction staking.
- B. All construction shall be completed by the Contractor according to the alignments, grades, and baselines as established and set by the Owner's Representative.
- C. The Contractor shall be responsible for the cost of restaking baselines, line & grade, structures & benchmarks unnecessarily destroyed or altered as a result of his negligence during the construction period.

1.05 PROFILE AND TOPOGRAPHY

- A. Contours or profiles of the ground are shown on the drawings. These profiles and contours are based on LiDAR data and ground survey data within the project data. Data upon which the contours are based are available for review. Between survey data points, ground surface is interpolated and therefore, an approximation. If the Contractor has reason to believe the



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approximation is insufficiently accurate at any location, the Contractor should discuss with the Engineer and Owner's Representative prior to construction in that area.

1.06 CONTRACTORS RECORDS AND MARKERS

- A. In addition to submittals and records required in other parts of the Contract Documents, Contractor shall record the following in such a manner that the Owner can locate same in the future by reference to recorded measurements:
  - 1. Any deviations of underground covered work from contract drawings.

PART 2 – PRODUCTS

NOT APPLICABLE

PART 3 – EXECUTION

NOT APPLICABLE

PART 4 – MEASUREMENT AND PAYMENT

- A. Provision of Field Engineering shall be incidental to other items of work. No separate payment shall be made for this item.

- END OF SECTION -

**SECTION 01 77 00  
CLOSEOUT PROCEDURES**

PART 1 - GENERAL

1.01 SUMMARY

- A. Work included: This section includes project requirements for project completion, record document submittal and closeout procedures.
- B. Related Sections:
  - 1. Applicable provisions of the General Conditions shall govern the work in this section.
  - 2. 01 32 19, Submittals.
  - 3. Specific requirements for individual units of work are included in appropriate technical sections.

PART 2 - PRODUCTS

NOT APPLICABLE

PART 3 - EXECUTION

1.02 SUBSTANTIAL COMPLETION

- A. Contractor shall complete the following Administrative actions and submittals prior to or coincidental with Substantial Completion:
  - a. Identify Incomplete Work:
    - 1) List of incomplete work.
    - 2) Value of incomplete work.
    - 3) Reasons for work being incomplete.
  - b. Satisfy Regulatory Requirements:
    - 1) Obtain and submit releases enabling Owners' full, unrestricted use of work and access to services and utilities. Where required, include occupancy permits, operating certificates, similar releases.
  - c. Bonding and Insurance:
    - 1) Request partial release of retainage.
    - 2) Advise Owner of pending insurance change-over-requirements (if Builders Risk Insurance is provided by Contractor).
- B. Inspection Procedures:
  - 1. When prerequisites are complete, Contractor shall submit request in writing to Owner's Representative stating that all requirements are satisfied, and requesting inspection. Upon receipt of Contractor's request for inspection, Owner's Representative and Engineer will either proceed with inspection or advise Contractor of unfilled prerequisites.
    - a. Following initial inspection, Owner's Representative will either notify the contractor of acceptance, or advise Contractor of work which must be performed

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prior to final acceptance. Owner's Representative and Engineer will repeat inspection when requested and when assured that work has been substantially completed.

- b. Results of completed inspection will form initial "punch list" for final acceptance.

### 1.03 FINAL ACCEPTANCE

#### A. General Requirements:

- 1. Contractor shall complete punch list items, before requesting Owner's Representative's inspection for final acceptance and final payment as required by General Conditions. List known exceptions, if any, in request.

#### B. Final Payment Application:

- 1. Contractor shall complete the following Administrative actions and submittals prior to or coincidental with Substantial Completion:
  - a. Completion of Work:
    - 1) Completion of Project Requirements.
    - 2) Completion of items specified for completion after Substantial Completion.
    - 3) Assurance that work not complete and accepted will be completed without undue delay.
    - 4) Final cleaning.
  - b. Transfer of Site to Owner:
    - 1) Removal of temporary facilities and services.
    - 2) Removal of surplus materials, rubbish, and similar elements.
  - c. Submittals:
    - 1) Consent of Surety (if Performance Bond provided).
    - 2) Assurance that unsettled claims will be settled.
    - 3) Transmittal of required project construction records (as-built drawings, etc.) to Owner.
    - 4) Copy of final punch list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance and has been endorsed and dated by Engineer.
    - 5) Evidence of final, continuing insurance coverage complying with insurance requirements.
  - d. Final payment request including certificates of insurance for products and completed operations where required.
    - 1) Updated final statement, accounting for final additional changes to Contract Sum.
    - 2) Final liquidated damages settlement statement, acceptable to Owner.

#### C. Reinspection Procedure:

- 1. Owner's Representative will reinspect work upon receipt of notice that work, including punch list items resulting from earlier inspections, has been completed, except for items whose completion has been delayed because circumstances exist that are acceptable to Owner's Representative. Owner's Representative will either prepare a certificate of final acceptance, or will advise Contractor of work that is incomplete or of obligations that have not been fulfilled, but are required for final acceptance. If necessary, reinspection procedure will be repeated.

## PART 4 – MEASUREMENT AND PAYMENT

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- A. Project Closeout shall be incidental to other items of work. No separate payment shall be made for this item.

- END OF SECTION -

**SECTION 31 10 00**  
**SITE CLEARING**

PART 1 - GENERAL

1.1 SUMMARY

- A. Site Clearing includes but is not necessarily limited to:
  - 1. Site Clearing shall consist of all clearing of woody vegetation as required to install the work in excavation areas.
  - 2. Site Clearing shall include salvage, stockpile, and maintenance of trees identified by the Engineer for reuse according to Section 31 38 00 Large Woody Debris. In general, all trees (excluding buckthorn) 6" in diameter or larger cleared from the site will be re-used as streambank protection as noted in the Plans. Specific trees for salvage will be marked by the ENGINEER. Trees will be removed with the rootwad intact.
- B. Incorporation of standard reference:
  - 1. Site Clearing shall be performed in accordance with the provisions of WisDOT "Standard Specifications for Highway and Structure Construction" Part 201 Clearing and Grubbing, and as described below.

1.2 QUALITY CONTROL

- A. Area to be cleared will be marked by the Engineer. Owner's Representative shall approve clearing areas prior to clearing.

1.3 SUBMITTALS - NONE

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Large Wood Rootwads - Salvage
  - 1. Large wood rootwads shall be at least 25 feet in length measured from base to top, with diameter at breast height be a minimum of 6 inches. Trees shall be harvested with the rootwad intact to a radius extending from the trunk to capture the majority of the root structure. Alternative sizes must be pre-approved by the ENGINEER prior to salvage or acquisition.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Clearing shall be limited to the Limits of Disturbance as shown on the Drawings or approved by the Engineer.
- B. The Contractor and Owner's Representative shall review and confirm the limits of clearing prior to commencement of the work, and shall clearly mark trees to be protected, salvaged, or removed as part

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of the clearing operation. Trees to be saved must be clearly marked with orange maker paint on the trunk at breast height. Marking shall be done under the supervision of the Engineer.

3.2 PROTECTION

- A. Contractor shall protect from damage utilities and structures that are to remain.
- B. Contractor shall protect all trees, plants and features designated to remain as final landscaping.
- C. Contractor shall protect all survey monuments.

3.3 CLEARING, GRUBBING, AND DISPOSAL

- A. Trees slated for removal will be evaluated for reuse in installation of large wood installation, according to Section 31 38 00 Large Woody Debris. Removed trees not accepted for reuse shall be disposed in a manner consistent with other cleared debris.
- B. Material not designated for reuse, if free of buckthorn, may be buried as slash within the existing channel, chipped on site and spread along access routes and at the end of the construction as mulch, or for other use approved by the Owner’s Representative. Debris associated with Buckthorn resulting from clearing shall be disposed at an offsite location. Offsite location and method shall be pre-approved by the Owner. The Contractor shall choose a site and disposal method that does not allow invasive vegetation to re-establish. Burning or burying buckthorn debris at the site will not be permitted.
- C. The Contractor shall protect trees, shrubs, and other vegetation NOT designated for removal from damage resulting from the work. The Contractor shall take special care to protect the root zone of specimen trees.
- D. The Contractor shall cut and remove tree branches only where, in the opinion of the Owner’s Representative, such cutting is necessary to affect construction operation. Remove branches other than those required to affect the work to provide a balanced appearance of any tree, as approved prior to removal. Scars resulting from the removal of branches shall be treated with an approved tree sealant. The Contractor shall be held liable for fines imposed by Owner or permitting agencies for unauthorized removal or damage of trees, shrubs or other vegetation resulting from the work. Clearing and invasive control of existing herbaceous vegetation will not be required.
- E. All trees not removed in clearing and invasive control operations shall be protected from root and bark damage, soil compaction, and smothering of roots and trunks. The Contractor shall clean cut tree roots where disturbance is within 20 feet of the trunk.

PART 4 – MEASUREMENT AND PAYMENT

4.1 The Item Site Clearing will be paid at the contract lump sum price, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to complete the work as specified for this Item. The estimated quantities for this item for each project component is as follows, based on comparison between existing and design grade surfaces.

	Area, acre (woody)
Reach 1 Channel	
Reach 2 Channel	

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- END OF SECTION -

**SECTION 31 23 00  
EXCAVATION AND FILL**

PART 1 - GENERAL

1.01 SUMMARY

- A. Excavation and Fill includes, but is not limited to:
  - 1. Excavation of soil and vegetation within the proposed channel to specified grade,
  - 2. Temporary soil stockpiling in designated areas and/or other approved areas;
  - 3. Reuse of excavated material to construct stream banks as shown in the Drawings;
  - 4. Reuse of excavated material to fill the existing channel;
  - 5. Grading surplus material to form hummocks in the soil reuse area.
  - 6. Grading the site to the lines and grades shown on the Drawings;
  
- B. Incorporation of standard reference:
  - 1. Earthwork shall be performed in accordance with the provisions of WisDOT 2012 Standard Specifications Part 2, and as described below.

1.02. QUALITY CONTROL

- A. The Contractor shall verify that all design grades have been achieved per the Plans.
  
- B. The Owner's Representative will review finished areas of grading and check for conformance with the plans.

1.03 SUBMITTALS – NONE

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Materials excavated from existing ground shall not be classified. All materials shall be considered common excavation. Materials to be excavated are wetland soils with variable organic and moisture contents. Highly saturated soils may be encountered during required excavation.

PART 3 – EXECUTION

- A. All temporary erosion and sediment control measures shall be in place prior to the start of Work in this Section.
  
- B. Contractor shall complete all clearing operations in an area according to 31 11 00 Site Clearing, prior to excavation and fill operations. During winter construction, the Contractor shall remove all ice and snow from excavation areas just prior to excavation or fill operations.



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- C. All excavations shall be made in conformity with the lines, grades, slopes and notes indicated in the Drawings and Specifications and as the Engineer may otherwise direct, based on the typical section and elevation controls shown in the Contract. Any excavating performed beyond the limits described that was not authorized or ordered by the Engineer will be considered to be unauthorized work.
- D. Excavation of the proposed channel shall be conducted off line away from the existing channel to the extent practical. Vegetated soil shall remain in place at locations where the proposed channel will cross the existing channel during construction. Wood will be installed in the new channel in conjunction with excavation in locations identified by the Engineer.
- E. As soon as practical but not more than one week following excavation, channel banks and levees shall be seeded according to Section 32 90 10 Native Landscaping. Contractor shall not route water into new channel until seeds have sprouted and Engineer has approved the channel for water conveyance.
- F. All excavated material not immediately reused to build stream banks shall be placed within the temporary soil stockpile and potential reuse areas. Alternate stockpile locations must be approved by the Owner's Representative. The Contractor shall ensure that silt fence is properly installed between each stockpile area and the existing stream channel.
- G. If pond construction is included as an additive item, soil excavated from pond areas shall also be placed within temporary stockpile and potential reuse areas.
- H. Following approval by the Engineer, water will be routed into the new channel. The existing channel will be plugged with the stockpiled soil. At locations where the proposed channel crosses the existing channel, the existing channel will be plugged with logs and soil according to the plans and Section 31 38 00 Large Woody Debris. Soil placed in the existing channel shall be compacted. If available soil quantity is not sufficient to completely fill all areas of the channel, soil will be concentrated at the locations where the new stream crosses the existing stream and shall be placed to an elevation of 8 - 12 inches above the new stream bank top of slope elevation.
- I. Excess stockpiled soil shall be graded in place to create hummocks with slopes of 6:1 or shallower and maximum height of 18 inches above existing grade. No soil will be required to be hauled off the site and no requirement shall be made to bring soil to the site to meet proposed grades.
- J. All bare soils following excavation and fill operations shall be seeded and planted according to Section 32 90 10 Native Landscaping.
- K. The Owner's Representative may make adjustments to the design grades based on field conditions at the time of construction prior to finish grading.
- L. Tolerance for grading shall be +/- 0.1 feet on stream bed and +/- 0.3 feet in floodplain and pond areas.

### PART 4 – MEASUREMENT AND PAYMENT

- 4.01 The Item 'Common Excavation' will be paid at the contract lump sum price, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to

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complete the work as specified for this Item, including excavation, stockpiling, transporting, and filling within the project limits. The estimated quantities for this item for each project component is as follows, based on comparison between existing and design grade surfaces.

	Cut Volume, CY (=Fill Volume)
Channel Construction Sta 46+50 to Sta 94+55	1380
Pond 1	145
Pond 2	365
Pond 3	365
Pond 4	2100
Channel Construction Sta 28+81 to Sta 46+50	1470
Channel Construction Sta 0+40 to Sta 9+97	1850

- END OF SECTION -

**SECTION 31 25 10  
TEMPORARY EROSION AND SEDIMENT CONTROL**

PART 1 - GENERAL

1.01 SUMMARY

- A. The Contractor shall provide all labor, materials, and equipment necessary for the installation of gravel construction entrances and silt fence.
- B. Incorporation of standard reference: All temporary erosion and sediment control work shall be done in accordance with the provisions of WisDOT 2012 Standard Specifications Section 628, Erosion Control, WDNR Technical Standards, conditions of the WDNR construction stormwater permit, and as described below.

1.02 QUALITY CONTROL

- A. The Contractor shall regularly monitor all erosion and sediment control measures as described in Section 01 57 14 Erosion Control.

1.03 SUBMITTALS

- A. The Contractor shall submit product information for all erosion and sediment control products prior to installation in accordance with Section 01 32 19 Submittals.

PART 2 - PRODUCTS

2.01 GRAVEL CONSTRUCTION ENTRANCES

- A. All materials used for the gravel construction entrances shall be in accordance with sections of WDNR Technical Standard 1057 that pertain to Stone Tracking Pad.

2.02 SILT FENCE

- A. All silt fence materials shall be in accordance with WDNR Technical Standard 1056 – Silt Fence.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

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- A. Contractor shall install gravel construction entrances at locations shown on the Drawings and/or alternate approved locations and as prescribed by the sections of WDNR Technical Standard 1057 related to Stone Tracking Pad and approved by the Engineer.
- B. Contractor shall install silt fence at general locations shown on the drawing or as approved by Engineer to prevent soil from stockpile areas from entering the stream. Locations shown on the plans are larger than needed for the amount of material that will be stockpiled to provide the contractor with flexibility during the construction process. Silt fence shall only be installed where stockpiles are actually utilized and will be less extensive than shown on the plans.

### PART 4 – MEASUREMENT AND PAYMENT

#### 4.01 GRAVEL CONSTRUCTION ENTRANCES

- A. Payment for acceptably installed gravel construction entrances will be at the contract unit price as listed on the Bid Form. All associated work items shall be considered incidental.

#### 4.02 SILT FENCE

- A. Payment for silt fence will be based on properly installed linear feet of silt fence in approved locations and will be paid at the contract unit price as listed on the Bid Form. All associated work items shall be considered incidental. Silt fence installed other than in locations approved shall be considered unauthorized work.

- END OF SECTION -

**SECTION 31 38 00  
LARGE WOODY DEBRIS**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. Large Woody Debris shall include furnishing all materials, equipment and labor necessary to prepare wood materials from raw salvaged logs, transport materials from the wood salvage areas to installation locations, and install them as shown on the Drawings, as described in the specifications, and as described by the Engineer in the field. Large Wood Placement shall also include installation of wood materials supplied and transported to the project site by the Owner.

**1.02 QUALITY CONTROL**

- A. Trees selected for reuse as logs and logs with root wads shall be approved by the Owner's Representative in the field prior to clearing.
- B. Prepared logs and logs with root wads will be approved by the Owner's Representative prior to installation.
- C. Owner's Representative shall observe the Contractor during installation of all large wood.

**1.03 SUBMITTALS - NONE**

**PART 2 – PRODUCTS**

**2.01 Logs and Logs with Rootwads**

- A. Logs and rootwads species shall be cedar, ash, or elm at least 25 feet in length measured from base to top. Diameter at breast height shall be a minimum of 6 inches. Alternative species and/or sizes must be pre-approved by the Owner's Representative.
- B. Logs should be cleaned of secondary branches and include only the main trunk and any associated forks.
- C. At least 50% of the total number of logs required must contain intact rootwads.
- D. Logs should be recently harvested or in a 100% rot free condition.
- E. Any deviation in size, species or quality must be pre-approved by the Engineer.
- F. Rootwads shall be a minimum of 4 feet in diameter.

**2.02 Snags**

- A. Snags shall be fabricated from either salvaged or imported logs, and shall be a minimum of 15 feet long and 8 inches in diameter.

**2.03 Cable and Clamps**

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- A. 3/8-Inch Cable: 3/8-Inch Cable shall be galvanized, steel core, 3/8-inch diameter and shall have a minimum nominal tensile capacity of 12 tons.
- B. Cable Clamps: Cable clamps shall be galvanized steel and shall meet the performance requirements of Federal Specification FF-C-450 TYPE 1 CLASS 1. Cable clamps shall be Crosby Clips, "G-450" or approved equal.

### PART 3 – EXECUTION

#### 3.01 GENERAL REQUIREMENTS

- A. Installation of Large Wood will be directed by the Engineer. Locations noted in the Plans are approximate.
- B. Logs and logs with root wads will be placed and ballasted according to the Plans and the direction of Engineer. Ballast will consist of burial and embedment into soil.
- C. Logs and logs with root wads will be used as habitat within the channel. Logs will be buried in the bank and partially protrude from the bank into the stream. Log placement will generally be at the toe of the channel bank. Placement shall be primarily through pushing the woody material directly into the soil, but trenching may be required in some locations. Where log length is insufficient to ensure that bank soil depth will provide sufficient ballast to preclude log displacement due to forces imparted by flowing water, logs may be anchored to snags using cable. Cabling will not be required for more than 10% of the logs placed.
- D. At locations where the proposed channel crosses the existing channel crib wall complexes of several logs will be buried in the bank and cabled, and soil will be placed, and compacted between and on top of them to provide additional stability.
- E. To facilitate efficient movement and installation of logs, the contractor shall provide a track excavator with a hydraulic thumb attachment and other equipment to facilitate the work.
- F. Bark shall be removed from all cabling locations prior to securing cable.

### PART 4 – MEASUREMENT AND PAYMENT

- 4.01 The Item Large Woody Debris will be measured by the number of approved logs placed at the direction of the Engineer and will be paid at the contract unit price, which shall be compensation in full for all labor, materials, equipment and other expenses necessary to install each piece of wood, including wood preparation, transport from the salvage area to the locations of installation, and installation.

- END OF SECTION -

**SECTION 31 05 15  
GRADE CONTROL RIFFLES**

GENERAL

1.01 SUMMARY

- A. Grade Control Riffles consists of delivery of approved grade control stone to the site and installation in the stream if and where directed by the Engineer.

1.02 QUALITY CONTROL

- A. The Contractor will provide product data to the Engineer for approval prior to delivery to the site.
- B. The Engineer will review the stone when it is delivered prior to installation to ensure that it is consistent with submitted product data. If stone does not meet these specifications, it will be rejected.

1.03 SUBMITTALS

- A. The Contractor will provide product data to the Engineer according to requirements in Section 01 32 19 Submittals.

PART 2 – PRODUCTS

2.01 MATERIALS

Gravel Riffles consist of rounded or semi-rounded rock installed using random placement method with the following gradation:

<u>Percent Passing (by weight)</u>	<u>Size (inches)</u>
100%	3 - 4
85%	1.5 – 2.5
50%	1 – 1.5
30%	0.385 – 0.5
10%	0.125 – 0.25

Smooth and rounded materials are preferred.

PART 3 – EXECUTION

- 3.01 Gravel Riffles shall be placed to form designated sections of the stream bed as herein specified and as indicated on the Plans. Stream bed material shall be placed to match the design grades shown on the Drawings.
- 3.02 Do not carry the excavation for the channel shape deeper than the typical subgrade elevation shown. Excavation carried below subgrade shall be replaced with Gravel Riffle. The Contractor shall bear all costs for correcting over-excavated areas.

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- 3.03 The finished subgrade will be reviewed by the Owner's Representative and approved prior to placement of stream bed stone.
- 3.04 Place stone for constructed grade control riffles in a manner that prevents segregation of stone sizes. Stone shall be placed such that the constructed river bed forms a consolidated, homogeneous layer.

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 The item Grade Control Riffles is an additive item. If Contractor is directed to install grade control riffles, the Contractor shall be paid for each ton of stone placed at the contract unit price indicated on the Bid Form, which shall be compensation in full for all labor, materials, equipment, and other expenses necessary to complete the work as specified for this item.

- END OF SECTION –



**SECTION 32 90 10  
NATIVE LANDSCAPING**

PART 1 - GENERAL

1.01. SUMMARY

- A. Work shall include, but not be limited to purchase, storage, installation and maintenance of tree and plant stock and seed as shown in the Drawings, directed by the Owner's Representative and described in these specifications
- B. Incorporation of standard reference: Native landscaping shall be completed in conformance with WisDOT 2012 Standard Specifications, Sections 630 and 632; and American Standard for Nursery Stock (ASNS), and as described below.

1.02. QUALITY ASSURANCE

- A. Qualifications:
  - 1. Personnel performing planting shall be familiar with accepted native landscape planting procedures.
- B. Inspection:
  - 1. Owner's Representative may inspect plant material at nursery. Such inspection shall be in addition to inspection at the job site.
  - 2. Upon delivery and before seeding and/or planting, Owner and Owner's Representative shall be given the opportunity to inspect seed packages and plants.
  - 3. Inspection and approval is for quality, size, and variety only, and in no way impairs right of rejection for failure to meet other requirements during progress of Work.
  - 4. Contractor shall be present during inspections.
- C. Source Quality Control.
  - 1. Plant material shall comply with State of Wisconsin and federal laws with respect to inspection for plant diseases and insect infestation.
  - 2. Size and grading standards of plant materials shall be in accordance with American Association of Nurserymen, Inc. (AAN) Standard: American Standard for Nursery Stock (ANSI Z60.1).

1.03. SUBMITTALS

- A. The following shall be submitted to the Owner's Representative prior to installation in accordance with Section 01 32 19, Submittals:
  - 1. Information indicating vendor, species botanical and common names, gross weight, seed purity (% PLS), harvest date, and origin for all seed to be used on the project site. Original nursery packaging for each species must be provided 14 days after seeding activities are completed.
  - 2. Information indicating vendor, species botanical and common names, and pot size or stem caliper for all trees and shrubs. Plant material shall comply with State of Wisconsin and federal laws with respect to inspection for plant diseases and insect infestation.
  - 3. Inspection certificates and paperwork indicating the licensed nursery, species botanical and common names, and material size within 14 days of shipment.
  - 4. Sample of mulch material (e.g., straw, hardwood bark, aged hardwood chips, etc.)

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- 5. Proposed tree protection products and/or designs.

PART 2 - PRODUCTS

PLANT SPECIMENS

A. General:

- 1. Plant material shall be nursery grown or harvested unless otherwise specified or approved in writing by the Owner's Representative.
2. Unless specifically noted otherwise, plant material shall be of selected specimen quality, have normal habit of growth, and be sound, healthy, vigorous plants with well-developed root systems.
3. Plant materials must be of local genotype, originating within the state of Wisconsin, unless approved by the Engineer.
4. Any adjustments or substitutions in plant species, sizes, container types, or quantities shall be pre-approved in writing by the Owner.
5. Potted stock shall conform to American Standard for Nursery Stock guidelines for caliper versus container size (ASNS Z60.1-2004)
6. Plant/Seed information:
a. It is the Contractor's responsibility to ensure plants and/or seed are true to species and variety and conform to measurement specified.
b. Owner's Representative must approve any substitutions.
7. Tree/Shrub information:
a. Source of plant material to be provided at least 4 weeks prior to delivery to site.
b. Plants shall be freshly dug or container grown. Plants placed in cold storage for a period of time are not acceptable unless the Contractor makes such a request in writing and the materials are inspected and approved.
c. Measure plants when branches are in normal position. Height and spread refer to plant's main body and not from branch tip to branch tip.
d. If range of size is given, no plant shall be less than minimum size and not less than 50% of plants shall be as large as upper half of range specified.
e. Measurements specified are minimum size acceptable and are measurements after pruning, where pruning is required. Plants meeting measurements specified, but not producing normal balance between height and spread will be rejected.
f. Owner's Representative must approve any substitutions.

B. Cover Crop

- 1. Cover Crop Seed mix for all restored areas shall be as follows:

Table with 2 columns: Species, % Minimum Purity. Rows include Oats (98), Cereal Rye (97), Annual Ryegrass (97), and Winter Wheat (95).

- 2. Oats may be used for summer seeding.
3. Cereal Rye, Annual Ryegrass or Winter Wheat may be used for fall seeding.
4. Cover Crop shall be seeded at a rate of 30 lb/acre.

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C. Native Seed

1. Seed stock shall be wild ecotype indigenous to Wisconsin.
2. Grasses classified as “Agricultural Grasses” shall be PLS as specified. Other seed shall be “clean” according to industry standards.
3. Seed shall not be more than one year old at time of seeding.
4. Legumes shall be inoculated with proper rhizobia immediately prior to planting (six hours or less).
5. Native seed shall be applied at a rate of 8 lbs/acre.
6. Seed mix shall be at least 30% forbs by weight and 70% grasses by weight. It must contain at least the number of forb and grass species identified in the table headings. Species may include the those shown in the following tables for the planting zones identified.

Native Seed Mix 1 - Marsh with Forested Hummocks, Shrub Carr Wetland, Emergent Marsh  
Planting Zones  
Minimum of 5 Species of Forbs and 3 Species of Grasses

Grasses	
Common Name	Scientific Name
Blue joint grass	Calamagrostis canadensis
Bristly/Bottlebrush sedge	Carex comosa
Bottlebrush/Porcupine sedge	Carex hystricina
Fox tail sedge	Carex vulpinoidea
Virginia wild rye	Elymus virginicus
Dark green bulrush	Scirpus atrovirens
Forbes	
Common Name	Scientific Name
Swamp/Marsh milkweed	Asclepias incarnata
Calico aster	Aster lateriflorus
Swamp aster	Aster puniceus
Spotted Joe pye weed	Eupatorium maculatum
Common boneset	Eupatorium perfoliatum
Dogtooth daisy	Helenium autumnale
Water horehound/bugle weed	Lycopus americanus
Wild bergamot	Monarda fistulosa
Great water/Marsh dock	Rumex orbiculatus
Purple meadow rue	Thalictrum dasycarpum

Native Seed Mix 2 - Open Oak Forest and Field Planting Zones  
Minimum of 9 Species of Forbs and 5 Species of Grasses

Grasses	
Common Name	Scientific Name
Big bluestem	Andropogon gerardi
Sideoats grama	Bouteloua curtipendula
Canada wild rye	Elymus Canadensis
Switchgrass	Panicum virgatum
Little bluestem	Schizachyrium scoparium
Indian grass	Sorghastrum nutans
Forbs	
Common Name	Scientific Name
Nodding pink onion	Alium cernuum
Blue false indigo	Baptisia australis

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White false indigo	Baptisia alba
Pale Indian plantain	Arnoglossum atriplicifolium
Wild senna	Cassia hebecarpa
Lanceleaf coreopsis	Coreopsis lanceolata
Purple prairie clover	Dalea purpurea
Canada tick trefoil	Desmodium canadense
Pale purple coneflower	Echinacea pallida
Purple coneflower	Echinacea purpurea
Showy sunflower	Helianthus pauciflorus
Ox eye sunflower	Heliopsis helianthoides
Wild bergamot	Monarda fistulosa
Stiff goldenrod	Oligoneuron rigidum
Smooth penstemon	Penstemon digitalis
Yellow coneflower	Ratibida pinnata
Black eyed susan	Rudbeckia hirta
Sweet black eyed susan	Rudbeckia subtomentosa
Brown eyed susan	Rudbeckia triloba
Rosinweed	Silphium integrifolium
Compass plant	Silphium laciniatum
Prairie dock	Silphium terebinthinaceum
Smooth aster	Symphotrichum laeve

D. Trees

1. Tree stock shall be wild ecotype indigenous to Wisconsin and shall have been grown within the same hardiness zone as the Project Site or acclimated to conditions of the same hardiness zone for a minimum of two growing seasons. Hardiness zones shall conform to “Zones of Plant Hardiness” as provided by the U.S. Department of Agriculture.
2. Balled and burlapped trees and live stakes shall be installed in accordance with WisDOT 2012 Standard Specifications and with WDNR planting guidance.
3. Trees shall include the following species and sizes. Estimated quantities are summarized on the bid form.

Common Name	Scientific Name	Size/Description
Red maple	Acer rubrum	1.75 – 2 in caliper, B&B
Silver maple	Acer saccharinum	1.75 – 2 in caliper, B&B
Yellow birch	Betula alleghaniensis	1.25 – 1.5 in caliper, B&B
American hornbeam	Carpinus caroliniana	1.25 – 1.5 in caliper, B&B
Hackberry	Celtis occidentalis	1.75 – 2 in caliper, B&B
American tamarack	Larix laricina	1.25 – 1.5 in caliper, B&B
Balsam poplar	Populus balsamifera	9-12 inch long hardwood stakes; 1-2 in diameter
Bur Oak	Quercus macrocarpa	1.75 – 2 in caliper, B&B
Swamp white oak	Quercus bicolor	1.75 – 2 in caliper, B&B
Black willow	Salix nigra	9-12 inch long hardwood stakes; 1-2 in diameter
Northern white cedar	Thuja occidentalis	1.25 – 1.5 in caliper, B&B

E. Shrubs

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1. Shrub stock shall be wild ecotype indigenous to Wisconsin and shall have been grown within the same hardiness zone as the Project Site or acclimated to conditions of the same hardiness zone for a minimum of two growing seasons. Hardiness zones shall conform to “Zones of Plant Hardiness” as provided by the U.S. Department of Agriculture.
2. Pot grown plants shall have heavy fibrous root systems, or well-developed tap roots, developed by proper horticultural practice including transplanting and root pruning, and shall have grown in a container for at least one growing season.
3. Container shall not strangle or girdle natural plant growth. Plants over-established in container as evidenced by pot-bound root ends will be rejected
4. Shrubs shall include the following species and sizes. Substitutions may be allowed if some species and sizes are not available, but written approval must be obtained by the Owner’s Representative prior to delivery of any substitutions to the project site. Estimated quantities are summarized on the bid form.

Common Name	Scientific Name	Size/Description
Speckled alder	<i>Alnus incana</i>	Potted; 2.5 ft height min
Silky dogwood	<i>Cornus amomum</i>	Potted; 2.5 ft height min
Red osier dogwood	<i>Cornus sericea</i>	Potted; 2.5 ft height min, and 9-12 inch long hardwood stakes; 1-2 in diameter
Winterberry	<i>Ilex verticillata</i>	Potted; 2.5 ft height min
Bebb’s willow	<i>Salix bebbiana</i>	Potted; 2.5 ft height min, and 9-12 inch long hardwood stakes; 1-2 in diameter
Pussy willow	<i>Salix discolor</i>	Potted; 2.5 ft height min, and 9-12 inch long hardwood stakes; 1-2 in diameter
Slender willow	<i>Salix petiolaris</i>	Potted; 2.5 ft height min, and 9-12 inch long hardwood stakes; 1-2 in diameter
Sandbar willow	<i>Salix interior</i>	Potted; 2.5 ft height min, and 9-12 inch long hardwood stakes; 1-2 in diameter
Meadowsweet	<i>Spiraea alba</i>	Potted; 2.5 ft height min

F. Herbaceous Containerized Plants

1. Herbaceous Plants shall be wild ecotype indigenous to Wisconsin and shall have been grown within the same hardiness zone as the Project Site or acclimated to conditions of the same hardiness
2. Container shall not strangle or girdle natural plant growth. Plants over-established in container as evidenced by pot-bound root ends will be rejected
3. Herbaceous shall include the following species and sizes. Substitutions may be allowed if some species and sizes are not available, but written approval must be obtained by the Owner’s Representative prior to delivery of any substitutions to the project site. Estimated quantities are summarized on the bid form.

Common Name	Scientific Name	Size/Description
Blue joint grass	<i>Calamagrostis canadensis</i>	32/38 Cell
Bristly/Bottlebrush sedge	<i>Carex comosa</i>	32/38 Cell
Bottlebrush/Porcupine sedge	<i>Carex hystricina</i>	32/38 Cell
Fox tail sedge	<i>Carex vulpinoidea</i>	32/38 Cell
Virginia wild rye	<i>Elymus virginicus</i>	32/38 Cell
Dark green bulrush	<i>Scirpus atrovirens</i>	32/38 Cell

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Swamp/Marsh milkweed	<i>Asclepias incarnata</i>	32/38 Cell
Calico aster	<i>Aster lateriflorus</i>	32/38 Cell
Swamp aster	<i>Aster puniceus</i>	32/38 Cell
Spotted Joe pye weed	<i>Eupatorium maculatum</i>	32/38 Cell
Common boneset	<i>Eupatorium perfoliatum</i>	32/38 Cell
Dogtooth daisy	<i>Helenium autumnale</i>	32/38 Cell
Northern blue flag iris	<i>Iris versicolor</i>	32/38 Cell
Water horehound/bugle weed	<i>Lycopus americanus</i>	32/38 Cell
Wild bergamot	<i>Monarda fistulosa</i>	32/38 Cell
Great water/Marsh dock	<i>Rumex orbiculatus</i>	32/38 Cell
White water lily	<i>Nymphaea odorata</i>	32/38 Cell
Yellow pond lily	<i>Nuphar lutea</i>	32/38 Cell

PLANTING MATERIALS

G. Mulch & Mulching Materials:

1. Straw:

- a. Oat or wheat straw shall be air-dried, free of noxious and invasive weed species including reed canary grass, and other objectionable foreign matter.
- b. Wet and/or moldy straw is not acceptable and shall be removed from the site by the Contractor.

H. Water: Contractor shall make arrangements for water used for planting with appropriate water utilities. Cost of water usage is the responsibility of the Contractor and is incidental to the contract.

1. Obtain from fresh water sources and free from injurious chemical or other toxic substances harmful to plant life. No water which is brackish may be used.
2. Provide hose and equipment necessary for proper watering of plant material.

PART 3 - EXECUTION

3.01 PLANTING ZONES

A. Planting zones are identified on the plans that generally show proposed major vegetation community type locations. The Owner's Representative will provide additional detail in the field regarding specific placement of particular plants.

B. Zone 1 – Marsh with Forested Hummocks

1. Contractor will seed with cover crop, native seed mixture specified above, and mulch.
2. Contractor will plant trees of particular species in locations specified by the Owner's Representative.
3. Trees will be concentrated on hummocks of excess soil near the stream banks.
4. Black willow stakes will be installed along the stream banks with concentrations along outer banks of bends along the stream.

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- C. Zone 2 – Open Oak Forest
  - 1. Contractor will seed with cover crop, native seed mixture specified above, and mulch.
  - 2. Contractor will plant trees of particular species in locations specified by the Owner's Representative.
- D. Zone 3 – Shrub Carr Wetland
  - 1. Contractor will seed with cover crop, native seed mixture specified above, and mulch.
  - 2. Contractor will plant shrubs in this zone at the direction of the Owner's Representative. Shrubs will be concentrated near the anticipated bank.
- E. Zone 4 – Emergent Marsh
  - 1. Contractor will seed with cover crop, native seed mixture specified above, and mulch.
  - 2. Contractor will plant containerized herbaceous plants of particular species in locations specified by the Owner's Representative.
- F. Zone 5 – Submergent/Floating
  - 1. Contractor will plant containerized herbaceous plants of particular species in locations specified by the Owner's Representative.
- G. Zone 6 – Field
  - 1. Contractor will seed with cover crop and mulch. Areas not in agricultural production use shall also be seeded with Native Seed Mix 2.

### 3.02 PROJECT/SITE CONDITIONS

- A. Inspection:
  - 1. Prior to beginning work, Contractor shall examine and verify acceptability of Project Site for conditions under which seeding and planting are to be performed. The Contractor shall not proceed with work until satisfactory conditions are present.
  - 2. Starting work constitutes acceptance of conditions under which work is to be performed. After such acceptances, Contractor shall be responsible for correcting unsatisfactory and defective work resulting from such unsatisfactory conditions.
  - 3. When landscape work is executed in conjunction with construction of other work, coordinate schedule to permit execution of landscape work.

### 3.03 SEEDING

- A. Soil Preparation
  - 1. Prior to seeding a cover crop or native species, the planting area shall be prepared through the following sequence:
    - a. The surface shall be dragged or raked to provide a smooth, fine textured soil throughout the planting area. All debris (e.g., wood, rocks, garbage, etc.) shall be removed during seedbed preparation.

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- B. Installation and Procedures:
1. Seeding shall occur immediately after seedbed preparation. Restored areas shall be seeded with a cover crop, and native seed mixture as described in these specifications. Seeding shall be conducted between April 15<sup>th</sup> and November 30<sup>th</sup>.
  2. All native seed species shall be mixed on-site prior to installation.
  3. If the communities are hand sown, the seed shall be mixed with a carrier (e.g., sawdust, vermiculite, moist sand, etc.) to ensure even seed distribution. If a broadcaster seeder is utilized, it shall be properly calibrated to ensure an even seed distribution is achieved within the planting area.
  4. Mulch shall be placed over areas within 72 hours of seeding in accordance with Wisconsin DOT specifications.
- C. Seeding shall not be permitted during the following conditions unless otherwise approved:
1. Saturated soil conditions.
  2. Frozen soil conditions.
  3. Wind speeds >15 miles per hour.
  4. Temperatures less than 32 degree Fahrenheit.
  5. Temperatures greater than 90 degrees Fahrenheit.

### 3.04 PLANTS

- A. Installation of tree, potted stock, containerized herbaceous plants and live stakes shall be in accordance with the WisDOT Standard Specification 632, described herein, and as directed by the Owner's Representative.
- B. Trees shall be planted with the root collar 1 inch to 2 inches above finished grade. The Contractor must identify the root collar in the root ball prior to installation.
- C. Subsurface conditions: The Owner shall be notified immediately of all subsurface drainage or soil conditions which the Contractor shall consider detrimental to growth or survival of plant material. Contractor shall state condition and submit proposal for correction, including the cost of the correction. No work shall be performed on the affected portion until approval of the correction method is obtained from the Owner in writing.
- D. All live stakes shall be planted in locations identified by the Owner's Representative in the field.

### 3.04 Irrigation:

- A. Immediately prior to and following the installation of all woody plants, all soil that contacts the woody plants shall be thoroughly watered with 0.15 gallon per square foot. Irrigation of plants shall otherwise be in accordance with WisDOT Standard Specifications Section 632. If site conditions include very high soil moisture content, irrigation may be avoided if approved by the Owner's Representative.

### 3.05 Tree and shrub protection

- A. Contractor will ensure that trees and shrubs are protected prior to installation. And plants damaged prior to installation will be rejected at no cost to the Owner.
- B. Contractor shall install tree protection after planting to minimize damage to planted trees due to browsing by wildlife. Tree protection methods shall be discussed and approved by the Owner's Representative prior to installation.

### 3.06 Vegetation Management



## Ulao Creek Habitat Enhancement

1. Vegetation Management is an additive item. If directed by the Owner's representative, within 30 days of the project start date, the Contractor shall develop a *Project Maintenance Plan* for up to 3 years to be approved by the Owner. This maintenance plan will address vegetation management and weed control and shall consider the following:
2. The Contractor shall provide all equipment, labor, materials, and technical expertise to install, maintain and irrigate site plantings through the completion of the project, demobilization, and for a period up to 3-years.
3. Vegetation management and weed control in all seeded and planted areas will be the sole responsibility of the Contractor during a warranty period that spans the duration of the maintenance contract for vegetation, and shall be detailed in the Project Maintenance Plan. This may include, but is not limited to, irrigation, weed control, and buckthorn removal and control.

### 3.07 Minimum guarantee requirements

- a. Tree and Shrub guarantee: The Contractor shall replace all potted plants judged by the Owner, within one year of the Substantial Completion Date, to be dead or in less than vigorous health. Plant replacements shall be of the same species, quality and size as originally installed, or with substitutes pre-approved in writing by the Owner. Replanting shall be performed at the Contractor's expense.
- b. If the Contractor is selected to provide vegetation management services, the term of the warranty period shall extend through the duration of the vegetation management services agreement.
- c. Replanting shall be conducted according to the original planting specifications.
- d. The Owner will conduct inspections after each successive year of the warranty period following Substantial Completion Date, and will notify Contractor of plants needing replacement.
- e. Replanting must be conducted within 30 days of notification during acceptable planting periods (March – July, Oct. – Nov.). Deviations from this plan must be pre-approved in writing by the Owner.

## PART 4 - MEASUREMENT AND PAYMENT

- 4.01 Payment for Trees will be made on the basis of each tree planted, complete and in place, at the contract unit price as listed on the Bid Form.
- 4.02 Payment for Shrubs will be made on the basis of each shrub planted, complete and in place, at the contract unit price as listed on the Bid Form.
- 4.03 Payment for Cover Crop will be made on the basis of each lb of seed properly applied, at the contract unit price as listed on the Bid Form.
- 4.04 Payment for Native Seed Mix 1 will be made on the basis of each lb of seed properly applied, at the contract unit price as listed on the Bid Form. Mulching and cover crop seeding shall be incidental to these items.
- 4.05 Payment for Native Seed Mix 2 will be made on the basis of each lb of seed properly applied, at the contract unit price as listed on the Bid Form. Mulching and cover crop seeding shall be incidental to these items.

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- 4.06 Payment for Containerized Herbaceous Plants will be made on the basis of each plant planted, complete, and in place, at the contract unit price as listed on the Bid Form.
- 4.07 If directed by Owner's Representative, payment for Vegetation Management shall be on the basis of each year of the management contract at the contract unit price as listed on the Bid Form.
- 4.08 Payment shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals required to complete the work for this Item.

- END OF SECTION -