

CITY OF FRANKLIN  
QUARRY MONITORING COMMITTEE\*  
MEETING AGENDA

Franklin City Hall, **COUNCIL CHAMBERS**  
9229 West Loomis Road, Franklin, Wisconsin 53132  
Wednesday, July 29, 2020, 6:30 p.m.

- I. Call to Order and Roll Call
- II. Approval of Minutes
  - a. Regular meeting of May 28, 2020.
- III. Citizen Comment Period  
PLEASE NOTE: Due to the anticipated number of citizens who may attend, each speaker may need to be limited to three minutes, allowing everyone who wishes the opportunity to speak.
- IV. Hearings
- V. Business (Action may be taken on any item)
  - a. Election of new Vice-Chairperson.
  - b. Selection of non-voting member (Ordinance 2020-2425).
  - c. Review and discussion on matters pertaining to citizen complaints, blasting data from Payne & Dolan, and on Stantec's (the City's consultant) quarry monitoring activities and information.
  - d. Reclamation Plan (previously discussed on July 27, 2017).
- VI. Schedule Next Meeting
- VII. Adjournment

*\* Notice is given that a majority of the Common Council may attend this meeting to gather information about an agenda item over which the Common Council has decision-making responsibility. This may constitute a meeting of the Common Council per State ex rel. Badke v. Greendale Village Board, even though the Common Council will not take formal action at this meeting.*

*Notice is further given that upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information, please contact the Franklin City Clerk's office at (414) 425-7500.*

**City of Franklin**  
**Quarry Monitoring Committee Meeting**  
**Council Chambers, Franklin City Hall**  
**6:30 PM**  
**May 28, 2020**  
**Minutes**

unapproved

**I. CALL TO ORDER**

Due to the prior Special Meeting of the Common Council in which Ald. Barber and Chair Wilhelm were attending, Alderwoman Wilhelm called in at 6:30 PM to note the delay of a quorum. The May 28, 2020 Quarry Monitoring Committee meeting was then called to order by Alderwoman Wilhelm at 6:53 p.m. in the Council Chambers at City Hall.

Associate Planner Régulo Martínez, Clint Weninger and Kristen Gunderson-Inden were present in the Council Chambers. Present by phone were Alderwoman Kristen Wilhelm, Alderman Mike Barber, Members Margie Shore and Fred Kneuppel. Also present by phone was Dan Meier with newly appointed but not yet serving member, Dallas Schurg.

**II. APPROVAL OF THE MINUTES**

- a. Regular meeting of February 27, 2020.

Alderman Barber moved and Member Kneuppel seconded to approve the minutes. Three (3) members voted 'aye', one (1) member voted 'nay'; the vote was 3-1-0, motion carried.

**III. CITIZEN COMMENT PERIOD**

Citizen comment period opened at 6:55 p.m. and closed at 7:05 p.m. 1 citizen comment.

**IV. HEARINGS**

- a. None.

No action needed. None taken.

**V. BUSINESS**

- a. Selection of non-voting member (Ordinance 2020-2425).

Applications for the non-voting member will be reviewed by the Committee.

- b. Payne and Dolan bi-annual report 2018-2019.

Aldw. Wilhelm updated the QMC on the topics discussed at the Plan Commission meeting during the bi-annual report by Payne and Dolan (Clint) to the Plan Commission. One such item was that it was agreed to have the QMC again review the Quarry Reclamation Plan given the length of time between the Council's motion to move forward with the Public Hearing before the Plan Commission and any action taken by the Plan Commission. The Reclamation Plan will be on the next QMC agenda.

- c. Quarterly presentation by Stantec Consulting Services (1 of 4).

Kristen Gunderson-Inden of Stantec Consulting Services, Inc. presented the report for the first quarter of 2020, including: visual monitoring, seismic monitoring and blast complaint evaluation.

- d. Review and discussion on matters pertaining to citizen complaints, blasting data from Payne & Dolan, and on Stantec's (the City's consultant) quarry monitoring activities and information, including exceptional report for the April 9, blast event.

Kristen Gunderson-Inden presented the exceptional report for the blast event that occurred on April 9, 2020 along with Figure No. 1 Quarry Blast and Complaint Locations.

Member Knueppel moved and Alderman Barber seconded a motion to accept the first quarterly report and the exceptional report for the April 9, blast event. All voted 'aye', motion carried.

Alderman Barber moved and Member Knueppel seconded a motion to forward the first quarterly report to the Common Council. All voted 'aye', motion carried.

- f. Survey of the quarry extraction area.

Dan Meier of Lynch and Associates Engineering Consultants, LLC presented the results of the survey of the quarry extraction area. Alderwoman Wilhelm asked for the written summary of the results per the contract. Mr. Meier will provide the written summary.

- e. Annual reclamation report (2019).

Clint Weninger of Payne and Dolan, Inc. presented the annual reclamation report sent to the DNR for 2019.

## **VI. SCHEDULE NEXT MEETING**

It was agreed that the next meeting of the Quarry Monitoring Committee would tentatively be on June 25, 2020, based on quorum.

## **VII. ADJOURNMENT**

Alderwoman Wilhelm and the Committee thanked Member Shore for all the years of service to the Committee and the community.

Member Shore moved and Member Knueppel seconded to adjourn the May 28, 2020, Quarry Monitoring Committee meeting at 8:49 p.m. All present voted 'aye'; motion carried.



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Search:

Date	Time	Shot #	Seismo Loc	PPV	AO
5/20/2020	1:53 pm	32	Franklin Quarry (7526 S. 51st Street)	0.053	109
5/20/2020	1:53 pm	32	Franklin Quarry (SE of Quarry)	0.023	106
5/15/2020	12:11 pm	29	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
5/15/2020	12:11 pm	29	Franklin Quarry (7301 S 51st Street)	0.128	101
5/15/2020	12:11 pm	29	Franklin Quarry (7526 S. 51st Street)	0.058	116
5/15/2020	12:11 pm	29	Franklin Quarry (SE of Quarry)	0.023	114
5/15/2020	12:58 pm	30	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
5/15/2020	12:58 pm	30	Franklin Quarry (7301 S 51st Street)	0.153	104
5/15/2020	12:58 pm	30	Franklin Quarry (7526 S. 51st Street)	0.083	116
5/15/2020	12:58 pm	30	Franklin Quarry (SE of Quarry)	N/T	N/T

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Franklin Quarry





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Search:

Date	Time	Shot #	Seismo Loc	PPV	AO
5/26/2020	12:11 pm	34	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
5/26/2020	12:11 pm	34	Franklin Quarry (7301 S 51st Street)	0.043	92
5/26/2020	12:11 pm	34	Franklin Quarry (7526 S. 51st Street)	0.055	103
5/26/2020	12:11 pm	34	Franklin Quarry (SE of Quarry)	N/T	N/T
5/20/2020	1:50 pm	31	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
5/20/2020	1:47 pm	31	Franklin Quarry (7301 S 51st Street)	0.135	103
5/20/2020	1:47 pm	31	Franklin Quarry (7526 S. 51st Street)	0.078	109
5/20/2020	1:47 pm	31	Franklin Quarry (SE of Quarry)	0.023	106
5/20/2020	1:50 pm	32	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
5/20/2020	1:53 pm	32	Franklin Quarry (7301 S 51st Street)	0.055	105

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Search:

Date	Time	Shot #	Seismo Loc	PPV	AO
6/01/2020	1:14 pm	36	Franklin Quarry (7526 S. 51st Street)	0.193	111
6/01/2020	1:14 pm	36	Franklin Quarry (SE of Quarry)	0.083	101
6/01/2020	9:55 am	35	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
6/01/2020	9:50 am	35	Franklin Quarry (7301 S 51st Street)	0.155	111
6/01/2020	9:50 am	35	Franklin Quarry (7526 S. 51st Street)	0.065	110
6/01/2020	9:55 am	35	Franklin Quarry (SE of Quarry)	N/T	N/T
5/26/2020	12:07 pm	33	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
5/26/2020	12:07 pm	33	Franklin Quarry (7301 S 51st Street)	0.190	101
5/26/2020	12:07 pm	33	Franklin Quarry (7526 S. 51st Street)	0.068	107
5/26/2020	12:07 pm	33	Franklin Quarry (SE of Quarry)	0.020	99

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Search:

Date	Time	Shot #	Seismo Loc	PPV	AO
6/04/2020	12:30 pm	38	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
6/04/2020	12:27 pm	38	Franklin Quarry (7301 S 51st Street)	0.045	117
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6/04/2020	12:27 pm	38	Franklin Quarry (SE of Quarry)	0.023	108
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6/03/2020	12:17 pm	37	Franklin Quarry (7301 S 51st Street)	0.063	106
6/03/2020	12:17 pm	37	Franklin Quarry (7526 S. 51st Street)	0.050	116
6/03/2020	12:17 pm	37	Franklin Quarry (SE of Quarry)	0.025	116
6/01/2020	1:15 pm	36	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
6/01/2020	1:14 pm	36	Franklin Quarry (7301 S 51st Street)	0.095	109

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Search:

Date	Time	Shot #	Seismo Loc	PPV	AO
6/16/2020	10:02 am	41	Franklin Quarry (7526 S. 51st Street)	0.130	106
6/16/2020	10:02 am	41	Franklin Quarry (SE of Quarry)	0.058	101
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6/08/2020	1:40 pm	39	Franklin Quarry (7301 S 51st Street)	N/T	N/T
6/08/2020	1:39 pm	39	Franklin Quarry (7526 S. 51st Street)	0.048	110
6/08/2020	1:39 pm	39	Franklin Quarry (SE of Quarry)	0.090	108

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Search:

Date	Time	Shot #	Seismo Loc	PPV	AO
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6/19/2020	11:45 am	43	Franklin Quarry (7301 S 51st Street)	N/T	N/T
6/19/2020	11:45 am	43	Franklin Quarry (7526 S. 51st Street)	N/T	N/T
6/19/2020	11:45 am	43	Franklin Quarry (SE of Quarry)	N/T	N/T
6/18/2020	10:15 am	42	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
6/18/2020	10:14 am	42	Franklin Quarry (7301 S 51st Street)	0.070	112
6/18/2020	10:14 am	42	Franklin Quarry (7526 S. 51st Street)	0.055	113
6/18/2020	10:14 am	42	Franklin Quarry (SE of Quarry)	0.023	112
6/16/2020	10:02 am	41	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
6/16/2020	10:02 am	41	Franklin Quarry (7301 S 51st Street)	0.085	106

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7/07/2020	10:29 am	48	Franklin Quarry (7526 S. 51st Street)	0.160	103
7/07/2020	10:29 am	48	Franklin Quarry (SE of Quarry)	0.103	91
7/02/2020	10:45 am	47	Franklin Quarry (5800 ALLWOOD)	N/T	N/T
7/02/2020	10:47 am	47	Franklin Quarry (7301 S 51st Street)	0.073	107
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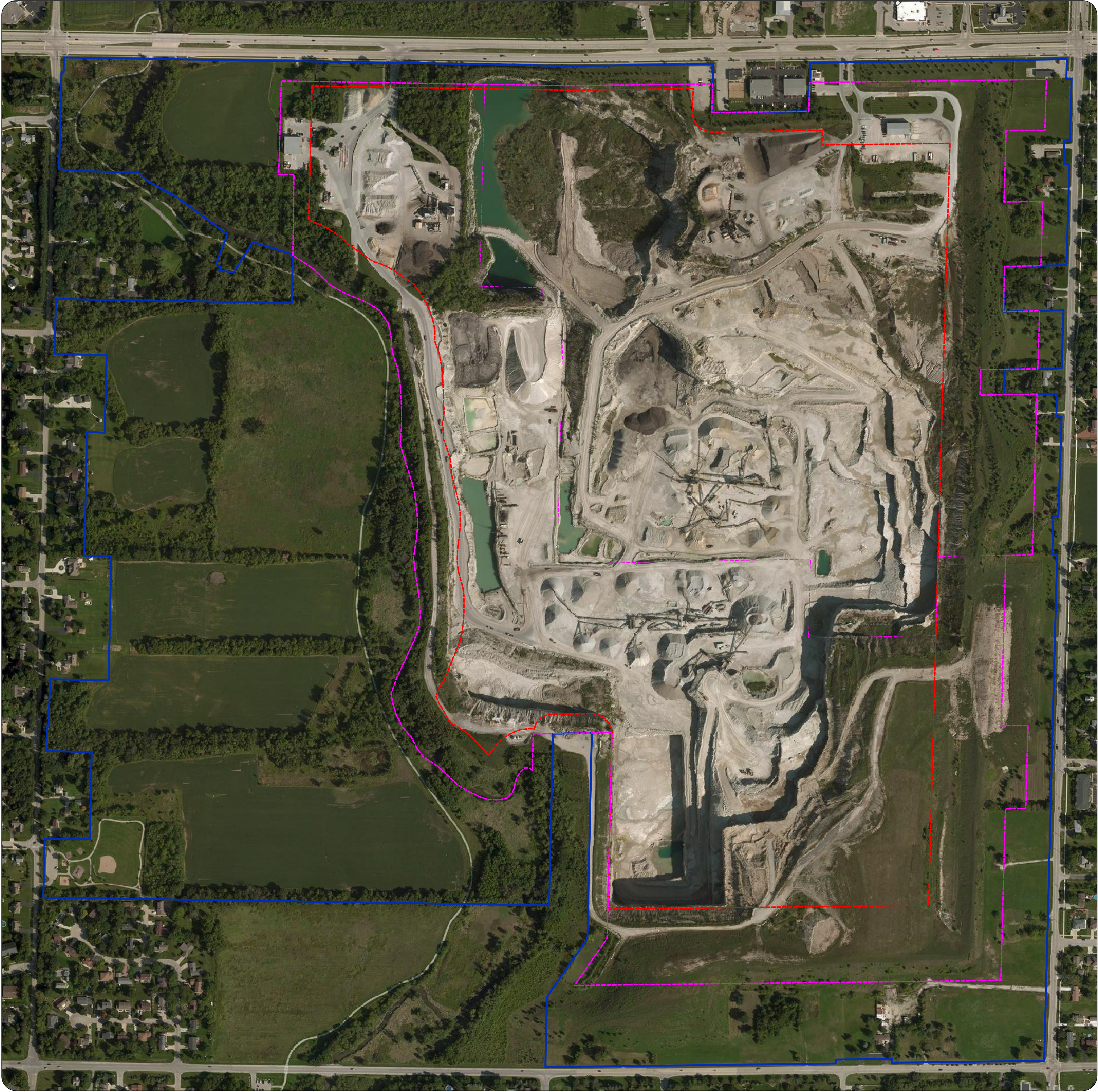
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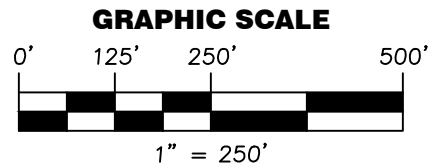
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7/07/2020	10:28 am	48	Franklin Quarry (7301 S 51st Street)	0.070	107

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Franklin Quarry

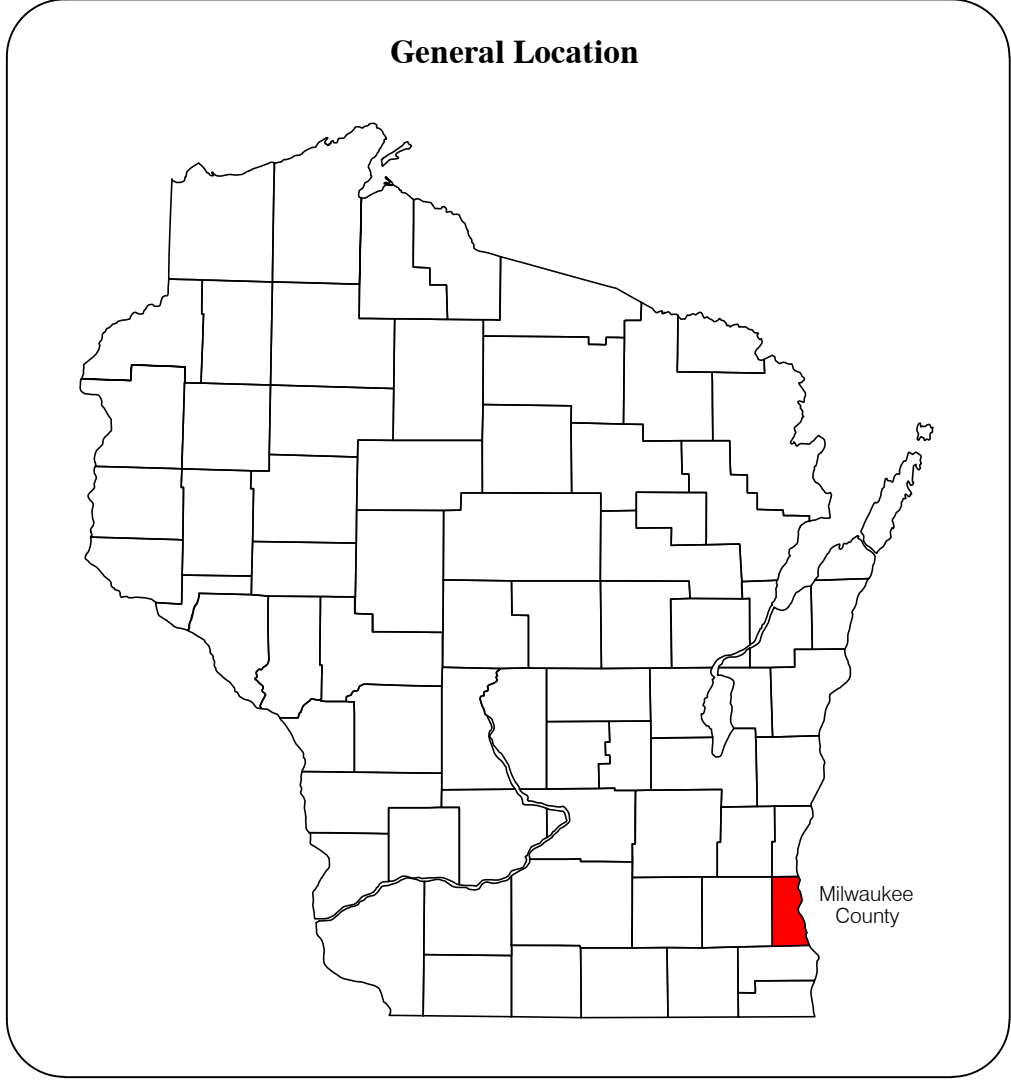
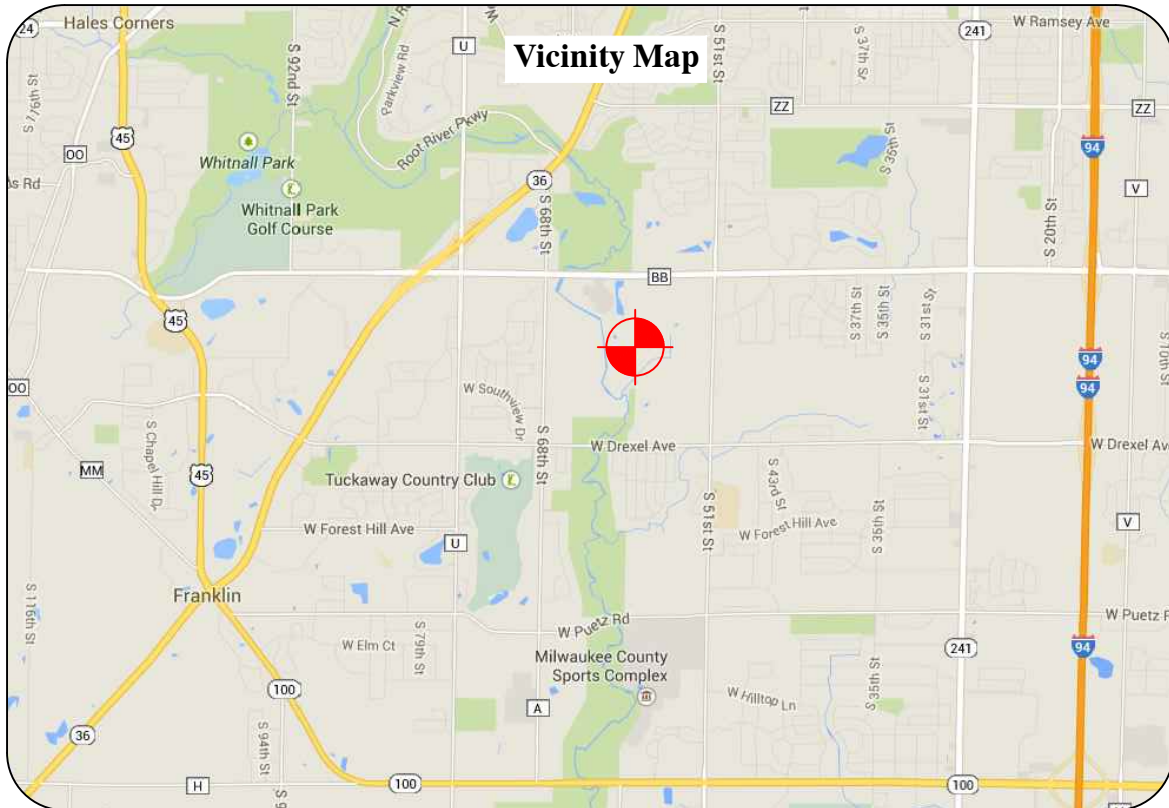




Aerial obtained from Bing Maps



PLAN INDEX	
SHEET NUMBER	DESCRIPTION
1	AERIAL
2	EXISTING CONDITIONS
3	FINAL CONDITIONS
4	CROSS SECTIONS
5	FINAL CONDITIONS - CONCEPTUAL



V.a.

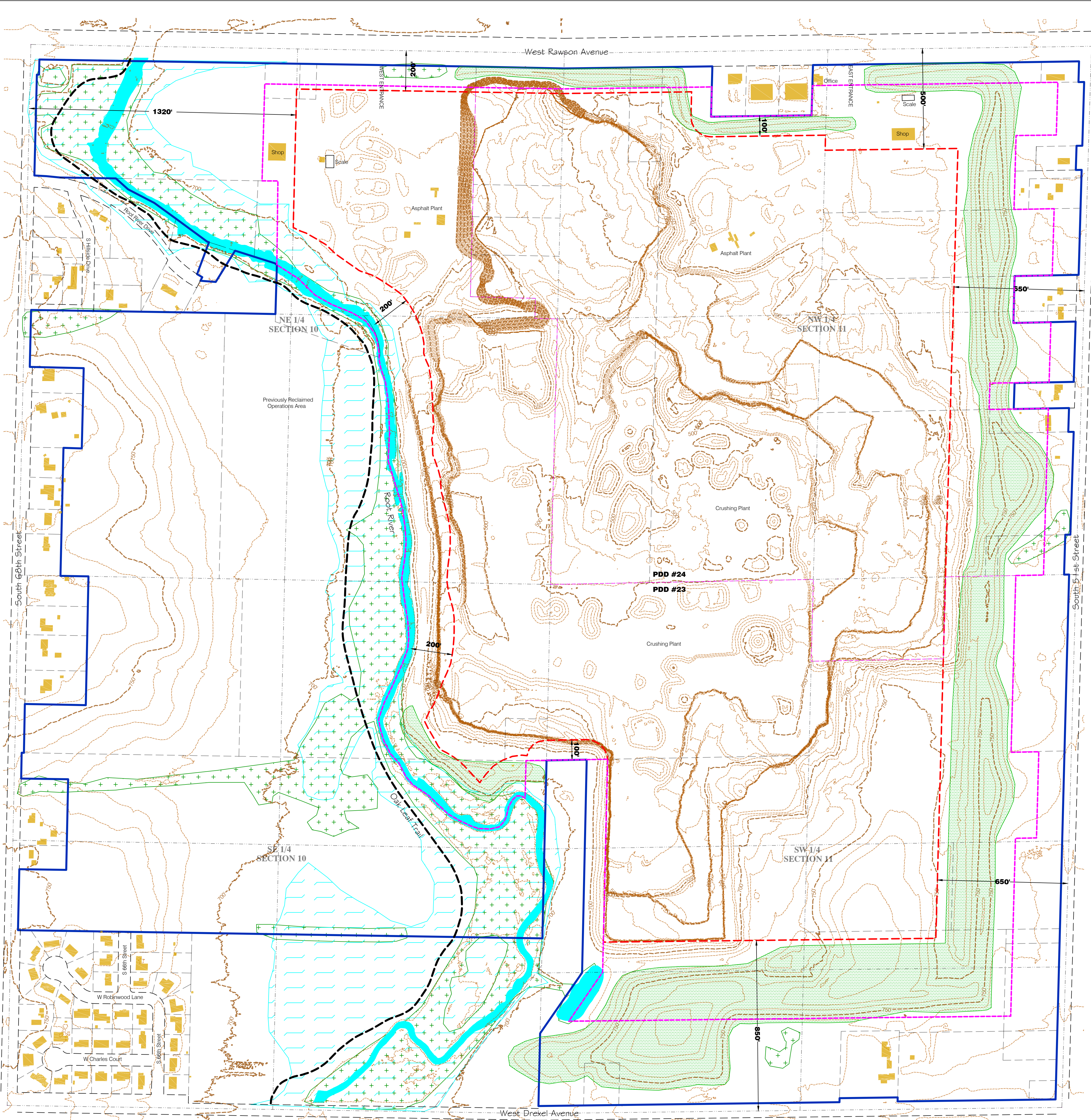
RECLAMATION PLAN - 2014 AERIAL

Project No. 2015	
Drawn By: JS	Field Book
Printed By: JS	Field Date
Revisions	Date
Notes	Initials

**PAYNE & DOLAN**  
INCORPORATED  
N3 W2550 Boulder Road | P.O. Box 781  
Franklin, WI 53120  
Phone: (262) 224-7700 | Fax: (262) 224-1845  
www.payneanddolan.com

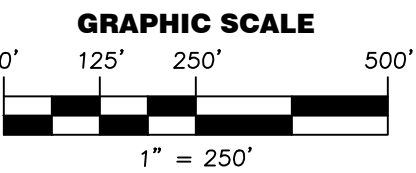


DISCLAIMER: Some of the information shown on these maps has been obtained and compiled from various state, county, municipal and private sources that are maintained by their sources for a wide variety of purposes and are of varying age, reliability and resolution. Therefore, the contents are supplied for reference purposes only and Payne & Dolan cannot guarantee the quality, content, accuracy, completeness or currency of the information obtained from these sources and provided herein.



**Legend**

- Property Boundary
- Planned Development District
- Mining Limit
- Existing Berm
- Contour Major - 50' interval
- Contour Minor - 10' interval
- Section Lines
- Tax Parcel Lines
- Road Right-of-way
- Water Feature
- Wetlands
- Floodplain



**EXISTING CONDITIONS**

Project No. 2015			
Drawn By: JS	Field Date:	Revisions	Initials
Notes	Date		

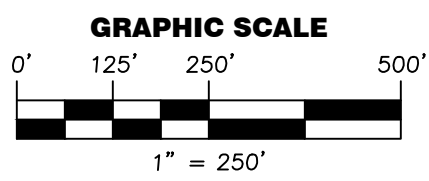
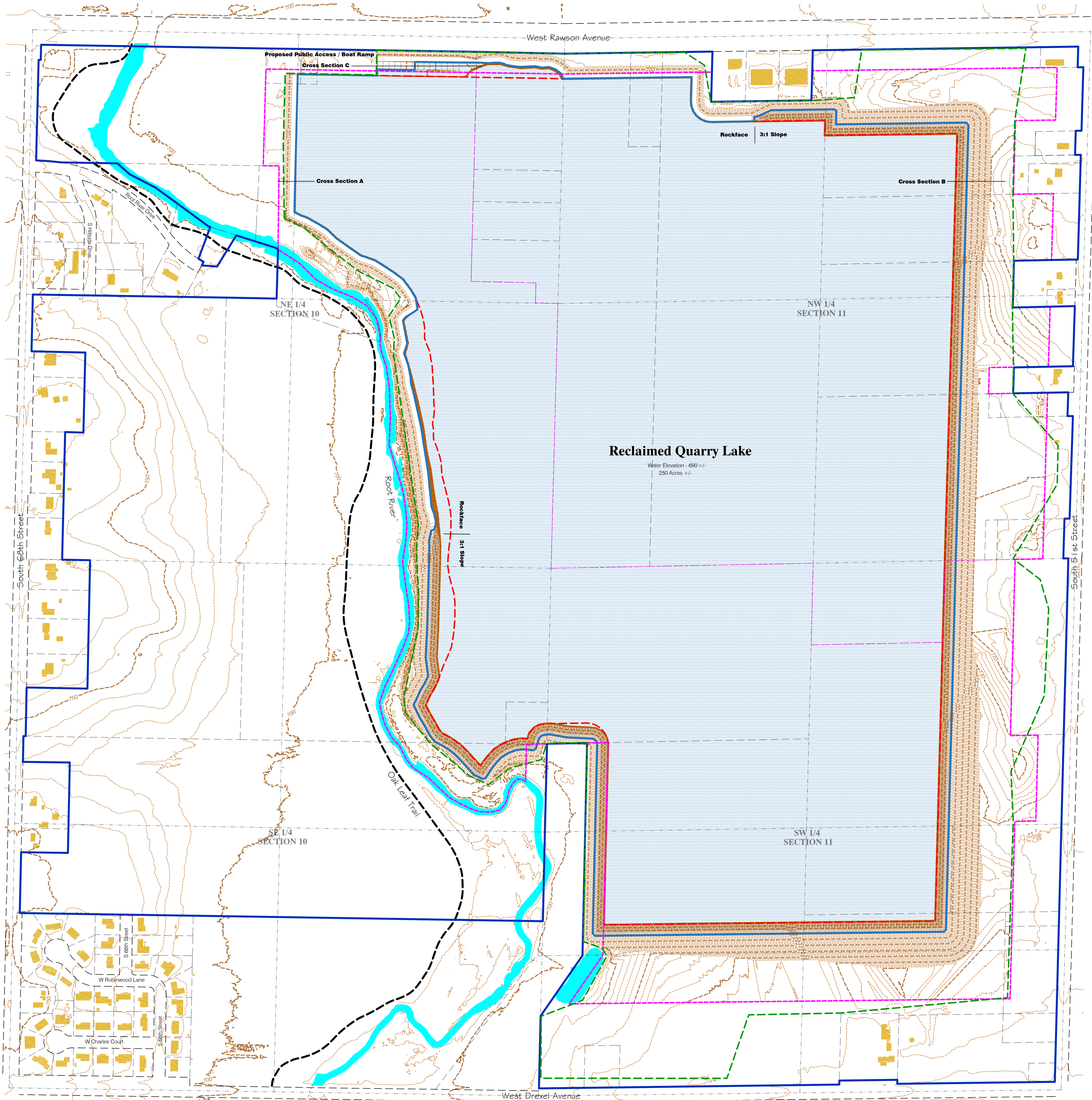
Franklin Aggregate Site #80370  
East 1/4 Section 11  
T5N-R21E, City of Franklin  
Milwaukee County, Wisconsin

Scale: 1" = 250' SHEET 2 OF 5

**PAYNE & DOLAN**  
INCORPORATED

N3 W2550 Boulder Road | P.O. Box 781  
Franklin, WI 53123  
Phone: (262) 224-7700 | Fax: (262) 224-1845  
www.payneanddolan.com





**Legend**

- Property Boundary
- Planned Development District
- Mining Limit
- Grading Extent
- Proposed Lake
- Contour Major - 50' interval
- Inside PDD - 10' interval
- Contour Minor - 10' interval
- Inside PDD - 2' interval
- Section Lines
- Tax Parcel Lines
- Road Right-of-way
- Water Feature

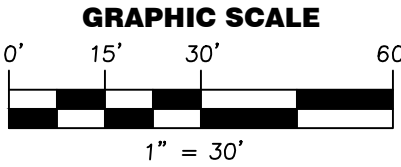
**FINAL CONDITIONS**

Project No. 2015		Revisions		Notes	
Drawn By: JS	Field Date:	Revisions	Date	Notes	Initials

Franklin Aggregate Site #80370  
East 1/4 Section 11  
T5N-R21E, City of Franklin  
Milwaukee County, Wisconsin  
Scale: 1" = 250'  
SHEET 3 OF 5

**PAYNE & DOLAN**  
INCORPORATED  
N3 W2550 Dodge Road | P.O. Box 781  
Franklin, WI 53125 | Phone: (262) 524-1700 | Fax: (262) 524-1845  
www.payneanddolan.com



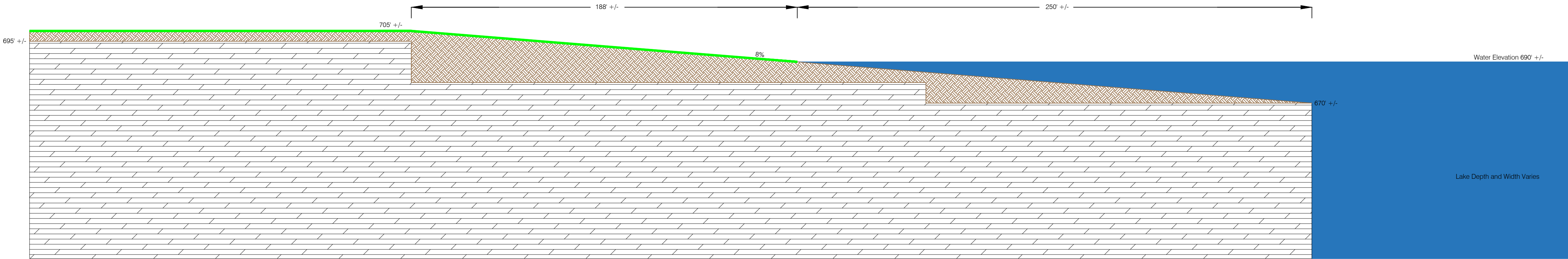


Cross Section A - RockFace



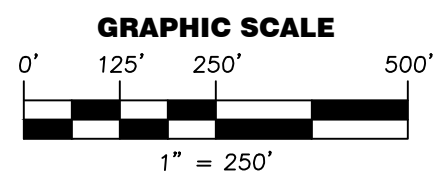
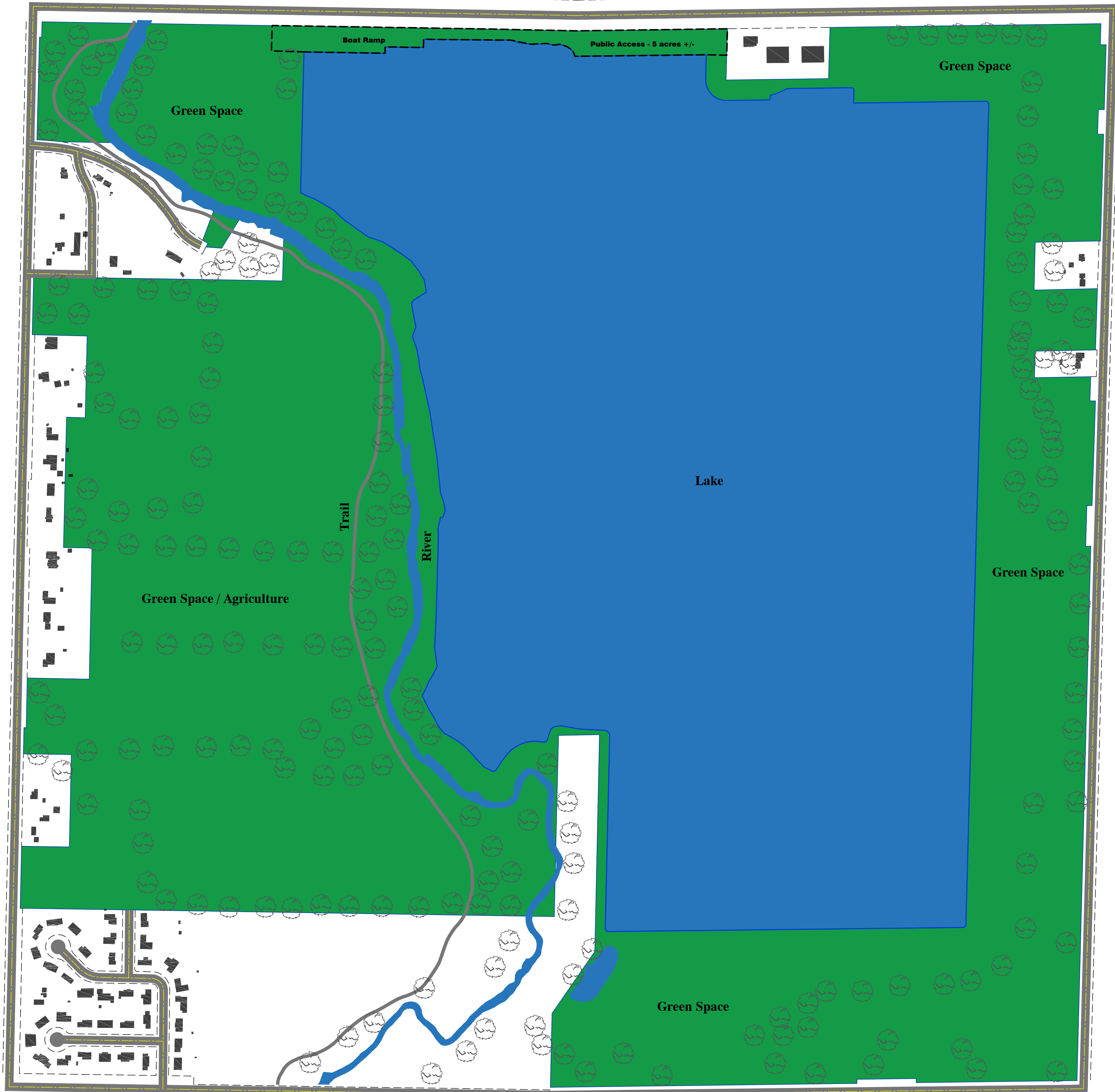
Cross Section B - 3:1 Slope

Cross Section C - Boat Ramp



CROSS SECTIONS

Project No. 2015			
Drawing	Field Book	Field Date	Field Date
Drafted By: JS	Revisions	Date	Initials
Notes			



### FINAL CONDITIONS - CONCEPTUAL

Project No. 2015		Franklin Aggregate Site #80370	
Drawn By: JS	Field Date:	Revisions	Initials
Noted	Date		

Franklin Aggregate Site #80370  
East of Franklin, Wisconsin  
T5N-R21E, City of Franklin  
Milwaukee County, Wisconsin  
Scale: 1" = 250' SHEET 5 OF 5



# ***FRANKLIN AGGEGATES***



***City of Franklin, Milwaukee County, WI***

***Original Submittal - April 2015***

***FINAL REVISION – June 29, 2017***

## **I. Purpose and Scope**

The purpose of this reclamation plan is to describe the activities necessary to reclaim the Franklin Aggregates Quarry site to a condition whereby future development is feasible after completion of mineral extraction activities. The plan was designed to achieve final site reclamation that is in compliance with uniform reclamation standards while fulfilling all the applicable requirements as outlined in PDDs #23 & #24, the City of Franklin Non-Metallic Mining Reclamation Ordinance and the state wide reclamation law referred to as NR-135. Implementation of this reclamation plan shall be completed within three (3) years after the cessation of extraction operations.

Reclamation of the site will result in environmental protection, a stable non-eroding site, productive end land uses, the potential to enhance wildlife habitat and increase land values and tax revenues.

The proposed land use to which this site will be reclaimed is Green/Open Space. This proposed land use (outside of the envisioned lake) is to be considered a temporary use. The final end use for the reclaimed site is not being proposed at this time. The ultimate land development and end use (beyond grading, vegetation and other requirements detailed in this plan) will be subject to future land use requirements.

No final end-use development proposals shall be implemented prior to submission of detailed end-use plans pursuant to then applicable City of Franklin ordinance requirements, and the granting of detailed zoning and land use approvals in accordance with such applicable ordinance requirements.

This approach of reclaiming the site to a temporary Green/Open Space land use, will allow for the site to be reclaimed to a proposed land use as required by NR-135 while maintaining flexibility in the land use and development of the site to meet the communities future needs.

Payne & Dolan has a history of completing successful reclamation at this site. After the crushing, stockpiling and loadout operations that were located adjacent to the Root River for many years where moved unto the floor of the quarry in 2003, Payne & Dolan successfully reclaimed the former operations area. See attached Fact Sheet for additional information.

## **II. Proposed Earthwork and Reclamation**

Prior to beginning mineral extraction, the topsoil and other overburden materials covering the nonmetallic mineral deposit are removed and stockpiled separately for future reclamation. Available topsoil and other overburden materials have been stored in berms adjacent to the north, south, and east portions of the active mineral extraction operations. Some overburden materials have also been placed in the bottom of the quarry in areas that have previously been mined.

Reclamation of the site will commence after all non-metallic minerals have been removed from the site. Reclamation of the site will include a 250 acre lake with restored slopes and rock faces surrounding the lake (see Sheet 3 – Final Conditions and Sheet 4 – Cross Sections). The stockpiled topsoil and other overburden materials will be placed over the reclaimed areas surrounding the lake, graded to conform with the surrounding land and seeded. The necessary topsoil and overburden are re-distributed across the parcel and fine graded to present a uniform appearance. Reclaimed slopes will be seeded upon completion of the fine grading.

The berms surrounding the extraction area will be removed and regraded (i.e. leveled) as shown on the reclamation plan view (Sheet 3 – Final Conditions). Excess overburden materials not used in the reclamation of the slopes surrounding the quarry will be placed in the bottom of the extraction area.

The reclamation plans has been designed to maintain pre-mine drainage patterns to the greatest extent possible and to improve upon existing conditions where feasible. Existing grading and stormwater features such as road side ditches, storm water drainage pipe, and the stormwater retention pond shall remain. However, the stormwater currently pumped from the quarry to the Root River will cease after the surrounding slopes are reclaimed and the quarry is allowed to fill with water to create the lake.



**Photo Showing Approximate Location of Stormwater Drainage Pipe and Retention Pond**

Note: Constructed per Stormwater Management Plan dated August 8, 1997

Payne & Dolan will perform the necessary grading to achieve the final topography and drainage patterns as outlined in the attached reclamation plan view (Sheet 3 – Final Conditions). Grading activities along the west extent of the property shall be limited so as to minimize the grading that would occur towards the Root River.



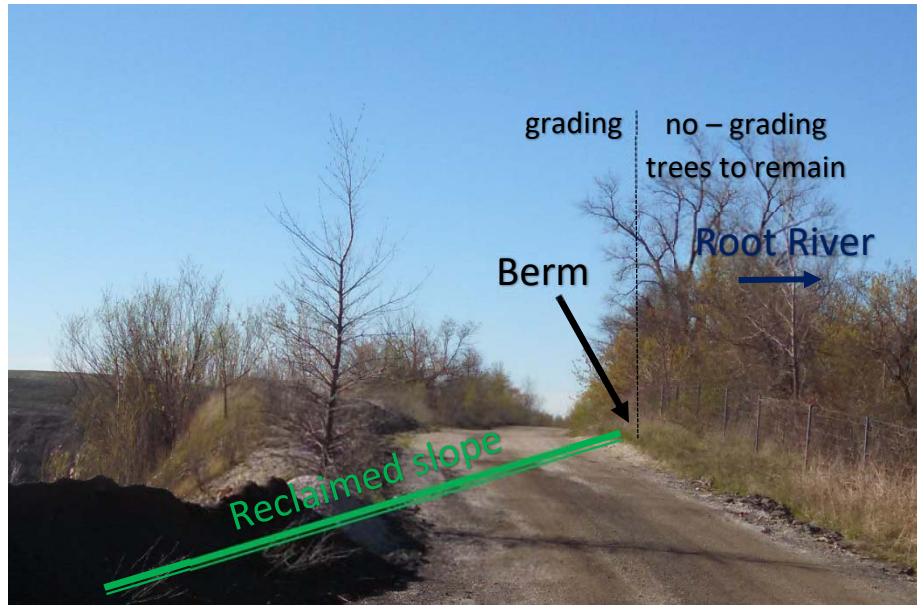


Photo Showing High Road Along West Edge of Quarry (looking South)

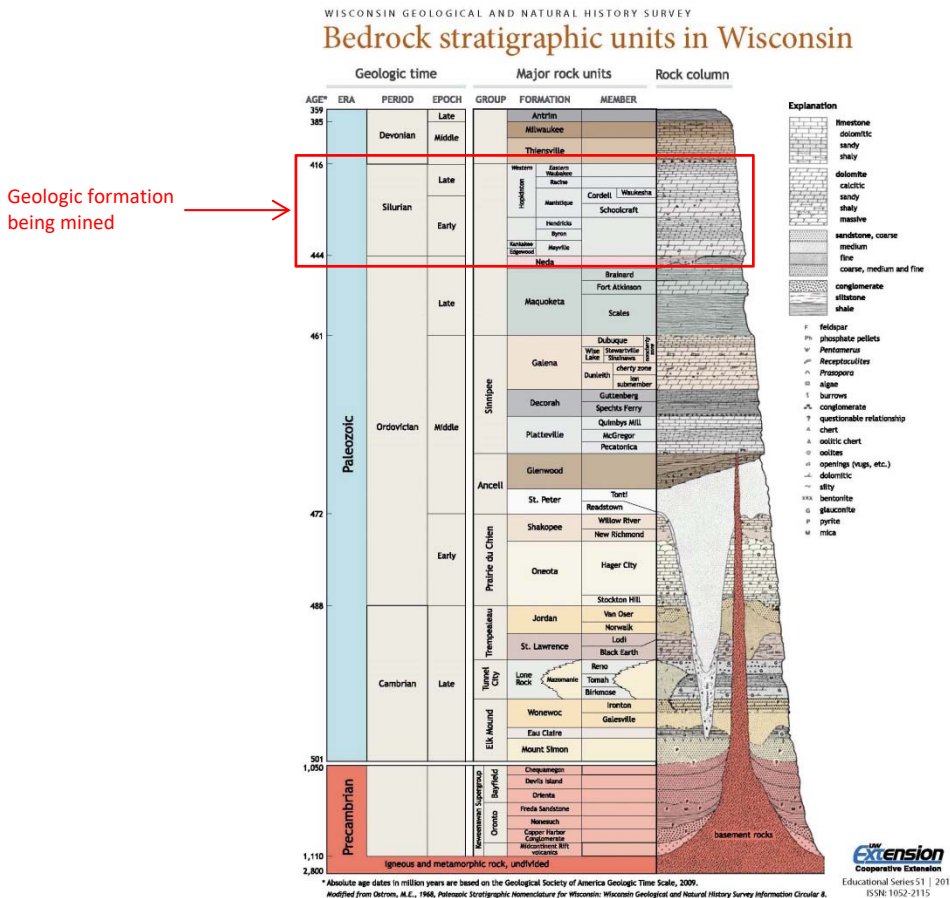
Note: A majority of the grading for the reclaimed slope along western edge of quarry will occur from the outside edge of the “high road” that extends around the quarry in this area.

### III. Geologic Composition of the Site and Depth of the Nonmetallic Mineral Deposit

The mineral deposit currently be extracted consists of Silurian age limestone & dolomite, approximately 210 - 250 feet thick, of which over 90% of which will be extracted from under the water table. The amount of overburden overlying the limestone varies across the site but averages approximately 40 feet. The overburden consists of primarily clay and silt.

Groundwater elevation and subsequent lake water elevation was originally obtained from a technical report published by the Southeastern Wisconsin Regional Planning Commission. This information provided in this report for this location has been confirmed by two consultants; GAS (now Graef) and most recently by GZA GeoEnvironmental.

Also, groundwater elevations in a well monitored by the United States Geological Survey located on S92<sup>nd</sup> Street just south of Grange Ave. has shown little movement of the groundwater table from 1/7/2000 – 33.01 ft below the ground surface (bgs) to 1/28/2016 – 31.19 ft. bgs.



#### IV. Revegetation Plan

After the overburden materials have been placed over the reclaimed slopes, a minimum of 6" of topsoil (PDD's #23 and #24 specify a 4" minimum) will be spread over the reclaimed slopes, fine graded, seeded and mulched. Seeding activities will be carried out in accordance with accepted seeding specifications provided in the reclamation plan. Marginally steep slopes (greater than 3:1) will have either a minimum of 8" of topsoil or additional erosion control measures, such as coir (coconut fiber) erosion mat, to stabilize the slope during revegetation.

If any slopes toward the Root River must be re-graded, a seed mixture containing native grasses as provided by the City of Franklin or a WI DOT No. 70 series seed mix, shall be used. A mycorrhizal inoculant or acceptable alternative will be used when seeding any slopes toward the Root River.

TABLE 630-2 NATIVE SEED MIXTURES

	SPECIES	SPECIES BOTANICAL NAME	PURITY & GERMINATION minimum %	MIXTURE PROPORTIONS in percent			
				NO. 70	NO. 70A	NO. 75	NO. 80
FORBES	Canada Anemone	<i>Anemone canadensis</i>	PLS	2			
	Butterflyweed	<i>Asclepias tuberosa</i>	PLS		2		
	New England Aster	<i>Aster novae-angliae</i>	PLS	2	2		
	Partridge-pea	<i>Chamaecrista (Cassia) fasciculata</i>	PLS		2		
	Purple Prairie Clover	<i>Dalea (Petalostemum) purpurea</i>	PLS	2	2	4	
	Canada Tick-trefoil	<i>Desmodium canadense</i>	PLS	2			
	Flowering Spurge	<i>Euphorbia corollata</i>	PLS		2		
	Wild Geranium	<i>Geranium maculatum</i>	PLS	2			
	Western Sunflower	<i>Helianthus occidentalis</i>	PLS	3	2		
	Rough Blazingstar	<i>Liatris aspera</i>	PLS		2		
	Prairie Blazingstar	<i>Liatris pycnostachya</i>	PLS	2			
	Lupine	<i>Lupinus perennis</i>	PLS		3		
	Wild Bergamot	<i>Monarda fistulosa</i>	PLS	2			
	Horse Mint	<i>Monarda punctata</i>	PLS		2		
	Yellow Coneflower	<i>Ratibida pinnata</i>	PLS	2	2		
	Blackeyed Susan	<i>Rudbeckia hirta</i>	PLS			1	
	Showy Goldenrod	<i>Solidago speciosa</i>	PLS	2	2		
	Spiderwort	<i>Tradescantia ohimensis</i>	PLS	2	2		
	Golden Alexanders	<i>Zizia aurea</i>	PLS	2			
GRASSES	Big Bluestem	<i>Andropogon gerardi</i>	PLS	15	15	10	
	Sideoats Grama	<i>Bouteloua curtipendula</i>	PLS	15	20	20	25
	Canada Wildrye	<i>Elymus Canadensis</i>	PLS	15	15	35	23
	Slender Wheatgrass	<i>Elymus trachycaulus</i>	PLS				20
	Junegrass	<i>Koeleria macrantha</i>	PLS		5		
	Annual Ryegrass	<i>Lolium multiflorum</i>	<sup>[1]</sup>			10	10
	Switchgrass	<i>Panicum virgatum</i>	PLS				10
	Salt Grass	<i>Puccinella distans</i>	<sup>[1]</sup>				2
	Little Bluestem	<i>Schizachyrium (Andropogon) scoparium</i>	PLS	15	20	10	10
	Indiangrass	<i>Sorghastrum nutans</i>	PLS	15		10	
ALTERNATE FORBES	Sky Blue Aster	<i>Aster azureus</i>	PLS	<sup>[2]</sup>	<sup>[2]</sup>		
	White Wild Indigo	<i>Baptisia leucantha</i>	PLS	<sup>[2]</sup>	<sup>[2]</sup>		
	Pale Purple Coneflower	<i>Echinacea pallida</i>	PLS	<sup>[2]</sup>	<sup>[2]</sup>		
	White Prairie Clover	<i>Petalostemum candidum</i>	PLS	<sup>[2]</sup>	<sup>[2]</sup>		
	Stiff Goldenrod	<i>Solidago rigida</i>	PLS	<sup>[2]</sup>	<sup>[2]</sup>		
	Hoary Vervain	<i>Verbena stricta</i>	PLS	<sup>[2]</sup>	<sup>[2]</sup>		

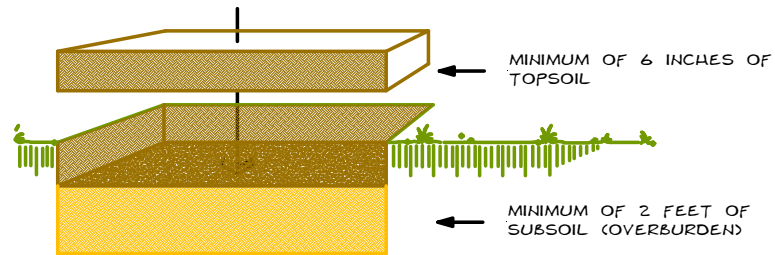
<sup>[1]</sup> Provide the minimum purity and germination specified in 630.2.1.5.1.1(3) in the table of highway seed mixtures.

Prepared soil will be seeded at any time during the growing season when soil conditions are suitable but not longer than 7 days after the final grading of reclaimed slopes. Seeding activities should not be carried out immediately following rain, when the ground is too dry, or during windy periods.

Trees that are located within the grading limits as shown on Sheet 3 – Final Conditions shall be removed during the reclamation grading. Trees located outside of the grading limits shall remain.

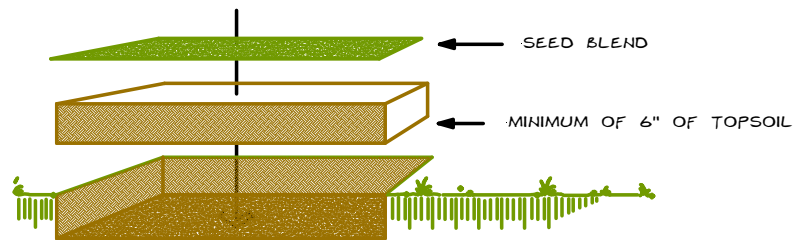
All seeding and mulching will be done in accordance with the State of Wisconsin Department of Transportation Standard Specifications for Seeding and Mulching, Sections 630 and 627.

*[QMC recommends use of a wildflower drill such as Tye, Brillion, or modified Truax instead of hydroseeding]*



RETAIN EXISTING TOPSOIL & SUBSOIL FOR DISTRIBUTION DURING RECLAMATION  
STORE TOPSOIL AND SUBSOIL IN TEMPORARY BERMS DURING MINERAL EXTRACTION  
NECESSARY TOPSOIL AND OVERBURDEN SHALL BE SPREAD BY GRADING  
CONTRACTOR TO NON-QUARRIED AREAS ONLY  
PROJECT MANAGER SHALL APPROVE FINISHED GRADE & UNIFORM  
SLOPES PRIOR TO THE SOWING OF SEED

## TOPSOIL PRESERVATION



EXISTING TOPSOIL WILL BE STOCKPILED ON SITE FOR RECLAMATION  
PROJECT MANAGER SHALL APPROVE FINISHED GRADE & UNIFORM SLOPES  
PRIOR TO THE SOWING OF SEED  
ALL SEEDING WILL BE DONE IN ACCORDANCE WITH THE STATE OF  
WISCONSIN DOT STANDARD SPECIFICATIONS FOR SEEDING AND  
MULCHING, SECTIONS 630 AND 627  
SEEDING TO BE COMPLETED WITHIN 7 DAYS OF FINAL TOPSOIL GRADING

## RECLAMATION SEED OPERATIONS

**V. Erosion Control and Post Operational Maintenance**

Upon completion of the mineral extraction operations, operator shall obtain a land disturbance permit, or any other permits required by the City of Franklin, prior to the commencement of the proposed earthwork for reclamation as described above.

Erosion control measures will be implemented as necessary to minimize off-site erosion until such time as permanent placement and shaping of overburden and topsoil and seeding is possible. Best Management Practices (BMP's) such as check dams, straw bales, silt fence, surface water diversions, energy dissipaters, mulch or artificial cover, cover crop of vegetation, buffer areas or other appropriate measures will be taken as necessary to limit off-site erosion. All erosion and sediment control practices will be periodically checked for stability and operation on a regular basis.

Erosion control measures shall be inspected within 24 hours of the end of each rainfall event that exceeds 0.25", or daily during periods of prolonged rainfall, or weekly during periods without rainfall. Immediately repair and/or replace any and all damaged, failed, or inadequate erosion control measures. Operator shall maintain records of all inspections and any remedial actions taken on-site.

Remove any sediment reaching a public or private roadway, parking lot, sidewalk, or other pavement. Completely remove any accumulations not requiring immediate attention at least once daily at the end of the workday.

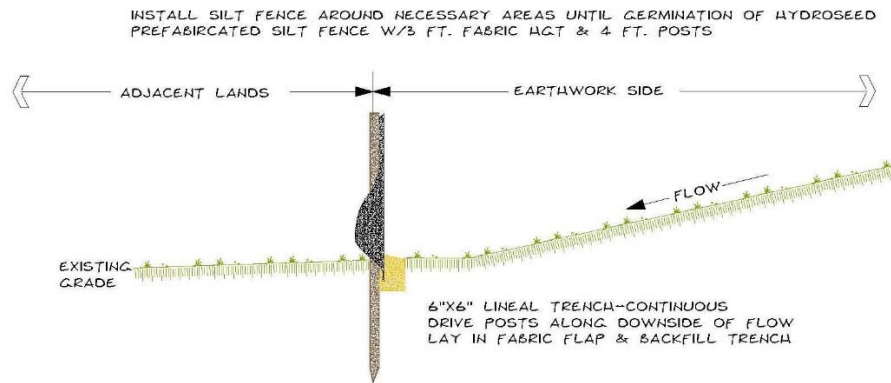
Frequently dispose of all waste and unused construction materials in licensed solid waste or wastewater facilities. Do not bury, dump, or discharge, any garbage, debris, cleaning wastes, toxic materials, or hazardous materials on the site, on the land surface or in detention basins, or otherwise allow materials to be carried off the site by runoff onto adjacent lands or into receiving waters or storm sewer systems.

Environmental pollution mitigation will not be needed if all measures outlined in the reclamation plan are followed and adhered to.

Follow up inspections of all reclaimed and otherwise stabilized surfaces along with all erosion control and sediment control practices will be conducted on a monthly basis to ensure their stability until such time as the vegetation required to support the post-mining land use (Green/Open Space) has been successfully established and the financial assurance has been released.

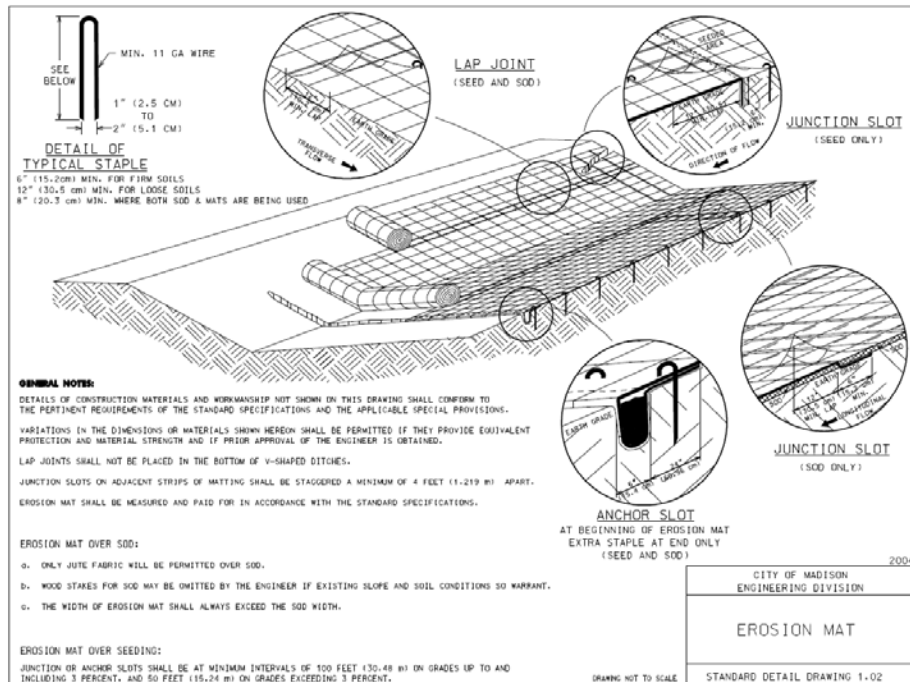
Seeded areas will be reseeded and fertilized as necessary to establish and maintain a dense self-sustaining cover over reclaimed slopes. Re-apply soil stabilizers, tackifiers, polymers and anionic polyacrylamides as needed to prevent erosion of exposed soil. Erosion and sediment control measures will be repaired and /or replaced as necessary. Other preventative measures not mentioned in this reclamation plan will be taken as necessary to minimize off-site erosion.

Such Best Management Practices shall be removed at time of final stabilization, as defined within Section 15-8.0303 of the City of Franklin's UDO as may be amended.



**Typical – Silt Fence**

Note: Silt fence or comparable to be installed around perimeter of site along grading limits as shown on Figure 3 – Final Conditions



**Typical - Coir (coconut fiber) Erosion Mat**



## VII. Assessing Successful Reclamation

Payne & Dolan will assess successful reclamation with the approved reclamation plan using the following methods:

1. All buildings, structures and equipment associated with the mineral extraction activities, but not the ramps into the quarry, have been removed as part of the reclamation process
2. The available overburden and topsoil have been graded to the contours shown on the grading plan, and have been fine graded, seeded and mulched
3. Public access has been provided at the location specified on the reclamation plan
4. Adequate vegetation has been established to stabilize reclaimed surfaces. Adequate vegetation will be determined by utilizing the guideline outlined in the Wisconsin Technical Note-Agronomy-WI-1, Guidelines for Herbaceous Stand Evaluation, dated May 15, 1991 or by percent cover, which will be determined as total cover (minimum 70%) within one year of planting as measured by the canopy (vertical projection of plant parts) and will be recorded by species. Revegetation will be measured over the entire revegetated site at no less than 1 randomly placed 10 ft. x 10 ft. quadrant for each 1 acre area.
5. The Certification of Reclamation by the City of Franklin as outlined in Chapter 176 Nonmetallic Mining Reclamation.

☐ § 176-29 **Completed reclamation: reporting, certification and effect.**

- A. Reporting. The operator of a nonmetallic mining site may certify completion of reclamation for a portion or all of the nonmetallic mining site pursuant to a reclamation plan prepared and approved pursuant to this chapter and Chapter NR 135, Wisconsin Administrative Code.
- B. Reporting of interim reclamation. The operator of a nonmetallic mining site may report completion of interim reclamation as specified in the reclamation plan for the site prepared and approved pursuant to this chapter and Chapter NR 135, Wisconsin Administrative Code. Reporting of interim reclamation shall be done according to the procedures in Subsection A.
- C. Certification of completed reclamation. The City of Franklin shall inspect a nonmetallic mining site for which reporting of reclamation or interim reclamation has been submitted pursuant to this subsection within 60 days of receipt, and make a determination in writing in accordance with § 176-14A(7)(c). If it is determined that interim or final reclamation is complete, including revegetation, as specified in a reclamation plan that conforms with § 176-13, the City of Franklin shall issue the mine operator a written certificate of completion.
- D. Effect of completed reclamation. If reclamation is certified by the City of Franklin as complete under Subsection C for part or all of a nonmetallic mining site, then:
  - (1) No fee shall be assessed under § 176-27 for the area so certified.
  - (2) The financial assurance required by § 176-14 shall be released or appropriately reduced in the case of completion of reclamation for a portion of the mining site.
- E. Effect of inaction following/report of completed reclamation. If no written response, as required by Subsection C, for an area of the mine site reported as reclaimed or interim reclaimed is given within 60 days of receiving such request, any annual fee paid to the City of Franklin for it under § 176-27 shall be refunded.

## **VIII. Public Access**

Upon completion of reclamation, public access to the reclaimed quarry lake will be located on the north side of the site along Rawson Avenue, as shown on the reclamation plan, (Sheet 3 – Final Conditions). The public access will include greenspace and a ramp for lake access. The lake shall be a public resource, owned in common by all Wisconsin citizens under the State's Public Trust Doctrine.

The public access will be transferred to the City of Franklin and P&D will provide a temporary easement from the public access to the quarry ramp to allow for public access to the lake while the quarry is filling with water.

Such temporary easement shall be made available for public access use on such terms and conditions as are mutually agreed upon by and between Payne & Dolan and the City of Franklin, which shall include an agreement by the City of Franklin to maintain, operate and manage the public access and to defend and hold harmless Payne & Dolan, from and against any claims, actions, or liability arising out of, or relative to public use of the temporary easement, excepting such claims, actions, or liability for which Payne & Dolan would be responsible due to its acts and/or omissions prior to the date of delivery of such temporary easement, but for such agreement. The temporary easement shall expire when water in the quarry reaches the 675 ft. msl elevation. A final contour map of the lake bed shall be provided at that time.

## **IX. Safety**

The reclamation of the site will help insure the long term safety to the general public. The site is currently enclosed by a safety fence to limit access. The safety fence shall remain after reclamation until the quarry has filled with water to the projected final lake level.

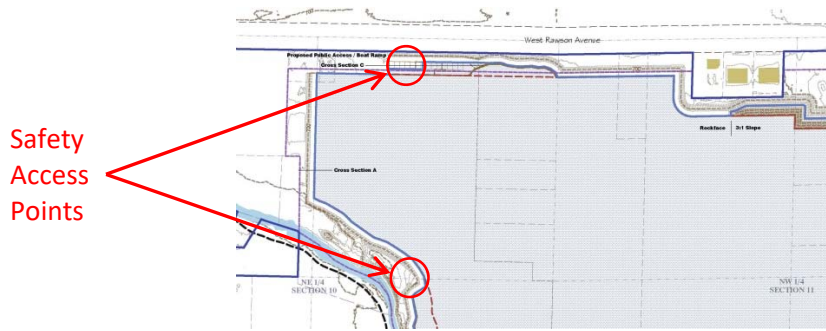
Approximately 65% of the reclaimed slope around the perimeter of the lake will have 3:1 safety slopes that extend to a minimum depth of 6 ft. as required by NR-135. The remaining 35% of the perimeter of the lake will consist of a rock face. However, there will still be two access points to the lake in this area: (1) the public access ramp and (2) the existing quarry ramp.

The exposed highwalls will have the unconsolidated material scaled back at least 25 feet from the quarry edge (drop-off) to form safety ledges as shown on Sheet 4 – Cross Sections. As an added measure of safety, exposed rock highwalls will be scaled (scraped) to remove loose rock and to minimize the potential for rock-falls.

During the time it takes the quarry lake to fill with water, the existing fence shall remain around the perimeter of the property until the quarry lake fills to the elevation outlined in the reclamation plan. At that time the fence may be removed, however a fence shall remain along the reclaimed rock face high wall areas (as previously shown) until such time as those areas are developed.

Give the close proximity of the northwestern edge of the quarry to West Rawson Avenue, a berm or strategic placement of large boulders or beam guard in addition to the fence shall be added.





## X. Certification of Reclamation

I hereby certify, as a duly authorized representative or agent, that the reclamation at this nonmetallic mining site will be carried out in accordance with the approved reclamation plan submitted by Payne & Dolan, Inc. I also certify that the information contained herein is true and accurate and complies with the local and statewide nonmetallic mining reclamation standards established in NR-135, Wisconsin Administrative Code.

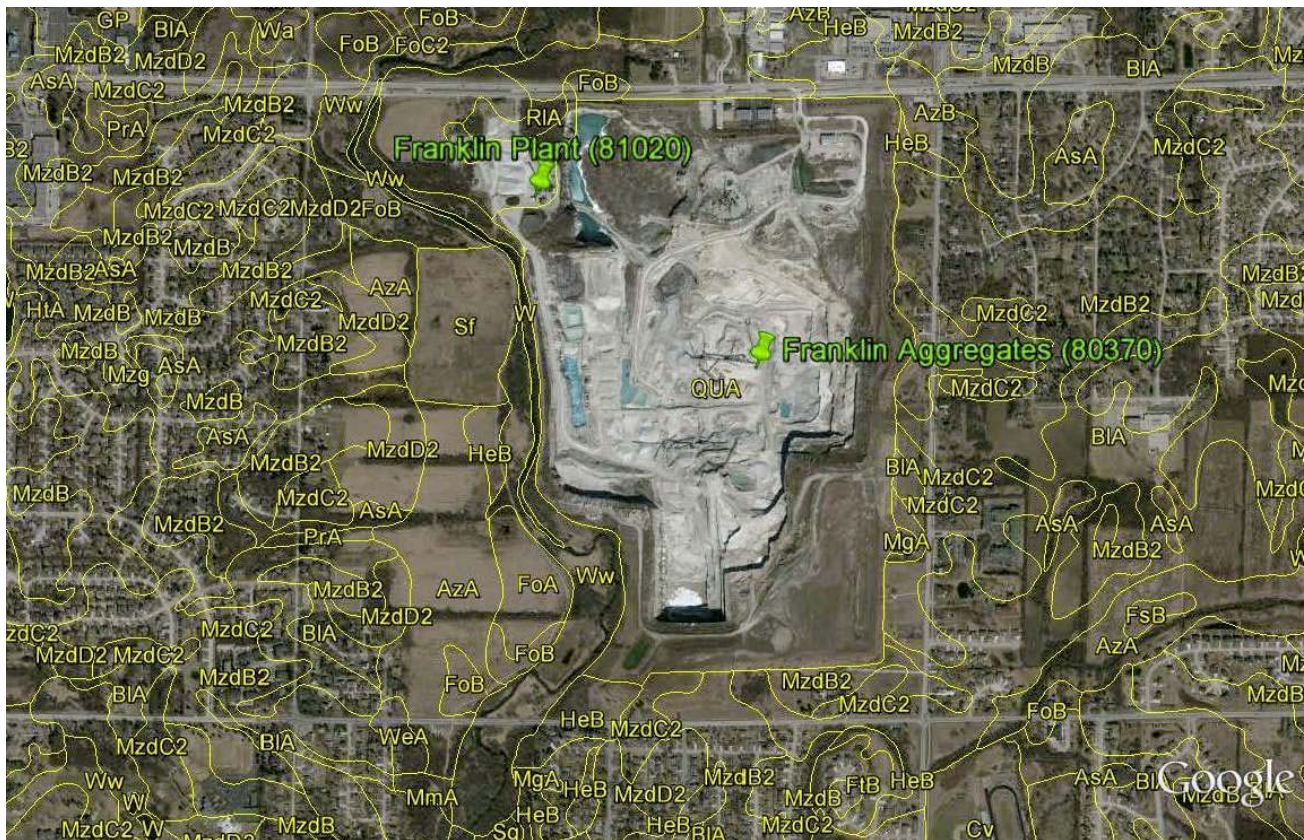
Signature of representative or agent:

Date signed:

\_\_\_\_ June 29, 2017 \_\_\_\_

\_\_\_\_\_  
Clint G. Weninger, P.G.  
Land Resources Manager  
Payne & Dolan, Inc.

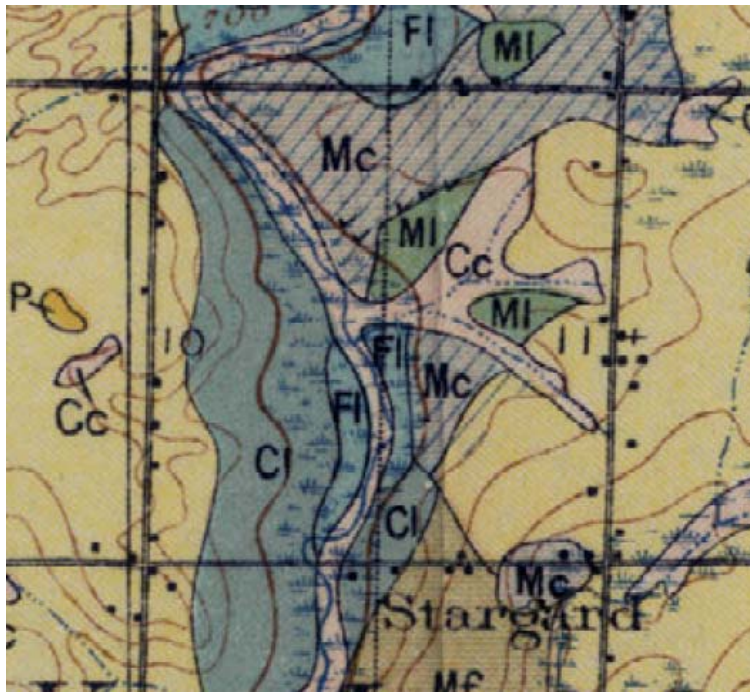
## XI. Soils



**Current Soils Map**

Source: USDA-NCSS soils information utilizing Google Earth website, 2015

Note: All soils within the quarry extraction area have previously been disturbed.



Historical Soils Map (1918)

Source: USDA Soil Survey of Milwaukee County, WI (1918)

## HISTORICAL SOIL TYPES

### MI – Miami Loam

#### MIAMI LOAM.

The surface soil consists of 6 to 10 inches of yellowish or brownish-gray loam to fine sandy loam, and the subsoil differs very little from the soil. At 24 to 30 inches the material is a more compact, sticky yellowish-brown sandy clay loam or loam. Gravelly sandy loam is often encountered at 30 to 36 inches. The soil is slightly variable, being a sticky sandy clay loam in some places and a more open sandy loam in others. Gravel sometimes occurs on sharp knolls, and boulders originally were quite numerous, though most of these have been removed. This soil is intimately associated with the Miami clay loam and silty clay loam, and in places the boundary is largely arbitrary.



**Mc – Miami Clay Loam****MIAMI CLAY LOAM.**

The Miami clay loam consists of 4 to 8 inches of grayish-brown, compact clay loam or silty clay loam, overlying yellowish-brown to reddish-yellow heavy clay loam or clay. Yellowish-brown sandy clay loam or loam occurs at depths of 22 to 30 inches. From 30 to 36 inches the material contains some gravel and often considerable sand.

**Ms – Miami Silty Clay Loam****MIAMI SILTY CLAY LOAM.**

The Miami silty clay loam consists of dark grayish brown compact silt loam, 6 to 10 inches deep, and sometimes containing a relatively large proportion of very fine sand, resting on a subsoil of yellowish-brown clay loam. The material is reddish brown and contains limestone fragments below a depth of 24 to 36 inches.

**Cc – Clyde Clay Loam****CLYDE LOAM.**

The surface soil of the Clyde loam consists of dark-brown to black fine sandy loam, about 8 to 12 inches deep. The upper subsoil is a grayish-yellow or mottled sandy loam containing considerable gravel. The material below 24 to 30 inches is variable, but is generally a sticky clay or yellowish sandy clay loam.

**XII. Groundwater Elevation**

Groundwater elevation and subsequent lake water elevation was originally obtained from a technical report published by the Southeastern Wisconsin Regional Planning Commission. This information provided in this report for this location has been confirmed by two consultants; GAS (now Graef) and most recently by GZA GeoEnvironmental.

Also, groundwater elevations in a well monitored by the United States Geological Survey located on S92<sup>nd</sup> Street just south of Grange Ave. has shown little movement of the groundwater table from 1/7/2000 – 33.01 ft below the ground surface (bgs) to 1/28/2016 – 31.19 ft. bgs.

## Clint Weninger

**From:** Bernard Fenelon <bernard.fenelon@gza.com>  
**Sent:** Friday, February 26, 2016 5:16 PM  
**To:** Clint Weninger  
**Subject:** Franklin Quarry Water Levels  
**Attachments:** Recent Construction Reports for Nearby Wells.pdf; Approximate Site Location on SEWRPC Water Table Map.pdf; Map with Well Locations and Water Levels.pdf

You had asked for recent water levels around your Franklin quarry. Sue Karls in our office had this information for me more than a week ago and neglected to send it to you. I have attached a map of the locations of and water elevations in three wells drilled between 1997 and 2014 and after the SEWRPC groundwater flow map. In its map (see attached), SEWRPC had the groundwater elevation around the quarry in the range of 690 feet. Based on the surface elevations of the three homes with recent wells and water depths reported in the wells, the recent groundwater depths have been approximately 685 feet (1997 well) and 693 to 694 feet (2014 wells). Therefore, current groundwater elevations around the Franklin quarry are similar to those reported by SEWRPC. Let me know if you have any additional questions.

**Bernard G. Fenelon**  
**Sr. Project Manager**

GZA | 20900 Swenson Drive, Suite 150 | Waukesha, WI 53186  
o: 262-754-2567 | c: 262-424-2045 | [bernard.fenelon@gza.com](mailto:bernard.fenelon@gza.com) | [www.gza.com](http://www.gza.com)

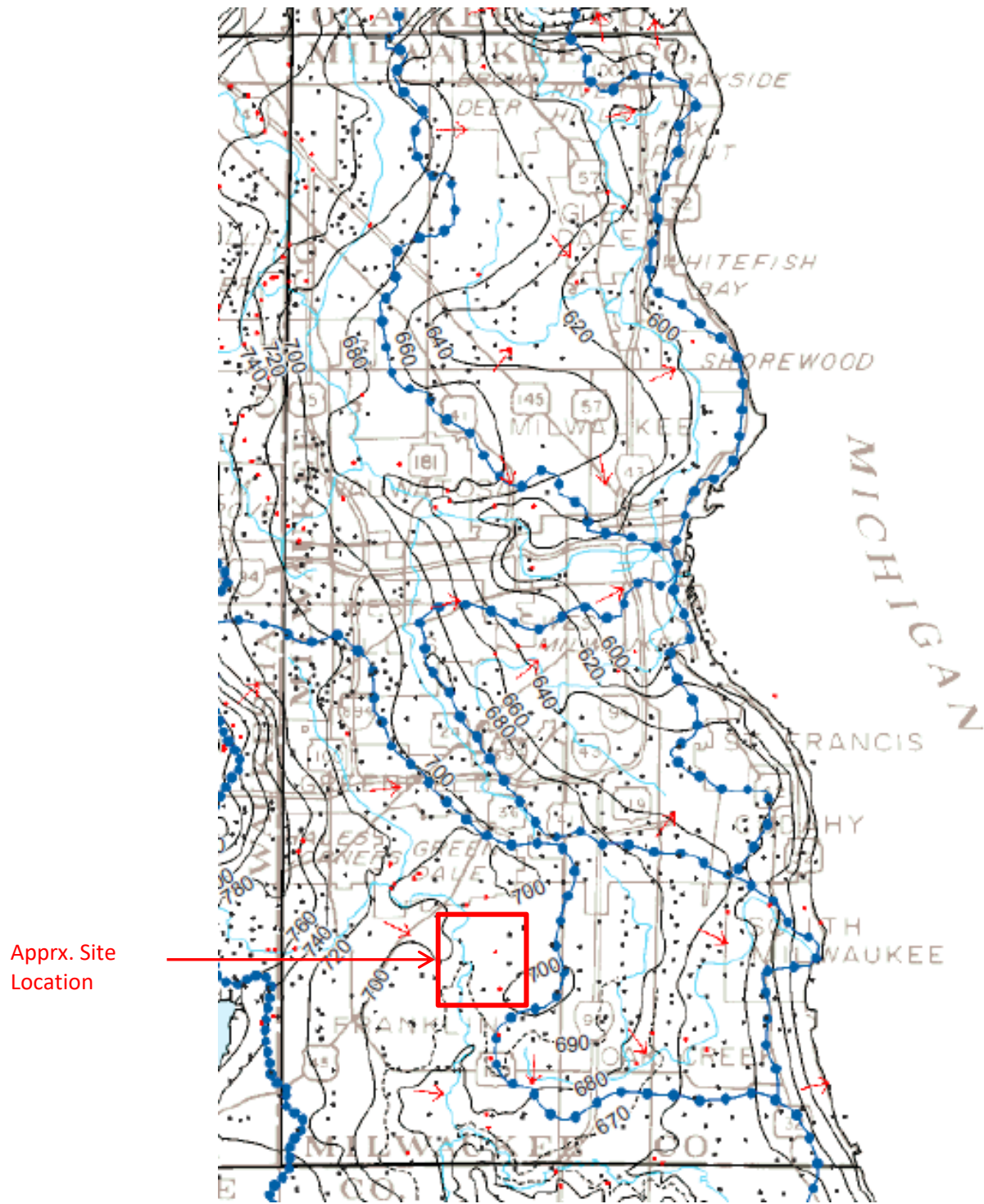
**GEOTECHNICAL | ENVIRONMENTAL | ECOLOGICAL | WATER | CONSTRUCTION MANAGEMENT**



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**Groundwater Elevation Map**

Source: Groundwater Resources of Southeastern Wisconsin, Technical Report Number 37, 2002, SEWRPC and WSGNS, p 81.

Map of the regional water table elevations developed by the Southeastern Wisconsin Regional Planning Commission and the Wisconsin State Geological and Natural History Survey. Note that the site is located at the 690 feet msl auxiliary contour.



## PROJECT FACT SHEET

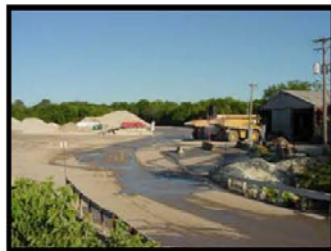
### Franklin Aggregates Reclamation Project - Franklin, Wisconsin

Payne & Dolan currently operates Franklin Aggregates, a limestone quarry located in Franklin, Wisconsin. Payne & Dolan recently received approval from the City of Franklin to expand the site. The approval required the processing and operations activities that occurred on grade west of the Root River to be relocated and the area to be reclaimed prior to January 1, 2004. The project included (1) relocating the offices, scale and maintenance facilities to a location north of the Root River; (2) relocating the crushing, processing and stockpiling operations to the floor of the quarry; (3) removing the vehicle and equipment river crossings across the Root River; and (4) reclaiming the 25 acre former operations area.

After the office, scale and maintenance facilities were relocated and the crushing equipment and aggregate stockpiles were removed, clay soils and topsoil were re-distributed across the parcel and fine graded to present a uniform appearance. Upon completion of the fine grading, reclaimed slopes were seeded, fertilized and mulched to establish and maintain a dense self-sustaining vegetative cover. Seeding utilized a blend of grasses consisting of Kentucky Bluegrass, Red Fescue, Hard Fescue, Tall Fescue and perennial Ryegrass. Erosion control measures such as rip-rap, erosion mat, and silt fence were installed to minimize off-site erosion until a dense vegetative cover has been established.



PAYNE & DOLAN  
INCORPORATED





OPERATIONS AREA



RIVER CROSSINGS







## PDD REQUIREMENTS

