

Base Aggregates

**305.0110, 305.0115, 305.0120, 305.0125, 305.0130,
305.0135, 305.0410, 310.0110, 310.0115**

- 1) Quality Test Required regardless of tonnage.
 - a) Contact Regional Materials for approved sources and for determination of whether your source needs to be tested this year. *905-0001-2016 # 225-0069-2012*
 - b) Obtain hard copy of test and assign an MIT/MTS prefix 900- .
 - c) If not from a currently tested and approved source sample contractor testing by a qualified laboratory is required. The department must observe sampling and a verification split is sent to The C.O. lab

- 2) Base Aggregate Field Acceptance
 - a) For contracts of less than 500 tons, diary entry required. (Quantity minimum apply to non-QMP base aggregates only.
 - b) For contracts greater than 500 tons, sample for gradation at following frequencies:
 - i) Non-QMP Base Aggregate
 - (1) One sample required for 501 through 3000 tons.
 - (2) For more than 3000 ton per contract, one sample required per 3000 ton accumulative.
 - (3) Sample 3-inch material at stockpile load out
 - ii) QMP Base Aggregate -- See Item 301.0100.S for detailed instructions. The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
 1. One non-random test on the first day of placement.
 2. At least one random test per 30,000 tons (30 000 Mg), or fraction of 30,000 tons (30 000 Mg), placed.
 3. Department verification testing is optional for quantities of 6000 tons (6000 Mg) or less.
 4. Sample 3-inch material at stockpile load out
 5. Refer to special provision 301.0100.S regards small quantities

Bid Item Number	Description	Plan Quantity	Final Quantity
305.0110, 305.0115	Base Aggregate Dense, ¾- inch <i>155-0003-2016</i>	<i>380 TON</i>	<i>461 TON</i>
305.0120, 305.0125	Base Aggregate Dense, 1 ¼ - inch <i>155-0004-2016</i>	<i>6800 TON</i>	<i>6519 TON</i>
305.0130, 305.0135	Base Aggregate Dense, 3- inch		
305.0410, 305.0415	Aggregate Detours		
310.0110, 310.0115	Base Aggregate Open Graded		

Verification Testing

- 1) Verification testing for gradation, fractured particles, and permeability (as applicable). See Special Provisions for minimum frequency. Sampling is to be done by qualified field personnel. Reporting is to be done by the testing laboratory on MTS/MIT prefix 217 reports.
- 2) Develop a 155-0003.1 - 2016 to cover the entire QMP acceptance quantity. The RFI should discuss all aspects of verification testing and contractor's testing (control charts, adjustments, additional testing, etc.).
- 3) Quality Control Plan required from contractor (refer to the contract Special Provision regarding plan contents for small quantity items).

EXAMPLE QMP PREFIX 155

Material: QMP SUMMARY BASE AGGREGATES

Supplier: YAHARA MATERIALS, INC.

Remarks: Y

EXAMPLE REPORT

Description: A comprehensive quality control plan was submitted as required and is filed with project record. The plan was reviewed and found to conform to the requirements of the specification.

QC sampling and testing was performed at the Yahara Materials, HWY K - Waunakee Lab.
Qc sampling was done by I.M.Atester - HTCP #123456 - Aggtec I - expires 4/27/2012.
Testing was done by A. Onesiever - HTCP #456789 - Aggtec I - expires 2/13/2012

Quality test 0-225-29-2009.
56789 tons of 1 1/4-inch base was placed- 21 QC tests were recorded.
Test reports and control charts were provided daily and reviewed.
Complete documentation was submitted within ten days of completing base placement.
Documents are on file in the project record.

QC testing and documentaton was reviewed and found to be in conformance to the specifications

Quality verification sampling was done by B.A. Saampler - HTCP #111111 - Aggsampler - expires 10/11/2011. Testing was done at the SW Region Madison Lab by N.O. Onetester - HTCP-#234567 - Aggtec I - expires 4/27/12.

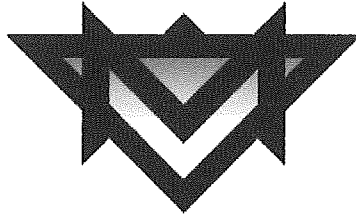
3 QV tests were recorded - all conformed to specifications: 1-217-1001-2010, 1-217-1040-2010, 1-217-1199-2010

Description: CRUSHED AGGREGATE BASE COURSE QMP PROJECT SUMMARY

The QMP base course was accepted based on satisfactory QC testing. Review of QC test, Control chart, QC plan and other documents indicated that the specifications, required tests, and test frequencies were met. QC documents are on file with the project records.

Date placed	Tons	QC Tests	Verification tests	Source
4/28/2005	2138.54	1	1-217-9876-2005	XYZ Pit
5/5/2005	591.19			XYZ Pit
5/6/2005	478.48			XYZ Pit
5/11/2005	348.12			XYZ Pit
5/12/2005	912.24			XYZ Pit
5/13/2005	285.39			XYZ Pit
5/17/2005	494.14	1		XYZ Pit
5/18/2005	994.63	1		XYZ Pit
5/19/2005	1001.73			XYZ Pit
5/20/2005	1066.85		1-217-9999-2005	XYZ Pit
5/23/2005	1072.78	1		XYZ Pit
6/13/2005	2056	1		XYZ Pit
6/14/2005	3567	2		XYZ Pit
6/15/2005	2222	1		XYZ Pit
6/16/2005	2345	1		XYZ Pit
6/17/2005	489			XYZ Pit
Total	20063.09			

✓
RMS
3/10/16



MILESTONE MATERIALS

A Division of Mathy Construction Co.

**Crushed Aggregate Base Course
QMP Plan**

Plan proposed For:

**Baldwin - Menomonie
IH-94
CTH J Bridge B-55-0259**

St. Croix County

State Project Number:

1020-01-83

I. Description. This project consists of a total of 380 ton of ¾" Dense Graded Base and 6800 ton of 1 ¼" Dense Graded Base. Therefore, by the specification it is classified as a small quantity and shall be treated as such according to the QPM Base Aggregate special provision, paragraph A.2, as listed below.

II. Specification.

A.2 Contractor Testing for Small Quantities

- (1) The department defines a small quantity, for each individual Base Aggregate bid item, as a plan quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.
- (2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:
 1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers and current certifications of all persons involved in the quality control program for material under affected bid items.

2. Divide the aggregate into uniformly sized sublots for testing as follows:

PLAN QUANTITY	MINIMUM REQUIRED TESTING
≤1500 tons	One test from production, load-out, or placement at the contractor's option. ^[1]
>1500 tons and ≤6000 tons	Two tests of the same type, either from production, load-out, or placement at the contractor's option. ^[1]
>6000 tons and ≤9000 tons	Three placement tests. ^{[2] [3]}

^[1] If using production tests for acceptance, submit test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

^[2] For 3-inch material, obtain samples at load-out.

^[3] If the actual quantity overruns 9000 tons, create overrun sublots to test at a rate of one additional placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

3. No control charts are required. Submit aggregate loadout and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified in the standard specifications for each test.
 4. Department verification testing is optional for quantities of 6000 tons or less.
- (3) Material represented by a subplot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

III. Personnel Listing

<u>Employee</u>	<u>Title</u>	<u>Tech ID#</u>	<u>Phone Number</u>
1. Allen Schulze	Production Manager		608-783-6411
2. Kenton Olsvig	Crushing Manager		715-299-0500
3. Erv Dukatz	VP Material & Research	102614	608-779-6392
4. Paul Drees	QC Manager	102580	715-299-0375
5. Greg Montgomery	CDMP/ QC Manager	102071	715-299-1081
6. Brian Nash	AGGTEC-I, HMA-IPT	104109	715-246-7019

*Due to scheduling others may be assigned to this project. The names of these additional personnel and telephone numbers will be posted at the QC trailer.



AMERICAN
ENGINEERING
TESTING, INC.

1837 County Highway OO
Chippewa Falls, WI 54729
Phone: 715-861-5045
Fax: 715-861-5048

PROJECT: Baldwin-Menomonie, IH 94, CTH J Bridge – B-55-0259
PROJECT ID#: 1020-01-83

ORGANIZATIONAL CHART FOR QMP BASE COURSE

CONTRACTOR

McCabe Construction
3101 Alpine Road
Eau Claire, WI 54703

NAME	TITLE	OFFICE TELEPHONE #	MOBILE TELEPHONE #
John Benish	Project Foreman	715-552-1346	715-559-4710

BASE COURSE SUPPLIER

Milestone Materials
(a division of Mathy Construction)

NAME	TITLE	OFFICE TELEPHONE #	MOBILE TELEPHONE #
Allen Schulze	Operations Manager	----	608-783-6411

QUALITY CONTROL TESTING

AET
1837 COUNTY HWY OO
CHIPPEWA FALLS, WI 54729

NAME	TITLE	OFFICE TELEPHONE #	MOBILE TELEPHONE #
Joel Guanella	WIS DOT AGG Tech I	715-851-5045	715-559-0114
Tom Portman	WIS DOT AGG Tech I	715-851-5045	715-577-3898
Troy Tabor	WIS DOT AGG Tech I	715-851-5045	715-577-3257
Dennis Brill	WIS DOT AGG Tech I	715-851-5045	715-577-2415
Bob Dixon	WIS DOT AGG Tech I	715-851-5045	715-563-1036

Materials Laboratory Testing System Tests On:

Aggregate Quality

Type: CDE - CONTRACTOR DATA ENTRY

Wisconsin Department of Transportation
Bureau of Technical Services-Central Lab
Truax Center, 3502 Kinsman Blvd.
Madison, WI 53704

Main Project ID: 0617-06-00

DISTRICT 6 GENERAL TESTING

Date Sampled:

03/09/12

By: Aaron Felton / 103989

Source: MIMBACH

Date Requested / Received:

03/19/12

By: NC REGION

QUARRY Legal Description: SW, NW, Section: 5, T: 28 N, R: 19, W

Date Tested:

03/21/12

By: Chad Lewis / 104870

County: ST. CROIX

Material:

Aggregate Source:

Name:

Type: QUARRY

County: ST CROIX

Location:

Allowed Usage:

HMA<E-3, HMA>=E-3, CONCRETE, OGBC, Base Aggregate

Liquid Limit (AASHTO T-89):

NON-COH

Plasticity Index (AASHTO T-90):

NP ✓

Crushed Particles (%):

Lightweight Particles (%): (AASHTO T-113)

0.0

LA Wear (AASHTO T-96)

@ 100 Revolutions (%):

7.0 ✓

@ 500 Revolutions (%):

30.3 ✓

Soundness (AASHTO T-104) (%):

2.9 ✓

Freeze-Thaw (AASHTO T-103) (%):

SIEVE ANALYSIS (AASHTO T-11, T-27 & T248)

Sieve Size Metric (English)	Percent Passing	
	As Rec'd	Pass 4.75mm
150.0 (6")	100	
75.0 (3")	100	
50.0 (2")	100	
37.5 (1 1/2")	100	
31.5 (1 1/4")	100	
25.0 (1")	100	
19.0 (3/4")	100	
12.5 (1/2")	72	
9.5 (3/8")	38	
4.75 (#4)	9	

Specific Gravity and Absorption

Coarse Aggregate (AASHTO T-85)

Specific Gravity:

2.691

Absorption:

1.597%

Remarks: Satisfactory

Data from Mathy Construction Company

Test Number: 630-4.801 - 155 - 0003 - 2016

Materials Laboratory Testing System Tests On:

Miscellaneous Materials
Type: V - VERIFICATION

Main Project ID: 1020-01-83

Hudson - Baldwin
CTH J Bridge B-55-0259
I 94

Date Sampled:

Date Requested / Received:

Date Entered:

03/24/16

By: RYAN M. SIREK

By: Ryan Sirek / 104589

Source: MIMBACH

QUARRY

Legal Description: SW, NW, Section: 5, T: 28 N, R: 19, W

County: ST. CROIX

Manufacturer: MILESTONE MATERIALS (MIMBACH)

Other Associated Projects:

Material: QMP BASE AGGREGATE SUMMARY 3/4

Supplier: MCCABE CONSTRUCTION, INC.

Remarks:

Description

QMP Base Aggregate Summary 3/4 - Inch

Size	Plan Quantity/units	Final Quantity/units
3/4-Inch	380 Ton	461 Ton

Small Quantity provision apply? Yes

QC organizational chart received? Yes

QC Plan Received? Yes

QC Plan Reviewed? Yes

Reviewed by: Ryan M. Sirek

Date reviewed: 3/10/2016

Source	Quantity	Pit/Quarry Name	Aggregate	Quality #
31 Ton		Mimbach Quarry		225-0069-2012

Monitoring QC Sampling/Testing

Qualified Lab Name & Location: Milestone Materials, Plant 14, New Richmond

All sampling/testing personnel certified through HTCP? Yes

QC Sampler(s)/Tester(s) Name: Kyle Slaney Certification # 105968

Results submitted timely per specifications? Yes

Testing frequencies met? Yes

Remarks: Small quantity provisions apply. Material was accepted by acceptable production testings located behind this document Doc ID# 305.0110-1,2, and visual inspection. No QV or QC tests were required or taken at placement.

Milestone Materials

R4-P4 Aggregate Gradation

✓
RMS
6/28/16

Project Information				Project Name 0.0											
				Project #				County St. Croix							
				Production Tests				Sample # 14-1B							
Source Name & Number Mimbach #174				Type of Material 3/4 Dense Grade Base				Contractor/ Producer Milestone - Cal-608-790-5914				Date 4/13/2015			
Station/ Sample Location Belt				Source Type Crushed Stone				Sample Tonnage 0				Cum. Tonnage 0			
Moisture Content								Wt. of Total Sample, Dry & Unwashed 5651.1							
Weight of Sample (moist) 5933.8								Wt. of R4.75mm (#4) Dry & Unwashed 2785.6 = 49.3%							
Weight of Sample (dry) 5651.1															
Moisture Loss 282.7								Wt. of P4.75mm (#4) Dry & Unwashed 2865.5 = 50.7%							
Moisture 5.0															
R -4.75mm (R -4) Material				P -4.75mm (P -4) Material				Sampled By Kyle Slaney							
Washed Yes				Washed Yes											
Wt. = 2785.6				Wt. = 753.9 (Min. 500 gr.)				Total Materials % Passing							
Sieve	Weight Retained	% Retained	% Passing (C)	Weight Retained	% Retained	% Passing (D)	4.75mm (R -4) (A)(C)	4.75mm (P -4) (B)(D)	Cum. Wt.	Combined Percent Passing	Spec. Low High				
1 - 25.0mm	0.0	0.0	100.0	0.0	0.0	100.0	49.3	50.7		100.0	100 - 100				
3/4 - 19.0mm	19.5	0.7	99.3	0.0	0.0	100.0	48.9	50.7		99.7	95 - 100				
1/2 - 12.5mm	902.5	32.4	67.6	0.0	0.0	100.0	33.3	50.7		84.0	0 - 0				
3/8 - 9.5mm	1487.5	53.4	46.6	0.0	0.0	100.0	23.0	50.7		73.7	50 - 90				
#4 - 4.75mm	2612.5	93.8	6.2	8.5	1.1	98.9	3.1	50.1		53.2	35 - 70				
#10 - 2.00mm	2667.5	95.8	4.2	228.7	30.3	69.7	2.1	35.3		37.4	15 - 55				
#40 - 425µm	2680.1	96.2	3.8	401.5	53.3	46.7	1.9	23.7		25.6	10 - 35				
#200 - 75µm	2717.4	97.6	2.4	589.5	78.2	21.8	1.2	11.1		12.3	8 - 15				
IN PAN	2733.2			620.4											
Wt. One Face Particles 0.0				Wt. Two Face Particles 0.0				Wt. Total Particles 0.0				Plasticity Check			
% Two Face Crushed				% One Face Crushed				Can 425µm (P -40) be rolled into 3.2mm (1/8") Thread when moist?				Mass/m3 (weight/c.v.)			
								Fineness Modulus							
Note: If test does not meet contract requirements, notify Project Engineer and indicate the corrective action taken															
Lab Name: Plant 14				Lab Location: 1190 County Road G, New Richmond, WI 54017				Tested By: Kyle Slaney #105968							

305.0110-1

Milestone Materials

R4-P4 Aggregate Gradation

✓
RMS
6/28/16

Project Information				Project Name 0.0							
				Project #				County St. Croix			
				Production Tests				Sample # 13-2S			
				Sample Type Production				Date 4/10/2015			
Source Name & Number Mimbach #174				Type of Material 3/4 Dense Grade Base				Contractor/ Producer Milestone - Cal-608-790-5914			
Station/ Sample Location Stockpile				Source Type Crushed Stone				Sample Tonnage 0			
				Cum. Tonnage 0							
Moisture Content				Wt. of Total Sample, Dry & Unwashed 4897.5							
Weight of Sample (moist) 5216.1				Wt. of R4.75mm (#4) Dry & Unwashed 2639.6 = 53.9%							
Weight of Sample (dry) 4897.5				Wt. of P4.75mm (#4) Dry & Unwashed 2257.9 = 46.1%							
Moisture Loss 318.6											
% Moisture 6.5											
R -4.75mm (R -4) Material				P -4.75mm (P -4) Material				Sampled By			
Washed Yes				Washed Yes				Kyle Slaney			
Wt. = 2639.6				Wt. = 541.2 (Min. 500 gr.)				Total Materials % Passing			
Sieve	Weight Retained	% Retained	% Passing (C)	Weight Retained	% Retained	% Passing (D)	4.75mm (R -4) (A)(C)	4.75mm (P -4) (B)(D)	Cum. Wt.	Combined Percent Passing	Spec. Low High
1 - 25.0mm	0.0	0.0	100.0	0.0	0.0	100.0	53.9	46.1		100.0	100 - 100
3/4 - 19.0mm	22.6	0.9	99.1	0.0	0.0	100.0	53.4	46.1		99.5	95 - 100
1/2 - 12.5mm	701.2	26.6	73.4	0.0	0.0	100.0	39.6	46.1		85.7	0 - 0
3/8 - 9.5mm	1339.9	50.8	49.2	0.0	0.0	100.0	26.5	46.1		72.6	50 - 90
#4 - 4.75mm	2463.9	93.3	6.7	5.9	1.1	98.9	3.6	45.6		49.2	35 - 70
#10 - 2.00mm	2513.7	95.2	4.8	156.5	28.9	71.1	2.6	32.8		35.3	15 - 55
#40 - 425µm	2523.3	95.6	4.4	282.7	52.2	47.8	2.4	22.0		24.4	10 - 35
#200 - 75µm	2564.9	97.2	2.8	420.0	77.6	22.4	1.5	10.3		11.8	8 - 15
IN PAN	2582.0			442.3							
Wt. One Face Particles 0.0				Plasticity Check				Mass/m3 (weight/c.v.)			
Wt. Two Face Particles 0.0				Can 425um (P -40) be rolled into 3.2mm (1/8")							
Wt. Total Particles 0.0				Thread when moist?							
% Two Face Crushed				Fineness Modulus							
% One Face Crushed											
Note: If test does not meet contract requirements, notify Project Engineer and indicate the corrective action taken											
Lab Name: Plant 14				Lab Location: 1190 County Road G, New Richmond, WI 54017				Tested By: Kyle Slaney # 105968			

305.0110-2

Test Number: 630-4.801 - 155 - 0004 - 2016

Materials Laboratory Testing System Tests On:

Miscellaneous Materials
Type: V - VERIFICATION

Main Project ID: 1020-01-83

Hudson - Baldwin
CTH J Bridge B-55-0259
I 94

Date Sampled:

Date Requested / Received:

Date Entered:

03/24/16

By: RYAN M. SIREK

By: Ryan Sirek / 104589

Source: MIMBACH

QUARRY

Legal Description: SW, NW, Section: 5, T: 28 N, R: 19, W

County: ST. CROIX

Manufacturer: MILESTONE MATERIALS (MIMBACH)

Other Associated Projects:

Material: QMP BASE AGGREGATE SUMMARY 1 1/4

Supplier: MCCABE CONSTRUCTION, INC.

Remarks:

Description

QMP Base Aggregate Summary

Size	Plan Quantity/units	Final Quantity/units
1 1/4 - Inch	6800 Ton	6519 Ton

Small Quantity provision apply? Yes

QC organizational chart received? Yes

QC Plan Received? Yes

QC Plan Reviewed? Yes

Reviewed by: Ryan M. Sirek

Date reviewed: 3/10/16

Source	Quantity/Pit/Quarry Name	Aggregate Quality #
100 Ton	Mimbach Quarry	225-0069-2012

Monitoring QC Sampling/Testing

Qualified Lab Name & Location: AET 1837 County HWY OO, Chippewa Falls, WI 54729

All sampling/testing personnel certified through HTCP? Yes

QC Sampler(s)/Tester(s) Name: Tom Portman Certification # 101117

Results submitted timely per specifications? Yes

Testing frequencies met? No

Final original documentation provided? Yes

Date Submitted: 10/4/2016

Reviewed by: Ryan M. Sirek

Date Reviewed: 10/4/2016

QV Sampling/Testing

Date Sampled: Location: MTS Verification Test #

3/23/2016	26+50 Non Random (1st day placement)	6-217-0002-2016
4/12/2016	11+25 Random (3300 Ton)	6-217-0003-2016

QV Testing Frequency met? Yes

QV Sampler(s)/Tester(s) Name: Ryan M. Sirek Certification #: 104589

Remarks:

QMP Base Aggregate Special provision requires three placement tests for base aggregate quantities from 6,000 Ton to 9,000 Ton. Final Quantity of 6519 Tons were placed requiring three tests. Contractor mistakenly missed the last required test. Production tests submitted and placement tests taken both QC (2) tests and QV (2) tests indicating compliance with WisDot Standard specifications. Contractor offered to try to get a sample from the grade to bring the material testing requirements back into compliance, but at this point a representative sample could not be able to be taken. The quantity that was not accounted for in testing was a small quantity 519 Ton, and is expected to perform as intended. No penalty will be assessed.

Verified Date: 10/10/2016

Verified By: RYAN SIREK



✓
RMS
3/23/16

SIEVE ANALYSIS FOR BASE AGGREGATE QUALITY CONTROL

PROJECT DESCRIPTION		SAMPLE INFORMATION			
Client	McCabe Construction	Material Type	<input checked="" type="checkbox"/> 3" <input checked="" type="checkbox"/> 1 1/4" <input checked="" type="checkbox"/> 3/4" <input checked="" type="checkbox"/> Open Graded		
Project	CTH J Bridge	<input checked="" type="checkbox"/> Placed Between Old and New Pavement <input checked="" type="checkbox"/> Greater than 50% Gravel			
		Contractor/Producer			
		Sampled By	Tom Portman	Date	3/23/2016
Project ID #		Sampled At	Roadway	Time	9:30
AET #		Tonnage/Station	24+50-25+50	Sample No.	1
		Quarry	Mimbach		

MOISTURE CONTENT:

Wet Wt of Sample (g) = 12015.0

Percent Moisture = 4.8%

Dry Wt of Sample (g) = 11461.0

SIEVE ANALYSIS:

Wt of R-4 = 8503.0 74.2% of total sample

Wt of P-4 = 2958.0 25.8% of total sample

Sieve	R - 4 Material			P - 4 Material			Total Materials			1 1/4 - Inch (31.5 mm)
	Weight Retained	% Retained	% Pass	Weight Retained	% Retained	% Pass	R-4	P-4	Total	
3" (76 mm)	0	0.0	100.0	0	0.0	100.0	74.2	25.8	100	
1 1/2" (37.5 mm)	0.0	0.0	100.0	0.0	0.0	100.0	74.2	25.8	100	
1 1/4" (31.5 mm)	0.0	0.0	100.0	0.0	0.0	100.0	74.2	25.8	100	95 - 100
1" (25 mm)	431.2	5.1	94.9	0.0	0.0	100.0	70.4	25.8	96	
3/4" (19 mm)	1921.8	22.6	77.4	0.0	0.0	100.0	57.4	25.8	83	70 - 93
3/8" (9.5 mm)	5564.7	65.4	34.6	0.0	0.0	100.0	25.6	25.8	51	42 - 80
#4 (4.75 mm)	7638.0	89.8	10.2	0.0	0.0	100.0	7.5	25.8	33	25 - 63
#10 (2.0 mm)	7891.0	92.8	7.2	177.7	34.9	65.1	5.3	16.8	22	16 - 48
#40 (425 um)	7918.0	93.1	6.9	276.8	54.3	45.7	5.1	11.8	17	8 - 28
#200 (75 um)	8078.0	95.0	5.0	389.1	76.3	23.7	3.7	6.1	9.8	2.0 - 12.0
Pan	8147.0	95.813242	4.18676	392.9	77.069439	22.931	8.10619	6.9182		

R-4 FRACTURE COUNT:

Fractured Particles = _____
 Total Particles = _____
 % Fracture = _____

PLASTICITY CHECK:

Can P-40 be rolled into 1/8" thread when moist? _____

REMARKS:

Sample meets gradation specifications for 1 1/4 - Inch Basecourse.

Date of Test: _____

Tested By: _____

Checked By: _____



AMERICAN
ENGINEERING
TESTING, INC.

✓
Rm's
6/25/16

SIEVE ANALYSIS FOR BASE AGGREGATE QUALITY CONTROL

PROJECT DESCRIPTION		SAMPLE INFORMATION	
Client	McCabe Construction	Material Type	3" 1 1/4" 3/4" Open Graded
Project	CTH J Bridge	Placed Between Old and New Pavement	Greater than 50% Gravel
Project ID # 1020-01-83		Contractor/Producer	
AET #	31-01464	Sampled By	Tom Portman
		Date	6/21/2016
		Sampled At	Roadway
		Time	4:00
		Tonnage/Station	Station 16-17
		Sample No.	2
		Quarry	Mimbach

MOISTURE CONTENT:

Wet Wt of Sample (g) = 11582.0

Percent Moisture = 3.2%

Dry Wt of Sample (g) = 11224.0

SIEVE ANALYSIS:

Wt of R-4 = 7598.5 67.7% of total sample

Wt of P-4 = 3625.5 32.3% of total sample

Sieve	R - 4 Material			P - 4 Material			Total Materials			1 1/4 - Inch (31.5 mm)
	Weight Retained	% Retained	% Pass	Weight Retained	% Retained	% Pass	R-4	P-4	Total	
3" (76mm)	0	0.0	100.0	0	0.0	100.0	67.7	32.3	100	
1 1/2" (37.5mm)	0.0	0.0	100.0	0.0	0.0	100.0	67.7	32.3	100	
1 1/4" (31.5mm)	64.5	0.8	99.2	0.0	0.0	100.0	67.1	32.3	99	95 - 100
1" (25mm)	349.2	4.6	95.4	0.0	0.0	100.0	64.6	32.3	97	
3/4" (19mm)	1737.3	22.9	77.1	0.0	0.0	100.0	52.2	32.3	85	70 - 93
3/8" (9.5mm)	5040.4	66.3	33.7	0.0	0.0	100.0	22.8	32.3	55	42 - 80
#4 (4.75mm)	7121.0	93.7	6.3	0.0	0.0	100.0	4.3	32.3	37	25 - 63
#10 (2.00mm)	7294.0	96.0	4.0	203.9	35.2	64.8	2.7	20.9	24	16 - 48
#40 (425um)	7304.0	96.1	3.9	368.7	63.7	36.3	2.6	11.7	14	8 - 28
#200 (75um)	7353.0	96.8	3.2	461.1	79.7	20.3	2.2	6.6	8.8	2.0 - 12.0
Pan	7392.0	97.282358	2.71764	466.1	80.52868	19.471	1.83981	6.2895		

R-4 FRACTURE COUNT:

Fractured Particles = _____
Total Particles = _____
% Fracture = _____

PLASTICITY CHECK:

Can P-40 be rolled into 1/8" thread when moist? _____

REMARKS:

Sample meets gradation specifications for 1 1/4 - Inch Basecourse.

Date of Test: _____

Tested By: _____

Checked By: _____

Test Number: 6 - 217 - 0002 - 2016

Labsite:

Page 1 of 1

Materials Laboratory Testing System Tests On:

Coarse Aggregates

Type: V - VERIFICATION

6-NW REGION- Eau Claire

WisDOT NW REGION- Eau Claire Lab (LAN ONLY)

5009 Highway 53 South, IH 94

Eau Claire, WI 54701

Main Project ID: 1020-01-83

Hudson - Baldwin

CTH J Bridge B-55-0259

I 94

Date Sampled:

03/23/16

By: Ryan Sirek / 104589

Date Requested / Received:

03/25/16

Date Tested:

03/25/16

By: Amber Bever / 103186

Source: MIMBACH

QUARRY

Legal Description: SW, NW, Section: 5, T: 28 N, R: 19, W

County: ST. CROIX

Type of Aggregate: Dense Graded Base

Type of Use:

P4 Percentage: 31.1%

Grade: 1 1/4 inch

Sieve Size
Metric (English)

150.0 (6")

125.0 (5")

75.0 (3")

50.0 (2")

37.5 (1 1/2")

31.5 (1 1/4")

25.0 (1")

19.0 (3/4")

12.5 (1/2")

9.5 (3/8")

4.75 (#4)

2.36 (#8)

2.00 (#10)

1.18 (#16)

0.600 (#30)

0.425 (#40)

0.300 (#50)

0.150 (#100)

75 µm (#200)

99.4

94.9

75.1

47.4

29.8

4.3

3.0

2.9

2.4

Percentage Passing

R-4

Specs

P-4

Specs

Results (As Recd.)

100.0

100.0

100.0

100.0

100.0

100.0

65.2

48.8

27.3

95 - 100

70 - 93

42 - 80

25 - 63

16 - 48

8 - 28

2 - 12

99.6

96.5

82.9

63.7

51.7

34.0

22.3

17.2

10.1

Moisture Percent: 5.9%

Specification Requirement: %

Percent Fractured:

Plasticity Check (Can P-40 be rolled into 1/8" thread when moist?): No

Remarks: Satisfactory

STATION 26+50 NON RANDOM; FIRST DAY OF PLACEMENT

Verified Date: 03/25/2016

Verified By: AMBER BEVER

Materials Laboratory Testing System Tests On:

Coarse Aggregates

Type: V - VERIFICATION

6-NW REGION- Eau Claire

WisDOT NW REGION- Eau Claire Lab (LAN ONLY)

5009 Highway 53 South, IH 94

Eau Claire, WI 54701

Main Project ID: 1020-01-83

Hudson - Baldwin

CTH J Bridge B-55-0259

I 94

Date Sampled:

04/12/16

By: Ryan Sirek / 104589

Date Requested / Received:

04/13/16

Date Tested:

04/14/16

By: Amber Bever / 103186

Source: MIMBACH

QUARRY

Legal Description: SW, NW, Section: 5, T: 28 N, R: 19, W

County: ST. CROIX

Type of Aggregate: Dense Graded Base

Type of Use:

P4 Percentage: 31.6%

Grade: 1 1/4 inch

Sieve Size Metric (English)	Percentage Passing				
	R-4	Specs	P-4	Specs	Results (As Recd.)
150.0 (6")	100.0		100.0		100.0
125.0 (5")	100.0		100.0		100.0
75.0 (3")	100.0		100.0		100.0
50.0 (2")	100.0		100.0		100.0
37.5 (1 1/2")	100.0		100.0		100.0
31.5 (1 1/4")	100.0		100.0	95 - 100	100.0
25.0 (1")	91.6		100.0		94.3
19.0 (3/4")	76.8		100.0	70 - 93	84.1
12.5 (1/2")	52.2		100.0		67.3
9.5 (3/8")	35.3		100.0	42 - 80	55.7
4.75 (#4)	5.4		100.0	25 - 63	35.2
2.36 (#8)					
2.00 (#10)	3.2		57.2	16 - 48	20.3
1.18 (#16)					
0.600 (#30)					
0.425 (#40)	3.1		43.7	8 - 28	15.9
0.300 (#50)					
0.150 (#100)					
75 µm (#200)	2.3		25.1	2 - 12	9.5

Moisture Percent: 5.1%

Specification Requirement: %

Percent Fractured:

Plasticity Check (Can P-40 be rolled into 1/8" thread when moist?): No

Remarks: Satisfactory

RANDOM 3300 TONS STATION 11+25 RT

Test Number: 630-4.801 - 155 - 0003 - 2016

Materials Laboratory Testing System Tests On:

Miscellaneous Materials
Type: V - VERIFICATION

Main Project ID: 1020-01-83

Hudson - Baldwin
CTH J Bridge B-55-0259
I 94

Date Sampled:

Date Requested / Received:

Date Entered:

03/24/16

By: RYAN M. SIREK

By: Ryan Sirek / 104589

Source: MIMBACH

QUARRY

Legal Description: SW, NW, Section: 5, T: 28 N, R: 19, W

County: ST. CROIX

Manufacturer: MILESTONE MATERIALS (MIMBACH)

Other Associated Projects:

Material: QMP BASE AGGREGATE SUMMARY 3/4

Supplier: MCCABE CONSTRUCTION, INC.

Remarks:

Description

QMP Base Aggregate Summary 3/4 - Inch

Size	Plan Quantity/units	Final Quantity/units
3/4-Inch	380 Ton	461 Ton

Small Quantity provision apply? Yes

QC organizational chart received? Yes

QC Plan Received? Yes

QC Plan Reviewed? Yes

Reviewed by: Ryan M. Sirek

Date reviewed: 3/10/2016

Source	Quantity	Pit/Quarry Name	Aggregate Quality #
461 Ton		Mimbach Quarry	225-0069-2012

Monitoring QC Sampling/Testing

Qualified Lab Name & Location: Milestone Materials, Plant 14, New Richmond

All sampling/testing personnel certified through HTCP? Yes

QC Sampler(s)/Tester(s) Name: Kyle Slaney Certification # 105968

Results submitted timely per specifications? Yes

Testing frequencies met? Yes

Remarks: Small quantity provisions apply. Material was accepted by acceptable production testings located behind this document Doc ID# 305.0110-1,2, and visual inspection. No QV or QC tests were required or taken at placement.

Verified Date: 10/06/2016

Verified By: RYAN SIREK

BASE AGGREGATE 1 1/4 INCH

PLAN QUANTITY - 6,800 TON

RANDOM # - 0.469

*USED CASIO fx-300MS CALCULATOR- RANDOM NUMBER GENERATOR

$$6,800 \text{ TON} \times 0.469 = 3,189.2 \text{ TONS}$$

SAMPLE @ 3189 TONS

*ALSO NEED FIRST LAY PLACEMENT

BASE AGGREGATE 3/4 INCH

PLAN QUANTITY - 308 TON

*SMALL QUANTITY - DONT NEED SAMPLES

Project/Structure No. 1020-01-83	Hwy. No. 1-94	County ST. CROW	Computations by JB	Date
Name of Road CTH J BADGE B-55-259	Checked by			Date
Title/Issued RANDOM NUMBER FOR SAMPLING BASE AGG	Sheet 1		Of 1	